ADP No: 050927-164

Wilmington Waterfront Development Project

Draft Environmental Impact Report

Volume II - Appendices

Prepared by:

Environmental Management Division
Los Angeles Harbor Department
425 S. Palos Verdes Street
San Pedro, CA 90731

THE PORT OF LOS ANGELES

LAWaterfront

with assistance from:

ICF Jones & Stokes
an ICF International Company

December 2008

WILMINGTON WATERFRONT DEVELOPMENT PROJECT

DRAFT ENVIRONMENTAL IMPACT REPORT APPENDICES

VOLUME II

SCH# 2008031065

Prepared for:

Los Angeles Harbor Department
Environmental Management Division
425 S. Palos Verdes Street
San Pedro, CA 90731
Contact: Ralph G. Appy, Ph.D., Director
c/o Jan Green Rebstock, Environmental Specialist III
Phone: (310) 732-3949

Prepared by:

ICF Jones & Stokes
9775 Businesspark Avenue, Suite 200
San Diego, CA 92131
Contact: Charles Richmond
(858)578-8964

December 2008

ICF Jones & Stokes. 2008. Wilmington Waterfront Development Project Draft EIR. December. (ICF J&S 00859.07.) San Diego, CA. Prepared for: Los Angeles Harbor Department.

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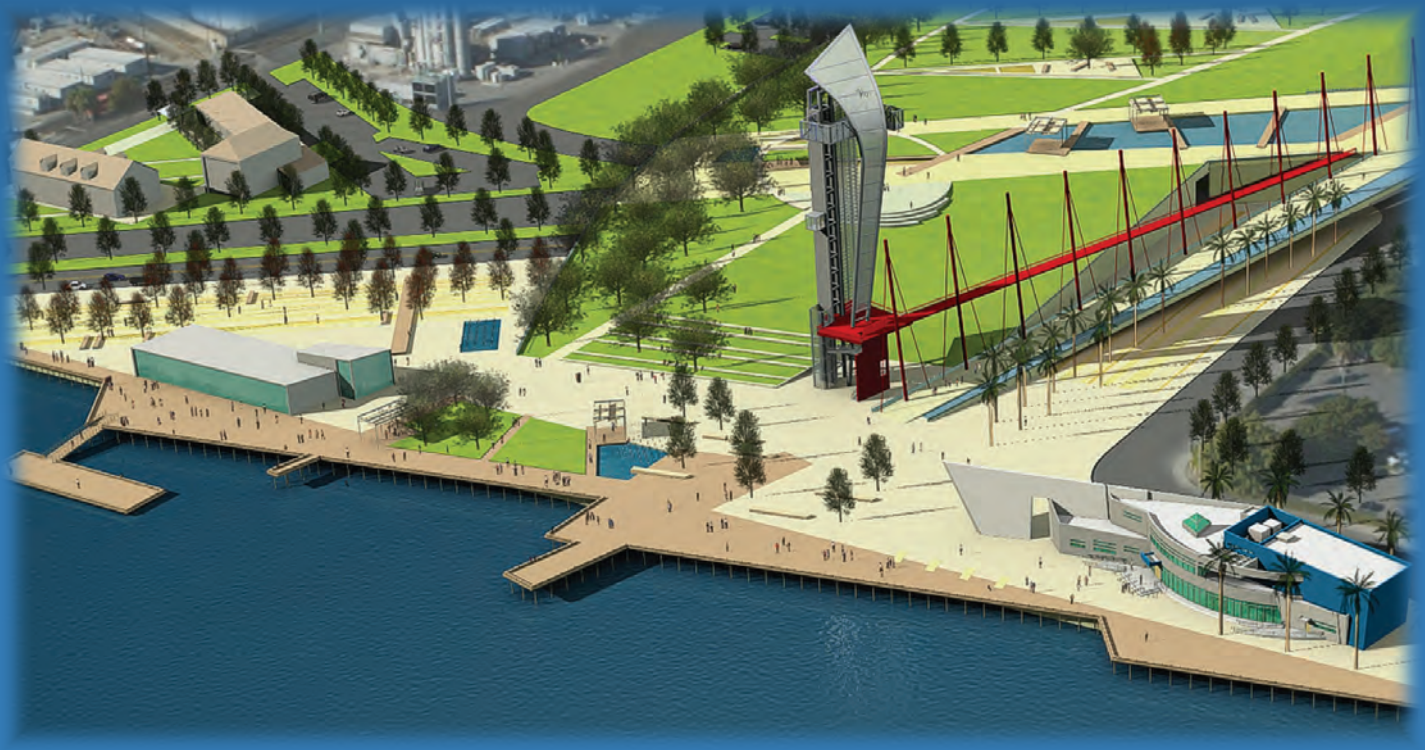
ADP No: 050927-164

Notice of Preparation

Wilmington Waterfront Development Project



Prepared by:

Environmental Management Division
Los Angeles Harbor Department
425 S. Palos Verdes Street
San Pedro, CA 90731

with assistance from:

Jones & Stokes

March 2008

Antonio R. Villaraigosa, *Mayor*
City of Los Angeles

Board of Harbor Commissioners

S. David Freeman
President

Jerilyn López Mendoza
Vice President

Kaylynn L. Kim

Douglas P. Krause

Joseph R. Radisich

Geraldine Knatz, Ph.D
Executive Director

March 13, 2008

SUBJECT: INITIAL STUDY/NOTICE OF PREPARATION (IS/NOP) FOR AN ENVIRONMENTAL IMPACT REPORT (EIR) FOR THE WILMINGTON WATERFRONT DEVELOPMENT PROJECT

The Los Angeles Harbor Department (Port) has prepared an Initial Study/Notice of Preparation (IS/NOP) for the Environmental Impact Report (EIR) for the following project in the Port of Los Angeles:

Wilmington Waterfront Development Project

The IS/NOP is included for your review, in accordance with current City of Los Angeles Guidelines for the Implementation of the California Environmental Quality Act (CEQA) of 1970, Article I; the State CEQA Guidelines, Article 7, Sections 15082-15083; and the California Public Resources Code Section 21153.

425 S. Palos Verdes Street

Post Office Box 151

San Pedro, CA 90733-0151

Tel/TDD 310 SEA-PORT

www.portoflosangeles.org

Availability:

Copies of the IS/NOP will be available for review starting March 14, 2008 at the: Los Angeles Public Library, San Pedro branch, 921 South Gaffey Street, San Pedro, California; Los Angeles Public Library, Wilmington Branch, 1300 North Avalon, Wilmington, California; and the Wilmington Waterfront Outreach Office at 218 E. Anaheim Street, Wilmington, California 90744. Copies of the IS/NOP can also be obtained at http://www.portoflosangeles.org/environmental/publicnotice.htm, or by sending a request to Ralph G. Appy, Director of Environmental Management, Los Angeles Harbor Department, 425 South Palos Verdes Street, San Pedro, CA 90731, or by calling (310) 732-3675.

Public Meeting:

The Port will conduct a public meeting to receive public comment on the IS-NOP for this project on March 25, 2008 at the Banning Landing Community Center 100 E. Water Street, Wilmington CA from 6:00 pm to 9:00 pm. Participation in the public meeting by federal, state and local agencies and other interested organizations and persons is encouraged. This meeting is to be conducted in English with simultaneous English/Spanish translation services provided.

An Affirmative Action/
Equal Opportunity Employer

Comments

Written comments on the IS/NOP will be received until April 14, 2008 and should be sent to:

Dr. Ralph Appy, Director Environmental Management Division
425 South Palos Verdes Street
San Pedro, CA 90731

or via e-mail to ceqacomments@portla.org. Comments sent via email should include the project title in the e-mail's subject line and a valid mailing address within the email.

For additional information, please contact Jan Green Rebstock at the Port of Los Angeles at (310) 732-3950.

Sincerely,

RALPH G. APPY, Ph.D.
Director of Environmental Management

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

CALIFORNIA ENVIRONMENTAL QUALITY ACT

NOTICE OF PREPARATION

(Article VI, Section 2 – City CEQA Guidelines)

TO:	RESPONSIBLE OR TRUSTEE AGENCY	FROM:	LEAD CITY AGENCY Los Angeles Harbor Department
	ADDRESS (Street, City, Zip)		ADDRESS (Street, City, Zip) 425 South Palos Verdes Street P.O. Box 151 San Pedro, CA 90733-0151

SUBJECT: Notice of Preparation of a Draft Environmental Impact Report

PROJECT TITLE	CASE
Wilmington Waterfront Development Project	ADP# 050927-164

PROJECT APPLICANT, IF

The City of Los Angeles will be the Lead Agency and will prepare an environmental impact report for the project identified above. We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by this City when considering your permit or other approval for the project.

The project description, location and probable environmental effects are contained in the attached materials.

☒ A copy of the Initial Study **is** attached.

☐ A copy of the Initial Study **is not** attached.

Due to the time limits mandated by state law, your response must be sent at the earliest possible date but not later than 30 days after receipt of this notice.

Please send your response to Ralph G. Appy Director of Environmental Management at the address of the lead City Agency as shown above. We will need the name of a contact person in your agency.

Note: If the Responsible or trustee agency is a state agency, a copy of this form must be sent to the State Clearinghouse in the Office of Planning and Research, 1400 Tenth Street, Sacramento, California 95814. A state identification number will be issued by the Clearinghouse and should be thereafter referenced on all correspondences regarding the project, specifically on the title page of the draft and final EIR and on the Notice of Determination.

SIGNATURE	TITLE	TELEPHONE	DATE
Geraldine Knatz, Ph.D.	Executive Director	(310) 732-3675	March 11, 2008

Form Gen. 154 (8-80) Appendix K

Wilmington Waterfront Development Project
Project Description

Introduction

This Notice of Preparation (NOP) is to inform responsible and trustee agencies, public agencies, and the public that the City of Los Angeles Harbor Department (LAHD) will be preparing an environmental impact report (EIR) for the Wilmington Waterfront Development Project (Project). The Wilmington Waterfront Development Project EIR will be prepared pursuant to the California Environmental Quality Act (CEQA), California Public Resources Code Section 21000 et seq. LAHD seeks comments from agencies and the public regarding the scope and content of this EIR. For agencies, LAHD seeks comments regarding the scope and content of environmental information that is relevant to each agency's statutory responsibilities in connection with the EIR and the various actions and activities to be evaluated in the EIR.

LAHD administers the Port of Los Angeles (Port) under the California Tidelands Trust Act of 1911. The Port dominates the area south of Wilmington, separating the community from the waterfront. The Port is the largest manmade harbor in the Western Hemisphere, serving as the largest container port in the United States and the eighth largest in the world. Essentially a giant industrial complex, it is a critical hub in the international supply chain, encompassing 7,500 acres and featuring automobile, container, omni, break-bulk, and cruise ship terminals; liquid and dry bulk facilities; and extensive transportation infrastructure for moving truck and rail cargo. The Port serves 80 shipping companies and agents along 43 miles of waterfront. LAHD is chartered to develop and operate the Port to benefit maritime uses, and it functions as a landlord by leasing Port properties to more than 300 tenants. As the center of recreational water activity for the Los Angeles area, the Port provides slips for approximately 6,000 pleasure craft, sport fishing boats, and charter vessels. The Port also accommodates commercial fishing operations, canneries, shipyards, and boat repair yards as well as recreational, community, and educational facilities.

Project Summary and Overview

The proposed Project includes 58 acres along the Avalon Boulevard Corridor and the Waterfront District. This land is directly adjacent to the Wilmington

community and is generally bounded by Lagoon Avenue, Broad Avenue, C Street, and Banning's Landing. The proposed Project also includes linkages along Front Street, John S. Gibson Boulevard, and Harry Bridges Boulevard. The major elements of the proposed Project include

- pedestrian-oriented features and a waterfront park and promenade,
- enhancement of the Avalon Boulevard Corridor,
- commercial/industrial and retail development,
- open space, neighborhood park space, and an observation tower,
- transportation linkages, enhancements, and improvements; and
- extension of the Red Car Line and associated multi-use paths (assessed programmatically) and construction of a Red Car museum.

Project Background

To guide public improvements in the Wilmington area, a master plan was developed. The proposed Project is part of the Wilmington Waterfront Development Program, which is the result of a year-long planning process among community representatives, Port staff, affected agencies and stakeholders, and the general public.

The Wilmington Waterfront Development Program contemplates two separate and independent projects: 1) the proposed Project, the Wilmington Waterfront Development Project (also referred to as the Avalon Boulevard Corridor development), which is intended to provide waterfront access and commercial development opportunities for Wilmington, and 2) the Harry Bridges Buffer Area, which is intended to provide a physical space between the Wilmington community and the Port. The two projects, however, are at different stages of planning and development and do not rely on each other for implementation. Each could be built and sustain itself without the other. The Harry Bridges Buffer Area is analyzed in the Berths 136–147 (TraPac) Container Terminal Project Environmental Impact Report/Environmental Impact Statement (EIR/EIS) because of its planning and land acquisition history as an element of that project. As redesigned in response to community input, it will provide an open space passive and active recreational buffer between that terminal and the community. Approval (or disapproval) and implementation of the Harry Bridges Buffer Area will occur separately from the Wilmington Waterfront Development Program and is not contingent upon approval of any other project under that program. Therefore, the Harry Bridges Boulevard Buffer is not included in the proposed Project. However, the overall design of the Harry Bridges Buffer Area was considered in planning the proposed Project to ensure consistent planning concepts, aesthetics, and design.

The Wilmington Waterfront Development Program planning process involved close collaboration between Port staff, a consultant team of planners, designers, engineers, economists, public outreach consultants, and other specialists as well

as the Wilmington Waterfront Development Subcommittee of the Port Community Advisory Committee (PCAC), a select group recognized by the Harbor Board of Commissioners and composed of community representatives.

The following steps were taken in developing the Wilmington Waterfront Development Program:

- Starting with and building upon the Wilmington Waterfront Development Final Plan, a conceptual vision plan for the area was prepared in 2004, with participation by the Wilmington Waterfront Development Subcommittee and approved by the Harbor Board of Commissioners;
- A visionary master plan was crafted based upon a good understanding of baseline conditions in the project area, including the physical, regulatory, environmental, land use, transportation, historical, cultural, market characteristics, and existing plans and projects;
- Improvements, including public art and street furnishings, were considered in nearby San Pedro to bring consistency in quality and character to Port-wide public improvements;
- Master plan alternatives were developed and evaluated for the Wilmington area based on site characteristics and established goals and objectives identified early in the planning process; and
- Four community workshops were conducted in 2006 at critical milestones to garner community input, review, and comment. More than 1,000 people attended the final meeting on December 2, 2006.

In addition, the following guiding principles were identified for the proposed Project through a series of community workshops and meetings:

- Enhance the livability of the Wilmington community;
- Enhance the economic viability of the Wilmington community by promoting sustainable economic development and technologies;
- Establish a world-class design with a regional draw for the Wilmington waterfront area by enhancing Wilmington's image while maintaining its identity and attracting visitors to the waterfront;
- Create an environmentally responsible project;
- Celebrate the Port and Wilmington's significance—past, present, and future;
- Create a unified Los Angeles waterfront through the integration of publicly oriented improvements, from Leeward Bay Marina to the breakwater; and
- Promote a sense of ownership in the project and its results by engaging the whole of the community throughout the planning and design process and by creating opportunities for residents and school children to contribute to the design through program specifications, public art programs, and other elements.

Project Objectives

The project objectives were developed based on the community planning process described above.

- Construct a project that will serve as a regional draw and attract visitors to the waterfront in Wilmington.
- Design and construct a waterfront park and promenade to enhance the connection of the Wilmington community with the waterfront while integrating design elements related to the Port's and Wilmington's past, present, and future.
- Construct an independent project that integrates design elements consistent with other area community development plans to create a unified Los Angeles waterfront through the integration of publicly oriented improvements.
- Enhance the livability and the economic viability of the Wilmington community by promoting sustainable economic development and technologies within the existing commercial Avalon Boulevard Corridor.
- Integrate environmental measures into design, construction, and operation to create an environmentally responsible project.

Project Location

The proposed Project is located in the southern end of the City of Los Angeles (see Figure 1, Regional Vicinity). The site for the Wilmington Waterfront Development Project consists of 58 acres in the northern portion of the Port, directly adjacent to the Wilmington community. The project area is generally bounded by Lagoon Avenue, Broad Avenue, C Street, and Banning's Landing at the waterfront. The project area is essentially flat (see Figure 2, Project Location).

Avalon Boulevard connects the center of Wilmington with the waterfront, terminating at Banning's Landing. It extends southward to the waterfront, forming the eastern boundary of the Los Angeles Department of Water and Power (LADWP) generating plant, which is at the center of the project area. Port-related light and heavy industrial operations occupy Port lands south of Harry Bridges Boulevard. The waterfront is characterized by tall cranes, which line the water's edge; numerous shipping containers stacked four or five high; tractor trailer truck traffic on Harry Bridges Boulevard in Wilmington; and train traffic paralleling Harry Bridges Boulevard that serves the Port's cargo terminals.

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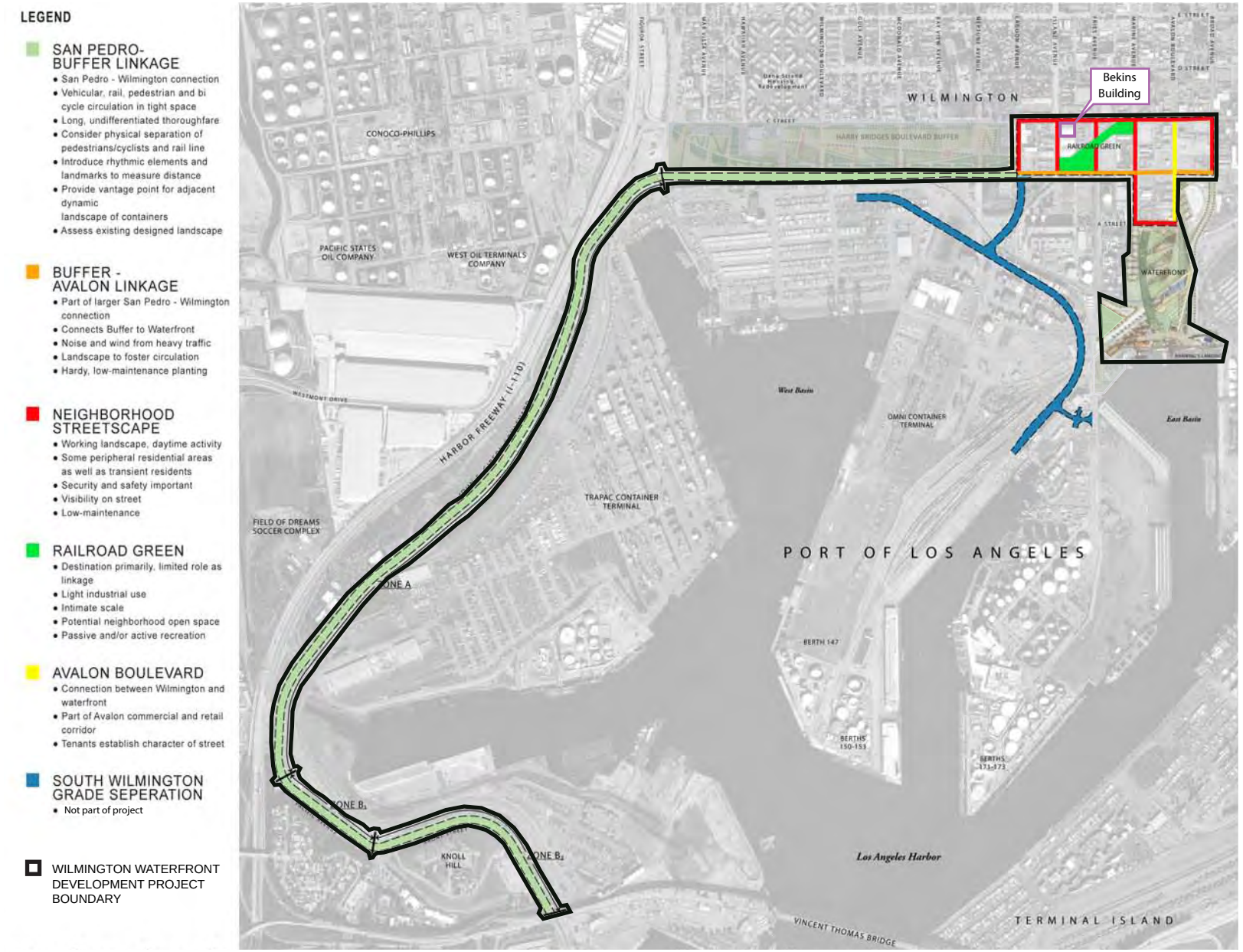
SOURCE: Port of Los Angeles (2007)

Jones & Stokes

Figure 1
Regional Vicinity
Wilmington Waterfront Development Project



K:\ GIS \ PROJECTS \ POLA \ 00859 07 \ MAPDOC \ FIG02 PROJECT LOCATION.AI AWC (03-05-08)

SOURCE: Sasaki (February 2008)

Jones & Stokes

Figure 2
Project Location
Wilmington Waterfront Development Project

Description of Proposed Project Elements

The proposed Project includes the following:

- Development of pedestrian-oriented features, including parks, plazas, sidewalk enhancements, and a pedestrian bridge;
- Development of a waterfront promenade and piers, with commercial retail/restaurant components;
- Development of a 10-acre raised park space on an expansive land bridge over active railroad lines to connect A Street with the Wilmington waterfront;
- Enhancement of the Avalon Boulevard Corridor to support commercial, industrial, and retail development;
- Development of the Railroad Green, a passive open space within an existing abandoned railroad right-of-way;
- Improvement of traffic circulation on Avalon Boulevard, Broad Avenue, A Street, and Water Street;
- Removal and remediation of existing LADWP oil tanks;
- Extension of the Red Car Line and California Coastal Trail along John S. Gibson Boulevard and Harry Bridges Boulevard from Swinford Street and Harbor Boulevard to Avalon Boulevard and Harry Bridges Boulevard.; and
- Development of a Red Car museum in the Bekins Building.

The proposed Project would include approximately 15 acres of public areas, including plazas, parks, and open space. The major feature of these public areas would be a 10-acre raised park space on an expansive land bridge, which would pass over the active railroad lines along Water Street. This land bridge would also incorporate a pedestrian water bridge, and these two features would connect Avalon Boulevard and the Entry Plaza to the water's edge. The paths on the land bridge and the pedestrian water bridge would provide pedestrian and bicycle access to the waterfront promenade. The proposed Project would include the demolition of a total of 172,835 square feet of existing structures and the enhancement of the Avalon Boulevard Corridor to accommodate approximately 150,000 square feet of industrial development over the next 20 years. The Avalon Boulevard Corridor and waterfront area would also be enhanced to accommodate approximately 25,000 to 30,000 square feet of commercial/retail development over the next 20 years.

Circulation improvements for Avalon Boulevard, Broad Avenue, A Street, and Water Street are proposed. Avalon Boulevard would be straightened to maintain consistency with the street grid pattern along Avalon Boulevard south of Harry Bridges Boulevard. Additionally, Avalon Boulevard between A Street and Broad Avenue would be vacated and incorporated into land for Avalon Triangle Park and the North Plaza. Broad Avenue would be realigned to create a more direct route. This realignment would establish Broad Avenue as the primary vehicular access route to the waterfront rather than Avalon Boulevard. Lastly, Water Street would be relocated to an alignment north of its current

location. This relocation opens the area nearest the water's edge for additional public improvements.

Although Lagoon Avenue would not be realigned or changed as part of the proposed Project, an improvement to connect Lagoon Avenue to Pier A Street would be built during construction of the proposed Project. This improvement, known as the South Wilmington Grade Separation, is a separate project and has been previously assessed under CEQA. This circulation improvement, would allow better access to the project area. It would consist of an elevated road extending from Lagoon Avenue, passing over the existing railroad tracks, and connecting to Pier A Street and Fries Avenue (see Figure 2 for the location of the South Wilmington Grade Separation).

Both on-street and lot parking would be provided for the proposed Project. All streets in the project area have on-street parking, except for Harry Bridges Boulevard, where on-street parking is prohibited, and Water Street, where parking is provided on the south side only. The proposed Project includes two off-street parking lots south of Water Street, totaling 122 spaces, to accommodate the proposed public facilities south of Harry Bridges Boulevard. The proposed parking for the waterfront, including three parking lots and the on-street parking, would provide a total of 445 spaces.

The plan for the Wilmington Waterfront Development Project assumes demolition and relocation of the existing and operational LADWP oil tanks by LADWP. This demolition would allow the construction of a land bridge and raised park space that would connect to the Avalon Boulevard Corridor. The timing of the demolition and removal of the LADWP oil tanks effectively divides the proposed Project into distinct two phases: Phase I, the Interim Plan, and Phase II, the Full Build-Out Plan. A large number of the proposed Project elements would be constructed under the Interim Plan, which would commence construction in 2009 and terminate around 2013. The remaining elements would be constructed under the Full Build-Out Plan. Construction of the Full Build-Out Plan would commence in 2013 and terminate in 2015. Both of these phases, and the proposed Project elements associated with each, are discussed in further detail below.

Phase I: Interim Plan

The Interim Plan includes the following waterfront elements:

- Development of pedestrian linkages,
- Landscaping for the Entry Plaza,
- Development of an interim land bridge and water bridge,
- Development of a waterfront boardwalk with retail components, and
- Development of an observation tower.

The Interim Plan would also include the following Avalon Boulevard Corridor components:

- Development of the Railroad Green and a Red Car museum, and
- Development of a streetscape treatment in the Avalon Boulevard Corridor development area.

Interim Plan Waterfront Elements

The proposed Project would incorporate a network of sidewalks, pedestrian crossings, trails, and bridges as well as a promenade to enhance the pedestrian environment along streets in the proposed Project area (see Figure 3, Interim Plan). Particular emphasis would be placed on Harry Bridges Boulevard, which would become a continuation of the California Coastal Trail, connecting the Harry Bridges Boulevard buffer with the Wilmington waterfront. On all north–south streets between Lagoon Avenue and Broad Avenue, the proposed Project would incorporate continuous sidewalks and street trees. Additionally, the proposed Project's integrated bicycle lane system and expanded California Coastal Trail would connect to and serve the project area and extend the linkages proposed at the Harry Bridges Boulevard buffer. The proposed Project would connect the waterfront with direct and inviting access routes and provide public spaces for gathering, informal play, and sitting.

Avalon Boulevard is a central commercial corridor, leading from Wilmington to the Wilmington waterfront. It contains commercial activities, such as maritime-related professional services and storefront retail. The intersection of Avalon Boulevard and Harry Bridges Boulevard would be the gateway to the proposed Project. A 1-acre landscaped Entry Plaza would be completed under the Interim Plan at the corner of Harry Bridges Boulevard and A Street. It would serve as the gateway to the land bridge and architectural water bridge and seamlessly merge with Avalon Triangle Park, which is being developed under a separate project and can move forward independently of this project. No project relies on any other project; however, if constructed, each project will have a consistent integrated design. Avalon Boulevard, south of Harry Bridges Boulevard to A Street, would be realigned, thereby allowing unimpeded pedestrian access from A Street to the waterfront.

A major section of the proposed 10-acre land bridge would be constructed and operated under the Interim Plan. This interim land bridge would include an interim architectural water bridge to the east of the LADWP oil tanks, connecting the landscaped Entry Plaza to the waterfront. This architectural water bridge would provide unimpeded pedestrian and bicycle access to the waterfront. It would consist of a steel structure with a linear water feature integrated into its outside edge. Additionally, the upper promenade, with plaza, sloped open lawn, and interactive water features and fountains, would be included in the interim land bridge. All water features would be restricted to the land and would not empty into the marine environment. The upper promenade, with plaza, would be located immediately over the railroad and Water Street crossing. It would consist of ornamental gardens, shade pavilions, a plaza, and a large water feature. The

Legend

1 Entry Plaza
2 Water Bridge With Fountains And Steeped Weirs
3 Avalon Triangle Park (By Others)
4 Grove With Canopy Trees
5 Shade Pavilions
6 Ornamental Gardens
7 Upper Plaza
8 Upper Promenade With Plaza
9 Terrances With Lawn
10 Amphitheater
11 Tower Plaza
12 Observation Tower With Bridge
13 Banning's Plaza
14 Banning's Landing Community Center
15 Drop-off Zone
16 Future Development
17 Maritime Interpretive Artifact Display
18 Plaza And Open Space
19 Interactive Fountain/Water Feature
20 Waterfront Boardwalk
21 College of Oceaneering
22 Parking Area With Lawn

SOURCE: Sasaki (February 2008)

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Jones & Stokes

Figure 3
Interim Plan
Wilmington Waterfront Development Project

sloped open lawn would be just south of the upper promenade and would include a plaza. It would extend to the existing grade at the waterfront. Directly west of the land bridge, a planting screen would buffer the land bridge from the LADWP peaker power plant to the east.

The proposed Project includes a promenade at the water's edge, viewing piers, and docks for transient boats. Approximately 25,000 square feet of commercial uses (retail and restaurant) would be incorporated into the waterfront boardwalk. The Banning's Landing Community Center, with an extended 7-acre outdoor space for gatherings and events, would anchor one end of the promenade. Other waterfront amenities would include an interactive fountain or water feature, a maritime interpretive artifact display, shade pavilions, trees, public art, and an amphitheater with terraced seating integrated into the sloped lawn above. The new promenade and floating docks would require coordination with U.S. Army Corps of Engineers.

An observation tower, located between the sloped open lawn and the waterfront promenade, would be a dominant feature in the landscape (see Figure 4, Observation Tower). It would be approximately 200 feet high and would offer dramatic views of the harbor. It would incorporate a tall, vertical architectural element that would mimic a sail. The tower would be illuminated at night with accent lighting until midnight, similar to the Vincent Thomas Bridge (see Figure 5, Illuminated Observation Tower).

Interim Plan Avalon Boulevard Corridor Elements

At the northern half of the Avalon Boulevard Corridor, between Lagoon Avenue and Broad Avenue, the proposed Project would build upon the area's existing industrial character, with opportunities for infill development consisting of light industrial uses. A passive open space would be built within an existing abandoned railroad right-of-way (see Figure 6, Railroad Green). This approximately 1-acre "Railroad Green" would cross the area diagonally and provide public access, seating, and passive recreation opportunities. A Red Car museum would be located one block north of the proposed Red Car alignment at the Bekins Storage Property at 245 Fries Avenue/312–326 West C Street, an adaptive reuse of structures built in 1916.

Demand for approximately 150,000 square feet of light industrial and commercial space would be supported over the next 20 years in the Avalon Boulevard Corridor area. Retail development could also be supported, and any retail square footage not developed at the waterfront could be incorporated into the Avalon Boulevard Corridor. The proposed Project would include streetscape enhancements that would attract development. The industrial and/or retail space would include a combination of new development, redevelopment, and existing uses. In the northern area of the Avalon Boulevard Corridor, between Lagoon Avenue and Broad Avenue, smaller parcels could be used and developed into small industrial condominium units, perhaps to manufacture green technologies needed by Port operations. This area is also adaptable and can include modest retail storefronts for certain industrial users.

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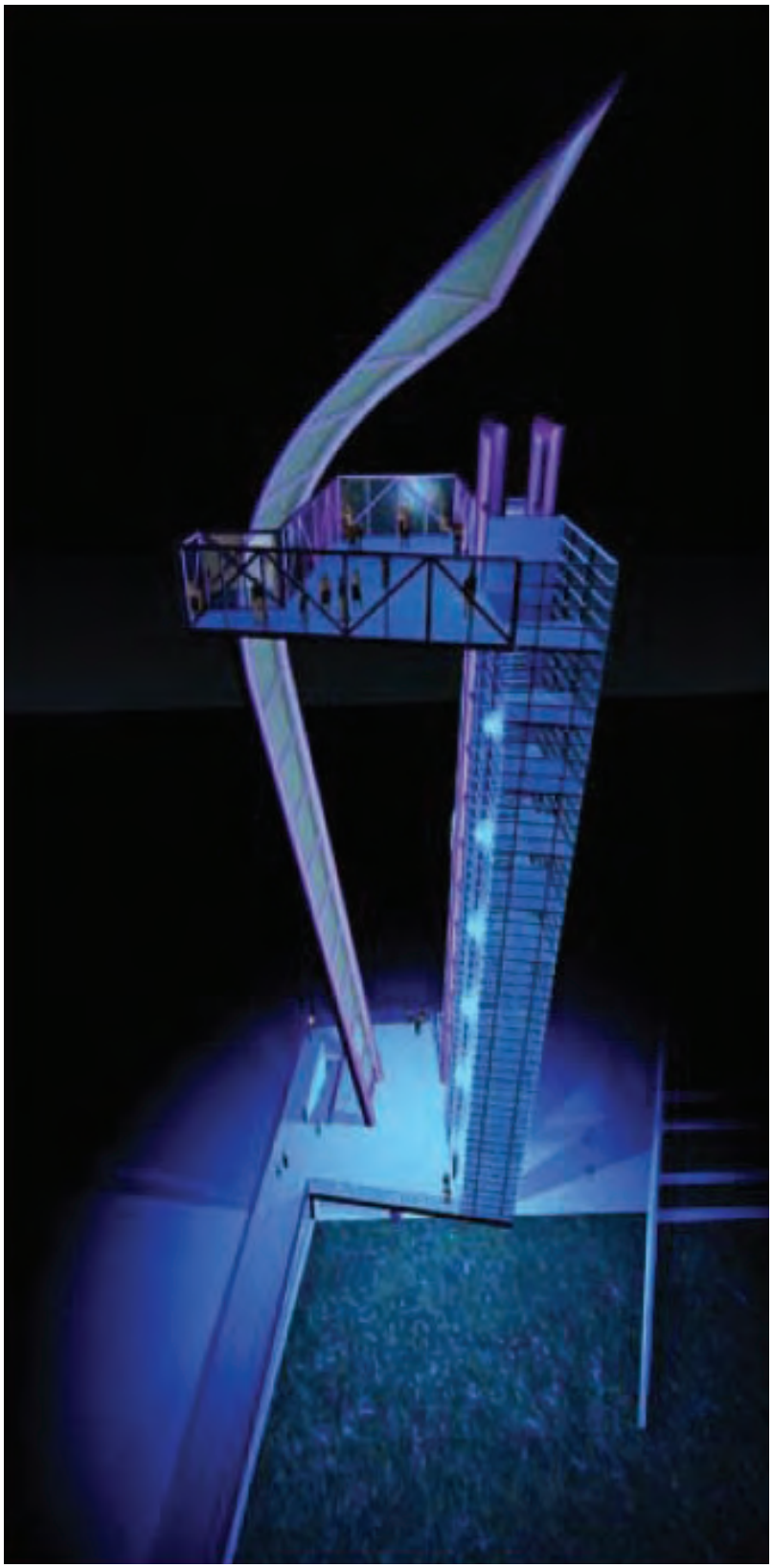
SOURCE: Sasaki (February 2008)

Jones & Stokes

Figure 4
Observation Tower
Wilmington Waterfront Development Project



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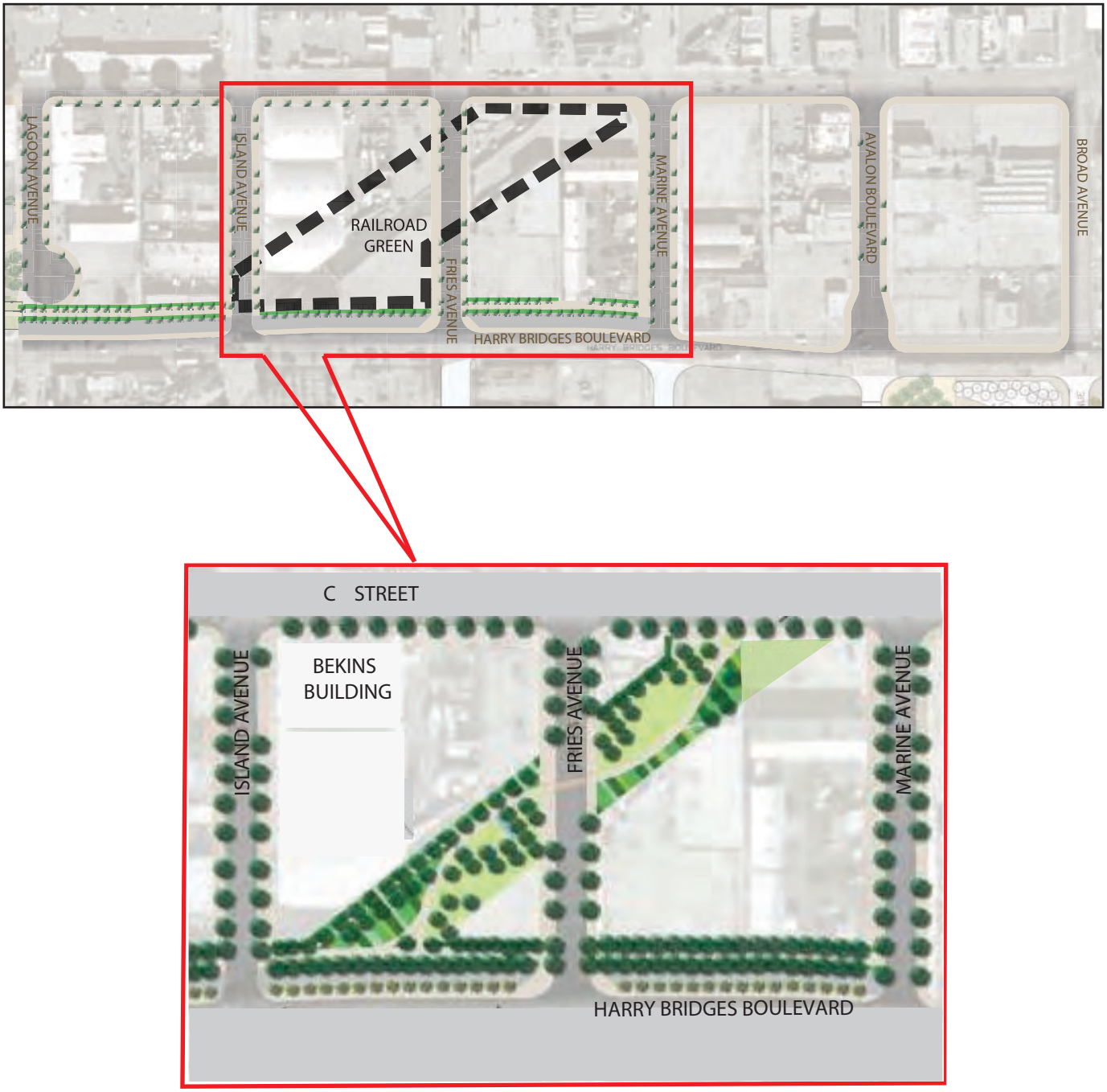
SOURCE: Sasaki (February 2008)

Figure 5
Illuminated Observation Tower at Night
Wilmington Waterfront Development Project

Jones & Stokes



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SOURCE: Sasaki (February 2008)

Figure 6
Railroad Green
Wilmington Waterfront Development Project

Jones & Stokes

Phase II: Full Build-Out Plan

Phase II of the Build-Out Plan (see Figure 7, Full Build Out) would include

- Acquisition of the LADWP property,
- Demolishing and removing the existing LADWP tanks,
- Completing the land bridge, and
- Construction of the California Coastal Trail (pedestrian and bicycle corridor) and Red Car Line along John S. Gibson Boulevard and Harry Bridges Boulevard.

LADWP oil tank demolition and removal is expected to begin in 2013. This would allow completion of the interim land bridge and raised park space, which would connect to the waterfront. LADWP would have an opportunity to rebuild similar tanks with similar capacities at the Olympic site. This construction would be assessed programmatically as part of the proposed Project since specific details are not yet known. Additional CEQA analysis would be performed to adequately assess impacts related to reconstruction of the tanks.

Legend

1 Entry Plaza
2 Water Bridge With Fountains And Steeped Weirs
3 Avalon Triangle Park (By Others)
4 Palm Walk
5 Terraces With Decomposed Granite
6 Sloped Open Lawn
7 Curved Path
8 Grove With Canopy Trees
9 Shade Pavilions
10 Ornamental Gardens
11 Upper Plaza
12 Upper Promenade With Plaza
13 Terraces With Lawn
14 Amphitheater
15 Tower Plaza
16 Observation Tower With Bridge
17 Banning's Plaza
18 Banning's Landing Community Center
19 Drop-off Zone
20 Future Development
21 Maritime Interpretive Artifact Display
22 Plaza And Open Space
23 Interactive Fountain/Water Feature
24 Waterfront Boardwalk
25 College of Oceaneering
26 Parking Area With Lawn

K:\ GIS \ PROJECTS \ POLA \ 00859 07 \ FIG04 OBSERVATION TOWER.AI AWC (03-05-08)

SOURCE: Sasaki (February 2008)

Jones & Stokes

Figure 7
Full Build Out
Wilmington Waterfront Development Project

Environmental Checklist Form

1.	**Project Title:**	Wilmington Waterfront Development Project
2.	**Lead Agency Name and Address:**	Los Angeles Harbor Department Environmental Management Division 425 South Palos Verdes Street San Pedro, CA 90731
3.	**Contact Person and Phone Number:**	Ralph G. Appy, Ph.D. Director of Environmental Management c/o Jan Green Rebstock, Environmental Specialist III (310) 732-3949
4.	**Project Location:**	The proposed Project is located in the southern end of the City of Los Angeles, and includes portions within LAHD's jurisdiction. The proposed Project area is generally located on 58 acres along the Avalon Boulevard Corridor and the Waterfront District. This land is directly adjacent to the Wilmington community and is generally bounded by Lagoon Avenue and Broad Avenue, and C Street and Bannings Landing.
5.	**Project Sponsor's Name and Address:**	Los Angeles Harbor Department Engineering Division 425 South Palos Verdes Street San Pedro, CA 90731
6.	**General Plan Designation:**	Port of Los Angeles, Wilmington-Harbor City Community Plan. Community Commercial and Limited Industrial land use.
7.	**Zoning:**	(Q)C2, (Q)CM, (Q)MR1, and (Q)PF
8.	**Description of Project:**	This Initial Study will assess specific proposed development and associated infrastructure improvements within the Wilmington Waterfront Development Program area and determine if further analysis is needed in the Project EIR. The proposed Project would encompass 58 acres within the 95-acre Program area along the Avalon Boulevard Corridor and the Waterfront District. The major elements of the Wilmington Waterfront Development Project include pedestrian-oriented features and a waterfront promenade; enhancement of the Avalon Boulevard commercial corridor; commercial, industrial, and retail development; open space; an observation tower; and transportation enhancements, linkages, and improvements. See Attachment A for additional details regarding the proposed Project.

9. Setting and Surrounding Land Uses

Light and heavy industrial uses, residential housing, cruise/commercial transport, commercial retail, commercial fishing, warehouses, transportation facilities, and public facilities/port-related services.

10. Responsible Agencies and City of Los Angeles Departments:

U.S. Army Corps of Engineers
U.S. Fish and Wildlife Service
National Marine Fisheries Service
U.S. Coast Guard
California Environmental Protection Agency
State Lands Commission
California Coastal Commission
California Public Utilities Commission
California Department of Fish and Game
California Department of Boating and Waterways
South Coast Air Quality Management District
Los Angeles Regional Water Quality Control Board
City of Los Angeles Department of Transportation
City of Los Angeles Planning Department
City of Los Angeles Department of Public Works
City of Los Angeles Fire Department

Environmental Factors Potentially Affected:

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

[X] Aesthetics	[ ] Agricultural Resources	[X] Air Quality
[ ] Biological Resources	[X] Cultural Resources	[X] Geology/Soils
[X] Hazards and Hazardous Materials	[X] Hydrology/Water Quality	[X] Land Use/Planning
[ ] Mineral Resources	[X] Noise	[X] Population/Housing
[X] Public Services	[ ] Recreation	[X] Transportation/Traffic
[X] Utilities/Service Systems	[X] Mandatory Findings of Significance	

Determination:

On the basis of this initial evaluation:

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

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

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

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

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

Sincerely,

RALPH G. APPY, Ph.D.
Director of Environmental Management

March 13, 2008

Date

Evaluation of Environmental Impacts:

1. A brief explanation is required for all answers except "no impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "no impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "no impact" answer should be explained if it is based on project-specific factors as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole action involved, including off site as well as on site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the lead agency has determined that a particular physical impact may occur, the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially significant impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "potentially significant impact" entries when the determination is made, an EIR is required.

4. "Negative declaration: less than significant with mitigation incorporated" applies when the incorporation of mitigation measures has reduced an effect from a "potentially significant impact" to a "less than significant impact." The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level.

5. Earlier analyses may be used if, pursuant to tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration (Section 15063[c][3][D]). In this case, a brief discussion should identify the following:

   (a) Earlier analysis used. Identify and state where earlier analyses are available for review.

   (b) Impacts adequately addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   (c) Mitigation measures. For effects that are "less than significant with mitigation incorporated," describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, when appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting information sources. A source list should be attached and other sources used or individuals contacted should be cited in the discussion.

8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9. The explanation of each issue should identify:

   (a) the significance criteria or threshold, if any, used to evaluate each question, and

   (b) the mitigation measure identified, if any, to reduce the impact to a less than significant level.

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

Discussion:

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

Less Than Significant Impact. The proposed Project is intended to enhance views and aesthetic conditions of this portion of the Port, along with creating new views of the working harbor. The proposed Project site is located along the southern edge of the City of Los Angeles, where the topography varies from relatively flat areas and areas with low hills near sea level to steeper topography to the north and west. The proposed Project area is located in an industrialized area within the Port adjacent to the Wilmington community.

The proposed Project site covers over 50 acres of land north of Slip Basin 5 off the East Basin Channel and consists of a variety of industrial and commercial land uses. The proposed Project area is generally zoned for public facilities, commercial, commercial manufacturing, and restricted industrial (City of Los Angeles ZIMAS 2007). While some proposed Project features, including the land bridge, pedestrian water bridge, and observation tower, have the potential to obstruct views from surrounding areas, no known or designated scenic vista would be affected. In fact, these Project features would create new elevated public views of the working harbor and complement the existing views from the Banning's Landing Community Center.

Land uses are predominantly residential and commercial to the north of the proposed Project site. Intervening development obscures the proposed Project site from many locations. There are no recognized road-based views in the vicinity because views of the waterfront from Harry Bridges Boulevard and Avalon Boulevard north of Harry Bridges are also obscured by intervening development, which includes the LA Harbor Generating Station, LADWP oil storage tanks, and existing industrial and commercial businesses along Harry Bridges Boulevard. Landscaping and streetscape improvements along Harry Bridges Boulevard and cross streets within the proposed Project area are expected to improve aesthetics in the area.

Elements of the proposed Project, such as the 200-foot observation tower, could be viewed from other locations, especially those at higher elevations in the Palos Verdes Hills. The proposed Project area could be visible from these surrounding areas and the visual characteristics of the viewsheds may change. However, the tower is expected to blend into the horizon with the cranes at the surrounding container terminals in the area, which average over 250 feet in height. As the redevelopment of industrial land to landscaped public open space is expected to be aesthetically beneficial, impacts are considered less than significant, and this issue will not be further addressed in the EIR.

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

No Impact. The closest officially designated state scenic highway is approximately 33 miles north of the proposed Project site (State Highway 2, from approximately 3 miles north of Interstate 210 in La Cañada to the San Bernardino County line). The closest eligible state scenic highway is located approximately 9 miles to the northeast of the proposed Project area (State Highway 1, from State Highway 91 near Long Beach to Interstate 5 south of San Juan Capistrano) (Caltrans 2005). The proposed Project site is not visible from either of these locations.

In addition to the California Department of Transportation's (Caltrans') officially designated and eligible state scenic highways, the City of Los Angeles has city-designated scenic highways that are considered for local planning and development decisions. Table 1 summarizes the local streets that have planning considerations for scenic views (City of Los Angeles 1999).

Table 1. City of Los Angeles Scenic Highways in the Wilmington Area

Street Name	Scenic Features or Resources
John S. Gibson Blvd. from Harry Bridges Blvd. to Pacific Ave.	Views of harbor activities and Vincent Thomas Bridge
Pacific Ave./Front St. from John S. Gibson Blvd. to Harbor Blvd.	Views of Vincent Thomas Bridge; views of San Pedro and the Port of Los Angeles

Source: City of Los Angeles 1999.

The proposed Project would not directly affect views from these scenic highways because the views to and from most of these streets to and from the proposed Project site are obstructed by topography, development, and distance. Portions of the proposed Project area would be visible from these views, highlighting areas where public access to the waterfront is available. This issue will not be further addressed in the EIR.

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

No Impact. Most of the land in the Port area is dedicated to industrial uses, where the primary visual character consists of warehouses, commercial buildings, cargo terminals with large cranes and stacked cargo containers, berthed ships, dry bulk storage, trucks, wheeled yard equipment, and storage tanks and structures. The proposed Project would demolish existing LADWP oil storage tanks and construct an open space land bridge, a pedestrian water bridge, an observation

tower, and commercial buildings along portions of the waterfront. A waterfront promenade and floating docks for public viewing areas and recreational transient boating access are also included. The proposed commercial development along the waterfront would be relatively low rise, ranging between 1 and 2 stories. Three landscaped surface parking areas would also be added to the proposed Project area. Construction of the proposed Project is expected to result in an attractive beneficial impact on the aesthetic character of the proposed Project area, complementing the adjacent Harry Bridges Buffer Project and linking the community of Wilmington to its waterfront. As impacts are considered less than significant, this issue will not be further addressed in the EIR.

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

Potentially Significant Impact. The existing Project area is consistent with a commercial and industrial area and, as such, contains a number of existing light sources associated with businesses and parking areas. The proposed Project includes security lighting for public areas along with accent lighting for Project features such as the land bridge, pedestrian water bridge, observation tower, plazas, and water features. While full cut-off fixtures are part of the proposed Project design, such Project elements may increase the ambient nighttime light environment. The increased light could result in increased light and glare that could affect the quality of nighttime views. Therefore, this issue will be addressed in the EIR.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURAL RESOURCES. In determining whether impacts on agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation. Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	❑	❑	❑	■
b. Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?	❑	❑	❑	■
c. Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	❑	❑	❑	■

Discussion:

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

No Impact. The California Department of Conservation's Farmland Mapping and Monitoring Program identifies categories of agricultural resources that are significant and therefore require special consideration. According to the Department of Conservation's Important Farmland Map, the proposed Project site is not in an area designated as Prime Farmland, Unique Farmland, or Farmland (California Department of Conservation 1999). No Farmland currently exists on the proposed Project site, and, therefore, none would be converted to accommodate the proposed Project. No impacts would occur. This issue will not be addressed in the EIR.

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

No Impact. The proposed Project area is zoned for industrial uses consistent with those needed to maintain a port. The proposed Project area does not contain land that is zoned for agricultural use or land that is under a Williamson Act Contract. (California Department of Conservation 2005). No impacts would occur. This issue will not be addressed in the EIR.

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

No Impact. The proposed Project would not disrupt or damage the operation or productivity of any areas designated as Farmland. As discussed above, no farmland is within the proposed Project site or the surrounding areas that could be affected by changes in land use. No impacts would occur. This issue will not be addressed in the EIR.

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

Discussion:

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

Potentially Significant Impact. A project is deemed inconsistent with air quality plans if it would result in population and/or employment growth that exceeds growth estimates included in the applicable air quality management plan (AQMP), and thereby obstructs implementation of the AQMP. Because the proposed Project includes the development of new uses beyond those currently existing or planned within the proposed Project area, the proposed Project has the potential to conflict with the plan. Consequently, this impact is considered potentially significant and will be further evaluated in the EIR.

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

Potentially Significant Impact. Project-related air emissions would have a significant effect if they resulted in concentrations of air contaminants that could result in either a violation of an ambient air quality standard or contribute to an existing air quality violation. Construction emissions would result from demolition, grading, other site preparation activities, from the use of

construction equipment, and from construction workers commuting to and from the proposed Project. Pollutant emissions would vary from day to day depending on the level of activity, the specific construction operations, and the prevailing weather. Associated air emissions could adversely affect the regional ambient air quality in the South Coast Air Basin and locally within the Port. The proposed Project is expected to increase the number of visitors and users accessing the proposed Project area, and therefore may intensify the number and extent of existing land uses in the proposed Project area. Vehicle trips associated with post-development operation of the proposed Project area, as well as emissions from onsite uses, could adversely affect ambient air quality also. Air emissions from anticipated increased vehicle trips, boat traffic, and stationary sources within the proposed Project area may represent potentially significant impacts and will be analyzed in the EIR. Additionally, the proposed Project's potential generation of greenhouse gasses that could contribute to global warming impacts will be assessed in the EIR.

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

Potentially Significant Impact. As indicated above, construction and/or operational activities would generate emissions that could result in either a violation of an ambient air quality standard or contribute to an existing air quality violation. When combined with other past, present, or reasonably foreseeable future projects in the area, the violations could result from a net increase of "criteria pollutants." Criteria pollutants include ozone, carbon monoxide, particulate matter (PM10 and PM 2.5), nitrogen dioxide, and lead. The generation of these compounds during and after construction could exceed the national and state standards/limits for such emissions. This impact is considered potentially significant and will be addressed in the EIR.

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

Potentially Significant Impact. Certain persons, such as the very young, the elderly, and those suffering from some illnesses or disabilities, are particularly sensitive to air pollution emissions. Structures that house these persons or places where large numbers of these persons gather are considered "sensitive receptors." Examples of land uses that can be classified as sensitive receptors include schools, daycare centers, parks, recreational areas, medical facilities, rest homes, and convalescent care facilities. These types of uses are present within the vicinity of the proposed Project area and may be affected by air emissions during construction and operation. Additionally, sensitive receptors using the proposed facilities, including park space, may be exposed to existing and projected toxic air contaminants from Port operations including trucks, terminal equipment, ships, and railroad locomotives. This impact is considered potentially significant and will be addressed in the EIR.

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

Potentially Significant Impact. Odors are typically associated with industrial or institutional land uses, as listed in the Southern California Air Quality Management District (SCAQMD) CEQA Handbook. The proposed Project would result in the disturbance of a number of existing industrial areas, including liquid bulk terminals and excavation within areas adjacent to the harbor that may, when disturbed, release gases that could produce unpleasant odors. Additionally, objectionable odors could be produced during Project construction from diesel-powered heavy

equipment as well as paving and asphalting. This impact is considered potentially significant and will be addressed in the EIR.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES. Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	❑	❑	■	❑
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	❑	❑	■	❑
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?	❑	❑	❑	■
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	❑	❑	❑	■
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	❑	❑	■	❑
f. Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?	❑	❑	❑	■

Discussion:

a. Would the project have a substantial adverse impact, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or

special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?

Less Than Significant Impact. The majority of the Project area is located within previously disturbed areas—areas containing existing hardscape. While two state- and federally listed endangered species, the California least tern (*Sterna antillarum browni*) and the California brown pelican (*Pelecanus occidentalis californicus*), regularly use the harbor area, they are not expected to be affected by the proposed Project. Neither of these two species currently uses the proposed Project area. In addition, the proposed Project includes some in-water construction (installation of a floating dock and waterfront promenade). There would be no dredging as a result of the proposed Project.

California Least Tern

The biology of this species has been described in the biological assessment for the Channel Improvement and Landfill Development Feasibility Study (USACE 1990), biological opinion for the Los Angeles Harbor Development Project (1-6-92-F-25), and Deep Draft Navigation Improvement EIS/EIR (USACE and LAHD 1992). The following is a summary of information on least tern use of the Los Angeles Harbor.

The least tern has been nesting during the summer on Terminal Island (including Pier 300) since at least 1974 (Keane Biological Consulting 1999a). In 1979, the Los Angeles Harbor Department began providing nesting habitat for the species and entered into a Memorandum of Agreement (MOA) with the U.S. Fish and Wildlife Service (USFWS), USACE, and California Department of Fish and Game (CDFG) for management of a 15-acre (6.1-ha) least tern nesting site in 1984. This MOA sets forth the responsibilities of the signing parties for management of the designated least tern nesting site within the Harbor, and it is renewed every 3 to 5 years. A new MOA was approved by the Board of Harbor Commissioners in June 2006.

Several foraging studies have been conducted in the Harbor. The 1982, 1984, and 1985 surveys found that least tern foraged over shallow water (generally less than 20 feet [6 m] deep) in the Outer Harbor, especially near the nesting site, but not in the Inner Harbor (Keane Biological Consulting 1997). Surveys using radio-telemetry and observations in1986 and 1987 showed that the least terns foraged inside and outside the Harbor during egg incubation. More foraging occurred near the breakwater than adjacent to Terminal Island during incubation, but this reversed after the eggs hatched (Keane Biological Consulting 1997). In the 1994–1996 surveys, least terns foraged around the east and south sides of Pier 300 with greater use of the Seaplane Anchorage in 1996 than in the other 2 years. After the south side of Pier 300 was dredged to deep water, use by the terns declined. The Cabrillo Beach and Cabrillo Saltmarsh areas were also used to varying degrees (Keane Biological Consulting 1997). A study in 1997 and 1998 found that the least terns used the West Basin of Long Beach Harbor as well as the Pier 300 Shallow Water Habitat, Seaplane Anchorage, and the Gap (the area between Naval Mole and Pier 400 Transportation Corridor). The foraging frequency (dives per acre) varied among locations and between years. This variation may be related to changes in availability of prey and distance from nest sites (Keane Biological Consulting 1998). These studies have shown that Outer Harbor shallow water areas (less than 20 feet [6 m] deep) provide important foraging areas for the least tern. Three least terns were observed in the Southwest Slip in June 2000 (MEC and Associates 2002) in an area that was subsequently filled. The only shallow water in the West Basin is what remains of the Southwest Slip. Regular foraging in this area, however, has not been observed. The Southwest Slip is about 3 miles (4.8 km) from the current nesting location on Pier 400 and over 1 mile (0.6 km) from the areas commonly used for foraging. In summary, the foraging studies

show that the least terns forage primarily in the Outer Harbor and not in the channels, basins, and slips of the Inner Harbor. No foraging by this species has been reported in the West Basin outside of the Southwest Slip.

California Brown Pelican

This species has been described in the biological opinion (1-6-92-F-25) for the Los Angeles Harbor Development Project (USFWS 1992), biological assessment for the Channel Improvement and Landfill Development Feasibility Study (USACE 1990), and Navigation Improvement EIS/EIR (USACE and LAHD 1992). Brown pelicans use the Harbor year-round, but their abundance is greatest in the summer when post-breeding birds from Mexico arrive. The highest numbers are present between early July and early November, when several thousand can be present (MBC 1984). Pelicans use all parts of the Harbor, but they prefer to roost and rest on the Harbor breakwater dikes, particularly the Middle Breakwater (MBC 1984, MEC 1988, and MEC and Associates 2002). They forage over open waters for fish, such as the northern anchovy, and accounted for 9.5 percent of the total number of birds observed in the Harbor during the 2000–2001 surveys. Several were observed in the West Basin in July through September 2000 with few to none the remainder of the year (MEC and Associates 2002). The brown pelican does not breed in the Harbor area.

No critical habitat for any federally listed species is present. The Inner Harbor is not considered an important area for California least tern or California brown pelican foraging based on survey information. The proposed Project area also does not provide any other habitat values for the least tern and provides only limited perching/resting sites for the brown pelican. Therefore, the impacts are considered less than significant. This issue will not be discussed further in the EIR.

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

Less Than Significant Impact. The proposed Project consists of a waterfront promenade, public viewing piers, and slips for recreational transient boaters. This includes the construction of approximately 30,000 square feet of pile-supported waterfront promenade and piers. Sound pressure waves in the water caused by pile driving could affect the hearing of marine mammals (sea lions). Observations during pile driving for the San Francisco–Oakland Bay Bridge East Span seismic safety project showed sea lions swam rapidly out of the area when piles were being driven (Caltrans 2001). Therefore, sea lions would be expected to avoid areas that could affect them. Harbor seals are unlikely to be present because few have been observed in the area (MEC and Associates 2002). Any seals or sea lions present in the area during construction would likely avoid the disturbance areas and thus not be injured. No other protected or sensitive marine species normally occur in the area.

Construction activities would temporarily disturb fish in the vicinity of the work. Fish would avoid the disturbance area and return when construction of the promenade is complete, resulting in no loss of habitat or fish. Impacts would be less than significant. This issue will not be addressed in the EIR.

No kelp or eelgrass beds are present in the proposed Project area, and those in other parts of the Harbor would not be affected by construction activities. No designated Significant Ecological

Areas (SEAs), including the least tern nesting site on Pier 400, would be affected by the proposed Project.

Shading of approximately 30,000 square feet of open inner harbor water could result from the installation of the proposed promenade and viewing piers. The resulting effect of reducing or eliminating sunlight could limit the ability of any present vegetation to undergo photosynthesis and may affect behavior patterns of existing wildlife. While it is anticipated this effect would be less than significant, further discussion will be provided in the EIR.

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

No Impact. The proposed Project would not involve the direct removal, filling, or hydrologic interruption of federally protected wetlands, marshes, vernal pools, or coastal wetlands. The proposed pier would be constructed in harbor waters of the U.S. but not in areas defined as wetlands or marshes. Therefore, there would be no impact. This issue will not be addressed in the EIR.

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

No Impact. The Conservation Element of the City of Los Angeles General Plan addresses wildlife corridors**.** No known terrestrial wildlife or aquatic species migration corridors are present in the proposed Project area. The California least tern is a migratory bird species that nests on Pier 400, and construction of proposed Project facilities in the West Basin and on the adjacent backlands would not interfere with the aerial migration of this species. Movement to and from foraging areas in the Harbor also would not be affected by any of the proposed Project construction activities. The proposed Project is located in the Inner Harbor, which is not considered an important area for California least tern or California brown pelican (another migratory species) based on survey information.

A number of other water-related birds that are present at least seasonally in the Harbor are migratory as well. Construction activities along the waterfront and on the adjacent lands would not block or interfere with migration or movement of any of these species because the work would be in a small portion of the Harbor area where the birds occur and the birds could easily fly around or over the work. This issue will not be addressed in the EIR.

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

Less Than Significant Impact. The majority of the upland areas within the proposed Project area is currently paved and generally consists of hardscape. Any existing landscape is ornamental landscaping including palm trees, manicured grass areas, and small shrubs. If mature trees on the existing site require removal, they would be relocated or replaced within the Project boundaries. Therefore, the proposed Project would not conflict with any local policies or ordinances protecting trees or other such biological resources, and impacts would be less than significant. This issue will not be addressed in the EIR.

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

No Impact. Neither the Project site nor any adjacent areas are included as part of an adopted Natural Communities Conservation Plan (NCCP) or Habitat Conservation Plan (HCP). The NCCP program, which began in 1991 under the state's Natural Community Conservation Planning Act, is administered by the CDFG. It is a cooperative effort between the resource agencies and developers and takes a broad-based ecosystem approach to planning for the protection and perpetuation of biological diversity. There is currently only one NCCP that has been approved or is being considered near the Port. The NCCP for the Palos Verdes Peninsula Sub-Regional Plan is currently under consideration (CDFG 2005). This plan intends to protect coastal sage scrub and does not include Port lands.

HCPs are administered by the USFWS and are intended to identify how impacts would be mitigated when a project would affect endangered species (USFWS 2004). HCPs pertain to Incidental Take Permits for otherwise lawful activities that may harm listed species or their habitats. To obtain a permit, an applicant must submit an HCP outlining what he or she will do to "minimize and mitigate" the permitted take's impact on the listed species. There are no HCPs currently in place for the Port (USFWS 2004).

There is an MOA between the LAHD, CDFG, USFWS, and the Corps to protect the California least tern. The MOA requires a 15-acre nesting site to be protected during the annual nesting season from May to October (City of Los Angeles et al. 2004).

The County of Los Angeles has also established 61 SEAs (County of Los Angeles, Department of Regional Planning 2001). Los Angeles County developed the concept of SEAs in the 1970s in conjunction with adopting the original General Plan for the County. SEAs are defined and delineated in conjunction with the Land Use and Open Space Elements of the County General Plan. There is one proposed SEA within Port boundaries: the Pier 400 California Least Tern Nesting Site. The 15-acre nesting site is protected during the annual nesting season from May to October. This proposed SEA is located across the Main Channel from the proposed Project site, and the least terns do not use the proposed Project area for nesting or foraging. The proposed Project would not adversely affect any areas identified in an adopted plan. Therefore, the proposed Project would not conflict with the provisions of an adopted conservation, habitat plan, or other plan. This issue will not be addressed in the EIR.

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

Discussion:

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

Potentially Significant Impact. The proposed Project could potentially result in changes to existing historic structures and areas within the proposed Project footprint. Little physical evidence remains of the Wilmington waterfront's past history. Existing resources consist of modest industrial and commercial structures, a few residential buildings, and material fragments of earlier periods. The earliest resources date from the late nineteenth century, with the majority from the first half of the twentieth century. The potential significance of these properties is largely derived from their association with the evolution of the Wilmington waterfront as a major commercial port. Resources of significance or potential significance found in the proposed Project area include:

- Wilmington Iron Works, located at 432 West C Street, built circa 1927;
- Bekins Storage Property, 245 North Fries Avenue/312-326 West C Street, built 1916;
- Multi-unit residential buildings located at 233 North Avalon Boulevard, built circa 1912;
- Fraternal building located at 227 North Avalon Boulevard, built circa 1882;
- Storefront commercial building located at 221 North Avalon Boulevard, built circa 1912;
- Mixed-use building located at 236 North Avalon Boulevard, built circa 1920;
- Brick Paving on the 200 Block North Avalon Boulevard, built circa 1900;
- Coastal Recovery Center located at 117 Harry Bridges Boulevard, built circa 1930;
- Former Catalina Terminal Hotel located at 200 North Broad Avenue, built 1923; and

- National Polytechnic College of Science (formerly the College of Oceaneering) located at 272 South Fries Avenue, built 1947.

If significant historical resources are affected by the proposed Project, significant impacts could result. This issue will be addressed in the EIR.

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

Potentially Significant Impact. Upon implementation of the proposed Project, construction activities may affect existing and/or previously unidentified historic and/or prehistoric archaeological sites associated with Native American resources and/or the early development of the Port and Wilmington area. The EIR will thoroughly evaluate potential impacts to archaeological resources, which will be based on a search of available records including archival research, consultation with interested parties, and site evaluation by qualified archaeologists. The purpose of these measures is to identify the presence or potential presence of significant prehistoric and historic archaeological sites and isolated artifacts. In addition, the Port will contact the Native American Heritage Commission to identify and work with potential Native American groups to identify any areas of special concern. If such sites and/or artifacts are found and subsequently identified as culturally important, the proposed Project could result in significant impacts to those resources. A detailed analysis will be included in the EIR.

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

Potentially Significant Impact. The geologic formation within the proposed Project area could contain vertebrate and invertebrate fossils. Thus, implementation of the proposed Project could potentially disturb paleontological resources. This issue will be addressed in the EIR.

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

Potentially Significant Impact. The proposed Project area is not known to contain human remains. However, previous archival research and surveys have not covered the entire Project area, and a number of locations could contain Native American or other human remains. The Port will contact the Native American Heritage Commission to identify and work with Native American groups to identify any potential areas of special concern. Impacts to such resources would be considered potentially significant and will be addressed in the EIR.

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

Discussion:

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

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

Potentially Significant Impact. Several earthquake faults are located within the boundaries of the Port, though none of the faults in the vicinity of the Port are currently designated as a Special Study Zone under the Alquist-Priolo Earthquake Zoning Act (City of Los Angeles 1994a). However, the Palos Verdes Fault Zone, which runs near the proposed Project site, is designated as a Fault Rupture Study Area within the City of Los Angeles General Plan Safety Element (City of Los Angeles 1994a). Although the proposed facilities would be built in compliance with the most up-to-date building codes, which would minimize potential impacts to the greatest degree feasible, the proposed improvements and structures would encourage the general public to use the proposed Project area and increase the risk of safety hazards. This issue will be addressed in the EIR.

(ii.) Strong seismic ground shaking?

Potentially Significant Impact. Several principal active faults lie within 25 miles of the proposed Project. These include the Palos Verdes, Newport-Inglewood, Elysian Park, Whittier-Elsinore, and Santa Monica-Raymond faults. The Palos Verdes Fault is the closest and has not generated any major earthquakes in historical time (i.e., the past 200 years), but geological relationships suggest that it is active and has a relatively rapid rate of slip compared to other faults in the Los Angeles Basin region. The fault is capable of causing damage at the site from both ground rupture and shaking. The fault may be capable of generating a 7.25-magnitude (Richter) earthquake and surface displacements of about 2.7 meters (Port of Los Angeles 2003). The other faults are capable of producing strong- to intense-ground movements of a maximum moment magnitude 6.6–7.1 (Jones & Stokes 2002). Faults such as these are typical of southern California, and it is reasonable to expect a strong ground motion seismic event. Although the proposed facilities would be built in compliance with the most up-to-date building codes, which would minimize potential impacts to the greatest degree feasible, the proposed improvements and structures would encourage the general public to use the proposed Project area and increase the risk of safety hazards. Therefore, seismic ground-shaking impacts could be potentially significant and will be addressed in the EIR.

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

Potentially Significant Impact. The Safety Element of the City of Los Angeles 1996 General Plan identifies the proposed Project site as within an area susceptible to liquefaction (City of Los Angeles 1996). Most of the proposed Project area has been covered by fill to create flat land for harbor facilities (buildings, docks, warehouses, storage yards, etc.) and soils may be subject to liquefaction when a large, prolonged seismic event affects the area. Liquefaction could lead to ground settlement and lateral spreading resulting in ground movement into the channel areas and slips. This issue is considered a potentially significant impact and will be addressed in the EIR.

(iv.) Landslides?

No Impact. The proposed Project area is relatively flat and is not located within an area that has the potential for landslides (City of Los Angeles 1996). No impacts would occur.

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

Less Than Significant Impact. Although the majority of the proposed Project site is currently paved or developed, some soil erosion may occur during construction activities. Adherence to the requirements of the General Storm Water Permit for Construction Activities and to SCAQMD rules and regulations (such as Rule 403 for fugitive dust) will help to ensure that wind or water erosion impacts are reduced to less than significant. Additionally, during construction, the site will be managed in accordance with a Stormwater Pollution Prevention Plan (SWPPP) prepared in accordance with the General Construction Activity Storm Water Permit (GCASP) adopted by the State Water Resources Control Board (SWRCB). The proposed Project would result in the placement of some new impermeable surfaces as well as soft-scape and landscape materials. After construction activities, the proposed Project would not result in any further wind or water erosion of soils; therefore, the impacts are considered less than significant.

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

Potentially Significant Impact. The Safety Element of the City of Los Angeles 1996 General Plan identifies the proposed Project site as within an area susceptible to liquefaction (City of Los Angeles 1996). Liquefaction could lead to ground settlement and lateral spreading resulting in ground movement into the channel areas (Port of Los Angeles 2003). Several earthquake faults are also located within the boundaries of the Port, though none of the faults in the vicinity of the Port is currently designated as a Special Study Zone under the Alquist-Priolo Earthquake Zoning Act (City of Los Angeles 1996). However, the Palos Verdes Fault Zone, which runs adjacent to the proposed Project site, is designated as a Fault Rupture Study Area within the City of Los Angeles General Plan Safety Element (City of Los Angeles 1996). Although the proposed facilities would be built in compliance with the most up-to-date building codes, which would minimize potential impacts to the greatest degree feasible, the proposed improvements and structures would encourage the general public to use the proposed Project area and increase the risk of safety hazards. Therefore, geologic impacts could be potentially significant and will be assessed in greater detail in the EIR.

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

Potentially Significant Impact. Expansive soils possess a shrink/swell behavior. Shrink/swell is the cyclic change in volume (expansion and contraction) that occurs in fine-grained clay sediments during the process of wetting and drying. Damage to overlying structures may result over an extended period of time, which is usually the result of inadequate soil and foundation engineering or the placement of structures directly on expansive soil. Expansive soil may be present in the proposed Project site. Impacts resulting from expansive soils would be controlled through incorporation of standard geotechnical engineering as called for in LAHD design guidelines. However, taking into account the various uses of the proposed structures such as retail and commercial uses, the risk of structural damage is considered a potentially significant impact and will be assessed in greater detail in the EIR.

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

No Impact. The Los Angeles Department of Public Works Bureau of Sanitation provides sewer service to all areas within its jurisdiction, including the proposed Project site. The proposed Project would be connected to this system, and sewage would be sent to the Terminal Island Treatment Facility. There would be no use of septic tanks or alternative wastewater disposal systems and hence no impact from the proposed Project. This issue will not be addressed in the EIR.

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

Discussion:

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

Potentially Significant Impact. Potential short-term hazards include construction activities involving the transport of fuels, lubricating fluids, solvents, and other potentially hazardous material. However, construction would not involve the handling of significant amounts of these substances beyond those needed for proposed activities. Additionally, all storage, handling, and disposal of hazardous materials is regulated by the federal Environmental Protection Agency (EPA), California Department of Toxic Substances Control (DTSC), Occupational Safety and Health Administration, the City fire department, and the County fire department. As such, all chemicals used during construction of the proposed Project would be used and stored in compliance with applicable requirements. Compliance with applicable laws and regulations governing the use, storage, and transportation of hazardous materials would minimize the potential for significant safety impacts to occur. Implementation of these laws and regulations would result in less-than-significant impacts.

During Project operations, the proposed Project would potentially include industrial uses that generate, store, dispose of, or transport substantial quantities of hazardous substances. While tenants are not currently known, the character of existing and potential future industrial operations could result in significant impacts. Additionally, as part of the proposed Interim Project, the LADWP oil tank would remain within the proposed Project area north of Avalon Boulevard. The proposed land bridge as part of the Interim Project would be built just south of the tanks, which could potentially expose new users of the proposed Project area to hazards from the storage of hazardous materials. These impacts are potentially significant, and further study and analysis will be conducted during the EIR.

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

Potentially Significant Impact. The proposed Project area contains areas that likely have recognized environmental conditions due to the existing and former industrial and Port operations that have occurred on site. The proposed Project area requires additional evaluation and may require remediation to eliminate the potential for work in these areas to release hazardous materials into the environment. Therefore, impacts are considered potentially significant and will be addressed in the EIR. Additionally, risk of upset due to terrorism will be discussed in the EIR.

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

Potentially Significant Impact. Construction activities within the proposed Project area have the potential to emit hazardous materials. There is one existing school within 0.25 mile of the proposed Project, Banning Elementary (500 Island Avenue). Therefore, impacts to schools are considered potentially significant and will be addressed in the EIR.

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

Potentially Significant Impact. Many industrial and commercial areas that currently operate within the Port store, use, or generate hazardous materials. The proposed Project area contains a number of listed sites that handle, use, or dispose or hazardous materials. Impacts associated with worker and public exposure to these sites are considered potentially significant. This issue will be evaluated in the EIR.

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

Less Than Significant Impact. The proposed Project site is not within an airport land use plan, nor is it located within 2 miles of a public airport. The existing heliport at Slip 93, which is used by Island Express Helicopters for trips in conjunction with the Catalina Terminal, is approximately 1.5 miles southwest of the proposed Project. This is a small private heliport that does not generally operate within the vicinity of the proposed Project area. Therefore, impacts would be less than significant.

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

Less Than Significant Impact. The proposed Project is not within the vicinity of a private airstrip. However, as discussed above, a private helicopter company operates out of a helipad approximately 1.5 miles southwest of the proposed Project area. This is a small private heliport that does not generally operate within the vicinity of the proposed Project area. Therefore, impacts are considered less than significant.

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

Potentially Significant Impact. The Los Angeles City Fire Department (LAFD) currently provides emergency medical and fire protection support, and the Port Police and the Los Angeles Police Department (LAPD) are responsible for coordinating law enforcement and traffic control operations in emergency situations. During construction activities, adequate vehicular access would be provided and maintained in accordance with LAFD requirements. The LAFD would review all construction and design plans before development of the proposed Project to ensure that access is provided for emergency equipment. The proposed Project would not affect potential emergency response routes. The proposed Project's proximity to the harbor may make it susceptible to impacts related to tsunamis and seiches. Impacts to emergency evacuation should a tsunami or seiche occur could be significant, and coordination with the LAFD, LAPD, and Port Police would be required. In addition, the U.S. Coast Guard coordinates efforts related to homeland security at the Port. The EIR will analyze the proposed Project in relation to the Coast Guard's homeland security plans.

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

No Impact. The proposed Project site is in an urban area surrounded on all sides by either residential, industrial, commercial, or Port waters. No wildlands that could be adversely affected

by the proposed Project or that could affect the proposed Project area are adjacent to the site. No impacts would occur.

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

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
i.	Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	■	❑	❑	❑
j.	Contribute to inundation by seiche, tsunami, or mudflow?	❑	❑	■	❑

Discussion:

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

Less Than Significant Impact. The proposed Project would be required to comply with the National Pollution Discharge Elimination System (NPDES) and implement an associated project-specific Storm Water Pollution Prevention Plan (SWPPP) that would detail best management practices (BMPs) during construction activities, as well as post-construction operational activities. BMPs would be incorporated into the proposed Project to eliminate discharges of polluted stormwater from construction sites from entering harbor waters. Measures in the SWPPP would include the following:

- Equipment shall be inspected regularly (daily) during construction, and any leaks found shall be repaired immediately.
- Refueling of vehicles and equipment shall be in a designated, contained area.
- Drip pans that are in use shall be covered during rainfall to prevent washout of pollutants.
- Monitoring to verify that BMPs are implemented and all equipment/controls are kept in good working order.
- Use of sediment barriers, sedimentation basins, and site contouring to minimize runoff of sediments.

Sediment control measures generally have an efficiency of approximately 95 percent. Thus, small amounts of pollutants could reach Harbor waters, but this runoff would be rapidly diluted by rainfall and mixing in the immediate vicinity of the discharge.

During construction, while pile driving activities would cause turbidity in the water column, impacts would be very localized and short term. Impacts to water quality are considered less than significant; this issue will not be discussed further in the EIR.

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

Less Than Significant Impact. The proposed Project area is located in the southeastern portion of the West Coast Basin, which is approximately 25 miles long and 7.5 miles wide, encompassing an area approximately 160 square miles and including 20 incorporated cities. It is bounded on the north by the Santa Monica Mountains, on the east by the Newport-Inglewood Structural Zone, on the south by the Palos Verdes Hills, and on the west by the Pacific Ocean (LAHD 2003). There are numerous water-bearing units beneath the Port, including the shallow, semi-perched Gaspur Aquifer of Holocene age; the Gage Aquifer of the Upper Pleistocene Lakewood Formation; and the confined Lynwood Aquifer and the deeper-confined Silverado Aquifer of the Lower Pleistocene San Pedro Formation. Of greater interest in the proposed Project area is the recent alluvium, which consists (in order of increasing depth) of an unnamed aquiclude and the Gaspur Aquifer. Extensive seawater intrusion has been documented in the Gaspur Aquifer, suggesting open communication with the Pacific Ocean. Groundwater depth, gradient, and flow direction beneath the proposed Project area are subject to tidal variation. According to previous investigations performed within the proposed Project vicinity, depth of the groundwater beneath the site is estimated to range from approximately 6 to 10 feet below ground surface. Groundwater flow direction generally orients from the northeast to the south toward the San Pedro Bay (LAHD 2003). The Los Angeles area obtains water from the following three sources: 60 percent from Owens Valley in the Sierras; 30 percent from groundwater wells in the Los Angeles Basin; and 10 percent from the Metropolitan Water District, which imports water from the Colorado and Feather Rivers.

The proposed Project would not result in the direct withdrawal of groundwater to provide water needed for demand created by the proposed Project. Additionally, the groundwater in the harbor area is non-potable due to saltwater intrusion. The site is currently covered with permeable and impermeable surfaces and does not contribute to groundwater recharge. The proposed Project would include new development of hardscape and landscaped areas and would likely increase the landscape areas contributing to a net increase of groundwater recharge in the local area. Therefore, impacts would be considered less than significant, and this issue will not be addressed in the EIR.

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

Less Than Significant Impact. The proposed Project is not located in an area where there is a stream or river and therefore would not include the alteration of an existing stream or river. However, the proposed Project would alter the existing storm drainage pattern of the area. Current site runoff is captured and conveyed via a stormwater control system or through sheet flow into the Harbor. Although the proposed Project would result in modifications to the existing drainage system and drainage facility extensions, the same but enhanced system would continue to capture stormwater runoff after the proposed Project is complete. However, potential construction-related erosion impacts could occur, particularly during demolition and grading activities. Adherence to the requirements of the General Storm Water Permit for Construction Activities and to SCAQMD rules and regulations (such as Rule 403 for fugitive dust) will help to ensure that wind or water erosion impacts are reduced to less than significant. Additionally,

during construction, the site would be managed in accordance with a SWPPP prepared in accordance with the General Construction Activity Storm Water Permit (GCASP) adopted by the State Water Resources Control Board (SWRCB). The proposed Project would result in the net creation of approximately 1.5 acres of new permeable surfaces. After construction activities, the proposed Project would not result in any further wind or water erosion of soils. Therefore, impacts are considered less than significant, and this issue will not be further discussed in the EIR.

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

Less Than Significant Impact. The proposed Project would not adversely alter the existing drainage pattern of the Project area. No streams or rivers are located within the Project area, and the proposed Project does not have the capacity to affect such resources. The proposed Project would result in the enhancement of roadways, pedestrian pathways, open space and parkland, parking, and visitor services throughout the proposed Project area. The proposed Project includes a net increase of approximately 1.5 acres of permeable surface area. Current site runoff either sheet flows into the Harbor or is captured and conveyed via a stormwater control system. As part of the proposed Project, drainage improvements would occur to the stormwater drainage system, which would reduce runoff from the proposed Project area. Additionally, flow volumes from the post-development scenario are expected to be comparable to existing conditions, which would minimize flooding on site or off site. Impacts would be less than significant, and this issue will not be included in the EIR.

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

Less Than Significant Impact. The proposed Project would result in a net increase of approximately 1.5 acres of permeable surface area, providing greater opportunities for stormwater absorption compared to the existing condition. The proposed Project would also employ BMPs for the new parking areas included as part of the proposed Project. The proposed parking area off Fries Avenue includes a lawn area, offering an opportunity for capturing auto pollutants such as fuels and oils prior to entry into the drainage system. The proposed Project would include open space areas and walkways, which are not generally considered detrimental to water quality and do not create long-term effects on water quality associated with pollutants entering the stormwater drainage system. Impacts are considered less than significant, and this section will not be included in the EIR.

f. Would the project otherwise substantially degrade water quality?

Less Than Significant Impact. The proposed Project would not otherwise degrade water quality. As discussed in Section VIII.a above, construction activities could result in impacts to water quality during the construction phase of the proposed Project. Impacts are considered less than significant.

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

No Impact. The proposed Project does not include the construction of housing. No impacts would occur, and therefore, this issue will not be analyzed in the EIR.

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

Potentially Significant Impact. The proposed Project includes numerous structures that would be located within the 100-year designated flood zone as identified by the Federal Emergency Management Agency Flood Insurance Rate Map community panel number 061037 0107 E and the City of Los Angeles General Plan Safety Element (Federal Emergency Management Agency 1998 and City of Los Angeles 1994b). Impacts are considered potentially significant and will be further analyzed in the EIR.

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

Potentially Significant Impact. The proposed Project site is not within any potential dam inundation areas but is located within the 100-year designated flood zone (City of Los Angeles 1994b). Impacts are considered potentially significant and will be further analyzed in the EIR.

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

Less Than Significant Impact. The proposed Project would not contribute to inundation by mudflows. The topography of the proposed Project area, which is essentially flat, lacks sufficient relief to support a mudflow. Tsunamis are gravity waves of long wavelengths generated by seismic activities that cause vertical motions of the earth's crust. A vertical displacement of this nature leads to a corresponding displacement of the overlying water mass that can set off transoceanic waves of great lengths (up to hundreds of miles) containing large amounts of energy. Although such waves are usually hard to detect in relatively deep ocean waters, they amplify significantly as their lengths become shorter when propagating onto the continental shelf and toward the coast and can result in coastal inundation, damage of onshore structures/properties, loss of life and livestock, disruption of natural and built environments, and harbor surges. Seiches (or seismically-induced waves in enclosed bodies of water) would be localized within Port waters and could result from an earthquake in the vicinity of the confined Port waters. Effects from a seiche would be expected to be less detrimental than those of a tsunami.

While the proposed Project site is identified to be within an area "potentially impacted by a tsunami" (City of Los Angeles 1994c), detailed studies of tsunami risk within the Ports of Los Angeles and Long Beach indicate that the Wilmington Waterfront Project area is sufficiently interior and distant from open ocean such that waves under various scenarios would not reach above 0.6 meters and would not exceed deck elevations (Moffatt & Nichol 2007). Furthermore, the City of Los Angeles Tsunami Response Plan does not identify the Wilmington Waterfront Project area as part of the Tsunami Inundation Zone for San Pedro and the Harbor Area (City of Los Angeles 2007). Impacts are considered less than significant.

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

Discussion:

a. Would the project physically divide an established community?

Less Than Significant Impact. The proposed Project is located on and adjacent to Port land and includes previously disturbed areas and industrial uses. The Wilmington residential neighborhood nearest the proposed Project site to the north of C Street has both single- and multi-family housing. Two commercial corridors, Anaheim Street and Avalon Boulevard, frame the neighborhood. Avalon Boulevard connects the center of Wilmington to its waterfront, terminating at the Bannings Landing Community Center. The Harbor Freeway and Harry Bridges Boulevard form two hard edges to the community on its west and south, respectively. The proposed Project would not displace existing community uses, nor would it physically divide the neighborhood because the proposed Project is located along the edge of existing neighborhoods and is intended to improve linkages between the community of Wilmington and its waterfront.

The proposed Project is intended to enhance existing public access to the waterfront by increasing the availability of transportation and pedestrian areas and to increase recreational opportunities. These aspects of the proposed Project would encourage people to use the Port area. Hence, the proposed Project is expected to draw visitors from surrounding areas, as well as people from the local area. Therefore, the proposed Project would not divide an existing community and impacts would be less than significant. This issue will not be discussed further in the EIR.

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

Potentially Significant Impact. Land use and planning documents with jurisdiction over the proposed Project area include the state Tidelands Trust, City of Los Angeles General Plan, City

of Los Angeles Zoning Ordinance, Port of Los Angeles Community Plan, the Port Master Plan (PMP), and the San Pedro Bay Clean Air Action Plan (CAAP). The current zoning and general plan and PMP designations applicable to the proposed Project area consist of industrial and commercial and public facility uses. Implementation of the proposed Project would lead to changes in the existing land use designations. This will require an amendment to the PMP. Project consistency with established plans and requirements will be evaluated in the EIR.

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

No Impact. The proposed Project area is located in a highly industrialized area within the Port and is fully developed. As discussed previously in Section IV.f, the proposed Project is not within any habitat conservation plan or natural communities conservation plan. This issue will not be addressed in the EIR.

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

Discussion:

a. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

Less Than Significant Impact. The proposed Project area is not within a significant aggregate resource zone; the Project site is in a mineral resource zone area classified as MRZ-1, which is defined as areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence (California Department of Conservation, Division of Mines and Geology 1994). The proposed Project site is within the identified boundaries of the Wilmington Oil Field, one of the major oil drilling areas of the Los Angeles basin (City of Los Angeles 1994d). However, there are no oil drilling rigs or current oil exploration investigations within the proposed Project area, and the proposed Project would not preclude the exploration or access to subsurface mineral resources. Therefore, impacts to mineral resources would be less than significant. This issue will not be addressed in the EIR.

b. Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

Less Than Significant Impact. As discussed above, the proposed Project would not preclude the exploration or access to subsurface mineral resources resulting in the loss of availability of important mineral resources. Therefore, impacts to mineral resources would be less than significant. This issue will not be addressed in the EIR.

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

Discussion:

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

Potentially Significant Impact. During construction, noise would be produced by construction equipment. During the operational phase of the proposed Project, the predominant source of noise in the Project area would be generated from traffic and onstreet activity along Harry Bridges Boulevard, Avalon Boulevard, other roadways, and noise from adjacent port land uses. Other existing noise sources are from existing industrial, shipping, and railroad operations within the Port. The proposed Project includes a land bridge over active railroad tracks, which could expose the public to the noise and vibrations generated by the railroad. Finally, the proposed Project would generate automobile trips in addition to what currently exists. The increased traffic activity in the area could generate noise that may exceed standards and the noise ordinance. These impacts are considered potentially significant and will be evaluated in the EIR.

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

Potentially Significant Impact. Construction activities associated with demolition, grading, and excavation may result in a ground vibration that could be felt by surrounding land uses and uses within the Project area as development is phased in. Although ground vibration caused by construction activity is typically below the threshold of perception when the activity is more than about 50 feet from receivers, the proposed Project would employ the use of high impact construction equipment (e.g., pile drivers), which could create elevated levels of groundborne vibration and noise. The proposed Project would also be within close proximity to railroad tracks, and the trains could regularly expose people to groundborne vibrations. Impacts associated with vibration will be evaluated in the EIR.

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

Potentially Significant Impact. As noted above, the proposed Project would generate new traffic trips to and from the proposed Project. A noise analysis will be conducted to evaluate the exposure of existing noise-sensitive land uses and will be discussed in the EIR.

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

Potentially Significant Impact. Construction activity would result in the construction of new commercial, industrial, recreational, and parking facilities within the Project area. The construction of these facilities would require earthmoving, pile driving, and grading activities, which require the use of heavy equipment. Construction activities could result in a temporary increase in ambient noise in the Project area. This impact is considered potentially significant and will be evaluated in the EIR.

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

Less Than Significant Impact. The proposed Project is not within a 2-mile radius of an airport or located within an airport land use plan. An existing heliport, operated by Island Express Helicopters, is located approximately 1.5 miles from the proposed Project site near the existing Cruise Ship Promenade, just south of the Vincent Thomas Bridge. The helicopters normally service Catalina Island and do not include flight patterns over the proposed Project. Therefore, impacts would be less than significant. This issue will not be addressed in the EIR.

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

No Impact. The proposed Project is not near a private airstrip. As discussed above, the Project area contains an existing heliport, which is operated for public use. As mentioned above, the distance from the proposed Project site combined with a flight pattern directed away from the site preclude the possibility of exposing residents or workers to excessive noise levels from the heliport's operation. No impacts related to a private airstrip would occur. This issue will not be addressed in the EIR.

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII.	**POPULATION AND HOUSING.** Would the project:				
a.	Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	■	❑	❑	❑
b.	Displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere?	❑	❑	❑	■
c.	Displace a substantial number of people, necessitating the construction of replacement housing elsewhere?	❑	❑	❑	■

Discussion:

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

Potentially Significant Impact. The proposed Project could spur additional economic growth in the area, which could thereby induce new growth within the local community and regional area. This issue will be evaluated further in the EIR.

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

No Impact. No existing residential units are located within the proposed Project area. Therefore, implementation of the proposed Project would not result in the displacement of any homes. No impacts would occur. This issue will not be addressed in the EIR.

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

No Impact. No existing residential units are located within the proposed Project area. Therefore, implementation of the proposed Project would not result in the displacement of any residents. Existing businesses within the Port could potentially be displaced. However, this would not result in the construction of replacement housing. No impacts would occur. This issue will not be addressed in the EIR.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. PUBLIC SERVICES. Would the project:				
a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:				
i.) Fire protection?	■	❑	❑	❑
ii.) Police protection?	■	❑	❑	❑
iii.) Schools?	❑	❑	■	❑
iv.) Parks?	■	❑	❑	❑
v.) Other public facilities?	❑	❑	■	❑

Discussion:

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

i.) Fire Protection

Potentially Significant Impact. The Los Angeles Fire Department (LAFD) currently provides fire protection and emergency services to the proposed Project area. LAFD facilities include several land-based fire stations and fireboat companies near the proposed Project site. The LAFD has a required maximum response time of 9 minutes. Fire protection capabilities are based on the distance from the emergency to the nearest fire station and the number of emergency or fire-related calls at the time of any simultaneous emergencies. Although there are several fire stations in the vicinity of the proposed Project, the proposed Project would create a substantial amount of new development and could increase the number of calls to the point where response times increase to above the 9-minute response standard. This impact is considered potentially significant and will be further addressed in the EIR.

ii.) Police Protection

Potentially Significant Impact. Port Police and the Los Angeles Police Department (LAPD) Harbor Division currently provide police protection and emergency services to the proposed Project area. The Port Police are headquartered in the Port Administration Building at 425 South Palos Verdes Avenue in San Pedro and are the primary jurisdictional responsibility for first response within the Port. This facility maintains a 24-hour land and water patrol with a fleet of 24 vehicles, three police boats, and a single skiff used to transport police divers. The Port Police staff includes approximately 89 sworn officers who enforce municipal, state, and federal laws, as well as Port tariff regulations. The proposed Project could result in an increased demand on police services to patrol the proposed Project area because of increased visitor volumes and the inclusion of a substantial amount of new development. Upon completion of the proposed Project, the increased volume of calls could exceed the capacity of law enforcement to provide prompt service, resulting in a decline to public safety. This impact is considered potentially significant and will be further addressed in the EIR.

iii) Schools

Less Than Significant Impact. The demand for new schools is generally associated with increases in the school-aged population or decreases in the accessibility and availability of existing schools. The proposed Project consists of industrial, commercial, and public uses, and would not include residential uses that could directly increase school-age population in the area. Additionally, the proposed Project would not displace or otherwise affect existing school land uses. Therefore, the proposed Project would not result in significant impacts to schools. This issue will not be addressed in the EIR.

iv) Parks

Potentially Significant Impact. The proposed Project includes creation of additional public plazas and public open space areas. These additional facilities could potentially result in increased demand on Port services for maintenance and ongoing operation that, if determined to be insufficient, may lead to an adverse physical impact on the environment. This impact is considered potentially significant and will be evaluated in the EIR.

v) Other Public Facilities

Less Than Significant Impact. The U.S. Coast Guard (USCG) is a federal agency responsible for a broad scope of regulatory, law-enforcement, humanitarian, and emergency-response duties. The USCG mission includes maritime safety, maritime law enforcement, and protection of natural resources, maritime mobility, national defense, and homeland security. The USCG maintains a post within the Port that is on Terminal Island. Within the Port area, the USCG's primary responsibility is to ensure the safety of vessel traffic in the channels of the Port and in coastal waters. The 11th USCG District would provide USCG support to the Port area and the proposed Project. The USCG, in cooperation with the Marine Exchange, also operates Vessel Traffic Information Systems. This voluntary service is intended to enhance vessel safety in the main approaches to the Port (Jones & Stokes 2002). The proposed Project would involve minor pleasure craft vessel traffic. Impacts to USCG operations are considered less than significant and will not be further discussed in the EIR.

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

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

No Impact. The increased demand for or use of existing parks is generally associated with the increase of housing or population into an area. The proposed Project consists of commercial and public uses and would not include residential uses that could increase the use of existing parks or recreational facilities. The proposed Project would include new recreational amenities, which would relieve the burden on existing community recreational facilities. Therefore, the proposed Project would not result in significant impacts to recreation from demand placed upon existing parking and recreational facilities, which could lead to their physical deterioration. This issue will not be evaluated in the EIR.

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

No Impact. The proposed Project includes the construction of new park and recreational amenities that are not expected to create an adverse physical effect on the environment. Potential adverse impacts associated with the site preparation for the proposed recreational facilities, including but not limited to grading and/or trenching, soil remediation, and/or the demolition of existing structures, are discussed in the applicable resource discussion sections of this checklist (e.g. cultural resources, hazards and hazardous materials, air quality, noise, etc). Because the Project would not include recreational facilities that might have an adverse physical effect on the environment, this issue will not be evaluated in the EIR.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. TRANSPORTATION/TRAFFIC. Would the project:				
a. Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?	■	❑	❑	❑
b. Cause, either individually or cumulatively, exceedance of a level of service standard established by the county congestion management agency for designated roads or highways?	■	❑	❑	❑
c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	■	❑	❑	❑
d. Substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	■	❑	❑	❑
e. Result in inadequate emergency access?	❑	❑	■	❑
f. Result in inadequate parking capacity?	■	❑	❑	❑
g. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	❑	❑	■	❑

Discussion:

a. Would the project cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?

Potentially Significant Impact. The proposed Project would generate new traffic to the area. Increased traffic would occur from trips associated with construction activities, visitors accessing the area, and from future employees traveling to and from work at the businesses within the proposed Project area. The increased traffic volumes could exceed the capacity of the street system and result in congestion at intersections and along roadways. This impact is considered potentially significant and will be further addressed in the EIR.

b. Would the project cause, either individually or cumulatively, exceedance of a level of service standard established by the county congestion management agency for designated roads or highways?

Potentially Significant Impact. As discussed above, automobile and truck trips generated during the construction and operational phases of the proposed Project would increase traffic on area roadways and Project access points. Such traffic increases may cause an exceedance of level of service standards for Los Angeles County Congestion Management Program intersections, such as along Highways 110 and 47. Therefore, traffic increases that could occur because of the proposed Project could be potentially significant and will be discussed in the EIR.

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

Potentially Significant Impact. The proposed Project would not affect existing or future air traffic patterns. The nearest airport to the proposed Project site is the Long Beach Municipal Airport, which is located approximately 5 miles to the northeast. Also, while the proposed Project is near a heliport, the proposed Project does not include any elements high enough to restrict aircraft overflights or landings. However, the proposed Project could increase port traffic by causing an increase in recreation, tour, and fishing boat trips. Such increased water traffic may cause significant impacts. This issue will be addressed in the EIR.

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

Potentially Significant Impact. The proposed Project does not include development of new collector streets within the proposed Project area but would result in widening and realignment of some roadways and also would result in new ingress and egress driveways used to access and leave areas within the proposed Project site. In addition, the proposed Project would likely increase traffic and pedestrian volumes on existing roadways. Depending on the alignment of proposed driveways and roadways and the increased pedestrian traffic that could occur, vehicle/vehicle and pedestrian/vehicle conflicts could increase. Additionally, the proposed Project is within relatively close proximity to existing railroad lines. Since the proposed Project could introduce additional visitors to the area, pedestrian/railroad conflicts or vehicle/railroad conflicts could occur. These types of traffic hazards and railroad safety issues will be evaluated in the traffic study that will be prepared for the proposed Project. This issue will be discussed in the EIR.

e. Would the project result in inadequate emergency access?

Less Than Significant Impact. Emergency access to the site would be provided via proposed driveways constructed as part of the proposed Project and on roads within the proposed Project area. As part of the proposed Project, fire and law enforcement services would have access to all areas of the proposed Project. Also as part of the proposed Project approval process, the LAFD would review and approve all Project plans to ensure that they comply with all applicable access requirements. This compliance would ensure that emergency access to, from, and within the site is adequate. These components of the proposed Project and Project approval process would result in less than significant impacts.

f. Would the project result in inadequate parking capacity?

Potentially Significant Impact. Project improvements would create new attractions within the proposed Project area and would increase the number of visitors and employees within the area. The increased visitor and employment would require the provision of additional parking within the proposed Project area. As part of the proposed Project, new surface parking would be constructed. However, it is currently unknown whether the planned parking areas and alternative transportation measures would be adequate to serve the public. This impact is considered potentially significant. As part of the traffic study, a parking analysis will be conducted, the results of which will be included in the EIR.

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

Less Than Significant Impact. The proposed Project would not result in the elimination of existing bus or bicycle access to the proposed Project site. Additionally, the proposed Project provides a promenade for multiple modes of transportation (e.g., biking, walking, rollerblading) and would provide direct connections to the planned extensions of the Red Car line in San Pedro, linking the two waterfronts. Therefore, the proposed Project would not conflict with adopted policies supporting alternative transportation, and impacts would be less than significant.

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

Discussion:

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

Potentially Significant Impact. The proposed Project would be required to conform to all applicable wastewater standards set forth by the Los Angeles Regional Water Quality Control Board. The proposed Project would result in the generation of additional wastewater from the proposed commercial facilities. The proposed Project would tie into existing sewer lines that may or may not require capacity expansion. Wastewater would likely flow to the Terminal Island Treatment Plant, which is operated by the city's Department of Public Works Bureau of

Sanitation. Project consistency with wastewater treatment requirements will be discussed in the EIR.

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

Potentially Significant Impact. The City of Los Angeles Department of Public Works, Bureau of Sanitation, provides sewer service to areas surrounding the proposed Project site. Water would be provided by the LADWP. The proposed parking areas, pedestrian walkways, water features, and public open spaces would generate and/or require water and wastewater treatment. The commercial and industrial uses would increase demand for potable water and wastewater services. Expansion of infrastructure could be required to meet that demand, which could result in significant impacts. These issues will be evaluated further in the EIR.

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

Less Than Significant Impact. The proposed Project would require new and expanded stormwater drainage facilities for the proposed parking lots and commercial facilities. The installation and expansion of these facilities would occur within the proposed Project area as part of the proposed Project and would not cause significant environmental effects. Impacts would be less than significant.

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

Potentially Significant Impact. LADWP currently supplies, treats, and distributes water for domestic, industrial, agricultural, and firefighting purposes within the City of Los Angeles. Water is supplied to the city from a variety of sources that includes the Los Angeles aqueducts, local groundwater sources utilized by the LADWP, and water supplied by the Metropolitan Water District. The inclusion of commercial, industrial, and visitor serving components in the proposed Project could increase the demand for water, a potentially significant impact. Impacts associated with the additional water demand and the sources that would provide potable water (and potentially reclaimed water for landscaping) to the proposed Project will be addressed in the EIR.

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

Potentially Significant Impact. As discussed above, the proposed Project would result in the generation of additional wastewater that could affect the capacity of the Terminal Island Treatment Plant. The plant's ability to meet this demand will be addressed in the EIR.

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

Potentially Significant Impact. The City of Los Angeles Bureau of Sanitation and private waste management services provide solid waste collection and disposal services within the proposed Project area. The inclusion of the proposed Project components could produce substantial amounts of solid waste, which could constitute a significant impact. The capacity of the City of

Los Angeles Bureau of Sanitation landfills and their ability to meet this demand will be addressed in the EIR.

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

No Impact. The proposed Project would be compliant with all applicable codes pertaining to solid waste disposal. No impacts would occur. This section will not be discussed in the EIR.

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

Discussion:

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

Potentially Significant Impact. The proposed Project could potentially result in significant impacts on the quality of the cultural environment. As discussed previously, the proposed Project would have the potential to contain historic archaeological resources and historical resources that could be disturbed by construction activities. Potential impacts to these resources will be further evaluated in the EIR.

b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past

projects, the effects of other current projects, and the effects of probable future projects.)

Potentially Significant Impact. The proposed Project could result in cumulatively considerable impacts. Several other development projects are currently under construction, are planned, or have recently been completed within the Port, including container terminal developments, pleasure-craft marinas, industrial developments, and other waterfront plans. The potential for the proposed Project in conjunction with other projects in the vicinity and their cumulative contributions to environmental impacts will be evaluated in the EIR.

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

Potentially Significant Impact. The proposed Project could result in environmental effects that would cause substantial adverse affects on human beings, either directly or indirectly. Impacts from the proposed Project will be evaluated in the EIR.

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B

PORT COMMUNITY ADVISORY COMMITTEE (PCAC) PROJECT INVOLVEMENT

B.1 Introduction

PCAC Purpose and Goals

The Port Community Advisory Committee (PCAC) was established in 2001 as a standing committee of the Port of Los Angeles Board of Harbor Commissioners (Board). In accordance with the direction provided by Mayor Hahn, the purposes of the PCAC are to:

- Assess the impacts of Port developments on the harbor area communities and recommend suitable mitigation measures to the Board for such impacts.
- Review past, present, and future environmental documents in an open public process and make recommendations to the Board to ensure that impacts to the communities are appropriately mitigated in accordance with federal and California law.
- Provide a public forum and make recommendations to the Board to assist the Port in taking a leadership role in creating balanced communities in Wilmington, Harbor City, and San Pedro so that the quality of life is maintained and enhanced by the presence of the Port.

The PCAC provides a public forum to discuss Port-related quality of life issues through a series of subcommittees. These subcommittees provide guidance on environmental issues and review of environmental impact reports (EIRs), master planning, and Port redevelopment. The specific purpose of this appendix to the Wilmington Waterfront Development Project is to document the involvement of the PCAC in the preparation and review of this Draft EIR.

B.2 Overview of PCAC Involvement

This appendix documents PCAC members' involvement in the review of the Wilmington Waterfront Development Project. Working with the Past EIR subcommittee, a generalized approach was identified for PCAC involvement in the preparation of EIRs, and a template was developed to document this involvement.

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The PCAC Wilmington Waterfront Development Subcommittee was established to provide input into the various development projects that are proposed along the Wilmington Waterfront, including the Wilmington Waterfront Development Project. The bullets below summarize the PCAC Wilmington Waterfront Development Subcommittee involvement in the Project spanning back to the planning phases and throughout the environmental review.

Project Planning

The following is a short summary of the involvement of the PCAC Wilmington Waterfront Development Subcommittee throughout the planning phase of the Project.

- **December 2002—**Former Mayor James Hahn declared the Project area, initially known as the Avalon Corridor, stretching from C Street south to the waterfront, would be used for community-serving development. The Wilmington Parkway subcommittee of the PCAC was asked to provide input on possible projects in this area, and was subsequently renamed the Wilmington Waterfront Development Subcommittee.

- **2003–2004—**In 2003, the Wilmington Waterfront Development Subcommittee worked with the planning firm SMWM on a conceptual plan for the development of the Wilmington Waterfront area. The Wilmington Waterfront Development Subcommittee—Final Plan was adopted in concept by the Board of Harbor Commissioners in October 2004.

- **2005–2006—**Sasaki Design Associates, working closely with the Wilmington Waterfront Development Subcommittee, conducted public outreach for the next planning design phase. Over 2006, four community planning workshops were held at critical milestones to gather community input, review, and comment. The final meeting in December 2006 hosted over 1,000 people and displayed a model of the Project design.

- **2007—**The Wilmington Waterfront Development Subcommittee received monthly updates on the progress of the Project design and preparation for the environmental review process.

Environmental Review

The following is a timeline of the noticing and public involvement that has occurred to date within the environmental review process for the proposed Project:

- **January 8, 2008**. LAHD staff and Sasaki Associates provided an update on the planning design for the proposed Project to the PCAC Wilmington Waterfront Development Subcommittee.
- **February 12, 2008**. LAHD staff provided an updated on the progress and impending release of the NOP to the PCAC Wilmington Waterfront Development Subcommittee.

- **March 14, 2008**. The CEQA NOP and IS were released and distributed to over 600 agencies, organizations, individuals, and the California Office of Planning and Research, State Clearinghouse. The State Clearinghouse assigned the following State Clearinghouse Number to the proposed Project: 2008031065. An Executive Summary of the NOP was translated into Spanish and included in the distribution. Over 70,000 postcards were distributed notifying the public of the date of the scoping meeting and the term of the comment period. Notice of the comment period and meeting was also posted in five local newspapers and 2000 flyers were distributed.
- **March 14, 2008.** The NOP was also filed with the Los Angeles City Clerk and the Los Angeles County Clerk.
- **March 25, 2008**. A public scoping meeting was held at Banning's Landing Community Center in Wilmington, CA. Thirteen people at the meeting provided written or oral comments on the proposed Project. Spanish translation services were made available at the meeting. A transcript of the meeting was posted on the LAHD's website.
- **April 8, 2008.** LAHD staff provided an update to the PCAC Wilmington Waterfront Development Subcommittee regarding the level of public outreach in distributing the NOP, comments heard at the public scoping meeting, and the next steps in preparing the draft EIR.
- **April 14, 2008**. The comment period ended. Fourteen comment letters were received during the scoping period. Copies of the letters were posted on the Port's website.
- **July 7, 2008**. LAHD staff provided an update to the PCAC Wilmington Waterfront Development Subcommittee regarding the progress of the draft EIR. The traffic, hazards, land use, and air quality analysis were still in process.
- **August 12, 2008.** LAHD staff provided an update on the Project design and progress of the draft EIR to the PCAC Wilmington Waterfront Development Subcommittee. The air quality and traffic analysis was complete, but there were still some outstanding issues related to land use and hazards. Sustainable project design components were also discussed.
- **October 14, 2008.** LAHD staff announced to the PCAC Wilmington Waterfront Development Subcommittee plans to release the draft EIR in November. Public art for the Wilmington Waterfront Development Program was also discussed.

B.3 Notice of Preparation

Public involvement and outreach was a chief component of the environmental review process for the proposed Wilmington Waterfront Development Project. The NOP was issued on March 14, 2008, and mailed to all stakeholders, including elected officials, residents, businesses, Port of Los Angeles tenants, and other community based organizations. The NOP scoping period occurred between March 14, 2008,

and April 14, 2008. The NOP was distributed to over 600 agencies, organizations, individuals, and the California Office of Planning and Research, State Clearinghouse. Copies of the NOP were posted on the Port website (http://www.portoflosangeles.org/environment/public_notices.asp). Hardcopies and CD ROMs were also available at the Wilmington Waterfront Waterfront Information Center and at public scoping meetings.

An executive summary of the NOP was translated into Spanish and included in the distribution. Over 70,000 postcards were distributed notifying the public of the date of the scoping meeting and the term of the comment period.

Notice of the comment period and public scoping meetings was also posted in five local newspapers: Los Angeles Times, Long Beach Press-Telegram, Daily Breeze, Random Lengths News, and La Opinión. These newspapers were selected for their circulation and audience. The Los Angeles Times is circulated daily throughout the region and country. The Long Beach Press-Telegram is a daily, local newspaper distributed throughout Los Angeles County. The Daily Breeze is a daily newspaper distributed in South Los Angeles County. Random Lengths News is a free bi-weekly publication circulated in the communities of San Pedro, Palos Verdes Peninsula, Long Beach, Carson, Harbor City, Lomita, and Wilmington on Thursdays. La Opinión is the largest Spanish-language newspaper in the United States and is circulated daily throughout the region.

The public scoping meeting was held within the Project site at Banning's Landing Community Center in Wilmington, CA on March 25, 2008, and took place from 6:00 to 8:30 p.m. Thirteen people at the meeting provided written or oral comments on the proposed Project. The meeting was staffed by LAHD and the Project consultant team. Spanish interpreters were available to accommodate Spanish-speakers. A transcript of the meeting was posted on the Port website.

The first half hour included an open house viewing of proposed project displays, followed by a 20-minute proposed project presentation and a 90-minute public hearing to gather testimony. The display boards included maps of the proposed Project, construction phasing, and details of Project elements for attendees to view while interacting with proposed project representatives.

The public scoping meeting informational materials were available in English and Spanish. The materials included a welcome sheet to explain the purpose and format of the meeting, a public participation guide to summarize how the public could get involved and provide input, comment sheets, speaker cards, and the NOP/Project Description.

B.4 Draft EIR Preparation

Once the Draft EIR is released, LAHD staff will meet with the PCAC Wilmington Waterfront Development Subcommittee to review the contents of the document in accordance with the process.

Air Quality Appendix

- **Construction Schedule**
- **Construction Emission Results**
- **Mitigated Construction Emission Results**
- **Operation Emission Results**
- **URBEMIS2007 Output Sheets**
- **EmFact2007 Output Sheets**
- **Caline4 Output Sheets**
- **Climate and Ambient Monitoring Data**

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Construction Schedule

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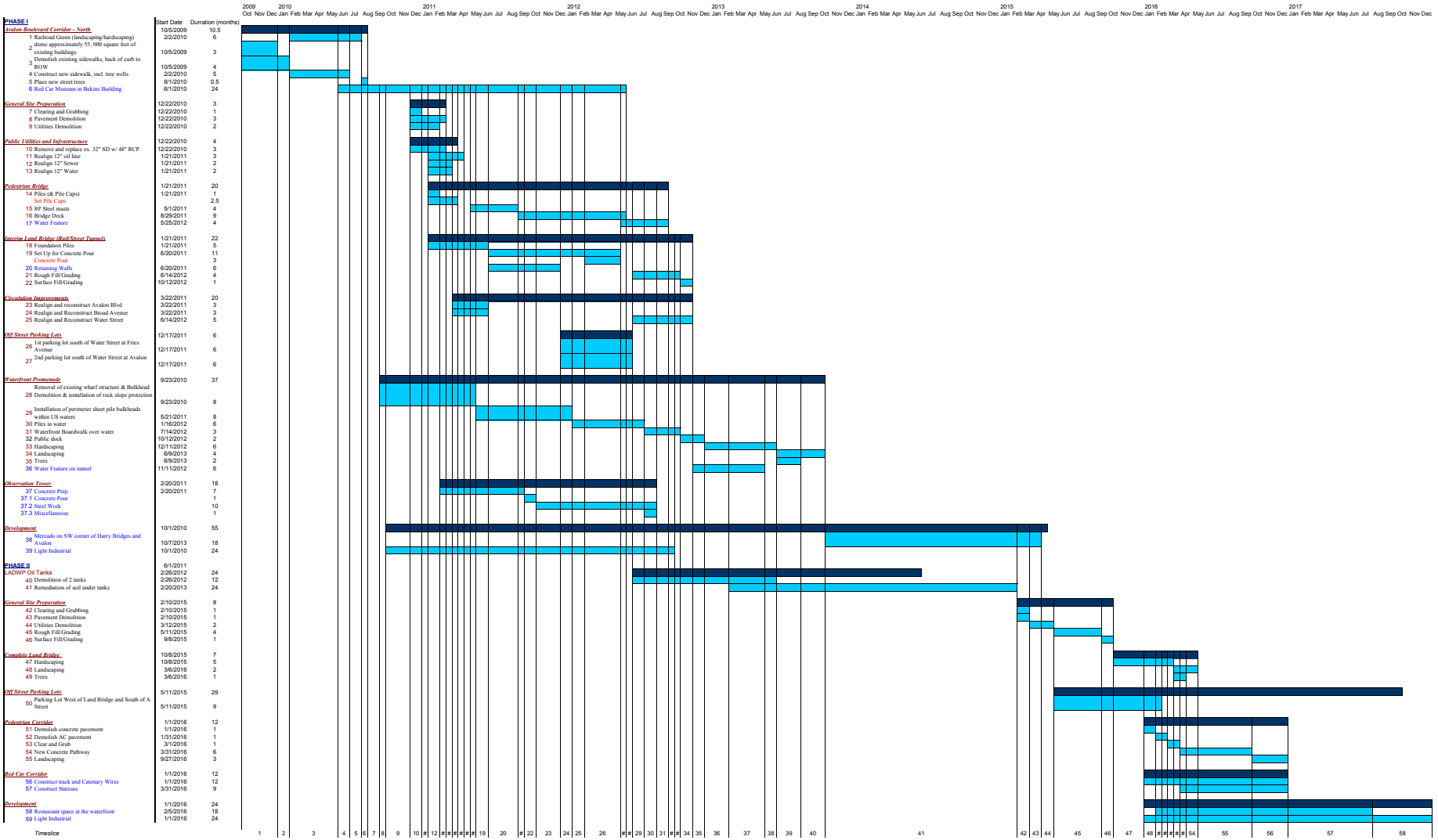
Construction Schedule



		Start Date	Duration (months)
	PHASE I		
	Avalon Boulevard Corridor - North	10/5/2009	10.5
1	Railroad Green (landscaping/hardscaping)	2/2/2010	6
2	demo approximately 55, 000 square feet of existing buildings	10/5/2009	3
3	Demolish existing sidewalks, back of curb to ROW	10/5/2009	4
4	Construct new sidewalk, incl. tree wells	2/2/2010	5
5	Place new street trees	8/1/2010	0.5
6	Red Car Museum in Bekins Building	6/1/2010	24
	General Site Preparation	12/22/2010	3
7	Clearing and Grubbing	12/22/2010	1
8	Pavement Demolition	12/22/2010	3
9	Utilities Demolition	12/22/2010	2
	Public Utilities and Infrastructure	12/22/2010	4
10	Remove and replace ex. 32" SD w/ 48" RCP	12/22/2010	3
11	Realign 12" oil line	1/21/2011	3
12	Realign 12" Sewer	1/21/2011	2
13	Realign 12" Water	1/21/2011	2
	Pedestrian Bridge	1/21/2011	20
14	Piles (& Pile Caps)	1/21/2011	1
	Set Pile Caps		2.5
15	80' Steel masts	5/1/2011	4
16	Bridge Deck	8/29/2011	9
17	Water Feature	5/25/2012	4
	Interim Land Bridge (Rail/Street Tunnel)	1/21/2011	22
18	Foundation Piles	1/21/2011	5
19	Set Up for Concrete Pour	6/20/2011	11
	Concrete Pour		3
20	Retaining Walls	6/20/2011	6
21	Rough Fill/Grading	6/14/2012	4
22	Surface Fill/Grading	10/12/2012	1
	Circulation Improvements	3/22/2011	20
23	Realign and reconstruct Avalon Blvd	3/22/2011	3
24	Realign and Reconstruct Broad Avenue	3/22/2011	3
25	Realign and Reconstruct Water Street	6/14/2012	5
	Off Street Parking Lots	12/17/2011	6
26	1st parking lot south of Water Street at Fries Avenue	12/17/2011	6
27	2nd parking lot south of Water Street at Avalon	12/17/2011	6
	Waterfront Promenade	9/23/2010	37
	Removal of existing wharf structure & Bulkhead		
28	Demolition & isntallation of rock slope protection	9/23/2010	8
29	Installation of perimeter sheet pile bulkheads within US waters	5/21/2011	8
30	Piles in water	1/16/2012	6
31	Waterfront Boardwalk over water	7/14/2012	3
32	Public dock	10/12/2012	2
33	Hardscaping	12/11/2012	6
34	Landscaping	6/9/2013	4
35	Trees	6/9/2013	2
36	Water Feature on tunnel	11/11/2012	6
	Observation Tower	2/20/2011	18
37	Concrete Prep.	2/20/2011	7
37.1	Concrete Pour		1
37.2	Steel Work		10
37.3	Miscellaneous		1
	Development	10/1/2010	55
38	Mercado on SW corner of Harry Bridges and Avalon	10/7/2013	18
39	Light Industrial	10/1/2010	24
	PHASE II	6/1/2011	
	LADWP Oil Tanks	2/26/2012	24
40	Demolition of 2 tanks	2/26/2012	12
41	Remediation of soil under tanks	2/20/2013	24
	General Site Preparation	2/10/2015	8
42	Clearing and Grubbing	2/10/2015	1
43	Pavement Demolition	2/10/2015	1
44	Utilities Demolition	3/12/2015	2
45	Rough Fill/Grading	5/11/2015	4
46	Surface Fill/Grading	9/8/2015	1
	Complete Land Bridge	10/8/2015	7
47	Hardscaping	10/8/2015	5
48	Landscaping	3/6/2016	2
49	Trees	3/6/2016	1
	Off Street Parking Lots	5/11/2015	29
50	Parking Lot West of Land Bridge and South of A Street	5/11/2015	9
	Pedestrian Corridor	1/1/2016	12
51	Demolish concrete pavement	1/1/2016	1
52	Demolish AC pavement	1/31/2016	1
53	Clear and Grub	3/1/2016	1
54	New Concrete Pathway	3/31/2016	6
55	Landscaping	9/27/2016	3
	Red Car Corridor	1/1/2016	12
56	Construct track and Catenary Wires	1/1/2016	12
57	Construct Stations	3/31/2016	9
	Development	1/1/2016	24
58	Restaurant space at the waterfront	2/5/2016	18
59	Light Industrial	1/1/2016	24

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Construction Emission Results

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Emission Rates

PHASE I

Avalon Boulevard Corridor - North

Railroad Green

1 (landscaping/hardscaping)

c

2010

Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.69	2.10	6.45	0.01	0.24	0.22	757.80
Excavator	nonroad	428	0.57	1	8	1951.68	1	g/hp-hr	0.2750	0.8550	2.6750	0.0030	0.0990	0.0901	324.2220	1.18	3.68	11.51	0.01	0.43	0.39	1395.01
Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.3080	0.8680	3.1660	0.0030	0.1160	0.1056	307.1580	0.40	1.12	4.07	0.00	0.15	0.14	394.92
Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.6490	2.2550	3.9870	0.0040	0.3460	0.3149	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.8350	2.6620	4.9400	0.0040	0.4350	0.3959	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3690	1.4850	2.8320	0.0030	0.1640	0.1492	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2470	0.9000	2.4070	0.0020	0.0930	0.0846	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2470	0.9000	2.4070	0.0020	0.0930	0.0846	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1970	2.9600	2.6770	0.0030	0.2810	0.2557	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.7060	2.9830	4.7310	0.0070	0.2820	0.2566	420.9200	0.12	0.51	0.80	0.00	0.05	0.04	71.42
Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.69	2.10	6.45	0.01	0.24	0.22	757.80
Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2710	0.8700	2.8190	0.0030	0.1000	0.0910	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2970	0.7810	3.1880	0.0030	0.1080	0.0983	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2820	0.9910	2.8100	0.0030	0.1060	0.0965	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tug Boat	nonroad	2420	0.43	0	4	0	1	g/kW-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.3090	1.0040	3.2550	0.0030	0.1150	0.1047	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.2170	0.7850	2.6870	0.0050	0.0870	0.0792	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.7700	2.7670	4.9440	0.0050	0.3990	0.3631	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00

		Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed																
On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	7.225	20.692	27.282	0.03	1.795	1.63345	3103.352	0.01	0.02	0.03	0.00	0.00	0.00	3.42
On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	1.564	9.253	16.327	0.019	0.686	0.62426	1986.225	0.00	0.02	0.04	0.00	0.00	0.00	4.38
On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.903	5.314	15.255	0.015	0.604	0.54964	1614.326	0.16	0.94	2.69	0.00	0.11	0.10	284.71
Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.564	9.253	16.327	0.019	0.686	0.62426	1986.225	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	1.564	9.253	16.327	0.019	0.686	0.62426	1986.225	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			2	5			g/mile	11.967	46.283	105.673	0.061	1.718	1.56338	6341.961	0.00	0.02	0.04	0.00	0.00	0.00	2.33
On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.079	2.518	0.24	0.003	0.01	0.0091	342.212	0.01	0.45	0.04	0.00	0.00	0.00	61.11
On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.061	1.991	0.235	0.003	0.007	0.00637	310.055	0.01	0.36	0.04	0.00	0.00	0.00	55.37
Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust	dust						1.76	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	12.90	2.68	0.00
														Total		3.29	11.30	32.17	0.04	14.12	3.79	3788.27

2009

demo approximately 55, 000 square

2 feet of existing buildings

c

Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
General Construction Trucks	nonroad	310	0.57	2	6	2120.4	1	g/hp-hr	0.3100	0.9560	2.9550	0.0030	0.1100	0.1001	324.2200	1.45	4.47	13.81	0.01	0.51	0.47	1515.60
Excavator	nonroad	428	0.57	1	8	1951.68	1	g/hp-hr	0.2870	0.9150	2.8650	0.0030	0.1050	0.0956	324.2220	1.23	3.94	12.33	0.01	0.45	0.41	1395.01
Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.3250	0.9140	3.3670	0.0030	0.1240	0.1128	307.1580	0.42	1.18	4.33	0.00	0.16	0.15	394.92
Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.6910	2.2790	4.2020	0.0040	0.3630	0.3303	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.8810	2.6950	5.1800	0.0040	0.4530	0.4122	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3890	1.4930	2.9980	0.0030	0.1720	0.1565	244.5860	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2600	0.9720	2.5490	0.0020	0.0990	0.0901	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 100 ton	nonroad	335	0.43	1	6	864.3	1	g/hp-hr	0.2600	0.9720	2.5490	0.0020	0.0990	0.0901	244.5890	0.50	1.85	4.86	0.00	0.19	0.17	466.05
Welding Machine	nonroad	26	0.45	1	8	93.6	1	g/hp-hr	1.2590	3.0190	2.7130	0.0030	0.2920	0.2657	255.9650	0.26	0.62	0.56	0.00	0.06	0.05	52.82
Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.7420	3.0340	4.9070	0.0070	0.2990	0.2721	420.9200	0.13	0.51	0.83	0.00	0.05	0.05	71.42
Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.3100	0.9560	2.9550	0.0030	0.1100	0.1001	324.2200	0.72	2.23	6.91	0.01	0.26	0.23	757.80
Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2840	0.9520	2.9770	0.0030	0.1060	0.0965	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.3140	0.8310	3.3610	0.0030	0.1160	0.1056	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	nonroad	400	0.55	1	8	1760	1	g/hp-hr	0.2950	1.0650	2.9850	0.0030	0.1120	0.1019	307.1580	1.14	4.13	11.58	0.01	0.43	0.40	1191.79
Dump Truck	nonroad	310	0.57	2	6	2120.4	1	g/hp-hr	0.3100	0.9560	2.9550	0.0030	0.1100	0.1001	324.2200	1.45	4.47	13.81	0.01	0.51	0.47	1515.60
Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.3250	1.0990	3.4370	0.0030	0.1220	0.1110	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5080	1.7100	3.2630	0.0050	0.1780	0.1620	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.2270	0.7890	2.9740	0.0050	0.0900	0.0819	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.3100	0.9560	2.9550	0.0030	0.1100	0.1001	324.2200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.8170	2.7910	5.1830	0.0050	0.4140	0.3767	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5080	1.7100	3.2630	0.0050	0.1780	0.1620	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00

		Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed																
On-road Truck - 10 mph	nonroad		0.25	3		0.75		g/mile	7.776	22.618	29.578	0.03	2.012	1.83092	3096.795	0.01	0.04	0.05	0.00	0.00	0.00	5.12
On-road Truck - 25 mph	nonroad		0.5	3		1.5		g/mile	1.683	10.219	17.768	0.019	0.766	0.69706	1980.264	0.01	0.03	0.06	0.00	0.00	0.00	6.55
On-road Truck - 55 mph	nonroad		40	3		120		g/mile	0.978	5.738	16.77	0.015	0.653	0.59423	1609.255	0.26	1.52	4.44	0.00	0.17	0.16	425.73
Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.683	10.219	17.768	0.019	0.766	0.69706	1980.264	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	1.683	10.219	17.768	0.019	0.766	0.69706	1980.264	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			3	5			g/mile	12.541	46.902	103.478	0.06	1.884	1.71444	6312.903	0.01	0.03	0.06	0.00	0.00	0.00	3.48
On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.094	2.787	0.269	0.003	0.01	0.0091	343.095	0.02	0.50	0.05	0.00	0.00	0.00	61.27
On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.073	2.241	0.265	0.003	0.007	0.00637	310.863	0.01	0.40	0.05	0.00	0.00	0.00	55.51
Building Demolition	demo	6111.111111						lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	2.57	0.54	0.00
Fugitive Dust	dust							lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
														Total		7.62	25.92	73.72	0.07	5.38	3.10	7918.66

Emission Rates

2010

Demolish existing sidewalks, back of curb to ROW — 3 — c

Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
General Construction Trucks	nonroad	310	0.57	2	6	2120.4	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	1.39	4.20	12.91	0.01	0.49	0.44	1515.61
Excavator	nonroad	428	0.57	1	8	1951.68	1	g/hp-hr	0.2750	0.8550	2.6750	0.0030	0.0990	0.0901	324.2220	1.18	3.68	11.51	0.01	0.43	0.39	1395.01
Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.3080	0.8680	3.1660	0.0030	0.1160	0.1056	307.1580	0.40	1.12	4.07	0.00	0.15	0.14	394.92
Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.6490	2.2550	3.9870	0.0040	0.3460	0.3149	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.8350	2.6620	4.9400	0.0040	0.4350	0.3959	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3690	1.4850	2.8320	0.0030	0.1640	0.1492	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2470	0.9000	2.4070	0.0020	0.0930	0.0846	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2470	0.9000	2.4070	0.0020	0.0930	0.0846	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1970	2.9600	2.6770	0.0030	0.2810	0.2557	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.7060	2.9830	4.7310	0.0070	0.2820	0.2566	420.9200	0.12	0.51	0.80	0.00	0.05	0.04	71.42
Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2710	0.8700	2.8190	0.0030	0.1000	0.0910	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2970	0.7810	3.1880	0.0030	0.1080	0.0983	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2820	0.9910	2.8100	0.0030	0.1060	0.0965	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dump Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.69	2.10	6.45	0.01	0.24	0.22	757.80
Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.3090	1.0040	3.2550	0.0030	0.1150	0.1047	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.2170	0.7850	2.6870	0.0050	0.0870	0.0792	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.7700	2.7670	4.9440	0.0050	0.3990	0.3631	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Equipment	Type	Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed	Units	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	7.225	20.692	27.282	0.03	1.795	1.63345	3103.352	0.01	0.02	0.03	0.00	0.00	0.00	3.42
On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	1.564	9.253	16.327	0.019	0.686	0.62426	1986.225	0.00	0.02	0.04	0.00	0.00	0.00	4.38
On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.903	5.314	15.255	0.015	0.604	0.54964	1614.326	0.16	0.94	2.69	0.00	0.11	0.10	284.71
Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.564	9.253	16.327	0.019	0.686	0.62426	1986.225	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	1.564	9.253	16.327	0.019	0.686	0.62426	1986.225	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			2	5			g/mile	11.967	46.283	105.673	0.061	1.718	1.56338	6341.961	0.00	0.02	0.04	0.00	0.00	0.00	2.33
On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.079	2.518	0.24	0.003	0.01	0.0091	342.212	0.01	0.45	0.04	0.00	0.00	0.00	61.11
On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.061	1.991	0.235	0.003	0.007	0.00637	310.055	0.01	0.36	0.04	0.00	0.00	0.00	55.37
Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust	dust						1.662	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	12.18	2.53	0.00
															Total	3.98	13.40	38.62	0.04	13.65	3.86	4546.08

2010

Construct new sidewalk, incl. tree wells — 4 — c

Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.69	2.10	6.45	0.01	0.24	0.22	757.80
Excavator	nonroad	428	0.57	1	8	1951.68	1	g/hp-hr	0.2750	0.8550	2.6750	0.0030	0.0990	0.0901	324.2220	1.18	3.68	11.51	0.01	0.43	0.39	1395.01
Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.3080	0.8680	3.1660	0.0030	0.1160	0.1056	307.1580	0.40	1.12	4.07	0.00	0.15	0.14	394.92
Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.6490	2.2550	3.9870	0.0040	0.3460	0.3149	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.8350	2.6620	4.9400	0.0040	0.4350	0.3959	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3690	1.4850	2.8320	0.0030	0.1640	0.1492	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2470	0.9000	2.4070	0.0020	0.0930	0.0846	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2470	0.9000	2.4070	0.0020	0.0930	0.0846	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1970	2.9600	2.6770	0.0030	0.2810	0.2557	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.7060	2.9830	4.7310	0.0070	0.2820	0.2566	420.9200	0.12	0.51	0.80	0.00	0.05	0.04	71.42
Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.69	2.10	6.45	0.01	0.24	0.22	757.80
Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2710	0.8700	2.8190	0.0030	0.1000	0.0910	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2970	0.7810	3.1880	0.0030	0.1080	0.0983	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2820	0.9910	2.8100	0.0030	0.1060	0.0965	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.3090	1.0040	3.2550	0.0030	0.1150	0.1047	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.2170	0.7850	2.6870	0.0050	0.0870	0.0792	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.7700	2.7670	4.9440	0.0050	0.3990	0.3631	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Equipment	Type	Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed	Units	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	7.225	20.692	27.282	0.03	1.795	1.63345	3103.352	0.01	0.02	0.03	0.00	0.00	0.00	3.42
On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	1.564	9.253	16.327	0.019	0.686	0.62426	1986.225	0.00	0.02	0.04	0.00	0.00	0.00	4.38
On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.903	5.314	15.255	0.015	0.604	0.54964	1614.326	0.16	0.94	2.69	0.00	0.11	0.10	284.71
Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.564	9.253	16.327	0.019	0.686	0.62426	1986.225	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	1.564	9.253	16.327	0.019	0.686	0.62426	1986.225	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			2	5			g/mile	11.967	46.283	105.673	0.061	1.718	1.56338	6341.961	0.00	0.02	0.04	0.00	0.00	0.00	2.33
On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.079	2.518	0.24	0.003	0.01	0.0091	342.212	0.01	0.45	0.04	0.00	0.00	0.00	61.11
On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.061	1.991	0.235	0.003	0.007	0.00637	310.055	0.01	0.36	0.04	0.00	0.00	0.00	55.37
Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust	dust						1.719	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	12.60	2.61	0.00
															Total	3.29	11.30	32.17	0.04	13.82	3.73	3788.27

Emission Rates

2010

5 Place new street trees	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
d	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.69	2.10	6.45	0.01	0.24	0.22	757.80
	Excavator	nonroad	428	0.57	1	8	1951.68	1	g/hp-hr	0.2750	0.8550	2.6750	0.0030	0.0990	0.0901	324.2220	1.18	3.68	11.51	0.01	0.43	0.39	1395.01
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.3080	0.8680	3.1660	0.0030	0.1160	0.1056	307.1580	0.40	1.12	4.07	0.00	0.15	0.14	394.92
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.6490	2.2550	3.9870	0.0040	0.3460	0.3149	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.8350	2.6620	4.9400	0.0040	0.4350	0.3959	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3690	1.4850	2.8320	0.0030	0.1640	0.1492	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2470	0.9000	2.4070	0.0020	0.0930	0.0846	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2470	0.9000	2.4070	0.0020	0.0930	0.0846	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1970	2.9600	2.6770	0.0030	0.2810	0.2557	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.7060	2.9830	4.7310	0.0070	0.2820	0.2566	420.9200	0.12	0.51	0.80	0.00	0.05	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.69	2.10	6.45	0.01	0.24	0.22	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2710	0.8700	2.8190	0.0030	0.1000	0.0910	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2970	0.7810	3.1880	0.0030	0.1080	0.0983	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2820	0.9910	2.8100	0.0030	0.1060	0.0965	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.3090	1.0040	3.2550	0.0030	0.1150	0.1047	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.2170	0.7850	2.6870	0.0050	0.0870	0.0792	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.7700	2.7670	4.9440	0.0050	0.3990	0.3631	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	7.225	20.692	27.282	0.03	1.795	1.63345	3103.352	0.01	0.02	0.03	0.00	0.00	0.00	3.42
	On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	1.564	9.253	16.327	0.019	0.686	0.62426	1986.225	0.00	0.02	0.04	0.00	0.00	0.00	4.38
	On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.903	5.314	15.255	0.015	0.604	0.54964	1614.326	0.16	0.94	2.69	0.00	0.11	0.10	284.71
	Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.564	9.253	16.327	0.019	0.686	0.62426	1986.225	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	1.564	9.253	16.327	0.019	0.686	0.62426	1986.225	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			2	5			g/mile	11.967	46.283	105.673	0.061	1.718	1.56338	6341.961	0.00	0.02	0.04	0.00	0.00	0.00	2.33
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	5		45		g/mile	0.079	2.518	0.24	0.003	0.01	0.0091	342.212	0.01	0.25	0.02	0.00	0.00	0.00	33.95
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	5		45		g/mile	0.061	1.991	0.235	0.003	0.007	0.00637	310.055	0.01	0.20	0.02	0.00	0.00	0.00	30.76
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						0	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
																	Total	3.28	10.94	32.13	0.04	1.22	1.11	3736.51

2010

6 Red Car Museum in Bekins Building	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
c	General Construction Trucks	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.2750	0.8550	2.6750	0.0030	0.0990	0.0901	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.3080	0.8680	3.1660	0.0030	0.1160	0.1056	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.6490	2.2550	3.9870	0.0040	0.3460	0.3149	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.8350	2.6620	4.9400	0.0040	0.4350	0.3959	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3690	1.4850	2.8320	0.0030	0.1640	0.1492	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2470	0.9000	2.4070	0.0020	0.0930	0.0846	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2470	0.9000	2.4070	0.0020	0.0930	0.0846	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1970	2.9600	2.6770	0.0030	0.2810	0.2557	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.7060	2.9830	4.7310	0.0070	0.2820	0.2566	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2710	0.8700	2.8190	0.0030	0.1000	0.0910	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2970	0.7810	3.1880	0.0030	0.1080	0.0983	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2820	0.9910	2.8100	0.0030	0.1060	0.0965	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.3090	1.0040	3.2550	0.0030	0.1150	0.1047	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.2170	0.7850	2.6870	0.0050	0.0870	0.0792	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.7700	2.7670	4.9440	0.0050	0.3990	0.3631	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	0		0		g/mile	7.225	20.692	27.282	0.03	1.795	1.63345	3103.352	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - 25 mph	nonroad		0.5	0		0		g/mile	1.564	9.253	16.327	0.019	0.686	0.62426	1986.225	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - 55 mph	nonroad		40	0		0		g/mile	0.903	5.314	15.255	0.015	0.604	0.54964	1614.326	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.564	9.253	16.327	0.019	0.686	0.62426	1986.225	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	1.564	9.253	16.327	0.019	0.686	0.62426	1986.225	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			0	5			g/mile	11.967	46.283	105.673	0.061	1.718	1.56338	6341.961	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.079	2.518	0.24	0.003	0.01	0.0091	342.212	0.01	0.45	0.04	0.00	0.00	0.00	61.11
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.061	1.991	0.235	0.003	0.007	0.00637	310.055	0.01	0.36	0.04	0.00	0.00	0.00	55.37
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust							lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
																	Total	0.03	0.81	0.08	0.00	0.00	0.00	116.48

Emission Rates

General Site Preparation 2010

7 Clearing and Grubbing	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
c	General Construction Trucks	nonroad	310	0.57	2	6	2120.4	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	1.39	4.20	12.91	0.01	0.49	0.44	1515.61
	Excavator	nonroad	428	0.57	1	8	1951.68	1	g/hp-hr	0.2750	0.8550	2.6750	0.0030	0.0990	0.0901	324.2220	1.18	3.68	11.51	0.01	0.43	0.39	1395.01
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.3080	0.8680	3.1660	0.0030	0.1160	0.1056	307.1580	0.40	1.12	4.07	0.00	0.15	0.14	394.92
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.6490	2.2550	3.9870	0.0040	0.3460	0.3149	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.8350	2.6620	4.9400	0.0040	0.4350	0.3959	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3690	1.4850	2.8320	0.0030	0.1640	0.1492	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2470	0.9000	2.4070	0.0020	0.0930	0.0846	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2470	0.9000	2.4070	0.0020	0.0930	0.0846	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1970	2.9600	2.6770	0.0030	0.2810	0.2557	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.7060	2.9830	4.7310	0.0070	0.2820	0.2566	420.9200	0.12	0.51	0.80	0.00	0.05	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.69	2.10	6.45	0.01	0.24	0.22	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2710	0.8700	2.8190	0.0030	0.1000	0.0910	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2970	0.7810	3.1880	0.0030	0.1080	0.0983	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2820	0.9910	2.8100	0.0030	0.1060	0.0965	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.69	2.10	6.45	0.01	0.24	0.22	757.80
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.3090	1.0040	3.2550	0.0030	0.1150	0.1047	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.2170	0.7850	2.6870	0.0050	0.0870	0.0792	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.7700	2.7670	4.9440	0.0050	0.3990	0.3631	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	3		0.75		g/mile	7.225	20.692	27.282	0.03	1.795	1.63345	3103.352	0.01	0.03	0.05	0.00	0.00	0.00	5.13
	On-road Truck - 25 mph	nonroad		0.5	3		1.5		g/mile	1.564	9.253	16.327	0.019	0.686	0.62426	1986.225	0.01	0.03	0.05	0.00	0.00	0.00	6.57
	On-road Truck - 55 mph	nonroad		40	3		120		g/mile	0.903	5.314	15.255	0.015	0.604	0.54964	1614.326	0.24	1.41	4.04	0.00	0.16	0.15	427.07
	Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.564	9.253	16.327	0.019	0.686	0.62426	1986.225	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	1.564	9.253	16.327	0.019	0.686	0.62426	1986.225	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			3	5			g/mile	11.967	46.283	105.673	0.061	1.718	1.56338	6341.961	0.01	0.03	0.06	0.00	0.00	0.00	3.50
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.079	2.518	0.24	0.003	0.01	0.0091	342.212	0.01	0.45	0.04	0.00	0.00	0.00	61.11
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.061	1.991	0.235	0.003	0.007	0.00637	310.055	0.01	0.36	0.04	0.00	0.00	0.00	55.37
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						6	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	43.98	9.12	0.00
																	Total	4.76	16.00	46.47	0.05	45.74	10.73	5451.30

2010

8 Pavement Demolition	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
c	General Construction Trucks	nonroad	310	0.57	2	6	2120.4	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	1.39	4.20	12.91	0.01	0.49	0.44	1515.61
	Excavator	nonroad	428	0.57	1	8	1951.68	1	g/hp-hr	0.2750	0.8550	2.6750	0.0030	0.0990	0.0901	324.2220	1.18	3.68	11.51	0.01	0.43	0.39	1395.01
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.3080	0.8680	3.1660	0.0030	0.1160	0.1056	307.1580	0.40	1.12	4.07	0.00	0.15	0.14	394.92
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.6490	2.2550	3.9870	0.0040	0.3460	0.3149	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.8350	2.6620	4.9400	0.0040	0.4350	0.3959	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3690	1.4850	2.8320	0.0030	0.1640	0.1492	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2470	0.9000	2.4070	0.0020	0.0930	0.0846	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2470	0.9000	2.4070	0.0020	0.0930	0.0846	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1970	2.9600	2.6770	0.0030	0.2810	0.2557	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.7060	2.9830	4.7310	0.0070	0.2820	0.2566	420.9200	0.12	0.51	0.80	0.00	0.05	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.69	2.10	6.45	0.01	0.24	0.22	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2710	0.8700	2.8190	0.0030	0.1000	0.0910	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2970	0.7810	3.1880	0.0030	0.1080	0.0983	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2820	0.9910	2.8100	0.0030	0.1060	0.0965	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.69	2.10	6.45	0.01	0.24	0.22	757.80
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.3090	1.0040	3.2550	0.0030	0.1150	0.1047	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.2170	0.7850	2.6870	0.0050	0.0870	0.0792	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.7700	2.7670	4.9440	0.0050	0.3990	0.3631	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	3		0.75		g/mile	7.225	20.692	27.282	0.03	1.795	1.63345	3103.352	0.01	0.03	0.05	0.00	0.00	0.00	5.13
	On-road Truck - 25 mph	nonroad		0.5	3		1.5		g/mile	1.564	9.253	16.327	0.019	0.686	0.62426	1986.225	0.01	0.03	0.05	0.00	0.00	0.00	6.57
	On-road Truck - 55 mph	nonroad		40	3		120		g/mile	0.903	5.314	15.255	0.015	0.604	0.54964	1614.326	0.24	1.41	4.04	0.00	0.16	0.15	427.07
	Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.564	9.253	16.327	0.019	0.686	0.62426	1986.225	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	1.564	9.253	16.327	0.019	0.686	0.62426	1986.225	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			3	5			g/mile	11.967	46.283	105.673	0.061	1.718	1.56338	6341.961	0.01	0.03	0.06	0.00	0.00	0.00	3.50
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.079	2.518	0.24	0.003	0.01	0.0091	342.212	0.01	0.45	0.04	0.00	0.00	0.00	61.11
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.061	1.991	0.235	0.003	0.007	0.00637	310.055	0.01	0.36	0.04	0.00	0.00	0.00	55.37
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						9.045	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	66.30	13.75	0.00
																	Total	4.76	16.00	46.47	0.05	68.06	15.35	5451.30

Emission Rates

9 Utilities Demolition		2010								Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
c	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
	General Construction Trucks	nonroad	310	0.57	2	6	2120.4	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	1.39	4.20	12.91	0.01	0.49	0.44	1515.61
	Excavator	nonroad	428	0.57	1	8	1951.68	1	g/hp-hr	0.2750	0.8550	2.6750	0.0030	0.0990	0.0901	324.2220	1.18	3.68	11.51	0.01	0.43	0.39	1395.01
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.3080	0.8680	3.1660	0.0030	0.1160	0.1056	307.1580	0.40	1.12	4.07	0.00	0.15	0.14	394.92
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.6490	2.2550	3.9870	0.0040	0.3460	0.3149	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.8350	2.6620	4.9400	0.0040	0.4350	0.3959	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3690	1.4850	2.8320	0.0030	0.1640	0.1492	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2470	0.9000	2.4070	0.0020	0.0930	0.0846	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2470	0.9000	2.4070	0.0020	0.0930	0.0846	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1970	2.9600	2.6770	0.0030	0.2810	0.2557	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.7060	2.9830	4.7310	0.0070	0.2820	0.2566	420.9200	0.12	0.51	0.80	0.00	0.05	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.69	2.10	6.45	0.01	0.24	0.22	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2710	0.8700	2.8190	0.0030	0.1000	0.0910	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2970	0.7810	3.1880	0.0030	0.1080	0.0983	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2820	0.9910	2.8100	0.0030	0.1060	0.0965	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.69	2.10	6.45	0.01	0.24	0.22	757.80
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.3090	1.0040	3.2550	0.0030	0.1150	0.1047	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.2170	0.7850	2.6870	0.0050	0.0870	0.0792	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.7700	2.7670	4.9440	0.0050	0.3990	0.3631	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	3		0.75		g/mile	7.225	20.692	27.282	0.03	1.795	1.63345	3103.352	0.01	0.03	0.05	0.00	0.00	0.00	5.13
	On-road Truck - 25 mph	nonroad		0.5	3		1.5		g/mile	1.564	9.253	16.327	0.019	0.686	0.62426	1986.225	0.01	0.03	0.05	0.00	0.00	0.00	6.57
	On-road Truck - 55 mph	nonroad		40	3		120		g/mile	0.903	5.314	15.255	0.015	0.604	0.54964	1614.326	0.24	1.41	4.04	0.00	0.16	0.15	427.07
	Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.564	9.253	16.327	0.019	0.686	0.62426	1986.225	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	1.564	9.253	16.327	0.019	0.686	0.62426	1986.225	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			3	5			g/mile	11.967	46.283	105.673	0.061	1.718	1.56338	6341.961	0.01	0.03	0.06	0.00	0.00	0.00	3.50
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.079	2.518	0.24	0.003	0.01	0.0091	342.212	0.01	0.45	0.04	0.00	0.00	0.00	61.11
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.061	1.991	0.235	0.003	0.007	0.00637	310.055	0.01	0.36	0.04	0.00	0.00	0.00	55.37
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust							lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
																Total	4.76	16.00	46.47	0.05	1.76	1.61	5451.30

Public Utilities and Infrastructure		2010								Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
10 Remove and replace ex. 32" SD w/ 48" RCP																							
c	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.69	2.10	6.45	0.01	0.24	0.22	757.80
	Excavator	nonroad	428	0.57	1	8	1951.68	1	g/hp-hr	0.2750	0.8550	2.6750	0.0030	0.0990	0.0901	324.2220	1.18	3.68	11.51	0.01	0.43	0.39	1395.01
	Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.3080	0.8680	3.1660	0.0030	0.1160	0.1056	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.6490	2.2550	3.9870	0.0040	0.3460	0.3149	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.8350	2.6620	4.9400	0.0040	0.4350	0.3959	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3690	1.4850	2.8320	0.0030	0.1640	0.1492	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2470	0.9000	2.4070	0.0020	0.0930	0.0846	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2470	0.9000	2.4070	0.0020	0.0930	0.0846	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1970	2.9600	2.6770	0.0030	0.2810	0.2557	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.7060	2.9830	4.7310	0.0070	0.2820	0.2566	420.9200	0.12	0.51	0.80	0.00	0.05	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.69	2.10	6.45	0.01	0.24	0.22	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2710	0.8700	2.8190	0.0030	0.1000	0.0910	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2970	0.7810	3.1880	0.0030	0.1080	0.0983	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2820	0.9910	2.8100	0.0030	0.1060	0.0965	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.3090	1.0040	3.2550	0.0030	0.1150	0.1047	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.2170	0.7850	2.6870	0.0050	0.0870	0.0792	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.7700	2.7670	4.9440	0.0050	0.3990	0.3631	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	7.225	20.692	27.282	0.03	1.795	1.63345	3103.352	0.01	0.02	0.03	0.00	0.00	0.00	3.42
	On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	1.564	9.253	16.327	0.019	0.686	0.62426	1986.225	0.00	0.02	0.04	0.00	0.00	0.00	4.38
	On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.903	5.314	15.255	0.015	0.604	0.54964	1614.326	0.16	0.94	2.69	0.00	0.11	0.10	284.71
	Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.564	9.253	16.327	0.019	0.686	0.62426	1986.225	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	1.564	9.253	16.327	0.019	0.686	0.62426	1986.225	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			2	5			g/mile	11.967	46.283	105.673	0.061	1.718	1.56338	6341.961	0.00	0.02	0.04	0.00	0.00	0.00	2.33
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.079	2.518	0.24	0.003	0.01	0.0091	342.212	0.01	0.45	0.04	0.00	0.00	0.00	61.11
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.061	1.991	0.235	0.003	0.007	0.00637	310.055	0.01	0.36	0.04	0.00	0.00	0.00	55.37
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						0.165289256	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
																Total	2.89	10.19	28.10	0.03	2.29	1.23	3393.36

Emission Rates

		2011								Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
11 Realign 12" oil line	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
c																							
	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.66	1.96	5.91	0.01	0.22	0.20	757.80
	Excavator	nonroad	428	0.57	1	8	1951.68	1	g/hp-hr	0.2620	0.8030	2.4440	0.0030	0.0890	0.0810	324.2220	1.13	3.46	10.52	0.01	0.38	0.35	1395.01
	Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.2900	0.8270	2.9300	0.0030	0.1050	0.0956	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.6080	2.2330	3.7820	0.0040	0.3300	0.3003	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.7910	2.6310	4.7100	0.0040	0.4170	0.3795	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3500	1.4790	2.6720	0.0030	0.1570	0.1429	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2340	0.8330	2.2400	0.0020	0.0850	0.0774	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2340	0.8330	2.2400	0.0020	0.0850	0.0774	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1210	2.8790	2.6350	0.0030	0.2670	0.2430	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6730	2.9280	4.5440	0.0070	0.2660	0.2421	420.9200	0.11	0.50	0.77	0.00	0.05	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.66	1.96	5.91	0.01	0.22	0.20	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2540	0.7900	2.6080	0.0030	0.0900	0.0819	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2760	0.7290	2.9580	0.0030	0.0970	0.0883	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2670	0.9290	2.6000	0.0030	0.0970	0.0883	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2900	0.9110	3.0120	0.0030	0.1030	0.0937	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.2020	0.7810	2.2970	0.0050	0.0730	0.0664	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.7180	2.7400	4.6830	0.0050	0.3810	0.3467	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	6.631	18.678	24.88	0.03	1.577	1.43507	3109.241	0.01	0.02	0.03	0.00	0.00	0.00	3.43
	On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.02	0.03	0.00	0.00	0.00	4.39
	On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.825	4.871	13.705	0.015	0.555	0.50505	1618.88	0.15	0.86	2.42	0.00	0.10	0.09	285.52
	Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			2	5			g/mile	11.43	45.685	107.71	0.061	1.557	1.41687	6368.055	0.00	0.02	0.04	0.00	0.00	0.00	2.34
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.067	2.281	0.214	0.003	0.01	0.0091	341.46	0.01	0.41	0.04	0.00	0.00	0.00	60.98
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.051	1.777	0.209	0.003	0.008	0.00728	309.366	0.01	0.32	0.04	0.00	0.00	0.00	55.24
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						0.146923783	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	1.08	0.22	0.00
																Total	2.74	9.52	25.70	0.03	2.05	1.11	3393.93

		2011								Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
12 Realign 12" Sewer	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
c																							
	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.66	1.96	5.91	0.01	0.22	0.20	757.80
	Excavator	nonroad	428	0.57	1	8	1951.68	1	g/hp-hr	0.2620	0.8030	2.4440	0.0030	0.0890	0.0810	324.2220	1.13	3.46	10.52	0.01	0.38	0.35	1395.01
	Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.2900	0.8270	2.9300	0.0030	0.1050	0.0956	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.6080	2.2330	3.7820	0.0040	0.3300	0.3003	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.7910	2.6310	4.7100	0.0040	0.4170	0.3795	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3500	1.4790	2.6720	0.0030	0.1570	0.1429	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2340	0.8330	2.2400	0.0020	0.0850	0.0774	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2340	0.8330	2.2400	0.0020	0.0850	0.0774	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1210	2.8790	2.6350	0.0030	0.2670	0.2430	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6730	2.9280	4.5440	0.0070	0.2660	0.2421	420.9200	0.11	0.50	0.77	0.00	0.05	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.66	1.96	5.91	0.01	0.22	0.20	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2540	0.7900	2.6080	0.0030	0.0900	0.0819	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2760	0.7290	2.9580	0.0030	0.0970	0.0883	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2670	0.9290	2.6000	0.0030	0.0970	0.0883	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2900	0.9110	3.0120	0.0030	0.1030	0.0937	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.2020	0.7810	2.2970	0.0050	0.0730	0.0664	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.7180	2.7400	4.6830	0.0050	0.3810	0.3467	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	6.631	18.678	24.88	0.03	1.577	1.43507	3109.241	0.01	0.02	0.03	0.00	0.00	0.00	3.43
	On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.02	0.03	0.00	0.00	0.00	4.39
	On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.825	4.871	13.705	0.015	0.555	0.50505	1618.88	0.15	0.86	2.42	0.00	0.10	0.09	285.52
	Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			2	5			g/mile	11.43	45.685	107.71	0.061	1.557	1.41687	6368.055	0.00	0.02	0.04	0.00	0.00	0.00	2.34
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.067	2.281	0.214	0.003	0.01	0.0091	341.46	0.01	0.41	0.04	0.00	0.00	0.00	60.98
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.051	1.777	0.209	0.003	0.008	0.00728	309.366	0.01	0.32	0.04	0.00	0.00	0.00	55.24
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						0.073461892	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	0.54	0.11	0.00
																Total	2.74	9.52	25.70	0.03	1.51	1.00	3393.93

Emission Rates

2011

13 Realign 12" Water — c

Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.66	1.96	5.91	0.01	0.22	0.20	757.80
Excavator	nonroad	428	0.57	1	8	1951.68	1	g/hp-hr	0.2620	0.8030	2.4440	0.0030	0.0890	0.0810	324.2220	1.13	3.46	10.52	0.01	0.38	0.35	1395.01
Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.2900	0.8270	2.9300	0.0030	0.1050	0.0956	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.6080	2.2330	3.7820	0.0040	0.3300	0.3003	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.7910	2.6310	4.7100	0.0040	0.4170	0.3795	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3500	1.4790	2.6720	0.0030	0.1570	0.1429	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2340	0.8330	2.2400	0.0020	0.0850	0.0774	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2340	0.8330	2.2400	0.0020	0.0850	0.0774	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1210	2.8790	2.6350	0.0030	0.2670	0.2430	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6730	2.9280	4.5440	0.0070	0.2660	0.2421	420.9200	0.11	0.50	0.77	0.00	0.05	0.04	71.42
Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.66	1.96	5.91	0.01	0.22	0.20	757.80
Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2540	0.7900	2.6080	0.0030	0.0900	0.0819	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2760	0.7290	2.9580	0.0030	0.0970	0.0883	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2670	0.9290	2.6000	0.0030	0.0970	0.0883	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2900	0.9110	3.0120	0.0030	0.1030	0.0937	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.2020	0.7810	2.2970	0.0050	0.0730	0.0664	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.7180	2.7400	4.6830	0.0050	0.3810	0.3467	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Equipment	Type	Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed																
On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	6.631	18.678	24.88	0.03	1.577	1.43507	3109.241	0.01	0.02	0.03	0.00	0.00	0.00	3.43
On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.02	0.03	0.00	0.00	0.00	4.39
On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.825	4.871	13.705	0.015	0.555	0.50505	1618.88	0.15	0.86	2.42	0.00	0.10	0.09	285.52
Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			2	5			g/mile	11.43	45.685	107.71	0.061	1.557	1.41687	6368.055	0.00	0.02	0.04	0.00	0.00	0.00	2.34
On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.067	2.281	0.214	0.003	0.01	0.0091	341.46	0.01	0.41	0.04	0.00	0.00	0.00	60.98
On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.051	1.777	0.209	0.003	0.008	0.00728	309.366	0.01	0.32	0.04	0.00	0.00	0.00	55.24
Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust	dust						0.073461892	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.54	0.11	0.00
																Total	2.74	9.52	25.70	0.03	1.51	1.00	3393.93

Pedestrian Bridge 2011

14 Piles (& Pile Caps) — b

Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
General Construction Trucks	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.2620	0.8030	2.4440	0.0030	0.0890	0.0810	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.2900	0.8270	2.9300	0.0030	0.1050	0.0956	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.6080	2.2330	3.7820	0.0040	0.3300	0.3003	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.7910	2.6310	4.7100	0.0040	0.4170	0.3795	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3500	1.4790	2.6720	0.0030	0.1570	0.1429	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2340	0.8330	2.2400	0.0020	0.0850	0.0774	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 100 ton	nonroad	335	0.43	1	6	864.3	1	g/hp-hr	0.2340	0.8330	2.2400	0.0020	0.0850	0.0774	244.5890	0.45	1.59	4.27	0.00	0.16	0.15	466.05
Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1210	2.8790	2.6350	0.0030	0.2670	0.2430	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6730	2.9280	4.5440	0.0070	0.2660	0.2421	420.9200	0.11	0.50	0.77	0.00	0.05	0.04	71.42
Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vibratory Hammer & Power Pack	nonroad	350	0.43	1	6	903	1	g/hp-hr	0.2540	0.7900	2.6080	0.0030	0.0900	0.0819	290.0930	0.51	1.57	5.19	0.01	0.18	0.16	577.50
Impact Hammer	nonroad	190	0.75	1	6	855	1	g/hp-hr	0.2760	0.7290	2.9580	0.0030	0.0970	0.0883	290.0930	0.52	1.37	5.58	0.01	0.18	0.17	546.80
Front End Loader	nonroad	400	0.55	1	8	1760	1	g/hp-hr	0.2670	0.9290	2.6000	0.0030	0.0970	0.0883	307.1580	1.04	3.60	10.09	0.01	0.38	0.34	1191.79
Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2900	0.9110	3.0120	0.0030	0.1030	0.0937	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.2020	0.7810	2.2970	0.0050	0.0730	0.0664	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.7180	2.7400	4.6830	0.0050	0.3810	0.3467	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Equipment	Type	Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed																
On-road Truck - 10 mph	nonroad		0.25	0		0		g/mile	6.631	18.678	24.88	0.03	1.577	1.43507	3109.241	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - 25 mph	nonroad		0.5	0		0		g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - 55 mph	nonroad		40	0		0		g/mile	0.825	4.871	13.705	0.015	0.555	0.50505	1618.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			0	5			g/mile	11.43	45.685	107.71	0.061	1.557	1.41687	6368.055	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.067	2.281	0.214	0.003	0.01	0.0091	341.46	0.01	0.41	0.04	0.00	0.00	0.00	60.98
On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.051	1.777	0.209	0.003	0.008	0.00728	309.366	0.01	0.32	0.04	0.00	0.00	0.00	55.24
Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust	dust						0.872	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	0.00	6.39	1.33	0.00
																Total	2.64	9.36	25.97	0.03	7.34	2.19	2969.78

Emission Rates

Set Pile Caps		2011							Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
a	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
	General Construction Trucks	nonroad	310	0.57	2	6	2120.4	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	1.32	3.93	11.82	0.01	0.44	0.40	1515.61
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.2620	0.8030	2.4440	0.0030	0.0890	0.0810	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.2900	0.8270	2.9300	0.0030	0.1050	0.0956	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.6080	2.2330	3.7820	0.0040	0.3300	0.3003	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.7910	2.6310	4.7100	0.0040	0.4170	0.3795	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3500	1.4790	2.6720	0.0030	0.1570	0.1429	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	1	6	864.3	1	g/hp-hr	0.2340	0.8330	2.2400	0.0020	0.0850	0.0774	244.5890	0.45	1.59	4.27	0.00	0.16	0.15	466.05
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2340	0.8330	2.2400	0.0020	0.0850	0.0774	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1210	2.8790	2.6350	0.0030	0.2670	0.2430	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6730	2.9280	4.5440	0.0070	0.2660	0.2421	420.9200	0.11	0.50	0.77	0.00	0.05	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.66	1.96	5.91	0.01	0.22	0.20	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2540	0.7900	2.6080	0.0030	0.0900	0.0819	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	1	6	855	1	g/hp-hr	0.2760	0.7290	2.9580	0.0030	0.0970	0.0883	290.0930	0.52	1.37	5.58	0.01	0.18	0.17	546.80
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2670	0.9290	2.6000	0.0030	0.0970	0.0883	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2900	0.9110	3.0120	0.0030	0.1030	0.0937	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	1	8	1746	1	g/hp-hr	0.2020	0.7810	2.2970	0.0050	0.0730	0.0664	426.6080	0.78	3.01	8.84	0.02	0.28	0.26	1642.10
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.7180	2.7400	4.6830	0.0050	0.3810	0.3467	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	3		0.75		g/mile	6.631	18.678	24.88	0.03	1.577	1.43507	3109.241	0.01	0.03	0.04	0.00	0.00	0.00	5.14
	On-road Truck - 25 mph	nonroad		0.5	3		1.5		g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.03	0.05	0.00	0.00	0.00	6.59
	On-road Truck - 55 mph	nonroad		40	3		120		g/mile	0.825	4.871	13.705	0.015	0.555	0.50505	1618.88	0.22	1.29	3.63	0.00	0.15	0.13	428.28
	Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			3	5			g/mile	11.43	45.685	107.71	0.061	1.557	1.41687	6368.055	0.01	0.03	0.06	0.00	0.00	0.00	3.51
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.067	2.281	0.214	0.003	0.01	0.0091	341.46	0.01	0.41	0.04	0.00	0.00	0.00	60.98
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.051	1.777	0.209	0.003	0.008	0.00728	309.366	0.01	0.32	0.04	0.00	0.00	0.00	55.24
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						0.872	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	6.39	1.33	0.00
																Total	4.10	14.45	41.04	0.06	7.88	2.68	5559.51

15 80' Steel masts		2011							Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
a	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
	General Construction Trucks	nonroad	310	0.57	2	6	2120.4	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	1.32	3.93	11.82	0.01	0.44	0.40	1515.61
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.2620	0.8030	2.4440	0.0030	0.0890	0.0810	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.2900	0.8270	2.9300	0.0030	0.1050	0.0956	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.6080	2.2330	3.7820	0.0040	0.3300	0.3003	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.7910	2.6310	4.7100	0.0040	0.4170	0.3795	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3500	1.4790	2.6720	0.0030	0.1570	0.1429	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	1	6	864.3	1	g/hp-hr	0.2340	0.8330	2.2400	0.0020	0.0850	0.0774	244.5890	0.45	1.59	4.27	0.00	0.16	0.15	466.05
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2340	0.8330	2.2400	0.0020	0.0850	0.0774	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1210	2.8790	2.6350	0.0030	0.2670	0.2430	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6730	2.9280	4.5440	0.0070	0.2660	0.2421	420.9200	0.11	0.50	0.77	0.00	0.05	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.66	1.96	5.91	0.01	0.22	0.20	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2540	0.7900	2.6080	0.0030	0.0900	0.0819	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	1	6	855	1	g/hp-hr	0.2760	0.7290	2.9580	0.0030	0.0970	0.0883	290.0930	0.52	1.37	5.58	0.01	0.18	0.17	546.80
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2670	0.9290	2.6000	0.0030	0.0970	0.0883	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2900	0.9110	3.0120	0.0030	0.1030	0.0937	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.2020	0.7810	2.2970	0.0050	0.0730	0.0664	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.7180	2.7400	4.6830	0.0050	0.3810	0.3467	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	3		0.75		g/mile	6.631	18.678	24.88	0.03	1.577	1.43507	3109.241	0.01	0.03	0.04	0.00	0.00	0.00	5.14
	On-road Truck - 25 mph	nonroad		0.5	3		1.5		g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.03	0.05	0.00	0.00	0.00	6.59
	On-road Truck - 55 mph	nonroad		40	3		120		g/mile	0.825	4.871	13.705	0.015	0.555	0.50505	1618.88	0.22	1.29	3.63	0.00	0.15	0.13	428.28
	Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			3	5			g/mile	11.43	45.685	107.71	0.061	1.557	1.41687	6368.055	0.01	0.03	0.06	0.00	0.00	0.00	3.51
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.067	2.281	0.214	0.003	0.01	0.0091	341.46	0.01	0.41	0.04	0.00	0.00	0.00	60.98
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.051	1.777	0.209	0.003	0.008	0.00728	309.366	0.01	0.32	0.04	0.00	0.00	0.00	55.24
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						0.872	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	6.39	1.33	0.00
																Total	3.32	11.44	32.20	0.04	7.60	2.42	3917.41

Emission Rates

2011

16 Bridge Deck	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
a	General Construction Trucks	nonroad	310	0.57	2	6	2120.4	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	1.32	3.93	11.82	0.01	0.44	0.40	1515.61
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.2620	0.8030	2.4440	0.0030	0.0890	0.0810	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.2900	0.8270	2.9300	0.0030	0.1050	0.0956	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.6080	2.2330	3.7820	0.0040	0.3300	0.3003	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.7910	2.6310	4.7100	0.0040	0.4170	0.3795	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3500	1.4790	2.6720	0.0030	0.1570	0.1429	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	1	6	864.3	1	g/hp-hr	0.2340	0.8330	2.2400	0.0020	0.0850	0.0774	244.5890	0.45	1.59	4.27	0.00	0.16	0.15	466.05
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2340	0.8330	2.2400	0.0020	0.0850	0.0774	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1210	2.8790	2.6350	0.0030	0.2670	0.2430	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6730	2.9280	4.5440	0.0070	0.2660	0.2421	420.9200	0.11	0.50	0.77	0.00	0.05	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2540	0.7900	2.6080	0.0030	0.0900	0.0819	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2760	0.7290	2.9580	0.0030	0.0970	0.0883	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2670	0.9290	2.6000	0.0030	0.0970	0.0883	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2900	0.9110	3.0120	0.0030	0.1030	0.0937	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	1	8	1746	1	g/hp-hr	0.2020	0.7810	2.2970	0.0050	0.0730	0.0664	426.6080	0.78	3.01	8.84	0.02	0.28	0.26	1642.10
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.7180	2.7400	4.6830	0.0050	0.3810	0.3467	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	6.631	18.678	24.88	0.03	1.577	1.43507	3109.241	0.01	0.02	0.03	0.00	0.00	0.00	3.43
	On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.02	0.03	0.00	0.00	0.00	4.39
	On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.825	4.871	13.705	0.015	0.555	0.50505	1618.88	0.15	0.86	2.42	0.00	0.10	0.09	285.52
	Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			2	5			g/mile	11.43	45.685	107.71	0.061	1.557	1.41687	6368.055	0.00	0.02	0.04	0.00	0.00	0.00	2.34
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.067	2.281	0.214	0.003	0.01	0.0091	341.46	0.01	0.41	0.04	0.00	0.00	0.00	60.98
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.051	1.777	0.209	0.003	0.008	0.00728	309.366	0.01	0.32	0.04	0.00	0.00	0.00	55.24
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						0.872	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	6.39	1.33	0.00
																Total	2.84	10.66	28.30	0.04	7.42	2.26	4107.07

2012

17 Water Feature	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
c	General Construction Trucks	nonroad	310	0.57	2	6	2120.4	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	1.26	3.71	10.83	0.01	0.39	0.36	1515.61
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.2500	0.7620	2.2350	0.0030	0.0800	0.0728	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.2740	0.7910	2.7070	0.0030	0.0950	0.0865	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.5690	2.2130	3.5740	0.0040	0.3100	0.2821	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.7480	2.6030	4.4790	0.0040	0.3950	0.3595	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3310	1.4730	2.5140	0.0030	0.1460	0.1329	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2220	0.7730	2.0820	0.0020	0.0780	0.0710	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2220	0.7730	2.0820	0.0020	0.0780	0.0710	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.0360	2.7860	2.5900	0.0030	0.2530	0.2302	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6410	2.8700	4.3510	0.0070	0.2510	0.2284	420.9200	0.11	0.49	0.74	0.00	0.04	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2410	0.7340	2.4120	0.0030	0.0820	0.0746	290.9300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2610	0.6970	2.7420	0.0030	0.0880	0.0801	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2540	0.8750	2.4050	0.0030	0.0880	0.0801	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2750	0.8460	2.7850	0.0030	0.0940	0.0855	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.1900	0.7790	1.9780	0.0050	0.0610	0.0555	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.6640	2.7110	4.3990	0.0050	0.3570	0.3249	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	6.014	16.653	22.473	0.03	1.365	1.24215	3114.823	0.01	0.02	0.02	0.00	0.00	0.00	3.43
	On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.02	0.03	0.00	0.00	0.00	4.40
	On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.745	4.425	12.174	0.016	0.504	0.45864	1623.198	0.13	0.78	2.15	0.00	0.09	0.08	286.28
	Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			2	5			g/mile	10.935	45.125	109.606	0.061	1.404	1.27764	6392.797	0.00	0.02	0.04	0.00	0.00	0.00	2.35
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.057	2.071	0.192	0.003	0.01	0.0091	340.825	0.01	0.37	0.03	0.00	0.00	0.00	60.86
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.043	1.59	0.186	0.003	0.008	0.00728	308.785	0.01	0.28	0.03	0.00	0.00	0.00	55.14
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						0.872	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	6.39	1.33	0.00
																Total	1.53	5.68	13.88	0.02	6.92	1.81	1999.49

Emission Rates

Interim Land Bridge (Rail/Street Tunnel) 2011

18 Foundation Piles

b

Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
									Emission Factor (g/hp-hr)							*Daily Emission Rates (lb/day)*						
General Construction Trucks	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.2620	0.8030	2.4440	0.0030	0.0890	0.0810	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.2900	0.8270	2.9300	0.0030	0.1050	0.0956	307.1580	0.37	1.06	3.77	0.00	0.14	0.12	394.92
Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.6080	2.2330	3.7820	0.0040	0.3300	0.3003	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.7910	2.6310	4.7100	0.0040	0.4170	0.3795	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3500	1.4790	2.6720	0.0030	0.1570	0.1429	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 150 ton	nonroad	335	0.43	1	6	864.3	1	g/hp-hr	0.2340	0.8330	2.2400	0.0020	0.0850	0.0774	244.5890	0.45	1.59	4.27	0.00	0.16	0.15	466.05
Crane - 100 ton	nonroad	335	0.43	1	6	864.3	1	g/hp-hr	0.2340	0.8330	2.2400	0.0020	0.0850	0.0774	244.5890	0.45	1.59	4.27	0.00	0.16	0.15	466.05
Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1210	2.8790	2.6350	0.0030	0.2670	0.2430	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6730	2.9280	4.5440	0.0070	0.2660	0.2421	420.9200	0.11	0.50	0.77	0.00	0.05	0.04	71.42
Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vibratory Hammer & Power Pack	nonroad	350	0.43	1	6	903	1	g/hp-hr	0.2540	0.7900	2.6080	0.0030	0.0900	0.0819	290.0930	0.51	1.57	5.19	0.01	0.18	0.16	577.50
Impact Hammer	nonroad	190	0.75	1	6	855	1	g/hp-hr	0.2760	0.7290	2.9580	0.0030	0.0970	0.0883	290.0930	0.52	1.37	5.58	0.01	0.18	0.17	546.80
Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2670	0.9290	2.6000	0.0030	0.0970	0.0883	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2900	0.9110	3.0120	0.0030	0.1030	0.0937	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.2020	0.7810	2.2970	0.0050	0.0730	0.0664	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.7180	2.7400	4.6830	0.0050	0.3810	0.3467	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00

		Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
On-road Truck - 10 mph	nonroad		0.25	0		0		g/mile	6.631	18.678	24.88	0.03	1.577	1.43507	3109.241	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - 25 mph	nonroad		0.5	0		0		g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - 55 mph	nonroad		40	0		0		g/mile	0.825	4.871	13.705	0.015	0.555	0.50505	1618.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			0	5			g/mile	11.43	45.685	107.71	0.061	1.557	1.41687	6368.055	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.067	2.281	0.214	0.003	0.01	0.0091	341.46	0.01	0.41	0.04	0.00	0.00	0.00	0.00
On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.051	1.777	0.209	0.003	0.008	0.00728	309.366	0.01	0.32	0.04	0.00	0.00	0.00	0.00
Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust	dust						4.298209366	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	31.51	6.53	0.00
															Total	2.43	8.41	23.92	0.03	32.38	7.32	2638.95

2011

19 Set Up for Concrete Pour

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Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
									Emission Factor (g/hp-hr)							*Daily Emission Rates (lb/day)*						
General Construction Trucks	nonroad	310	0.57	2	6	2120.4	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	1.32	3.93	11.82	0.01	0.44	0.40	1515.61
Excavator	nonroad	428	0.57	1	8	1951.68	1	g/hp-hr	0.2620	0.8030	2.4440	0.0030	0.0890	0.0810	324.2220	1.13	3.46	10.52	0.01	0.38	0.35	1395.01
Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.2900	0.8270	2.9300	0.0030	0.1050	0.0956	307.1580	0.37	1.06	3.77	0.00	0.14	0.12	394.92
Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.6080	2.2330	3.7820	0.0040	0.3300	0.3003	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.7910	2.6310	4.7100	0.0040	0.4170	0.3795	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane	nonroad	152	0.43	1	6	392.16	1	g/hp-hr	0.3500	1.4790	2.6720	0.0030	0.1570	0.1429	244.5890	0.30	1.28	2.31	0.00	0.14	0.12	211.46
Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2340	0.8330	2.2400	0.0020	0.0850	0.0774	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2340	0.8330	2.2400	0.0020	0.0850	0.0774	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Welding Machine	nonroad	26	0.45	1	8	93.6	1	g/hp-hr	1.1210	2.8790	2.6350	0.0030	0.2670	0.2430	255.9650	0.23	0.59	0.54	0.00	0.06	0.05	52.82
Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6730	2.9280	4.5440	0.0070	0.2660	0.2421	420.9200	0.11	0.50	0.77	0.00	0.05	0.04	71.42
Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.66	1.96	5.91	0.01	0.22	0.20	757.80
Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2540	0.7900	2.6080	0.0030	0.0900	0.0819	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2760	0.7290	2.9580	0.0030	0.0970	0.0883	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2670	0.9290	2.6000	0.0030	0.0970	0.0883	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2900	0.9110	3.0120	0.0030	0.1030	0.0937	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chain Saw	nonroad	10	0.73	4	8	233.6	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.26	0.88	1.64	0.00	0.07	0.07	213.84
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.2020	0.7810	2.2970	0.0050	0.0730	0.0664	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.7180	2.7400	4.6830	0.0050	0.3810	0.3467	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Saw	nonroad	10	0.73	4	8	233.6	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.26	0.88	1.64	0.00	0.07	0.07	213.84
Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00

		Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
On-road Truck - 10 mph	nonroad		0.25	3		0.75		g/mile	6.631	18.678	24.88	0.03	1.577	1.43507	3109.241	0.01	0.03	0.04	0.00	0.00	0.00	5.14
On-road Truck - 25 mph	nonroad		0.5	3		1.5		g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.03	0.05	0.00	0.00	0.00	6.59
On-road Truck - 55 mph	nonroad		40	3		120		g/mile	0.825	4.871	13.705	0.015	0.555	0.50505	1618.88	0.22	1.29	3.63	0.00	0.15	0.13	428.28
Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			3	5			g/mile	11.43	45.685	107.71	0.061	1.557	1.41687	6368.055	0.01	0.03	0.06	0.00	0.00	0.00	3.51
On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.067	2.281	0.214	0.003	0.01	0.0091	341.46	0.01	0.41	0.04	0.00	0.00	0.00	60.98
On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.051	1.777	0.209	0.003	0.008	0.00728	309.366	0.01	0.32	0.04	0.00	0.00	0.00	55.24
Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust	dust						4.298209366	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	31.51	6.53	0.00
															Total	4.91	16.64	42.78	0.05	33.22	8.09	5386.45

Emission Rates

		2011							Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
Concrete Pour	**Equipment**	**Type**	**Hp**	**Load Factor**	**Number Active**	**Equipment Hrs/Day**	**Daily Hp-hr**	**Daily Roudtrip**	**E.F. Units**	**ROG**	**CO**	**NO_X**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**	**CO_2**	**ROG**	**CO**	**NO_X**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**	**CO_2**
f																							
	General Construction Trucks	nonroad	310	0.57	2	6	2120.4	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	1.32	3.93	11.82	0.01	0.44	0.40	1515.61
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.2620	0.8030	2.4440	0.0030	0.0890	0.0810	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.2900	0.8270	2.9300	0.0030	0.1050	0.0956	307.1580	0.37	1.06	3.77	0.00	0.14	0.12	394.92
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.6080	2.2330	3.7820	0.0040	0.3300	0.3003	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.7910	2.6310	4.7100	0.0040	0.4170	0.3795	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	1	6	392.16	1	g/hp-hr	0.3500	1.4790	2.6720	0.0030	0.1570	0.1429	244.5890	0.30	1.28	2.31	0.00	0.14	0.12	211.46
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2340	0.8330	2.2400	0.0020	0.0850	0.0774	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2340	0.8330	2.2400	0.0020	0.0850	0.0774	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1210	2.8790	2.6350	0.0030	0.2670	0.2430	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6730	2.9280	4.5440	0.0070	0.2660	0.2421	420.9200	0.11	0.50	0.77	0.00	0.05	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2540	0.7900	2.6080	0.0030	0.0900	0.0819	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2760	0.7290	2.9580	0.0030	0.0970	0.0883	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2670	0.9290	2.6000	0.0030	0.0970	0.0883	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2900	0.9110	3.0120	0.0030	0.1030	0.0937	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.2020	0.7810	2.2970	0.0050	0.0730	0.0664	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	2	4	2184.24	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	1.36	4.04	12.18	0.01	0.45	0.41	1561.24
	Concrete Pump	nonroad	53	0.74	2	4	313.76	1	g/hp-hr	0.7180	2.7400	4.6830	0.0050	0.3810	0.3467	420.9200	0.50	1.90	3.24	0.00	0.26	0.24	291.15
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	**Miles / Trip**	**Daily Trips**	**Idling Time**	**Miles/ Day**	**Acres Disturbed**															
	On-road Truck - 10 mph	nonroad		0.25	20		5		g/mile	6.631	18.678	24.88	0.03	1.577	1.43507	3109.241	0.07	0.21	0.27	0.00	0.02	0.02	34.27
	On-road Truck - 25 mph	nonroad		0.5	20		10		g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.03	0.18	0.33	0.00	0.01	0.01	43.91
	On-road Truck - 55 mph	nonroad		40	20		800		g/mile	0.825	4.871	13.705	0.015	0.555	0.50505	1618.88	1.46	8.59	24.17	0.03	0.98	0.89	2855.17
	Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			20	5			g/mile	11.43	45.685	107.71	0.061	1.557	1.41687	6368.055	0.04	0.17	0.40	0.00	0.01	0.01	23.40
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	18		162		g/mile	0.067	2.281	0.214	0.003	0.01	0.0091	341.46	0.02	0.81	0.08	0.00	0.00	0.00	121.95
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	18		162		g/mile	0.051	1.777	0.209	0.003	0.008	0.00728	309.366	0.02	0.63	0.07	0.00	0.00	0.00	110.49
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						4.298209366	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	31.51	6.53	0.00
																Total	**5.61**	**23.30**	**59.41**	**0.07**	**34.00**	**8.80**	**7234.98**

		2011							Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
20 Retaining Walls	**Equipment**	**Type**	**Hp**	**Load Factor**	**Number Active**	**Equipment Hrs/Day**	**Daily Hp-hr**	**Daily Roudtrip**	**E.F. Units**	**ROG**	**CO**	**NO_X**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**	**CO_2**	**ROG**	**CO**	**NO_X**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**	**CO_2**
f																							
	General Construction Trucks	nonroad	310	0.57	2	6	2120.4	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	1.32	3.93	11.82	0.01	0.44	0.40	1515.61
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.2620	0.8030	2.4440	0.0030	0.0890	0.0810	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.2900	0.8270	2.9300	0.0030	0.1050	0.0956	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.6080	2.2330	3.7820	0.0040	0.3300	0.3003	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.7910	2.6310	4.7100	0.0040	0.4170	0.3795	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3500	1.4790	2.6720	0.0030	0.1570	0.1429	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2340	0.8330	2.2400	0.0020	0.0850	0.0774	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2340	0.8330	2.2400	0.0020	0.0850	0.0774	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1210	2.8790	2.6350	0.0030	0.2670	0.2430	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.6730	2.9280	4.5440	0.0070	0.2660	0.2421	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2540	0.7900	2.6080	0.0030	0.0900	0.0819	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2760	0.7290	2.9580	0.0030	0.0970	0.0883	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2670	0.9290	2.6000	0.0030	0.0970	0.0883	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2900	0.9110	3.0120	0.0030	0.1030	0.0937	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.2020	0.7810	2.2970	0.0050	0.0730	0.0664	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.7180	2.7400	4.6830	0.0050	0.3810	0.3467	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	**Miles / Trip**	**Daily Trips**	**Idling Time**	**Miles/ Day**	**Acres Disturbed**															
	On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	6.631	18.678	24.88	0.03	1.577	1.43507	3109.241	0.01	0.02	0.03	0.00	0.00	0.00	3.43
	On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.02	0.03	0.00	0.00	0.00	4.39
	On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.825	4.871	13.705	0.015	0.555	0.50505	1618.88	0.15	0.86	2.42	0.00	0.10	0.09	285.52
	Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			2	5			g/mile	11.43	45.685	107.71	0.061	1.557	1.41687	6368.055	0.00	0.02	0.04	0.00	0.00	0.00	2.34
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	18		162		g/mile	0.067	2.281	0.214	0.003	0.01	0.0091	341.46	0.02	0.81	0.08	0.00	0.00	0.00	121.95
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	18		162		g/mile	0.051	1.777	0.209	0.003	0.008	0.00728	309.366	0.02	0.63	0.07	0.00	0.00	0.00	110.49
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						0.478	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	3.50	0.73	0.00
																Total	**1.52**	**6.29**	**14.49**	**0.02**	**4.05**	**1.22**	**2043.72**

Emission Rates

		2012							Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
21 Rough Fill/Grading	**Equipment**	**Type**	**Hp**	**Load Factor**	**Number Active**	**Equipment Hrs/Day**	**Daily Hp-hr**	**Daily Roudtrip**	**E.F. Units**	**ROG**	**CO**	**NO_X**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**	**CO_2**	**ROG**	**CO**	**NO_X**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**	**CO_2**
c																							
	General Construction Trucks	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Excavator	nonroad	428	0.57	1	8	1951.68	1	g/hp-hr	0.2500	0.7620	2.2350	0.0030	0.0800	0.0728	324.2220	1.08	3.28	9.62	0.01	0.34	0.31	1395.01
	Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.2740	0.7910	2.7070	0.0030	0.0950	0.0865	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.5690	2.2130	3.5740	0.0040	0.3100	0.2821	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.7480	2.6030	4.4790	0.0040	0.3950	0.3595	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3310	1.4730	2.5140	0.0030	0.1460	0.1329	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2220	0.7730	2.0820	0.0020	0.0780	0.0710	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2220	0.7730	2.0820	0.0020	0.0780	0.0710	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.0360	2.7860	2.5900	0.0030	0.2530	0.2302	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.6410	2.8700	4.3510	0.0070	0.2510	0.2284	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2410	0.7340	2.4120	0.0030	0.0820	0.0746	290.9300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2610	0.6970	2.7420	0.0030	0.0880	0.0801	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2540	0.8750	2.4050	0.0030	0.0880	0.0801	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.63	1.85	5.42	0.01	0.20	0.18	757.80
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2750	0.8460	2.7850	0.0030	0.0940	0.0855	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.1900	0.7790	1.9780	0.0050	0.0610	0.0555	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.6640	2.7110	4.3990	0.0050	0.3570	0.3249	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	**Miles / Trip**	**Daily Trips**	**Idling Time**	**Miles/ Day**	**Acres Disturbed**															
	On-road Truck - 10 mph	nonroad		0.25	0		0		g/mile	6.014	16.653	22.473	0.03	1.365	1.24215	3114.823	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - 25 mph	nonroad		0.5	0		0		g/mile	1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - 55 mph	nonroad		40	0		0		g/mile	0.745	4.425	12.174	0.016	0.504	0.45864	1623.198	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			0	5			g/mile	10.935	45.125	109.606	0.061	1.404	1.27764	6392.797	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.057	2.071	0.192	0.003	0.01	0.0091	340.825	0.01	0.37	0.03	0.00	0.00	0.00	60.86
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.043	1.59	0.186	0.003	0.008	0.00728	308.785	0.01	0.28	0.03	0.00	0.00	0.00	55.14
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						4.298209366	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	31.51	6.53	0.00
																Total	**1.72**	**5.79**	**15.10**	**0.02**	**32.05**	**7.03**	**2268.82**

		2012							Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
22 Surface Fill/Grading	**Equipment**	**Type**	**Hp**	**Load Factor**	**Number Active**	**Equipment Hrs/Day**	**Daily Hp-hr**	**Daily Roudtrip**	**E.F. Units**	**ROG**	**CO**	**NO_X**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**	**CO_2**	**ROG**	**CO**	**NO_X**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**	**CO_2**
c																							
	General Construction Trucks	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Excavator	nonroad	428	0.57	1	8	1951.68	1	g/hp-hr	0.2500	0.7620	2.2350	0.0030	0.0800	0.0728	324.2220	1.08	3.28	9.62	0.01	0.34	0.31	1395.01
	Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.2740	0.7910	2.7070	0.0030	0.0950	0.0865	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.5690	2.2130	3.5740	0.0040	0.3100	0.2821	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.7480	2.6030	4.4790	0.0040	0.3950	0.3595	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3310	1.4730	2.5140	0.0030	0.1460	0.1329	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2220	0.7730	2.0820	0.0020	0.0780	0.0710	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2220	0.7730	2.0820	0.0020	0.0780	0.0710	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.0360	2.7860	2.5900	0.0030	0.2530	0.2302	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.6410	2.8700	4.3510	0.0070	0.2510	0.2284	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2410	0.7340	2.4120	0.0030	0.0820	0.0746	290.9300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2610	0.6970	2.7420	0.0030	0.0880	0.0801	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2540	0.8750	2.4050	0.0030	0.0880	0.0801	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.63	1.85	5.42	0.01	0.20	0.18	757.80
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2750	0.8460	2.7850	0.0030	0.0940	0.0855	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.1900	0.7790	1.9780	0.0050	0.0610	0.0555	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.6640	2.7110	4.3990	0.0050	0.3570	0.3249	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	**Miles / Trip**	**Daily Trips**	**Idling Time**	**Miles/ Day**	**Acres Disturbed**															
	On-road Truck - 10 mph	nonroad		0.25	0		0		g/mile	6.014	16.653	22.473	0.03	1.365	1.24215	3114.823	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - 25 mph	nonroad		0.5	0		0		g/mile	1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - 55 mph	nonroad		40	0		0		g/mile	0.745	4.425	12.174	0.016	0.504	0.45864	1623.198	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			0	5			g/mile	10.935	45.125	109.606	0.061	1.404	1.27764	6392.797	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.057	2.071	0.192	0.003	0.01	0.0091	340.825	0.01	0.37	0.03	0.00	0.00	0.00	60.86
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.043	1.59	0.186	0.003	0.008	0.00728	308.785	0.01	0.28	0.03	0.00	0.00	0.00	55.14
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						4.298209366	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	31.51	6.53	0.00
																Total	**1.72**	**5.79**	**15.10**	**0.02**	**32.05**	**7.03**	**2268.82**

Emission Rates

Circulation Improvements — 2011

23 Realign and reconstruct Avalon Blvd c	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.66	1.96	5.91	0.01	0.22	0.20	757.80
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.2620	0.8030	2.4440	0.0030	0.0890	0.0810	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.2900	0.8270	2.9300	0.0030	0.1050	0.0956	307.1580	0.37	1.06	3.77	0.00	0.14	0.12	394.92
	Vibratory Roller	nonroad	95	0.56	1	6	319.2	1	g/hp-hr	0.6080	2.2330	3.7820	0.0040	0.3300	0.3003	318.5340	0.43	1.57	2.66	0.00	0.23	0.21	224.15
	Paving Machine	nonroad	104	0.53	1	6	330.72	1	g/hp-hr	0.7910	2.6310	4.7100	0.0040	0.4170	0.3795	352.6630	0.58	1.92	3.43	0.00	0.30	0.28	257.13
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3500	1.4790	2.6720	0.0030	0.1570	0.1429	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2340	0.8330	2.2400	0.0020	0.0850	0.0774	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2340	0.8330	2.2400	0.0020	0.0850	0.0774	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1210	2.8790	2.6350	0.0030	0.2670	0.2430	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.6730	2.9280	4.5440	0.0070	0.2660	0.2421	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.66	1.96	5.91	0.01	0.22	0.20	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2540	0.7900	2.6080	0.0030	0.0900	0.0819	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2760	0.7290	2.9580	0.0030	0.0970	0.0883	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2670	0.9290	2.6000	0.0030	0.0970	0.0883	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.66	1.96	5.91	0.01	0.22	0.20	757.80
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2900	0.9110	3.0120	0.0030	0.1030	0.0937	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.2020	0.7810	2.2970	0.0050	0.0730	0.0664	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.7180	2.7400	4.6830	0.0050	0.3810	0.3467	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed																
	On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	6.631	18.678	24.88	0.03	1.577	1.43507	3109.241	0.01	0.02	0.03	0.00	0.00	0.00	3.43
	On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.02	0.03	0.00	0.00	0.00	4.39
	On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.825	4.871	13.705	0.015	0.555	0.50505	1618.88	0.15	0.86	2.42	0.00	0.10	0.09	285.52
	Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			2	5			g/mile	11.43	45.685	107.71	0.061	1.557	1.41687	6368.055	0.00	0.02	0.04	0.00	0.00	0.00	2.34
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.067	2.281	0.214	0.003	0.01	0.0091	341.46	0.01	0.41	0.04	0.00	0.00	0.00	60.98
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.051	1.777	0.209	0.003	0.008	0.00728	309.366	0.01	0.32	0.04	0.00	0.00	0.00	55.24
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						0.091827365	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	0.67	0.14	0.00
																Total	3.54	12.08	30.19	0.03	2.11	1.45	3561.50

Realign and Reconstruct Broad 24 Avenue c	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.66	1.96	5.91	0.01	0.22	0.20	757.80
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.2620	0.8030	2.4440	0.0030	0.0890	0.0810	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.2900	0.8270	2.9300	0.0030	0.1050	0.0956	307.1580	0.37	1.06	3.77	0.00	0.14	0.12	394.92
	Vibratory Roller	nonroad	95	0.56	1	6	319.2	1	g/hp-hr	0.6080	2.2330	3.7820	0.0040	0.3300	0.3003	318.5340	0.43	1.57	2.66	0.00	0.23	0.21	224.15
	Paving Machine	nonroad	104	0.53	1	6	330.72	1	g/hp-hr	0.7910	2.6310	4.7100	0.0040	0.4170	0.3795	352.6630	0.58	1.92	3.43	0.00	0.30	0.28	257.13
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3500	1.4790	2.6720	0.0030	0.1570	0.1429	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2340	0.8330	2.2400	0.0020	0.0850	0.0774	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2340	0.8330	2.2400	0.0020	0.0850	0.0774	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1210	2.8790	2.6350	0.0030	0.2670	0.2430	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.6730	2.9280	4.5440	0.0070	0.2660	0.2421	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.66	1.96	5.91	0.01	0.22	0.20	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2540	0.7900	2.6080	0.0030	0.0900	0.0819	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2760	0.7290	2.9580	0.0030	0.0970	0.0883	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2670	0.9290	2.6000	0.0030	0.0970	0.0883	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.66	1.96	5.91	0.01	0.22	0.20	757.80
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2900	0.9110	3.0120	0.0030	0.1030	0.0937	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.2020	0.7810	2.2970	0.0050	0.0730	0.0664	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.7180	2.7400	4.6830	0.0050	0.3810	0.3467	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed																
	On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	6.631	18.678	24.88	0.03	1.577	1.43507	3109.241	0.01	0.02	0.03	0.00	0.00	0.00	3.43
	On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.02	0.03	0.00	0.00	0.00	4.39
	On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.825	4.871	13.705	0.015	0.555	0.50505	1618.88	0.15	0.86	2.42	0.00	0.10	0.09	285.52
	Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			2	5			g/mile	11.43	45.685	107.71	0.061	1.557	1.41687	6368.055	0.00	0.02	0.04	0.00	0.00	0.00	2.34
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.067	2.281	0.214	0.003	0.01	0.0091	341.46	0.01	0.41	0.04	0.00	0.00	0.00	60.98
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.051	1.777	0.209	0.003	0.008	0.00728	309.366	0.01	0.32	0.04	0.00	0.00	0.00	55.24
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						0.110192837	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	0.81	0.17	0.00
																Total	3.54	12.08	30.19	0.03	2.24	1.47	3561.50

Emission Rates

											Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
25 Realign and Reconstruct Water Street		2012																						
	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units		ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
c																								
	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr		0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.63	1.85	5.42	0.01	0.20	0.18	757.80
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr		0.2500	0.7620	2.2350	0.0030	0.0800	0.0728	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr		0.2740	0.7910	2.7070	0.0030	0.0950	0.0865	307.1580	0.35	1.02	3.48	0.00	0.12	0.11	394.92
	Vibratory Roller	nonroad	95	0.56	1	6	319.2	1	g/hp-hr		0.5690	2.2130	3.5740	0.0040	0.3100	0.2821	318.5340	0.40	1.56	2.52	0.00	0.22	0.20	224.15
	Paving Machine	nonroad	104	0.53	1	6	330.72	1	g/hp-hr		0.7480	2.6030	4.4790	0.0040	0.3950	0.3595	352.6630	0.55	1.90	3.27	0.00	0.29	0.26	257.13
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr		0.3310	1.4730	2.5140	0.0030	0.1460	0.1329	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr		0.2220	0.7730	2.0820	0.0020	0.0780	0.0710	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr		0.2220	0.7730	2.0820	0.0020	0.0780	0.0710	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr		1.0360	2.7860	2.5900	0.0030	0.2530	0.2302	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr		0.6410	2.8700	4.3510	0.0070	0.2510	0.2284	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr		0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.63	1.85	5.42	0.01	0.20	0.18	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr		0.2410	0.7340	2.4120	0.0030	0.0820	0.0746	290.9300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr		0.2610	0.6970	2.7420	0.0030	0.0880	0.0801	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr		0.2540	0.8750	2.4050	0.0030	0.0880	0.0801	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr		0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.63	1.85	5.42	0.01	0.20	0.18	757.80
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr		0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr		0.2750	0.8460	2.7850	0.0030	0.0940	0.0855	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr		0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr		0.1900	0.7790	1.9780	0.0050	0.0610	0.0555	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr		0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr		0.6640	2.7110	4.3990	0.0050	0.3570	0.3249	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr		0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed																
	On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile		6.014	16.653	22.473	0.03	1.365	1.24215	3114.823	0.01	0.02	0.02	0.00	0.00	0.00	3.43
	On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile		1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.02	0.03	0.00	0.00	0.00	4.40
	On-road Truck - 55 mph	nonroad		40	2		80		g/mile		0.745	4.425	12.174	0.016	0.504	0.45864	1623.198	0.13	0.78	2.15	0.00	0.09	0.08	286.28
	Dredge Materials Haul Truck - Composit	nonroad							g/mile		1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile		1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			2	5			g/mile		10.935	45.125	109.606	0.061	1.404	1.27764	6392.797	0.00	0.02	0.04	0.00	0.00	0.00	2.35
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile		0.057	2.071	0.192	0.003	0.01	0.0091	340.825	0.01	0.37	0.03	0.00	0.00	0.00	60.86
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile		0.043	1.59	0.186	0.003	0.008	0.00728	308.785	0.01	0.28	0.03	0.00	0.00	0.00	55.14
	Building Demolition	demo							lb/Kcf						0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						0.146923783	lbs/acre/day		0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	1.08	0.22	0.00
																	Total	3.35	11.52	27.82	0.03	2.39	1.42	3562.08

											Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
Off Street Parking Lots		2011																						
26 1st parking lot south of Water Street at Fries Avenue	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units		ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
c																								
	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr		0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.66	1.96	5.91	0.01	0.22	0.20	757.80
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr		0.2620	0.8030	2.4440	0.0030	0.0890	0.0810	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr		0.2900	0.8270	2.9300	0.0030	0.1050	0.0956	307.1580	0.37	1.06	3.77	0.00	0.14	0.12	394.92
	Vibratory Roller	nonroad	95	0.56	1	6	319.2	1	g/hp-hr		0.6080	2.2330	3.7820	0.0040	0.3300	0.3003	318.5340	0.43	1.57	2.66	0.00	0.23	0.21	224.15
	Paving Machine	nonroad	104	0.53	1	6	330.72	1	g/hp-hr		0.7910	2.6310	4.7100	0.0040	0.4170	0.3795	352.6630	0.58	1.92	3.43	0.00	0.30	0.28	257.13
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr		0.3500	1.4790	2.6720	0.0030	0.1570	0.1429	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr		0.2340	0.8330	2.2400	0.0020	0.0850	0.0774	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr		0.2340	0.8330	2.2400	0.0020	0.0850	0.0774	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr		1.1210	2.8790	2.6350	0.0030	0.2670	0.2430	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr		0.6730	2.9280	4.5440	0.0070	0.2660	0.2421	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr		0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.66	1.96	5.91	0.01	0.22	0.20	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr		0.2540	0.7900	2.6080	0.0030	0.0900	0.0819	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr		0.2760	0.7290	2.9580	0.0030	0.0970	0.0883	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr		0.2670	0.9290	2.6000	0.0030	0.0970	0.0883	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr		0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.66	1.96	5.91	0.01	0.22	0.20	757.80
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr		0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr		0.2900	0.9110	3.0120	0.0030	0.1030	0.0937	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr		0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr		0.2020	0.7810	2.2970	0.0050	0.0730	0.0664	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr		0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr		0.7180	2.7400	4.6830	0.0050	0.3810	0.3467	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr		0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed																
	On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile		6.631	18.678	24.88	0.03	1.577	1.43507	3109.241	0.01	0.02	0.03	0.00	0.00	0.00	3.43
	On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile		1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.02	0.03	0.00	0.00	0.00	4.39
	On-road Truck - 55 mph	nonroad		40	2		80		g/mile		0.825	4.871	13.705	0.015	0.555	0.50505	1618.88	0.15	0.86	2.42	0.00	0.10	0.09	285.52
	Dredge Materials Haul Truck - Composit	nonroad							g/mile		1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile		1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			2	5			g/mile		11.43	45.685	107.71	0.061	1.557	1.41687	6368.055	0.00	0.02	0.04	0.00	0.00	0.00	2.34
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile		0.067	2.281	0.214	0.003	0.01	0.0091	341.46	0.01	0.41	0.04	0.00	0.00	0.00	60.98
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile		0.051	1.777	0.209	0.003	0.008	0.00728	309.366	0.01	0.32	0.04	0.00	0.00	0.00	55.24
	Building Demolition	demo							lb/Kcf						0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						0.574	lbs/acre/day		0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	4.21	0.87	0.00
																	Total	3.54	12.08	30.19	0.03	5.64	2.18	3561.50

Emission Rates

2011

2nd parking lot south of Water Street at Avalon

c

Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
									Emission Factor (g/hp-hr)							*Daily Emission Rates (lb/day)*						
General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.66	1.96	5.91	0.01	0.22	0.20	757.80
Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.2620	0.8030	2.4440	0.0030	0.0890	0.0810	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.2900	0.8270	2.9300	0.0030	0.1050	0.0956	307.1580	0.37	1.06	3.77	0.00	0.14	0.12	394.92
Vibratory Roller	nonroad	95	0.56	1	6	319.2	1	g/hp-hr	0.6080	2.2330	3.7820	0.0040	0.3300	0.3003	318.5340	0.43	1.57	2.66	0.00	0.23	0.21	224.15
Paving Machine	nonroad	104	0.53	1	6	330.72	1	g/hp-hr	0.7910	2.6310	4.7100	0.0040	0.4170	0.3795	352.6630	0.58	1.92	3.43	0.00	0.30	0.28	257.13
Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3500	1.4790	2.6720	0.0030	0.1570	0.1429	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2340	0.8330	2.2400	0.0020	0.0850	0.0774	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2340	0.8330	2.2400	0.0020	0.0850	0.0774	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1210	2.8790	2.6350	0.0030	0.2670	0.2430	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.6730	2.9280	4.5440	0.0070	0.2660	0.2421	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.66	1.96	5.91	0.01	0.22	0.20	757.80
Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2540	0.7900	2.6080	0.0030	0.0900	0.0819	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2760	0.7290	2.9580	0.0030	0.0970	0.0883	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2670	0.9290	2.6000	0.0030	0.0970	0.0883	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dump Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.66	1.96	5.91	0.01	0.22	0.20	757.80
Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2900	0.9110	3.0120	0.0030	0.1030	0.0937	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.2020	0.7810	2.2970	0.0050	0.0730	0.0664	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.7180	2.7400	4.6830	0.0050	0.3810	0.3467	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	6.631	18.678	24.88	0.03	1.577	1.43507	3109.241	0.01	0.02	0.03	0.00	0.00	0.00	3.43
On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.02	0.03	0.00	0.00	0.00	4.39
On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.825	4.871	13.705	0.015	0.555	0.50505	1618.88	0.15	0.86	2.42	0.00	0.10	0.09	285.52
Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			2	5			g/mile	11.43	45.685	107.71	0.061	1.557	1.41687	6368.055	0.00	0.02	0.04	0.00	0.00	0.00	2.34
On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.067	2.281	0.214	0.003	0.01	0.0091	341.46	0.01	0.41	0.04	0.00	0.00	0.00	60.98
On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.051	1.777	0.209	0.003	0.008	0.00728	309.366	0.01	0.32	0.04	0.00	0.00	0.00	55.24
Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust	dust						0.62	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	4.54	0.94	0.00
															Total	3.54	12.08	30.19	0.03	5.98	2.25	3561.50

Waterfront Promenade

2010

Removal of existing wharf structure & Bulkhead Demolition & installation of rock slope protection

a

Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
									Emission Factor (g/hp-hr)							*Daily Emission Rates (lb/day)*						
General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.69	2.10	6.45	0.01	0.24	0.22	757.80
Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.2750	0.8550	2.6750	0.0030	0.0990	0.0901	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.3080	0.8680	3.1660	0.0030	0.1160	0.1056	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.6490	2.2550	3.9870	0.0040	0.3460	0.3149	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.8350	2.6620	4.9400	0.0040	0.4350	0.3959	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3690	1.4850	2.8320	0.0030	0.1640	0.1492	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2470	0.9000	2.4070	0.0020	0.0930	0.0846	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 100 ton	nonroad	335	0.43	1	6	864.3	1	g/hp-hr	0.2470	0.9000	2.4070	0.0020	0.0930	0.0846	244.5890	0.47	1.71	4.59	0.00	0.18	0.16	466.05
Welding Machine	nonroad	26	0.45	2	8	187.2	1	g/hp-hr	1.1970	2.9600	2.6770	0.0030	0.2810	0.2557	255.9650	0.49	1.22	1.10	0.00	0.12	0.11	105.64
Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.7060	2.9830	4.7310	0.0070	0.2820	0.2566	420.9200	0.12	0.51	0.80	0.00	0.05	0.04	71.42
Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.69	2.10	6.45	0.01	0.24	0.22	757.80
Vibratory Hammer & Power Pack	nonroad	350	0.43	1	6	903	1	g/hp-hr	0.2710	0.8700	2.8190	0.0030	0.1000	0.0910	290.0930	0.54	1.73	5.61	0.01	0.20	0.18	577.50
Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2970	0.7810	3.1880	0.0030	0.1080	0.0983	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2820	0.9910	2.8100	0.0030	0.1060	0.0965	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tug Boat	nonroad	2420	0.43	1	4	4162.4	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	3.42	7.53	90.36	0.04	4.93	4.53	0.00
Derrick Barge	nonroad	380	0.43	2	6	1960.8	1	g/hp-hr	0.3090	1.0040	3.2550	0.0030	0.1150	0.1047	335.5980	1.34	4.34	14.07	0.01	0.50	0.45	1450.71
Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.2170	0.7850	2.6870	0.0050	0.0870	0.0792	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.7700	2.7670	4.9440	0.0050	0.3990	0.3631	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Float Stages	nonroad	0	0	4	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	7.225	20.692	27.282	0.03	1.795	1.63345	3103.352	0.01	0.02	0.03	0.00	0.00	0.00	3.42
On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	1.564	9.253	16.327	0.019	0.686	0.62426	1986.225	0.00	0.02	0.04	0.00	0.00	0.00	4.38
On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.903	5.314	15.255	0.015	0.604	0.54964	1614.326	0.16	0.94	2.69	0.00	0.11	0.10	284.71
Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.564	9.253	16.327	0.019	0.686	0.62426	1986.225	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	1.564	9.253	16.327	0.019	0.686	0.62426	1986.225	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			2	5			g/mile	11.967	46.283	105.673	0.061	1.718	1.56338	6341.961	0.00	0.02	0.04	0.00	0.00	0.00	2.33
On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.079	2.518	0.24	0.003	0.01	0.0091	342.212	0.01	0.45	0.04	0.00	0.00	0.00	61.11
On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.061	1.991	0.235	0.003	0.007	0.00637	310.055	0.01	0.36	0.04	0.00	0.00	0.00	55.37
Building Demolition	demo	9375						lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	3.94	0.83	0.00
Fugitive Dust	dust							lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
															Total	7.97	23.05	132.32	0.08	10.50	6.85	4598.23

Emission Rates

2011

29 Installation of perimeter sheet pile bulkheads within US waters

b

Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.66	1.96	5.91	0.01	0.22	0.20	757.80
Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.2620	0.8030	2.4440	0.0030	0.0890	0.0810	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.2900	0.8270	2.9300	0.0030	0.1050	0.0956	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.6080	2.2330	3.7820	0.0040	0.3300	0.3003	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.7910	2.6310	4.7100	0.0040	0.4170	0.3795	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3500	1.4790	2.6720	0.0030	0.1570	0.1429	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2340	0.8330	2.2400	0.0020	0.0850	0.0774	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 100 ton	nonroad	335	0.43	1	6	864.3	1	g/hp-hr	0.2340	0.8330	2.2400	0.0020	0.0850	0.0774	244.5890	0.45	1.59	4.27	0.00	0.16	0.15	466.05
Welding Machine	nonroad	26	0.45	2	8	187.2	1	g/hp-hr	1.1210	2.8790	2.6350	0.0030	0.2670	0.2430	255.9650	0.46	1.19	1.09	0.00	0.11	0.10	105.64
Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6730	2.9280	4.5440	0.0070	0.2660	0.2421	420.9200	0.11	0.50	0.77	0.00	0.05	0.04	71.42
Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vibratory Hammer & Power Pack	nonroad	350	0.43	1	6	903	1	g/hp-hr	0.2540	0.7900	2.6080	0.0030	0.0900	0.0819	290.0930	0.51	1.57	5.19	0.01	0.18	0.16	577.50
Impact Hammer	nonroad	190	0.75	1	6	855	1	g/hp-hr	0.2760	0.7290	2.9580	0.0030	0.0970	0.0883	290.0930	0.52	1.37	5.58	0.01	0.18	0.17	546.80
Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2670	0.9290	2.6000	0.0030	0.0970	0.0883	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tug Boat	nonroad	2420	0.43	1	4	4162.4	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	3.42	7.53	90.36	0.04	4.93	4.53	0.00
Derrick Barge	nonroad	380	0.43	2	6	1960.8	1	g/hp-hr	0.2900	0.9110	3.0120	0.0030	0.1030	0.0937	355.5980	1.25	3.94	13.02	0.01	0.45	0.41	1537.16
Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.2020	0.7810	2.2970	0.0050	0.0730	0.0664	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2820	0.8400	2.5290	0.0030	0.0940	0.0855	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.7180	2.7400	4.6830	0.0050	0.3810	0.3467	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Float Stages	nonroad	0	0	4	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Bldg CuFt / Day	**Miles / Trip**	**Daily Trips**	**Idling Time**	**Miles/ Day**	**Acres Disturbed**															
On-road Truck - 10 mph	nonroad		0.25	1		0.25		g/mile	6.631	18.678	24.88	0.03	1.577	1.43507	3109.241	0.00	0.01	0.01	0.00	0.00	0.00	1.71
On-road Truck - 25 mph	nonroad		0.5	1		0.5		g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.01	0.02	0.00	0.00	0.00	2.20
On-road Truck - 55 mph	nonroad		40	1		40		g/mile	0.825	4.871	13.705	0.015	0.555	0.50505	1618.88	0.07	0.43	1.21	0.00	0.05	0.04	142.76
Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	1.438	8.268	14.833	0.019	0.607	0.55237	1991.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			1	5			g/mile	11.43	45.685	107.71	0.061	1.557	1.41687	6368.055	0.00	0.01	0.02	0.00	0.00	0.00	1.17
On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.067	2.281	0.214	0.003	0.01	0.0091	341.46	0.01	0.41	0.04	0.00	0.00	0.00	60.98
On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.051	1.777	0.209	0.003	0.008	0.00728	309.366	0.01	0.32	0.04	0.00	0.00	0.00	55.24
Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust	dust							lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
															Total	**7.49**	**20.83**	**127.52**	**0.08**	**6.33**	**5.81**	**4326.42**

2012

30 Piles in water

b

Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.63	1.85	5.42	0.01	0.20	0.18	757.80
Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.2500	0.7620	2.2350	0.0030	0.0800	0.0728	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.2740	0.7910	2.7070	0.0030	0.0950	0.0865	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.5690	2.2130	3.5740	0.0040	0.3100	0.2821	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.7480	2.6030	4.4790	0.0040	0.3950	0.3595	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3310	1.4730	2.5140	0.0030	0.1460	0.1329	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 150 ton	nonroad	335	0.43	1	6	864.3	1	g/hp-hr	0.2220	0.7730	2.0820	0.0020	0.0780	0.0710	244.5890	0.42	1.47	3.97	0.00	0.15	0.14	466.05
Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2220	0.7730	2.0820	0.0020	0.0780	0.0710	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.0360	2.7860	2.5900	0.0030	0.2530	0.2302	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6410	2.8700	4.3510	0.0070	0.2510	0.2284	420.9200	0.11	0.49	0.74	0.00	0.04	0.04	71.42
Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vibratory Hammer & Power Pack	nonroad	350	0.43	1	6	903	1	g/hp-hr	0.2410	0.7340	2.4120	0.0030	0.0820	0.0746	290.9300	0.48	1.46	4.80	0.01	0.16	0.15	579.17
Impact Hammer	nonroad	190	0.75	1	6	855	1	g/hp-hr	0.2610	0.6970	2.7420	0.0030	0.0880	0.0801	290.0930	0.49	1.31	5.17	0.01	0.17	0.15	546.80
Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2540	0.8750	2.4050	0.0030	0.0880	0.0801	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tug Boat	nonroad	2420	0.43	1	4	4162.4	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	3.42	7.53	90.36	0.04	4.93	4.53	0.00
Derrick Barge	nonroad	380	0.43	2	6	1960.8	1	g/hp-hr	0.2750	0.8460	2.7850	0.0030	0.0940	0.0855	335.5980	1.19	3.66	12.04	0.01	0.41	0.37	1450.71
Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.1900	0.7790	1.9780	0.0050	0.0610	0.0555	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.6640	2.7110	4.3990	0.0050	0.3570	0.3249	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Float Stages	nonroad	0	0	4	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Bldg CuFt / Day	**Miles / Trip**	**Daily Trips**	**Idling Time**	**Miles/ Day**	**Acres Disturbed**															
On-road Truck - 10 mph	nonroad		0.25	1		0.25		g/mile	6.014	16.653	22.473	0.03	1.365	1.24215	3114.823	0.00	0.01	0.01	0.00	0.00	0.00	1.72
On-road Truck - 25 mph	nonroad		0.5	1		0.5		g/mile	1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.01	0.01	0.00	0.00	0.00	2.20
On-road Truck - 55 mph	nonroad		40	1		40		g/mile	0.745	4.425	12.174	0.016	0.504	0.45864	1623.198	0.07	0.39	1.07	0.00	0.04	0.04	143.14
Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			1	5			g/mile	10.935	45.125	109.606	0.061	1.404	1.27764	6392.797	0.00	0.01	0.02	0.00	0.00	0.00	1.17
On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.057	2.071	0.192	0.003	0.01	0.0091	340.825	0.01	0.37	0.03	0.00	0.00	0.00	60.86
On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.043	1.59	0.186	0.003	0.008	0.00728	308.785	0.01	0.28	0.03	0.00	0.00	0.00	55.14
Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust	dust							lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
															Total	**6.83**	**18.84**	**123.68**	**0.08**	**6.10**	**5.60**	**4136.17**

Emission Rates

2012

31 Waterfront Boardwalk over water	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
a	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.63	1.85	5.42	0.01	0.20	0.18	757.80
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.2500	0.7620	2.2350	0.0030	0.0800	0.0728	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.2740	0.7910	2.7070	0.0030	0.0950	0.0865	307.1580	0.35	1.02	3.48	0.00	0.12	0.11	394.92
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.5690	2.2130	3.5740	0.0040	0.3100	0.2821	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.7480	2.6030	4.4790	0.0040	0.3950	0.3595	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3310	1.4730	2.5140	0.0030	0.1460	0.1329	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2220	0.7730	2.0820	0.0020	0.0780	0.0710	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2220	0.7730	2.0820	0.0020	0.0780	0.0710	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	1	8	93.6	1	g/hp-hr	1.0360	2.7860	2.5900	0.0030	0.2530	0.2302	255.9650	0.21	0.57	0.53	0.00	0.05	0.05	52.82
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6410	2.8700	4.3510	0.0070	0.2510	0.2284	420.9200	0.11	0.49	0.74	0.00	0.04	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.63	1.85	5.42	0.01	0.20	0.18	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2410	0.7340	2.4120	0.0030	0.0820	0.0746	290.9300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2610	0.6970	2.7420	0.0030	0.0880	0.0801	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2540	0.8750	2.4050	0.0030	0.0880	0.0801	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2750	0.8460	2.7850	0.0030	0.0940	0.0855	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.1900	0.7790	1.9780	0.0050	0.0610	0.0555	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.6640	2.7110	4.3990	0.0050	0.3570	0.3249	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	4	8	233.6	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.26	0.88	1.64	0.00	0.07	0.06	213.84
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	6.014	16.653	22.473	0.03	1.365	1.24215	3114.823	0.01	0.02	0.02	0.00	0.00	0.00	3.43
	On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.02	0.03	0.00	0.00	0.00	4.40
	On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.745	4.425	12.174	0.016	0.504	0.45864	1623.198	0.13	0.78	2.15	0.00	0.09	0.08	286.28
	Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			2	5			g/mile	10.935	45.125	109.606	0.061	1.404	1.27764	6392.797	0.00	0.02	0.04	0.00	0.00	0.00	2.35
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.057	2.071	0.192	0.003	0.01	0.0091	340.825	0.01	0.37	0.03	0.00	0.00	0.00	60.86
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.043	1.59	0.186	0.003	0.008	0.00728	308.785	0.01	0.28	0.03	0.00	0.00	0.00	55.14
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						1.033	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	7.57	1.57	0.00
															Total		2.35	8.15	19.53	0.03	8.34	2.27	2661.07

2012

32 Public dock	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
a	General Construction Trucks	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.2500	0.7620	2.2350	0.0030	0.0800	0.0728	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.2740	0.7910	2.7070	0.0030	0.0950	0.0865	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.5690	2.2130	3.5740	0.0040	0.3100	0.2821	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.7480	2.6030	4.4790	0.0040	0.3950	0.3595	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3310	1.4730	2.5140	0.0030	0.1460	0.1329	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2220	0.7730	2.0820	0.0020	0.0780	0.0710	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	1	6	864.3	1	g/hp-hr	0.2220	0.7730	2.0820	0.0020	0.0780	0.0710	244.5890	0.42	1.47	3.97	0.00	0.15	0.14	466.05
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.0360	2.7860	2.5900	0.0030	0.2530	0.2302	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.6410	2.8700	4.3510	0.0070	0.2510	0.2284	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2410	0.7340	2.4120	0.0030	0.0820	0.0746	290.9300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2610	0.6970	2.7420	0.0030	0.0880	0.0801	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2540	0.8750	2.4050	0.0030	0.0880	0.0801	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2750	0.8460	2.7850	0.0030	0.0940	0.0855	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.1900	0.7790	1.9780	0.0050	0.0610	0.0555	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.6640	2.7110	4.3990	0.0050	0.3570	0.3249	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	0		0		g/mile	6.014	16.653	22.473	0.03	1.365	1.24215	3114.823	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - 25 mph	nonroad		0.5	0		0		g/mile	1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - 55 mph	nonroad		40	0		0		g/mile	0.745	4.425	12.174	0.016	0.504	0.45864	1623.198	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			0	5			g/mile	10.935	45.125	109.606	0.061	1.404	1.27764	6392.797	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.057	2.071	0.192	0.003	0.01	0.0091	340.825	0.01	0.37	0.03	0.00	0.00	0.00	60.86
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.043	1.59	0.186	0.003	0.008	0.00728	308.785	0.01	0.28	0.03	0.00	0.00	0.00	55.14
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						0.184	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	1.35	0.28	0.00
															Total		0.44	2.13	4.03	0.00	1.50	0.42	582.05

Emission Rates

2012

33 Hardscaping	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
d	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.63	1.85	5.42	0.01	0.20	0.18	757.80
	Excavator	nonroad	428	0.57	1	8	1951.68	1	g/hp-hr	0.2500	0.7620	2.2350	0.0030	0.0800	0.0728	324.2220	1.08	3.28	9.62	0.01	0.34	0.31	1395.01
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.2740	0.7910	2.7070	0.0030	0.0950	0.0865	307.1580	0.35	1.02	3.48	0.00	0.12	0.11	394.92
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.5690	2.2130	3.5740	0.0040	0.3100	0.2821	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.7480	2.6030	4.4790	0.0040	0.3950	0.3595	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3310	1.4730	2.5140	0.0030	0.1460	0.1329	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2220	0.7730	2.0820	0.0020	0.0780	0.0710	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2220	0.7730	2.0820	0.0020	0.0780	0.0710	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.0360	2.7860	2.5900	0.0030	0.2530	0.2302	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6410	2.8700	4.3510	0.0070	0.2510	0.2284	420.9200	0.11	0.49	0.74	0.00	0.04	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.63	1.85	5.42	0.01	0.20	0.18	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2410	0.7340	2.4120	0.0030	0.0820	0.0746	290.9300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2610	0.6970	2.7420	0.0030	0.0880	0.0801	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2540	0.8750	2.4050	0.0030	0.0880	0.0801	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2750	0.8460	2.7850	0.0030	0.0940	0.0855	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.1900	0.7790	1.9780	0.0050	0.0610	0.0555	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.6640	2.7110	4.3990	0.0050	0.3570	0.3249	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	6.014	16.653	22.473	0.03	1.365	1.24215	3114.823	0.01	0.02	0.02	0.00	0.00	0.00	3.43
	On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.02	0.03	0.00	0.00	0.00	4.40
	On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.745	4.425	12.174	0.016	0.504	0.45864	1623.198	0.13	0.78	2.15	0.00	0.09	0.08	286.28
	Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			2	5			g/mile	10.935	45.125	109.606	0.061	1.404	1.27764	6392.797	0.00	0.02	0.04	0.00	0.00	0.00	2.35
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	5		45		g/mile	0.057	2.071	0.192	0.003	0.01	0.0091	340.825	0.01	0.21	0.02	0.00	0.00	0.00	33.81
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	5		45		g/mile	0.043	1.59	0.186	0.003	0.008	0.00728	308.785	0.00	0.16	0.02	0.00	0.00	0.00	30.63
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						4.626	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	33.91	7.03	0.00
																Total	2.95	9.68	26.95	0.04	34.90	7.94	3737.86

2013

34 Landscaping	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
d	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2580	0.7570	2.1270	0.0030	0.0750	0.0683	324.2220	0.60	1.77	4.97	0.01	0.18	0.16	757.80
	Excavator	nonroad	428	0.57	1	8	1951.68	1	g/hp-hr	0.2410	0.7310	2.0480	0.0030	0.0720	0.0655	324.2220	1.04	3.15	8.81	0.01	0.31	0.28	1395.01
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.2590	0.7600	2.5000	0.0030	0.0860	0.0783	307.1580	0.33	0.98	3.21	0.00	0.11	0.10	394.92
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.5330	2.1940	3.3770	0.0040	0.3000	0.2730	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.7070	2.5770	4.2590	0.0040	0.3720	0.3385	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3140	1.4680	2.3650	0.0030	0.1360	0.1238	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2110	0.7190	1.9330	0.0020	0.0700	0.0637	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2110	0.7190	1.9330	0.0020	0.0700	0.0637	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.9460	2.6880	2.4890	0.0030	0.2330	0.2120	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6100	2.8120	4.1600	0.0070	0.2360	0.2148	420.9200	0.10	0.48	0.71	0.00	0.04	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2580	0.7570	2.1270	0.0030	0.0750	0.0683	324.2220	0.60	1.77	4.97	0.01	0.18	0.16	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2310	0.6920	2.2240	0.0030	0.0750	0.0683	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2480	0.6750	2.5340	0.0030	0.0800	0.0728	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2420	0.8290	2.2240	0.0030	0.0790	0.0719	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2580	0.7570	2.1270	0.0030	0.0750	0.0683	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2630	0.7980	2.5690	0.0030	0.0860	0.0783	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1680	0.0050	0.1230	0.1119	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.1800	0.7780	1.7310	0.0050	0.0500	0.0455	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2580	0.7570	2.1270	0.0030	0.0750	0.0683	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.6100	2.6840	4.1200	0.0050	0.3280	0.2985	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1680	0.0050	0.1230	0.1119	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	5.39	14.66	20.105	0.03	1.163	1.05833	3120.276	0.01	0.02	0.02	0.00	0.00	0.00	3.44
	On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	1.179	6.36	11.89	0.019	0.46	0.4186	2001.613	0.00	0.01	0.03	0.00	0.00	0.00	4.41
	On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.665	3.982	10.692	0.016	0.454	0.41314	1627.416	0.12	0.70	1.89	0.00	0.08	0.07	287.02
	Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.179	6.36	11.89	0.019	0.46	0.4186	2001.613	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	1.179	6.36	11.89	0.019	0.46	0.4186	2001.613	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			2	5			g/mile	10.477	44.601	111.397	0.061	1.257	1.14387	6416.956	0.00	0.02	0.04	0.00	0.00	0.00	2.36
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	5		45		g/mile	0.049	1.885	0.172	0.003	0.01	0.0091	340.293	0.00	0.19	0.02	0.00	0.00	0.00	33.76
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	5		45		g/mile	0.037	1.429	0.166	0.003	0.008	0.00728	308.297	0.00	0.14	0.02	0.00	0.00	0.00	30.59
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						1.524	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	11.17	2.32	0.00
																Total	2.82	9.22	24.68	0.04	12.07	3.13	3738.53

Emission Rates

2013

35 Trees

d

Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2580	0.7570	2.1270	0.0030	0.0750	0.0683	324.2220	0.60	1.77	4.97	0.01	0.18	0.16	757.80
Excavator	nonroad	428	0.57	1	8	1951.68	1	g/hp-hr	0.2410	0.7310	2.0480	0.0030	0.0720	0.0655	324.2220	1.04	3.15	8.81	0.01	0.31	0.28	1395.01
Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.2590	0.7600	2.5000	0.0030	0.0860	0.0783	307.1580	0.33	0.98	3.21	0.00	0.11	0.10	394.92
Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.5330	2.1940	3.3770	0.0040	0.3000	0.2730	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.7070	2.5770	4.2590	0.0040	0.3720	0.3385	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3140	1.4680	2.3650	0.0030	0.1360	0.1238	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2110	0.7190	1.9330	0.0020	0.0700	0.0637	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2110	0.7190	1.9330	0.0020	0.0700	0.0637	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.9460	2.6880	2.4890	0.0030	0.2330	0.2120	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6100	2.8120	4.1600	0.0070	0.2360	0.2148	420.9200	0.10	0.48	0.71	0.00	0.04	0.04	71.42
Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2580	0.7570	2.1270	0.0030	0.0750	0.0683	324.2220	0.60	1.77	4.97	0.01	0.18	0.16	757.80
Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2310	0.6920	2.2240	0.0030	0.0750	0.0683	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2480	0.6750	2.5340	0.0030	0.0800	0.0728	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2420	0.8290	2.2240	0.0030	0.0790	0.0719	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2580	0.7570	2.1270	0.0030	0.0750	0.0683	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2630	0.7980	2.5690	0.0030	0.0860	0.0783	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1680	0.0050	0.1230	0.1119	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.1800	0.7780	1.7310	0.0050	0.0500	0.0455	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2580	0.7570	2.1270	0.0030	0.0750	0.0683	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.6100	2.6840	4.1200	0.0050	0.3280	0.2985	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1680	0.0050	0.1230	0.1119	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Equipment	Type	Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	5.39	14.66	20.105	0.03	1.163	1.05833	3120.276	0.01	0.02	0.02	0.00	0.00	0.00	3.44
On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	1.179	6.36	11.89	0.019	0.46	0.4186	2001.613	0.00	0.01	0.03	0.00	0.00	0.00	4.41
On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.665	3.982	10.692	0.016	0.454	0.41314	1627.416	0.12	0.70	1.89	0.00	0.08	0.07	287.02
Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.179	6.36	11.89	0.019	0.46	0.4186	2001.613	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	1.179	6.36	11.89	0.019	0.46	0.4186	2001.613	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			2	5			g/mile	10.477	44.601	111.397	0.061	1.257	1.14387	6416.956	0.00	0.02	0.04	0.00	0.00	0.00	2.36
On-road Crew Vehicle - 30 mph - Compo	nonroad		9	5		45		g/mile	0.049	1.885	0.172	0.003	0.01	0.0091	340.293	0.00	0.19	0.02	0.00	0.00	0.00	33.76
On-road Crew Vehicle - 55 mph - Compo	nonroad		9	5		45		g/mile	0.037	1.429	0.166	0.003	0.008	0.00728	308.297	0.00	0.14	0.02	0.00	0.00	0.00	30.59
Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust	dust							lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
																Total	2.82	9.22	24.68	0.04	0.90	0.82	3738.53

2012

36 Water Feature on tunnel

f

Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
General Construction Trucks	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.2500	0.7620	2.2350	0.0030	0.0800	0.0728	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.2740	0.7910	2.7070	0.0030	0.0950	0.0865	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.5690	2.2130	3.5740	0.0040	0.3100	0.2821	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.7480	2.6030	4.4790	0.0040	0.3950	0.3595	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3310	1.4730	2.5140	0.0030	0.1460	0.1329	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2220	0.7730	2.0820	0.0020	0.0780	0.0710	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2220	0.7730	2.0820	0.0020	0.0780	0.0710	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.0360	2.7860	2.5900	0.0030	0.2530	0.2302	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.6410	2.8700	4.3510	0.0070	0.2510	0.2284	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2410	0.7340	2.4120	0.0030	0.0820	0.0746	290.9300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2610	0.6970	2.7420	0.0030	0.0880	0.0801	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2540	0.8750	2.4050	0.0030	0.0880	0.0801	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2750	0.8460	2.7850	0.0030	0.0940	0.0855	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.1900	0.7790	1.9780	0.0050	0.0610	0.0555	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.6640	2.7110	4.3990	0.0050	0.3570	0.3249	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Equipment	Type	Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
On-road Truck - 10 mph	nonroad		0.25	0		0		g/mile	6.014	16.653	22.473	0.03	1.365	1.24215	3114.823	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - 25 mph	nonroad		0.5	0		0		g/mile	1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - 55 mph	nonroad		40	0		0		g/mile	0.745	4.425	12.174	0.016	0.504	0.45864	1623.198	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			0	5			g/mile	10.935	45.125	109.606	0.061	1.404	1.27764	6392.797	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Crew Vehicle - 30 mph - Compo	nonroad		9	18		162		g/mile	0.057	2.071	0.192	0.003	0.01	0.0091	340.825	0.02	0.74	0.07	0.00	0.00	0.00	121.72
On-road Crew Vehicle - 55 mph - Compo	nonroad		9	18		162		g/mile	0.043	1.59	0.186	0.003	0.008	0.00728	308.785	0.02	0.57	0.07	0.00	0.00	0.00	110.28
Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust	dust							lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
																Total	0.04	1.31	0.14	0.00	0.01	0.01	232.00

Emission Rates

Observation Tower 2012

37 Concrete Prep.	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
c	General Construction Trucks	nonroad	310	0.57	2	6	2120.4	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	1.26	3.71	10.83	0.01	0.39	0.36	1515.61
	Excavator	nonroad	428	0.57	1	8	1951.68	1	g/hp-hr	0.2500	0.7620	2.2350	0.0030	0.0800	0.0728	324.2220	1.08	3.28	9.62	0.01	0.34	0.31	1395.01
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.2740	0.7910	2.7070	0.0030	0.0950	0.0865	307.1580	0.35	1.02	3.48	0.00	0.12	0.11	394.92
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.5690	2.2130	3.5740	0.0040	0.3100	0.2821	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.7480	2.6030	4.4790	0.0040	0.3950	0.3595	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	1	6	392.16	1	g/hp-hr	0.3310	1.4730	2.5140	0.0030	0.1460	0.1329	244.5890	0.29	1.27	2.17	0.00	0.13	0.11	211.46
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2220	0.7730	2.0820	0.0020	0.0780	0.0710	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2220	0.7730	2.0820	0.0020	0.0780	0.0710	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	1	8	93.6	1	g/hp-hr	1.0360	2.7860	2.5900	0.0030	0.2530	0.2302	255.9650	0.21	0.57	0.53	0.00	0.05	0.05	52.82
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6410	2.8700	4.3510	0.0070	0.2510	0.2284	420.9200	0.11	0.49	0.74	0.00	0.04	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.63	1.85	5.42	0.01	0.20	0.18	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2410	0.7340	2.4120	0.0030	0.0820	0.0746	290.9300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2610	0.6970	2.7420	0.0030	0.0880	0.0801	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2540	0.8750	2.4050	0.0030	0.0880	0.0801	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2750	0.8460	2.7850	0.0030	0.0940	0.0855	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	4	8	233.6	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.26	0.88	1.64	0.00	0.07	0.06	213.84
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.1900	0.7790	1.9780	0.0050	0.0610	0.0555	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.6640	2.7110	4.3990	0.0050	0.3570	0.3249	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	4	8	233.6	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.26	0.88	1.64	0.00	0.07	0.06	213.84
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	3		0.75		g/mile	6.014	16.653	22.473	0.03	1.365	1.24215	3114.823	0.01	0.03	0.04	0.00	0.00	0.00	5.15
	On-road Truck - 25 mph	nonroad		0.5	3		1.5		g/mile	1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.02	0.04	0.00	0.00	0.00	6.60
	On-road Truck - 55 mph	nonroad		40	3		120		g/mile	0.745	4.425	12.174	0.016	0.504	0.45864	1623.198	0.20	1.17	3.22	0.00	0.13	0.12	429.42
	Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			3	5			g/mile	10.935	45.125	109.606	0.061	1.404	1.27764	6392.797	0.01	0.02	0.06	0.00	0.00	0.00	3.52
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.057	2.071	0.192	0.003	0.01	0.0091	340.825	0.01	0.37	0.03	0.00	0.00	0.00	60.86
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.043	1.59	0.186	0.003	0.008	0.00728	308.785	0.01	0.28	0.03	0.00	0.00	0.00	55.14
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						4.298209366	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	31.51	6.53	0.00
																Total	4.68	15.85	39.49	0.05	33.05	7.94	5387.41

2012

37.1 Concrete Pour	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
c	General Construction Trucks	nonroad	310	0.57	2	6	2120.4	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	1.26	3.71	10.83	0.01	0.39	0.36	1515.61
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.2500	0.7620	2.2350	0.0030	0.0800	0.0728	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.2740	0.7910	2.7070	0.0030	0.0950	0.0865	307.1580	0.35	1.02	3.48	0.00	0.12	0.11	394.92
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.5690	2.2130	3.5740	0.0040	0.3100	0.2821	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.7480	2.6030	4.4790	0.0040	0.3950	0.3595	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	1	6	392.16	1	g/hp-hr	0.3310	1.4730	2.5140	0.0030	0.1460	0.1329	244.5890	0.29	1.27	2.17	0.00	0.13	0.11	211.46
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2220	0.7730	2.0820	0.0020	0.0780	0.0710	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2220	0.7730	2.0820	0.0020	0.0780	0.0710	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.0360	2.7860	2.5900	0.0030	0.2530	0.2302	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6410	2.8700	4.3510	0.0070	0.2510	0.2284	420.9200	0.11	0.49	0.74	0.00	0.04	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2410	0.7340	2.4120	0.0030	0.0820	0.0746	290.9300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2610	0.6970	2.7420	0.0030	0.0880	0.0801	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2540	0.8750	2.4050	0.0030	0.0880	0.0801	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2750	0.8460	2.7850	0.0030	0.0940	0.0855	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.1900	0.7790	1.9780	0.0050	0.0610	0.0555	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	2	4	2184.24	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	1.30	3.82	11.16	0.01	0.40	0.37	1561.24
	Concrete Pump	nonroad	53	0.74	2	4	313.76	1	g/hp-hr	0.6640	2.7110	4.3990	0.0050	0.3570	0.3249	420.9200	0.46	1.88	3.04	0.00	0.25	0.22	291.15
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	4		1		g/mile	6.014	16.653	22.473	0.03	1.365	1.24215	3114.823	0.01	0.04	0.05	0.00	0.00	0.00	6.87
	On-road Truck - 25 mph	nonroad		0.5	4		2		g/mile	1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.01	0.03	0.06	0.00	0.00	0.00	8.80
	On-road Truck - 55 mph	nonroad		40	4		160		g/mile	0.745	4.425	12.174	0.016	0.504	0.45864	1623.198	0.26	1.56	4.29	0.01	0.18	0.16	572.56
	Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			4	5			g/mile	10.935	45.125	109.606	0.061	1.404	1.27764	6392.797	0.01	0.03	0.08	0.00	0.00	0.00	4.70
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.057	2.071	0.192	0.003	0.01	0.0091	340.825	0.01	0.37	0.03	0.00	0.00	0.00	60.86
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.043	1.59	0.186	0.003	0.008	0.00728	308.785	0.01	0.28	0.03	0.00	0.00	0.00	55.14
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						4.298209366	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	31.51	6.53	0.00
																Total	4.07	14.49	35.97	0.05	33.03	7.92	4754.72

Emission Rates

										Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
37.2 Steel Work	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
c																							
	General Construction Trucks	nonroad	310	0.57	2	6	2120.4	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	1.26	3.71	10.83	0.01	0.39	0.36	1515.61
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.2500	0.7620	2.2350	0.0030	0.0800	0.0728	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.2740	0.7910	2.7070	0.0030	0.0950	0.0865	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.5690	2.2130	3.5740	0.0040	0.3100	0.2821	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.7480	2.6030	4.4790	0.0040	0.3950	0.3595	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3310	1.4730	2.5140	0.0030	0.1460	0.1329	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	1	6	864.3	1	g/hp-hr	0.2220	0.7730	2.0820	0.0020	0.0780	0.0710	244.5890	0.42	1.47	3.97	0.00	0.15	0.14	466.05
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2220	0.7730	2.0820	0.0020	0.0780	0.0710	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.0360	2.7860	2.5900	0.0030	0.2530	0.2302	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6410	2.8700	4.3510	0.0070	0.2510	0.2284	420.9200	0.11	0.49	0.74	0.00	0.04	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.63	1.85	5.42	0.01	0.20	0.18	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2410	0.7340	2.4120	0.0030	0.0820	0.0746	290.9300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	1	6	855	1	g/hp-hr	0.2610	0.6970	2.7420	0.0030	0.0880	0.0801	290.0930	0.49	1.31	5.17	0.01	0.17	0.15	546.80
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2540	0.8750	2.4050	0.0030	0.0880	0.0801	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2750	0.8460	2.7850	0.0030	0.0940	0.0855	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.1900	0.7790	1.9780	0.0050	0.0610	0.0555	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.6640	2.7110	4.3990	0.0050	0.3570	0.3249	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	3		0.75		g/mile	6.014	16.653	22.473	0.03	1.365	1.24215	3114.823	0.01	0.03	0.04	0.00	0.00	0.00	5.15
	On-road Truck - 25 mph	nonroad		0.5	3		1.5		g/mile	1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.02	0.04	0.00	0.00	0.00	6.60
	On-road Truck - 55 mph	nonroad		40	3		120		g/mile	0.745	4.425	12.174	0.016	0.504	0.45864	1623.198	0.20	1.17	3.22	0.00	0.13	0.12	429.42
	Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			3	5			g/mile	10.935	45.125	109.606	0.061	1.404	1.27764	6392.797	0.01	0.02	0.06	0.00	0.00	0.00	3.52
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.057	2.071	0.192	0.003	0.01	0.0091	340.825	0.01	0.37	0.03	0.00	0.00	0.00	60.86
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.043	1.59	0.186	0.003	0.008	0.00728	308.785	0.01	0.28	0.03	0.00	0.00	0.00	55.14
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						4.298209366	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	31.51	6.53	0.00
																Total	3.15	10.73	29.55	0.04	32.59	7.52	3918.37

										Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
37.3 Miscellaneous	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
c																							
	General Construction Trucks	nonroad	310	0.57	2	6	2120.4	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	1.26	3.71	10.83	0.01	0.39	0.36	1515.61
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.2500	0.7620	2.2350	0.0030	0.0800	0.0728	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.2740	0.7910	2.7070	0.0030	0.0950	0.0865	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.5690	2.2130	3.5740	0.0040	0.3100	0.2821	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.7480	2.6030	4.4790	0.0040	0.3950	0.3595	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3310	1.4730	2.5140	0.0030	0.1460	0.1329	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	1	6	864.3	1	g/hp-hr	0.2220	0.7730	2.0820	0.0020	0.0780	0.0710	244.5890	0.42	1.47	3.97	0.00	0.15	0.14	466.05
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2220	0.7730	2.0820	0.0020	0.0780	0.0710	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.0360	2.7860	2.5900	0.0030	0.2530	0.2302	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6410	2.8700	4.3510	0.0070	0.2510	0.2284	420.9200	0.11	0.49	0.74	0.00	0.04	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.63	1.85	5.42	0.01	0.20	0.18	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2410	0.7340	2.4120	0.0030	0.0820	0.0746	290.9300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	1	6	855	1	g/hp-hr	0.2610	0.6970	2.7420	0.0030	0.0880	0.0801	290.0930	0.49	1.31	5.17	0.01	0.17	0.15	546.80
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2540	0.8750	2.4050	0.0030	0.0880	0.0801	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2750	0.8460	2.7850	0.0030	0.0940	0.0855	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.1900	0.7790	1.9780	0.0050	0.0610	0.0555	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.6640	2.7110	4.3990	0.0050	0.3570	0.3249	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	3		0.75		g/mile	6.014	16.653	22.473	0.03	1.365	1.24215	3114.823	0.01	0.03	0.04	0.00	0.00	0.00	5.15
	On-road Truck - 25 mph	nonroad		0.5	3		1.5		g/mile	1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.02	0.04	0.00	0.00	0.00	6.60
	On-road Truck - 55 mph	nonroad		40	3		120		g/mile	0.745	4.425	12.174	0.016	0.504	0.45864	1623.198	0.20	1.17	3.22	0.00	0.13	0.12	429.42
	Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			3	5			g/mile	10.935	45.125	109.606	0.061	1.404	1.27764	6392.797	0.01	0.02	0.06	0.00	0.00	0.00	3.52
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.057	2.071	0.192	0.003	0.01	0.0091	340.825	0.01	0.37	0.03	0.00	0.00	0.00	60.86
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.043	1.59	0.186	0.003	0.008	0.00728	308.785	0.01	0.28	0.03	0.00	0.00	0.00	55.14
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						4.298209366	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	31.51	6.53	0.00
																Total	3.15	10.73	29.55	0.04	32.59	7.52	3918.37

Emission Rates

Development 2013

Mercado on SW corner of Harry
38 Bridges and Avalon

c

Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
									Emission Factor (g/hp-hr)							*Daily Emission Rates (lb/day)*						
General Construction Trucks	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2580	0.7570	2.1270	0.0030	0.0750	0.0683	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.2410	0.7310	2.0480	0.0030	0.0720	0.0655	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.2590	0.7600	2.5000	0.0030	0.0860	0.0783	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.5330	2.1940	3.3770	0.0040	0.3000	0.2730	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.7070	2.5770	4.2590	0.0040	0.3720	0.3385	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3140	1.4680	2.3650	0.0030	0.1360	0.1238	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2110	0.7190	1.9330	0.0020	0.0700	0.0637	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2110	0.7190	1.9330	0.0020	0.0700	0.0637	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.9460	2.6880	2.4890	0.0030	0.2330	0.2120	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.6100	2.8120	4.1600	0.0070	0.2360	0.2148	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2580	0.7570	2.1270	0.0030	0.0750	0.0683	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2310	0.6920	2.2240	0.0030	0.0750	0.0683	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2480	0.6750	2.5340	0.0030	0.0800	0.0728	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2420	0.8290	2.2240	0.0030	0.0790	0.0719	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2580	0.7570	2.1270	0.0030	0.0750	0.0683	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2630	0.7980	2.5690	0.0030	0.0860	0.0783	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1680	0.0050	0.1230	0.1119	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.1800	0.7780	1.7310	0.0050	0.0500	0.0455	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2580	0.7570	2.1270	0.0030	0.0750	0.0683	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.6100	2.6840	4.1200	0.0050	0.3280	0.2985	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1680	0.0050	0.1230	0.1119	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00

		Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
On-road Truck - 10 mph	nonroad		0.25	0		0		g/mile	5.39	14.66	20.105	0.03	1.163	1.05833	3120.276	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - 25 mph	nonroad		0.5	0		0		g/mile	1.179	6.36	11.89	0.019	0.46	0.4186	2001.613	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - 55 mph	nonroad		40	0		0		g/mile	0.665	3.982	10.692	0.016	0.454	0.41314	1627.416	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.179	6.36	11.89	0.019	0.46	0.4186	2001.613	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	1.179	6.36	11.89	0.019	0.46	0.4186	2001.613	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			0	5			g/mile	10.477	44.601	111.397	0.061	1.257	1.14387	6416.956	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.049	1.885	0.172	0.003	0.01	0.0091	340.293	0.01	0.34	0.03	0.00	0.00	0.00	60.77
On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.037	1.429	0.166	0.003	0.008	0.00728	308.297	0.01	0.26	0.03	0.00	0.00	0.00	55.05
Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust	dust						1.331	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	9.76	2.02	0.00
															Total	0.02	0.59	0.06	0.00	9.76	2.03	115.82

2010

39 Light Industrial

e

Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
									Emission Factor (g/hp-hr)							*Daily Emission Rates (lb/day)*						
General Construction Trucks	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.2750	0.8550	2.6750	0.0030	0.0990	0.0901	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.3080	0.8680	3.1660	0.0030	0.1160	0.1056	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.6490	2.2550	3.9870	0.0040	0.3460	0.3149	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.8350	2.6620	4.9400	0.0040	0.4350	0.3959	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3690	1.4850	2.8320	0.0030	0.1640	0.1492	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2470	0.9000	2.4070	0.0020	0.0930	0.0846	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2470	0.9000	2.4070	0.0020	0.0930	0.0846	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1970	2.9600	2.6770	0.0030	0.2810	0.2557	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.7060	2.9830	4.7310	0.0070	0.2820	0.2566	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2710	0.8700	2.8190	0.0030	0.1000	0.0910	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2970	0.7810	3.1880	0.0030	0.1080	0.0983	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2820	0.9910	2.8100	0.0030	0.1060	0.0965	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.3090	1.0040	3.2550	0.0030	0.1150	0.1047	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.2170	0.7850	2.6870	0.0050	0.0870	0.0792	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2970	0.8980	2.7610	0.0030	0.1040	0.0946	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.7700	2.7670	4.9440	0.0050	0.3990	0.3631	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00

		Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
On-road Truck - 10 mph	nonroad		0.25	0		0		g/mile	7.225	20.692	27.282	0.03	1.795	1.63345	3103.352	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - 25 mph	nonroad		0.5	0		0		g/mile	1.564	9.253	16.327	0.019	0.686	0.62426	1986.225	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - 55 mph	nonroad		40	0		0		g/mile	0.903	5.314	15.255	0.015	0.604	0.54964	1614.326	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.564	9.253	16.327	0.019	0.686	0.62426	1986.225	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	1.564	9.253	16.327	0.019	0.686	0.62426	1986.225	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			0	5			g/mile	11.967	46.283	105.673	0.061	1.718	1.56338	6341.961	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Crew Vehicle - 30 mph - Compo	nonroad		9	5		45		g/mile	0.079	2.518	0.24	0.003	0.01	0.0091	342.212	0.01	0.25	0.02	0.00	0.00	0.00	33.95
On-road Crew Vehicle - 55 mph - Compo	nonroad		9	5		45		g/mile	0.061	1.991	0.235	0.003	0.007	0.00637	310.055	0.01	0.20	0.02	0.00	0.00	0.00	30.76
Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust	dust						1.721	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	12.61	2.62	0.00
															Total	0.01	0.45	0.05	0.00	12.62	2.62	64.71

Emission Rates

PHASE II

LADWP Oil Tanks

2012

40 Demolition of 2 tanks

c

Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
									Emission Factor (g/hp-hr)							*Daily Emission Rates (lb/day)*						
General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.63	1.85	5.42	0.01	0.20	0.18	757.80
Excavator	nonroad	428	0.57	1	8	1951.68	1	g/hp-hr	0.2500	0.7620	2.2350	0.0030	0.0800	0.0728	324.2220	1.08	3.28	9.62	0.01	0.34	0.31	1395.01
Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.2740	0.7910	2.7070	0.0030	0.0950	0.0865	307.1580	0.35	1.02	3.48	0.00	0.12	0.11	394.92
Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.5690	2.2130	3.5740	0.0040	0.3100	0.2821	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.7480	2.6030	4.4790	0.0040	0.3950	0.3595	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3310	1.4730	2.5140	0.0030	0.1460	0.1329	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2220	0.7730	2.0820	0.0020	0.0780	0.0710	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 100 ton	nonroad	335	0.43	1	6	864.3	1	g/hp-hr	0.2220	0.7730	2.0820	0.0020	0.0780	0.0710	244.5890	0.42	1.47	3.97	0.00	0.15	0.14	466.05
Welding Machine	nonroad	26	0.45	1	8	93.6	1	g/hp-hr	1.0360	2.7860	2.5900	0.0030	0.2530	0.2302	255.9650	0.21	0.57	0.53	0.00	0.05	0.05	52.82
Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6410	2.8700	4.3510	0.0070	0.2510	0.2284	420.9200	0.11	0.49	0.74	0.00	0.04	0.04	71.42
Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2410	0.7340	2.4120	0.0030	0.0820	0.0746	290.9300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2610	0.6970	2.7420	0.0030	0.0880	0.0801	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2540	0.8750	2.4050	0.0030	0.0880	0.0801	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2750	0.8460	2.7850	0.0030	0.0940	0.0855	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.1900	0.7790	1.9780	0.0050	0.0610	0.0555	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2690	0.7930	2.3170	0.0030	0.0840	0.0764	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.6640	2.7110	4.3990	0.0050	0.3570	0.3249	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00

		Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
On-road Truck - 10 mph	nonroad		0.25	1		0.25		g/mile	6.014	16.653	22.473	0.03	1.365	1.24215	3114.823	0.00	0.01	0.01	0.00	0.00	0.00	1.72
On-road Truck - 25 mph	nonroad		0.5	1		0.5		g/mile	1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.01	0.01	0.00	0.00	0.00	2.20
On-road Truck - 55 mph	nonroad		40	1		40		g/mile	0.745	4.425	12.174	0.016	0.504	0.45864	1623.198	0.07	0.39	1.07	0.00	0.04	0.04	143.14
Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	1.309	7.299	13.345	0.019	0.531	0.48321	1996.655	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			1	5			g/mile	10.935	45.125	109.606	0.061	1.404	1.27764	6392.797	0.00	0.01	0.02	0.00	0.00	0.00	1.17
On-road Crew Vehicle - 30 mph - Compc	nonroad		9	9		81		g/mile	0.057	2.071	0.192	0.003	0.01	0.0091	340.825	0.01	0.37	0.03	0.00	0.00	0.00	60.86
On-road Crew Vehicle - 55 mph - Compc	nonroad		9	9		81		g/mile	0.043	1.59	0.186	0.003	0.008	0.00728	308.785	0.01	0.28	0.03	0.00	0.00	0.00	55.14
Building Demolition	demo	9833.333333						lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	4.13	0.87	0.00
Fugitive Dust	dust							lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
															Total	2.89	9.75	24.94	0.03	5.09	1.74	3402.25

2013

41 Remediation of soil under tanks

c

Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
									Emission Factor (g/hp-hr)							*Daily Emission Rates (lb/day)*						
General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2580	0.7570	2.1270	0.0030	0.0750	0.0683	324.2220	0.60	1.77	4.97	0.01	0.18	0.16	757.80
Excavator	nonroad	428	0.57	1	8	1951.68	1	g/hp-hr	0.2410	0.7310	2.0480	0.0030	0.0720	0.0655	324.2220	1.04	3.15	8.81	0.01	0.31	0.28	1395.01
Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.2590	0.7600	2.5000	0.0030	0.0860	0.0783	307.1580	0.33	0.98	3.21	0.00	0.11	0.10	394.92
Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.5330	2.1940	3.3770	0.0040	0.3000	0.2730	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.7070	2.5770	4.2590	0.0040	0.3720	0.3385	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.3140	1.4680	2.3650	0.0030	0.1360	0.1238	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2110	0.7190	1.9330	0.0020	0.0700	0.0637	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.2110	0.7190	1.9330	0.0020	0.0700	0.0637	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.9460	2.6880	2.4890	0.0030	0.2330	0.2120	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.6100	2.8120	4.1600	0.0070	0.2360	0.2148	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2580	0.7570	2.1270	0.0030	0.0750	0.0683	324.2220	0.60	1.77	4.97	0.01	0.18	0.16	757.80
Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2310	0.6920	2.2240	0.0030	0.0750	0.0683	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2480	0.6750	2.5340	0.0030	0.0800	0.0728	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2420	0.8290	2.2240	0.0030	0.0790	0.0719	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2580	0.7570	2.1270	0.0030	0.0750	0.0683	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2630	0.7980	2.5690	0.0030	0.0860	0.0783	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1680	0.0050	0.1230	0.1119	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.1800	0.7780	1.7310	0.0050	0.0500	0.0455	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2580	0.7570	2.1270	0.0030	0.0750	0.0683	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.6100	2.6840	4.1200	0.0050	0.3280	0.2985	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1680	0.0050	0.1230	0.1119	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00

		Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	5.39	14.66	20.105	0.03	1.163	1.05833	3120.276	0.01	0.02	0.02	0.00	0.00	0.00	3.44
On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	1.179	6.36	11.89	0.019	0.46	0.4186	2001.613	0.00	0.01	0.03	0.00	0.00	0.00	4.41
On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.665	3.982	10.692	0.016	0.454	0.41314	1627.416	0.12	0.70	1.89	0.00	0.08	0.07	287.02
Dredge Materials Haul Truck - Composit	nonroad							g/mile	1.179	6.36	11.89	0.019	0.46	0.4186	2001.613	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	1.179	6.36	11.89	0.019	0.46	0.4186	2001.613	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			2	5			g/mile	10.477	44.601	111.397	0.061	1.257	1.14387	6416.956	0.00	0.02	0.04	0.00	0.00	0.00	2.36
On-road Crew Vehicle - 30 mph - Compc	nonroad		9	9		81		g/mile	0.049	1.885	0.172	0.003	0.01	0.0091	340.293	0.01	0.34	0.03	0.00	0.00	0.00	60.77
On-road Crew Vehicle - 55 mph - Compc	nonroad		9	9		81		g/mile	0.037	1.429	0.166	0.003	0.008	0.00728	308.297	0.01	0.26	0.03	0.00	0.00	0.00	55.05
Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust	dust						7	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	51.31	10.64	0.00
															Total	2.72	9.00	24.00	0.03	52.17	11.42	3718.59

Emission Rates

General Site Preparation 2015

42 Clearing and Grubbing

c

Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
									Emission Factor (g/hp-hr)							*Daily Emission Rates (lb/day)*						
General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2330	0.7080	1.6860	0.0030	0.0600	0.0546	324.2220	0.54	1.65	3.94	0.01	0.14	0.13	757.80
Excavator	nonroad	428	0.57	1	8	1951.68	1	g/hp-hr	0.2190	0.6890	1.6120	0.0030	0.0570	0.0519	324.2220	0.94	2.96	6.94	0.01	0.25	0.22	1395.01
Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.2310	0.7100	2.0390	0.0030	0.0690	0.0628	307.1580	0.30	0.91	2.62	0.00	0.09	0.08	394.92
Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.4630	2.1600	2.9690	0.0040	0.2450	0.2230	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.6300	2.5320	3.8110	0.0040	0.3240	0.2948	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.2800	1.4590	2.0350	0.0030	0.1150	0.1047	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.1890	0.6330	1.6040	0.0020	0.0580	0.0528	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.1890	0.6330	1.6040	0.0020	0.0580	0.0528	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.7730	2.5050	2.3030	0.0030	0.1940	0.1765	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.5540	2.7090	3.8080	0.0030	0.2080	0.1893	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2330	0.7080	1.6860	0.0030	0.0600	0.0546	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2090	0.6310	1.7960	0.0030	0.0610	0.0555	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2220	0.6420	2.0660	0.0030	0.0660	0.0601	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2170	0.7540	1.8120	0.0030	0.0650	0.0592	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2330	0.7080	1.6860	0.0030	0.0600	0.0546	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2380	0.7280	2.0750	0.0030	0.0700	0.0637	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.4650	0.0050	0.1190	0.1083	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.1540	0.7770	1.1110	0.0050	0.0330	0.0300	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2330	0.7080	1.6860	0.0030	0.0600	0.0546	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.5030	2.6320	3.5870	0.0050	0.2700	0.2457	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.4650	0.0050	0.1190	0.1083	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00

		Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
On-road Truck - 10 mph	nonroad		0.25	1		0.25		g/mile	4.222	11.38	15.738	0.03	0.808	0.73528	3129.144	0.00	0.01	0.01	0.00	0.00	0.00	1.72
On-road Truck - 25 mph	nonroad		0.5	1		0.5		g/mile	0.938	4.829	9.231	0.019	0.334	0.30394	2009.677	0.00	0.01	0.01	0.00	0.00	0.00	2.22
On-road Truck - 55 mph	nonroad		40	1		40		g/mile	0.518	3.263	8.038	0.016	0.359	0.32669	1634.274	0.05	0.29	0.71	0.00	0.03	0.03	144.12
Dredge Materials Haul Truck - Composit	nonroad							g/mile	0.938	4.829	9.231	0.019	0.334	0.30394	2009.677	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	0.938	4.829	9.231	0.019	0.334	0.30394	2009.677	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			1	5			g/mile	9.652	43.621	114.525	0.062	0.978	0.88998	6456.258	0.00	0.01	0.02	0.00	0.00	0.00	1.19
On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.036	1.58	0.141	0.003	0.011	0.01001	339.5	0.01	0.28	0.03	0.00	0.00	0.00	60.63
On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.027	1.169	0.135	0.003	0.008	0.00728	307.569	0.00	0.21	0.02	0.00	0.00	0.00	54.92
Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust	dust						6	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	43.98	9.12	0.00
															Total	1.85	6.33	14.30	0.03	44.49	9.58	2812.52

2015

43 Pavement Demolition

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Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
									Emission Factor (g/hp-hr)							*Daily Emission Rates (lb/day)*						
General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2330	0.7080	1.6860	0.0030	0.0600	0.0546	324.2220	0.54	1.65	3.94	0.01	0.14	0.13	757.80
Excavator	nonroad	428	0.57	1	8	1951.68	1	g/hp-hr	0.2190	0.6890	1.6120	0.0030	0.0570	0.0519	324.2220	0.94	2.96	6.94	0.01	0.25	0.22	1395.01
Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.2310	0.7100	2.0390	0.0030	0.0690	0.0628	307.1580	0.30	0.91	2.62	0.00	0.09	0.08	394.92
Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.4630	2.1600	2.9690	0.0040	0.2450	0.2230	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.6300	2.5320	3.8110	0.0040	0.3240	0.2948	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.2800	1.4590	2.0350	0.0030	0.1150	0.1047	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.1890	0.6330	1.6040	0.0020	0.0580	0.0528	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.1890	0.6330	1.6040	0.0020	0.0580	0.0528	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.7730	2.5050	2.3030	0.0030	0.1940	0.1765	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.5540	2.7090	3.8080	0.0030	0.2080	0.1893	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2330	0.7080	1.6860	0.0030	0.0600	0.0546	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2090	0.6310	1.7960	0.0030	0.0610	0.0555	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2220	0.6420	2.0660	0.0030	0.0660	0.0601	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2170	0.7540	1.8120	0.0030	0.0650	0.0592	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2330	0.7080	1.6860	0.0030	0.0600	0.0546	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2380	0.7280	2.0750	0.0030	0.0700	0.0637	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.4650	0.0050	0.1190	0.1083	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.1540	0.7770	1.1110	0.0050	0.0330	0.0300	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2330	0.7080	1.6860	0.0030	0.0600	0.0546	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.5030	2.6320	3.5870	0.0050	0.2700	0.2457	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.4650	0.0050	0.1190	0.1083	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00

		Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
On-road Truck - 10 mph	nonroad		0.25	1		0.25		g/mile	4.222	11.38	15.738	0.03	0.808	0.73528	3129.144	0.00	0.01	0.01	0.00	0.00	0.00	1.72
On-road Truck - 25 mph	nonroad		0.5	1		0.5		g/mile	0.938	4.829	9.231	0.019	0.334	0.30394	2009.677	0.00	0.01	0.01	0.00	0.00	0.00	2.22
On-road Truck - 55 mph	nonroad		40	1		40		g/mile	0.518	3.263	8.038	0.016	0.359	0.32669	1634.274	0.05	0.29	0.71	0.00	0.03	0.03	144.12
Dredge Materials Haul Truck - Composit	nonroad							g/mile	0.938	4.829	9.231	0.019	0.334	0.30394	2009.677	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	0.938	4.829	9.231	0.019	0.334	0.30394	2009.677	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			1	5			g/mile	9.652	43.621	114.525	0.062	0.978	0.88998	6456.258	0.00	0.01	0.02	0.00	0.00	0.00	1.19
On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.036	1.58	0.141	0.003	0.011	0.01001	339.5	0.01	0.28	0.03	0.00	0.00	0.00	60.63
On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.027	1.169	0.135	0.003	0.008	0.00728	307.569	0.00	0.21	0.02	0.00	0.00	0.00	54.92
Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust	dust						3	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	21.99	4.56	0.00
															Total	1.85	6.33	14.30	0.03	22.50	5.02	2812.52

Emission Rates

2015

44 Utilities Demolition

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Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2330	0.7080	1.6860	0.0030	0.0600	0.0546	324.2220	0.54	1.65	3.94	0.01	0.14	0.13	757.80
Excavator	nonroad	428	0.57	1	8	1951.68	1	g/hp-hr	0.2190	0.6890	1.6120	0.0030	0.0570	0.0519	324.2220	0.94	2.96	6.94	0.01	0.25	0.22	1395.01
Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.2310	0.7100	2.0390	0.0030	0.0690	0.0628	307.1580	0.30	0.91	2.62	0.00	0.09	0.08	394.92
Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.4630	2.1600	2.9690	0.0040	0.2450	0.2230	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.6300	2.5320	3.8110	0.0040	0.3240	0.2948	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.2800	1.4590	2.0350	0.0030	0.1150	0.1047	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.1890	0.6330	1.6040	0.0020	0.0580	0.0528	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.1890	0.6330	1.6040	0.0020	0.0580	0.0528	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.7730	2.5050	2.3030	0.0030	0.1940	0.1765	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.5540	2.7090	3.8080	0.0030	0.2080	0.1893	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2330	0.7080	1.6860	0.0030	0.0600	0.0546	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2090	0.6310	1.7960	0.0030	0.0610	0.0555	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2220	0.6420	2.0660	0.0030	0.0660	0.0601	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2170	0.7540	1.8120	0.0030	0.0650	0.0592	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2330	0.7080	1.6860	0.0030	0.0600	0.0546	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2380	0.7280	2.0750	0.0030	0.0700	0.0637	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.4650	0.0050	0.1190	0.1083	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.1540	0.7770	1.1110	0.0050	0.0330	0.0300	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2330	0.7080	1.6860	0.0030	0.0600	0.0546	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.5030	2.6320	3.5870	0.0050	0.2700	0.2457	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.4650	0.0050	0.1190	0.1083	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Equipment	Type	Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed	E.F. Units	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
On-road Truck - 10 mph	nonroad		0.25	1		0.25		g/mile	4.222	11.38	15.738	0.03	0.808	0.73528	3129.144	0.00	0.01	0.01	0.00	0.00	0.00	1.72
On-road Truck - 25 mph	nonroad		0.5	1		0.5		g/mile	0.938	4.829	9.231	0.019	0.334	0.30394	2009.677	0.00	0.01	0.01	0.00	0.00	0.00	2.22
On-road Truck - 55 mph	nonroad		40	1		40		g/mile	0.518	3.263	8.038	0.016	0.359	0.32669	1634.274	0.05	0.29	0.71	0.00	0.03	0.03	144.12
Dredge Materials Haul Truck - Composit	nonroad							g/mile	0.938	4.829	9.231	0.019	0.334	0.30394	2009.677	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	0.938	4.829	9.231	0.019	0.334	0.30394	2009.677	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			1	5			g/mile	9.652	43.621	114.525	0.062	0.978	0.88998	6456.258	0.00	0.01	0.02	0.00	0.00	0.00	1.19
On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.036	1.58	0.141	0.003	0.011	0.01001	339.5	0.01	0.28	0.03	0.00	0.00	0.00	60.63
On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.027	1.169	0.135	0.003	0.008	0.00728	307.569	0.00	0.21	0.02	0.00	0.00	0.00	54.92
Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust	dust						0.059687787	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.44	0.09	0.00
																Total	**1.85**	**6.33**	**14.30**	**0.03**	**0.95**	**0.56**	**2812.52**

2015

45 Rough Fill/Grading

c

Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2330	0.7080	1.6860	0.0030	0.0600	0.0546	324.2220	0.54	1.65	3.94	0.01	0.14	0.13	757.80
Excavator	nonroad	428	0.57	1	8	1951.68	1	g/hp-hr	0.2190	0.6890	1.6120	0.0030	0.0570	0.0519	324.2220	0.94	2.96	6.94	0.01	0.25	0.22	1395.01
Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.2310	0.7100	2.0390	0.0030	0.0690	0.0628	307.1580	0.30	0.91	2.62	0.00	0.09	0.08	394.92
Vibratory Roller	nonroad	95	0.56	1	6	319.2	1	g/hp-hr	0.4630	2.1600	2.9690	0.0040	0.2450	0.2230	318.5340	0.33	1.52	2.09	0.00	0.17	0.16	224.15
Paving Machine	nonroad	104	0.53	1	6	330.72	1	g/hp-hr	0.6300	2.5320	3.8110	0.0040	0.3240	0.2948	352.6630	0.46	1.85	2.78	0.00	0.24	0.21	257.13
Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.2800	1.4590	2.0350	0.0030	0.1150	0.1047	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.1890	0.6330	1.6040	0.0020	0.0580	0.0528	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.1890	0.6330	1.6040	0.0020	0.0580	0.0528	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.7730	2.5050	2.3030	0.0030	0.1940	0.1765	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.5540	2.7090	3.8080	0.0030	0.2080	0.1893	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2330	0.7080	1.6860	0.0030	0.0600	0.0546	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2090	0.6310	1.7960	0.0030	0.0610	0.0555	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2220	0.6420	2.0660	0.0030	0.0660	0.0601	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2170	0.7540	1.8120	0.0030	0.0650	0.0592	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dump Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2330	0.7080	1.6860	0.0030	0.0600	0.0546	324.2220	0.54	1.65	3.94	0.01	0.14	0.13	757.80
Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2380	0.7280	2.0750	0.0030	0.0700	0.0637	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.4650	0.0050	0.1190	0.1083	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.1540	0.7770	1.1110	0.0050	0.0330	0.0300	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2330	0.7080	1.6860	0.0030	0.0600	0.0546	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.5030	2.6320	3.5870	0.0050	0.2700	0.2457	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.4650	0.0050	0.1190	0.1083	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Equipment	Type	Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed	E.F. Units	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
On-road Truck - 10 mph	nonroad		0.25	1		0.25		g/mile	4.222	11.38	15.738	0.03	0.808	0.73528	3129.144	0.00	0.01	0.01	0.00	0.00	0.00	1.72
On-road Truck - 25 mph	nonroad		0.5	1		0.5		g/mile	0.938	4.829	9.231	0.019	0.334	0.30394	2009.677	0.00	0.01	0.01	0.00	0.00	0.00	2.22
On-road Truck - 55 mph	nonroad		40	1		40		g/mile	0.518	3.263	8.038	0.016	0.359	0.32669	1634.274	0.05	0.29	0.71	0.00	0.03	0.03	144.12
Dredge Materials Haul Truck - Composit	nonroad							g/mile	0.938	4.829	9.231	0.019	0.334	0.30394	2009.677	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	0.938	4.829	9.231	0.019	0.334	0.30394	2009.677	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			1	5			g/mile	9.652	43.621	114.525	0.062	0.978	0.88998	6456.258	0.00	0.01	0.02	0.00	0.00	0.00	1.19
On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.036	1.58	0.141	0.003	0.011	0.01001	339.5	0.01	0.28	0.03	0.00	0.00	0.00	60.63
On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.027	1.169	0.135	0.003	0.008	0.00728	307.569	0.00	0.21	0.02	0.00	0.00	0.00	54.92
Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust	dust						9	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	65.97	13.68	0.00
																Total	**3.18**	**11.35**	**23.10**	**0.04**	**67.03**	**14.64**	**4051.61**

Emission Rates

2015									Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
46 Surface Fill/Grading	**Equipment**	**Type**	**Hp**	**Load Factor**	**Number Active**	**Equipment Hrs/Day**	**Daily Hp-hr**	**Daily Roudtrip**	**E.F. Units**	**ROG**	**CO**	**NO_X**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**	**CO_2**	**ROG**	**CO**	**NO_X**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**	**CO_2**
c																							
	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2330	0.7080	1.6860	0.0030	0.0600	0.0546	324.2220	0.54	1.65	3.94	0.01	0.14	0.13	757.80
	Excavator	nonroad	428	0.57	1	8	1951.68	1	g/hp-hr	0.2190	0.6890	1.6120	0.0030	0.0570	0.0519	324.2220	0.94	2.96	6.94	0.01	0.25	0.22	1395.01
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.2310	0.7100	2.0390	0.0030	0.0690	0.0628	307.1580	0.30	0.91	2.62	0.00	0.09	0.08	394.92
	Vibratory Roller	nonroad	95	0.56	1	6	319.2	1	g/hp-hr	0.4630	2.1600	2.9690	0.0040	0.2450	0.2230	318.5340	0.33	1.52	2.09	0.00	0.17	0.16	224.15
	Paving Machine	nonroad	104	0.53	1	6	330.72	1	g/hp-hr	0.6300	2.5320	3.8110	0.0040	0.3240	0.2948	352.6630	0.46	1.85	2.78	0.00	0.24	0.21	257.13
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.2800	1.4590	2.0350	0.0030	0.1150	0.1047	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.1890	0.6330	1.6040	0.0020	0.0580	0.0528	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.1890	0.6330	1.6040	0.0020	0.0580	0.0528	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.7730	2.5050	2.3030	0.0030	0.1940	0.1765	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.5540	2.7090	3.8080	0.0030	0.2080	0.1893	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2330	0.7080	1.6860	0.0030	0.0600	0.0546	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2090	0.6310	1.7960	0.0030	0.0610	0.0555	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2220	0.6420	2.0660	0.0030	0.0660	0.0601	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2170	0.7540	1.8120	0.0030	0.0650	0.0592	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2330	0.7080	1.6860	0.0030	0.0600	0.0546	324.2220	0.54	1.65	3.94	0.01	0.14	0.13	757.80
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2380	0.7280	2.0750	0.0030	0.0700	0.0637	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.4650	0.0050	0.1190	0.1083	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.1540	0.7770	1.1110	0.0050	0.0330	0.0300	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2330	0.7080	1.6860	0.0030	0.0600	0.0546	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.5030	2.6320	3.5870	0.0050	0.2700	0.2457	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.4650	0.0050	0.1190	0.1083	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	**Miles / Trip**	**Daily Trips**	**Idling Time**	**Miles/ Day**	**Acres Disturbed**															
	On-road Truck - 10 mph	nonroad		0.25	1		0.25		g/mile	4.222	11.38	15.738	0.03	0.808	0.73528	3129.144	0.00	0.01	0.01	0.00	0.00	0.00	1.72
	On-road Truck - 25 mph	nonroad		0.5	1		0.5		g/mile	0.938	4.829	9.231	0.019	0.334	0.30394	2009.677	0.00	0.01	0.01	0.00	0.00	0.00	2.22
	On-road Truck - 55 mph	nonroad		40	1		40		g/mile	0.518	3.263	8.038	0.016	0.359	0.32669	1634.274	0.05	0.29	0.71	0.00	0.03	0.03	144.12
	Dredge Materials Haul Truck - Composit	nonroad							g/mile	0.938	4.829	9.231	0.019	0.334	0.30394	2009.677	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.938	4.829	9.231	0.019	0.334	0.30394	2009.677	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			1	5			g/mile	9.652	43.621	114.525	0.062	0.978	0.88998	6456.258	0.00	0.01	0.02	0.00	0.00	0.00	1.19
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.036	1.58	0.141	0.003	0.011	0.01001	339.5	0.01	0.28	0.03	0.00	0.00	0.00	60.63
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.027	1.169	0.135	0.003	0.008	0.00728	307.569	0.00	0.21	0.02	0.00	0.00	0.00	54.92
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						9	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	65.97	13.68	0.00
																Total	**3.18**	**11.35**	**23.10**	**0.04**	**67.03**	**14.64**	**4051.61**

Complete Land Bridge 2015									Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
47 Hardscaping	**Equipment**	**Type**	**Hp**	**Load Factor**	**Number Active**	**Equipment Hrs/Day**	**Daily Hp-hr**	**Daily Roudtrip**	**E.F. Units**	**ROG**	**CO**	**NO_X**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**	**CO_2**	**ROG**	**CO**	**NO_X**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**	**CO_2**
d																							
	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2330	0.7080	1.6860	0.0030	0.0600	0.0546	324.2220	0.54	1.65	3.94	0.01	0.14	0.13	757.80
	Excavator	nonroad	428	0.57	1	8	1951.68	1	g/hp-hr	0.2190	0.6890	1.6120	0.0030	0.0570	0.0519	324.2220	0.94	2.96	6.94	0.01	0.25	0.22	1395.01
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.2310	0.7100	2.0390	0.0030	0.0690	0.0628	307.1580	0.30	0.91	2.62	0.00	0.09	0.08	394.92
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.4630	2.1600	2.9690	0.0040	0.2450	0.2230	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.6300	2.5320	3.8110	0.0040	0.3240	0.2948	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.2800	1.4590	2.0350	0.0030	0.1150	0.1047	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.1890	0.6330	1.6040	0.0020	0.0580	0.0528	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.1890	0.6330	1.6040	0.0020	0.0580	0.0528	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.7730	2.5050	2.3030	0.0030	0.1940	0.1765	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.5540	2.7090	3.8080	0.0030	0.2080	0.1893	420.9200	0.09	0.46	0.65	0.00	0.04	0.03	71.42
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2330	0.7080	1.6860	0.0030	0.0600	0.0546	324.2220	0.54	1.65	3.94	0.01	0.14	0.13	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2090	0.6310	1.7960	0.0030	0.0610	0.0555	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2220	0.6420	2.0660	0.0030	0.0660	0.0601	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2170	0.7540	1.8120	0.0030	0.0650	0.0592	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2330	0.7080	1.6860	0.0030	0.0600	0.0546	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2380	0.7280	2.0750	0.0030	0.0700	0.0637	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.4650	0.0050	0.1190	0.1083	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.1540	0.7770	1.1110	0.0050	0.0330	0.0300	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2330	0.7080	1.6860	0.0030	0.0600	0.0546	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.5030	2.6320	3.5870	0.0050	0.2700	0.2457	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.4650	0.0050	0.1190	0.1083	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	**Miles / Trip**	**Daily Trips**	**Idling Time**	**Miles/ Day**	**Acres Disturbed**															
	On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	4.222	11.38	15.738	0.03	0.808	0.73528	3129.144	0.00	0.01	0.02	0.00	0.00	0.00	3.45
	On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	0.938	4.829	9.231	0.019	0.334	0.30394	2009.677	0.00	0.01	0.02	0.00	0.00	0.00	4.43
	On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.518	3.263	8.038	0.016	0.359	0.32669	1634.274	0.09	0.58	1.42	0.00	0.06	0.06	288.23
	Dredge Materials Haul Truck - Composit	nonroad							g/mile	0.938	4.829	9.231	0.019	0.334	0.30394	2009.677	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.938	4.829	9.231	0.019	0.334	0.30394	2009.677	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			2	5			g/mile	9.652	43.621	114.525	0.062	0.978	0.88998	6456.258	0.00	0.02	0.04	0.00	0.00	0.00	2.37
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	5		45		g/mile	0.036	1.58	0.141	0.003	0.011	0.01001	339.5	0.00	0.16	0.01	0.00	0.00	0.00	33.68
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	5		45		g/mile	0.027	1.169	0.135	0.003	0.008	0.00728	307.569	0.00	0.12	0.01	0.00	0.00	0.00	30.51
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						2.893	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	21.21	4.40	0.00
																Total	**2.53**	**8.53**	**19.61**	**0.03**	**21.92**	**5.05**	**3739.63**

Emission Rates

2016

48 Landscaping

d

Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
									Emission Factor (g/hp-hr)							*Daily Emission Rates (lb/day)*						
General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.52	1.61	3.48	0.01	0.12	0.11	757.80
Excavator	nonroad	428	0.57	1	8	1951.68	1	g/hp-hr	0.2070	0.6730	1.4200	0.0030	0.0510	0.0464	324.2220	0.89	2.90	6.11	0.01	0.22	0.20	1395.01
Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.2180	0.6920	1.8350	0.0030	0.0620	0.0564	307.1580	0.28	0.89	2.36	0.00	0.08	0.07	394.92
Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.4300	2.1440	2.7610	0.0040	0.2250	0.2048	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.5930	2.5130	3.5830	0.0040	0.3010	0.2739	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.2630	1.4560	1.8570	0.0030	0.1050	0.0956	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.1800	0.6020	1.4560	0.0020	0.0530	0.0482	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.1800	0.6020	1.4560	0.0020	0.0530	0.0482	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.6940	2.4300	2.2230	0.0030	0.1750	0.1593	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.5340	2.6830	3.6880	0.0070	0.1960	0.1784	420.9200	0.09	0.46	0.63	0.00	0.03	0.03	71.42
Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.52	1.61	3.48	0.01	0.12	0.11	757.80
Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.1980	0.6090	1.5980	0.0030	0.0550	0.0501	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2100	0.6290	1.8440	0.0030	0.0590	0.0537	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2060	0.7250	1.6300	0.0030	0.0580	0.0528	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2260	0.7020	1.8460	0.0030	0.0630	0.0573	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.1420	0.7770	0.8820	0.0050	0.0260	0.0237	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.4520	2.6090	3.3170	0.0050	0.2410	0.2193	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	3.766	10.117	14.071	0.03	0.676	0.61516	3132.745	0.00	0.01	0.02	0.00	0.00	0.00	3.45
On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	0.844	4.25	8.219	0.019	0.287	0.26117	2012.951	0.00	0.01	0.02	0.00	0.00	0.00	4.44
On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.461	2.984	7.034	0.016	0.322	0.29302	1637.06	0.08	0.53	1.24	0.00	0.06	0.05	288.72
Dredge Materials Haul Truck - Composit	nonroad							g/mile	0.844	4.25	8.219	0.019	0.287	0.26117	2012.951	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	0.844	4.25	8.219	0.019	0.287	0.26117	2012.951	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			2	5			g/mile	9.331	43.235	115.753	0.062	0.863	0.78533	6472.218	0.00	0.02	0.04	0.00	0.00	0.00	2.38
On-road Crew Vehicle - 30 mph - Compo	nonroad		9	5		45		g/mile	0.032	1.459	0.129	0.003	0.011	0.01001	339.216	0.00	0.14	0.01	0.00	0.00	0.00	33.65
On-road Crew Vehicle - 55 mph - Compo	nonroad		9	5		45		g/mile	0.023	1.069	0.123	0.003	0.008	0.00728	307.308	0.00	0.11	0.01	0.00	0.00	0.00	30.49
Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust	dust						5.978	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	43.82	9.09	0.00
															Total	2.39	8.28	17.41	0.04	44.46	9.67	3740.09

2016

49 Trees

d

Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
									Emission Factor (g/hp-hr)							*Daily Emission Rates (lb/day)*						
General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.52	1.61	3.48	0.01	0.12	0.11	757.80
Excavator	nonroad	428	0.57	1	8	1951.68	1	g/hp-hr	0.2070	0.6730	1.4200	0.0030	0.0510	0.0464	324.2220	0.89	2.90	6.11	0.01	0.22	0.20	1395.01
Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.2180	0.6920	1.8350	0.0030	0.0620	0.0564	307.1580	0.28	0.89	2.36	0.00	0.08	0.07	394.92
Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.4300	2.1440	2.7610	0.0040	0.2250	0.2048	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.5930	2.5130	3.5830	0.0040	0.3010	0.2739	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.2630	1.4560	1.8570	0.0030	0.1050	0.0956	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.1800	0.6020	1.4560	0.0020	0.0530	0.0482	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.1800	0.6020	1.4560	0.0020	0.0530	0.0482	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.6940	2.4300	2.2230	0.0030	0.1750	0.1593	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.5340	2.6830	3.6880	0.0070	0.1960	0.1784	420.9200	0.09	0.46	0.63	0.00	0.03	0.03	71.42
Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.52	1.61	3.48	0.01	0.12	0.11	757.80
Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.1980	0.6090	1.5980	0.0030	0.0550	0.0501	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2100	0.6290	1.8440	0.0030	0.0590	0.0537	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2060	0.7250	1.6300	0.0030	0.0580	0.0528	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2260	0.7020	1.8460	0.0030	0.0630	0.0573	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.1420	0.7770	0.8820	0.0050	0.0260	0.0237	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.4520	2.6090	3.3170	0.0050	0.2410	0.2193	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	3.766	10.117	14.071	0.03	0.676	0.61516	3132.745	0.00	0.01	0.02	0.00	0.00	0.00	3.45
On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	0.844	4.25	8.219	0.019	0.287	0.26117	2012.951	0.00	0.01	0.02	0.00	0.00	0.00	4.44
On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.461	2.984	7.034	0.016	0.322	0.29302	1637.06	0.08	0.53	1.24	0.00	0.06	0.05	288.72
Dredge Materials Haul Truck - Composit	nonroad							g/mile	0.844	4.25	8.219	0.019	0.287	0.26117	2012.951	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	0.844	4.25	8.219	0.019	0.287	0.26117	2012.951	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			2	5			g/mile	9.331	43.235	115.753	0.062	0.863	0.78533	6472.218	0.00	0.02	0.04	0.00	0.00	0.00	2.38
On-road Crew Vehicle - 30 mph - Compo	nonroad		9	5		45		g/mile	0.032	1.459	0.129	0.003	0.011	0.01001	339.216	0.00	0.14	0.01	0.00	0.00	0.00	33.65
On-road Crew Vehicle - 55 mph - Compo	nonroad		9	5		45		g/mile	0.023	1.069	0.123	0.003	0.008	0.00728	307.308	0.00	0.11	0.01	0.00	0.00	0.00	30.49
Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust	dust							lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
															Total	2.39	8.28	17.41	0.04	0.64	0.58	3740.09

Emission Rates

Off Street Parking Lots — 2015

50 Parking Lot West of Land Bridge and South of A Street

c

Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
									Emission Factor (g/hp-hr)							*Daily Emission Rates (lb/day)*						
General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2330	0.7080	1.6860	0.0030	0.0600	0.0546	324.2220	0.54	1.65	3.94	0.01	0.14	0.13	757.80
Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.2190	0.6890	1.6120	0.0030	0.0570	0.0519	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.2310	0.7100	2.0390	0.0030	0.0690	0.0628	307.1580	0.30	0.91	2.62	0.00	0.09	0.08	394.92
Vibratory Roller	nonroad	95	0.56	1	6	319.2	1	g/hp-hr	0.4630	2.1600	2.9690	0.0040	0.2450	0.2230	318.5340	0.33	1.52	2.09	0.00	0.17	0.16	224.15
Paving Machine	nonroad	104	0.53	1	6	330.72	1	g/hp-hr	0.6300	2.5320	3.8110	0.0040	0.3240	0.2948	352.6630	0.46	1.85	2.78	0.00	0.24	0.21	257.13
Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.2800	1.4590	2.0350	0.0030	0.1150	0.1047	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.1890	0.6330	1.6040	0.0020	0.0580	0.0528	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.1890	0.6330	1.6040	0.0020	0.0580	0.0528	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.7730	2.5050	2.3030	0.0030	0.1940	0.1765	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.5540	2.7090	3.8080	0.0030	0.2080	0.1893	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2330	0.7080	1.6860	0.0030	0.0600	0.0546	324.2220	0.54	1.65	3.94	0.01	0.14	0.13	757.80
Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.2090	0.6310	1.7960	0.0030	0.0610	0.0555	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2220	0.6420	2.0660	0.0030	0.0660	0.0601	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2170	0.7540	1.8120	0.0030	0.0650	0.0592	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dump Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2330	0.7080	1.6860	0.0030	0.0600	0.0546	324.2220	0.54	1.65	3.94	0.01	0.14	0.13	757.80
Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2380	0.7280	2.0750	0.0030	0.0700	0.0637	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.4650	0.0050	0.1190	0.1083	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.1540	0.7770	1.1110	0.0050	0.0330	0.0300	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2330	0.7080	1.6860	0.0030	0.0600	0.0546	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.5030	2.6320	3.5870	0.0050	0.2700	0.2457	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.4650	0.0050	0.1190	0.1083	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	4.222	11.38	15.738	0.03	0.808	0.73528	3129.144	0.00	0.01	0.02	0.00	0.00	0.00	3.45
On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	0.938	4.829	9.231	0.019	0.334	0.30394	2009.677	0.00	0.01	0.02	0.00	0.00	0.00	4.43
On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.518	3.263	8.038	0.016	0.359	0.32669	1634.274	0.09	0.58	1.42	0.00	0.06	0.06	288.23
Dredge Materials Haul Truck - Composit	nonroad							g/mile	0.938	4.829	9.231	0.019	0.334	0.30394	2009.677	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	0.938	4.829	9.231	0.019	0.334	0.30394	2009.677	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			2	5			g/mile	9.652	43.621	114.525	0.062	0.978	0.88998	6456.258	0.00	0.02	0.04	0.00	0.00	0.00	2.37
On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.036	1.58	0.141	0.003	0.011	0.01001	339.5	0.01	0.28	0.03	0.00	0.00	0.00	60.63
On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.027	1.169	0.135	0.003	0.008	0.00728	307.569	0.00	0.21	0.02	0.00	0.00	0.00	54.92
Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust	dust						1.056	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
															Total	2.83	10.35	20.86	0.03	8.73	2.50	3563.64

Pedestrian Corridor — 2016

51 Demolish concrete pavement

c

Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
									Emission Factor (g/hp-hr)							*Daily Emission Rates (lb/day)*						
General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.52	1.61	3.48	0.01	0.12	0.11	757.80
Excavator	nonroad	428	0.57	1	8	1951.68	1	g/hp-hr	0.2070	0.6730	1.4200	0.0030	0.0510	0.0464	324.2220	0.89	2.90	6.11	0.01	0.22	0.20	1395.01
Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.2180	0.6920	1.8350	0.0030	0.0620	0.0564	307.1580	0.28	0.89	2.36	0.00	0.08	0.07	394.92
Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.4300	2.1440	2.7610	0.0040	0.2250	0.2048	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.5930	2.5130	3.5830	0.0040	0.3010	0.2739	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.2630	1.4560	1.8570	0.0030	0.1050	0.0956	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.1800	0.6020	1.4560	0.0020	0.0530	0.0482	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.1800	0.6020	1.4560	0.0020	0.0530	0.0482	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.6940	2.4300	2.2230	0.0030	0.1750	0.1593	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.5340	2.6830	3.6880	0.0070	0.1960	0.1784	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.1980	0.6090	1.5980	0.0030	0.0550	0.0501	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2100	0.6290	1.8440	0.0030	0.0590	0.0537	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2060	0.7250	1.6300	0.0030	0.0580	0.0528	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2260	0.7020	1.8460	0.0030	0.0630	0.0573	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.1420	0.7770	0.8820	0.0050	0.0260	0.0237	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.4520	2.6090	3.3170	0.0050	0.2410	0.2193	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
On-road Truck - 10 mph	nonroad		0.25	1		0.25		g/mile	3.766	10.117	14.071	0.03	0.676	0.61516	3132.745	0.00	0.01	0.01	0.00	0.00	0.00	1.73
On-road Truck - 25 mph	nonroad		0.5	1		0.5		g/mile	0.844	4.25	8.219	0.019	0.287	0.26117	2012.951	0.00	0.00	0.01	0.00	0.00	0.00	2.22
On-road Truck - 55 mph	nonroad		40	1		40		g/mile	0.461	2.984	7.034	0.016	0.322	0.29302	1637.06	0.04	0.26	0.62	0.00	0.03	0.03	144.36
Dredge Materials Haul Truck - Composit	nonroad							g/mile	0.844	4.25	8.219	0.019	0.287	0.26117	2012.951	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	0.844	4.25	8.219	0.019	0.287	0.26117	2012.951	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			1	5			g/mile	9.331	43.235	115.753	0.062	0.863	0.78533	6472.218	0.00	0.01	0.02	0.00	0.00	0.00	1.19
On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.032	1.459	0.129	0.003	0.011	0.01001	339.216	0.01	0.26	0.02	0.00	0.00	0.00	60.57
On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.023	1.069	0.123	0.003	0.008	0.00728	307.308	0.00	0.19	0.02	0.00	0.00	0.00	54.88
Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust	dust						2.176	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	15.95	3.31	0.00
															Total	1.74	6.13	12.66	0.03	16.41	3.72	2812.68

Emission Rates

2016

52 Demolish AC pavement	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
c	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.52	1.61	3.48	0.01	0.12	0.11	757.80
	Excavator	nonroad	428	0.57	1	8	1951.68	1	g/hp-hr	0.2070	0.6730	1.4200	0.0030	0.0510	0.0464	324.2220	0.89	2.90	6.11	0.01	0.22	0.20	1395.01
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.2180	0.6920	1.8350	0.0030	0.0620	0.0564	307.1580	0.28	0.89	2.36	0.00	0.08	0.07	394.92
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.4300	2.1440	2.7610	0.0040	0.2250	0.2048	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.5930	2.5130	3.5830	0.0040	0.3010	0.2739	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.2630	1.4560	1.8570	0.0030	0.1050	0.0956	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.1800	0.6020	1.4560	0.0020	0.0530	0.0482	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.1800	0.6020	1.4560	0.0020	0.0530	0.0482	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.6940	2.4300	2.2230	0.0030	0.1750	0.1593	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.5340	2.6830	3.6880	0.0070	0.1960	0.1784	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.1980	0.6090	1.5980	0.0030	0.0550	0.0501	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2100	0.6290	1.8440	0.0030	0.0590	0.0537	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2060	0.7250	1.6300	0.0030	0.0580	0.0528	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2260	0.7020	1.8460	0.0030	0.0630	0.0573	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.1420	0.7770	0.8820	0.0050	0.0260	0.0237	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.4520	2.6090	3.3170	0.0050	0.2410	0.2193	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	1		0.25		g/mile	3.766	10.117	14.071	0.03	0.676	0.61516	3132.745	0.00	0.01	0.01	0.00	0.00	0.00	1.73
	On-road Truck - 25 mph	nonroad		0.5	1		0.5		g/mile	0.844	4.25	8.219	0.019	0.287	0.26117	2012.951	0.00	0.00	0.01	0.00	0.00	0.00	2.22
	On-road Truck - 55 mph	nonroad		40	1		40		g/mile	0.461	2.984	7.034	0.016	0.322	0.29302	1637.06	0.04	0.26	0.62	0.00	0.03	0.03	144.36
	Dredge Materials Haul Truck - Composit	nonroad							g/mile	0.844	4.25	8.219	0.019	0.287	0.26117	2012.951	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.844	4.25	8.219	0.019	0.287	0.26117	2012.951	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			1	5			g/mile	9.331	43.235	115.753	0.062	0.863	0.78533	6472.218	0.00	0.01	0.02	0.00	0.00	0.00	1.19
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.032	1.459	0.129	0.003	0.011	0.01001	339.216	0.01	0.26	0.02	0.00	0.00	0.00	60.57
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.023	1.069	0.123	0.003	0.008	0.00728	307.308	0.00	0.19	0.02	0.00	0.00	0.00	54.88
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						0.698	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	5.12	1.06	0.00
																Total	1.74	6.13	12.66	0.03	5.57	1.48	2812.68

2016

53 Clear and Grub	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
c	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.52	1.61	3.48	0.01	0.12	0.11	757.80
	Excavator	nonroad	428	0.57	1	8	1951.68	1	g/hp-hr	0.2070	0.6730	1.4200	0.0030	0.0510	0.0464	324.2220	0.89	2.90	6.11	0.01	0.22	0.20	1395.01
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.2180	0.6920	1.8350	0.0030	0.0620	0.0564	307.1580	0.28	0.89	2.36	0.00	0.08	0.07	394.92
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.4300	2.1440	2.7610	0.0040	0.2250	0.2048	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.5930	2.5130	3.5830	0.0040	0.3010	0.2739	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.2630	1.4560	1.8570	0.0030	0.1050	0.0956	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.1800	0.6020	1.4560	0.0020	0.0530	0.0482	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.1800	0.6020	1.4560	0.0020	0.0530	0.0482	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.6940	2.4300	2.2230	0.0030	0.1750	0.1593	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.5340	2.6830	3.6880	0.0070	0.1960	0.1784	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.1980	0.6090	1.5980	0.0030	0.0550	0.0501	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2100	0.6290	1.8440	0.0030	0.0590	0.0537	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2060	0.7250	1.6300	0.0030	0.0580	0.0528	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2260	0.7020	1.8460	0.0030	0.0630	0.0573	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.1420	0.7770	0.8820	0.0050	0.0260	0.0237	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.4520	2.6090	3.3170	0.0050	0.2410	0.2193	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	1		0.25		g/mile	3.766	10.117	14.071	0.03	0.676	0.61516	3132.745	0.00	0.01	0.01	0.00	0.00	0.00	1.73
	On-road Truck - 25 mph	nonroad		0.5	1		0.5		g/mile	0.844	4.25	8.219	0.019	0.287	0.26117	2012.951	0.00	0.00	0.01	0.00	0.00	0.00	2.22
	On-road Truck - 55 mph	nonroad		40	1		40		g/mile	0.461	2.984	7.034	0.016	0.322	0.29302	1637.06	0.04	0.26	0.62	0.00	0.03	0.03	144.36
	Dredge Materials Haul Truck - Composit	nonroad							g/mile	0.844	4.25	8.219	0.019	0.287	0.26117	2012.951	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.844	4.25	8.219	0.019	0.287	0.26117	2012.951	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			1	5			g/mile	9.331	43.235	115.753	0.062	0.863	0.78533	6472.218	0.00	0.01	0.02	0.00	0.00	0.00	1.19
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.032	1.459	0.129	0.003	0.011	0.01001	339.216	0.01	0.26	0.02	0.00	0.00	0.00	60.57
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.023	1.069	0.123	0.003	0.008	0.00728	307.308	0.00	0.19	0.02	0.00	0.00	0.00	54.88
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						2.176	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	15.95	3.31	0.00
																Total	1.74	6.13	12.66	0.03	16.41	3.72	2812.68

Emission Rates

2016

54 New Concrete Pathway

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Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
									Emission Factor (g/hp-hr)							*Daily Emission Rates (lb/day)*						
General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.52	1.61	3.48	0.01	0.12	0.11	757.80
Excavator	nonroad	428	0.57	1	8	1951.68	1	g/hp-hr	0.2070	0.6730	1.4200	0.0030	0.0510	0.0464	324.2220	0.89	2.90	6.11	0.01	0.22	0.20	1395.01
Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.2180	0.6920	1.8350	0.0030	0.0620	0.0564	307.1580	0.28	0.89	2.36	0.00	0.08	0.07	394.92
Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.4300	2.1440	2.7610	0.0040	0.2250	0.2048	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.5930	2.5130	3.5830	0.0040	0.3010	0.2739	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.2630	1.4560	1.8570	0.0030	0.1050	0.0956	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.1800	0.6020	1.4560	0.0020	0.0530	0.0482	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.1800	0.6020	1.4560	0.0020	0.0530	0.0482	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.6940	2.4300	2.2230	0.0030	0.1750	0.1593	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.5340	2.6830	3.6880	0.0070	0.1960	0.1784	420.9200	0.09	0.46	0.63	0.00	0.03	0.03	71.42
Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.52	1.61	3.48	0.01	0.12	0.11	757.80
Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.1980	0.6090	1.5980	0.0030	0.0550	0.0501	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2100	0.6290	1.8440	0.0030	0.0590	0.0537	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2060	0.7250	1.6300	0.0030	0.0580	0.0528	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2260	0.7020	1.8460	0.0030	0.0630	0.0573	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chain Saw	nonroad	10	0.73	2	8	116.8	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.13	0.44	0.81	0.00	0.03	0.03	106.92
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.1420	0.7770	0.8820	0.0050	0.0260	0.0237	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	1	4	1092.12	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.53	1.66	3.59	0.01	0.13	0.12	780.62
Concrete Pump	nonroad	53	0.74	1	4	156.88	1	g/hp-hr	0.4520	2.6090	3.3170	0.0050	0.2410	0.2193	420.9200	0.16	0.90	1.15	0.00	0.08	0.08	145.58
Wood Saw	nonroad	10	0.73	2	8	116.8	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.13	0.44	0.81	0.00	0.03	0.03	106.92
Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
On-road Truck - 10 mph	nonroad		0.25	3		0.75		g/mile	3.766	10.117	14.071	0.03	0.676	0.61516	3132.745	0.01	0.02	0.02	0.00	0.00	0.00	5.18
On-road Truck - 25 mph	nonroad		0.5	3		1.5		g/mile	0.844	4.25	8.219	0.019	0.287	0.26117	2012.951	0.00	0.01	0.03	0.00	0.00	0.00	6.66
On-road Truck - 55 mph	nonroad		40	3		120		g/mile	0.461	2.984	7.034	0.016	0.322	0.29302	1637.06	0.12	0.79	1.86	0.00	0.09	0.08	433.08
Dredge Materials Haul Truck - Composit	nonroad							g/mile	0.844	4.25	8.219	0.019	0.287	0.26117	2012.951	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	0.844	4.25	8.219	0.019	0.287	0.26117	2012.951	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			3	5			g/mile	9.331	43.235	115.753	0.062	0.863	0.78533	6472.218	0.01	0.02	0.06	0.00	0.00	0.00	3.57
On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.032	1.459	0.129	0.003	0.011	0.01001	339.216	0.01	0.26	0.02	0.00	0.00	0.00	60.57
On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.023	1.069	0.123	0.003	0.008	0.00728	307.308	0.00	0.19	0.02	0.00	0.00	0.00	54.88
Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust	dust						4.04	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	29.61	6.14	0.00
																Total	**3.39**	**12.21**	**24.45**	**0.05**	**30.56**	**7.00**	**5080.93**

2016

55 Landscaping

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Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
									Emission Factor (g/hp-hr)							*Daily Emission Rates (lb/day)*						
General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.52	1.61	3.48	0.01	0.12	0.11	757.80
Excavator	nonroad	428	0.57	1	8	1951.68	1	g/hp-hr	0.2070	0.6730	1.4200	0.0030	0.0510	0.0464	324.2220	0.89	2.90	6.11	0.01	0.22	0.20	1395.01
Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.2180	0.6920	1.8350	0.0030	0.0620	0.0564	307.1580	0.28	0.89	2.36	0.00	0.08	0.07	394.92
Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.4300	2.1440	2.7610	0.0040	0.2250	0.2048	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.5930	2.5130	3.5830	0.0040	0.3010	0.2739	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.2630	1.4560	1.8570	0.0030	0.1050	0.0956	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.1800	0.6020	1.4560	0.0020	0.0530	0.0482	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.1800	0.6020	1.4560	0.0020	0.0530	0.0482	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.6940	2.4300	2.2230	0.0030	0.1750	0.1593	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.5340	2.6830	3.6880	0.0070	0.1960	0.1784	420.9200	0.09	0.46	0.63	0.00	0.03	0.03	71.42
Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.52	1.61	3.48	0.01	0.12	0.11	757.80
Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.1980	0.6090	1.5980	0.0030	0.0550	0.0501	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2100	0.6290	1.8440	0.0030	0.0590	0.0537	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2060	0.7250	1.6300	0.0030	0.0580	0.0528	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2260	0.7020	1.8460	0.0030	0.0630	0.0573	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.1420	0.7770	0.8820	0.0050	0.0260	0.0237	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.4520	2.6090	3.3170	0.0050	0.2410	0.2193	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	3.766	10.117	14.071	0.03	0.676	0.61516	3132.745	0.00	0.01	0.02	0.00	0.00	0.00	3.45
On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	0.844	4.25	8.219	0.019	0.287	0.26117	2012.951	0.00	0.01	0.02	0.00	0.00	0.00	4.44
On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.461	2.984	7.034	0.016	0.322	0.29302	1637.06	0.08	0.53	1.24	0.00	0.06	0.05	288.72
Dredge Materials Haul Truck - Composit	nonroad							g/mile	0.844	4.25	8.219	0.019	0.287	0.26117	2012.951	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	0.844	4.25	8.219	0.019	0.287	0.26117	2012.951	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			2	5			g/mile	9.331	43.235	115.753	0.062	0.863	0.78533	6472.218	0.00	0.02	0.04	0.00	0.00	0.00	2.38
On-road Crew Vehicle - 30 mph - Compo	nonroad		9	5		45		g/mile	0.032	1.459	0.129	0.003	0.011	0.01001	339.216	0.00	0.14	0.01	0.00	0.00	0.00	33.65
On-road Crew Vehicle - 55 mph - Compo	nonroad		9	5		45		g/mile	0.023	1.069	0.123	0.003	0.008	0.00728	307.308	0.00	0.11	0.01	0.00	0.00	0.00	30.49
Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust	dust						1.01	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	7.40	1.54	0.00
																Total	**2.39**	**8.28**	**17.41**	**0.04**	**8.04**	**2.12**	**3740.09**

Emission Rates

Red Car Corridor 2016

56 Construct track and Catenary Wires

Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
									Emission Factor (g/hp-hr)							*Daily Emission Rates (lb/day)*						
General Construction Trucks	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.2070	0.6730	1.4200	0.0030	0.0510	0.0464	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.2180	0.6920	1.8350	0.0030	0.0620	0.0564	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.4300	2.1440	2.7610	0.0040	0.2250	0.2048	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.5930	2.5130	3.5830	0.0040	0.3010	0.2739	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.2630	1.4560	1.8570	0.0030	0.1050	0.0956	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.1800	0.6020	1.4560	0.0020	0.0530	0.0482	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.1800	0.6020	1.4560	0.0020	0.0530	0.0482	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.6940	2.4300	2.2230	0.0030	0.1750	0.1593	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.5340	2.6830	3.6880	0.0070	0.1960	0.1784	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.1980	0.6090	1.5980	0.0030	0.0550	0.0501	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2100	0.6290	1.8440	0.0030	0.0590	0.0537	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2060	0.7250	1.6300	0.0030	0.0580	0.0528	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2260	0.7020	1.8460	0.0030	0.0630	0.0573	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.1420	0.7770	0.8820	0.0050	0.0260	0.0237	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.4520	2.6090	3.3170	0.0050	0.2410	0.2193	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
On-road Truck - 10 mph	nonroad		0.25	0		0		g/mile	3.766	10.117	14.071	0.03	0.676	0.61516	3132.745	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - 25 mph	nonroad		0.5	0		0		g/mile	0.844	4.25	8.219	0.019	0.287	0.26117	2012.951	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - 55 mph	nonroad		40	0		0		g/mile	0.461	2.984	7.034	0.016	0.322	0.29302	1637.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dredge Materials Haul Truck - Composit	nonroad							g/mile	0.844	4.25	8.219	0.019	0.287	0.26117	2012.951	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	0.844	4.25	8.219	0.019	0.287	0.26117	2012.951	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			0	5			g/mile	9.331	43.235	115.753	0.062	0.863	0.78533	6472.218	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Crew Vehicle - 30 mph - Compo	nonroad		9	14		126		g/mile	0.032	1.459	0.129	0.003	0.011	0.01001	339.216	0.01	0.41	0.04	0.00	0.00	0.00	94.23
On-road Crew Vehicle - 55 mph - Compo	nonroad		9	14		126		g/mile	0.023	1.069	0.123	0.003	0.008	0.00728	307.308	0.01	0.30	0.03	0.00	0.00	0.00	85.36
Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust	dust						1.561065197	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	11.44	2.37	0.00
																Total	**0.02**	**0.70**	**0.07**	**0.00**	**11.45**	**2.38**	**179.59**

2016

57 Construct Stations

Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
									Emission Factor (g/hp-hr)							*Daily Emission Rates (lb/day)*						
General Construction Trucks	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.2070	0.6730	1.4200	0.0030	0.0510	0.0464	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.2180	0.6920	1.8350	0.0030	0.0620	0.0564	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.4300	2.1440	2.7610	0.0040	0.2250	0.2048	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.5930	2.5130	3.5830	0.0040	0.3010	0.2739	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.2630	1.4560	1.8570	0.0030	0.1050	0.0956	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.1800	0.6020	1.4560	0.0020	0.0530	0.0482	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.1800	0.6020	1.4560	0.0020	0.0530	0.0482	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.6940	2.4300	2.2230	0.0030	0.1750	0.1593	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.5340	2.6830	3.6880	0.0070	0.1960	0.1784	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.1980	0.6090	1.5980	0.0030	0.0550	0.0501	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2100	0.6290	1.8440	0.0030	0.0590	0.0537	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2060	0.7250	1.6300	0.0030	0.0580	0.0528	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2260	0.7020	1.8460	0.0030	0.0630	0.0573	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.1420	0.7770	0.8820	0.0050	0.0260	0.0237	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.4520	2.6090	3.3170	0.0050	0.2410	0.2193	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
On-road Truck - 10 mph	nonroad		0.25	0		0		g/mile	3.766	10.117	14.071	0.03	0.676	0.61516	3132.745	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - 25 mph	nonroad		0.5	0		0		g/mile	0.844	4.25	8.219	0.019	0.287	0.26117	2012.951	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - 55 mph	nonroad		40	0		0		g/mile	0.461	2.984	7.034	0.016	0.322	0.29302	1637.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dredge Materials Haul Truck - Composit	nonroad							g/mile	0.844	4.25	8.219	0.019	0.287	0.26117	2012.951	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	0.844	4.25	8.219	0.019	0.287	0.26117	2012.951	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			0	5			g/mile	9.331	43.235	115.753	0.062	0.863	0.78533	6472.218	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Crew Vehicle - 30 mph - Compo	nonroad		9	14		126		g/mile	0.032	1.459	0.129	0.003	0.011	0.01001	339.216	0.01	0.41	0.04	0.00	0.00	0.00	94.23
On-road Crew Vehicle - 55 mph - Compo	nonroad		9	14		126		g/mile	0.023	1.069	0.123	0.003	0.008	0.00728	307.308	0.01	0.30	0.03	0.00	0.00	0.00	85.36
Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust	dust						1.561065197	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	11.44	2.37	0.00
																Total	**0.02**	**0.70**	**0.07**	**0.00**	**11.45**	**2.38**	**179.59**

Emission Rates

Development 2016

58 Restaurant space at the waterfront	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
c	General Construction Trucks	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.2070	0.6730	1.4200	0.0030	0.0510	0.0464	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.2180	0.6920	1.8350	0.0030	0.0620	0.0564	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.4300	2.1440	2.7610	0.0040	0.2250	0.2048	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.5930	2.5130	3.5830	0.0040	0.3010	0.2739	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.2630	1.4560	1.8570	0.0030	0.1050	0.0956	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.1800	0.6020	1.4560	0.0020	0.0530	0.0482	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.1800	0.6020	1.4560	0.0020	0.0530	0.0482	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.6940	2.4300	2.2230	0.0030	0.1750	0.1593	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.5340	2.6830	3.6880	0.0070	0.1960	0.1784	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.1980	0.6090	1.5980	0.0030	0.0550	0.0501	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2100	0.6290	1.8440	0.0030	0.0590	0.0537	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2060	0.7250	1.6300	0.0030	0.0580	0.0528	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2260	0.7020	1.8460	0.0030	0.0630	0.0573	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.1420	0.7770	0.8820	0.0050	0.0260	0.0237	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.4520	2.6090	3.3170	0.0050	0.2410	0.2193	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed																
	On-road Truck - 10 mph	nonroad		0.25	0		0		g/mile	3.766	10.117	14.071	0.03	0.676	0.61516	3132.745	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - 25 mph	nonroad		0.5	0		0		g/mile	0.844	4.25	8.219	0.019	0.287	0.26117	2012.951	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - 55 mph	nonroad		40	0		0		g/mile	0.461	2.984	7.034	0.016	0.322	0.29302	1637.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dredge Materials Haul Truck - Composit	nonroad							g/mile	0.844	4.25	8.219	0.019	0.287	0.26117	2012.951	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.844	4.25	8.219	0.019	0.287	0.26117	2012.951	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			0	5			g/mile	9.331	43.235	115.753	0.062	0.863	0.78533	6472.218	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.032	1.459	0.129	0.003	0.011	0.01001	339.216	0.01	0.26	0.02	0.00	0.00	0.00	60.57
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.023	1.069	0.123	0.003	0.008	0.00728	307.308	0.00	0.19	0.02	0.00	0.00	0.00	54.88
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						0.275	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	2.02	0.42	0.00
																	Total	0.01	0.45	0.05	0.00	2.02	0.42	115.45

59 Light Industrial	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
e	General Construction Trucks	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.2070	0.6730	1.4200	0.0030	0.0510	0.0464	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.2180	0.6920	1.8350	0.0030	0.0620	0.0564	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.4300	2.1440	2.7610	0.0040	0.2250	0.2048	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.5930	2.5130	3.5830	0.0040	0.3010	0.2739	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.2630	1.4560	1.8570	0.0030	0.1050	0.0956	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.1800	0.6020	1.4560	0.0020	0.0530	0.0482	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.1800	0.6020	1.4560	0.0020	0.0530	0.0482	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.6940	2.4300	2.2230	0.0030	0.1750	0.1593	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.5340	2.6830	3.6880	0.0070	0.1960	0.1784	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.1980	0.6090	1.5980	0.0030	0.0550	0.0501	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.2100	0.6290	1.8440	0.0030	0.0590	0.0537	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.2060	0.7250	1.6300	0.0030	0.0580	0.0528	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	1.1000	13.2000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.2260	0.7020	1.8460	0.0030	0.0630	0.0573	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.1420	0.7770	0.8820	0.0050	0.0260	0.0237	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.2210	0.6900	1.4910	0.0030	0.0530	0.0482	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.4520	2.6090	3.3170	0.0050	0.2410	0.2193	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed																
	On-road Truck - 10 mph	nonroad		0.25	0		0		g/mile	3.766	10.117	14.071	0.03	0.676	0.61516	3132.745	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - 25 mph	nonroad		0.5	0		0		g/mile	0.844	4.25	8.219	0.019	0.287	0.26117	2012.951	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - 55 mph	nonroad		40	0		0		g/mile	0.461	2.984	7.034	0.016	0.322	0.29302	1637.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dredge Materials Haul Truck - Composit	nonroad							g/mile	0.844	4.25	8.219	0.019	0.287	0.26117	2012.951	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.844	4.25	8.219	0.019	0.287	0.26117	2012.951	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			0	5			g/mile	9.331	43.235	115.753	0.062	0.863	0.78533	6472.218	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	5		45		g/mile	0.032	1.459	0.129	0.003	0.011	0.01001	339.216	0.00	0.14	0.01	0.00	0.00	0.00	33.65
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	5		45		g/mile	0.023	1.069	0.123	0.003	0.008	0.00728	307.308	0.00	0.11	0.01	0.00	0.00	0.00	30.49
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						1.72	lbs/acre/day	0.00	0.00	0.00	0.00	7.33	1.52	0.00	0.00	0.00	0.00	0.00	12.61	2.61	0.00
																	Total	0.01	0.25	0.03	0.00	12.61	2.62	64.14

Emissions by Timeslice

			Daily Emission Rates (lbs/day)						
	Timeslice	Sub-Phase	ROG	CO	NOX	SO2	PM10	PM2.5	CO2
2009	1	2	8	26	74	0	5	3	7,919
		3	4	13	39	0	14	4	4,546
		Total	**12**	**39**	**112**	**0**	**19**	**7**	**12,465**
2010	2	3	4	13	39	0	14	4	4,546
		Total	**4**	**13**	**39**	**0**	**14**	**4**	**4,546**
	3	1	3	11	32	0	14	4	3,788
		4	3	11	32	0	14	4	3,788
		Total	**7**	**23**	**64**	**0**	**28**	**8**	**7,577**
	4	1	3	11	32	0	14	4	3,788
		4	3	11	32	0	14	4	3,788
		6	0	1	0	0	0	0	116
		Total	**7**	**23**	**64**	**0**	**28**	**8**	**7,693**
	5	1	3	11	32	0	14	4	3,788
		6	0	1	0	0	0	0	116
		Total	**3**	**12**	**32**	**0**	**14**	**4**	**3,905**
	6	5	3	11	32	0	1	1	3,737
		6	0	1	0	0	0	0	116
		Total	**3**	**12**	**32**	**0**	**1**	**1**	**3,853**
	7	6	0	1	0	0	0	0	116
		Total	**0**	**1**	**0**	**0**	**0**	**0**	**116**
	8	6	0	1	0	0	0	0	116
		28	8	23	132	0	11	7	4,598
		Total	**8**	**24**	**132**	**0**	**11**	**7**	**4,715**
	9	6	0	1	0	0	0	0	116
		28	8	23	132	0	11	7	4,598
		39	0	0	0	0	13	3	65
		Total	**8**	**24**	**132**	**0**	**23**	**9**	**4,779**
	10	6	0	1	0	0	0	0	116
		7	5	16	46	0	46	11	5,451
		8	5	16	46	0	68	15	5,451
		9	5	16	46	0	2	2	5,451
		10	3	10	28	0	2	1	3,393
		28	8	23	132	0	11	7	4,598
		39	0	0	0	0	13	3	65
		Total	**25**	**82**	**300**	**0**	**141**	**38**	**24,527**
2011	11	6	0	1	0	0	0	0	116
		8	5	16	46	0	68	15	5,451
		9	5	16	46	0	2	2	5,451
		10	3	10	28	0	2	1	3,393
		28	8	23	132	0	11	7	4,598
		39	0	0	0	0	13	3	65
		Total	**20**	**66**	**254**	**0**	**95**	**28**	**19,075**
	12	6	0	1	0	0	0	0	116
		8	5	16	46	0	68	15	5,451
		9	5	16	46	0	2	2	5,451
		10	3	10	28	0	2	1	3,393
		11	3	10	26	0	2	1	3,394
		12	3	10	26	0	2	1	3,394
		13	3	10	26	0	2	1	3,394
		14	3	9	26	0	7	2	2,970
		14b	4	14	41	0	8	3	5,560
		28	8	23	132	0	11	7	4,598
		39	0	0	0	0	13	3	65
		Total	**35**	**119**	**398**	**0**	**116**	**36**	**37,786**

Emissions by Timeslice

13	6	0	1	0	0	0	0	116
	8	5	16	46	0	68	15	5,451
	10	3	10	28	0	2	1	3,393
	11	3	10	26	0	2	1	3,394
	12	3	10	26	0	2	1	3,394
	13	3	10	26	0	2	1	3,394
	14b	4	14	41	0	8	3	5,560
	18	2	8	24	0	32	7	2,639
	28	8	23	132	0	11	7	4,598
	37	5	16	39	0	33	8	5,387
	39	0	0	0	0	13	3	65
	Total	**35**	**118**	**389**	**0**	**172**	**47**	**37,392**
14	6	0	1	0	0	0	0	116
	11	3	10	26	0	2	1	3,394
	12	3	10	26	0	2	1	3,394
	13	3	10	26	0	2	1	3,394
	14b	4	14	41	0	8	3	5,560
	18	2	8	24	0	32	7	2,639
	28	8	23	132	0	11	7	4,598
	37	5	16	39	0	33	8	5,387
	39	0	0	0	0	13	3	65
	Total	**27**	**92**	**314**	**0**	**102**	**31**	**28,547**
15	6	0	1	0	0	0	0	116
	11	3	10	26	0	2	1	3,394
	14b	4	14	41	0	8	3	5,560
	18	2	8	24	0	32	7	2,639
	23	4	12	30	0	2	1	3,562
	24	4	12	30	0	2	1	3,562
	28	8	23	132	0	11	7	4,598
	37	5	16	39	0	33	8	5,387
	39	0	0	0	0	13	3	65
	Total	**29**	**97**	**323**	**0**	**103**	**31**	**28,882**
16	6	0	1	0	0	0	0	116
	11	3	10	26	0	2	1	3,394
	18	2	8	24	0	32	7	2,639
	23	4	12	30	0	2	1	3,562
	24	4	12	30	0	2	1	3,562
	28	8	23	132	0	11	7	4,598
	37	5	16	39	0	33	8	5,387
	39	0	0	0	0	13	3	65
	Total	**25**	**82**	**282**	**0**	**95**	**29**	**23,323**
17	6	0	1	0	0	0	0	116
	18	2	8	24	0	32	7	2,639
	23	4	12	30	0	2	1	3,562
	24	4	12	30	0	2	1	3,562
	28	8	23	132	0	11	7	4,598
	37	5	16	39	0	33	8	5,387
	39	0	0	0	0	13	3	65
	Total	**22**	**73**	**256**	**0**	**93**	**28**	**19,929**
18	6	0	1	0	0	0	0	116
	15	3	11	32	0	8	2	3,917
	18	2	8	24	0	32	7	2,639
	23	4	12	30	0	2	1	3,562
	24	4	12	30	0	2	1	3,562
	28	8	23	132	0	11	7	4,598
	37	5	16	39	0	33	8	5,387
	39	0	0	0	0	13	3	65
	Total	**26**	**84**	**288**	**0**	**100**	**30**	**23,846**

Emissions by Timeslice

	19	6	0	1	0	0	0	0	116
		15	3	11	32	0	8	2	3,917
		18	2	8	24	0	32	7	2,639
		23	4	12	30	0	2	1	3,562
		24	4	12	30	0	2	1	3,562
		29	7	21	128	0	6	6	4,326
		37	5	16	39	0	33	8	5,387
		39	0	0	0	0	13	3	65
		Total	**25**	**82**	**284**	**0**	**96**	**29**	**23,574**
	20	6	0	1	0	0	0	0	116
		15	3	11	32	0	8	2	3,917
		19	5	17	43	0	33	8	5,386
		20	2	6	14	0	4	1	2,044
		29	7	21	128	0	6	6	4,326
		37	5	16	39	0	33	8	5,387
		39	0	0	0	0	13	3	65
		Total	**22**	**72**	**257**	**0**	**97**	**28**	**21,243**
	21	6	0	1	0	0	0	0	116
		16	3	11	28	0	7	2	4,107
		19	5	17	43	0	33	8	5,386
		20	2	6	14	0	4	1	2,044
		29	7	21	128	0	6	6	4,326
		37	5	16	39	0	33	8	5,387
		39	0	0	0	0	13	3	65
		Total	**21**	**72**	**253**	**0**	**97**	**28**	**21,432**
	22	6	0	1	0	0	0	0	116
		16	3	11	28	0	7	2	4,107
		19	5	17	43	0	33	8	5,386
		20	2	6	14	0	4	1	2,044
		29	7	21	128	0	6	6	4,326
		37	4	14	36	0	33	8	4,755
		39	0	0	0	0	13	3	65
		Total	**21**	**70**	**249**	**0**	**97**	**28**	**20,800**
	23	6	0	1	0	0	0	0	116
		16	3	11	28	0	7	2	4,107
		19	5	17	43	0	33	8	5,386
		20	2	6	14	0	4	1	2,044
		29	7	21	128	0	6	6	4,326
		37	3	11	30	0	33	8	3,918
		39	0	0	0	0	13	3	65
		Total	**20**	**66**	**243**	**0**	**96**	**28**	**19,963**
2012	24	6	0	1	0	0	0	0	116
		16	3	11	28	0	7	2	4,107
		19	5	17	43	0	33	8	5,386
		26	4	12	30	0	6	2	3,562
		27	4	12	30	0	6	2	3,562
		29	7	21	128	0	6	6	4,326
		37	3	11	30	0	33	8	3,918
		39	0	0	0	0	13	3	65
		Total	**25**	**84**	**289**	**0**	**104**	**31**	**25,043**
	25	6	0	1	0	0	0	0	116
		16	3	11	28	0	7	2	4,107
		19	5	17	43	0	33	8	5,386
		26	4	12	30	0	6	2	3,562
		27	4	12	30	0	6	2	3,562
		30	7	19	124	0	6	6	4,136
		37	3	11	30	0	33	8	3,918
		39	0	0	0	0	13	3	65
		Total	**25**	**82**	**285**	**0**	**104**	**31**	**24,852**

Emissions by Timeslice

26	6	0	1	0	0	0	0	116
	16	3	11	28	0	7	2	4,107
	19	5	17	43	0	33	8	5,386
	19b	6	23	59	0	34	9	7,235
	26	4	12	30	0	6	2	3,562
	27	4	12	30	0	6	2	3,562
	30	7	19	124	0	6	6	4,136
	37	3	11	30	0	33	8	3,918
	39	0	0	0	0	13	3	65
	Total	**30**	**106**	**344**	**0**	**138**	**39**	**32,087**
27	6	0	1	0	0	0	0	116
	16	3	11	28	0	7	2	4,107
	17	2	6	14	0	7	2	1,999
	26	4	12	30	0	6	2	3,562
	27	4	12	30	0	6	2	3,562
	30	7	19	124	0	6	6	4,136
	37	3	11	30	0	33	8	3,918
	39	0	0	0	0	13	3	65
	Total	**21**	**71**	**256**	**0**	**77**	**24**	**21,465**
28	17	2	6	14	0	7	2	1,999
	26	4	12	30	0	6	2	3,562
	27	4	12	30	0	6	2	3,562
	30	7	19	124	0	6	6	4,136
	37	3	11	30	0	33	8	3,918
	39	0	0	0	0	13	3	65
	Total	**19**	**60**	**228**	**0**	**70**	**22**	**17,242**
29	17	2	6	14	0	7	2	1,999
	21	2	6	15	0	32	7	2,269
	25	3	12	28	0	2	1	3,562
	30	7	19	124	0	6	6	4,136
	37	3	11	30	0	33	8	3,918
	39	0	0	0	0	13	3	65
	40	3	10	25	0	5	2	3,402
	Total	**19**	**63**	**235**	**0**	**98**	**28**	**19,352**
30	17	2	6	14	0	7	2	1,999
	21	2	6	15	0	32	7	2,269
	25	3	12	28	0	2	1	3,562
	31	2	8	20	0	8	2	2,661
	37	3	11	30	0	33	8	3,918
	37	3	11	30	0	33	8	3,918
	39	0	0	0	0	13	3	65
	40	3	10	25	0	5	2	3,402
	Total	**18**	**63**	**160**	**0**	**133**	**32**	**21,795**
31	17	2	6	14	0	7	2	1,999
	21	2	6	15	0	32	7	2,269
	25	3	12	28	0	2	1	3,562
	31	2	8	20	0	8	2	2,661
	39	0	0	0	0	13	3	65
	40	3	10	25	0	5	2	3,402
	Total	**12**	**41**	**101**	**0**	**67**	**17**	**13,958**
32	21	2	6	15	0	32	7	2,269
	25	3	12	28	0	2	1	3,562
	31	2	8	20	0	8	2	2,661
	39	0	0	0	0	13	3	65
	40	3	10	25	0	5	2	3,402
	Total	**10**	**36**	**87**	**0**	**60**	**15**	**11,959**
33	21	2	6	15	0	32	7	2,269
	25	3	12	28	0	2	1	3,562
	31	2	8	20	0	8	2	2,661
	40	3	10	25	0	5	2	3,402
	Total	**10**	**35**	**87**	**0**	**48**	**12**	**11,894**

Emissions by Timeslice

	34	22	2	6	15	0	32	7	2,269
		25	3	12	28	0	2	1	3,562
		32	0	2	4	0	2	0	582
		40	3	10	25	0	5	2	3,402
		Total	**8**	**29**	**72**	**0**	**41**	**11**	**9,815**
	35	32	0	2	4	0	2	0	582
		36	0	1	0	0	0	0	232
		40	3	10	25	0	5	2	3,402
		Total	**3**	**13**	**29**	**0**	**7**	**2**	**4,216**
2013	36	33	3	10	27	0	35	8	3,738
		36	0	1	0	0	0	0	232
		40	3	10	25	0	5	2	3,402
		Total	**6**	**21**	**52**	**0**	**40**	**10**	**7,372**
	37	33	3	10	27	0	35	8	3,738
		36	0	1	0	0	0	0	232
		40	3	10	25	0	5	2	3,402
		41	3	9	24	0	52	11	3,719
		Total	**9**	**30**	**76**	**0**	**92**	**21**	**11,091**
	38	33	3	10	27	0	35	8	3,738
		40	3	10	25	0	5	2	3,402
		41	3	9	24	0	52	11	3,719
		Total	**9**	**28**	**76**	**0**	**92**	**21**	**10,859**
	39	34	3	9	25	0	12	3	3,739
		35	3	9	25	0	1	1	3,739
		41	3	9	24	0	52	11	3,719
		Total	**8**	**27**	**73**	**0**	**65**	**15**	**11,196**
	40	34	3	9	25	0	12	3	3,739
		41	3	9	24	0	52	11	3,719
		Total	**6**	**18**	**49**	**0**	**64**	**15**	**7,457**
2014	41	38	0	1	0	0	10	2	116
		41	3	9	24	0	52	11	3,719
		Total	**3**	**10**	**24**	**0**	**62**	**13**	**3,834**
2015	42	38	0	1	0	0	10	2	116
		42	2	6	14	0	44	10	2,813
		43	2	6	14	0	23	5	2,813
		Total	**4**	**13**	**29**	**0**	**77**	**17**	**5,741**
	43	38	0	1	0	0	10	2	116
		44	2	6	14	0	1	1	2,813
		Total	**2**	**7**	**14**	**0**	**11**	**3**	**2,928**
	44	44	2	6	14	0	1	1	2,813
		Total	**2**	**6**	**14**	**0**	**1**	**1**	**2,813**
	45	45	3	11	23	0	67	15	4,052
		50	3	10	21	0	9	3	3,564
		Total	**6**	**22**	**44**	**0**	**76**	**17**	**7,615**
	46	46	3	11	23	0	67	15	4,052
		50	3	10	21	0	9	3	3,564
		Total	**6**	**22**	**44**	**0**	**76**	**17**	**7,615**
	47	47	3	9	20	0	22	5	3,740
		50	3	10	21	0	9	3	3,564
		Total	**5**	**19**	**40**	**0**	**31**	**8**	**7,303**
2016	48	47	3	9	20	0	22	5	3,740
		50	3	10	21	0	9	3	3,564
		51	2	6	13	0	16	4	2,813
		56	0	1	0	0	11	2	180
		59	0	0	0	0	13	3	64
		Total	**7**	**26**	**53**	**0**	**71**	**16**	**10,360**
	49	47	3	9	20	0	22	5	3,740
		50	3	10	21	0	9	3	3,564
		52	2	6	13	0	6	1	2,813
		56	0	1	0	0	11	2	180
		58	0	0	0	0	2	0	115
		59	0	0	0	0	13	3	64
		Total	**7**	**26**	**53**	**0**	**62**	**14**	**10,475**

Emissions by Timeslice

50	47	3	9	20	0	22	5	3,740
	52	2	6	13	0	6	1	2,813
	56	0	1	0	0	11	2	180
	58	0	0	0	0	2	0	115
	59	0	0	0	0	13	3	64
	Total	**4**	**16**	**32**	**0**	**54**	**12**	**6,911**
51	47	3	9	20	0	22	5	3,740
	53	2	6	13	0	16	4	2,813
	56	0	1	0	0	11	2	180
	58	0	0	0	0	2	0	115
	59	0	0	0	0	13	3	64
	Total	**4**	**16**	**32**	**0**	**64**	**14**	**6,911**
52	48	2	8	17	0	44	10	3,740
	49	2	8	17	0	1	1	3,740
	53	2	6	13	0	16	4	2,813
	56	0	1	0	0	11	2	180
	58	0	0	0	0	2	0	115
	59	0	0	0	0	13	3	64
	Total	**7**	**24**	**48**	**0**	**88**	**19**	**10,652**
53	48	2	8	17	0	44	10	3,740
	49	2	8	17	0	1	1	3,740
	54	3	12	24	0	31	7	5,081
	56	0	1	0	0	11	2	180
	57	0	1	0	0	11	2	180
	58	0	0	0	0	2	0	115
	59	0	0	0	0	13	3	64
	Total	**8**	**31**	**59**	**0**	**113**	**25**	**13,100**
54	48	2	8	17	0	44	10	3,740
	54	3	12	24	0	31	7	5,081
	56	0	1	0	0	11	2	180
	57	0	1	0	0	11	2	180
	58	0	0	0	0	2	0	115
	59	0	0	0	0	13	3	64
	Total	**6**	**23**	**42**	**0**	**113**	**24**	**9,360**
55	54	3	12	24	0	31	7	5,081
	56	0	1	0	0	11	2	180
	57	0	1	0	0	11	2	180
	58	0	0	0	0	2	0	115
	59	0	0	0	0	13	3	64
	Total	**3**	**14**	**25**	**0**	**68**	**15**	**5,620**
56	55	2	8	17	0	8	2	3,740
	56	0	1	0	0	11	2	180
	57	0	1	0	0	11	2	180
	58	0	0	0	0	2	0	115
	59	0	0	0	0	13	3	64
	Total	**2**	**10**	**18**	**0**	**46**	**10**	**4,279**
2017 57	58	0	0	0	0	2	0	115
	59	0	0	0	0	13	3	64
	Total	**0**	**1**	**0**	**0**	**15**	**3**	**180**
58	59	0	0	0	0	13	3	64
	Total	**0**	**0**	**0**	**0**	**13**	**3**	**64**

MAX	**35**	**119**	**398**	**0**	**172**	**47**	**37,786**
Threshold	75	550	100	150	150	55	N/A
Impact?	**No**	**No**	**Yes**	**No**	**Yes**	**No**	**No**

Onsite Emissions by Subphase and Source Type
Unmitigated Project Construction

Subphase ID	Phase	Subphase		Timeslice 12	Timeslice 13	Construction Equipment & Onsite Trucks NOx 1-hr (lb/hr)	PM10 24-hr (lb/day)	PM2.5 24-hr (lb/day)	CO 1-hr (lb/hr)	CO 8-hr (lb/hr)	Tugboats NOx 1-hr (lb/hr)	PM10 24-hr (lb/day)	PM2.5 24-hr (lb/day)	CO 1-hr (lb/hr)	CO 8-hr (lb/hr)	Fugitive Dust PM10 24-hr (lb/day)	PM2.5 24-hr (lb/day)
6	PHASE I	Avalon Boulevard Corridor - North	Red Car Museum in Bekins Building	1	1	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	PHASE I	General Site Preparation	Pavement Demolition	1	1	6.55	1.60	1.46	2.13	1.73	0.00	0.00	0.00	0.00	0.00	66.30	13.75
9	PHASE I	General Site Preparation	Utilities Demolition	1		6.55	1.60	1.46	2.13	1.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	PHASE I	Public Utilities and Infrastructure	Remove and replace ex. 32" SD w/ 48" RCP	1	1	3.71	0.97	0.88	1.24	1.06	0.00	0.00	0.00	0.00	0.00	1.21	0.25
11	PHASE I	Public Utilities and Infrastructure	Realign 12" oil line	1	1	3.40	0.87	0.79	1.16	1.00	0.00	0.00	0.00	0.00	0.00	1.08	0.22
12	PHASE I	Public Utilities and Infrastructure	Realign 12" Sewer	1	1	3.12	0.79	0.71	1.10	0.95	0.00	0.00	0.00	0.00	0.00	0.54	0.11
13	PHASE I	Public Utilities and Infrastructure	Realign 12" Water	1	1	2.86	0.71	0.64	1.06	0.91	0.00	0.00	0.00	0.00	0.00	0.54	0.11
14	PHASE I	Pedestrian Bridge	Piles (& Pile Caps)	1		3.10	1.25	1.14	1.96	1.80	0.00	0.00	0.00	0.00	0.00	6.39	1.33
14b	PHASE I	Pedestrian Bridge	Set Pile Caps	1	1	5.71	1.33	1.21	1.95	1.58	0.00	0.00	0.00	0.00	0.00	6.39	1.33
18	PHASE I	Interim Land Bridge (Rail/Street Tunnel)	Foundation Piles		1	3.83	0.85	0.78	1.28	0.98	0.00	0.00	0.00	0.00	0.00	31.51	6.53
28	PHASE I	Waterfront Promenade	Removal of existing wharf structure & Bulkhead	1	1	6.45	1.53	1.39	2.23	1.73	22.59	4.93	4.53	1.88	0.94	3.94	0.83
37	PHASE I	Observation Tower	Concrete Prep.		1	5.44	1.41	1.29	2.09	1.76	0.00	0.00	0.00	0.00	0.00	31.51	6.53
39	PHASE I	Development	Light Industrial	1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.61	2.62

Onsite Emissions by AERMOD Source
Unmitigated Project Construction
Timeslice 12

AERMOD Source	Source Description	Surface Area (m2)	NOx 1-hr (g/s)	PM10 24-hr (g/s)	PM2.5 24-hr (g/s)	CO 1-hr (g/s)	CO 8-hr (g/s)	NOx 1-hr (g/s/m2)	PM10 24-hr (g/s/m2)	PM2.5 24-hr (g/s/m2)	CO 1-hr (g/s/m2)	CO 8-hr (g/s/m2)
BEKINS1	Bekins Building - Exhaust	5,362	7.50E-05	1.04E-06	9.48E-07	7.87E-04	7.87E-04	1.40E-08	1.94E-10	1.77E-10	1.47E-07	1.47E-07
WTR_BRG1	Water (pedestrian) bridge - Exhaust	7,432	1.11E+00	1.35E-02	1.23E-02	4.93E-01	4.26E-01	1.49E-04	1.82E-06	1.66E-06	6.63E-05	5.73E-05
LND_BRG1	Land Bridge (Phase I) - Exhaust	15,743						0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WHARF1	Wharf Structure - Exhaust	9,765	8.13E-01	8.03E-03	7.31E-03	2.81E-01	2.18E-01	8.33E-05	8.22E-07	7.48E-07	2.88E-05	2.23E-05
OBS_TWR1	Observation Tower - Exhaust	625						0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INDUSTR1	Light Industrial Development - Exhaust	80,171	4.17E-05	5.79E-07	5.27E-07	4.37E-04	4.37E-04	5.20E-10	7.22E-12	6.57E-12	5.45E-09	5.45E-09
STH_END1	South portion of project site - Exhaust	45,062	1.65E+00	1.68E-02	1.53E-02	5.37E-01	4.37E-01	3.66E-05	3.74E-07	3.40E-07	1.19E-05	9.70E-06
AVALON1	Avalon betw. H. Bridges & Water St - Exhaust	9,794	4.67E-01	5.07E-03	4.62E-03	1.56E-01	1.34E-01	4.77E-05	5.18E-07	4.71E-07	1.59E-05	1.37E-05
WATERST1	Water St betw. Fries and Avalon - Exhaust	4,671	1.18E+00	1.24E-02	1.13E-02	4.19E-01	3.60E-01	2.53E-04	2.66E-06	2.42E-06	8.97E-05	7.71E-05
BEKINS2	Bekins Building - Dust	5,362	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WTR_BRG2	Water (pedestrian) bridge - Dust	7,432	0.00E+00	6.71E-02	1.39E-02	0.00E+00	0.00E+00	0.00E+00	9.03E-06	1.87E-06	0.00E+00	0.00E+00
LND_BRG2	Land Bridge (Phase I) - Dust	15,743						0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WHARF2	Wharf Structure - Dust	9,765	0.00E+00	2.07E-02	4.34E-03	0.00E+00	0.00E+00	0.00E+00	2.12E-06	4.45E-07	0.00E+00	0.00E+00
OBS_TWR2	Observation Tower - Dust	625						0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INDUSTR2	Light Industrial Development - Dust	80,171	0.00E+00	6.62E-02	1.37E-02	0.00E+00	0.00E+00	0.00E+00	8.26E-07	1.71E-07	0.00E+00	0.00E+00
STH_END2	South portion of project site - Dust	45,062	0.00E+00	3.48E-01	7.22E-02	0.00E+00	0.00E+00	0.00E+00	7.72E-06	1.60E-06	0.00E+00	0.00E+00
AVALON2	Avalon betw. H. Bridges & Water St - Dust	9,794	0.00E+00	6.36E-03	1.32E-03	0.00E+00	0.00E+00	0.00E+00	6.49E-07	1.35E-07	0.00E+00	0.00E+00
WATERST2	Water St betw. Fries and Avalon - Dust	4,671	0.00E+00	1.13E-02	2.34E-03	0.00E+00	0.00E+00	0.00E+00	2.42E-06	5.02E-07	0.00E+00	0.00E+00
WHARF3	Wharf Structure - Tugs	9,765	2.85E+00	2.59E-02	2.38E-02	2.37E-01	1.19E-01	2.91E-04	2.65E-06	2.44E-06	2.43E-05	1.21E-05

Onsite Emissions by AERMOD Source
Unmitigated Project Construction
Timeslice 13

AERMOD Source	Source Description	Surface Area (m2)	NOx 1-hr (g/s)	PM10 24-hr (g/s)	PM2.5 24-hr (g/s)	CO 1-hr (g/s)	CO 8-hr (g/s)	NOx 1-hr (g/s/m2)	PM10 24-hr (g/s/m2)	PM2.5 24-hr (g/s/m2)	CO 1-hr (g/s/m2)	CO 8-hr (g/s/m2)
BEKINS1	Bekins Building - Exhaust	5,362	7.50E-05	1.04E-06	9.48E-07	7.87E-04	7.87E-04	1.40E-08	1.94E-10	1.77E-10	1.47E-07	1.47E-07
WTR_BRG1	Water (pedestrian) bridge - Exhaust	7,432	7.20E-01	6.96E-03	6.33E-03	2.46E-01	1.99E-01	9.68E-05	9.36E-07	8.52E-07	3.31E-05	2.68E-05
LND_BRG1	Land Bridge (Phase I) - Exhaust	15,743	4.83E-01	4.48E-03	4.08E-03	1.62E-01	1.24E-01	3.07E-05	2.84E-07	2.59E-07	1.03E-05	7.85E-06
WHARF1	Wharf Structure - Exhaust	9,765	8.13E-01	8.03E-03	7.31E-03	2.81E-01	2.18E-01	8.33E-05	8.22E-07	7.48E-07	2.88E-05	2.23E-05
OBS_TWR1	Observation Tower - Exhaust	625	6.86E-01	7.43E-03	6.76E-03	2.63E-01	2.22E-01	1.10E-03	1.19E-05	1.08E-05	4.21E-04	3.55E-04
INDUSTR1	Light Industrial Development - Exhaust	80,171	4.17E-05	5.79E-07	5.27E-07	4.37E-04	4.37E-04	5.20E-10	7.22E-12	6.57E-12	5.45E-09	5.45E-09
STH_END1	South portion of project site - Exhaust	45,062	8.25E-01	8.42E-03	7.67E-03	2.68E-01	2.18E-01	1.83E-05	1.87E-07	1.70E-07	5.96E-06	4.85E-06
AVALON1	Avalon betw. H. Bridges & Water St - Exhaust	9,794	4.67E-01	5.07E-03	4.62E-03	1.56E-01	1.34E-01	4.77E-05	5.18E-07	4.71E-07	1.59E-05	1.37E-05
WATERST1	Water St betw. Fries and Avalon - Exhaust	4,671	1.18E+00	1.24E-02	1.13E-02	4.19E-01	3.60E-01	2.53E-04	2.66E-06	2.42E-06	8.97E-05	7.71E-05
BEKINS2	Bekins Building - Dust	5,362	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WTR_BRG2	Water (pedestrian) bridge - Dust	7,432	0.00E+00	3.36E-02	6.96E-03	0.00E+00	0.00E+00	0.00E+00	4.52E-06	9.36E-07	0.00E+00	0.00E+00
LND_BRG2	Land Bridge (Phase I) - Dust	15,743	0.00E+00	1.65E-01	3.43E-02	0.00E+00	0.00E+00	0.00E+00	1.05E-05	2.18E-06	0.00E+00	0.00E+00
WHARF2	Wharf Structure - Dust	9,765	0.00E+00	2.07E-02	4.34E-03	0.00E+00	0.00E+00	0.00E+00	2.12E-06	4.45E-07	0.00E+00	0.00E+00
OBS_TWR2	Observation Tower - Dust	625	0.00E+00	1.65E-01	3.43E-02	0.00E+00	0.00E+00	0.00E+00	2.65E-04	5.49E-05	0.00E+00	0.00E+00
INDUSTR2	Light Industrial Development - Dust	80,171	0.00E+00	6.62E-02	1.37E-02	0.00E+00	0.00E+00	0.00E+00	8.26E-07	1.71E-07	0.00E+00	0.00E+00
STH_END2	South portion of project site - Dust	45,062	0.00E+00	3.48E-01	7.22E-02	0.00E+00	0.00E+00	0.00E+00	7.72E-06	1.60E-06	0.00E+00	0.00E+00
AVALON2	Avalon betw. H. Bridges & Water St - Dust	9,794	0.00E+00	6.36E-03	1.32E-03	0.00E+00	0.00E+00	0.00E+00	6.49E-07	1.35E-07	0.00E+00	0.00E+00
WATERST2	Water St betw. Fries and Avalon - Dust	4,671	0.00E+00	1.13E-02	2.34E-03	0.00E+00	0.00E+00	0.00E+00	2.42E-06	5.02E-07	0.00E+00	0.00E+00
WHARF3	Wharf Structure - Tugs	9,765	2.85E+00	2.59E-02	2.38E-02	2.37E-01	1.19E-01	2.91E-04	2.65E-06	2.44E-06	2.43E-05	1.21E-05

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Mitigated Construction Emission Results

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Mitigated Emission Rates

PHASE I

Avalon Boulevard Corridor - North

2010

	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
Railroad Green 1 (landscaping/hardscaping) c	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.20	2.10	3.87	0.01	0.02	0.02	757.80
	Excavator	nonroad	428	0.57	1	8	1951.7	1	g/hp-hr	0.0805	0.8550	1.6050	0.0030	0.0081	0.0074	324.2220	0.35	3.68	6.91	0.01	0.03	0.03	1395.01
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.0920	0.8680	1.9392	0.0030	0.0095	0.0087	307.1580	0.12	1.12	2.49	0.00	0.01	0.01	394.92
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.1527	2.2550	2.6058	0.0040	0.0313	0.0285	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.2495	2.6620	3.0258	0.0040	0.0524	0.0477	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.1103	1.4850	1.7346	0.0030	0.0198	0.0180	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0723	0.9000	1.4442	0.0020	0.0076	0.0069	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0723	0.9000	1.4442	0.0020	0.0076	0.0069	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1970	2.9600	2.6770	0.0030	0.2810	0.2557	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.7060	2.9830	4.7310	0.0070	0.2820	0.2566	420.9200	0.12	0.51	0.80	0.00	0.05	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.20	2.10	3.87	0.01	0.02	0.02	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0793	0.8700	1.6914	0.0030	0.0082	0.0075	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0887	0.7810	1.9527	0.0030	0.0089	0.0081	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0825	0.9910	1.6860	0.0030	0.0087	0.0079	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/kW-hr	0.5000	5.0000	9.8000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0904	1.0040	1.9530	0.0030	0.0094	0.0086	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0648	0.7850	1.6458	0.0050	0.0071	0.0065	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.1812	2.7670	3.2312	0.0050	0.0361	0.0329	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed												Daily Emission Rates (lb/day)						
On-road Truck - 10 mph		0.25	2		0.5		g/mile	2.029	6.383	15.395	0.03	0.0375	0.034125	3126.461	0.00	0.01	0.02	0.00	0.00	0.00	3.45
On-road Truck - 25 mph		0.5	2		1		g/mile	0.502	2.48	8.655	0.019	0.0303	0.027573	2007.237	0.00	0.01	0.02	0.00	0.00	0.00	4.43
On-road Truck - 55 mph		40	2		80		g/mile	0.247	2.376	6.133	0.016	0.0513	0.046683	1632.199	0.04	0.42	1.08	0.00	0.01	0.01	287.87
Dredge Materials Haul Truck - Composite							g/mile	0.502	2.48	8.655	0.019	0.0303	0.027573	2007.237	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite							g/mile	0.502	2.48	8.655	0.019	0.0303	0.027573	2007.237	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle			2	5			g/mile	7.452	40.347	120.294	0.062	0.06435	0.058559	6444.365	0.00	0.01	0.04	0.00	0.00	0.00	2.37
On-road Crew Vehicle - 30 mph - Compc		9	9		81		g/mile	0.009	0.729	0.058	0.003	0.005	0.00455	337.147	0.00	0.13	0.01	0.00	0.00	0.00	60.20
On-road Crew Vehicle - 55 mph - Compc		9	9		81		g/mile	0.007	0.506	0.052	0.003	0.004	0.00364	305.412	0.00	0.09	0.01	0.00	0.00	0.00	54.54
Building Demolition							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust						1.76	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	5.16	1.07	0.00
														Total	1.04	10.17	19.13	0.04	5.30	1.21	3789.80

2009

	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
demo approximately 55, 000 square 2 feet of existing buildings c	General Construction Trucks	nonroad	310	0.57	2	6	2120.4	1	g/hp-hr	0.0907	0.9560	1.7730	0.0030	0.0090	0.0082	324.2200	0.42	4.47	8.29	0.01	0.04	0.04	1515.60
	Excavator	nonroad	428	0.57	1	8	1951.7	1	g/hp-hr	0.0840	0.9150	1.7190	0.0030	0.0086	0.0078	324.2220	0.36	3.94	7.40	0.01	0.04	0.03	1395.01
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.0971	0.9140	2.0623	0.0030	0.0102	0.0093	307.1580	0.12	1.18	2.65	0.00	0.01	0.01	394.92
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.1626	2.2790	2.7463	0.0040	0.0329	0.0299	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.2632	2.6950	3.1728	0.0040	0.0546	0.0496	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.1162	1.4930	1.8363	0.0030	0.0207	0.0189	244.5860	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0761	0.9720	1.5294	0.0020	0.0081	0.0074	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	1	6	864.3	1	g/hp-hr	0.0761	0.9720	1.5294	0.0020	0.0081	0.0074	244.5890	0.14	1.85	2.91	0.00	0.02	0.01	466.05
	Welding Machine	nonroad	26	0.45	1	8	93.6	1	g/hp-hr	1.2590	3.0190	2.7130	0.0030	0.2920	0.2657	255.9650	0.26	0.62	0.56	0.00	0.06	0.05	52.82
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.7420	3.0340	4.9070	0.0070	0.2990	0.2721	420.9200	0.13	0.51	0.83	0.00	0.05	0.05	71.42
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0907	0.9560	1.7730	0.0030	0.0090	0.0082	324.2200	0.21	2.23	4.14	0.01	0.02	0.02	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0831	0.9520	1.7862	0.0030	0.0087	0.0079	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0938	0.8310	2.0586	0.0030	0.0095	0.0087	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	1	8	1760	1	g/hp-hr	0.0863	1.0650	1.7910	0.0030	0.0092	0.0084	307.1580	0.34	4.13	6.95	0.01	0.04	0.03	1191.79
	Dump Truck	nonroad	310	0.57	2	6	2120.4	1	g/hp-hr	0.0907	0.9560	1.7730	0.0030	0.0090	0.0082	324.2200	0.42	4.47	8.29	0.01	0.04	0.04	1515.60
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	5.0000	9.8000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0951	1.0990	2.0622	0.0030	0.0100	0.0091	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5080	1.7100	3.2630	0.0050	0.1780	0.1620	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0678	0.7890	1.8216	0.0050	0.0074	0.0067	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0907	0.9560	1.7730	0.0030	0.0090	0.0082	324.2200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.1922	2.7910	3.3874	0.0050	0.0375	0.0341	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5080	1.7100	3.2630	0.0050	0.1780	0.1620	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed												Daily Emission Rates (lb/day)						
On-road Truck - 10 mph		0.25	3		0.75		g/mile	1.992	6.631	17.304	0.03	0.0408	0.037128	3117.857	0.00	0.01	0.03	0.00	0.00	0.00	5.16
On-road Truck - 25 mph		0.5	3		1.5		g/mile	0.494	2.585	9.732	0.019	0.033	0.03003	1999.414	0.00	0.01	0.03	0.00	0.00	0.00	6.61
On-road Truck - 55 mph		40	3		120		g/mile	0.243	2.442	6.899	0.016	0.0558	0.050778	1625.544	0.06	0.65	1.83	0.00	0.01	0.01	430.04
Dredge Materials Haul Truck - Composite							g/mile	0.494	2.585	9.732	0.019	0.033	0.03003	1999.414	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite							g/mile	0.494	2.585	9.732	0.019	0.033	0.03003	1999.414	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle			3	5			g/mile	7.408	40.108	119.582	0.061	0.0738	0.067158	6406.238	0.00	0.02	0.07	0.00	0.00	0.00	3.53
On-road Crew Vehicle - 30 mph - Compc		9	9		81		g/mile	0.009	0.741	0.06	0.003	0.005	0.00455	337.147	0.00	0.13	0.01	0.00	0.00	0.00	60.20
On-road Crew Vehicle - 55 mph - Compc		9	9		81		g/mile	0.007	0.514	0.054	0.003	0.004	0.00364	305.412	0.00	0.09	0.01	0.00	0.00	0.00	54.54
Building Demolition	6111.111111						lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	2.57	0.54	0.00
Fugitive Dust							lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
														Total	2.49	24.32	44.00	0.07	2.90	0.84	7921.08

Mitigated Emission Rates

2010

	Demolish existing sidewalks, back of curb to ROW	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
3		General Construction Trucks	nonroad	310	0.57	2	6	2120.4	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.41	4.20	7.74	0.01	0.04	0.04	1515.61
		Excavator	nonroad	428	0.57	1	8	1951.7	1	g/hp-hr	0.0805	0.8550	1.6050	0.0030	0.0081	0.0074	324.2220	0.35	3.68	6.91	0.01	0.03	0.03	1395.01
		Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.0920	0.8680	1.9392	0.0030	0.0095	0.0087	307.1580	0.12	1.12	2.49	0.00	0.01	0.01	394.92
		Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.1527	2.2550	2.6058	0.0040	0.0313	0.0285	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.2495	2.6620	3.0258	0.0040	0.0524	0.0477	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.1103	1.4850	1.7346	0.0030	0.0198	0.0180	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0723	0.9000	1.4442	0.0020	0.0076	0.0069	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0723	0.9000	1.4442	0.0020	0.0076	0.0069	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1970	2.9600	2.6770	0.0030	0.2810	0.2557	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.7060	2.9830	4.7310	0.0070	0.2820	0.2566	420.9200	0.12	0.51	0.80	0.00	0.05	0.04	71.42
		Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0793	0.8700	1.6914	0.0030	0.0082	0.0075	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0887	0.7810	1.9527	0.0030	0.0089	0.0081	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0825	0.9910	1.6860	0.0030	0.0087	0.0079	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Dump Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.20	2.10	3.87	0.01	0.02	0.02	757.80
		Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	5.0000	9.8000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0904	1.0040	1.9530	0.0030	0.0094	0.0086	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0648	0.7850	1.6458	0.0050	0.0071	0.0065	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.1812	2.7670	3.2312	0.0050	0.0361	0.0329	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
		On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	2.029	6.383	15.395	0.03	0.0375	0.034125	3126.461	0.00	0.01	0.02	0.00	0.00	0.00	3.45
		On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	0.502	2.48	8.655	0.019	0.0303	0.027573	2007.237	0.00	0.01	0.02	0.00	0.00	0.00	4.43
		On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.247	2.376	6.133	0.016	0.0513	0.046683	1632.199	0.04	0.42	1.08	0.00	0.01	0.01	287.87
		Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.502	2.48	8.655	0.019	0.0303	0.027573	2007.237	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Other On-Road Trucks - Composite	nonroad							g/mile	0.502	2.48	8.655	0.019	0.0303	0.027573	2007.237	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		On-road Truck - Idle	nonroad			2	5			g/mile	7.452	40.347	120.294	0.062	0.06435	0.058559	6444.365	0.00	0.01	0.04	0.00	0.00	0.00	2.37
		On-road Crew Vehicle - 30 mph - Compc	nonroad		9	9		81		g/mile	0.009	0.729	0.058	0.003	0.005	0.00455	337.147	0.00	0.13	0.01	0.00	0.00	0.00	60.20
		On-road Crew Vehicle - 55 mph - Compc	nonroad		9	9		81		g/mile	0.007	0.506	0.052	0.003	0.004	0.00364	305.412	0.00	0.09	0.01	0.00	0.00	0.00	54.54
		Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Fugitive Dust	dust						1.662	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	4.87	1.01	0.00
																		Total	1.25	12.26	23.00	0.04	5.04	1.16	4547.61

2010

	Construct new sidewalk, incl. tree wells	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
4		General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.20	2.10	3.87	0.01	0.02	0.02	757.80
		Excavator	nonroad	428	0.57	1	8	1951.7	1	g/hp-hr	0.0805	0.8550	1.6050	0.0030	0.0081	0.0074	324.2220	0.35	3.68	6.91	0.01	0.03	0.03	1395.01
		Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.0920	0.8680	1.9392	0.0030	0.0095	0.0087	307.1580	0.12	1.12	2.49	0.00	0.01	0.01	394.92
		Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.1527	2.2550	2.6058	0.0040	0.0313	0.0285	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.2495	2.6620	3.0258	0.0040	0.0524	0.0477	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.1103	1.4850	1.7346	0.0030	0.0198	0.0180	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0723	0.9000	1.4442	0.0020	0.0076	0.0069	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0723	0.9000	1.4442	0.0020	0.0076	0.0069	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1970	2.9600	2.6770	0.0030	0.2810	0.2557	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.7060	2.9830	4.7310	0.0070	0.2820	0.2566	420.9200	0.12	0.51	0.80	0.00	0.05	0.04	71.42
		Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.20	2.10	3.87	0.01	0.02	0.02	757.80
		Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0793	0.8700	1.6914	0.0030	0.0082	0.0075	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0887	0.7810	1.9527	0.0030	0.0089	0.0081	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0825	0.9910	1.6860	0.0030	0.0087	0.0079	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	5.0000	9.8000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0904	1.0040	1.9530	0.0030	0.0094	0.0086	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0648	0.7850	1.6458	0.0050	0.0071	0.0065	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.1812	2.7670	3.2312	0.0050	0.0361	0.0329	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
				Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
		On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	2.029	6.383	15.395	0.03	0.0375	0.034125	3126.461	0.00	0.01	0.02	0.00	0.00	0.00	3.45
		On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	0.502	2.48	8.655	0.019	0.0303	0.027573	2007.237	0.00	0.01	0.02	0.00	0.00	0.00	4.43
		On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.247	2.376	6.133	0.016	0.0513	0.046683	1632.199	0.04	0.42	1.08	0.00	0.01	0.01	287.87
		Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.502	2.48	8.655	0.019	0.0303	0.027573	2007.237	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Other On-Road Trucks - Composite	nonroad							g/mile	0.502	2.48	8.655	0.019	0.0303	0.027573	2007.237	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		On-road Truck - Idle	nonroad			2	5			g/mile	7.452	40.347	120.294	0.062	0.06435	0.058559	6444.365	0.00	0.01	0.04	0.00	0.00	0.00	2.37
		On-road Crew Vehicle - 30 mph - Compc	nonroad		9	9		81		g/mile	0.009	0.729	0.058	0.003	0.005	0.00455	337.147	0.00	0.13	0.01	0.00	0.00	0.00	60.20
		On-road Crew Vehicle - 55 mph - Compc	nonroad		9	9		81		g/mile	0.007	0.506	0.052	0.003	0.004	0.00364	305.412	0.00	0.09	0.01	0.00	0.00	0.00	54.54
		Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Fugitive Dust	dust						1.719	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	5.04	1.05	0.00
																		Total	1.04	10.17	19.13	0.04	5.18	1.18	3789.80

Mitigated Emission Rates

2010

5 Place new street trees	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
d	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.20	2.10	3.87	0.01	0.02	0.02	757.80
	Excavator	nonroad	428	0.57	1	8	1951.7	1	g/hp-hr	0.0805	0.8550	1.6050	0.0030	0.0081	0.0074	324.2220	0.35	3.68	6.91	0.01	0.03	0.03	1395.01
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.0920	0.8680	1.9392	0.0030	0.0095	0.0087	307.1580	0.12	1.12	2.49	0.00	0.01	0.01	394.92
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.1527	2.2550	2.6058	0.0040	0.0313	0.0285	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.2495	2.6620	3.0258	0.0040	0.0524	0.0477	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.1103	1.4850	1.7346	0.0030	0.0198	0.0180	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0723	0.9000	1.4442	0.0020	0.0076	0.0069	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0723	0.9000	1.4442	0.0020	0.0076	0.0069	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1970	2.9600	2.6770	0.0030	0.2810	0.2557	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.7060	2.9830	4.7310	0.0070	0.2820	0.2566	420.9200	0.12	0.51	0.80	0.00	0.05	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.20	2.10	3.87	0.01	0.02	0.02	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0793	0.8700	1.6914	0.0030	0.0082	0.0075	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0887	0.7810	1.9527	0.0030	0.0089	0.0081	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0825	0.9910	1.6860	0.0030	0.0087	0.0079	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	5.0000	9.8000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0904	1.0040	1.9530	0.0030	0.0094	0.0086	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0648	0.7850	1.6458	0.0050	0.0071	0.0065	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.1812	2.7670	3.2312	0.0050	0.0361	0.0329	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	2.029	6.383	15.395	0.03	0.0375	0.034125	3126.461	0.00	0.01	0.02	0.00	0.00	0.00	3.45
	On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	0.502	2.48	8.655	0.019	0.0303	0.027573	2007.237	0.00	0.01	0.02	0.00	0.00	0.00	4.43
	On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.247	2.376	6.133	0.016	0.0513	0.046683	1632.199	0.04	0.42	1.08	0.00	0.01	0.01	287.87
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.502	2.48	8.655	0.019	0.0303	0.027573	2007.237	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.502	2.48	8.655	0.019	0.0303	0.027573	2007.237	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			2	5			g/mile	7.452	40.347	120.294	0.062	0.06435	0.058559	6444.365	0.00	0.01	0.04	0.00	0.00	0.00	2.37
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	5		45		g/mile	0.009	0.729	0.058	0.003	0.005	0.00455	337.147	0.00	0.07	0.01	0.00	0.00	0.00	33.45
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	5		45		g/mile	0.007	0.506	0.052	0.003	0.004	0.00364	305.412	0.00	0.05	0.01	0.00	0.00	0.00	30.30
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						0	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
																	Total	1.04	10.07	19.12	0.04	0.15	0.13	3738.81

2010

6 Red Car Museum in Bekins Building	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
c	General Construction Trucks	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.0805	0.8550	1.6050	0.0030	0.0081	0.0074	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.0920	0.8680	1.9392	0.0030	0.0095	0.0087	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.1527	2.2550	2.6058	0.0040	0.0313	0.0285	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.2495	2.6620	3.0258	0.0040	0.0524	0.0477	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.1103	1.4850	1.7346	0.0030	0.0198	0.0180	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0723	0.9000	1.4442	0.0020	0.0076	0.0069	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0723	0.9000	1.4442	0.0020	0.0076	0.0069	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1970	2.9600	2.6770	0.0030	0.2810	0.2557	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.7060	2.9830	4.7310	0.0070	0.2820	0.2566	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0793	0.8700	1.6914	0.0030	0.0082	0.0075	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0887	0.7810	1.9527	0.0030	0.0089	0.0081	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0825	0.9910	1.6860	0.0030	0.0087	0.0079	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	5.0000	9.8000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0904	1.0040	1.9530	0.0030	0.0094	0.0086	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0648	0.7850	1.6458	0.0050	0.0071	0.0065	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.1812	2.7670	3.2312	0.0050	0.0361	0.0329	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	0		0		g/mile	2.029	6.383	15.395	0.03	0.0375	0.034125	3126.461	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - 25 mph	nonroad		0.5	0		0		g/mile	0.502	2.48	8.655	0.019	0.0303	0.027573	2007.237	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - 55 mph	nonroad		40	0		0		g/mile	0.247	2.376	6.133	0.016	0.0513	0.046683	1632.199	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.502	2.48	8.655	0.019	0.0303	0.027573	2007.237	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.502	2.48	8.655	0.019	0.0303	0.027573	2007.237	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			0	5			g/mile	7.452	40.347	120.294	0.062	0.06435	0.058559	6444.365	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.009	0.729	0.058	0.003	0.005	0.00455	337.147	0.00	0.13	0.01	0.00	0.00	0.00	60.20
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.007	0.506	0.052	0.003	0.004	0.00364	305.412	0.00	0.09	0.01	0.00	0.00	0.00	54.54
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust							lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
																	Total	0.00	0.22	0.02	0.00	0.00	0.00	114.74

Mitigated Emission Rates

General Site Preparation — 2010

7 Clearing and Grubbing

c

Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
General Construction Trucks	nonroad	310	0.57	2	6	2120.4	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.41	4.20	7.74	0.01	0.04	0.04	1515.61
Excavator	nonroad	428	0.57	1	8	1951.7	1	g/hp-hr	0.0805	0.8550	1.6050	0.0030	0.0081	0.0074	324.2220	0.35	3.68	6.91	0.01	0.03	0.03	1395.01
Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.0920	0.8680	1.9392	0.0030	0.0095	0.0087	307.1580	0.12	1.12	2.49	0.00	0.01	0.01	394.92
Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.1527	2.2550	2.6058	0.0040	0.0313	0.0285	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.2495	2.6620	3.0258	0.0040	0.0524	0.0477	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.1103	1.4850	1.7346	0.0030	0.0198	0.0180	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0723	0.9000	1.4442	0.0020	0.0076	0.0069	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0723	0.9000	1.4442	0.0020	0.0076	0.0069	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1970	2.9600	2.6770	0.0030	0.2810	0.2557	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.7060	2.9830	4.7310	0.0070	0.2820	0.2566	420.9200	0.12	0.51	0.80	0.00	0.05	0.04	71.42
Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.20	2.10	3.87	0.01	0.02	0.02	757.80
Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0793	0.8700	1.6914	0.0030	0.0082	0.0075	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0887	0.7810	1.9527	0.0030	0.0089	0.0081	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0825	0.9910	1.6860	0.0030	0.0087	0.0079	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dump Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.20	2.10	3.87	0.01	0.02	0.02	757.80
Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	5.0000	9.8000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0904	1.0040	1.9530	0.0030	0.0094	0.0086	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0648	0.7850	1.6458	0.0050	0.0071	0.0065	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.1812	2.7670	3.2312	0.0050	0.0361	0.0329	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Equipment	Type	Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed		ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
On-road Truck - 10 mph	nonroad		0.25	3		0.75		g/mile	2.029	6.383	15.395	0.03	0.0375	0.034125	3126.461	0.00	0.01	0.03	0.00	0.00	0.00	5.17
On-road Truck - 25 mph	nonroad		0.5	3		1.5		g/mile	0.502	2.48	8.655	0.019	0.0303	0.027573	2007.237	0.00	0.01	0.03	0.00	0.00	0.00	6.64
On-road Truck - 55 mph	nonroad		40	3		120		g/mile	0.247	2.376	6.133	0.016	0.0513	0.046683	1632.199	0.07	0.63	1.62	0.00	0.01	0.01	431.80
Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.502	2.48	8.655	0.019	0.0303	0.027573	2007.237	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	0.502	2.48	8.655	0.019	0.0303	0.027573	2007.237	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			3	5			g/mile	7.452	40.347	120.294	0.062	0.06435	0.058559	6444.365	0.00	0.02	0.07	0.00	0.00	0.00	3.55
On-road Crew Vehicle - 30 mph - Compc	nonroad		9	9		81		g/mile	0.009	0.729	0.058	0.003	0.005	0.00455	337.147	0.00	0.13	0.01	0.00	0.00	0.00	60.20
On-road Crew Vehicle - 55 mph - Compc	nonroad		9	9		81		g/mile	0.007	0.506	0.052	0.003	0.004	0.00364	305.412	0.00	0.09	0.01	0.00	0.00	0.00	54.54
Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust	dust						6	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	17.58	3.66	0.00
																Total	**1.47**	**14.59**	**27.45**	**0.05**	**17.77**	**3.83**	**5454.46**

2010

8 Pavement Demolition

c

Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
General Construction Trucks	nonroad	310	0.57	2	6	2120.4	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.41	4.20	7.74	0.01	0.04	0.04	1515.61
Excavator	nonroad	428	0.57	1	8	1951.7	1	g/hp-hr	0.0805	0.8550	1.6050	0.0030	0.0081	0.0074	324.2220	0.35	3.68	6.91	0.01	0.03	0.03	1395.01
Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.0920	0.8680	1.9392	0.0030	0.0095	0.0087	307.1580	0.12	1.12	2.49	0.00	0.01	0.01	394.92
Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.1527	2.2550	2.6058	0.0040	0.0313	0.0285	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.2495	2.6620	3.0258	0.0040	0.0524	0.0477	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.1103	1.4850	1.7346	0.0030	0.0198	0.0180	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0723	0.9000	1.4442	0.0020	0.0076	0.0069	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0723	0.9000	1.4442	0.0020	0.0076	0.0069	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1970	2.9600	2.6770	0.0030	0.2810	0.2557	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.7060	2.9830	4.7310	0.0070	0.2820	0.2566	420.9200	0.12	0.51	0.80	0.00	0.05	0.04	71.42
Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.20	2.10	3.87	0.01	0.02	0.02	757.80
Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0793	0.8700	1.6914	0.0030	0.0082	0.0075	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0887	0.7810	1.9527	0.0030	0.0089	0.0081	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0825	0.9910	1.6860	0.0030	0.0087	0.0079	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dump Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.20	2.10	3.87	0.01	0.02	0.02	757.80
Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	5.0000	9.8000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0904	1.0040	1.9530	0.0030	0.0094	0.0086	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0648	0.7850	1.6458	0.0050	0.0071	0.0065	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.1812	2.7670	3.2312	0.0050	0.0361	0.0329	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Equipment	Type	Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed		ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
On-road Truck - 10 mph	nonroad		0.25	3		0.75		g/mile	2.029	6.383	15.395	0.03	0.0375	0.034125	3126.461	0.00	0.01	0.03	0.00	0.00	0.00	5.17
On-road Truck - 25 mph	nonroad		0.5	3		1.5		g/mile	0.502	2.48	8.655	0.019	0.0303	0.027573	2007.237	0.00	0.01	0.03	0.00	0.00	0.00	6.64
On-road Truck - 55 mph	nonroad		40	3		120		g/mile	0.247	2.376	6.133	0.016	0.0513	0.046683	1632.199	0.07	0.63	1.62	0.00	0.01	0.01	431.80
Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.502	2.48	8.655	0.019	0.0303	0.027573	2007.237	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	0.502	2.48	8.655	0.019	0.0303	0.027573	2007.237	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			3	5			g/mile	7.452	40.347	120.294	0.062	0.06435	0.058559	6444.365	0.00	0.02	0.07	0.00	0.00	0.00	3.55
On-road Crew Vehicle - 30 mph - Compc	nonroad		9	9		81		g/mile	0.009	0.729	0.058	0.003	0.005	0.00455	337.147	0.00	0.13	0.01	0.00	0.00	0.00	60.20
On-road Crew Vehicle - 55 mph - Compc	nonroad		9	9		81		g/mile	0.007	0.506	0.052	0.003	0.004	0.00364	305.412	0.00	0.09	0.01	0.00	0.00	0.00	54.54
Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust	dust						9.045	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	26.50	5.52	0.00
																Total	**1.47**	**14.59**	**27.45**	**0.05**	**26.69**	**5.69**	**5454.46**

Mitigated Emission Rates

9 Utilities Demolition		2010								Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
c	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
	General Construction Trucks	nonroad	310	0.57	2	6	2120.4	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.41	4.20	7.74	0.01	0.04	0.04	1515.61
	Excavator	nonroad	428	0.57	1	8	1951.7	1	g/hp-hr	0.0805	0.8550	1.6050	0.0030	0.0081	0.0074	324.2220	0.35	3.68	6.91	0.01	0.03	0.03	1395.01
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.0920	0.8680	1.9392	0.0030	0.0095	0.0087	307.1580	0.12	1.12	2.49	0.00	0.01	0.01	394.92
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.1527	2.2550	2.6058	0.0040	0.0313	0.0285	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.2495	2.6620	3.0258	0.0040	0.0524	0.0477	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.1103	1.4850	1.7346	0.0030	0.0198	0.0180	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0723	0.9000	1.4442	0.0020	0.0076	0.0069	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0723	0.9000	1.4442	0.0020	0.0076	0.0069	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1970	2.9600	2.6770	0.0030	0.2810	0.2557	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.7060	2.9830	4.7310	0.0070	0.2820	0.2566	420.9200	0.12	0.51	0.80	0.00	0.05	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.20	2.10	3.87	0.01	0.02	0.02	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0793	0.8700	1.6914	0.0030	0.0082	0.0075	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0887	0.7810	1.9527	0.0030	0.0089	0.0081	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0825	0.9910	1.6860	0.0030	0.0087	0.0079	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.20	2.10	3.87	0.01	0.02	0.02	757.80
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	5.0000	9.8000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0904	1.0040	1.9530	0.0030	0.0094	0.0086	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0648	0.7850	1.6458	0.0050	0.0071	0.0065	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.1812	2.7670	3.2312	0.0050	0.0361	0.0329	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	3		0.75		g/mile	2.029	6.383	15.395	0.03	0.0375	0.034125	3126.461	0.00	0.01	0.03	0.00	0.00	0.00	5.17
	On-road Truck - 25 mph	nonroad		0.5	3		1.5		g/mile	0.502	2.48	8.655	0.019	0.0303	0.027573	2007.237	0.00	0.01	0.03	0.00	0.00	0.00	6.64
	On-road Truck - 55 mph	nonroad		40	3		120		g/mile	0.247	2.376	6.133	0.016	0.0513	0.046683	1632.199	0.07	0.63	1.62	0.00	0.01	0.01	431.80
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.502	2.48	8.655	0.019	0.0303	0.027573	2007.237	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.502	2.48	8.655	0.019	0.0303	0.027573	2007.237	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			3	5			g/mile	7.452	40.347	120.294	0.062	0.06435	0.058559	6444.365	0.00	0.02	0.07	0.00	0.00	0.00	3.55
	On-road Crew Vehicle - 30 mph - Compc	nonroad		9	9		81		g/mile	0.009	0.729	0.058	0.003	0.005	0.00455	337.147	0.00	0.13	0.01	0.00	0.00	0.00	60.20
	On-road Crew Vehicle - 55 mph - Compc	nonroad		9	9		81		g/mile	0.007	0.506	0.052	0.003	0.004	0.00364	305.412	0.00	0.09	0.01	0.00	0.00	0.00	54.54
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust							lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
																Total	1.47	14.59	27.45	0.05	0.19	0.17	5454.46

Public Utilities and Infrastructure		2010								Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
10 Remove and replace ex. 32" SD w/ 48" RCP																							
c	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.20	2.10	3.87	0.01	0.02	0.02	757.80
	Excavator	nonroad	428	0.57	1	8	1951.7	1	g/hp-hr	0.0805	0.8550	1.6050	0.0030	0.0081	0.0074	324.2220	0.35	3.68	6.91	0.01	0.03	0.03	1395.01
	Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.0920	0.8680	1.9392	0.0030	0.0095	0.0087	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.1527	2.2550	2.6058	0.0040	0.0313	0.0285	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.2495	2.6620	3.0258	0.0040	0.0524	0.0477	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.1103	1.4850	1.7346	0.0030	0.0198	0.0180	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0723	0.9000	1.4442	0.0020	0.0076	0.0069	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0723	0.9000	1.4442	0.0020	0.0076	0.0069	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1970	2.9600	2.6770	0.0030	0.2810	0.2557	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.7060	2.9830	4.7310	0.0070	0.2820	0.2566	420.9200	0.12	0.51	0.80	0.00	0.05	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.20	2.10	3.87	0.01	0.02	0.02	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0793	0.8700	1.6914	0.0030	0.0082	0.0075	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0887	0.7810	1.9527	0.0030	0.0089	0.0081	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0825	0.9910	1.6860	0.0030	0.0087	0.0079	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	5.0000	9.8000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0904	1.0040	1.9530	0.0030	0.0094	0.0086	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0648	0.7850	1.6458	0.0050	0.0071	0.0065	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.1812	2.7670	3.2312	0.0050	0.0361	0.0329	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	2.029	6.383	15.395	0.03	0.0375	0.034125	3126.461	0.00	0.01	0.02	0.00	0.00	0.00	3.45
	On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	0.502	2.48	8.655	0.019	0.0303	0.027573	2007.237	0.00	0.01	0.02	0.00	0.00	0.00	4.43
	On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.247	2.376	6.133	0.016	0.0513	0.046683	1632.199	0.04	0.42	1.08	0.00	0.01	0.01	287.87
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.502	2.48	8.655	0.019	0.0303	0.027573	2007.237	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.502	2.48	8.655	0.019	0.0303	0.027573	2007.237	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			2	5			g/mile	7.452	40.347	120.294	0.062	0.06435	0.058559	6444.365	0.00	0.01	0.04	0.00	0.00	0.00	2.37
	On-road Crew Vehicle - 30 mph - Compc	nonroad		9	9		81		g/mile	0.009	0.729	0.058	0.003	0.005	0.00455	337.147	0.00	0.13	0.01	0.00	0.00	0.00	60.20
	On-road Crew Vehicle - 55 mph - Compc	nonroad		9	9		81		g/mile	0.007	0.506	0.052	0.003	0.004	0.00364	305.412	0.00	0.09	0.01	0.00	0.00	0.00	54.54
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						0.165289256	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	0.48	0.10	0.00
																Total	0.92	9.05	16.63	0.03	0.62	0.22	3394.88

Mitigated Emission Rates

2011

11 Realign 12" oil line	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
c	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.19	1.96	3.55	0.01	0.02	0.02	757.80
	Excavator	nonroad	428	0.57	1	8	1951.7	1	g/hp-hr	0.0767	0.8030	1.4664	0.0030	0.0073	0.0067	324.2220	0.33	3.46	6.31	0.01	0.03	0.03	1395.01
	Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.0866	0.8270	1.7946	0.0030	0.0086	0.0078	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.1431	2.2330	2.4718	0.0040	0.0299	0.0272	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.2363	2.6310	2.8849	0.0040	0.0502	0.0457	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.1046	1.4790	1.6366	0.0030	0.0189	0.0172	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0685	0.8330	1.3440	0.0020	0.0070	0.0064	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0685	0.8330	1.3440	0.0020	0.0070	0.0064	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1210	2.8790	2.6350	0.0030	0.2670	0.2430	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6730	2.9280	4.5440	0.0070	0.2660	0.2421	420.9200	0.11	0.50	0.77	0.00	0.05	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.19	1.96	3.55	0.01	0.02	0.02	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0743	0.7900	1.5648	0.0030	0.0074	0.0067	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0825	0.7290	1.8118	0.0030	0.0080	0.0072	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0781	0.9290	1.5600	0.0030	0.0080	0.0072	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0849	0.9110	1.8072	0.0030	0.0085	0.0077	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0604	0.7810	1.4069	0.0050	0.0060	0.0055	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.1689	2.7400	3.0606	0.0050	0.0345	0.0314	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	2.04	6.177	13.832	0.03	0.03465	0.031532	3132.132	0.00	0.01	0.02	0.00	0.00	0.00	3.45
	On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.01	0.02	0.00	0.00	0.00	4.44
	On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.249	2.318	5.508	0.016	0.0474	0.043134	1636.585	0.04	0.41	0.97	0.00	0.01	0.01	288.64
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			2	5			g/mile	7.481	40.504	120.763	0.062	0.0573	0.052143	6469.497	0.00	0.01	0.04	0.00	0.00	0.00	2.38
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.009	0.716	0.055	0.003	0.006	0.00546	337.147	0.00	0.13	0.01	0.00	0.00	0.00	60.20
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.007	0.496	0.05	0.003	0.004	0.00364	305.412	0.00	0.09	0.01	0.00	0.00	0.00	54.54
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						0.146923783	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	0.43	0.09	0.00
																	Total	0.88	8.53	15.24	0.03	0.55	0.20	3395.68

2011

12 Realign 12" Sewer	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
c	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.19	1.96	3.55	0.01	0.02	0.02	757.80
	Excavator	nonroad	428	0.57	1	8	1951.7	1	g/hp-hr	0.0767	0.8030	1.4664	0.0030	0.0073	0.0067	324.2220	0.33	3.46	6.31	0.01	0.03	0.03	1395.01
	Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.0866	0.8270	1.7946	0.0030	0.0086	0.0078	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.1431	2.2330	2.4718	0.0040	0.0299	0.0272	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.2363	2.6310	2.8849	0.0040	0.0502	0.0457	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.1046	1.4790	1.6366	0.0030	0.0189	0.0172	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0685	0.8330	1.3440	0.0020	0.0070	0.0064	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0685	0.8330	1.3440	0.0020	0.0070	0.0064	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1210	2.8790	2.6350	0.0030	0.2670	0.2430	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6730	2.9280	4.5440	0.0070	0.2660	0.2421	420.9200	0.11	0.50	0.77	0.00	0.05	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.19	1.96	3.55	0.01	0.02	0.02	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0743	0.7900	1.5648	0.0030	0.0074	0.0067	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0825	0.7290	1.8118	0.0030	0.0080	0.0072	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0781	0.9290	1.5600	0.0030	0.0080	0.0072	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0849	0.9110	1.8072	0.0030	0.0085	0.0077	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0604	0.7810	1.4069	0.0050	0.0060	0.0055	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.1689	2.7400	3.0606	0.0050	0.0345	0.0314	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	2.04	6.177	13.832	0.03	0.03465	0.031532	3132.132	0.00	0.01	0.02	0.00	0.00	0.00	3.45
	On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.01	0.02	0.00	0.00	0.00	4.44
	On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.249	2.318	5.508	0.016	0.0474	0.043134	1636.585	0.04	0.41	0.97	0.00	0.01	0.01	288.64
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			2	5			g/mile	7.481	40.504	120.763	0.062	0.0573	0.052143	6469.497	0.00	0.01	0.04	0.00	0.00	0.00	2.38
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.009	0.716	0.055	0.003	0.006	0.00546	337.147	0.00	0.13	0.01	0.00	0.00	0.00	60.20
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.007	0.496	0.05	0.003	0.004	0.00364	305.412	0.00	0.09	0.01	0.00	0.00	0.00	54.54
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						0.073461892	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	0.22	0.04	0.00
																	Total	0.88	8.53	15.24	0.03	0.34	0.16	3395.68

Mitigated Emission Rates

2011									Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
13 Realign 12" Water	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
c	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.19	1.96	3.55	0.01	0.02	0.02	757.80
	Excavator	nonroad	428	0.57	1	8	1951.7	1	g/hp-hr	0.0767	0.8030	1.4664	0.0030	0.0073	0.0067	324.2220	0.33	3.46	6.31	0.01	0.03	0.03	1395.01
	Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.0866	0.8270	1.7946	0.0030	0.0086	0.0078	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.1431	2.2330	2.4718	0.0040	0.0299	0.0272	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.2363	2.6310	2.8849	0.0040	0.0502	0.0457	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.1046	1.4790	1.6366	0.0030	0.0189	0.0172	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0685	0.8330	1.3440	0.0020	0.0070	0.0064	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0685	0.8330	1.3440	0.0020	0.0070	0.0064	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1210	2.8790	2.6350	0.0030	0.2670	0.2430	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6730	2.9280	4.5440	0.0070	0.2660	0.2421	420.9200	0.11	0.50	0.77	0.00	0.05	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.19	1.96	3.55	0.01	0.02	0.02	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0743	0.7900	1.5648	0.0030	0.0074	0.0067	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0825	0.7290	1.8118	0.0030	0.0080	0.0072	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0781	0.9290	1.5600	0.0030	0.0080	0.0072	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0849	0.9110	1.8072	0.0030	0.0085	0.0077	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0604	0.7810	1.4069	0.0050	0.0060	0.0055	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.1689	2.7400	3.0606	0.0050	0.0345	0.0314	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	2.04	6.177	13.832	0.03	0.03465	0.031532	3132.132	0.00	0.01	0.02	0.00	0.00	0.00	3.45
	On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.01	0.02	0.00	0.00	0.00	4.44
	On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.249	2.318	5.508	0.016	0.0474	0.043134	1636.585	0.04	0.41	0.97	0.00	0.01	0.01	288.64
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			2	5			g/mile	7.481	40.504	120.763	0.062	0.0573	0.052143	6469.497	0.00	0.01	0.04	0.00	0.00	0.00	2.38
	On-road Crew Vehicle - 30 mph - Compc	nonroad		9	9		81		g/mile	0.009	0.716	0.055	0.003	0.006	0.00546	337.147	0.00	0.13	0.01	0.00	0.00	0.00	60.20
	On-road Crew Vehicle - 55 mph - Compc	nonroad		9	9		81		g/mile	0.007	0.496	0.05	0.003	0.004	0.00364	305.412	0.00	0.09	0.01	0.00	0.00	0.00	54.54
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						0.073461892	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	0.22	0.04	0.00
																	Total						

Pedestrian Bridge	2011								Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
14 Piles (& Pile Caps)	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
b	General Construction Trucks	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.0767	0.8030	1.4664	0.0030	0.0073	0.0067	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.0866	0.8270	1.7946	0.0030	0.0086	0.0078	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.1431	2.2330	2.4718	0.0040	0.0299	0.0272	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.2363	2.6310	2.8849	0.0040	0.0502	0.0457	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.1046	1.4790	1.6366	0.0030	0.0189	0.0172	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0685	0.8330	1.3440	0.0020	0.0070	0.0064	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	1	6	864.3	1	g/hp-hr	0.0685	0.8330	1.3440	0.0020	0.0070	0.0064	244.5890	0.13	1.59	2.56	0.00	0.01	0.01	466.05
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1210	2.8790	2.6350	0.0030	0.2670	0.2430	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6730	2.9280	4.5440	0.0070	0.2660	0.2421	420.9200	0.11	0.50	0.77	0.00	0.05	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	1	6	903	1	g/hp-hr	0.0743	0.7900	1.5648	0.0030	0.0074	0.0067	290.0930	0.15	1.57	3.12	0.01	0.01	0.01	577.50
	Impact Hammer	nonroad	190	0.75	1	6	855	1	g/hp-hr	0.0825	0.7290	1.8118	0.0030	0.0080	0.0072	290.0930	0.16	1.37	3.42	0.01	0.02	0.01	546.80
	Front End Loader	nonroad	400	0.55	1	8	1760	1	g/hp-hr	0.0781	0.9290	1.5600	0.0030	0.0080	0.0072	307.1580	0.30	3.60	6.05	0.01	0.03	0.03	1191.79
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0849	0.9110	1.8072	0.0030	0.0085	0.0077	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0604	0.7810	1.4069	0.0050	0.0060	0.0055	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.1689	2.7400	3.0606	0.0050	0.0345	0.0314	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	0		0		g/mile	2.04	6.177	13.832	0.03	0.03465	0.031532	3132.132	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - 25 mph	nonroad		0.5	0		0		g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - 55 mph	nonroad		40	0		0		g/mile	0.249	2.318	5.508	0.016	0.0474	0.043134	1636.585	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			0	5			g/mile	7.481	40.504	120.763	0.062	0.0573	0.052143	6469.497	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Crew Vehicle - 30 mph - Compc	nonroad		9	9		81		g/mile	0.009	0.716	0.055	0.003	0.006	0.00546	337.147	0.00	0.13	0.01	0.00	0.00	0.00	60.20
	On-road Crew Vehicle - 55 mph - Compc	nonroad		9	9		81		g/mile	0.007	0.496	0.05	0.003	0.004	0.00364	305.412	0.00	0.09	0.01	0.00	0.00	0.00	54.54
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						0.872	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	2.55	0.53	0.00
																	Total						

Mitigated Emission Rates

										Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
2011																							
Set Pile Caps	**Equipment**	**Type**	**Hp**	**Load Factor**	**Number Active**	**Equipment Hrs/Day**	**Daily Hp-hr**	**Daily Roudtrip**	**E.F. Units**	**ROG**	**CO**	**NO_x**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**	**CO_2**	**ROG**	**CO**	**NO_x**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**	**CO_2**
a																							
	General Construction Trucks	nonroad	310	0.57	2	6	2120.4	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.39	3.93	7.09	0.01	0.04	0.03	1515.61
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.0767	0.8030	1.4664	0.0030	0.0073	0.0067	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.0866	0.8270	1.7946	0.0030	0.0086	0.0078	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.1431	2.2330	2.4718	0.0040	0.0299	0.0272	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.2363	2.6310	2.8849	0.0040	0.0502	0.0457	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.1046	1.4790	1.6366	0.0030	0.0189	0.0172	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	1	6	864.3	1	g/hp-hr	0.0685	0.8330	1.3440	0.0020	0.0070	0.0064	244.5890	0.13	1.59	2.56	0.00	0.01	0.01	466.05
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0685	0.8330	1.3440	0.0020	0.0070	0.0064	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1210	2.8790	2.6350	0.0030	0.2670	0.2430	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6730	2.9280	4.5440	0.0070	0.2660	0.2421	420.9200	0.11	0.50	0.77	0.00	0.05	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.19	1.96	3.55	0.01	0.02	0.02	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0743	0.7900	1.5648	0.0030	0.0074	0.0067	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	1	6	855	1	g/hp-hr	0.0825	0.7290	1.8118	0.0030	0.0080	0.0072	290.0930	0.16	1.37	3.42	0.01	0.02	0.01	546.80
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0781	0.9290	1.5600	0.0030	0.0080	0.0072	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0849	0.9110	1.8072	0.0030	0.0085	0.0077	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	1	8	1746	1	g/hp-hr	0.0604	0.7810	1.4069	0.0050	0.0060	0.0055	426.6080	0.23	3.01	5.42	0.02	0.02	0.02	1642.10
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.1689	2.7400	3.0606	0.0050	0.0345	0.0314	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	**Miles / Trip**	**Daily Trips**	**Idling Time**	**Miles/ Day**	**Acres Disturbed**															
	On-road Truck - 10 mph	nonroad		0.25	3		0.75		g/mile	2.04	6.177	13.832	0.03	0.03465	0.031532	3132.132	0.00	0.01	0.02	0.00	0.00	0.00	5.18
	On-road Truck - 25 mph	nonroad		0.5	3		1.5		g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.01	0.03	0.00	0.00	0.00	6.65
	On-road Truck - 55 mph	nonroad		40	3		120		g/mile	0.249	2.318	5.508	0.016	0.0474	0.043134	1636.585	0.07	0.61	1.46	0.00	0.01	0.01	432.96
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			3	5			g/mile	7.481	40.504	120.763	0.062	0.0573	0.052143	6469.497	0.00	0.02	0.07	0.00	0.00	0.00	3.57
	On-road Crew Vehicle - 30 mph - Compc	nonroad		9	9		81		g/mile	0.009	0.716	0.055	0.003	0.006	0.00546	337.147	0.00	0.13	0.01	0.00	0.00	0.00	60.20
	On-road Crew Vehicle - 55 mph - Compc	nonroad		9	9		81		g/mile	0.007	0.496	0.05	0.003	0.004	0.00364	305.412	0.00	0.09	0.01	0.00	0.00	0.00	54.54
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						0.872	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	2.55	0.53	0.00
																	Total	**1.29**	**13.22**	**24.39**	**0.06**	**2.72**	**0.68**	**5562.88**

										Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
2011																							
15 80' Steel masts	**Equipment**	**Type**	**Hp**	**Load Factor**	**Number Active**	**Equipment Hrs/Day**	**Daily Hp-hr**	**Daily Roudtrip**	**E.F. Units**	**ROG**	**CO**	**NO_x**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**	**CO_2**	**ROG**	**CO**	**NO_x**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**	**CO_2**
a																							
	General Construction Trucks	nonroad	310	0.57	2	6	2120.4	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.39	3.93	7.09	0.01	0.04	0.03	1515.61
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.0767	0.8030	1.4664	0.0030	0.0073	0.0067	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.0866	0.8270	1.7946	0.0030	0.0086	0.0078	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.1431	2.2330	2.4718	0.0040	0.0299	0.0272	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.2363	2.6310	2.8849	0.0040	0.0502	0.0457	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.1046	1.4790	1.6366	0.0030	0.0189	0.0172	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	1	6	864.3	1	g/hp-hr	0.0685	0.8330	1.3440	0.0020	0.0070	0.0064	244.5890	0.13	1.59	2.56	0.00	0.01	0.01	466.05
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0685	0.8330	1.3440	0.0020	0.0070	0.0064	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1210	2.8790	2.6350	0.0030	0.2670	0.2430	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6730	2.9280	4.5440	0.0070	0.2660	0.2421	420.9200	0.11	0.50	0.77	0.00	0.05	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.19	1.96	3.55	0.01	0.02	0.02	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0743	0.7900	1.5648	0.0030	0.0074	0.0067	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	1	6	855	1	g/hp-hr	0.0825	0.7290	1.8118	0.0030	0.0080	0.0072	290.0930	0.16	1.37	3.42	0.01	0.02	0.01	546.80
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0781	0.9290	1.5600	0.0030	0.0080	0.0072	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0849	0.9110	1.8072	0.0030	0.0085	0.0077	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0604	0.7810	1.4069	0.0050	0.0060	0.0055	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.1689	2.7400	3.0606	0.0050	0.0345	0.0314	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	**Miles / Trip**	**Daily Trips**	**Idling Time**	**Miles/ Day**	**Acres Disturbed**															
	On-road Truck - 10 mph	nonroad		0.25	3		0.75		g/mile	2.04	6.177	13.832	0.03	0.03465	0.031532	3132.132	0.00	0.01	0.02	0.00	0.00	0.00	5.18
	On-road Truck - 25 mph	nonroad		0.5	3		1.5		g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.01	0.03	0.00	0.00	0.00	6.65
	On-road Truck - 55 mph	nonroad		40	3		120		g/mile	0.249	2.318	5.508	0.016	0.0474	0.043134	1636.585	0.07	0.61	1.46	0.00	0.01	0.01	432.96
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			3	5			g/mile	7.481	40.504	120.763	0.062	0.0573	0.052143	6469.497	0.00	0.02	0.07	0.00	0.00	0.00	3.57
	On-road Crew Vehicle - 30 mph - Compc	nonroad		9	9		81		g/mile	0.009	0.716	0.055	0.003	0.006	0.00546	337.147	0.00	0.13	0.01	0.00	0.00	0.00	60.20
	On-road Crew Vehicle - 55 mph - Compc	nonroad		9	9		81		g/mile	0.007	0.496	0.05	0.003	0.004	0.00364	305.412	0.00	0.09	0.01	0.00	0.00	0.00	54.54
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						0.872	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	2.55	0.53	0.00
																	Total	**1.06**	**10.22**	**18.98**	**0.04**	**2.70**	**0.66**	**3920.78**

Mitigated Emission Rates

2011

16 Bridge Deck	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
a	General Construction Trucks	nonroad	310	0.57	2	6	2120.4	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.39	3.93	7.09	0.01	0.04	0.03	1515.61
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.0767	0.8030	1.4664	0.0030	0.0073	0.0067	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.0866	0.8270	1.7946	0.0030	0.0086	0.0078	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.1431	2.2330	2.4718	0.0040	0.0299	0.0272	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.2363	2.6310	2.8849	0.0040	0.0502	0.0457	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.1046	1.4790	1.6366	0.0030	0.0189	0.0172	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	1	6	864.3	1	g/hp-hr	0.0685	0.8330	1.3440	0.0020	0.0070	0.0064	244.5890	0.13	1.59	2.56	0.00	0.01	0.01	466.05
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0685	0.8330	1.3440	0.0020	0.0070	0.0064	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1210	2.8790	2.6350	0.0030	0.2670	0.2430	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6730	2.9280	4.5440	0.0070	0.2660	0.2421	420.9200	0.11	0.50	0.77	0.00	0.05	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0743	0.7900	1.5648	0.0030	0.0074	0.0067	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0825	0.7290	1.8118	0.0030	0.0080	0.0072	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0781	0.9290	1.5600	0.0030	0.0080	0.0072	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0849	0.9110	1.8072	0.0030	0.0085	0.0077	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	1	8	1746	1	g/hp-hr	0.0604	0.7810	1.4069	0.0050	0.0060	0.0055	426.6080	0.23	3.01	5.42	0.02	0.02	0.02	1642.10
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.1689	2.7400	3.0606	0.0050	0.0345	0.0314	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	2.04	6.177	13.832	0.03	0.03465	0.031532	3132.132	0.00	0.01	0.02	0.00	0.00	0.00	3.45
	On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.01	0.02	0.00	0.00	0.00	4.44
	On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.249	2.318	5.508	0.016	0.0474	0.043134	1636.585	0.04	0.41	0.97	0.00	0.01	0.01	288.64
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			2	5			g/mile	7.481	40.504	120.763	0.062	0.0573	0.052143	6469.497	0.00	0.01	0.04	0.00	0.00	0.00	2.38
	On-road Crew Vehicle - 30 mph - Compc	nonroad		9	9		81		g/mile	0.009	0.716	0.055	0.003	0.006	0.00546	337.147	0.00	0.13	0.01	0.00	0.00	0.00	60.20
	On-road Crew Vehicle - 55 mph - Compc	nonroad		9	9		81		g/mile	0.007	0.496	0.05	0.003	0.004	0.00364	305.412	0.00	0.09	0.01	0.00	0.00	0.00	54.54
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						0.872	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	2.55	0.53	0.00
																	Total	**0.92**	**9.67**	**16.91**	**0.04**	**2.68**	**0.65**	**4108.82**

2012

17 Water Feature	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
c	General Construction Trucks	nonroad	310	0.57	2	6	2120.4	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.23	3.71	4.06	0.01	0.03	0.03	1515.61
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.0457	0.7620	0.8381	0.0030	0.0066	0.0060	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.0501	0.7910	1.0151	0.0030	0.0078	0.0071	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.0837	2.2130	1.4599	0.0040	0.0281	0.0255	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.1368	2.6030	1.6796	0.0040	0.0476	0.0433	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.0605	1.4730	0.9428	0.0030	0.0176	0.0160	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0406	0.7730	0.7808	0.0020	0.0064	0.0058	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0406	0.7730	0.7808	0.0020	0.0064	0.0058	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.0360	2.7860	2.5900	0.0030	0.2530	0.2302	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6410	2.8700	4.3510	0.0070	0.2510	0.2284	420.9200	0.11	0.49	0.74	0.00	0.04	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0441	0.7340	0.9045	0.0030	0.0067	0.0061	290.9300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0477	0.6970	1.0283	0.0030	0.0072	0.0066	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0465	0.8750	0.9019	0.0030	0.0072	0.0066	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0503	0.8460	1.0444	0.0030	0.0077	0.0070	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0348	0.7790	0.7418	0.0050	0.0050	0.0046	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.0976	2.7110	1.7969	0.0050	0.0323	0.0294	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	1.472	3.85	8.313	0.03	0.0102	0.009282	3149.003	0.00	0.00	0.01	0.00	0.00	0.00	3.47
	On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	0.363	1.478	4.663	0.019	0.00825	0.007508	2027.734	0.00	0.00	0.01	0.00	0.00	0.00	4.47
	On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.18	1.492	3.294	0.016	0.01395	0.012695	1649.634	0.03	0.26	0.58	0.00	0.00	0.00	290.94
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.363	1.478	4.663	0.019	0.00825	0.007508	2027.734	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.363	1.478	4.663	0.019	0.00825	0.007508	2027.734	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			2	5			g/mile	7.568	40.972	122.159	0.062	0.01635	0.014879	6544.263	0.00	0.02	0.04	0.00	0.00	0.00	2.40
	On-road Crew Vehicle - 30 mph - Compc	nonroad		9	9		81		g/mile	0.006	0.447	0.035	0.003	0.005	0.00455	337.147	0.00	0.08	0.01	0.00	0.00	0.00	60.20
	On-road Crew Vehicle - 55 mph - Compc	nonroad		9	9		81		g/mile	0.004	0.31	0.032	0.003	0.004	0.00364	305.412	0.00	0.06	0.01	0.00	0.00	0.00	54.54
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						0.872	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	2.55	0.53	0.00
																	Total	**0.38**	**4.61**	**5.46**	**0.02**	**2.63**	**0.60**	**2003.05**

Mitigated Emission Rates

Interim Land Bridge (Rail/Street Tunnel) 2011

18 Foundation Piles

b

Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
General Construction Trucks	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.0767	0.8030	1.4664	0.0030	0.0073	0.0067	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.0866	0.8270	1.7946	0.0030	0.0086	0.0078	307.1580	0.11	1.06	2.31	0.00	0.01	0.01	394.92
Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.1431	2.2330	2.4718	0.0040	0.0299	0.0272	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.2363	2.6310	2.8849	0.0040	0.0502	0.0457	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.1046	1.4790	1.6366	0.0030	0.0189	0.0172	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 150 ton	nonroad	335	0.43	1	6	864.3	1	g/hp-hr	0.0685	0.8330	1.3440	0.0020	0.0070	0.0064	244.5890	0.13	1.59	2.56	0.00	0.01	0.01	466.05
Crane - 100 ton	nonroad	335	0.43	1	6	864.3	1	g/hp-hr	0.0685	0.8330	1.3440	0.0020	0.0070	0.0064	244.5890	0.13	1.59	2.56	0.00	0.01	0.01	466.05
Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1210	2.8790	2.6350	0.0030	0.2670	0.2430	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6730	2.9280	4.5440	0.0070	0.2660	0.2421	420.9200	0.11	0.50	0.77	0.00	0.05	0.04	71.42
Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vibratory Hammer & Power Pack	nonroad	350	0.43	1	6	903	1	g/hp-hr	0.0743	0.7900	1.5648	0.0030	0.0074	0.0067	290.0930	0.15	1.57	3.12	0.01	0.01	0.01	577.50
Impact Hammer	nonroad	190	0.75	1	6	855	1	g/hp-hr	0.0825	0.7290	1.8118	0.0030	0.0080	0.0072	290.0930	0.16	1.37	3.42	0.01	0.02	0.01	546.80
Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0781	0.9290	1.5600	0.0030	0.0080	0.0072	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0849	0.9110	1.8072	0.0030	0.0085	0.0077	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0604	0.7810	1.4069	0.0050	0.0060	0.0055	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.1689	2.7400	3.0606	0.0050	0.0345	0.0314	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Equipment	Type	Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed		ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
On-road Truck - 10 mph	nonroad		0.25	0		0		g/mile	2.04	6.177	13.832	0.03	0.03465	0.031532	3132.132	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - 25 mph	nonroad		0.5	0		0		g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - 55 mph	nonroad		40	0		0		g/mile	0.249	2.318	5.508	0.016	0.0474	0.043134	1636.585	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			0	5			g/mile	7.481	40.504	120.763	0.062	0.0573	0.052143	6469.497	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.009	0.716	0.055	0.003	0.006	0.00546	337.147	0.00	0.13	0.01	0.00	0.00	0.00	60.20
On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.007	0.496	0.05	0.003	0.004	0.00364	305.412	0.00	0.09	0.01	0.00	0.00	0.00	54.54
Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust	dust						4.298209366	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	12.59	2.62	0.00
															Total	0.79	7.90	14.75	0.03	12.71	2.73	2637.47

2011

19 Set Up for Concrete Pour

a

Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
General Construction Trucks	nonroad	310	0.57	2	6	2120.4	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.39	3.93	7.09	0.01	0.04	0.03	1515.61
Excavator	nonroad	428	0.57	1	8	1951.7	1	g/hp-hr	0.0767	0.8030	1.4664	0.0030	0.0073	0.0067	324.2220	0.33	3.46	6.31	0.01	0.03	0.03	1395.01
Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.0866	0.8270	1.7946	0.0030	0.0086	0.0078	307.1580	0.11	1.06	2.31	0.00	0.01	0.01	394.92
Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.1431	2.2330	2.4718	0.0040	0.0299	0.0272	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.2363	2.6310	2.8849	0.0040	0.0502	0.0457	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane	nonroad	152	0.43	1	6	392.16	1	g/hp-hr	0.1046	1.4790	1.6366	0.0030	0.0189	0.0172	244.5890	0.09	1.28	1.41	0.00	0.02	0.01	211.46
Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0685	0.8330	1.3440	0.0020	0.0070	0.0064	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0685	0.8330	1.3440	0.0020	0.0070	0.0064	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Welding Machine	nonroad	26	0.45	1	8	93.6	1	g/hp-hr	1.1210	2.8790	2.6350	0.0030	0.2670	0.2430	255.9650	0.23	0.59	0.54	0.00	0.06	0.05	52.82
Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6730	2.9280	4.5440	0.0070	0.2660	0.2421	420.9200	0.11	0.50	0.77	0.00	0.05	0.04	71.42
Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.19	1.96	3.55	0.01	0.02	0.02	757.80
Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0743	0.7900	1.5648	0.0030	0.0074	0.0067	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0825	0.7290	1.8118	0.0030	0.0080	0.0072	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0781	0.9290	1.5600	0.0030	0.0080	0.0072	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0849	0.9110	1.8072	0.0030	0.0085	0.0077	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chain Saw	nonroad	10	0.73	4	8	233.6	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.26	0.88	1.64	0.00	0.07	0.07	213.84
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0604	0.7810	1.4069	0.0050	0.0060	0.0055	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.1689	2.7400	3.0606	0.0050	0.0345	0.0314	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Saw	nonroad	10	0.73	4	8	233.6	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.26	0.88	1.64	0.00	0.07	0.07	213.84
Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Equipment	Type	Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed		ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
On-road Truck - 10 mph	nonroad		0.25	3		0.75		g/mile	2.04	6.177	13.832	0.03	0.03465	0.031532	3132.132	0.00	0.01	0.02	0.00	0.00	0.00	5.18
On-road Truck - 25 mph	nonroad		0.5	3		1.5		g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.01	0.03	0.00	0.00	0.00	6.65
On-road Truck - 55 mph	nonroad		40	3		120		g/mile	0.249	2.318	5.508	0.016	0.0474	0.043134	1636.585	0.07	0.61	1.46	0.00	0.01	0.01	432.96
Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			3	5			g/mile	7.481	40.504	120.763	0.062	0.0573	0.052143	6469.497	0.00	0.02	0.07	0.00	0.00	0.00	3.57
On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.009	0.716	0.055	0.003	0.006	0.00546	337.147	0.00	0.13	0.01	0.00	0.00	0.00	60.20
On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.007	0.496	0.05	0.003	0.004	0.00364	305.412	0.00	0.09	0.01	0.00	0.00	0.00	54.54
Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust	dust						4.298209366	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	12.59	2.62	0.00
															Total	2.05	15.41	26.87	0.05	12.97	2.96	5389.82

Mitigated Emission Rates

2011

Concrete Pour	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
f	General Construction Trucks	nonroad	310	0.57	2	6	2120.4	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.39	3.93	7.09	0.01	0.04	0.03	1515.61
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.0767	0.8030	1.4664	0.0030	0.0073	0.0067	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.0866	0.8270	1.7946	0.0030	0.0086	0.0078	307.1580	0.11	1.06	2.31	0.00	0.01	0.01	394.92
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.1431	2.2330	2.4718	0.0040	0.0299	0.0272	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.2363	2.6310	2.8849	0.0040	0.0502	0.0457	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	1	6	392.16	1	g/hp-hr	0.1046	1.4790	1.6366	0.0030	0.0189	0.0172	244.5890	0.09	1.28	1.41	0.00	0.02	0.01	211.46
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0685	0.8330	1.3440	0.0020	0.0070	0.0064	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0685	0.8330	1.3440	0.0020	0.0070	0.0064	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1210	2.8790	2.6350	0.0030	0.2670	0.2430	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6730	2.9280	4.5440	0.0070	0.2660	0.2421	420.9200	0.11	0.50	0.77	0.00	0.05	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0743	0.7900	1.5648	0.0030	0.0074	0.0067	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0825	0.7290	1.8118	0.0030	0.0080	0.0072	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0781	0.9290	1.5600	0.0030	0.0080	0.0072	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0849	0.9110	1.8072	0.0030	0.0085	0.0077	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0604	0.7810	1.4069	0.0050	0.0060	0.0055	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	2	4	2184.2	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.40	4.04	7.31	0.01	0.04	0.03	1561.24
	Concrete Pump	nonroad	53	0.74	2	4	313.76	1	g/hp-hr	0.1689	2.7400	3.0606	0.0050	0.0345	0.0314	420.9200	0.12	1.90	2.12	0.00	0.02	0.02	291.15
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed																	
On-road Truck - 10 mph	nonroad		0.25	20		5		g/mile	2.04	6.177	13.832	0.03	0.03465	0.031532	3132.132	0.02	0.07	0.15	0.00	0.00	0.00	34.53
On-road Truck - 25 mph	nonroad		0.5	20		10		g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.01	0.05	0.17	0.00	0.00	0.00	44.36
On-road Truck - 55 mph	nonroad		40	20		800		g/mile	0.249	2.318	5.508	0.016	0.0474	0.043134	1636.585	0.44	4.09	9.71	0.03	0.08	0.08	2886.39
Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			20	5			g/mile	7.481	40.504	120.763	0.062	0.0573	0.052143	6469.497	0.03	0.15	0.44	0.00	0.00	0.00	23.77
On-road Crew Vehicle - 30 mph - Compo	nonroad		9	18		162		g/mile	0.009	0.716	0.055	0.003	0.006	0.00546	337.147	0.00	0.26	0.02	0.00	0.00	0.00	120.41
On-road Crew Vehicle - 55 mph - Compo	nonroad		9	18		162		g/mile	0.007	0.496	0.05	0.003	0.004	0.00364	305.412	0.00	0.18	0.02	0.00	0.00	0.00	109.08
Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust	dust						4.298209366	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	12.59	2.62	0.00
																Total	1.72	17.50	31.53	0.07	12.85	2.86	7264.34

2011

20 Retaining Walls	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
f	General Construction Trucks	nonroad	310	0.57	2	6	2120.4	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.39	3.93	7.09	0.01	0.04	0.03	1515.61
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.0767	0.8030	1.4664	0.0030	0.0073	0.0067	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.0866	0.8270	1.7946	0.0030	0.0086	0.0078	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.1431	2.2330	2.4718	0.0040	0.0299	0.0272	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.2363	2.6310	2.8849	0.0040	0.0502	0.0457	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.1046	1.4790	1.6366	0.0030	0.0189	0.0172	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0685	0.8330	1.3440	0.0020	0.0070	0.0064	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0685	0.8330	1.3440	0.0020	0.0070	0.0064	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1210	2.8790	2.6350	0.0030	0.2670	0.2430	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.6730	2.9280	4.5440	0.0070	0.2660	0.2421	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0743	0.7900	1.5648	0.0030	0.0074	0.0067	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0825	0.7290	1.8118	0.0030	0.0080	0.0072	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0781	0.9290	1.5600	0.0030	0.0080	0.0072	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0849	0.9110	1.8072	0.0030	0.0085	0.0077	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0604	0.7810	1.4069	0.0050	0.0060	0.0055	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.1689	2.7400	3.0606	0.0050	0.0345	0.0314	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed																	
On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	2.04	6.177	13.832	0.03	0.03465	0.031532	3132.132	0.00	0.01	0.02	0.00	0.00	0.00	3.45
On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.01	0.02	0.00	0.00	0.00	4.44
On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.249	2.318	5.508	0.016	0.0474	0.043134	1636.585	0.04	0.41	0.97	0.00	0.01	0.01	288.64
Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			2	5			g/mile	7.481	40.504	120.763	0.062	0.0573	0.052143	6469.497	0.00	0.01	0.04	0.00	0.00	0.00	2.38
On-road Crew Vehicle - 30 mph - Compo	nonroad		9	18		162		g/mile	0.009	0.716	0.055	0.003	0.006	0.00546	337.147	0.00	0.26	0.02	0.00	0.00	0.00	120.41
On-road Crew Vehicle - 55 mph - Compo	nonroad		9	18		162		g/mile	0.007	0.496	0.05	0.003	0.004	0.00364	305.412	0.00	0.18	0.02	0.00	0.00	0.00	109.08
Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust	dust						0.478	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	1.40	0.29	0.00
																Total	0.44	4.80	8.18	0.02	1.45	0.34	2044.00

Mitigated Emission Rates

2012

21 Rough Fill/Grading	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
c	General Construction Trucks	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Excavator	nonroad	428	0.57	1	8	1951.7	1	g/hp-hr	0.0457	0.7620	0.8381	0.0030	0.0066	0.0060	324.2220	0.20	3.28	3.61	0.01	0.03	0.03	1395.01
	Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.0501	0.7910	1.0151	0.0030	0.0078	0.0071	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.0837	2.2130	1.4599	0.0040	0.0281	0.0255	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.1368	2.6030	1.6796	0.0040	0.0476	0.0433	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.0605	1.4730	0.9428	0.0030	0.0176	0.0160	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0406	0.7730	0.7808	0.0020	0.0064	0.0058	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0406	0.7730	0.7808	0.0020	0.0064	0.0058	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.0360	2.7860	2.5900	0.0030	0.2530	0.2302	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.6410	2.8700	4.3510	0.0070	0.2510	0.2284	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0441	0.7340	0.9045	0.0030	0.0067	0.0061	290.9300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0477	0.6970	1.0283	0.0030	0.0072	0.0066	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0465	0.8750	0.9019	0.0030	0.0072	0.0066	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.12	1.85	2.03	0.01	0.02	0.01	757.80
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0503	0.8460	1.0444	0.0030	0.0077	0.0070	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0348	0.7790	0.7418	0.0050	0.0050	0.0046	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.0976	2.7110	1.7969	0.0050	0.0323	0.0294	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	0		0		g/mile	1.472	3.85	8.313	0.03	0.0102	0.009282	3149.003	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - 25 mph	nonroad		0.5	0		0		g/mile	0.363	1.478	4.663	0.019	0.00825	0.007508	2027.734	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - 55 mph	nonroad		40	0		0		g/mile	0.18	1.492	3.294	0.016	0.01395	0.012695	1649.634	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.363	1.478	4.663	0.019	0.00825	0.007508	2027.734	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.363	1.478	4.663	0.019	0.00825	0.007508	2027.734	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			0	5			g/mile	7.568	40.972	122.159	0.062	0.01635	0.014879	6544.263	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.006	0.447	0.035	0.003	0.005	0.00455	337.147	0.00	0.08	0.01	0.00	0.00	0.00	60.20
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.004	0.31	0.032	0.003	0.004	0.00364	305.412	0.00	0.06	0.01	0.00	0.00	0.00	54.54
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						4.298209366	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	12.59	2.62	0.00
																	Total						
																	0.31	5.27	5.65	0.02	12.64	2.66	2267.56

2012

22 Surface Fill/Grading	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
c	General Construction Trucks	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Excavator	nonroad	428	0.57	1	8	1951.7	1	g/hp-hr	0.0457	0.7620	0.8381	0.0030	0.0066	0.0060	324.2220	0.20	3.28	3.61	0.01	0.03	0.03	1395.01
	Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.0501	0.7910	1.0151	0.0030	0.0078	0.0071	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.0837	2.2130	1.4599	0.0040	0.0281	0.0255	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.1368	2.6030	1.6796	0.0040	0.0476	0.0433	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.0605	1.4730	0.9428	0.0030	0.0176	0.0160	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0406	0.7730	0.7808	0.0020	0.0064	0.0058	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0406	0.7730	0.7808	0.0020	0.0064	0.0058	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.0360	2.7860	2.5900	0.0030	0.2530	0.2302	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.6410	2.8700	4.3510	0.0070	0.2510	0.2284	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0441	0.7340	0.9045	0.0030	0.0067	0.0061	290.9300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0477	0.6970	1.0283	0.0030	0.0072	0.0066	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0465	0.8750	0.9019	0.0030	0.0072	0.0066	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.12	1.85	2.03	0.01	0.02	0.01	757.80
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0503	0.8460	1.0444	0.0030	0.0077	0.0070	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0348	0.7790	0.7418	0.0050	0.0050	0.0046	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.0976	2.7110	1.7969	0.0050	0.0323	0.0294	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	0		0		g/mile	1.4720	3.8500	8.3130	0.0300	0.0102	0.0093	3149.0030	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - 25 mph	nonroad		0.5	0		0		g/mile	0.3630	1.4780	4.6630	0.0190	0.0083	0.0075	2027.7340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - 55 mph	nonroad		40	0		0		g/mile	0.1800	1.4920	3.2940	0.0160	0.0140	0.0127	1649.6340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.3630	1.4780	4.6630	0.0190	0.0083	0.0075	2027.7340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.3630	1.4780	4.6630	0.0190	0.0083	0.0075	2027.7340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			0	5			g/mile	7.5680	40.9720	122.1590	0.0620	0.0164	0.0149	6544.2630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.0060	0.4470	0.0350	0.0030	0.0050	0.0046	337.1470	0.00	0.08	0.01	0.00	0.00	0.00	60.20
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.0040	0.3100	0.0320	0.0030	0.0040	0.0036	305.4120	0.00	0.06	0.01	0.00	0.00	0.00	54.54
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						4.298209366	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	12.59	2.62	0.00
																	Total						
																	0.31	5.27	5.65	0.02	12.64	2.66	2267.56

Mitigated Emission Rates

Circulation Improvements	2011								Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
23 Realign and reconstruct Avalon Blvd	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
c																							
	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.19	1.96	3.55	0.01	0.02	0.02	757.80
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.0767	0.8030	1.4664	0.0030	0.0073	0.0067	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.0866	0.8270	1.7946	0.0030	0.0086	0.0078	307.1580	0.11	1.06	2.31	0.00	0.01	0.01	394.92
	Vibratory Roller	nonroad	95	0.56	1	6	319.2	1	g/hp-hr	0.1431	2.2330	2.4718	0.0040	0.0299	0.0272	318.5340	0.10	1.57	1.74	0.00	0.02	0.02	224.15
	Paving Machine	nonroad	104	0.53	1	6	330.72	1	g/hp-hr	0.2363	2.6310	2.8849	0.0040	0.0502	0.0457	352.6630	0.17	1.92	2.10	0.00	0.04	0.03	257.13
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.1046	1.4790	1.6366	0.0030	0.0189	0.0172	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0685	0.8330	1.3440	0.0020	0.0070	0.0064	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0685	0.8330	1.3440	0.0020	0.0070	0.0064	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1210	2.8790	2.6350	0.0030	0.2670	0.2430	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.6730	2.9280	4.5440	0.0070	0.2660	0.2421	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.19	1.96	3.55	0.01	0.02	0.02	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0743	0.7900	1.5648	0.0030	0.0074	0.0067	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0825	0.7290	1.8118	0.0030	0.0080	0.0072	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0781	0.9290	1.5600	0.0030	0.0080	0.0072	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.19	1.96	3.55	0.01	0.02	0.02	757.80
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0849	0.9110	1.8072	0.0030	0.0085	0.0077	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0604	0.7810	1.4069	0.0050	0.0060	0.0055	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.1689	2.7400	3.0606	0.0050	0.0345	0.0314	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	2.04	6.177	13.832	0.03	0.03465	0.031532	3132.132	0.00	0.01	0.02	0.00	0.00	0.00	3.45
	On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.01	0.02	0.00	0.00	0.00	4.44
	On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.249	2.318	5.508	0.016	0.0474	0.043134	1636.585	0.04	0.41	0.97	0.00	0.01	0.01	288.64
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			2	5			g/mile	7.481	40.504	120.763	0.062	0.0573	0.052143	6469.497	0.00	0.01	0.04	0.00	0.00	0.00	2.38
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.009	0.716	0.055	0.003	0.006	0.00546	337.147	0.00	0.13	0.01	0.00	0.00	0.00	60.20
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.007	0.496	0.05	0.003	0.004	0.00364	305.412	0.00	0.09	0.01	0.00	0.00	0.00	54.54
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						0.091827365	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	0.27	0.06	0.00
																Total	1.02	11.10	17.86	0.03	0.40	0.18	3563.26

	2011								Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
Realign and Reconstruct Broad 24 Avenue	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
c																							
	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.19	1.96	3.55	0.01	0.02	0.02	757.80
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.0767	0.8030	1.4664	0.0030	0.0073	0.0067	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.0866	0.8270	1.7946	0.0030	0.0086	0.0078	307.1580	0.11	1.06	2.31	0.00	0.01	0.01	394.92
	Vibratory Roller	nonroad	95	0.56	1	6	319.2	1	g/hp-hr	0.1431	2.2330	2.4718	0.0040	0.0299	0.0272	318.5340	0.10	1.57	1.74	0.00	0.02	0.02	224.15
	Paving Machine	nonroad	104	0.53	1	6	330.72	1	g/hp-hr	0.2363	2.6310	2.8849	0.0040	0.0502	0.0457	352.6630	0.17	1.92	2.10	0.00	0.04	0.03	257.13
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.1046	1.4790	1.6366	0.0030	0.0189	0.0172	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0685	0.8330	1.3440	0.0020	0.0070	0.0064	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0685	0.8330	1.3440	0.0020	0.0070	0.0064	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1210	2.8790	2.6350	0.0030	0.2670	0.2430	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.6730	2.9280	4.5440	0.0070	0.2660	0.2421	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.19	1.96	3.55	0.01	0.02	0.02	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0743	0.7900	1.5648	0.0030	0.0074	0.0067	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0825	0.7290	1.8118	0.0030	0.0080	0.0072	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0781	0.9290	1.5600	0.0030	0.0080	0.0072	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.19	1.96	3.55	0.01	0.02	0.02	757.80
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0849	0.9110	1.8072	0.0030	0.0085	0.0077	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0604	0.7810	1.4069	0.0050	0.0060	0.0055	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.1689	2.7400	3.0606	0.0050	0.0345	0.0314	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	2.04	6.177	13.832	0.03	0.03465	0.031532	3132.132	0.00	0.01	0.02	0.00	0.00	0.00	3.45
	On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.01	0.02	0.00	0.00	0.00	4.44
	On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.249	2.318	5.508	0.016	0.0474	0.043134	1636.585	0.04	0.41	0.97	0.00	0.01	0.01	288.64
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			2	5			g/mile	7.481	40.504	120.763	0.062	0.0573	0.052143	6469.497	0.00	0.01	0.04	0.00	0.00	0.00	2.38
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.009	0.716	0.055	0.003	0.006	0.00546	337.147	0.00	0.13	0.01	0.00	0.00	0.00	60.20
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.007	0.496	0.05	0.003	0.004	0.00364	305.412	0.00	0.09	0.01	0.00	0.00	0.00	54.54
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						0.110192837	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	0.32	0.07	0.00
																Total	1.02	11.10	17.86	0.03	0.46	0.19	3563.26

Mitigated Emission Rates

2012									Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
25 Realign and Reconstruct Water Street	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
c	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.12	1.85	2.03	0.01	0.02	0.01	757.80
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.0457	0.7620	0.8381	0.0030	0.0066	0.0060	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.0501	0.7910	1.0151	0.0030	0.0078	0.0071	307.1580	0.06	1.02	1.31	0.00	0.01	0.01	394.92
	Vibratory Roller	nonroad	95	0.56	1	6	319.2	1	g/hp-hr	0.0837	2.2130	1.4599	0.0040	0.0281	0.0255	318.5340	0.06	1.56	1.03	0.00	0.02	0.02	224.15
	Paving Machine	nonroad	104	0.53	1	6	330.72	1	g/hp-hr	0.1368	2.6030	1.6796	0.0040	0.0476	0.0433	352.6630	0.10	1.90	1.22	0.00	0.03	0.03	257.13
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.0605	1.4730	0.9428	0.0030	0.0176	0.0160	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0406	0.7730	0.7808	0.0020	0.0064	0.0058	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0406	0.7730	0.7808	0.0020	0.0064	0.0058	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.0360	2.7860	2.5900	0.0030	0.2530	0.2302	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.6410	2.8700	4.3510	0.0070	0.2510	0.2284	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.12	1.85	2.03	0.01	0.02	0.01	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0441	0.7340	0.9045	0.0030	0.0067	0.0061	290.9300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0477	0.6970	1.0283	0.0030	0.0072	0.0066	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0465	0.8750	0.9019	0.0030	0.0072	0.0066	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.12	1.85	2.03	0.01	0.02	0.01	757.80
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0503	0.8460	1.0444	0.0030	0.0077	0.0070	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0348	0.7790	0.7418	0.0050	0.0050	0.0046	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.0976	2.7110	1.7969	0.0050	0.0323	0.0294	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	1.4720	3.8500	8.3130	0.0300	0.0102	0.0093	3149.0030	0.00	0.00	0.01	0.00	0.00	0.00	3.47
	On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	0.3630	1.4780	4.6630	0.0190	0.0083	0.0075	2027.7340	0.00	0.00	0.01	0.00	0.00	0.00	4.47
	On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.1800	1.4920	3.2940	0.0160	0.0140	0.0127	1649.6340	0.03	0.26	0.58	0.00	0.00	0.00	290.94
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.3630	1.4780	4.6630	0.0190	0.0083	0.0075	2027.7340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.3630	1.4780	4.6630	0.0190	0.0083	0.0075	2027.7340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			2	5			g/mile	7.5680	40.9720	122.1590	0.0620	0.0164	0.0149	6544.2630	0.00	0.02	0.04	0.00	0.00	0.00	2.40
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.0060	0.4470	0.0350	0.0030	0.0050	0.0046	337.1470	0.00	0.08	0.01	0.00	0.00	0.00	60.20
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.0040	0.3100	0.0320	0.0030	0.0040	0.0036	305.4120	0.00	0.06	0.01	0.00	0.00	0.00	54.54
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						0.146923783	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	0.43	0.09	0.00
																Total	0.61	10.45	10.31	0.03	0.55	0.20	3565.64

Off Street Parking Lots	2011								Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
1st parking lot south of Water Street at 26 Fries Avenue	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
c	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.19	1.96	3.55	0.01	0.02	0.02	757.80
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.0767	0.8030	1.4664	0.0030	0.0073	0.0067	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.0866	0.8270	1.7946	0.0030	0.0086	0.0078	307.1580	0.11	1.06	2.31	0.00	0.01	0.01	394.92
	Vibratory Roller	nonroad	95	0.56	1	6	319.2	1	g/hp-hr	0.1431	2.2330	2.4718	0.0040	0.0299	0.0272	318.5340	0.10	1.57	1.74	0.00	0.02	0.02	224.15
	Paving Machine	nonroad	104	0.53	1	6	330.72	1	g/hp-hr	0.2363	2.6310	2.8849	0.0040	0.0502	0.0457	352.6630	0.17	1.92	2.10	0.00	0.04	0.03	257.13
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.1046	1.4790	1.6366	0.0030	0.0189	0.0172	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0685	0.8330	1.3440	0.0020	0.0070	0.0064	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0685	0.8330	1.3440	0.0020	0.0070	0.0064	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1210	2.8790	2.6350	0.0030	0.2670	0.2430	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.6730	2.9280	4.5440	0.0070	0.2660	0.2421	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.19	1.96	3.55	0.01	0.02	0.02	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0743	0.7900	1.5648	0.0030	0.0074	0.0067	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0825	0.7290	1.8118	0.0030	0.0080	0.0072	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0781	0.9290	1.5600	0.0030	0.0080	0.0072	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.19	1.96	3.55	0.01	0.02	0.02	757.80
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0849	0.9110	1.8072	0.0030	0.0085	0.0077	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0604	0.7810	1.4069	0.0050	0.0060	0.0055	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.1689	2.7400	3.0606	0.0050	0.0345	0.0314	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	2.04	6.177	13.832	0.03	0.03465	0.031532	3132.132	0.00	0.01	0.02	0.00	0.00	0.00	3.45
	On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.01	0.02	0.00	0.00	0.00	4.44
	On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.249	2.318	5.508	0.016	0.0474	0.043134	1636.585	0.04	0.41	0.97	0.00	0.01	0.01	288.64
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			2	5			g/mile	7.481	40.504	120.763	0.062	0.0573	0.052143	6469.497	0.00	0.01	0.04	0.00	0.00	0.00	2.38
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.009	0.716	0.055	0.003	0.006	0.00546	337.147	0.00	0.13	0.01	0.00	0.00	0.00	60.20
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.007	0.496	0.05	0.003	0.004	0.00364	305.412	0.00	0.09	0.01	0.00	0.00	0.00	54.54
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						0.574	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	1.68	0.35	0.00
																Total	1.02	11.10	17.86	0.03	1.81	0.47	3563.26

Mitigated Emission Rates

2011

2nd parking lot south of Water Street at Avalon

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Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.19	1.96	3.55	0.01	0.02	0.02	757.80
Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.0767	0.8030	1.4664	0.0030	0.0073	0.0067	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.0866	0.8270	1.7946	0.0030	0.0086	0.0078	307.1580	0.11	1.06	2.31	0.00	0.01	0.01	394.92
Vibratory Roller	nonroad	95	0.56	1	6	319.2	1	g/hp-hr	0.1431	2.2330	2.4718	0.0040	0.0299	0.0272	318.5340	0.10	1.57	1.74	0.00	0.02	0.02	224.15
Paving Machine	nonroad	104	0.53	1	6	330.72	1	g/hp-hr	0.2363	2.6310	2.8849	0.0040	0.0502	0.0457	352.6630	0.17	1.92	2.10	0.00	0.04	0.03	257.13
Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.1046	1.4790	1.6366	0.0030	0.0189	0.0172	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0685	0.8330	1.3440	0.0020	0.0070	0.0064	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0685	0.8330	1.3440	0.0020	0.0070	0.0064	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1210	2.8790	2.6350	0.0030	0.2670	0.2430	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.6730	2.9280	4.5440	0.0070	0.2660	0.2421	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.19	1.96	3.55	0.01	0.02	0.02	757.80
Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0743	0.7900	1.5648	0.0030	0.0074	0.0067	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0825	0.7290	1.8118	0.0030	0.0080	0.0072	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0781	0.9290	1.5600	0.0030	0.0080	0.0072	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dump Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.19	1.96	3.55	0.01	0.02	0.02	757.80
Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0849	0.9110	1.8072	0.0030	0.0085	0.0077	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0604	0.7810	1.4069	0.0050	0.0060	0.0055	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.1689	2.7400	3.0606	0.0050	0.0345	0.0314	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Equipment	Type	Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed		ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	2.04	6.177	13.832	0.03	0.03465	0.031532	3132.132	0.00	0.01	0.02	0.00	0.00	0.00	3.45
On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.01	0.02	0.00	0.00	0.00	4.44
On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.249	2.318	5.508	0.016	0.0474	0.043134	1636.585	0.04	0.41	0.97	0.00	0.01	0.01	288.64
Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			2	5			g/mile	7.481	40.504	120.763	0.062	0.0573	0.052143	6469.497	0.00	0.01	0.04	0.00	0.00	0.00	2.38
On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.009	0.716	0.055	0.003	0.006	0.00546	337.147	0.00	0.13	0.01	0.00	0.00	0.00	60.20
On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.007	0.496	0.05	0.003	0.004	0.00364	305.412	0.00	0.09	0.01	0.00	0.00	0.00	54.54
Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust	dust						0.62	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	1.82	0.38	0.00
															Total	1.02	11.10	17.86	0.03	1.95	0.50	3563.26

Waterfront Promenade

2010

Removal of existing wharf structure & Bulkhead Demolition & installation of rock slope protection

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Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.20	2.10	3.87	0.01	0.02	0.02	757.80
Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.0805	0.8550	1.6050	0.0030	0.0081	0.0074	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.0920	0.8680	1.9392	0.0030	0.0095	0.0087	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.1527	2.2550	2.6058	0.0040	0.0313	0.0285	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.2495	2.6620	3.0258	0.0040	0.0524	0.0477	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.1103	1.4850	1.7346	0.0030	0.0198	0.0180	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0723	0.9000	1.4442	0.0020	0.0076	0.0069	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 100 ton	nonroad	335	0.43	1	6	864.3	1	g/hp-hr	0.0723	0.9000	1.4442	0.0020	0.0076	0.0069	244.5890	0.14	1.71	2.75	0.00	0.01	0.01	466.05
Welding Machine	nonroad	26	0.45	2	8	187.2	1	g/hp-hr	1.1970	2.9600	2.6770	0.0030	0.2810	0.2557	255.9650	0.49	1.22	1.10	0.00	0.12	0.11	105.64
Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.7060	2.9830	4.7310	0.0070	0.2820	0.2566	420.9200	0.12	0.51	0.80	0.00	0.05	0.04	71.42
Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.20	2.10	3.87	0.01	0.02	0.02	757.80
Vibratory Hammer & Power Pack	nonroad	350	0.43	1	6	903	1	g/hp-hr	0.0793	0.8700	1.6914	0.0030	0.0082	0.0075	290.0930	0.16	1.73	3.37	0.01	0.02	0.01	577.50
Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0887	0.7810	1.9527	0.0030	0.0089	0.0081	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0825	0.9910	1.6860	0.0030	0.0087	0.0079	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tug Boat	nonroad	2420	0.43	1	4	4162.4	1	g/hp-hr	0.5000	5.0000	9.8000	0.0060	0.7200	0.6624	0.0000	3.42	34.23	67.09	0.04	4.93	4.53	0.00
Derrick Barge	nonroad	380	0.43	2	6	1960.8	1	g/hp-hr	0.0904	1.0040	1.9530	0.0030	0.0094	0.0086	335.5980	0.39	4.34	8.44	0.01	0.04	0.04	1450.71
Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0648	0.7850	1.6458	0.0050	0.0071	0.0065	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.1812	2.7670	3.2312	0.0050	0.0361	0.0329	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Float Stages	nonroad	0	0	4	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Equipment	Type	Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed		ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	2.029	6.383	15.395	0.03	0.0375	0.034125	3126.461	0.00	0.01	0.02	0.00	0.00	0.00	3.45
On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	0.502	2.48	8.655	0.019	0.0303	0.027573	2007.237	0.00	0.01	0.02	0.00	0.00	0.00	4.43
On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.247	2.376	6.133	0.016	0.0513	0.046683	1632.199	0.04	0.42	1.08	0.00	0.01	0.01	287.87
Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.502	2.48	8.655	0.019	0.0303	0.027573	2007.237	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	0.502	2.48	8.655	0.019	0.0303	0.027573	2007.237	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			2	5			g/mile	7.452	40.347	120.294	0.062	0.06435	0.058559	6444.365	0.00	0.01	0.04	0.00	0.00	0.00	2.37
On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.009	0.729	0.058	0.003	0.005	0.00455	337.147	0.00	0.13	0.01	0.00	0.00	0.00	60.20
On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.007	0.506	0.052	0.003	0.004	0.00364	305.412	0.00	0.09	0.01	0.00	0.00	0.00	54.54
Building Demolition	demo	9375						lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	3.94	0.83	0.00
Fugitive Dust	dust							lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
															Total	5.18	48.61	92.48	0.08	9.15	5.62	4599.76

Mitigated Emission Rates

2011

	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
Installation of perimeter sheet pile																							
29 bulkheads within US waters																							
b	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.19	1.96	3.55	0.01	0.02	0.02	757.80
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.0767	0.8030	1.4664	0.0030	0.0073	0.0067	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.0866	0.8270	1.7946	0.0030	0.0086	0.0078	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.1431	2.2330	2.4718	0.0040	0.0299	0.0272	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.2363	2.6310	2.8849	0.0040	0.0502	0.0457	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.1046	1.4790	1.6366	0.0030	0.0189	0.0172	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0685	0.8330	1.3440	0.0020	0.0070	0.0064	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	1	6	864.3	1	g/hp-hr	0.0685	0.8330	1.3440	0.0020	0.0070	0.0064	244.5890	0.13	1.59	2.56	0.00	0.01	0.01	466.05
	Welding Machine	nonroad	26	0.45	2	8	187.2	1	g/hp-hr	1.1210	2.8790	2.6350	0.0030	0.2670	0.2430	255.9650	0.46	1.19	1.09	0.00	0.11	0.10	105.64
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6730	2.9280	4.5440	0.0070	0.2660	0.2421	420.9200	0.11	0.50	0.77	0.00	0.05	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	1	6	903	1	g/hp-hr	0.0743	0.7900	1.5648	0.0030	0.0074	0.0067	290.0930	0.15	1.57	3.12	0.01	0.01	0.01	577.50
	Impact Hammer	nonroad	190	0.75	1	6	855	1	g/hp-hr	0.0825	0.7290	1.8118	0.0030	0.0080	0.0072	290.0930	0.16	1.37	3.42	0.01	0.02	0.01	546.80
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0781	0.9290	1.5600	0.0030	0.0080	0.0072	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	1	4	4162.4	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.48	34.23	40.87	0.04	0.75	0.69	0.00
	Derrick Barge	nonroad	380	0.43	2	6	1960.8	1	g/hp-hr	0.0849	0.9110	1.8072	0.0030	0.0085	0.0077	355.5980	0.37	3.94	7.81	0.01	0.04	0.03	1537.16
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0604	0.7810	1.4069	0.0050	0.0060	0.0055	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0825	0.8400	1.5174	0.0030	0.0077	0.0070	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.1689	2.7400	3.0606	0.0050	0.0345	0.0314	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5030	1.7100	3.1940	0.0050	0.1410	0.1283	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	4	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	Equipment	Type	Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed																
	On-road Truck - 10 mph	nonroad		0.25	1		0.25		g/mile	2.04	6.177	13.832	0.03	0.03465	0.031532	3132.132	0.00	0.00	0.01	0.00	0.00	0.00	1.73
	On-road Truck - 25 mph	nonroad		0.5	1		0.5		g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.00	0.01	0.00	0.00	0.00	2.22
	On-road Truck - 55 mph	nonroad		40	1		40		g/mile	0.249	2.318	5.508	0.016	0.0474	0.043134	1636.585	0.02	0.20	0.49	0.00	0.00	0.00	144.32
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.505	2.395	7.775	0.019	0.02805	0.025526	2012.393	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			1	5			g/mile	7.481	40.504	120.763	0.062	0.0573	0.052143	6469.497	0.00	0.01	0.02	0.00	0.00	0.00	1.19
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.009	0.716	0.055	0.003	0.006	0.00546	337.147	0.00	0.13	0.01	0.00	0.00	0.00	60.20
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.007	0.496	0.05	0.003	0.004	0.00364	305.412	0.00	0.09	0.01	0.00	0.00	0.00	54.54
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust							lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
																	Total	2.08	46.78	63.72	0.08	1.01	0.93	4326.56

2012

	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
30 Piles in water																							
b	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.12	1.85	2.03	0.01	0.02	0.01	757.80
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.0457	0.7620	0.8381	0.0030	0.0066	0.0060	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.0501	0.7910	1.0151	0.0030	0.0078	0.0071	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.0837	2.2130	1.4599	0.0040	0.0281	0.0255	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.1368	2.6030	1.6796	0.0040	0.0476	0.0433	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.0605	1.4730	0.9428	0.0030	0.0176	0.0160	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	1	6	864.3	1	g/hp-hr	0.0406	0.7730	0.7808	0.0020	0.0064	0.0058	244.5890	0.08	1.47	1.49	0.00	0.01	0.01	466.05
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0406	0.7730	0.7808	0.0020	0.0064	0.0058	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.0360	2.7860	2.5900	0.0030	0.2530	0.2302	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6410	2.8700	4.3510	0.0070	0.2510	0.2284	420.9200	0.11	0.49	0.74	0.00	0.04	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	1	6	903	1	g/hp-hr	0.0441	0.7340	0.9045	0.0030	0.0067	0.0061	290.9300	0.09	1.46	1.80	0.01	0.01	0.01	579.17
	Impact Hammer	nonroad	190	0.75	1	6	855	1	g/hp-hr	0.0477	0.6970	1.0283	0.0030	0.0072	0.0066	290.0930	0.09	1.31	1.94	0.01	0.01	0.01	546.80
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0465	0.8750	0.9019	0.0030	0.0072	0.0066	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	1	4	4162.4	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.48	34.23	40.87	0.04	0.75	0.69	0.00
	Derrick Barge	nonroad	380	0.43	2	6	1960.8	1	g/hp-hr	0.0503	0.8460	1.0444	0.0030	0.0077	0.0070	335.5980	0.22	3.66	4.51	0.01	0.03	0.03	1450.71
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0348	0.7790	0.7418	0.0050	0.0050	0.0046	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.0976	2.7110	1.7969	0.0050	0.0323	0.0294	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	4	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00

	Equipment	Type	Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed																
	On-road Truck - 10 mph	nonroad		0.25	1		0.25		g/mile	1.4720	3.8500	8.3130	0.0300	0.0102	0.0093	3149.0030	0.00	0.00	0.00	0.00	0.00	0.00	1.74
	On-road Truck - 25 mph	nonroad		0.5	1		0.5		g/mile	0.3630	1.4780	4.6630	0.0190	0.0083	0.0075	2027.7340	0.00	0.00	0.01	0.00	0.00	0.00	2.24
	On-road Truck - 55 mph	nonroad		40	1		40		g/mile	0.1800	1.4920	3.2940	0.0160	0.0140	0.0127	1649.6340	0.02	0.13	0.29	0.00	0.00	0.00	145.47
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.3630	1.4780	4.6630	0.0190	0.0083	0.0075	2027.7340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.3630	1.4780	4.6630	0.0190	0.0083	0.0075	2027.7340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			1	5			g/mile	7.5680	40.9720	122.1590	0.0620	0.0164	0.0149	6544.2630	0.00	0.01	0.02	0.00	0.00	0.00	1.20
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.0060	0.4470	0.0350	0.0030	0.0050	0.0046	337.1470	0.00	0.08	0.01	0.00	0.00	0.00	60.20
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.0040	0.3100	0.0320	0.0030	0.0040	0.0036	305.4120	0.00	0.06	0.01	0.00	0.00	0.00	54.54
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust							lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
																	Total	1.20	44.75	53.71	0.08	0.89	0.81	4137.33

Mitigated Emission Rates

2012									Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
31 Waterfront Boardwalk over water	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
a	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.12	1.85	2.03	0.01	0.02	0.01	757.80
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.0457	0.7620	0.8381	0.0030	0.0066	0.0060	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.0501	0.7910	1.0151	0.0030	0.0078	0.0071	307.1580	0.06	1.02	1.31	0.00	0.01	0.01	394.92
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.0837	2.2130	1.4599	0.0040	0.0281	0.0255	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.1368	2.6030	1.6796	0.0040	0.0476	0.0433	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.0605	1.4730	0.9428	0.0030	0.0176	0.0160	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0406	0.7730	0.7808	0.0020	0.0064	0.0058	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0406	0.7730	0.7808	0.0020	0.0064	0.0058	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	1	8	93.6	1	g/hp-hr	1.0360	2.7860	2.5900	0.0030	0.2530	0.2302	255.9650	0.21	0.57	0.53	0.00	0.05	0.05	52.82
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6410	2.8700	4.3510	0.0070	0.2510	0.2284	420.9200	0.11	0.49	0.74	0.00	0.04	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.12	1.85	2.03	0.01	0.02	0.01	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0441	0.7340	0.9045	0.0030	0.0067	0.0061	290.9300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0477	0.6970	1.0283	0.0030	0.0072	0.0066	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0465	0.8750	0.9019	0.0030	0.0072	0.0066	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0503	0.8460	1.0444	0.0030	0.0077	0.0070	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0348	0.7790	0.7418	0.0050	0.0050	0.0046	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.0976	2.7110	1.7969	0.0050	0.0323	0.0294	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	4	8	233.6	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.26	0.88	1.64	0.00	0.07	0.06	213.84
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	1.4720	3.8500	8.3130	0.0300	0.0102	0.0093	3149.0030	0.00	0.00	0.01	0.00	0.00	0.00	3.47
	On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	0.3630	1.4780	4.6630	0.0190	0.0083	0.0075	2027.7340	0.00	0.00	0.01	0.00	0.00	0.00	4.47
	On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.1800	1.4920	3.2940	0.0160	0.0140	0.0127	1649.6340	0.03	0.26	0.58	0.00	0.00	0.00	290.94
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.3630	1.4780	4.6630	0.0190	0.0083	0.0075	2027.7340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.3630	1.4780	4.6630	0.0190	0.0083	0.0075	2027.7340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			2	5			g/mile	7.5680	40.9720	122.1590	0.0620	0.0164	0.0149	6544.2630	0.00	0.02	0.04	0.00	0.00	0.00	2.40
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.0060	0.4470	0.0350	0.0030	0.0050	0.0046	337.1470	0.00	0.08	0.01	0.00	0.00	0.00	60.20
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.0040	0.3100	0.0320	0.0030	0.0040	0.0036	305.4120	0.00	0.06	0.01	0.00	0.00	0.00	54.54
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						1.033	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	3.03	0.63	0.00
																Total	0.91	7.09	8.93	0.03	3.23	0.82	2664.63

2012									Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
32 Public dock	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
a	General Construction Trucks	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.0457	0.7620	0.8381	0.0030	0.0066	0.0060	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.0501	0.7910	1.0151	0.0030	0.0078	0.0071	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.0837	2.2130	1.4599	0.0040	0.0281	0.0255	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.1368	2.6030	1.6796	0.0040	0.0476	0.0433	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.0605	1.4730	0.9428	0.0030	0.0176	0.0160	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0406	0.7730	0.7808	0.0020	0.0064	0.0058	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	1	6	864.3	1	g/hp-hr	0.0406	0.7730	0.7808	0.0020	0.0064	0.0058	244.5890	0.08	1.47	1.49	0.00	0.01	0.01	466.05
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.0360	2.7860	2.5900	0.0030	0.2530	0.2302	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.6410	2.8700	4.3510	0.0070	0.2510	0.2284	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0441	0.7340	0.9045	0.0030	0.0067	0.0061	290.9300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0477	0.6970	1.0283	0.0030	0.0072	0.0066	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0465	0.8750	0.9019	0.0030	0.0072	0.0066	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0503	0.8460	1.0444	0.0030	0.0077	0.0070	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0348	0.7790	0.7418	0.0050	0.0050	0.0046	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.0976	2.7110	1.7969	0.0050	0.0323	0.0294	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	0		0		g/mile	1.4720	3.8500	8.3130	0.0300	0.0102	0.0093	3149.0030	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - 25 mph	nonroad		0.5	0		0		g/mile	0.3630	1.4780	4.6630	0.0190	0.0083	0.0075	2027.7340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - 55 mph	nonroad		40	0		0		g/mile	0.1800	1.4920	3.2940	0.0160	0.0140	0.0127	1649.6340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.3630	1.4780	4.6630	0.0190	0.0083	0.0075	2027.7340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.3630	1.4780	4.6630	0.0190	0.0083	0.0075	2027.7340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			0	5			g/mile	7.5680	40.9720	122.1590	0.0620	0.0164	0.0149	6544.2630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.0060	0.4470	0.0350	0.0030	0.0050	0.0046	337.1470	0.00	0.08	0.01	0.00	0.00	0.00	60.20
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.0040	0.3100	0.0320	0.0030	0.0040	0.0036	305.4120	0.00	0.06	0.01	0.00	0.00	0.00	54.54
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						0.184	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	0.54	0.11	0.00
																Total	0.08	1.61	1.50	0.00	0.55	0.12	580.79

Mitigated Emission Rates

2012

33 Hardscaping d	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.12	1.85	2.03	0.01	0.02	0.01	757.80
	Excavator	nonroad	428	0.57	1	8	1951.7	1	g/hp-hr	0.0457	0.7620	0.8381	0.0030	0.0066	0.0060	324.2220	0.20	3.28	3.61	0.01	0.03	0.03	1395.01
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.0501	0.7910	1.0151	0.0030	0.0078	0.0071	307.1580	0.06	1.02	1.31	0.00	0.01	0.01	394.92
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.0837	2.2130	1.4599	0.0040	0.0281	0.0255	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.1368	2.6030	1.6796	0.0040	0.0476	0.0433	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.0605	1.4730	0.9428	0.0030	0.0176	0.0160	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0406	0.7730	0.7808	0.0020	0.0064	0.0058	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0406	0.7730	0.7808	0.0020	0.0064	0.0058	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.0360	2.7860	2.5900	0.0030	0.2530	0.2302	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6410	2.8700	4.3510	0.0070	0.2510	0.2284	420.9200	0.11	0.49	0.74	0.00	0.04	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.12	1.85	2.03	0.01	0.02	0.01	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0441	0.7340	0.9045	0.0030	0.0067	0.0061	290.9300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0477	0.6970	1.0283	0.0030	0.0072	0.0066	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0465	0.8750	0.9019	0.0030	0.0072	0.0066	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0503	0.8460	1.0444	0.0030	0.0077	0.0070	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0348	0.7790	0.7418	0.0050	0.0050	0.0046	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.0976	2.7110	1.7969	0.0050	0.0323	0.0294	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed																
	On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	1.4720	3.8500	8.3130	0.0300	0.0102	0.0093	3149.0030	0.00	0.00	0.01	0.00	0.00	0.00	3.47
	On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	0.3630	1.4780	4.6630	0.0190	0.0083	0.0075	2027.7340	0.00	0.00	0.01	0.00	0.00	0.00	4.47
	On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.1800	1.4920	3.2940	0.0160	0.0140	0.0127	1649.6340	0.03	0.26	0.58	0.00	0.00	0.00	290.94
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.3630	1.4780	4.6630	0.0190	0.0083	0.0075	2027.7340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.3630	1.4780	4.6630	0.0190	0.0083	0.0075	2027.7340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			2	5			g/mile	7.5680	40.9720	122.1590	0.0620	0.0164	0.0149	6544.2630	0.00	0.02	0.04	0.00	0.00	0.00	2.40
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	5		45		g/mile	0.0060	0.4470	0.0350	0.0030	0.0050	0.0046	337.1470	0.00	0.04	0.00	0.00	0.00	0.00	33.45
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	5		45		g/mile	0.0040	0.3100	0.0320	0.0030	0.0040	0.0036	305.4120	0.00	0.03	0.00	0.00	0.00	0.00	30.30
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						4.626	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	13.55	2.82	0.00
																	Total						
																	0.64	8.85	10.36	0.04	13.67	2.93	3741.99

2013

34 Landscaping d	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0472	0.7570	0.7976	0.0030	0.0062	0.0056	324.2220	0.11	1.77	1.86	0.01	0.01	0.01	757.80
	Excavator	nonroad	428	0.57	1	8	1951.7	1	g/hp-hr	0.0441	0.7310	0.7680	0.0030	0.0059	0.0054	324.2220	0.19	3.15	3.30	0.01	0.03	0.02	1395.01
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.0474	0.7600	0.9375	0.0030	0.0071	0.0064	307.1580	0.06	0.98	1.21	0.00	0.01	0.01	394.92
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.0784	2.1940	1.3794	0.0040	0.0272	0.0247	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.1293	2.5770	1.5971	0.0040	0.0448	0.0408	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.0574	1.4680	0.8869	0.0030	0.0164	0.0149	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0386	0.7190	0.7249	0.0020	0.0057	0.0052	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0386	0.7190	0.7249	0.0020	0.0057	0.0052	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.9460	2.6880	2.4890	0.0030	0.2330	0.2120	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6100	2.8120	4.1600	0.0070	0.2360	0.2148	420.9200	0.10	0.48	0.71	0.00	0.04	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0472	0.7570	0.7976	0.0030	0.0062	0.0056	324.2220	0.11	1.77	1.86	0.01	0.01	0.01	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0423	0.6920	0.8340	0.0030	0.0062	0.0056	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0454	0.6750	0.9503	0.0030	0.0066	0.0060	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0443	0.8290	0.8340	0.0030	0.0065	0.0059	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0472	0.7570	0.7976	0.0030	0.0062	0.0056	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0481	0.7980	0.9634	0.0030	0.0071	0.0064	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1680	0.0050	0.1230	0.1119	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0329	0.7780	0.6491	0.0050	0.0041	0.0037	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0472	0.7570	0.7976	0.0030	0.0062	0.0056	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.0897	2.6840	1.6829	0.0050	0.0297	0.0270	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1680	0.0050	0.1230	0.1119	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed																
	On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	1.49	3.891	7.732	0.03	0.0108	0.009828	3149.479	0.00	0.00	0.01	0.00	0.00	0.00	3.47
	On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	0.367	1.494	4.339	0.019	0.0087	0.007917	2028.167	0.00	0.00	0.01	0.00	0.00	0.00	4.47
	On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.182	1.508	3.066	0.016	0.0147	0.013377	1650.002	0.03	0.27	0.54	0.00	0.00	0.00	291.01
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.367	1.494	4.339	0.019	0.0087	0.007917	2028.167	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.367	1.494	4.339	0.019	0.0087	0.007917	2028.167	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			2	5			g/mile	7.57	40.986	122.198	0.062	0.01635	0.014879	6546.376	0.00	0.02	0.04	0.00	0.00	0.00	2.41
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	5		45		g/mile	0.006	0.454	0.035	0.003	0.005	0.00455	337.147	0.00	0.05	0.00	0.00	0.00	0.00	33.45
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	5		45		g/mile	0.004	0.315	0.032	0.003	0.004	0.00364	305.412	0.00	0.03	0.00	0.00	0.00	0.00	30.30
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						1.524	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	4.47	0.93	0.00
																	Total						
																	0.61	8.50	9.55	0.04	4.57	1.03	3742.05

Mitigated Emission Rates

2013

35 Trees	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
d	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0472	0.7570	0.7976	0.0030	0.0062	0.0056	324.2220	0.11	1.77	1.86	0.01	0.01	0.01	757.80
	Excavator	nonroad	428	0.57	1	8	1951.7	1	g/hp-hr	0.0441	0.7310	0.7680	0.0030	0.0059	0.0054	324.2220	0.19	3.15	3.30	0.01	0.03	0.02	1395.01
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.0474	0.7600	0.9375	0.0030	0.0071	0.0064	307.1580	0.06	0.98	1.21	0.00	0.01	0.01	394.92
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.0784	2.1940	1.3794	0.0040	0.0272	0.0247	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.1293	2.5770	1.5971	0.0040	0.0448	0.0408	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.0574	1.4680	0.8869	0.0030	0.0164	0.0149	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0386	0.7190	0.7249	0.0020	0.0057	0.0052	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0386	0.7190	0.7249	0.0020	0.0057	0.0052	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.9460	2.6880	2.4890	0.0030	0.2330	0.2120	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6100	2.8120	4.1600	0.0070	0.2360	0.2148	420.9200	0.10	0.48	0.71	0.00	0.04	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0472	0.7570	0.7976	0.0030	0.0062	0.0056	324.2220	0.11	1.77	1.86	0.01	0.01	0.01	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0423	0.6920	0.8340	0.0030	0.0062	0.0056	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0454	0.6750	0.9503	0.0030	0.0066	0.0060	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0443	0.8290	0.8340	0.0030	0.0065	0.0059	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0472	0.7570	0.7976	0.0030	0.0062	0.0056	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0481	0.7980	0.9634	0.0030	0.0071	0.0064	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1680	0.0050	0.1230	0.1119	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0329	0.7780	0.6491	0.0050	0.0041	0.0037	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0472	0.7570	0.7976	0.0030	0.0062	0.0056	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.0897	2.6840	1.6829	0.0050	0.0297	0.0270	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1680	0.0050	0.1230	0.1119	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	1.49	3.891	7.732	0.03	0.0108	0.009828	3149.479	0.00	0.00	0.01	0.00	0.00	0.00	3.47
	On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	0.367	1.494	4.339	0.019	0.0087	0.007917	2028.167	0.00	0.00	0.01	0.00	0.00	0.00	4.47
	On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.182	1.508	3.066	0.016	0.0147	0.013377	1650.002	0.03	0.27	0.54	0.00	0.00	0.00	291.01
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.367	1.494	4.339	0.019	0.0087	0.007917	2028.167	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.367	1.494	4.339	0.019	0.0087	0.007917	2028.167	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			2	5			g/mile	7.57	40.986	122.198	0.062	0.01635	0.014879	6546.376	0.00	0.02	0.04	0.00	0.00	0.00	2.41
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	5		45		g/mile	0.006	0.454	0.035	0.003	0.005	0.00455	337.147	0.00	0.05	0.00	0.00	0.00	0.00	33.45
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	5		45		g/mile	0.004	0.315	0.032	0.003	0.004	0.00364	305.412	0.00	0.03	0.00	0.00	0.00	0.00	30.30
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust							lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
																Total	0.61	8.50	9.55	0.04	0.11	0.10	3742.05

2012

36 Water Feature on tunnel	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
f	General Construction Trucks	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.0457	0.7620	0.8381	0.0030	0.0066	0.0060	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.0501	0.7910	1.0151	0.0030	0.0078	0.0071	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.0837	2.2130	1.4599	0.0040	0.0281	0.0255	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.1368	2.6030	1.6796	0.0040	0.0476	0.0433	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.0605	1.4730	0.9428	0.0030	0.0176	0.0160	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0406	0.7730	0.7808	0.0020	0.0064	0.0058	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0406	0.7730	0.7808	0.0020	0.0064	0.0058	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.0360	2.7860	2.5900	0.0030	0.2530	0.2302	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.6410	2.8700	4.3510	0.0070	0.2510	0.2284	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0441	0.7340	0.9045	0.0030	0.0067	0.0061	290.9300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0477	0.6970	1.0283	0.0030	0.0072	0.0066	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0465	0.8750	0.9019	0.0030	0.0072	0.0066	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0503	0.8460	1.0444	0.0030	0.0077	0.0070	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0348	0.7790	0.7418	0.0050	0.0050	0.0046	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.0976	2.7110	1.7969	0.0050	0.0323	0.0294	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	0		0		g/mile	1.4720	3.8500	8.3130	0.0300	0.0102	0.0093	3149.0030	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - 25 mph	nonroad		0.5	0		0		g/mile	0.3630	1.4780	4.6630	0.0190	0.0083	0.0075	2027.7340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - 55 mph	nonroad		40	0		0		g/mile	0.1800	1.4920	3.2940	0.0160	0.0140	0.0127	1649.6340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.3630	1.4780	4.6630	0.0190	0.0083	0.0075	2027.7340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.3630	1.4780	4.6630	0.0190	0.0083	0.0075	2027.7340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			0	5			g/mile	7.5680	40.9720	122.1590	0.0620	0.0164	0.0149	6544.2630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	18		162		g/mile	0.0060	0.4470	0.0350	0.0030	0.0050	0.0046	337.1470	0.00	0.16	0.01	0.00	0.00	0.00	120.41
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	18		162		g/mile	0.0040	0.3100	0.0320	0.0030	0.0040	0.0036	305.4120	0.00	0.11	0.01	0.00	0.00	0.00	109.08
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust							lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
																Total	0.00	0.27	0.02	0.00	0.00	0.00	229.49

Mitigated Emission Rates

Observation Tower 2012

37 Concrete Prep. c	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
	General Construction Trucks	nonroad	310	0.57	2	6	2120.4	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.23	3.71	4.06	0.01	0.03	0.03	1515.61
	Excavator	nonroad	428	0.57	1	8	1951.7	1	g/hp-hr	0.0457	0.7620	0.8381	0.0030	0.0066	0.0060	324.2220	0.20	3.28	3.61	0.01	0.03	0.03	1395.01
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.0501	0.7910	1.0151	0.0030	0.0078	0.0071	307.1580	0.06	1.02	1.31	0.00	0.01	0.01	394.92
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.0837	2.2130	1.4599	0.0040	0.0281	0.0255	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.1368	2.6030	1.6796	0.0040	0.0476	0.0433	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	1	6	392.16	1	g/hp-hr	0.0605	1.4730	0.9428	0.0030	0.0176	0.0160	244.5890	0.05	1.27	0.82	0.00	0.02	0.01	211.46
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0406	0.7730	0.7808	0.0020	0.0064	0.0058	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0406	0.7730	0.7808	0.0020	0.0064	0.0058	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	1	8	93.6	1	g/hp-hr	1.0360	2.7860	2.5900	0.0030	0.2530	0.2302	255.9650	0.21	0.57	0.53	0.00	0.05	0.05	52.82
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6410	2.8700	4.3510	0.0070	0.2510	0.2284	420.9200	0.11	0.49	0.74	0.00	0.04	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.12	1.85	2.03	0.01	0.02	0.01	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0441	0.7340	0.9045	0.0030	0.0067	0.0061	290.9300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0477	0.6970	1.0283	0.0030	0.0072	0.0066	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0465	0.8750	0.9019	0.0030	0.0072	0.0066	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0503	0.8460	1.0444	0.0030	0.0077	0.0070	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	4	8	233.6	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.26	0.88	1.64	0.00	0.07	0.06	213.84
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0348	0.7790	0.7418	0.0050	0.0050	0.0046	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.0976	2.7110	1.7969	0.0050	0.0323	0.0294	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	4	8	233.6	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.26	0.88	1.64	0.00	0.07	0.06	213.84
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	3		0.75		g/mile	1.4720	3.8500	8.3130	0.0300	0.0102	0.0093	3149.0030	0.00	0.01	0.01	0.00	0.00	0.00	5.21
	On-road Truck - 25 mph	nonroad		0.5	3		1.5		g/mile	0.3630	1.4780	4.6630	0.0190	0.0083	0.0075	2027.7340	0.00	0.00	0.02	0.00	0.00	0.00	6.71
	On-road Truck - 55 mph	nonroad		40	3		120		g/mile	0.1800	1.4920	3.2940	0.0160	0.0140	0.0127	1649.6340	0.05	0.39	0.87	0.00	0.00	0.00	436.41
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.3630	1.4780	4.6630	0.0190	0.0083	0.0075	2027.7340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.3630	1.4780	4.6630	0.0190	0.0083	0.0075	2027.7340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			3	5			g/mile	7.5680	40.9720	122.1590	0.0620	0.0164	0.0149	6544.2630	0.00	0.02	0.07	0.00	0.00	0.00	3.61
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.0060	0.4470	0.0350	0.0030	0.0050	0.0046	337.1470	0.00	0.08	0.01	0.00	0.00	0.00	60.20
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.0040	0.3100	0.0320	0.0030	0.0040	0.0036	305.4120	0.00	0.06	0.01	0.00	0.00	0.00	54.54
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						4.298209366	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	12.59	2.62	0.00
																	Total	1.56	14.52	17.34	0.05	12.93	2.92	5393.39

2012

37.1 Concrete Pour c	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
	General Construction Trucks	nonroad	310	0.57	2	6	2120.4	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.23	3.71	4.06	0.01	0.03	0.03	1515.61
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.0457	0.7620	0.8381	0.0030	0.0066	0.0060	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.0501	0.7910	1.0151	0.0030	0.0078	0.0071	307.1580	0.06	1.02	1.31	0.00	0.01	0.01	394.92
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.0837	2.2130	1.4599	0.0040	0.0281	0.0255	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.1368	2.6030	1.6796	0.0040	0.0476	0.0433	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	1	6	392.16	1	g/hp-hr	0.0605	1.4730	0.9428	0.0030	0.0176	0.0160	244.5890	0.05	1.27	0.82	0.00	0.02	0.01	211.46
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0406	0.7730	0.7808	0.0020	0.0064	0.0058	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0406	0.7730	0.7808	0.0020	0.0064	0.0058	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.0360	2.7860	2.5900	0.0030	0.2530	0.2302	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6410	2.8700	4.3510	0.0070	0.2510	0.2284	420.9200	0.11	0.49	0.74	0.00	0.04	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0441	0.7340	0.9045	0.0030	0.0067	0.0061	290.9300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0477	0.6970	1.0283	0.0030	0.0072	0.0066	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0465	0.8750	0.9019	0.0030	0.0072	0.0066	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0503	0.8460	1.0444	0.0030	0.0077	0.0070	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0348	0.7790	0.7418	0.0050	0.0050	0.0046	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	2	4	2184.2	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.24	3.82	4.18	0.01	0.03	0.03	1561.24
	Concrete Pump	nonroad	53	0.74	2	4	313.76	1	g/hp-hr	0.0976	2.7110	1.7969	0.0050	0.0323	0.0294	420.9200	0.07	1.88	1.24	0.00	0.02	0.02	291.15
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	4		1		g/mile	1.4720	3.8500	8.3130	0.0300	0.0102	0.0093	3149.0030	0.00	0.01	0.02	0.00	0.00	0.00	6.94
	On-road Truck - 25 mph	nonroad		0.5	4		2		g/mile	0.3630	1.4780	4.6630	0.0190	0.0083	0.0075	2027.7340	0.00	0.01	0.02	0.00	0.00	0.00	8.94
	On-road Truck - 55 mph	nonroad		40	4		160		g/mile	0.1800	1.4920	3.2940	0.0160	0.0140	0.0127	1649.6340	0.06	0.53	1.16	0.01	0.00	0.00	581.88
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.3630	1.4780	4.6630	0.0190	0.0083	0.0075	2027.7340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.3630	1.4780	4.6630	0.0190	0.0083	0.0075	2027.7340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			4	5			g/mile	7.5680	40.9720	122.1590	0.0620	0.0164	0.0149	6544.2630	0.01	0.03	0.09	0.00	0.00	0.00	4.81
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.0060	0.4470	0.0350	0.0030	0.0050	0.0046	337.1470	0.00	0.08	0.01	0.00	0.00	0.00	60.20
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.0040	0.3100	0.0320	0.0030	0.0040	0.0036	305.4120	0.00	0.06	0.01	0.00	0.00	0.00	54.54
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						4.298209366	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	12.59	2.62	0.00
																	Total	0.84	12.88	13.65	0.05	12.76	2.77	4763.11

Mitigated Emission Rates

2012

37.2 Steel Work

c

Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
General Construction Trucks	nonroad	310	0.57	2	6	2120.4	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.23	3.71	4.06	0.01	0.03	0.03	1515.61
Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.0457	0.7620	0.8381	0.0030	0.0066	0.0060	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.0501	0.7910	1.0151	0.0030	0.0078	0.0071	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.0837	2.2130	1.4599	0.0040	0.0281	0.0255	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.1368	2.6030	1.6796	0.0040	0.0476	0.0433	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.0605	1.4730	0.9428	0.0030	0.0176	0.0160	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 150 ton	nonroad	335	0.43	1	6	864.3	1	g/hp-hr	0.0406	0.7730	0.7808	0.0020	0.0064	0.0058	244.5890	0.08	1.47	1.49	0.00	0.01	0.01	466.05
Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0406	0.7730	0.7808	0.0020	0.0064	0.0058	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.0360	2.7860	2.5900	0.0030	0.2530	0.2302	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6410	2.8700	4.3510	0.0070	0.2510	0.2284	420.9200	0.11	0.49	0.74	0.00	0.04	0.04	71.42
Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.12	1.85	2.03	0.01	0.02	0.01	757.80
Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0441	0.7340	0.9045	0.0030	0.0067	0.0061	290.9300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Impact Hammer	nonroad	190	0.75	1	6	855	1	g/hp-hr	0.0477	0.6970	1.0283	0.0030	0.0072	0.0066	290.0930	0.09	1.31	1.94	0.01	0.01	0.01	546.80
Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0465	0.8750	0.9019	0.0030	0.0072	0.0066	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0503	0.8460	1.0444	0.0030	0.0077	0.0070	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0348	0.7790	0.7418	0.0050	0.0050	0.0046	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.0976	2.7110	1.7969	0.0050	0.0323	0.0294	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
On-road Truck - 10 mph	nonroad		0.25	3		0.75		g/mile	1.4720	3.8500	8.3130	0.0300	0.0102	0.0093	3149.0030	0.00	0.01	0.01	0.00	0.00	0.00	5.21
On-road Truck - 25 mph	nonroad		0.5	3		1.5		g/mile	0.3630	1.4780	4.6630	0.0190	0.0083	0.0075	2027.7340	0.00	0.00	0.02	0.00	0.00	0.00	6.71
On-road Truck - 55 mph	nonroad		40	3		120		g/mile	0.1800	1.4920	3.2940	0.0160	0.0140	0.0127	1649.6340	0.05	0.39	0.87	0.00	0.00	0.00	436.41
Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.3630	1.4780	4.6630	0.0190	0.0083	0.0075	2027.7340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	0.3630	1.4780	4.6630	0.0190	0.0083	0.0075	2027.7340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			3	5			g/mile	7.5680	40.9720	122.1590	0.0620	0.0164	0.0149	6544.2630	0.00	0.02	0.07	0.00	0.00	0.00	3.61
On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.0060	0.4470	0.0350	0.0030	0.0050	0.0046	337.1470	0.00	0.08	0.01	0.00	0.00	0.00	60.20
On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.0040	0.3100	0.0320	0.0030	0.0040	0.0036	305.4120	0.00	0.06	0.01	0.00	0.00	0.00	54.54
Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust	dust						4.298209366	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	12.59	2.62	0.00
															Total	0.68	9.40	11.24	0.04	12.72	2.73	3924.35

2012

37.3 Miscellaneous

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Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
General Construction Trucks	nonroad	310	0.57	2	6	2120.4	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.23	3.71	4.06	0.01	0.03	0.03	1515.61
Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.0457	0.7620	0.8381	0.0030	0.0066	0.0060	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.0501	0.7910	1.0151	0.0030	0.0078	0.0071	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.0837	2.2130	1.4599	0.0040	0.0281	0.0255	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.1368	2.6030	1.6796	0.0040	0.0476	0.0433	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.0605	1.4730	0.9428	0.0030	0.0176	0.0160	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 150 ton	nonroad	335	0.43	1	6	864.3	1	g/hp-hr	0.0406	0.7730	0.7808	0.0020	0.0064	0.0058	244.5890	0.08	1.47	1.49	0.00	0.01	0.01	466.05
Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0406	0.7730	0.7808	0.0020	0.0064	0.0058	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.0360	2.7860	2.5900	0.0030	0.2530	0.2302	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6410	2.8700	4.3510	0.0070	0.2510	0.2284	420.9200	0.11	0.49	0.74	0.00	0.04	0.04	71.42
Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.12	1.85	2.03	0.01	0.02	0.01	757.80
Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0441	0.7340	0.9045	0.0030	0.0067	0.0061	290.9300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Impact Hammer	nonroad	190	0.75	1	6	855	1	g/hp-hr	0.0477	0.6970	1.0283	0.0030	0.0072	0.0066	290.0930	0.09	1.31	1.94	0.01	0.01	0.01	546.80
Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0465	0.8750	0.9019	0.0030	0.0072	0.0066	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0503	0.8460	1.0444	0.0030	0.0077	0.0070	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0348	0.7790	0.7418	0.0050	0.0050	0.0046	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.0976	2.7110	1.7969	0.0050	0.0323	0.0294	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
On-road Truck - 10 mph	nonroad		0.25	3		0.75		g/mile	1.4720	3.8500	8.3130	0.0300	0.0102	0.0093	3149.0030	0.00	0.01	0.01	0.00	0.00	0.00	5.21
On-road Truck - 25 mph	nonroad		0.5	3		1.5		g/mile	0.3630	1.4780	4.6630	0.0190	0.0083	0.0075	2027.7340	0.00	0.00	0.02	0.00	0.00	0.00	6.71
On-road Truck - 55 mph	nonroad		40	3		120		g/mile	0.1800	1.4920	3.2940	0.0160	0.0140	0.0127	1649.6340	0.05	0.39	0.87	0.00	0.00	0.00	436.41
Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.3630	1.4780	4.6630	0.0190	0.0083	0.0075	2027.7340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	0.3630	1.4780	4.6630	0.0190	0.0083	0.0075	2027.7340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			3	5			g/mile	7.5680	40.9720	122.1590	0.0620	0.0164	0.0149	6544.2630	0.00	0.02	0.07	0.00	0.00	0.00	3.61
On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.0060	0.4470	0.0350	0.0030	0.0050	0.0046	337.1470	0.00	0.08	0.01	0.00	0.00	0.00	60.20
On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.0040	0.3100	0.0320	0.0030	0.0040	0.0036	305.4120	0.00	0.06	0.01	0.00	0.00	0.00	54.54
Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust	dust						4.298209366	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	12.59	2.62	0.00
															Total	0.68	9.40	11.24	0.04	12.72	2.73	3924.35

Mitigated Emission Rates

Development 2013

Mercado on SW corner of Harry
38 Bridges and Avalon

c

Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
									Emission Factor (g/hp-hr)							*Daily Emission Rates (lb/day)*						
General Construction Trucks	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0472	0.7570	0.7976	0.0030	0.0062	0.0056	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.0441	0.7310	0.7680	0.0030	0.0059	0.0054	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.0474	0.7600	0.9375	0.0030	0.0071	0.0064	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.0784	2.1940	1.3794	0.0040	0.0272	0.0247	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.1293	2.5770	1.5971	0.0040	0.0448	0.0408	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.0574	1.4680	0.8869	0.0030	0.0164	0.0149	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0386	0.7190	0.7249	0.0020	0.0057	0.0052	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0386	0.7190	0.7249	0.0020	0.0057	0.0052	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.9460	2.6880	2.4890	0.0030	0.2330	0.2120	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.6100	2.8120	4.1600	0.0070	0.2360	0.2148	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0472	0.7570	0.7976	0.0030	0.0062	0.0056	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0423	0.6920	0.8340	0.0030	0.0062	0.0056	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0454	0.6750	0.9503	0.0030	0.0066	0.0060	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0443	0.8290	0.8340	0.0030	0.0065	0.0059	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0472	0.7570	0.7976	0.0030	0.0062	0.0056	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0481	0.7980	0.9634	0.0030	0.0071	0.0064	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1680	0.0050	0.1230	0.1119	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0329	0.7780	0.6491	0.0050	0.0041	0.0037	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0472	0.7570	0.7976	0.0030	0.0062	0.0056	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.0897	2.6840	1.6829	0.0050	0.0297	0.0270	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1680	0.0050	0.1230	0.1119	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
On-road Truck - 10 mph	nonroad		0.25	0		0		g/mile	1.49	3.891	7.732	0.03	0.0108	0.009828	3149.479	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - 25 mph	nonroad		0.5	0		0		g/mile	0.367	1.494	4.339	0.019	0.0087	0.007917	2028.167	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - 55 mph	nonroad		40	0		0		g/mile	0.182	1.508	3.066	0.016	0.0147	0.013377	1650.002	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.367	1.494	4.339	0.019	0.0087	0.007917	2028.167	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	0.367	1.494	4.339	0.019	0.0087	0.007917	2028.167	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			0	5			g/mile	7.57	40.986	122.198	0.062	0.01635	0.014879	6546.376	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Crew Vehicle - 30 mph - Compc	nonroad		9	9		81		g/mile	0.006	0.454	0.035	0.003	0.005	0.00455	337.147	0.00	0.08	0.01	0.00	0.00	0.00	60.20
On-road Crew Vehicle - 55 mph - Compc	nonroad		9	9		81		g/mile	0.004	0.315	0.032	0.003	0.004	0.00364	305.412	0.00	0.06	0.01	0.00	0.00	0.00	54.54
Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust	dust						1.331	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	3.90	0.81	0.00
															Total	**0.00**	**0.14**	**0.01**	**0.00**	**3.90**	**0.81**	**114.74**

2010

Light Industrial
39

e

Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
									Emission Factor (g/hp-hr)							*Daily Emission Rates (lb/day)*						
General Construction Trucks	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.0805	0.8550	1.6050	0.0030	0.0081	0.0074	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.0920	0.8680	1.9392	0.0030	0.0095	0.0087	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.1527	2.2550	2.6058	0.0040	0.0313	0.0285	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.2495	2.6620	3.0258	0.0040	0.0524	0.0477	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.1103	1.4850	1.7346	0.0030	0.0198	0.0180	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0723	0.9000	1.4442	0.0020	0.0076	0.0069	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0723	0.9000	1.4442	0.0020	0.0076	0.0069	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	1.1970	2.9600	2.6770	0.0030	0.2810	0.2557	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.7060	2.9830	4.7310	0.0070	0.2820	0.2566	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0793	0.8700	1.6914	0.0030	0.0082	0.0075	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0887	0.7810	1.9527	0.0030	0.0089	0.0081	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0825	0.9910	1.6860	0.0030	0.0087	0.0079	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.5000	5.0000	9.8000	0.0060	0.7200	0.6624	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0904	1.0040	1.9530	0.0030	0.0094	0.0086	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0648	0.7850	1.6458	0.0050	0.0071	0.0065	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0869	0.8980	1.6566	0.0030	0.0085	0.0078	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.1812	2.7670	3.2312	0.0050	0.0361	0.0329	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5050	1.7100	3.2230	0.0050	0.1580	0.1438	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
On-road Truck - 10 mph	nonroad		0.25	0		0		g/mile	2.029	6.383	15.395	0.03	0.0375	0.034125	3126.461	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - 25 mph	nonroad		0.5	0		0		g/mile	0.502	2.48	8.655	0.019	0.0303	0.027573	2007.237	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - 55 mph	nonroad		40	0		0		g/mile	0.247	2.376	6.133	0.016	0.0513	0.046683	1632.199	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.502	2.48	8.655	0.019	0.0303	0.027573	2007.237	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other On-Road Trucks - Composite	nonroad							g/mile	0.502	2.48	8.655	0.019	0.0303	0.027573	2007.237	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Truck - Idle	nonroad			0	5			g/mile	7.452	40.347	120.294	0.062	0.06435	0.058559	6444.365	0.00	0.00	0.00	0.00	0.00	0.00	0.00
On-road Crew Vehicle - 30 mph - Compc	nonroad		9	5		45		g/mile	0.009	0.729	0.058	0.003	0.005	0.00455	337.147	0.00	0.07	0.01	0.00	0.00	0.00	33.45
On-road Crew Vehicle - 55 mph - Compc	nonroad		9	5		45		g/mile	0.007	0.506	0.052	0.003	0.004	0.00364	305.412	0.00	0.05	0.01	0.00	0.00	0.00	30.30
Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive Dust	dust						1.721	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	5.04	1.05	0.00
															Total	**0.00**	**0.12**	**0.01**	**0.00**	**5.04**	**1.05**	**63.75**

Mitigated Emission Rates

PHASE II

LADWP Oil Tanks

2012

40 Demolition of 2 tanks	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
c	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.12	1.85	2.03	0.01	0.02	0.01	757.80
	Excavator	nonroad	428	0.57	1	8	1951.7	1	g/hp-hr	0.0457	0.7620	0.8381	0.0030	0.0066	0.0060	324.2220	0.20	3.28	3.61	0.01	0.03	0.03	1395.01
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.0501	0.7910	1.0151	0.0030	0.0078	0.0071	307.1580	0.06	1.02	1.31	0.00	0.01	0.01	394.92
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.0837	2.2130	1.4599	0.0040	0.0281	0.0255	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.1368	2.6030	1.6796	0.0040	0.0476	0.0433	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.0605	1.4730	0.9428	0.0030	0.0176	0.0160	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0406	0.7730	0.7808	0.0020	0.0064	0.0058	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	1	6	864.3	1	g/hp-hr	0.0406	0.7730	0.7808	0.0020	0.0064	0.0058	244.5890	0.08	1.47	1.49	0.00	0.01	0.01	466.05
	Welding Machine	nonroad	26	0.45	1	8	93.6	1	g/hp-hr	1.0360	2.7860	2.5900	0.0030	0.2530	0.2302	255.9650	0.21	0.57	0.53	0.00	0.05	0.05	52.82
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.6410	2.8700	4.3510	0.0070	0.2510	0.2284	420.9200	0.11	0.49	0.74	0.00	0.04	0.04	71.42
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0441	0.7340	0.9045	0.0030	0.0067	0.0061	290.9300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0477	0.6970	1.0283	0.0030	0.0072	0.0066	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0465	0.8750	0.9019	0.0030	0.0072	0.0066	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0503	0.8460	1.0444	0.0030	0.0077	0.0070	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0348	0.7790	0.7418	0.0050	0.0050	0.0046	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0492	0.7930	0.8689	0.0030	0.0069	0.0063	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.0976	2.7110	1.7969	0.0050	0.0323	0.0294	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5020	1.7100	3.1770	0.0050	0.1270	0.1156	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	1		0.25		g/mile	1.4720	3.8500	8.3130	0.0300	0.0102	0.0093	3149.0030	0.00	0.00	0.00	0.00	0.00	0.00	1.74
	On-road Truck - 25 mph	nonroad		0.5	1		0.5		g/mile	0.3630	1.4780	4.6630	0.0190	0.0083	0.0075	2027.7340	0.00	0.00	0.01	0.00	0.00	0.00	2.24
	On-road Truck - 55 mph	nonroad		40	1		40		g/mile	0.1800	1.4920	3.2940	0.0160	0.0140	0.0127	1649.6340	0.02	0.13	0.29	0.00	0.00	0.00	145.47
	Dredge Materials Haul Truck - Composit	nonroad							g/mile	0.3630	1.4780	4.6630	0.0190	0.0083	0.0075	2027.7340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.3630	1.4780	4.6630	0.0190	0.0083	0.0075	2027.7340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			1	5			g/mile	7.5680	40.9720	122.1590	0.0620	0.0164	0.0149	6544.2630	0.00	0.01	0.02	0.00	0.00	0.00	1.20
	On-road Crew Vehicle - 30 mph - Compc	nonroad		9	9		81		g/mile	0.0060	0.4470	0.0350	0.0030	0.0050	0.0046	337.1470	0.00	0.08	0.01	0.00	0.00	0.00	60.20
	On-road Crew Vehicle - 55 mph - Compc	nonroad		9	9		81		g/mile	0.0040	0.3100	0.0320	0.0030	0.0040	0.0036	305.4120	0.00	0.06	0.01	0.00	0.00	0.00	54.54
	Building Demolition	demo	9833.333333						lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	4.13	0.87	0.00
	Fugitive Dust	dust						2.709	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	7.94	1.65	0.00
																Total	0.80	8.96	10.04	0.03	12.23	2.67	3403.40

2013

41 Remediation of soil under tanks	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_X	SO_2	PM_{10}	$PM_{2.5}$	CO_2
c	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0472	0.7570	0.7976	0.0030	0.0062	0.0056	324.2220	0.11	1.77	1.86	0.01	0.01	0.01	757.80
	Excavator	nonroad	428	0.57	1	8	1951.7	1	g/hp-hr	0.0441	0.7310	0.7680	0.0030	0.0059	0.0054	324.2220	0.19	3.15	3.30	0.01	0.03	0.02	1395.01
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.0474	0.7600	0.9375	0.0030	0.0071	0.0064	307.1580	0.06	0.98	1.21	0.00	0.01	0.01	394.92
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.0784	2.1940	1.3794	0.0040	0.0272	0.0247	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.1293	2.5770	1.5971	0.0040	0.0448	0.0408	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.0574	1.4680	0.8869	0.0030	0.0164	0.0149	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0386	0.7190	0.7249	0.0020	0.0057	0.0052	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0386	0.7190	0.7249	0.0020	0.0057	0.0052	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.9460	2.6880	2.4890	0.0030	0.2330	0.2120	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.6100	2.8120	4.1600	0.0070	0.2360	0.2148	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0472	0.7570	0.7976	0.0030	0.0062	0.0056	324.2220	0.11	1.77	1.86	0.01	0.01	0.01	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0423	0.6920	0.8340	0.0030	0.0062	0.0056	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0454	0.6750	0.9503	0.0030	0.0066	0.0060	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0443	0.8290	0.8340	0.0030	0.0065	0.0059	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0472	0.7570	0.7976	0.0030	0.0062	0.0056	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0481	0.7980	0.9634	0.0030	0.0071	0.0064	335.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1680	0.0050	0.1230	0.1119	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0329	0.7780	0.6491	0.0050	0.0041	0.0037	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0472	0.7570	0.7976	0.0030	0.0062	0.0056	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.0897	2.6840	1.6829	0.0050	0.0297	0.0270	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1680	0.0050	0.1230	0.1119	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	1.49	3.891	7.732	0.03	0.0108	0.009828	3149.479	0.00	0.00	0.01	0.00	0.00	0.00	3.47
	On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	0.367	1.494	4.339	0.019	0.0087	0.007917	2028.167	0.00	0.00	0.01	0.00	0.00	0.00	4.47
	On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.182	1.508	3.066	0.016	0.0147	0.013377	1650.002	0.03	0.27	0.54	0.00	0.00	0.00	291.01
	Dredge Materials Haul Truck - Composit	nonroad							g/mile	0.367	1.494	4.339	0.019	0.0087	0.007917	2028.167	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.367	1.494	4.339	0.019	0.0087	0.007917	2028.167	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			2	5			g/mile	7.57	40.986	122.198	0.062	0.01635	0.014879	6546.376	0.00	0.02	0.04	0.00	0.00	0.00	2.41
	On-road Crew Vehicle - 30 mph - Compc	nonroad		9	9		81		g/mile	0.006	0.454	0.035	0.003	0.005	0.00455	337.147	0.00	0.08	0.01	0.00	0.00	0.00	60.20
	On-road Crew Vehicle - 55 mph - Compc	nonroad		9	9		81		g/mile	0.004	0.315	0.032	0.003	0.004	0.00364	305.412	0.00	0.06	0.01	0.00	0.00	0.00	54.54
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						7	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	20.51	4.27	0.00
																Total	0.51	8.09	8.85	0.03	20.58	4.33	3721.64

Mitigated Emission Rates

General Site Preparation	2015								Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
42 Clearing and Grubbing	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
c	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0398	0.7080	0.3328	0.0030	0.0005	0.0004	324.2220	0.09	1.65	0.78	0.01	0.00	0.00	757.80
	Excavator	nonroad	428	0.57	1	8	1951.7	1	g/hp-hr	0.0374	0.6890	0.3182	0.0030	0.0005	0.0004	324.2220	0.16	2.96	1.37	0.01	0.00	0.00	1395.01
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.0394	0.7100	0.4024	0.0030	0.0006	0.0005	307.1580	0.05	0.91	0.52	0.00	0.00	0.00	394.92
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.0545	2.1600	0.9119	0.0040	0.0011	0.0010	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.1076	2.5320	1.2536	0.0040	0.0027	0.0024	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.0478	1.4590	0.6694	0.0030	0.0009	0.0009	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0323	0.6330	0.3166	0.0020	0.0005	0.0004	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0323	0.6330	0.3166	0.0020	0.0005	0.0004	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.7730	2.5050	2.3030	0.0030	0.1940	0.1765	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.5540	2.7090	3.8080	0.0030	0.2080	0.1893	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0398	0.7080	0.3328	0.0030	0.0005	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0357	0.6310	0.3545	0.0030	0.0005	0.0005	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0379	0.6420	0.4078	0.0030	0.0005	0.0005	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0370	0.7540	0.3576	0.0030	0.0005	0.0005	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0398	0.7080	0.3328	0.0030	0.0005	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0406	0.7280	0.4095	0.0030	0.0006	0.0005	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.4650	0.0050	0.1190	0.1083	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0263	0.7770	0.2193	0.0050	0.0003	0.0002	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0398	0.7080	0.3328	0.0030	0.0005	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.0592	2.6320	1.1017	0.0050	0.0012	0.0011	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.4650	0.0050	0.1190	0.1083	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	1		0.25		g/mile	1.489	3.896	6.911	0.03	0.0114	0.010374	3150.079	0.00	0.00	0.00	0.00	0.00	0.00	1.74
	On-road Truck - 25 mph	nonroad		0.5	1		0.5		g/mile	0.367	1.496	3.879	0.019	0.0093	0.008463	2028.712	0.00	0.00	0.00	0.00	0.00	0.00	2.24
	On-road Truck - 55 mph	nonroad		40	1		40		g/mile	0.182	1.51	2.743	0.016	0.0156	0.014196	1650.466	0.02	0.13	0.24	0.00	0.00	0.00	145.54
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.367	1.496	3.879	0.019	0.0093	0.008463	2028.712	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.367	1.496	3.879	0.019	0.0093	0.008463	2028.712	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			1	5			g/mile	7.573	41.002	122.248	0.063	0.01635	0.014879	6549.034	0.00	0.01	0.02	0.00	0.00	0.00	1.20
	On-road Crew Vehicle - 30 mph - Compc	nonroad		9	9		81		g/mile	0.006	0.465	0.036	0.003	0.006	0.00546	337.147	0.00	0.08	0.01	0.00	0.00	0.00	60.20
	On-road Crew Vehicle - 55 mph - Compc	nonroad		9	9		81		g/mile	0.005	0.322	0.032	0.003	0.005	0.00455	305.412	0.00	0.06	0.01	0.00	0.00	0.00	54.54
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						6	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	17.58	3.66	0.00
																	Total						

	2015								Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
43 Pavement Demolition	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
c	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0398	0.7080	0.3328	0.0030	0.0005	0.0004	324.2220	0.09	1.65	0.78	0.01	0.00	0.00	757.80
	Excavator	nonroad	428	0.57	1	8	1951.7	1	g/hp-hr	0.0374	0.6890	0.3182	0.0030	0.0005	0.0004	324.2220	0.16	2.96	1.37	0.01	0.00	0.00	1395.01
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.0394	0.7100	0.4024	0.0030	0.0006	0.0005	307.1580	0.05	0.91	0.52	0.00	0.00	0.00	394.92
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.0545	2.1600	0.9119	0.0040	0.0011	0.0010	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.1076	2.5320	1.2536	0.0040	0.0027	0.0024	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.0478	1.4590	0.6694	0.0030	0.0009	0.0009	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0323	0.6330	0.3166	0.0020	0.0005	0.0004	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0323	0.6330	0.3166	0.0020	0.0005	0.0004	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.7730	2.5050	2.3030	0.0030	0.1940	0.1765	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.5540	2.7090	3.8080	0.0030	0.2080	0.1893	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0398	0.7080	0.3328	0.0030	0.0005	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0357	0.6310	0.3545	0.0030	0.0005	0.0005	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0379	0.6420	0.4078	0.0030	0.0005	0.0005	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0370	0.7540	0.3576	0.0030	0.0005	0.0005	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0398	0.7080	0.3328	0.0030	0.0005	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0406	0.7280	0.4095	0.0030	0.0006	0.0005	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.4650	0.0050	0.1190	0.1083	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0263	0.7770	0.2193	0.0050	0.0003	0.0002	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0398	0.7080	0.3328	0.0030	0.0005	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.0592	2.6320	1.1017	0.0050	0.0012	0.0011	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.4650	0.0050	0.1190	0.1083	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	1		0.25		g/mile	1.489	3.896	6.911	0.03	0.0114	0.010374	3150.079	0.00	0.00	0.00	0.00	0.00	0.00	1.74
	On-road Truck - 25 mph	nonroad		0.5	1		0.5		g/mile	0.367	1.496	3.879	0.019	0.0093	0.008463	2028.712	0.00	0.00	0.00	0.00	0.00	0.00	2.24
	On-road Truck - 55 mph	nonroad		40	1		40		g/mile	0.182	1.51	2.743	0.016	0.0156	0.014196	1650.466	0.02	0.13	0.24	0.00	0.00	0.00	145.54
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.367	1.496	3.879	0.019	0.0093	0.008463	2028.712	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.367	1.496	3.879	0.019	0.0093	0.008463	2028.712	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			1	5			g/mile	7.573	41.002	122.248	0.063	0.01635	0.014879	6549.034	0.00	0.01	0.02	0.00	0.00	0.00	1.20
	On-road Crew Vehicle - 30 mph - Compc	nonroad		9	9		81		g/mile	0.006	0.465	0.036	0.003	0.006	0.00546	337.147	0.00	0.08	0.01	0.00	0.00	0.00	60.20
	On-road Crew Vehicle - 55 mph - Compc	nonroad		9	9		81		g/mile	0.005	0.322	0.032	0.003	0.005	0.00455	305.412	0.00	0.06	0.01	0.00	0.00	0.00	54.54
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						3	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	8.79	1.83	0.00
																	Total						

Mitigated Emission Rates

2015									Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
44 Utilities Demolition	**Equipment**	**Type**	**Hp**	**Load Factor**	**Number Active**	**Equipment Hrs/Day**	**Daily Hp-hr**	**Daily Roudtrip**	**E.F. Units**	**ROG**	**CO**	**NO_x**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**	**CO_2**	**ROG**	**CO**	**NO_x**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**	**CO_2**
c																							
	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0398	0.7080	0.3328	0.0030	0.0005	0.0004	324.2220	0.09	1.65	0.78	0.01	0.00	0.00	757.80
	Excavator	nonroad	428	0.57	1	8	1951.7	1	g/hp-hr	0.0374	0.6890	0.3182	0.0030	0.0005	0.0004	324.2220	0.16	2.96	1.37	0.01	0.00	0.00	1395.01
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.0394	0.7100	0.4024	0.0030	0.0006	0.0005	307.1580	0.05	0.91	0.52	0.00	0.00	0.00	394.92
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.0545	2.1600	0.9119	0.0040	0.0011	0.0010	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.1076	2.5320	1.2536	0.0040	0.0027	0.0024	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.0478	1.4590	0.6694	0.0030	0.0009	0.0009	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0323	0.6330	0.3166	0.0020	0.0005	0.0004	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0323	0.6330	0.3166	0.0020	0.0005	0.0004	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.7730	2.5050	2.3030	0.0030	0.1940	0.1765	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.5540	2.7090	3.8080	0.0030	0.2080	0.1893	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0398	0.7080	0.3328	0.0030	0.0005	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0357	0.6310	0.3545	0.0030	0.0005	0.0005	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0379	0.6420	0.4078	0.0030	0.0005	0.0005	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0370	0.7540	0.3576	0.0030	0.0005	0.0005	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0398	0.7080	0.3328	0.0030	0.0005	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0406	0.7280	0.4095	0.0030	0.0006	0.0005	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.4650	0.0050	0.1190	0.1083	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0263	0.7770	0.2193	0.0050	0.0003	0.0002	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0398	0.7080	0.3328	0.0030	0.0005	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.0592	2.6320	1.1017	0.0050	0.0012	0.0011	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.4650	0.0050	0.1190	0.1083	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	**Miles / Trip**	**Daily Trips**	**Idling Time**	**Miles/ Day**	**Acres Disturbed**															
	On-road Truck - 10 mph	nonroad		0.25	1		0.25		g/mile	1.489	3.896	6.911	0.03	0.0114	0.010374	3150.079	0.00	0.00	0.00	0.00	0.00	0.00	1.74
	On-road Truck - 25 mph	nonroad		0.5	1		0.5		g/mile	0.367	1.496	3.879	0.019	0.0093	0.008463	2028.712	0.00	0.00	0.00	0.00	0.00	0.00	2.24
	On-road Truck - 55 mph	nonroad		40	1		40		g/mile	0.182	1.51	2.743	0.016	0.0156	0.014196	1650.466	0.02	0.13	0.24	0.00	0.00	0.00	145.54
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.367	1.496	3.879	0.019	0.0093	0.008463	2028.712	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.367	1.496	3.879	0.019	0.0093	0.008463	2028.712	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			1	5			g/mile	7.573	41.002	122.248	0.063	0.01635	0.014879	6549.034	0.00	0.01	0.02	0.00	0.00	0.00	1.20
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.006	0.465	0.036	0.003	0.006	0.00546	337.147	0.00	0.08	0.01	0.00	0.00	0.00	60.20
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.005	0.322	0.032	0.003	0.005	0.00455	305.412	0.00	0.06	0.01	0.00	0.00	0.00	54.54
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						0.059687787	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	0.17	0.04	0.00
																	Total	**0.33**	**5.82**	**2.95**	**0.03**	**0.18**	**0.04**	**2813.20**

2015									Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
45 Rough Fill/Grading	**Equipment**	**Type**	**Hp**	**Load Factor**	**Number Active**	**Equipment Hrs/Day**	**Daily Hp-hr**	**Daily Roudtrip**	**E.F. Units**	**ROG**	**CO**	**NO_x**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**	**CO_2**	**ROG**	**CO**	**NO_x**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**	**CO_2**
c																							
	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0398	0.7080	0.3328	0.0030	0.0005	0.0004	324.2220	0.09	1.65	0.78	0.01	0.00	0.00	757.80
	Excavator	nonroad	428	0.57	1	8	1951.7	1	g/hp-hr	0.0374	0.6890	0.3182	0.0030	0.0005	0.0004	324.2220	0.16	2.96	1.37	0.01	0.00	0.00	1395.01
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.0394	0.7100	0.4024	0.0030	0.0006	0.0005	307.1580	0.05	0.91	0.52	0.00	0.00	0.00	394.92
	Vibratory Roller	nonroad	95	0.56	1	6	319.2	1	g/hp-hr	0.0545	2.1600	0.9119	0.0040	0.0011	0.0010	318.5340	0.04	1.52	0.64	0.00	0.00	0.00	224.15
	Paving Machine	nonroad	104	0.53	1	6	330.72	1	g/hp-hr	0.1076	2.5320	1.2536	0.0040	0.0027	0.0024	352.6630	0.08	1.85	0.91	0.00	0.00	0.00	257.13
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.0478	1.4590	0.6694	0.0030	0.0009	0.0009	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0323	0.6330	0.3166	0.0020	0.0005	0.0004	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0323	0.6330	0.3166	0.0020	0.0005	0.0004	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.7730	2.5050	2.3030	0.0030	0.1940	0.1765	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.5540	2.7090	3.8080	0.0030	0.2080	0.1893	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0398	0.7080	0.3328	0.0030	0.0005	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0357	0.6310	0.3545	0.0030	0.0005	0.0005	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0379	0.6420	0.4078	0.0030	0.0005	0.0005	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0370	0.7540	0.3576	0.0030	0.0005	0.0005	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0398	0.7080	0.3328	0.0030	0.0005	0.0004	324.2220	0.09	1.65	0.78	0.01	0.00	0.00	757.80
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0406	0.7280	0.4095	0.0030	0.0006	0.0005	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.4650	0.0050	0.1190	0.1083	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0263	0.7770	0.2193	0.0050	0.0003	0.0002	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0398	0.7080	0.3328	0.0030	0.0005	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.0592	2.6320	1.1017	0.0050	0.0012	0.0011	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.4650	0.0050	0.1190	0.1083	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	**Miles / Trip**	**Daily Trips**	**Idling Time**	**Miles/ Day**	**Acres Disturbed**															
	On-road Truck - 10 mph	nonroad		0.25	1		0.25		g/mile	1.489	3.896	6.911	0.03	0.0114	0.010374	3150.079	0.00	0.00	0.00	0.00	0.00	0.00	1.74
	On-road Truck - 25 mph	nonroad		0.5	1		0.5		g/mile	0.367	1.496	3.879	0.019	0.0093	0.008463	2028.712	0.00	0.00	0.00	0.00	0.00	0.00	2.24
	On-road Truck - 55 mph	nonroad		40	1		40		g/mile	0.182	1.51	2.743	0.016	0.0156	0.014196	1650.466	0.02	0.13	0.24	0.00	0.00	0.00	145.54
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.367	1.496	3.879	0.019	0.0093	0.008463	2028.712	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.367	1.496	3.879	0.019	0.0093	0.008463	2028.712	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			1	5			g/mile	7.573	41.002	122.248	0.063	0.01635	0.014879	6549.034	0.00	0.01	0.02	0.00	0.00	0.00	1.20
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.006	0.465	0.036	0.003	0.006	0.00546	337.147	0.00	0.08	0.01	0.00	0.00	0.00	60.20
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.005	0.322	0.032	0.003	0.005	0.00455	305.412	0.00	0.06	0.01	0.00	0.00	0.00	54.54
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						9	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	26.37	5.49	0.00
																	Total	**0.53**	**10.84**	**5.28**	**0.04**	**26.38**	**5.50**	**4052.28**

Mitigated Emission Rates

2015									Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
46 Surface Fill/Grading	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
c	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0398	0.7080	0.3328	0.0030	0.0005	0.0004	324.2220	0.09	1.65	0.78	0.01	0.00	0.00	757.80
	Excavator	nonroad	428	0.57	1	8	1951.7	1	g/hp-hr	0.0374	0.6890	0.3182	0.0030	0.0005	0.0004	324.2220	0.16	2.96	1.37	0.01	0.00	0.00	1395.01
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.0394	0.7100	0.4024	0.0030	0.0006	0.0005	307.1580	0.05	0.91	0.52	0.00	0.00	0.00	394.92
	Vibratory Roller	nonroad	95	0.56	1	6	319.2	1	g/hp-hr	0.0545	2.1600	0.9119	0.0040	0.0011	0.0010	318.5340	0.04	1.52	0.64	0.00	0.00	0.00	224.15
	Paving Machine	nonroad	104	0.53	1	6	330.72	1	g/hp-hr	0.1076	2.5320	1.2536	0.0040	0.0027	0.0024	352.6630	0.08	1.85	0.91	0.00	0.00	0.00	257.13
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.0478	1.4590	0.6694	0.0030	0.0009	0.0009	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0323	0.6330	0.3166	0.0020	0.0005	0.0004	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0323	0.6330	0.3166	0.0020	0.0005	0.0004	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.7730	2.5050	2.3030	0.0030	0.1940	0.1765	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.5540	2.7090	3.8080	0.0030	0.2080	0.1893	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0398	0.7080	0.3328	0.0030	0.0005	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0357	0.6310	0.3545	0.0030	0.0005	0.0005	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0379	0.6420	0.4078	0.0030	0.0005	0.0005	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0370	0.7540	0.3576	0.0030	0.0005	0.0005	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0398	0.7080	0.3328	0.0030	0.0005	0.0004	324.2220	0.09	1.65	0.78	0.01	0.00	0.00	757.80
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0406	0.7280	0.4095	0.0030	0.0006	0.0005	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.4650	0.0050	0.1190	0.1083	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0263	0.7770	0.2193	0.0050	0.0003	0.0002	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0398	0.7080	0.3328	0.0030	0.0005	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.0592	2.6320	1.1017	0.0050	0.0012	0.0011	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.4650	0.0050	0.1190	0.1083	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	1		0.25		g/mile	1.489	3.896	6.911	0.03	0.0114	0.010374	3150.079	0.00	0.00	0.00	0.00	0.00	0.00	1.74
	On-road Truck - 25 mph	nonroad		0.5	1		0.5		g/mile	0.367	1.496	3.879	0.019	0.0093	0.008463	2028.712	0.00	0.00	0.00	0.00	0.00	0.00	2.24
	On-road Truck - 55 mph	nonroad		40	1		40		g/mile	0.182	1.51	2.743	0.016	0.0156	0.014196	1650.466	0.02	0.13	0.24	0.00	0.00	0.00	145.54
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.367	1.496	3.879	0.019	0.0093	0.008463	2028.712	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.367	1.496	3.879	0.019	0.0093	0.008463	2028.712	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			1	5			g/mile	7.573	41.002	122.248	0.063	0.01635	0.014879	6549.034	0.00	0.01	0.02	0.00	0.00	0.00	1.20
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.006	0.465	0.036	0.003	0.006	0.00546	337.147	0.00	0.08	0.01	0.00	0.00	0.00	60.20
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.005	0.322	0.032	0.003	0.005	0.00455	305.412	0.00	0.06	0.01	0.00	0.00	0.00	54.54
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						9	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	26.37	5.49	0.00
																	Total						
																	0.53	10.84	5.28	0.04	26.38	5.50	4052.28

Complete Land Bridge	2015								Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
47 Hardscaping	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
d	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0398	0.7080	0.3328	0.0030	0.0005	0.0004	324.2220	0.09	1.65	0.78	0.01	0.00	0.00	757.80
	Excavator	nonroad	428	0.57	1	8	1951.7	1	g/hp-hr	0.0374	0.6890	0.3182	0.0030	0.0005	0.0004	324.2220	0.16	2.96	1.37	0.01	0.00	0.00	1395.01
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.0394	0.7100	0.4024	0.0030	0.0006	0.0005	307.1580	0.05	0.91	0.52	0.00	0.00	0.00	394.92
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.0545	2.1600	0.9119	0.0040	0.0011	0.0010	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.1076	2.5320	1.2536	0.0040	0.0027	0.0024	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.0478	1.4590	0.6694	0.0030	0.0009	0.0009	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0323	0.6330	0.3166	0.0020	0.0005	0.0004	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0323	0.6330	0.3166	0.0020	0.0005	0.0004	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.7730	2.5050	2.3030	0.0030	0.1940	0.1765	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.5540	2.7090	3.8080	0.0030	0.2080	0.1893	420.9200	0.09	0.46	0.65	0.00	0.04	0.03	71.42
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0398	0.7080	0.3328	0.0030	0.0005	0.0004	324.2220	0.09	1.65	0.78	0.01	0.00	0.00	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0357	0.6310	0.3545	0.0030	0.0005	0.0005	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0379	0.6420	0.4078	0.0030	0.0005	0.0005	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0370	0.7540	0.3576	0.0030	0.0005	0.0005	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0398	0.7080	0.3328	0.0030	0.0005	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0406	0.7280	0.4095	0.0030	0.0006	0.0005	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.4650	0.0050	0.1190	0.1083	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0263	0.7770	0.2193	0.0050	0.0003	0.0002	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0398	0.7080	0.3328	0.0030	0.0005	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.0592	2.6320	1.1017	0.0050	0.0012	0.0011	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.4650	0.0050	0.1190	0.1083	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	1.489	3.896	6.911	0.03	0.0114	0.010374	3150.079	0.00	0.00	0.01	0.00	0.00	0.00	3.47
	On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	0.367	1.496	3.879	0.019	0.0093	0.008463	2028.712	0.00	0.00	0.01	0.00	0.00	0.00	4.47
	On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.182	1.51	2.743	0.016	0.0156	0.014196	1650.466	0.03	0.27	0.48	0.00	0.00	0.00	291.09
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.367	1.496	3.879	0.019	0.0093	0.008463	2028.712	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.367	1.496	3.879	0.019	0.0093	0.008463	2028.712	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			2	5			g/mile	7.573	41.002	122.248	0.063	0.01635	0.014879	6549.034	0.00	0.02	0.04	0.00	0.00	0.00	2.41
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	5		45		g/mile	0.006	0.465	0.036	0.003	0.006	0.00546	337.147	0.00	0.05	0.00	0.00	0.00	0.00	33.45
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	5		45		g/mile	0.005	0.322	0.032	0.003	0.005	0.00455	305.412	0.00	0.03	0.00	0.00	0.00	0.00	30.30
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						2.893	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	8.48	1.76	0.00
																	Total						
																	0.53	8.01	4.64	0.03	8.52	1.80	3742.14

Mitigated Emission Rates

2016

48 Landscaping	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
d	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.09	1.61	0.69	0.01	0.00	0.00	757.80
	Excavator	nonroad	428	0.57	1	8	1951.7	1	g/hp-hr	0.0353	0.6730	0.2803	0.0030	0.0004	0.0004	324.2220	0.15	2.90	1.21	0.01	0.00	0.00	1395.01
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.0372	0.6920	0.3622	0.0030	0.0005	0.0005	307.1580	0.05	0.89	0.47	0.00	0.00	0.00	394.92
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.0506	2.1440	0.8480	0.0040	0.0010	0.0009	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.1012	2.5130	1.1786	0.0040	0.0025	0.0022	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.0449	1.4560	0.6109	0.0030	0.0009	0.0008	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0307	0.6020	0.2874	0.0020	0.0004	0.0004	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0307	0.6020	0.2874	0.0020	0.0004	0.0004	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.6940	2.4300	2.2230	0.0030	0.1750	0.1593	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.5340	2.6830	3.6880	0.0070	0.1960	0.1784	420.9200	0.09	0.46	0.63	0.00	0.03	0.03	71.42
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.09	1.61	0.69	0.01	0.00	0.00	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0338	0.6090	0.3154	0.0030	0.0005	0.0004	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0359	0.6290	0.3639	0.0030	0.0005	0.0004	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0352	0.7250	0.3217	0.0030	0.0005	0.0004	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0386	0.7020	0.3643	0.0030	0.0005	0.0005	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0242	0.7770	0.1741	0.0050	0.0002	0.0002	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.0532	2.6090	1.0187	0.0050	0.0011	0.0010	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	1.493	3.911	6.71	0.03	0.01185	0.010784	3150.427	0.00	0.00	0.01	0.00	0.00	0.00	3.47
	On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	0.368	1.502	3.768	0.019	0.00945	0.0086	2029.029	0.00	0.00	0.01	0.00	0.00	0.00	4.47
	On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.182	1.515	2.664	0.016	0.01605	0.014606	1650.736	0.03	0.27	0.47	0.00	0.00	0.00	291.14
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.368	1.502	3.768	0.019	0.00945	0.0086	2029.029	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.368	1.502	3.768	0.019	0.00945	0.0086	2029.029	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			2	5			g/mile	7.575	41.012	122.277	0.063	0.01635	0.014879	6550.578	0.00	0.02	0.04	0.00	0.00	0.00	2.41
	On-road Crew Vehicle - 30 mph - Compc	nonroad		9	5		45		g/mile	0.006	0.469	0.036	0.003	0.007	0.00637	337.147	0.00	0.05	0.00	0.00	0.00	0.00	33.45
	On-road Crew Vehicle - 55 mph - Compc	nonroad		9	5		45		g/mile	0.005	0.325	0.032	0.003	0.005	0.00455	305.412	0.00	0.03	0.00	0.00	0.00	0.00	30.30
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						5.978	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	17.52	3.65	0.00
																	Total						
																	0.51	7.83	4.21	0.04	17.56	3.68	3742.19

2016

49 Trees	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
d	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.09	1.61	0.69	0.01	0.00	0.00	757.80
	Excavator	nonroad	428	0.57	1	8	1951.7	1	g/hp-hr	0.0353	0.6730	0.2803	0.0030	0.0004	0.0004	324.2220	0.15	2.90	1.21	0.01	0.00	0.00	1395.01
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.0372	0.6920	0.3622	0.0030	0.0005	0.0005	307.1580	0.05	0.89	0.47	0.00	0.00	0.00	394.92
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.0506	2.1440	0.8480	0.0040	0.0010	0.0009	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.1012	2.5130	1.1786	0.0040	0.0025	0.0022	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.0449	1.4560	0.6109	0.0030	0.0009	0.0008	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0307	0.6020	0.2874	0.0020	0.0004	0.0004	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0307	0.6020	0.2874	0.0020	0.0004	0.0004	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.6940	2.4300	2.2230	0.0030	0.1750	0.1593	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.5340	2.6830	3.6880	0.0070	0.1960	0.1784	420.9200	0.09	0.46	0.63	0.00	0.03	0.03	71.42
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.09	1.61	0.69	0.01	0.00	0.00	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0338	0.6090	0.3154	0.0030	0.0005	0.0004	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0359	0.6290	0.3639	0.0030	0.0005	0.0004	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0352	0.7250	0.3217	0.0030	0.0005	0.0004	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0386	0.7020	0.3643	0.0030	0.0005	0.0005	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0242	0.7770	0.1741	0.0050	0.0002	0.0002	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.0532	2.6090	1.0187	0.0050	0.0011	0.0010	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	1.493	3.911	6.71	0.03	0.01185	0.010784	3150.427	0.00	0.00	0.01	0.00	0.00	0.00	3.47
	On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	0.368	1.502	3.768	0.019	0.00945	0.0086	2029.029	0.00	0.00	0.01	0.00	0.00	0.00	4.47
	On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.182	1.515	2.664	0.016	0.01605	0.014606	1650.736	0.03	0.27	0.47	0.00	0.00	0.00	291.14
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.368	1.502	3.768	0.019	0.00945	0.0086	2029.029	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.368	1.502	3.768	0.019	0.00945	0.0086	2029.029	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			2	5			g/mile	7.575	41.012	122.277	0.063	0.01635	0.014879	6550.578	0.00	0.02	0.04	0.00	0.00	0.00	2.41
	On-road Crew Vehicle - 30 mph - Compc	nonroad		9	5		45		g/mile	0.006	0.469	0.036	0.003	0.007	0.00637	337.147	0.00	0.05	0.00	0.00	0.00	0.00	33.45
	On-road Crew Vehicle - 55 mph - Compc	nonroad		9	5		45		g/mile	0.005	0.325	0.032	0.003	0.005	0.00455	305.412	0.00	0.03	0.00	0.00	0.00	0.00	30.30
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust							lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
																	Total						
																	0.51	7.83	4.21	0.04	0.04	0.04	3742.19

Mitigated Emission Rates

Off Street Parking Lots	2015								Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
Parking Lot West of Land Bridge and 50 South of A Street	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
c	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0398	0.7080	0.3328	0.0030	0.0005	0.0004	324.2220	0.09	1.65	0.78	0.01	0.00	0.00	757.80
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.0374	0.6890	0.3182	0.0030	0.0005	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.0394	0.7100	0.4024	0.0030	0.0006	0.0005	307.1580	0.05	0.91	0.52	0.00	0.00	0.00	394.92
	Vibratory Roller	nonroad	95	0.56	1	6	319.2	1	g/hp-hr	0.0545	2.1600	0.9119	0.0040	0.0011	0.0010	318.5340	0.04	1.52	0.64	0.00	0.00	0.00	224.15
	Paving Machine	nonroad	104	0.53	1	6	330.72	1	g/hp-hr	0.1076	2.5320	1.2536	0.0040	0.0027	0.0024	352.6630	0.08	1.85	0.91	0.00	0.00	0.00	257.13
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.0478	1.4590	0.6694	0.0030	0.0009	0.0009	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0323	0.6330	0.3166	0.0020	0.0005	0.0004	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0323	0.6330	0.3166	0.0020	0.0005	0.0004	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.7730	2.5050	2.3030	0.0030	0.1940	0.1765	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.5540	2.7090	3.8080	0.0030	0.2080	0.1893	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0398	0.7080	0.3328	0.0030	0.0005	0.0004	324.2220	0.09	1.65	0.78	0.01	0.00	0.00	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0357	0.6310	0.3545	0.0030	0.0005	0.0005	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0379	0.6420	0.4078	0.0030	0.0005	0.0005	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0370	0.7540	0.3576	0.0030	0.0005	0.0005	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0398	0.7080	0.3328	0.0030	0.0005	0.0004	324.2220	0.09	1.65	0.78	0.01	0.00	0.00	757.80
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0406	0.7280	0.4095	0.0030	0.0006	0.0005	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.4650	0.0050	0.1190	0.1083	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0263	0.7770	0.2193	0.0050	0.0003	0.0002	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0398	0.7080	0.3328	0.0030	0.0005	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.0592	2.6320	1.1017	0.0050	0.0012	0.0011	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.4650	0.0050	0.1190	0.1083	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	1.489	3.896	6.911	0.03	0.0114	0.010374	3150.079	0.00	0.00	0.01	0.00	0.00	0.00	3.47
	On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	0.367	1.496	3.879	0.019	0.0093	0.008463	2028.712	0.00	0.00	0.01	0.00	0.00	0.00	4.47
	On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.182	1.51	2.743	0.016	0.0156	0.014196	1650.466	0.03	0.27	0.48	0.00	0.00	0.00	291.09
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.367	1.496	3.879	0.019	0.0093	0.008463	2028.712	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.367	1.496	3.879	0.019	0.0093	0.008463	2028.712	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			2	5			g/mile	7.573	41.002	122.248	0.063	0.01635	0.014879	6549.034	0.00	0.02	0.04	0.00	0.00	0.00	2.41
	On-road Crew Vehicle - 30 mph - Compc	nonroad		9	9		81		g/mile	0.006	0.465	0.036	0.003	0.006	0.00546	337.147	0.00	0.08	0.01	0.00	0.00	0.00	60.20
	On-road Crew Vehicle - 55 mph - Compc	nonroad		9	9		81		g/mile	0.005	0.322	0.032	0.003	0.005	0.00455	305.412	0.00	0.06	0.01	0.00	0.00	0.00	54.54
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						1.056	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	3.09	0.64	0.00
																Total	0.49	9.67	4.96	0.03	3.11	0.65	3565.79

Pedestrian Corridor	2016								Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
51 Demolish concrete pavement	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
c	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.09	1.61	0.69	0.01	0.00	0.00	757.80
	Excavator	nonroad	428	0.57	1	8	1951.7	1	g/hp-hr	0.0353	0.6730	0.2803	0.0030	0.0004	0.0004	324.2220	0.15	2.90	1.21	0.01	0.00	0.00	1395.01
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.0372	0.6920	0.3622	0.0030	0.0005	0.0005	307.1580	0.05	0.89	0.47	0.00	0.00	0.00	394.92
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.0506	2.1440	0.8480	0.0040	0.0010	0.0009	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.1012	2.5130	1.1786	0.0040	0.0025	0.0022	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.0449	1.4560	0.6109	0.0030	0.0009	0.0008	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0307	0.6020	0.2874	0.0020	0.0004	0.0004	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0307	0.6020	0.2874	0.0020	0.0004	0.0004	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.6940	2.4300	2.2230	0.0030	0.1750	0.1593	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.5340	2.6830	3.6880	0.0070	0.1960	0.1784	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0338	0.6090	0.3154	0.0030	0.0005	0.0004	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0359	0.6290	0.3639	0.0030	0.0005	0.0004	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0352	0.7250	0.3217	0.0030	0.0005	0.0004	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0386	0.7020	0.3643	0.0030	0.0005	0.0005	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0242	0.7770	0.1741	0.0050	0.0002	0.0002	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.0532	2.6090	1.0187	0.0050	0.0011	0.0010	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	1		0.25		g/mile	1.493	3.911	6.71	0.03	0.01185	0.010784	3150.427	0.00	0.00	0.00	0.00	0.00	0.00	1.74
	On-road Truck - 25 mph	nonroad		0.5	1		0.5		g/mile	0.368	1.502	3.768	0.019	0.00945	0.0086	2029.029	0.00	0.00	0.00	0.00	0.00	0.00	2.24
	On-road Truck - 55 mph	nonroad		40	1		40		g/mile	0.182	1.515	2.664	0.016	0.01605	0.014606	1650.736	0.02	0.13	0.23	0.00	0.00	0.00	145.57
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.368	1.502	3.768	0.019	0.00945	0.0086	2029.029	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.368	1.502	3.768	0.019	0.00945	0.0086	2029.029	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			1	5			g/mile	7.575	41.012	122.277	0.063	0.01635	0.014879	6550.578	0.00	0.01	0.02	0.00	0.00	0.00	1.20
	On-road Crew Vehicle - 30 mph - Compc	nonroad		9	9		81		g/mile	0.006	0.469	0.036	0.003	0.007	0.00637	337.147	0.00	0.08	0.01	0.00	0.00	0.00	60.20
	On-road Crew Vehicle - 55 mph - Compc	nonroad		9	9		81		g/mile	0.005	0.325	0.032	0.003	0.005	0.00455	305.412	0.00	0.06	0.01	0.00	0.00	0.00	54.54
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						2.176	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	6.38	1.33	0.00
																Total	0.31	5.68	2.64	0.03	6.38	1.33	2813.22

Mitigated Emission Rates

2016									Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
52 Demolish AC pavement	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
c	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.09	1.61	0.69	0.01	0.00	0.00	757.80
	Excavator	nonroad	428	0.57	1	8	1951.7	1	g/hp-hr	0.0353	0.6730	0.2803	0.0030	0.0004	0.0004	324.2220	0.15	2.90	1.21	0.01	0.00	0.00	1395.01
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.0372	0.6920	0.3622	0.0030	0.0005	0.0005	307.1580	0.05	0.89	0.47	0.00	0.00	0.00	394.92
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.0506	2.1440	0.8480	0.0040	0.0010	0.0009	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.1012	2.5130	1.1786	0.0040	0.0025	0.0022	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.0449	1.4560	0.6109	0.0030	0.0009	0.0008	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0307	0.6020	0.2874	0.0020	0.0004	0.0004	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0307	0.6020	0.2874	0.0020	0.0004	0.0004	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.6940	2.4300	2.2230	0.0030	0.1750	0.1593	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.5340	2.6830	3.6880	0.0070	0.1960	0.1784	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0338	0.6090	0.3154	0.0030	0.0005	0.0004	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0359	0.6290	0.3639	0.0030	0.0005	0.0004	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0352	0.7250	0.3217	0.0030	0.0005	0.0004	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0386	0.7020	0.3643	0.0030	0.0005	0.0005	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0242	0.7770	0.1741	0.0050	0.0002	0.0002	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.0532	2.6090	1.0187	0.0050	0.0011	0.0010	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	1		0.25		g/mile	1.493	3.911	6.71	0.03	0.01185	0.010784	3150.427	0.00	0.00	0.00	0.00	0.00	0.00	1.74
	On-road Truck - 25 mph	nonroad		0.5	1		0.5		g/mile	0.368	1.502	3.768	0.019	0.00945	0.0086	2029.029	0.00	0.00	0.00	0.00	0.00	0.00	2.24
	On-road Truck - 55 mph	nonroad		40	1		40		g/mile	0.182	1.515	2.664	0.016	0.01605	0.014606	1650.736	0.02	0.13	0.23	0.00	0.00	0.00	145.57
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.368	1.502	3.768	0.019	0.00945	0.0086	2029.029	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.368	1.502	3.768	0.019	0.00945	0.0086	2029.029	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			1	5			g/mile	7.575	41.012	122.277	0.063	0.01635	0.014879	6550.578	0.00	0.01	0.02	0.00	0.00	0.00	1.20
	On-road Crew Vehicle - 30 mph - Compc	nonroad		9	9		81		g/mile	0.006	0.469	0.036	0.003	0.007	0.00637	337.147	0.00	0.08	0.01	0.00	0.00	0.00	60.20
	On-road Crew Vehicle - 55 mph - Compc	nonroad		9	9		81		g/mile	0.005	0.325	0.032	0.003	0.005	0.00455	305.412	0.00	0.06	0.01	0.00	0.00	0.00	54.54
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						0.698	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	2.05	0.43	0.00
																	Total						
																	0.31	5.68	2.64	0.03	2.05	0.43	2813.22

2016									Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
53 Clear and Grub	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
c	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.09	1.61	0.69	0.01	0.00	0.00	757.80
	Excavator	nonroad	428	0.57	1	8	1951.7	1	g/hp-hr	0.0353	0.6730	0.2803	0.0030	0.0004	0.0004	324.2220	0.15	2.90	1.21	0.01	0.00	0.00	1395.01
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.0372	0.6920	0.3622	0.0030	0.0005	0.0005	307.1580	0.05	0.89	0.47	0.00	0.00	0.00	394.92
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.0506	2.1440	0.8480	0.0040	0.0010	0.0009	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.1012	2.5130	1.1786	0.0040	0.0025	0.0022	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.0449	1.4560	0.6109	0.0030	0.0009	0.0008	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0307	0.6020	0.2874	0.0020	0.0004	0.0004	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0307	0.6020	0.2874	0.0020	0.0004	0.0004	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.6940	2.4300	2.2230	0.0030	0.1750	0.1593	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.5340	2.6830	3.6880	0.0070	0.1960	0.1784	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0338	0.6090	0.3154	0.0030	0.0005	0.0004	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0359	0.6290	0.3639	0.0030	0.0005	0.0004	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0352	0.7250	0.3217	0.0030	0.0005	0.0004	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0386	0.7020	0.3643	0.0030	0.0005	0.0005	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0242	0.7770	0.1741	0.0050	0.0002	0.0002	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.0532	2.6090	1.0187	0.0050	0.0011	0.0010	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	1		0.25		g/mile	1.493	3.911	6.71	0.03	0.01185	0.010784	3150.427	0.00	0.00	0.00	0.00	0.00	0.00	1.74
	On-road Truck - 25 mph	nonroad		0.5	1		0.5		g/mile	0.368	1.502	3.768	0.019	0.00945	0.0086	2029.029	0.00	0.00	0.00	0.00	0.00	0.00	2.24
	On-road Truck - 55 mph	nonroad		40	1		40		g/mile	0.182	1.515	2.664	0.016	0.01605	0.014606	1650.736	0.02	0.13	0.23	0.00	0.00	0.00	145.57
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.368	1.502	3.768	0.019	0.00945	0.0086	2029.029	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.368	1.502	3.768	0.019	0.00945	0.0086	2029.029	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			1	5			g/mile	7.575	41.012	122.277	0.063	0.01635	0.014879	6550.578	0.00	0.01	0.02	0.00	0.00	0.00	1.20
	On-road Crew Vehicle - 30 mph - Compc	nonroad		9	9		81		g/mile	0.006	0.469	0.036	0.003	0.007	0.00637	337.147	0.00	0.08	0.01	0.00	0.00	0.00	60.20
	On-road Crew Vehicle - 55 mph - Compc	nonroad		9	9		81		g/mile	0.005	0.325	0.032	0.003	0.005	0.00455	305.412	0.00	0.06	0.01	0.00	0.00	0.00	54.54
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						2.176	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	6.38	1.33	0.00
																	Total						
																	0.31	5.68	2.64	0.03	6.38	1.33	2813.22

Mitigated Emission Rates

2016									Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
54 New Concrete Pathway	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
c																							
	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.09	1.61	0.69	0.01	0.00	0.00	757.80
	Excavator	nonroad	428	0.57	1	8	1951.7	1	g/hp-hr	0.0353	0.6730	0.2803	0.0030	0.0004	0.0004	324.2220	0.15	2.90	1.21	0.01	0.00	0.00	1395.01
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.0372	0.6920	0.3622	0.0030	0.0005	0.0005	307.1580	0.05	0.89	0.47	0.00	0.00	0.00	394.92
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.0506	2.1440	0.8480	0.0040	0.0010	0.0009	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.1012	2.5130	1.1786	0.0040	0.0025	0.0022	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.0449	1.4560	0.6109	0.0030	0.0009	0.0008	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0307	0.6020	0.2874	0.0020	0.0004	0.0004	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0307	0.6020	0.2874	0.0020	0.0004	0.0004	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.6940	2.4300	2.2230	0.0030	0.1750	0.1593	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.5340	2.6830	3.6880	0.0070	0.1960	0.1784	420.9200	0.09	0.46	0.63	0.00	0.03	0.03	71.42
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.09	1.61	0.69	0.01	0.00	0.00	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0338	0.6090	0.3154	0.0030	0.0005	0.0004	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0359	0.6290	0.3639	0.0030	0.0005	0.0004	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0352	0.7250	0.3217	0.0030	0.0005	0.0004	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0386	0.7020	0.3643	0.0030	0.0005	0.0005	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	2	8	116.8	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.13	0.44	0.81	0.00	0.03	0.03	106.92
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0242	0.7770	0.1741	0.0050	0.0002	0.0002	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	1	4	1092.1	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.09	1.66	0.71	0.01	0.00	0.00	780.62
	Concrete Pump	nonroad	53	0.74	1	4	156.88	1	g/hp-hr	0.0532	2.6090	1.0187	0.0050	0.0011	0.0010	420.9200	0.02	0.90	0.35	0.00	0.00	0.00	145.58
	Wood Saw	nonroad	10	0.73	2	8	116.8	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.13	0.44	0.81	0.00	0.03	0.03	106.92
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	3		0.75		g/mile	1.493	3.911	6.71	0.03	0.01185	0.010784	3150.427	0.00	0.01	0.01	0.00	0.00	0.00	5.21
	On-road Truck - 25 mph	nonroad		0.5	3		1.5		g/mile	0.368	1.502	3.768	0.019	0.00945	0.0086	2029.029	0.00	0.00	0.01	0.00	0.00	0.00	6.71
	On-road Truck - 55 mph	nonroad		40	3		120		g/mile	0.182	1.515	2.664	0.016	0.01605	0.014606	1650.736	0.05	0.40	0.70	0.00	0.00	0.00	436.70
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.368	1.502	3.768	0.019	0.00945	0.0086	2029.029	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.368	1.502	3.768	0.019	0.00945	0.0086	2029.029	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			3	5			g/mile	7.575	41.012	122.277	0.063	0.01635	0.014879	6550.578	0.00	0.02	0.07	0.00	0.00	0.00	3.61
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	9		81		g/mile	0.006	0.469	0.036	0.003	0.007	0.00637	337.147	0.00	0.08	0.01	0.00	0.00	0.00	60.20
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	9		81		g/mile	0.005	0.325	0.032	0.003	0.005	0.00455	305.412	0.00	0.06	0.01	0.00	0.00	0.00	54.54
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						4.04	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	11.84	2.46	0.00
																	Total	0.89	11.49	7.17	0.05	11.94	2.56	5083.97

2016									Emission Factor (g/hp-hr)							Daily Emission Rates (lb/day)						
55 Landscaping	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
d																							
	General Construction Trucks	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.09	1.61	0.69	0.01	0.00	0.00	757.80
	Excavator	nonroad	428	0.57	1	8	1951.7	1	g/hp-hr	0.0353	0.6730	0.2803	0.0030	0.0004	0.0004	324.2220	0.15	2.90	1.21	0.01	0.00	0.00	1395.01
	Loader - Wheel	nonroad	180	0.54	1	6	583.2	1	g/hp-hr	0.0372	0.6920	0.3622	0.0030	0.0005	0.0005	307.1580	0.05	0.89	0.47	0.00	0.00	0.00	394.92
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.0506	2.1440	0.8480	0.0040	0.0010	0.0009	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.1012	2.5130	1.1786	0.0040	0.0025	0.0022	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.0449	1.4560	0.6109	0.0030	0.0009	0.0008	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0307	0.6020	0.2874	0.0020	0.0004	0.0004	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0307	0.6020	0.2874	0.0020	0.0004	0.0004	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.6940	2.4300	2.2230	0.0030	0.1750	0.1593	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	1	8	76.96	1	g/hp-hr	0.5340	2.6830	3.6880	0.0070	0.1960	0.1784	420.9200	0.09	0.46	0.63	0.00	0.03	0.03	71.42
	Flatbed Truck	nonroad	310	0.57	1	6	1060.2	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.09	1.61	0.69	0.01	0.00	0.00	757.80
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0338	0.6090	0.3154	0.0030	0.0005	0.0004	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0359	0.6290	0.3639	0.0030	0.0005	0.0004	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0352	0.7250	0.3217	0.0030	0.0005	0.0004	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0386	0.7020	0.3643	0.0030	0.0005	0.0005	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0242	0.7770	0.1741	0.0050	0.0002	0.0002	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.0532	2.6090	1.0187	0.0050	0.0011	0.0010	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	2		0.5		g/mile	1.493	3.911	6.71	0.03	0.01185	0.010784	3150.427	0.00	0.00	0.01	0.00	0.00	0.00	3.47
	On-road Truck - 25 mph	nonroad		0.5	2		1		g/mile	0.368	1.502	3.768	0.019	0.00945	0.0086	2029.029	0.00	0.00	0.01	0.00	0.00	0.00	4.47
	On-road Truck - 55 mph	nonroad		40	2		80		g/mile	0.182	1.515	2.664	0.016	0.01605	0.014606	1650.736	0.03	0.27	0.47	0.00	0.00	0.00	291.14
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.368	1.502	3.768	0.019	0.00945	0.0086	2029.029	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.368	1.502	3.768	0.019	0.00945	0.0086	2029.029	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			2	5			g/mile	7.575	41.012	122.277	0.063	0.01635	0.014879	6550.578	0.00	0.02	0.04	0.00	0.00	0.00	2.41
	On-road Crew Vehicle - 30 mph - Compo	nonroad		9	5		45		g/mile	0.006	0.469	0.036	0.003	0.007	0.00637	337.147	0.00	0.05	0.00	0.00	0.00	0.00	33.45
	On-road Crew Vehicle - 55 mph - Compo	nonroad		9	5		45		g/mile	0.005	0.325	0.032	0.003	0.005	0.00455	305.412	0.00	0.03	0.00	0.00	0.00	0.00	30.30
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						1.01	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	2.96	0.62	0.00
																	Total	0.51	7.83	4.21	0.04	3.00	0.65	3742.19

Mitigated Emission Rates

Red Car Corridor 2016

56 Construct track and Catenary Wires	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
g	General Construction Trucks	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.0353	0.6730	0.2803	0.0030	0.0004	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.0372	0.6920	0.3622	0.0030	0.0005	0.0005	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.0506	2.1440	0.8480	0.0040	0.0010	0.0009	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.1012	2.5130	1.1786	0.0040	0.0025	0.0022	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.0449	1.4560	0.6109	0.0030	0.0009	0.0008	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0307	0.6020	0.2874	0.0020	0.0004	0.0004	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0307	0.6020	0.2874	0.0020	0.0004	0.0004	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.6940	2.4300	2.2230	0.0030	0.1750	0.1593	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.5340	2.6830	3.6880	0.0070	0.1960	0.1784	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0338	0.6090	0.3154	0.0030	0.0005	0.0004	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0359	0.6290	0.3639	0.0030	0.0005	0.0004	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0352	0.7250	0.3217	0.0030	0.0005	0.0004	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0386	0.7020	0.3643	0.0030	0.0005	0.0005	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0242	0.7770	0.1741	0.0050	0.0002	0.0002	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.0532	2.6090	1.0187	0.0050	0.0011	0.0010	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	0		0		g/mile	1.493	3.911	6.71	0.03	0.01185	0.010784	3150.427	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - 25 mph	nonroad		0.5	0		0		g/mile	0.368	1.502	3.768	0.019	0.00945	0.0086	2029.029	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - 55 mph	nonroad		40	0		0		g/mile	0.182	1.515	2.664	0.016	0.01605	0.014606	1650.736	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.368	1.502	3.768	0.019	0.00945	0.0086	2029.029	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.368	1.502	3.768	0.019	0.00945	0.0086	2029.029	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			0	5			g/mile	7.575	41.012	122.277	0.063	0.01635	0.014879	6550.578	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Crew Vehicle - 30 mph - Compc	nonroad		9	14		126		g/mile	0.006	0.469	0.036	0.003	0.007	0.00637	337.147	0.00	0.13	0.01	0.00	0.00	0.00	93.65
	On-road Crew Vehicle - 55 mph - Compc	nonroad		9	14		126		g/mile	0.005	0.325	0.032	0.003	0.005	0.00455	305.412	0.00	0.09	0.01	0.00	0.00	0.00	84.84
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						1.561065197	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	4.57	0.95	0.00
																	Total	0.00	0.22	0.02	0.00	4.58	0.96	178.49

2016

57 Construct Stations	Equipment	Type	Hp	Load Factor	Number Active	Equipment Hrs/Day	Daily Hp-hr	Daily Roudtrip	E.F. Units	Emission Factor (g/hp-hr) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2	Daily Emission Rates (lb/day) ROG	CO	NO_x	SO_2	PM_{10}	$PM_{2.5}$	CO_2
g	General Construction Trucks	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.0353	0.6730	0.2803	0.0030	0.0004	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.0372	0.6920	0.3622	0.0030	0.0005	0.0005	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.0506	2.1440	0.8480	0.0040	0.0010	0.0009	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.1012	2.5130	1.1786	0.0040	0.0025	0.0022	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.0449	1.4560	0.6109	0.0030	0.0009	0.0008	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0307	0.6020	0.2874	0.0020	0.0004	0.0004	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0307	0.6020	0.2874	0.0020	0.0004	0.0004	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.6940	2.4300	2.2230	0.0030	0.1750	0.1593	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.5340	2.6830	3.6880	0.0070	0.1960	0.1784	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0338	0.6090	0.3154	0.0030	0.0005	0.0004	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0359	0.6290	0.3639	0.0030	0.0005	0.0004	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0352	0.7250	0.3217	0.0030	0.0005	0.0004	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0386	0.7020	0.3643	0.0030	0.0005	0.0005	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0242	0.7770	0.1741	0.0050	0.0002	0.0002	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.0532	2.6090	1.0187	0.0050	0.0011	0.0010	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	Miles / Trip	Daily Trips	Idling Time	Miles/ Day	Acres Disturbed															
	On-road Truck - 10 mph	nonroad		0.25	0		0		g/mile	1.493	3.911	6.71	0.03	0.01185	0.010784	3150.427	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - 25 mph	nonroad		0.5	0		0		g/mile	0.368	1.502	3.768	0.019	0.00945	0.0086	2029.029	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - 55 mph	nonroad		40	0		0		g/mile	0.182	1.515	2.664	0.016	0.01605	0.014606	1650.736	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.368	1.502	3.768	0.019	0.00945	0.0086	2029.029	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.368	1.502	3.768	0.019	0.00945	0.0086	2029.029	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			0	5			g/mile	7.575	41.012	122.277	0.063	0.01635	0.014879	6550.578	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Crew Vehicle - 30 mph - Compc	nonroad		9	14		126		g/mile	0.006	0.469	0.036	0.003	0.007	0.00637	337.147	0.00	0.13	0.01	0.00	0.00	0.00	93.65
	On-road Crew Vehicle - 55 mph - Compc	nonroad		9	14		126		g/mile	0.005	0.325	0.032	0.003	0.005	0.00455	305.412	0.00	0.09	0.01	0.00	0.00	0.00	84.84
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						1.561065197	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	4.57	0.95	0.00
																	Total	0.00	0.22	0.02	0.00	4.58	0.96	178.49

Mitigated Emission Rates

Development	2016								*Emission Factor (g/hp-hr)*							*Daily Emission Rates (lb/day)*						
58 Restaurant space at the waterfront	**Equipment**	**Type**	**Hp**	**Load Factor**	**Number Active**	**Equipment Hrs/Day**	**Daily Hp-hr**	**Daily Roudtrip**	**E.F. Units**	**ROG**	**CO**	**NO_x**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**	**CO_2**	**ROG**	**CO**	**NO_x**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**	**CO_2**
c																							
	General Construction Trucks	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.0353	0.6730	0.2803	0.0030	0.0004	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.0372	0.6920	0.3622	0.0030	0.0005	0.0005	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.0506	2.1440	0.8480	0.0040	0.0010	0.0009	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.1012	2.5130	1.1786	0.0040	0.0025	0.0022	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.0449	1.4560	0.6109	0.0030	0.0009	0.0008	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0307	0.6020	0.2874	0.0020	0.0004	0.0004	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0307	0.6020	0.2874	0.0020	0.0004	0.0004	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.6940	2.4300	2.2230	0.0030	0.1750	0.1593	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.5340	2.6830	3.6880	0.0070	0.1960	0.1784	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0338	0.6090	0.3154	0.0030	0.0005	0.0004	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0359	0.6290	0.3639	0.0030	0.0005	0.0004	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0352	0.7250	0.3217	0.0030	0.0005	0.0004	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0386	0.7020	0.3643	0.0030	0.0005	0.0005	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0242	0.7770	0.1741	0.0050	0.0002	0.0002	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.0532	2.6090	1.0187	0.0050	0.0011	0.0010	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	**Miles / Trip**	**Daily Trips**	**Idling Time**	**Miles/ Day**	**Acres Disturbed**															
	On-road Truck - 10 mph	nonroad		0.25	0		0		g/mile	1.493	3.911	6.71	0.03	0.01185	0.010784	3150.427	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - 25 mph	nonroad		0.5	0		0		g/mile	0.368	1.502	3.768	0.019	0.00945	0.0086	2029.029	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - 55 mph	nonroad		40	0		0		g/mile	0.182	1.515	2.664	0.016	0.01605	0.014606	1650.736	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.368	1.502	3.768	0.019	0.00945	0.0086	2029.029	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.368	1.502	3.768	0.019	0.00945	0.0086	2029.029	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			0	5			g/mile	7.575	41.012	122.277	0.063	0.01635	0.014879	6550.578	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Crew Vehicle - 30 mph - Compc	nonroad		9	9		81		g/mile	0.006	0.469	0.036	0.003	0.007	0.00637	337.147	0.00	0.08	0.01	0.00	0.00	0.00	60.20
	On-road Crew Vehicle - 55 mph - Compc	nonroad		9	9		81		g/mile	0.005	0.325	0.032	0.003	0.005	0.00455	305.412	0.00	0.06	0.01	0.00	0.00	0.00	54.54
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						0.275	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	0.81	0.17	0.00
																Total	**0.00**	**0.14**	**0.01**	**0.00**	**0.81**	**0.17**	**114.74**

	2016								*Emission Factor (g/hp-hr)*							*Daily Emission Rates (lb/day)*						
59 Light Industrial	**Equipment**	**Type**	**Hp**	**Load Factor**	**Number Active**	**Equipment Hrs/Day**	**Daily Hp-hr**	**Daily Roudtrip**	**E.F. Units**	**ROG**	**CO**	**NO_x**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**	**CO_2**	**ROG**	**CO**	**NO_x**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**	**CO_2**
e																							
	General Construction Trucks	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Excavator	nonroad	428	0.57	0	8	0	1	g/hp-hr	0.0353	0.6730	0.2803	0.0030	0.0004	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Loader - Wheel	nonroad	180	0.54	0	6	0	1	g/hp-hr	0.0372	0.6920	0.3622	0.0030	0.0005	0.0005	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Roller	nonroad	95	0.56	0	6	0	1	g/hp-hr	0.0506	2.1440	0.8480	0.0040	0.0010	0.0009	318.5340	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Paving Machine	nonroad	104	0.53	0	6	0	1	g/hp-hr	0.1012	2.5130	1.1786	0.0040	0.0025	0.0022	352.6630	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Hydraulic Crane	nonroad	152	0.43	0	6	0	1	g/hp-hr	0.0449	1.4560	0.6109	0.0030	0.0009	0.0008	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 150 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0307	0.6020	0.2874	0.0020	0.0004	0.0004	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Crane - 100 ton	nonroad	335	0.43	0	6	0	1	g/hp-hr	0.0307	0.6020	0.2874	0.0020	0.0004	0.0004	244.5890	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Welding Machine	nonroad	26	0.45	0	8	0	1	g/hp-hr	0.6940	2.4300	2.2230	0.0030	0.1750	0.1593	255.9650	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Generator	nonroad	13	0.74	0	8	0	1	g/hp-hr	0.5340	2.6830	3.6880	0.0070	0.1960	0.1784	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Flatbed Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Vibratory Hammer & Power Pack	nonroad	350	0.43	0	6	0	1	g/hp-hr	0.0338	0.6090	0.3154	0.0030	0.0005	0.0004	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Impact Hammer	nonroad	190	0.75	0	6	0	1	g/hp-hr	0.0359	0.6290	0.3639	0.0030	0.0005	0.0004	290.0930	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Front End Loader	nonroad	400	0.55	0	8	0	1	g/hp-hr	0.0352	0.7250	0.3217	0.0030	0.0005	0.0004	307.1580	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dump Truck	nonroad	310	0.57	0	6	0	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tug Boat	nonroad	2420	0.43	0	4	0	1	g/hp-hr	0.0700	5.0000	5.9700	0.0060	0.1100	0.1012	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Derrick Barge	nonroad	380	0.43	0	6	0	1	g/hp-hr	0.0386	0.7020	0.3643	0.0030	0.0005	0.0005	355.5980	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Chain Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Drill Hammer	nonroad	291	0.75	0	8	0	1	g/hp-hr	0.0242	0.7770	0.1741	0.0050	0.0002	0.0002	426.6080	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Truck	onroad	479	0.57	0	4	0	1	g/hp-hr	0.0377	0.6900	0.2943	0.0030	0.0004	0.0004	324.2220	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Concrete Pump	nonroad	53	0.74	0	4	0	1	g/hp-hr	0.0532	2.6090	1.0187	0.0050	0.0011	0.0010	420.9200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Wood Saw	nonroad	10	0.73	0	8	0	1	g/hp-hr	0.5010	1.7100	3.1650	0.0050	0.1180	0.1074	415.2320	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Float Stages	nonroad	0	0	0	8	0	1	g/hp-hr	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
			Bldg CuFt / Day	**Miles / Trip**	**Daily Trips**	**Idling Time**	**Miles/ Day**	**Acres Disturbed**															
	On-road Truck - 10 mph	nonroad		0.25	0		0		g/mile	1.493	3.911	6.71	0.03	0.01185	0.010784	3150.427	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - 25 mph	nonroad		0.5	0		0		g/mile	0.368	1.502	3.768	0.019	0.00945	0.0086	2029.029	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - 55 mph	nonroad		40	0		0		g/mile	0.182	1.515	2.664	0.016	0.01605	0.014606	1650.736	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Dredge Materials Haul Truck - Composite	nonroad							g/mile	0.368	1.502	3.768	0.019	0.00945	0.0086	2029.029	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other On-Road Trucks - Composite	nonroad							g/mile	0.368	1.502	3.768	0.019	0.00945	0.0086	2029.029	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Truck - Idle	nonroad			0	5			g/mile	7.575	41.012	122.277	0.063	0.01635	0.014879	6550.578	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	On-road Crew Vehicle - 30 mph - Compc	nonroad		9	5		45		g/mile	0.006	0.469	0.036	0.003	0.007	0.00637	337.147	0.00	0.05	0.00	0.00	0.00	0.00	33.45
	On-road Crew Vehicle - 55 mph - Compc	nonroad		9	5		45		g/mile	0.005	0.325	0.032	0.003	0.005	0.00455	305.412	0.00	0.03	0.00	0.00	0.00	0.00	30.30
	Building Demolition	demo							lb/Kcf					0.42	0.09		0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Fugitive Dust	dust						1.72	lbs/acre/day	0.00	0.00	0.00	0.00	2.93	0.61	0.00	0.00	0.00	0.00	0.00	5.04	1.05	0.00
																Total	**0.00**	**0.08**	**0.01**	**0.00**	**5.04**	**1.05**	**63.75**

Mitigated Emissions by Timeslice

			Daily Emission Rates (lbs/day)						
	Timeslice	Sub-Phase	ROG	CO	NOX	SO2	PM10	PM2.5	CO2
2009	1	2	2	24	44	0	3	1	7,921
		3	1	12	23	0	5	1	4,548
		Total	**4**	**37**	**67**	**0**	**8**	**2**	**12,469**
2010	2	3	1	12	23	0	5	1	4,548
		Total	**1**	**12**	**23**	**0**	**5**	**1**	**4,548**
	3	1	1	10	19	0	5	1	3,790
		4	1	10	19	0	5	1	3,790
		Total	**2**	**20**	**38**	**0**	**10**	**2**	**7,580**
	4	1	1	10	19	0	5	1	3,790
		4	1	10	19	0	5	1	3,790
		6	0	0	0	0	0	0	115
		Total	**2**	**21**	**38**	**0**	**10**	**2**	**7,694**
	5	1	1	10	19	0	5	1	3,790
		6	0	0	0	0	0	0	115
		Total	**1**	**10**	**19**	**0**	**5**	**1**	**3,905**
	6	5	1	10	19	0	0	0	3,739
		6	0	0	0	0	0	0	115
		Total	**1**	**10**	**19**	**0**	**0**	**0**	**3,854**
	7	6	0	0	0	0	0	0	115
		Total	**0**	**0**	**0**	**0**	**0**	**0**	**115**
	8	6	0	0	0	0	0	0	115
		28	5	49	92	0	9	6	4,600
		Total	**5**	**49**	**93**	**0**	**9**	**6**	**4,715**
	9	6	0	0	0	0	0	0	115
		28	5	49	92	0	9	6	4,600
		39	0	0	0	0	5	1	64
		Total	**5**	**49**	**93**	**0**	**14**	**7**	**4,778**
	10	6	0	0	0	0	0	0	115
		7	1	15	27	0	18	4	5,454
		8	1	15	27	0	27	6	5,454
		9	1	15	27	0	0	0	5,454
		10	1	9	17	0	1	0	3,395
		28	5	49	92	0	9	6	4,600
		39	0	0	0	0	5	1	64
		Total	**11**	**102**	**192**	**0**	**59**	**17**	**24,537**
	11	6	0	0	0	0	0	0	115
		8	1	15	27	0	27	6	5,454
		9	1	15	27	0	0	0	5,454
		10	1	9	17	0	1	0	3,395
		28	5	49	92	0	9	6	4,600
		39	0	0	0	0	5	1	64
		Total	**9**	**87**	**164**	**0**	**42**	**13**	**19,082**
2011	12	6	0	0	0	0	0	0	115
		8	1	15	27	0	27	6	5,454
		9	1	15	27	0	0	0	5,454
		10	1	9	17	0	1	0	3,395
		11	1	9	15	0	1	0	3,396
		12	1	9	15	0	0	0	3,396
		13	1	9	15	0	0	0	3,396
		14	1	9	16	0	3	1	2,968
		14b	1	13	24	0	3	1	5,563
		28	5	49	92	0	9	6	4,600
		39	0	0	0	0	5	1	64
		Total	**14**	**135**	**250**	**0**	**48**	**15**	**37,800**

Mitigated Emissions by Timeslice

13	6	0	0	0	0	0	0	115
	8	1	15	27	0	27	6	5,454
	10	1	9	17	0	1	0	3,395
	11	1	9	15	0	1	0	3,396
	12	1	9	15	0	0	0	3,396
	13	1	9	15	0	0	0	3,396
	14b	1	13	24	0	3	1	5,563
	18	1	8	15	0	13	3	2,637
	28	5	49	92	0	9	6	4,600
	37	2	15	17	0	13	3	5,393
	39	0	0	0	0	5	1	64
	Total	**14**	**134**	**239**	**0**	**71**	**19**	**37,408**
14	6	0	0	0	0	0	0	115
	11	1	9	15	0	1	0	3,396
	12	1	9	15	0	0	0	3,396
	13	1	9	15	0	0	0	3,396
	14b	1	13	24	0	3	1	5,563
	18	1	8	15	0	13	3	2,637
	28	5	49	92	0	9	6	4,600
	37	2	15	17	0	13	3	5,393
	39	0	0	0	0	5	1	64
	Total	**11**	**110**	**195**	**0**	**44**	**14**	**28,559**
15	6	0	0	0	0	0	0	115
	11	1	9	15	0	1	0	3,396
	14b	1	13	24	0	3	1	5,563
	18	1	8	15	0	13	3	2,637
	23	1	11	18	0	0	0	3,563
	24	1	11	18	0	0	0	3,563
	28	5	49	92	0	9	6	4,600
	37	2	15	17	0	13	3	5,393
	39	0	0	0	0	5	1	64
	Total	**12**	**115**	**200**	**0**	**44**	**14**	**28,894**
16	6	0	0	0	0	0	0	115
	11	1	9	15	0	1	0	3,396
	18	1	8	15	0	13	3	2,637
	23	1	11	18	0	0	0	3,563
	24	1	11	18	0	0	0	3,563
	28	5	49	92	0	9	6	4,600
	37	2	15	17	0	13	3	5,393
	39	0	0	0	0	5	1	64
	Total	**10**	**102**	**176**	**0**	**41**	**13**	**23,331**
17	6	0	0	0	0	0	0	115
	18	1	8	15	0	13	3	2,637
	23	1	11	18	0	0	0	3,563
	24	1	11	18	0	0	0	3,563
	28	5	49	92	0	9	6	4,600
	37	2	15	17	0	13	3	5,393
	39	0	0	0	0	5	1	64
	Total	**10**	**94**	**160**	**0**	**41**	**13**	**19,936**
18	6	0	0	0	0	0	0	115
	15	1	10	19	0	3	1	3,921
	18	1	8	15	0	13	3	2,637
	23	1	11	18	0	0	0	3,563
	24	1	11	18	0	0	0	3,563
	28	5	49	92	0	9	6	4,600
	37	2	15	17	0	13	3	5,393
	39	0	0	0	0	5	1	64
	Total	**11**	**104**	**179**	**0**	**43**	**13**	**23,856**

Mitigated Emissions by Timeslice

	19	6	0	0	0	0	0	0	115
		15	1	10	19	0	3	1	3,921
		18	1	8	15	0	13	3	2,637
		23	1	11	18	0	0	0	3,563
		24	1	11	18	0	0	0	3,563
		29	2	47	64	0	1	1	4,327
		37	2	15	17	0	13	3	5,393
		39	0	0	0	0	5	1	64
		Total	**8**	**102**	**151**	**0**	**35**	**9**	**23,583**
	20	6	0	0	0	0	0	0	115
		15	1	10	19	0	3	1	3,921
		19	2	15	27	0	13	3	5,390
		20	0	5	8	0	1	0	2,044
		29	2	47	64	0	1	1	4,327
		37	2	15	17	0	13	3	5,393
		39	0	0	0	0	5	1	64
		Total	**7**	**92**	**135**	**0**	**36**	**9**	**21,253**
	21	6	0	0	0	0	0	0	115
		16	1	10	17	0	3	1	4,109
		19	2	15	27	0	13	3	5,390
		20	0	5	8	0	1	0	2,044
		29	2	47	64	0	1	1	4,327
		37	2	15	17	0	13	3	5,393
		39	0	0	0	0	5	1	64
		Total	**7**	**92**	**133**	**0**	**36**	**9**	**21,441**
	22	6	0	0	0	0	0	0	115
		16	1	10	17	0	3	1	4,109
		19	2	15	27	0	13	3	5,390
		20	0	5	8	0	1	0	2,044
		29	2	47	64	0	1	1	4,327
		37	1	13	14	0	13	3	4,763
		39	0	0	0	0	5	1	64
		Total	**6**	**90**	**129**	**0**	**36**	**9**	**20,811**
	23	6	0	0	0	0	0	0	115
		16	1	10	17	0	3	1	4,109
		19	2	15	27	0	13	3	5,390
		20	0	5	8	0	1	0	2,044
		29	2	47	64	0	1	1	4,327
		37	1	9	11	0	13	3	3,924
		39	0	0	0	0	5	1	64
		Total	**6**	**86**	**127**	**0**	**36**	**9**	**19,972**
2012	24	6	0	0	0	0	0	0	115
		16	1	10	17	0	3	1	4,109
		19	2	15	27	0	13	3	5,390
		26	1	11	18	0	2	0	3,563
		27	1	11	18	0	2	0	3,563
		29	2	47	64	0	1	1	4,327
		37	1	9	11	0	13	3	3,924
		39	0	0	0	0	5	1	64
		Total	**8**	**104**	**154**	**0**	**38**	**9**	**25,055**
	25	6	0	0	0	0	0	0	115
		16	1	10	17	0	3	1	4,109
		19	2	15	27	0	13	3	5,390
		26	1	11	18	0	2	0	3,563
		27	1	11	18	0	2	0	3,563
		30	1	45	54	0	1	1	4,137
		37	1	9	11	0	13	3	3,924
		39	0	0	0	0	5	1	64
		Total	**7**	**102**	**144**	**0**	**38**	**9**	**24,865**

Mitigated Emissions by Timeslice

26	6	0	0	0	0	0	0	115
	16	1	10	17	0	3	1	4,109
	19	2	15	27	0	13	3	5,390
	19b	2	17	32	0	13	3	7,264
	26	1	11	18	0	2	0	3,563
	27	1	11	18	0	2	0	3,563
	30	1	45	54	0	1	1	4,137
	37	1	9	11	0	13	3	3,924
	39	0	0	0	0	5	1	64
	Total	**9**	**119**	**176**	**0**	**51**	**12**	**32,130**
27	6	0	0	0	0	0	0	115
	16	1	10	17	0	3	1	4,109
	17	0	5	5	0	3	1	2,003
	26	1	11	18	0	2	0	3,563
	27	1	11	18	0	2	0	3,563
	30	1	45	54	0	1	1	4,137
	37	1	9	11	0	13	3	3,924
	39	0	0	0	0	5	1	64
	Total	**5**	**91**	**123**	**0**	**28**	**7**	**21,479**
28	17	0	5	5	0	3	1	2,003
	26	1	11	18	0	2	0	3,563
	27	1	11	18	0	2	0	3,563
	30	1	45	54	0	1	1	4,137
	37	1	9	11	0	13	3	3,924
	39	0	0	0	0	5	1	64
	Total	**4**	**81**	**106**	**0**	**25**	**6**	**17,255**
29	17	0	5	5	0	3	1	2,003
	21	0	5	6	0	13	3	2,268
	25	1	10	10	0	1	0	3,566
	30	1	45	54	0	1	1	4,137
	37	1	9	11	0	13	3	3,924
	39	0	0	0	0	5	1	64
	40	1	9	10	0	12	3	3,403
	Total	**4**	**84**	**96**	**0**	**47**	**11**	**19,365**
30	17	0	5	5	0	3	1	2,003
	21	0	5	6	0	13	3	2,268
	25	1	10	10	0	1	0	3,566
	31	1	7	9	0	3	1	2,665
	37	1	9	11	0	13	3	3,924
	37	1	9	11	0	13	3	3,924
	39	0	0	0	0	5	1	64
	40	1	9	10	0	12	3	3,403
	Total	**4**	**55**	**63**	**0**	**62**	**13**	**21,817**
31	17	0	5	5	0	3	1	2,003
	21	0	5	6	0	13	3	2,268
	25	1	10	10	0	1	0	3,566
	31	1	7	9	0	3	1	2,665
	39	0	0	0	0	5	1	64
	40	1	9	10	0	12	3	3,403
	Total	**3**	**37**	**40**	**0**	**36**	**8**	**13,968**
32	21	0	5	6	0	13	3	2,268
	25	1	10	10	0	1	0	3,566
	31	1	7	9	0	3	1	2,665
	39	0	0	0	0	5	1	64
	40	1	9	10	0	12	3	3,403
	Total	**3**	**32**	**35**	**0**	**34**	**7**	**11,965**
33	21	0	5	6	0	13	3	2,268
	25	1	10	10	0	1	0	3,566
	31	1	7	9	0	3	1	2,665
	40	1	9	10	0	12	3	3,403
	Total	**3**	**32**	**35**	**0**	**29**	**6**	**11,901**

Mitigated Emissions by Timeslice

	34	22	0	5	6	0	13	3	2,268
		25	1	10	10	0	1	0	3,566
		32	0	2	1	0	1	0	581
		40	1	9	10	0	12	3	3,403
		Total	**2**	**26**	**27**	**0**	**26**	**6**	**9,817**
	35	32	0	2	1	0	1	0	581
		36	0	0	0	0	0	0	229
		40	1	9	10	0	12	3	3,403
		Total	**1**	**11**	**12**	**0**	**13**	**3**	**4,214**
2013	36	33	1	9	10	0	14	3	3,742
		36	0	0	0	0	0	0	229
		40	1	9	10	0	12	3	3,403
		Total	**1**	**18**	**20**	**0**	**26**	**6**	**7,375**
	37	33	1	9	10	0	14	3	3,742
		36	0	0	0	0	0	0	229
		40	1	9	10	0	12	3	3,403
		41	1	8	9	0	21	4	3,722
		Total	**2**	**26**	**29**	**0**	**46**	**10**	**11,097**
	38	33	1	9	10	0	14	3	3,742
		40	1	9	10	0	12	3	3,403
		41	1	8	9	0	21	4	3,722
		Total	**2**	**26**	**29**	**0**	**46**	**10**	**10,867**
	39	34	1	9	10	0	5	1	3,742
		35	1	9	10	0	0	0	3,742
		41	1	8	9	0	21	4	3,722
		Total	**2**	**25**	**28**	**0**	**25**	**5**	**11,206**
	40	34	1	9	10	0	5	1	3,742
		41	1	8	9	0	21	4	3,722
		Total	**1**	**17**	**18**	**0**	**25**	**5**	**7,464**
2014	41	38	0	0	0	0	4	1	115
		41	1	8	9	0	21	4	3,722
		Total	**1**	**8**	**9**	**0**	**24**	**5**	**3,836**
2015	42	38	0	0	0	0	4	1	115
		42	0	6	3	0	18	4	2,813
		43	0	6	3	0	9	2	2,813
		Total	**1**	**12**	**6**	**0**	**30**	**6**	**5,741**
	43	38	0	0	0	0	4	1	115
		44	0	6	3	0	0	0	2,813
		Total	**0**	**6**	**3**	**0**	**4**	**1**	**2,928**
	44	44	0	6	3	0	0	0	2,813
		Total	**0**	**6**	**3**	**0**	**0**	**0**	**2,813**
	45	45	1	11	5	0	26	6	4,052
		50	0	10	5	0	3	1	3,566
		Total	**1**	**21**	**10**	**0**	**29**	**6**	**7,618**
	46	46	1	11	5	0	26	6	4,052
		50	0	10	5	0	3	1	3,566
		Total	**1**	**21**	**10**	**0**	**29**	**6**	**7,618**
	47	47	1	8	5	0	9	2	3,742
		50	0	10	5	0	3	1	3,566
		Total	**1**	**18**	**10**	**0**	**12**	**2**	**7,308**
2016	48	47	1	8	5	0	9	2	3,742
		50	0	10	5	0	3	1	3,566
		51	0	6	3	0	6	1	2,813
		56	0	0	0	0	5	1	178
		59	0	0	0	0	5	1	64
		Total	**1**	**24**	**12**	**0**	**28**	**6**	**10,363**
	49	47	1	8	5	0	9	2	3,742
		50	0	10	5	0	3	1	3,566
		52	0	6	3	0	2	0	2,813
		56	0	0	0	0	5	1	178
		58	0	0	0	0	1	0	115
		59	0	0	0	0	5	1	64
		Total	**1**	**24**	**12**	**0**	**24**	**5**	**10,478**

Mitigated Emissions by Timeslice

50	47	1	8	5	0	9	2	3,742
	52	0	6	3	0	2	0	2,813
	56	0	0	0	0	5	1	178
	58	0	0	0	0	1	0	115
	59	0	0	0	0	5	1	64
	Total	**1**	**14**	**7**	**0**	**21**	**4**	**6,912**
51	47	1	8	5	0	9	2	3,742
	53	0	6	3	0	6	1	2,813
	56	0	0	0	0	5	1	178
	58	0	0	0	0	1	0	115
	59	0	0	0	0	5	1	64
	Total	**1**	**14**	**7**	**0**	**25**	**5**	**6,912**
52	48	1	8	4	0	18	4	3,742
	49	1	8	4	0	0	0	3,742
	53	0	6	3	0	6	1	2,813
	56	0	0	0	0	5	1	178
	58	0	0	0	0	1	0	115
	59	0	0	0	0	5	1	64
	Total	**1**	**22**	**11**	**0**	**34**	**7**	**10,655**
53	48	1	8	4	0	18	4	3,742
	49	1	8	4	0	0	0	3,742
	54	1	11	7	0	12	3	5,084
	56	0	0	0	0	5	1	178
	57	0	0	0	0	5	1	178
	58	0	0	0	0	1	0	115
	59	0	0	0	0	5	1	64
	Total	**2**	**28**	**16**	**0**	**45**	**9**	**13,104**
54	48	1	8	4	0	18	4	3,742
	54	1	11	7	0	12	3	5,084
	56	0	0	0	0	5	1	178
	57	0	0	0	0	5	1	178
	58	0	0	0	0	1	0	115
	59	0	0	0	0	5	1	64
	Total	**1**	**20**	**11**	**0**	**45**	**9**	**9,362**
55	54	1	11	7	0	12	3	5,084
	56	0	0	0	0	5	1	178
	57	0	0	0	0	5	1	178
	58	0	0	0	0	1	0	115
	59	0	0	0	0	5	1	64
	Total	**1**	**12**	**7**	**0**	**27**	**6**	**5,619**
56	55	1	8	4	0	3	1	3,742
	56	0	0	0	0	5	1	178
	57	0	0	0	0	5	1	178
	58	0	0	0	0	1	0	115
	59	0	0	0	0	5	1	64
	Total	**1**	**8**	**4**	**0**	**18**	**4**	**4,278**
2017	57	58	0	0	0	0	1	0	115
		59	0	0	0	0	5	1	64
		Total	**0**	**0**	**0**	**0**	**6**	**1**	**178**
	58	59	0	0	0	0	5	1	64
		Total	**0**	**0**	**0**	**0**	**5**	**1**	**64**

MAX	**14**	**135**	**250**	**0**	**71**	**19**	**37,800**
Threshold	75	550	100	150	150	55	N/A
Impact?	**No**	**No**	**Yes**	**No**	**No**	**No**	**No**

Onsite Emissions by Subphase and Source Type
Mitigated Project Construction

Subphase ID	Phase	Subphase		Timeslice 12	Timeslice 13	Construction Equipment & Onsite Trucks NOx 1-hr (lb/hr)	PM10 24-hr (lb/day)	PM2.5 24-hr (lb/day)	CO 1-hr (lb/hr)	CO 8-hr (lb/hr)	Tugboats NOx 1-hr (lb/hr)	PM10 24-hr (lb/day)	PM2.5 24-hr (lb/day)	CO 1-hr (lb/hr)	CO 8-hr (lb/hr)	Fugitive Dust PM10 24-hr (lb/day)	PM2.5 24-hr (lb/day)
6	PHASE I	Avalon Boulevard Corridor - North	Red Car Museum in Bekins Building	1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	PHASE I	General Site Preparation	Pavement Demolition	1	1	3.98	0.18	0.16	2.12	1.72	0.00	0.00	0.00	0.00	0.00	26.50	5.52
9	PHASE I	General Site Preparation	Utilities Demolition	1		3.98	0.18	0.16	2.12	1.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	PHASE I	Public Utilities and Infrastructure	Remove and replace ex. 32" SD w/ 48" RCP	1	1	2.27	0.12	0.11	1.23	1.05	0.00	0.00	0.00	0.00	0.00	0.48	0.10
11	PHASE I	Public Utilities and Infrastructure	Realign 12" oil line	1	1	2.19	0.09	0.08	1.09	0.93	0.00	0.00	0.00	0.00	0.00	0.43	0.09
12	PHASE I	Public Utilities and Infrastructure	Realign 12" Sewer	1	1	2.19	0.09	0.08	1.09	0.93	0.00	0.00	0.00	0.00	0.00	0.22	0.04
13	PHASE I	Public Utilities and Infrastructure	Realign 12" Water	1	1	2.19	0.09	0.08	1.09	0.93	0.00	0.00	0.00	0.00	0.00	0.22	0.04
14	PHASE I	Pedestrian Bridge	Piles (& Pile Caps)	1		2.38	0.12	0.11	1.88	1.51	0.00	0.00	0.00	0.00	0.00	2.55	0.53
14b	PHASE I	Pedestrian Bridge	Set Pile Caps	1	1	3.50	0.13	0.11	1.92	1.55	0.00	0.00	0.00	0.00	0.00	2.55	0.53
18	PHASE I	Interim Land Bridge (Rail/Street Tunnel)	Foundation Piles		1	2.57	0.14	0.12	2.21	1.66	0.00	0.00	0.00	0.00	0.00	12.59	2.62
28	PHASE I	Waterfront Promenade	Removal of existing wharf structure & Bulkhead	1	1	3.97	0.28	0.25	2.22	1.72	16.77	4.93	4.53	8.56	4.28	3.94	0.83
37	PHASE I	Observation Tower	Concrete Prep.		1	3.44	0.22	0.20	2.04	1.67	0.00	0.00	0.00	0.00	0.00	12.59	2.62
39	PHASE I	Development	Light Industrial	1	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.04	1.05

Onsite Emissions by AERMOD Source
Mitigated Project Construction
Timeslice 12

AERMOD Source	Source Description	Surface Area (m2)	NOx 1-hr (g/s)	PM10 24-hr (g/s)	PM2.5 24-hr (g/s)	CO 1-hr (g/s)	CO 8-hr (g/s)	NOx 1-hr (g/s/m2)	PM10 24-hr (g/s/m2)	PM2.5 24-hr (g/s/m2)	CO 1-hr (g/s/m2)	CO 8-hr (g/s/m2)
BEKINS1	Bekins Building - Exhaust	5,362	1.81E-05	5.21E-07	4.74E-07	2.28E-04	2.28E-04	3.38E-09	9.71E-11	8.84E-11	4.25E-08	4.25E-08
WTR_BRG1	Water (pedestrian) bridge - Exhaust	7,432	7.40E-01	1.28E-03	1.17E-03	4.78E-01	3.86E-01	9.96E-05	1.73E-07	1.57E-07	6.43E-05	5.19E-05
LND_BRG1	Land Bridge (Phase I) - Exhaust	15,743						0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WHARF1	Wharf Structure - Exhaust	9,765	5.00E-01	1.45E-03	1.32E-03	2.80E-01	2.17E-01	5.12E-05	1.48E-07	1.35E-07	2.86E-05	2.22E-05
OBS_TWR1	Observation Tower - Exhaust	625						0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INDUSTR1	Light Industrial Development - Exhaust	80,171	1.01E-05	2.89E-07	2.63E-07	1.27E-04	1.27E-04	1.26E-10	3.61E-12	3.28E-12	1.58E-09	1.58E-09
STH_END1	South portion of project site - Exhaust	45,062	1.00E+00	1.84E-03	1.67E-03	5.33E-01	4.34E-01	2.23E-05	4.08E-08	3.72E-08	1.18E-05	9.62E-06
AVALON1	Avalon betw. H. Bridges & Water St - Exhaust	9,794	2.86E-01	6.46E-04	5.88E-04	1.55E-01	1.33E-01	2.92E-05	6.59E-08	6.00E-08	1.58E-05	1.36E-05
WATERST1	Water St betw. Fries and Avalon - Exhaust	4,671	8.28E-01	1.38E-03	1.26E-03	4.12E-01	3.53E-01	1.77E-04	2.96E-07	2.69E-07	8.81E-05	7.56E-05
BEKINS2	Bekins Building - Dust	5,362	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WTR_BRG2	Water (pedestrian) bridge - Dust	7,432	0.00E+00	2.68E-02	5.59E-03	0.00E+00	0.00E+00	0.00E+00	3.61E-06	7.51E-07	0.00E+00	0.00E+00
LND_BRG2	Land Bridge (Phase I) - Dust	15,743						0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WHARF2	Wharf Structure - Dust	9,765	0.00E+00	2.07E-02	4.34E-03	0.00E+00	0.00E+00	0.00E+00	2.12E-06	4.45E-07	0.00E+00	0.00E+00
OBS_TWR2	Observation Tower - Dust	625						0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
INDUSTR2	Light Industrial Development - Dust	80,171	0.00E+00	2.65E-02	5.51E-03	0.00E+00	0.00E+00	0.00E+00	3.30E-07	6.87E-08	0.00E+00	0.00E+00
STH_END2	South portion of project site - Dust	45,062	0.00E+00	1.39E-01	2.90E-02	0.00E+00	0.00E+00	0.00E+00	3.09E-06	6.43E-07	0.00E+00	0.00E+00
AVALON2	Avalon betw. H. Bridges & Water St - Dust	9,794	0.00E+00	2.54E-03	5.29E-04	0.00E+00	0.00E+00	0.00E+00	2.60E-07	5.40E-08	0.00E+00	0.00E+00
WATERST2	Water St betw. Fries and Avalon - Dust	4,671	0.00E+00	4.52E-03	9.41E-04	0.00E+00	0.00E+00	0.00E+00	9.68E-07	2.01E-07	0.00E+00	0.00E+00
WHARF3	Wharf Structure - Tugs	9,765	2.11E+00	2.59E-02	2.38E-02	1.08E+00	5.39E-01	2.16E-04	2.65E-06	2.44E-06	1.10E-04	5.52E-05

Onsite Emissions by AERMOD Source
Mitigated Project Construction
Timeslice 13

AERMOD Source	Source Description	Surface Area (m2)	NOx 1-hr (g/s)	PM10 24-hr (g/s)	PM2.5 24-hr (g/s)	CO 1-hr (g/s)	CO 8-hr (g/s)	NOx 1-hr (g/s/m2)	PM10 24-hr (g/s/m2)	PM2.5 24-hr (g/s/m2)	CO 1-hr (g/s/m2)	CO 8-hr (g/s/m2)
BEKINS1	Bekins Building - Exhaust	5,362	1.81E-05	5.21E-07	4.74E-07	2.28E-04	2.28E-04	3.38E-09	9.71E-11	8.84E-11	4.25E-08	4.25E-08
WTR_BRG1	Water (pedestrian) bridge - Exhaust	7,432	4.40E-01	6.60E-04	6.01E-04	2.42E-01	1.95E-01	5.93E-05	8.88E-08	8.08E-08	3.25E-05	2.62E-05
LND_BRG1	Land Bridge (Phase I) - Exhaust	15,743	3.24E-01	7.18E-04	6.54E-04	2.79E-01	2.10E-01	2.06E-05	4.56E-08	4.15E-08	1.77E-05	1.33E-05
WHARF1	Wharf Structure - Exhaust	9,765	5.00E-01	1.45E-03	1.32E-03	2.80E-01	2.17E-01	5.12E-05	1.48E-07	1.35E-07	2.86E-05	2.22E-05
OBS_TWR1	Observation Tower - Exhaust	625	4.33E-01	1.15E-03	1.04E-03	2.57E-01	2.11E-01	6.93E-04	1.84E-06	1.67E-06	4.11E-04	3.37E-04
INDUSTR1	Light Industrial Development - Exhaust	80,171	1.01E-05	2.89E-07	2.63E-07	1.27E-04	1.27E-04	1.26E-10	3.61E-12	3.28E-12	1.58E-09	1.58E-09
STH_END1	South portion of project site - Exhaust	45,062	5.01E-01	9.20E-04	8.37E-04	2.67E-01	2.17E-01	1.11E-05	2.04E-08	1.86E-08	5.92E-06	4.81E-06
AVALON1	Avalon betw. H. Bridges & Water St - Exhaust	9,794	2.86E-01	6.46E-04	5.88E-04	1.55E-01	1.33E-01	2.92E-05	6.59E-08	6.00E-08	1.58E-05	1.36E-05
WATERST1	Water St betw. Fries and Avalon - Exhaust	4,671	8.28E-01	1.38E-03	1.26E-03	4.12E-01	3.53E-01	1.77E-04	2.96E-07	2.69E-07	8.81E-05	7.56E-05
BEKINS2	Bekins Building - Dust	5,362	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WTR_BRG2	Water (pedestrian) bridge - Dust	7,432	0.00E+00	1.34E-02	2.79E-03	0.00E+00	0.00E+00	0.00E+00	1.80E-06	3.76E-07	0.00E+00	0.00E+00
LND_BRG2	Land Bridge (Phase I) - Dust	15,743	0.00E+00	6.61E-02	1.38E-02	0.00E+00	0.00E+00	0.00E+00	4.20E-06	8.74E-07	0.00E+00	0.00E+00
WHARF2	Wharf Structure - Dust	9,765	0.00E+00	2.07E-02	4.34E-03	0.00E+00	0.00E+00	0.00E+00	2.12E-06	4.45E-07	0.00E+00	0.00E+00
OBS_TWR2	Observation Tower - Dust	625	0.00E+00	6.61E-02	1.38E-02	0.00E+00	0.00E+00	0.00E+00	1.06E-04	2.20E-05	0.00E+00	0.00E+00
INDUSTR2	Light Industrial Development - Dust	80,171	0.00E+00	2.65E-02	5.51E-03	0.00E+00	0.00E+00	0.00E+00	3.30E-07	6.87E-08	0.00E+00	0.00E+00
STH_END2	South portion of project site - Dust	45,062	0.00E+00	1.39E-01	2.90E-02	0.00E+00	0.00E+00	0.00E+00	3.09E-06	6.43E-07	0.00E+00	0.00E+00
AVALON2	Avalon betw. H. Bridges & Water St - Dust	9,794	0.00E+00	2.54E-03	5.29E-04	0.00E+00	0.00E+00	0.00E+00	2.60E-07	5.40E-08	0.00E+00	0.00E+00
WATERST2	Water St betw. Fries and Avalon - Dust	4,671	0.00E+00	4.52E-03	9.41E-04	0.00E+00	0.00E+00	0.00E+00	9.68E-07	2.01E-07	0.00E+00	0.00E+00
WHARF3	Wharf Structure - Tugs	9,765	2.11E+00	2.59E-02	2.38E-02	1.08E+00	5.39E-01	2.16E-04	2.65E-06	2.44E-06	1.10E-04	5.52E-05

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Operation Emission Results

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Wilmington Waterfront Existing

Regional Emission Calculations (lbs/day)

	ROC	NOx	CO	SOx	PM10	PM2.5
Existing Condition						
Mobile	9.5	13.3	98.7	0.1	11.6	2.3
Area	1.6	1.7	6.1	0.0	0.0	0.0
Stationary	0.0	1.6	0.3	0.1	0.0	0.0
Total Existing	**11.1**	**16.7**	**105.0**	**0.2**	**11.7**	**2.3**
Project Condition						
Mobile	0.0	0.0	0.0	0.0	0.0	0.0
Area	0.0	0.0	0.0	0.0	0.0	0.0
Stationary	0.0	0.0	0.0	0.0	0.0	0.0
Total Project	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Net Project Emissions						
Net Mobile	-10	-13	-99	0	-12	-2
Net Area	-2	-2	-6	0	0	0
Net Stationary	0	-2	0	0	0	0
Total Net	-11	-17	-105	0	-12	-2
SCAQMD Significance Threshold	55	55	550	150	150	55
Difference	**(66)**	**(72)**	**(655)**	**(150)**	**(162)**	**(57)**
Significant?	**No**	**No**	**No**	**No**	**No**	**No**

Electricity Usage

Land Use	1,000 Sqft	Electricity Usage Rate [a] (kWh\sq.ft\yr)	Total Electricity Usage (KWh\year)	Total Electricity Usage (MWh\Day)	CO 0.2	ROC 0.01	NOx 1.15	PM10 0.04	SOx 0.12
					Emission Factors (lbs/MWh) [b]				
Existing					Emissions from Electricity Consumption (lbs/day)				
Office	0.0	12.95	0	0.000	0.000	0.000	0.000	0.000	0.000
Retail	0.0	13.55	0	0.000	0.000	0.000	0.000	0.000	0.000
Hotel/Motel	0.0	9.95	0	0.000	0.000	0.000	0.000	0.000	0.000
Restaurant	0.0	47.45	0	0.000	0.000	0.000	0.000	0.000	0.000
Food Store	0.0	53.30	0	0.000	0.000	0.000	0.000	0.000	0.000
Warehouse	55.0	4.35	239,250	0.655	0.131	0.007	0.754	0.026	0.079
College/University	0.0	11.55	0	0.000	0.000	0.000	0.000	0.000	0.000
High School	0.0	10.50	0	0.000	0.000	0.000	0.000	0.000	0.000
Elementary School	0.0	5.90	0	0.000	0.000	0.000	0.000	0.000	0.000
Hospital	0.0	21.70	0	0.000	0.000	0.000	0.000	0.000	0.000
Miscellaneous	10.0	10.50	105,000	0.288	0.058	0.003	0.331	0.012	0.035
Residential (DU)	0.0	5,627	0	0.000	0.000	0.000	0.000	0.000	0.000
	Total Existing		**344,250**	**0.943**	**0.19**	**0.01**	**1.09**	**0.04**	**0.11**
Project									
Office	0.0	12.95	0	0.000	0.000	0.000	0.000	0.000	0.000
Retail	0.0	13.55	0	0.000	0.000	0.000	0.000	0.000	0.000
Hotel/Motel	0.0	9.95	0	0.000	0.000	0.000	0.000	0.000	0.000
Restaurant	0.0	47.45	0	0.000	0.000	0.000	0.000	0.000	0.000
Food Store	0.0	53.3	0	0.000	0.000	0.000	0.000	0.000	0.000
Warehouse	0.0	4.35	0	0.000	0.000	0.000	0.000	0.000	0.000
College/University	0.0	11.55	0	0.000	0.000	0.000	0.000	0.000	0.000
High School	0.0	10.5	0	0.000	0.000	0.000	0.000	0.000	0.000
Elementary School	0.0	5.9	0	0.000	0.000	0.000	0.000	0.000	0.000
Hospital	0.0	21.7	0	0.000	0.000	0.000	0.000	0.000	0.000
Miscellaneous	0.0	10.5	0	0.000	0.000	0.000	0.000	0.000	0.000
Residential (DU)	0.0	5,627	0	0.000	0.000	0.000	0.000	0.000	0.000
	Total Project		**0**	**0.000**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
	Net Emissions From Electricity Usage				**-0.19**	**-0.01**	**-1.09**	**-0.04**	**-0.11**

Natural Gas Usage

Land Use	1,000 Sqft	Natural Gas Usage Rate [c] (cu.ft\sq.ft\mo)	Total Natural Gas Usage (cu.ft\mo)	Total Natural Gas Usage (cu.ft\DAY)	CO 20	ROC 5.3	NOx 120/80 [e]	PM10 0.2	SOx 0
					Emission Factors (lbs/MCuft) [d]				
Existing					Emissions from Natural Gas Consumption (lbs/day)				
Office	0.0	2.0	**0**	**0**	0.000	0.000	0.000	0.000	--
Retail	0.0	2.9	**0**	**0**	0.000	0.000	0.000	0.000	--
Hotel/Motel	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000	--
Restaurant	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000	--
Food Store	0.0	2.9	**0**	**0**	0.000	0.000	0.000	0.000	--
Warehouse	55.0	2.0	**110,000**	**3,667**	0.073	0.019	0.440	0.001	--
College/University	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000	--
High School	0.0	2.9	**0**	**0**	0.000	0.000	0.000	0.000	--
Elementary School	0.0	2.0	**0**	**0**	0.000	0.000	0.000	0.000	--
Hospital	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000	--
Miscellaneous	10.0	2.9	**29,000**	**967**	0.019	0.005	0.116	0.000	--
Residential (Single Family DU)	0.0	6,665	**0**	**0**	0.000	0.000	0.000	0.000	
Residential (Multi-Family DU)	0.0	4,012	**0**	**0**	0.000	0.000	0.000	0.000	--
	Total Existing		**139,000**	**4,633**	**0.09**	**0.02**	**0.56**	**0.00**	--
Project									
Office	0.0	2.0	**0**	**0**	0.000	0.000	0.000	0.000	--
Retail	0.0	2.9	**0**	**0**	0.000	0.000	0.000	0.000	--
Hotel/Motel	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000	--
Restaurant	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000	--
Food Store	0.0	2.9	**0**	**0**	0.000	0.000	0.000	0.000	--
Warehouse	0.0	2.0	**0**	**0**	0.000	0.000	0.000	0.000	--
College/University	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000	--
High School	0.0	2.9	**0**	**0**	0.000	0.000	0.000	0.000	--
Elementary School	0.0	2.0	**0**	**0**	0.000	0.000	0.000	0.000	--
Hospital	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000	--
Miscellaneous	0.0	2.9	**0**	**0**	0.000	0.000	0.000	0.000	--
Residential (Single Family DU)	0.0	6,665	**0**	**0**	0.000	0.000	0.000	0.000	
Residential (Multi-Family DU)	0.0	4,012	**0**	**0**	0.000	0.000	0.000	0.000	--
	Total Project		**0**	**0**	**0.00**	**0.00**	**0.00**	**0.00**	--
	Net Emissions From Natural Gas Usage				**-0.09**	**-0.02**	**-0.56**	**0.00**	**--**

Summary of Stationary Emissions

	CO	ROC	NOx	PM10	SOx
Total Existing Emissions (lbs/day)	0.28	0.03	1.64	0.04	0.11
Total Project Emissions (lbs/day)	0.00	0.00	0.00	0.00	0.00
Total Net Emissions (lbs/day)	**-0.28**	**-0.03**	**-1.64**	**-0.04**	**-0.11**

[a] Electricity Usage Rates from Table A9-11-A,CEQA Air Quality Handbook SCAQMD, 1993.

[b] Emission Factors from Table A9-11-B,CEQA Air Quality Handbook SCAQMD, 1993.

[c] Natural Gas Usage Rates from Table A9-12-A,CEQA Air Quality Handbook SCAQMD, 1993.

[d] Emission Factors from Table A9-12-B,CEQA Air Quality Handbook SCAQMD, 1993.

[e] The emission factors for NOx in lbs per million cuft of natural gas are 120 for nonresidential uses and 80 for residential uses.

Electricity Usage

Land Use	1,000 Sqft	Electricity Usage Rate [a] (kWh\sq.ft\yr)	Total Electricity Usage (KWh\year)	Total Electricity Usage (MWh\day)	Emission Factors (lbs/MWh) [b] CO_2 878.71	CH_4 0.0067	N_2O 0.0037	CO_2e 21/310[c]
Existing					**Emissions from Electricity (lbs/day)**			
Office	0.0	12.95	0	0.000	0.000	0.000	0.000	0.000
Retail	0.0	13.55	0	0.000	0.000	0.000	0.000	0.000
Hotel/Motel	0.0	9.95	0	0.000	0.000	0.000	0.000	0.000
Restaurant	0.0	47.45	0	0.000	0.000	0.000	0.000	0.000
Food Store	0.0	53.30	0	0.000	0.000	0.000	0.000	0.000
Warehouse	55.0	4.35	239,250	0.655	575.976	0.004	0.002	576.680
College/University	0.0	11.55	0	0.000	0.000	0.000	0.000	0.000
High School	0.0	10.50	0	0.000	0.000	0.000	0.000	0.000
Elementary School	0.0	5.90	0	0.000	0.000	0.000	0.000	0.000
Hospital	0.0	21.70	0	0.000	0.000	0.000	0.000	0.000
Miscellaneous	10.0	10.50	105,000	0.288	252.780	0.002	0.001	253.132
Residential (DU)	0.0	5,627	0	0.000	0.000	0.000	0.000	0.000
Total Existing			**344,250**	**0.943**	**828.76**	**0.01**	**0.00**	**829.81**
Project								
Office	0.0	12.95	0	0.000	0.000	0.000	0.000	0.000
Retail	0.0	13.55	0	0.000	0.000	0.000	0.000	0.000
Hotel/Motel	0.0	9.95	0	0.000	0.000	0.000	0.000	0.000
Restaurant	0.0	47.45	0	0.000	0.000	0.000	0.000	0.000
Food Store	0.0	53.3	0	0.000	0.000	0.000	0.000	0.000
Warehouse	0.0	4.35	0	0.000	0.000	0.000	0.000	0.000
College/University	0.0	11.55	0	0.000	0.000	0.000	0.000	0.000
High School	0.0	10.5	0	0.000	0.000	0.000	0.000	0.000
Elementary School	0.0	5.9	0	0.000	0.000	0.000	0.000	0.000
Hospital	0.0	21.7	0	0.000	0.000	0.000	0.000	0.000
Miscellaneous	0.0	10.5	0	0.000	0.000	0.000	0.000	0.000
Residential (DU)	0.0	5,627	0	0.000	0.000	0.000	0.000	0.000
Total Project			**0**	**0.000**	**0.00**	**0.00**	**0.00**	**0.00**
Net Emissions From Electricity Usage					**-828.76**	**-0.01**	**0.00**	**-829.81**

Natural Gas Usage

Land Use	1,000 Sqft	Natural Gas Usage Rate [d] (cu.ft\sq.ft\mo)	Total Natural Gas Usage (cu.ft\mo)	Total Natural Gas Usage (Btu/day)[f]	Emission Factors (kg/MMBtu) [e] CO_2 66.88	CH_4 0.0059	N_2O 0.0001	CO_2e 21/310[c]
Existing					**Emissions from Natural Gas (lbs/day)**			
Office	0.0	2.0	**0**	**0**	0.000	0.000	0.000	0.000
Retail	0.0	2.9	**0**	**0**	0.000	0.000	0.000	0.000
Hotel/Motel	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000
Restaurant	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000
Food Store	0.0	2.9	**0**	**0**	0.000	0.000	0.000	0.000
Warehouse	55.0	2.0	**110,000**	**3,762,000**	554.688	0.049	0.001	555.973
College/University	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000
High School	0.0	2.9	**0**	**0**	0.000	0.000	0.000	0.000
Elementary School	0.0	2.0	**0**	**0**	0.000	0.000	0.000	0.000
Hospital	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000
Miscellaneous	10.0	2.9	**29,000**	**991,800**	146.236	0.013	0.000	146.575
Residential (Single Family DU)	0.0	6,665	**0**	**0**	0.000	0.000	0.000	0.000
Residential (Multi-Family DU)	0.0	4,012	**0**	**0**	0.000	0.000	0.000	0.000
Total Existing			**139,000**	**4,753,800**	**700.92**	**0.06**	**0.00**	**702.55**
Project								
Office	0.0	2.0	**0**	**0**	0.000	0.000	0.000	0.000
Retail	0.0	2.9	**0**	**0**	0.000	0.000	0.000	0.000
Hotel/Motel	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000
Restaurant	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000
Food Store	0.0	2.9	**0**	**0**	0.000	0.000	0.000	0.000
Warehouse	0.0	2.0	**0**	**0**	0.000	0.000	0.000	0.000
College/University	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000
High School	0.0	2.9	**0**	**0**	0.000	0.000	0.000	0.000
Elementary School	0.0	2.0	**0**	**0**	0.000	0.000	0.000	0.000
Hospital	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000
Miscellaneous	0.0	2.9	**0**	**0**	0.000	0.000	0.000	0.000
Residential (Single Family DU)	0.0	6,665	**0**	**0**	0.000	0.000	0.000	0.000
Residential (Multi-Family DU)	0.0	4,012	**0**	**0**	0.000	0.000	0.000	0.000
Total Project			**0**	**0**	**0.00**	**0.00**	**0.00**	**0.00**
Net Emissions From Natural Gas Usage					**-700.92**	**-0.06**	**0.00**	**-702.55**

Summary of Stationary Emissions

	CO_2	CH_4	N_2O	CO_2e
Total Existing Emissions (lbs/day)	1529.68	0.07	0.00	1532.36
Total Project Emissions (lbs/day)	0.00	0.00	0.00	0.00
Total Net Emissions (lbs/day)	**-1529.68**	**-0.07**	**0.00**	**-1532.36**

[a] Electricity Usage Rates from Table A9-11-A, CEQA Air Quality Handbook, SCAQMD, 1993.

[b] Emission Factors from Table C.2 and Table C.3, General Reporting Protocol, California Climate Action Registry, April 2008.

[c] Global Warming Potential is 21 for CH_4 and 310 for N_2O, General Reporting Protocol, California Climate Action Registry, April 2008.

[d] Natural Gas Usage Rates from Table A9-12-A, CEQA Air Quality Handbook, SCAQMD, 1993.

[e] Emission Factors from Table C.6 and Table C.7, General Reporting Protocol, California Climate Action Registry, March 2007.

[f] 1 Cubic Foot of natural gas = 1,026 Btu. Energy Information Administration. Available http://www.eia.doe.gov/basics/conversion_basics.html

Wilmington Waterfront Existing

Regional Emission Calculations (lbs/day)

	CO_2	CH_4	N_2O	CO_2e
Existing Condition				
Mobile	6,956	1	1	7,434
Area	2,013	-	-	2,013
Stationary	1,530	0	0	1,532
Total Existing	**10,498**	**2**	**1**	**10,979**
Project Condition				
Mobile	-	-	-	-
Area	-	-	-	-
Stationary	-	-	-	-
Total Project	**-**	**-**	**-**	**-**
Net Project Emissions				
Net Mobile	(6,956)	(1)	(1)	(7,434)
Net Area	(2,013)	-	-	(2,013)
Net Stationary	(1,530)	(0)	(0)	(1,532)
Total Net	(10,498)	(2)	(1)	(10,979)
SCAQMD Significance Threshold	--	--	--	--
Difference	**--**	**--**	**--**	**--**
Significant?	**No**	**No**	**No**	**No**

Mobile Sources

Vehicle Type	Percent Type	VMT by Type	Emission Factors [a] CH_4	Emission Factors [a] N_2O	CH_4	N_2O	CO_2e 21/310[b]
	100	6713.31					
Existing					**Emissions from Mobile Sources (lbs/day)**		
Light Auto	52.0	3490.92	0.06	0.08	0.462	0.616	200.562
Light Truck < 3750 lbs	7.4	496.78	0.11	0.14	0.120	0.153	50.063
Light Truck 3751-5750 lbs	22.6	1517.21	0.11	0.14	0.368	0.468	152.894
Med Truck 5751-8500 lbs	10.5	704.90	0.18	0.09	0.280	0.140	49.232
Lite-Heavy Truck 8501-10,000 lbs	1.7	114.13	0.18	0.09	0.045	0.023	7.971
Lite-Heavy Truck 10,001-14,000 lbs	0.5	33.57	0.18	0.09	0.013	0.007	2.344
Med-Heavy Truck 14,001-33,000 lbs	0.9	60.42	0.08	0.05	0.011	0.007	2.288
Heavy-Heavy Truck 33,001-60,000 lbs	0.6	40.28	0.08	0.05	0.007	0.004	1.526
Other Bus	0.1	6.71	0.08	0.05	0.001	0.001	0.254
Urban Bus	0.1	6.71	0.08	0.05	0.001	0.001	0.254
Motorcycle	2.7	181.26	0.42	0.01	0.168	0.004	4.763
School Bus	0.1	6.71	0.08	0.05	0.001	0.001	0.254
Motor Home	0.8	53.71	0.11	0.14	0.013	0.017	5.412
Total Existing			**1.75**	**1.03**	**1.49**	**1.44**	**477.82**

Vehicle Type	Percent Type	VMT by Type	Emission Factors [a] CH_4	Emission Factors [a] N_2O	CH_4	N_2O	CO_2e 21/310[b]
	0	0					
Project							
Light Auto	0.0	0	0.06	0.08	0.000	0.000	0.000
Light Truck < 3750 lbs	0.0	0	0.11	0.14	0.000	0.000	0.000
Light Truck 3751-5750 lbs	0.0	0	0.11	0.14	0.000	0.000	0.000
Med Truck 5751-8500 lbs	0.0	0	0.18	0.09	0.000	0.000	0.000
Lite-Heavy Truck 8501-10,000 lbs	0.0	0	0.18	0.09	0.000	0.000	0.000
Lite-Heavy Truck 10,001-14,000 lbs	0.0	0	0.18	0.09	0.000	0.000	0.000
Med-Heavy Truck 14,001-33,000 lbs	0.0	0	0.08	0.05	0.000	0.000	0.000
Heavy-Heavy Truck 33,001-60,000 lbs	0.0	0	0.08	0.05	0.000	0.000	0.000
Other Bus	0.0	0	0.08	0.05	0.000	0.000	0.000
Urban Bus	0.0	0	0.08	0.05	0.000	0.000	0.000
Motorcycle	0.0	0	0.42	0.01	0.000	0.000	0.000
School Bus	0.0	0	0.08	0.05	0.000	0.000	0.000
Motor Home	0.0	0	0.11	0.14	0.000	0.000	0.000
Total Project			**1.75**	**1.03**	**0.00**	**0.00**	**0.00**
Net Emissions From Mobile Sources					**-1.49**	**-1.44**	**-477.82**

[a] Emission factors from Table C.5, General Reporting Protocol, California Climate Action Registry, April 2008.

[b] Global Warming Potential is 21 for CH_4 and 310 for N_2O, General Reporting Protocol, California Climate Action Registry, April 2008.

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Wilmington Waterfront (2011)

Regional Emission Calculations (lbs/day)

	ROC	NOx	CO	SOx	PM10	PM2.5
Existing Condition						
Mobile	0.0	0.0	0.0	0.0	0.0	0.0
Area	0.0	0.0	0.0	0.0	0.0	0.0
Stationary	0.0	0.0	0.0	0.0	0.0	0.0
Total Existing	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Project Condition						
Mobile	2.4	3.6	27.3	0.0	4.9	1.0
Area	0.5	0.9	3.9	0.0	0.0	0.0
Stationary	0.0	0.9	0.2	0.1	0.0	0.0
Total Project	**3.0**	**5.4**	**31.4**	**0.1**	**4.9**	**1.0**
Net Project Emissions						
Net Mobile	2.4	3.6	27.3	0.0	4.9	1.0
Net Area	0.5	0.9	3.9	0.0	0.0	0.0
Net Stationary	0.0	0.9	0.2	0.1	0.0	0.0
Total Net	3.0	5.4	31.4	0.1	4.9	1.0
SCAQMD Significance Threshold	55	55	550	150	150	55
Difference	**(52)**	**(50)**	**(519)**	**(150)**	**(145)**	**(54)**
Significant?	**No**	**No**	**No**	**No**	**No**	**No**

Electricity Usage

Land Use	1,000 Sqft	Electricity Usage Rate [a] (kWh\sq.ft\yr)	Total Electricity Usage (KWh\year)	(MWh\Day)	Emission Factors (lbs/MWh) [b] CO 0.2	ROC 0.01	NOx 1.15	PM10 0.04	SOx 0.12
Existing					**Emissions from Electricity Consumption (lbs/day)**				
Office	0.0	12.95	0	0.000	0.000	0.000	0.000	0.000	0.000
Retail	0.0	13.55	0	0.000	0.000	0.000	0.000	0.000	0.000
Hotel/Motel	0.0	9.95	0	0.000	0.000	0.000	0.000	0.000	0.000
Restaurant	0.0	47.45	0	0.000	0.000	0.000	0.000	0.000	0.000
Food Store	0.0	53.30	0	0.000	0.000	0.000	0.000	0.000	0.000
Warehouse	0.0	4.35	0	0.000	0.000	0.000	0.000	0.000	0.000
College/University	0.0	11.55	0	0.000	0.000	0.000	0.000	0.000	0.000
High School	0.0	10.50	0	0.000	0.000	0.000	0.000	0.000	0.000
Elementary School	0.0	5.90	0	0.000	0.000	0.000	0.000	0.000	0.000
Hospital	0.0	21.70	0	0.000	0.000	0.000	0.000	0.000	0.000
Miscellaneous	0.0	10.50	0	0.000	0.000	0.000	0.000	0.000	0.000
Residential (DU)	0.0	5,627	0	0.000	0.000	0.000	0.000	0.000	0.000
	Total Existing		**0**	**0.000**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Project									
Office	0.0	12.95	0	0.000	0.000	0.000	0.000	0.000	0.000
Retail	0.0	13.55	0	0.000	0.000	0.000	0.000	0.000	0.000
Hotel/Motel	0.0	9.95	0	0.000	0.000	0.000	0.000	0.000	0.000
Restaurant	0.0	47.45	0	0.000	0.000	0.000	0.000	0.000	0.000
Food Store	0.0	53.3	0	0.000	0.000	0.000	0.000	0.000	0.000
Warehouse	37.5	4.35	163,125	0.447	0.089	0.004	0.514	0.018	0.054
College/University	0.0	11.55	0	0.000	0.000	0.000	0.000	0.000	0.000
High School	0.0	10.5	0	0.000	0.000	0.000	0.000	0.000	0.000
Elementary School	0.0	5.9	0	0.000	0.000	0.000	0.000	0.000	0.000
Hospital	0.0	21.7	0	0.000	0.000	0.000	0.000	0.000	0.000
Miscellaneous	3.0	10.5	31,500	0.086	0.017	0.001	0.099	0.003	0.010
Residential (DU)	0.0	5,627	0	0.000	0.000	0.000	0.000	0.000	0.000
	Total Project		**194,625**	**0.533**	**0.11**	**0.01**	**0.61**	**0.02**	**0.06**
	Net Emissions From Electricity Usage				**0.11**	**0.01**	**0.61**	**0.02**	**0.06**

Natural Gas Usage

Land Use	1,000 Sqft	Natural Gas Usage Rate [c] (cu.ft\sq.ft\mo)	Total Natural Gas Usage (cu.ft\mo)	(cu.ft\DAY)	Emission Factors (lbs/MCuft) [d] CO 20	ROC 5.3	NOx 120/80 [e]	PM10 0.2	SOx 0
Existing					**Emissions from Natural Gas Consumption (lbs/day)**				
Office	0.0	2.0	**0**	**0**	0.000	0.000	0.000	0.000	--
Retail	0.0	2.9	**0**	**0**	0.000	0.000	0.000	0.000	--
Hotel/Motel	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000	--
Restaurant	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000	--
Food Store	0.0	2.9	**0**	**0**	0.000	0.000	0.000	0.000	--
Warehouse	0.0	2.0	**0**	**0**	0.000	0.000	0.000	0.000	--
College/University	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000	--
High School	0.0	2.9	**0**	**0**	0.000	0.000	0.000	0.000	--
Elementary School	0.0	2.0	**0**	**0**	0.000	0.000	0.000	0.000	--
Hospital	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000	--
Miscellaneous	0.0	2.9	**0**	**0**	0.000	0.000	0.000	0.000	--
Residential (Single Family DU)	0.0	6,665	**0**	**0**	0.000	0.000	0.000	0.000	
Residential (Multi-Family DU)	0.0	4,012	**0**	**0**	0.000	0.000	0.000	0.000	--
	Total Existing		**0**	**0**	**0.00**	**0.00**	**0.00**	**0.00**	--
Project									
Office	0.0	2.0	**0**	**0**	0.000	0.000	0.000	0.000	--
Retail	0.0	2.9	**0**	**0**	0.000	0.000	0.000	0.000	--
Hotel/Motel	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000	--
Restaurant	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000	--
Food Store	0.0	2.9	**0**	**0**	0.000	0.000	0.000	0.000	--
Warehouse	37.5	2.0	**75,000**	**2,500**	0.050	0.013	0.300	0.001	--
College/University	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000	--
High School	0.0	2.9	**0**	**0**	0.000	0.000	0.000	0.000	--
Elementary School	0.0	2.0	**0**	**0**	0.000	0.000	0.000	0.000	--
Hospital	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000	--
Miscellaneous	3.0	2.9	**8,700**	**290**	0.006	0.002	0.035	0.000	--
Residential (Single Family DU)	0.0	6,665	**0**	**0**	0.000	0.000	0.000	0.000	
Residential (Multi-Family DU)	0.0	4,012	**0**	**0**	0.000	0.000	0.000	0.000	--
	Total Project		**83,700**	**2,790**	**0.06**	**0.01**	**0.33**	**0.00**	--
	Net Emissions From Natural Gas Usage				**0.06**	**0.01**	**0.33**	**0.00**	**--**

Summary of Stationary Emissions

	CO	ROC	NOx	PM10	SOx
Total Existing Emissions (lbs/day)	0.00	0.00	0.00	0.00	0.00
Total Project Emissions (lbs/day)	0.16	0.02	0.95	0.02	0.06
Total Net Emissions (lbs/day)	**0.16**	**0.02**	**0.95**	**0.02**	**0.06**

[a] Electricity Usage Rates from Table A9-11-A,CEQA Air Quality Handbook SCAQMD, 1993.

[b] Emission Factors from Table A9-11-B,CEQA Air Quality Handbook SCAQMD, 1993.

[c] Natural Gas Usage Rates from Table A9-12-A,CEQA Air Quality Handbook SCAQMD, 1993.

[d] Emission Factors from Table A9-12-B,CEQA Air Quality Handbook SCAQMD, 1993.

[e] The emission factors for NOx in lbs per million cuft of natural gas are 120 for nonresidential uses and 80 for residential uses.

Wilmington Waterfront (2011)

Regional Greenhouse Gas Emission Calculations (lbs/day)

	CO_2	CH_4	N_2O	CO_2e
Existing Condition				
Mobile	-	-	-	-
Area	-	-	-	-
Stationary	-	-	-	-
Total Existing	**-**	**-**	**-**	**-**
Project Condition				
Mobile	2,939.77	0.63	0.61	3,142.67
Area	971.94	-	-	971.94
Stationary	890.61	0.04	0.00	892.29
Total Project	**4,802.32**	**0.67**	**0.61**	**5,006.90**
Net Project Emissions				
Net Mobile	2,939.77	0.63	0.61	3,142.67
Net Area	971.94	-	-	971.94
Net Stationary	890.61	0.04	0.00	892.29
Total Net	4,802.32	0.67	0.61	5,006.90
SCAQMD Significance Threshold	--	--	--	--
Difference	**--**	**--**	**--**	**--**
Significant?	**No**	**No**	**No**	**No**

Wilmington Waterfront (2011) — Stationary Sources

Electricity Usage

Land Use	1,000 Sqft	Electricity Usage Rate [a] (kWh\sq.ft\yr)	Total Electricity Usage (KWh\year)	Total Electricity Usage (MWh\day)	Emission Factors (lbs/MWh) [b] CO_2 878.71	CH_4 0.0067	N_2O 0.0037	CO_2e 21/310[c]
Existing					**Emissions from Electricity (lbs/day)**			
Office	0.0	12.95	-	-	-	-	-	-
Retail	0.0	13.55	-	-	-	-	-	-
Hotel/Motel	0.0	9.95	-	-	-	-	-	-
Restaurant	0.0	47.45	-	-	-	-	-	-
Food Store	0.0	53.30	-	-	-	-	-	-
Warehouse	0.0	4.35	-	-	-	-	-	-
College/University	0.0	11.55	-	-	-	-	-	-
High School	0.0	10.50	-	-	-	-	-	-
Elementary School	0.0	5.90	-	-	-	-	-	-
Hospital	0.0	21.70	-	-	-	-	-	-
Miscellaneous	0.0	10.50	-	-	-	-	-	-
Residential (DU)	0.0	5,627	-	-	-	-	-	-
Total Existing			**-**	**-**	**-**	**-**	**-**	**-**
Project								
Office	0.0	12.95	-	-	-	-	-	-
Retail	0.0	13.55	-	-	-	-	-	-
Hotel/Motel	0.0	9.95	-	-	-	-	-	-
Restaurant	0.0	47.45	-	-	-	-	-	-
Food Store	0.0	53.3	-	-	-	-	-	-
Warehouse	37.5	4.35	163,125.00	0.45	392.71	0.00	0.00	393.39
College/University	0.0	11.55	-	-	-	-	-	-
High School	0.0	10.5	-	-	-	-	-	-
Elementary School	0.0	5.9	-	-	-	-	-	-
Hospital	0.0	21.7	-	-	-	-	-	-
Miscellaneous	3.0	10.5	31,500.00	0.09	75.83	0.00	-	75.86
Residential (DU)	0.0	5,627	-	-	-	-	-	-
Total Project			**194,625.00**	**0.53**	**468.55**	**0.00**	**0.00**	**469.25**
Net Emissions From Electricity Usage					**468.55**	**0.00**	**0.00**	**469.25**

Natural Gas Usage

Land Use	1,000 Sqft	Natural Gas Usage Rate [d] (cu.ft\sq.ft\mo)	Total Natural Gas Usage (cu.ft\mo)	Total Natural Gas Usage (Btu/day)[f]	Emission Factors (kg/MMBtu) [e] CO_2 66.88	CH_4 0.0059	N_2O 0.0001	CO_2e 21/310[c]
Existing					**Emissions from Natural Gas (lbs/day)**			
Office	0.0	2.0	-	-	-	-	-	-
Retail	0.0	2.9	-	-	-	-	-	-
Hotel/Motel	0.0	4.8	-	-	-	-	-	-
Restaurant	0.0	4.8	-	-	-	-	-	-
Food Store	0.0	2.9	-	-	-	-	-	-
Warehouse	0.0	2.0	-	-	-	-	-	-
College/University	0.0	4.8	-	-	-	-	-	-
High School	0.0	2.9	-	-	-	-	-	-
Elementary School	0.0	2.0	-	-	-	-	-	-
Hospital	0.0	4.8	-	-	-	-	-	-
Miscellaneous	0.0	2.9	-	-	-	-	-	-
Residential (Single Family DU)	0.0	6,665	-	-	-	-	-	-
Residential (Multi-Family DU)	0.0	4,012	-	-	-	-	-	-
Total Existing			**-**	**-**	**-**	**-**	**-**	**-**
Project								
Office	0.0	2.0	-	-	-	-	-	-
Retail	0.0	2.9	-	-	-	-	-	-
Hotel/Motel	0.0	4.8	-	-	-	-	-	-
Restaurant	0.0	4.8	-	-	-	-	-	-
Food Store	0.0	2.9	-	-	-	-	-	-
Warehouse	37.5	2.0	**75,000.00**	**2,565,000.00**	378.20	0.03	0.00	379.07
College/University	0.0	4.8	-	-	-	-	-	-
High School	0.0	2.9	-	-	-	-	-	-
Elementary School	0.0	2.0	-	-	-	-	-	-
Hospital	0.0	4.8	-	-	-	-	-	-
Miscellaneous	3.0	2.9	**8,700.00**	**297,540.00**	43.87	0.00	0.00	43.97
Residential (Single Family DU)	0.0	6,665	-	-	-	-	-	-
Residential (Multi-Family DU)	0.0	4,012	-	-	-	-	-	-
Total Project			**83,700.00**	**2,862,540.00**	**422.07**	**0.04**	**0.00**	**423.04**
Net Emissions From Natural Gas Usage					**422.07**	**0.04**	**0.00**	**423.04**

Summary of Stationary Emissions

	CO_2	CH_4	N_2O	CO_2e
Total Existing Emissions (lbs/day)	-	-	-	-
Total Project Emissions (lbs/day)	890.61	0.04	0.00	892.29
Total Net Emissions (lbs/day)	**890.61**	**0.04**	**0.00**	**892.29**

[a] Electricity Usage Rates from Table A9-11-A, CEQA Air Quality Handbook, SCAQMD, 1993.

[b] Emission Factors from Table C.2 and Table C.3, General Reporting Protocol, California Climate Action Registry, April 2008.

[c] Global Warming Potential is 21 for CH_4 and 310 for N_2O, General Reporting Protocol, California Climate Action Registry, April 2008.

[d] Natural Gas Usage Rates from Table A9-12-A, CEQA Air Quality Handbook, SCAQMD, 1993.

[e] Emission Factors from Table C.6 and Table C.7, General Reporting Protocol, California Climate Action Registry, March 2007.

[f] 1 Cubic Foot of natural gas = 1,026 Btu. Energy Information Administration. Available http://www.eia.doe.gov/basics/conversion_basics.html

Mobile Sources

Vehicle Type	Percent Type	VMT by Type	Emission Factors [a] CH_4	Emission Factors [a] N_2O	CH_4	N_2O	CO_2e 21/310 [b]
	0	0					
Existing					**Emissions from Mobile Sources (lbs/day)**		
Light Auto	0.0	-	0.06	0.08	-	-	-
Light Truck < 3750 lbs	0.0	-	0.11	0.14	-	-	-
Light Truck 3751-5750 lbs	0.0	-	0.11	0.14	-	-	-
Med Truck 5751-8500 lbs	0.0	-	0.17	0.09	-	-	-
Lite-Heavy Truck 8501-10,000 lbs	0.0	-	0.17	0.09	-	-	-
Lite-Heavy Truck 10,001-14,000 lbs	0.0	-	0.17	0.09	-	-	-
Med-Heavy Truck 14,001-33,000 lbs	0.0	-	0.08	0.05	-	-	-
Heavy-Heavy Truck 33,001-60,000 lbs	0.0	-	0.08	0.05	-	-	-
Other Bus	0.0	-	0.08	0.05	-	-	-
Urban Bus	0.0	-	0.08	0.05	-	-	-
Motorcycle	0.0	-	0.42	0.01	-	-	-
School Bus	0.0	-	0.08	0.05	-	-	-
Motor Home	0.0	-	0.11	0.14	-	-	-
Total Existing			**1.72**	**1.03**	**-**	**-**	**-**

Vehicle Type	Percent Type	VMT by Type	Emission Factors [a] CH_4	Emission Factors [a] N_2O	CH_4	N_2O	CO_2e 21/310 [b]
	100	2846.57					
Project							
Light Auto	51.6	1,468.83	0.06	0.08	0.19	0.26	84.39
Light Truck < 3750 lbs	7.3	207.80	0.11	0.14	0.05	0.06	20.94
Light Truck 3751-5750 lbs	23.0	654.71	0.11	0.14	0.16	0.20	65.98
Med Truck 5751-8500 lbs	10.6	301.74	0.17	0.09	0.11	0.06	20.93
Lite-Heavy Truck 8501-10,000 lbs	1.6	45.55	0.17	0.09	0.02	0.01	3.16
Lite-Heavy Truck 10,001-14,000 lbs	0.5	14.23	0.17	0.09	0.01	0.00	0.99
Med-Heavy Truck 14,001-33,000 lbs	0.9	25.62	0.08	0.05	0.00	0.00	0.97
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	14.23	0.08	0.05	0.00	0.00	0.54
Other Bus	0.1	2.85	0.08	0.05	0.00	0.00	0.11
Urban Bus	0.1	2.85	0.08	0.05	0.00	0.00	0.11
Motorcycle	2.8	79.70	0.42	0.01	0.07	0.00	2.09
School Bus	0.1	2.85	0.08	0.05	0.00	0.00	0.11
Motor Home	0.9	25.62	0.11	0.14	0.01	0.01	2.58
Total Project			**1.72**	**1.03**	**0.63**	**0.61**	**202.90**
Net Emissions From Mobile Sources					**0.63**	**0.61**	**202.90**

[a] Emission factors from Table C.5, General Reporting Protocol, California Climate Action Registry, April 2008.

[b] Global Warming Potential is 21 for CH_4 and 310 for N_2O, General Reporting Protocol, California Climate Action Registry, April 2008.

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Wilmington Waterfront (2015)

Regional Emission Calculations (lbs/day)

	ROC	NOx	CO	SOx	PM10	PM2.5
Existing Condition						
Mobile	0.0	0.0	0.0	0.0	0.0	0.0
Area	0.0	0.0	0.0	0.0	0.0	0.0
Stationary	0.0	0.0	0.0	0.0	0.0	0.0
Total Existing	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Project Condition						
Mobile	16.7	25.9	193.0	0.3	49.1	9.6
Area	1.3	1.4	6.0	0.0	0.0	0.0
Stationary	0.1	4.5	0.8	0.4	0.1	0.1
Total Project	**18.0**	**31.9**	**199.8**	**0.7**	**49.2**	**9.7**
Net Project Emissions						
Net Mobile	16.7	25.9	193.0	0.3	49.1	9.6
Net Area	1.3	1.4	6.0	0.0	0.0	0.0
Net Stationary	0.1	4.5	0.8	0.4	0.1	0.1
Total Net	18.0	31.9	199.8	0.7	49.2	9.7
SCAQMD Significance Threshold	55	55	550	150	150	55
Difference	**(37)**	**(23)**	**(350)**	**(149)**	**(101)**	**(45)**
Significant?	**No**	**No**	**No**	**No**	**No**	**No**

Electricity Usage

Land Use	1,000 Sqft	Electricity Usage Rate [a] (kWh\sq.ft\yr)	Total Electricity Usage (KWh\year)	Total Electricity Usage (MWh\Day)	Emission Factors (lbs/MWh) [b] CO 0.2	ROC 0.01	NOx 1.15	PM10 0.04	SOx 0.12
Existing					**Emissions from Electricity Consumption (lbs/day)**				
Office	0.0	12.95	0	0.000	0.000	0.000	0.000	0.000	0.000
Retail	0.0	13.55	0	0.000	0.000	0.000	0.000	0.000	0.000
Hotel/Motel	0.0	9.95	0	0.000	0.000	0.000	0.000	0.000	0.000
Restaurant	0.0	47.45	0	0.000	0.000	0.000	0.000	0.000	0.000
Food Store	0.0	53.30	0	0.000	0.000	0.000	0.000	0.000	0.000
Warehouse	0.0	4.35	0	0.000	0.000	0.000	0.000	0.000	0.000
College/University	0.0	11.55	0	0.000	0.000	0.000	0.000	0.000	0.000
High School	0.0	10.50	0	0.000	0.000	0.000	0.000	0.000	0.000
Elementary School	0.0	5.90	0	0.000	0.000	0.000	0.000	0.000	0.000
Hospital	0.0	21.70	0	0.000	0.000	0.000	0.000	0.000	0.000
Miscellaneous	0.0	10.50	0	0.000	0.000	0.000	0.000	0.000	0.000
Residential (DU)	0.0	5,627	0	0.000	0.000	0.000	0.000	0.000	0.000
	Total Existing		**0**	**0.000**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Project									
Office	0.0	12.95	0	0.000	0.000	0.000	0.000	0.000	0.000
Retail	58.0	13.55	785,900	2.153	0.431	0.022	2.476	0.086	0.258
Hotel/Motel	0.0	9.95	0	0.000	0.000	0.000	0.000	0.000	0.000
Restaurant	0.0	47.45	0	0.000	0.000	0.000	0.000	0.000	0.000
Food Store	0.0	53.3	0	0.000	0.000	0.000	0.000	0.000	0.000
Warehouse	75.0	4.35	326,250	0.894	0.179	0.009	1.028	0.036	0.107
College/University	0.0	11.55	0	0.000	0.000	0.000	0.000	0.000	0.000
High School	0.0	10.5	0	0.000	0.000	0.000	0.000	0.000	0.000
Elementary School	0.0	5.9	0	0.000	0.000	0.000	0.000	0.000	0.000
Hospital	0.0	21.7	0	0.000	0.000	0.000	0.000	0.000	0.000
Miscellaneous	9.8	10.5	102,375	0.280	0.056	0.003	0.323	0.011	0.034
Residential (DU)	0.0	5,627	0	0.000	0.000	0.000	0.000	0.000	0.000
	Total Project		**1,214,525**	**3.327**	**0.67**	**0.03**	**3.83**	**0.13**	**0.40**
	Net Emissions From Electricity Usage				**0.67**	**0.03**	**3.83**	**0.13**	**0.40**

Natural Gas Usage

Land Use	1,000 Sqft	Natural Gas Usage Rate [c] (cu.ft\sq.ft\mo)	Total Natural Gas Usage (cu.ft\mo)	Total Natural Gas Usage (cu.ft\DAY)	Emission Factors (lbs/MCuft) [d] CO 20	ROC 5.3	NOx 120/80 [e]	PM10 0.2	SOx 0
Existing					**Emissions from Natural Gas Consumption (lbs/day)**				
Office	0.0	2.0	**0**	**0**	0.000	0.000	0.000	0.000	--
Retail	0.0	2.9	**0**	**0**	0.000	0.000	0.000	0.000	--
Hotel/Motel	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000	--
Restaurant	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000	--
Food Store	0.0	2.9	**0**	**0**	0.000	0.000	0.000	0.000	--
Warehouse	0.0	2.0	**0**	**0**	0.000	0.000	0.000	0.000	--
College/University	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000	--
High School	0.0	2.9	**0**	**0**	0.000	0.000	0.000	0.000	--
Elementary School	0.0	2.0	**0**	**0**	0.000	0.000	0.000	0.000	--
Hospital	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000	--
Miscellaneous	0.0	2.9	**0**	**0**	0.000	0.000	0.000	0.000	--
Residential (Single Family DU)	0.0	6,665	**0**	**0**	0.000	0.000	0.000	0.000	
Residential (Multi-Family DU)	0.0	4,012	**0**	**0**	0.000	0.000	0.000	0.000	--
	Total Existing		**0**	**0**	**0.00**	**0.00**	**0.00**	**0.00**	--
Project									
Office	0.0	2.0	**0**	**0**	0.000	0.000	0.000	0.000	--
Retail	0.0	2.9	**0**	**0**	0.000	0.000	0.000	0.000	--
Hotel/Motel	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000	--
Restaurant	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000	--
Food Store	0.0	2.9	**0**	**0**	0.000	0.000	0.000	0.000	--
Warehouse	75.0	2.0	**150,000**	**5,000**	0.100	0.027	0.600	0.001	--
College/University	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000	--
High School	0.0	2.9	**0**	**0**	0.000	0.000	0.000	0.000	--
Elementary School	0.0	2.0	**0**	**0**	0.000	0.000	0.000	0.000	--
Hospital	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000	--
Miscellaneous	9.8	2.9	**28,275**	**943**	0.019	0.005	0.113	0.000	--
Residential (Single Family DU)	0.0	6,665	**0**	**0**	0.000	0.000	0.000	0.000	
Residential (Multi-Family DU)	0.0	4,012	**0**	**0**	0.000	0.000	0.000	0.000	--
	Total Project		**178,275**	**5,943**	**0.12**	**0.03**	**0.71**	**0.00**	--
	Net Emissions From Natural Gas Usage				**0.12**	**0.03**	**0.71**	**0.00**	**--**

Summary of Stationary Emissions

	CO	ROC	NOx	PM10	SOx
Total Existing Emissions (lbs/day)	0.00	0.00	0.00	0.00	0.00
Total Project Emissions (lbs/day)	0.78	0.07	4.54	0.13	0.40
Total Net Emissions (lbs/day)	**0.78**	**0.07**	**4.54**	**0.13**	**0.40**

[a] Electricity Usage Rates from Table A9-11-A,CEQA Air Quality Handbook SCAQMD, 1993.

[b] Emission Factors from Table A9-11-B,CEQA Air Quality Handbook SCAQMD, 1993.

[c] Natural Gas Usage Rates from Table A9-12-A,CEQA Air Quality Handbook SCAQMD, 1993.

[d] Emission Factors from Table A9-12-B,CEQA Air Quality Handbook SCAQMD, 1993.

[e] The emission factors for NOx in lbs per million cuft of natural gas are 120 for nonresidential uses and 80 for residential uses.

Wilmington Waterfront (2015)

Regional Greenhouse Gas Emission Calculations (lbs/day)

	CO_2	CH_4	N_2O	CO_2e
Existing Condition				
Mobile	-	-	-	-
Area	-	-	-	-
Stationary	-	-	-	-
Total Existing	**-**	**-**	**-**	**-**
Project Condition				
Mobile	29,286.77	4.80	4.87	30,896.75
Area	1,647.48	-	-	1,647.48
Stationary	3,822.85	0.10	0.01	3,829.11
Total Project	**34,757.10**	**4.90**	**4.88**	**36,373.34**
Net Project Emissions				
Net Mobile	29,286.77	4.80	4.87	30,896.75
Net Area	1,647.48	-	-	1,647.48
Net Stationary	3,822.85	0.10	0.01	3,829.11
Total Net	34,757.10	4.90	4.88	36,373.34
SCAQMD Significance Threshold	--	--	--	--
Difference	**--**	**--**	**--**	**--**
Significant?	**No**	**No**	**No**	**No**

Electricity Usage

Land Use	1,000 Sqft	Electricity Usage Rate [a] (kWh\sq.ft\yr)	Total Electricity Usage (KWh\year)	Total Electricity Usage (MWh\day)	Emission Factors (lbs/MWh) [b] CO_2 878.71	CH_4 0.0067	N_2O 0.0037	CO_2e 21/310[c]
Existing					**Emissions from Electricity (lbs/day)**			
Office	0.0	12.95	-	-	-	-	-	-
Retail	0.0	13.55	-	-	-	-	-	-
Hotel/Motel	0.0	9.95	-	-	-	-	-	-
Restaurant	0.0	47.45	-	-	-	-	-	-
Food Store	0.0	53.30	-	-	-	-	-	-
Warehouse	0.0	4.35	-	-	-	-	-	-
College/University	0.0	11.55	-	-	-	-	-	-
High School	0.0	10.50	-	-	-	-	-	-
Elementary School	0.0	5.90	-	-	-	-	-	-
Hospital	0.0	21.70	-	-	-	-	-	-
Miscellaneous	0.0	10.50	-	-	-	-	-	-
Residential (DU)	0.0	5,627	-	-	-	-	-	-
Total Existing			**-**	**-**	**-**	**-**	**-**	**-**
Project								
Office	0.0	12.95	-	-	-	-	-	-
Retail	58.0	13.55	785,900.00	2.15	1,892.00	0.01	0.01	1,894.77
Hotel/Motel	0.0	9.95	-	-	-	-	-	-
Restaurant	0.0	47.45	-	-	-	-	-	-
Food Store	0.0	53.3	-	-	-	-	-	-
Warehouse	75.0	4.35	326,250.00	0.89	785.42	0.01	0.00	786.48
College/University	0.0	11.55	-	-	-	-	-	-
High School	0.0	10.5	-	-	-	-	-	-
Elementary School	0.0	5.9	-	-	-	-	-	-
Hospital	0.0	21.7	-	-	-	-	-	-
Miscellaneous	9.8	10.5	102,375.00	0.28	246.46	0.00	0.00	246.81
Residential (DU)	0.0	5,627	-	-	-	-	-	-
Total Project			**1,214,525.00**	**3.33**	**2,923.88**	**0.02**	**0.01**	**2,928.06**
Net Emissions From Electricity Usage					**2,923.88**	**0.02**	**0.01**	**2,928.06**

Natural Gas Usage

Land Use	1,000 Sqft	Natural Gas Usage Rate [d] (cu.ft\sq.ft\mo)	Total Natural Gas Usage (cu.ft\mo)	Total Natural Gas Usage (Btu/day)[f]	Emission Factors (kg/MMBtu) [e] CO_2 66.88	CH_4 0.0059	N_2O 0.0001	CO_2e 21/310[c]
Existing					**Emissions from Natural Gas (lbs/day)**			
Office	0.0	2.0	-	-	-	-	-	-
Retail	0.0	2.9	-	-	-	-	-	-
Hotel/Motel	0.0	4.8	-	-	-	-	-	-
Restaurant	0.0	4.8	-	-	-	-	-	-
Food Store	0.0	2.9	-	-	-	-	-	-
Warehouse	0.0	2.0	-	-	-	-	-	-
College/University	0.0	4.8	-	-	-	-	-	-
High School	0.0	2.9	-	-	-	-	-	-
Elementary School	0.0	2.0	-	-	-	-	-	-
Hospital	0.0	4.8	-	-	-	-	-	-
Miscellaneous	0.0	2.9	-	-	-	-	-	-
Residential (Single Family DU)	0.0	6,665	-	-	-	-	-	-
Residential (Multi-Family DU)	0.0	4,012	-	-	-	-	-	-
Total Existing			**-**	**-**	**-**	**-**	**-**	**-**
Project								
Office	0.0	2.0	-	-	-	-	-	-
Retail	0.0	2.9	-	-	-	-	-	-
Hotel/Motel	0.0	4.8	-	-	-	-	-	-
Restaurant	0.0	4.8	-	-	-	-	-	-
Food Store	0.0	2.9	-	-	-	-	-	-
Warehouse	75.0	2.0	**150,000.00**	**5,130,000.00**	756.39	0.07	0.00	758.14
College/University	0.0	4.8	-	-	-	-	-	-
High School	0.0	2.9	-	-	-	-	-	-
Elementary School	0.0	2.0	-	-	-	-	-	-
Hospital	0.0	4.8	-	-	-	-	-	-
Miscellaneous	9.8	2.9	**28,275.00**	**967,005.00**	142.58	0.01	0.00	142.91
Residential (Single Family DU)	0.0	6,665	-	-	-	-	-	-
Residential (Multi-Family DU)	0.0	4,012	-	-	-	-	-	-
Total Project			**178,275.00**	**6,097,005.00**	**898.97**	**0.08**	**0.00**	**901.05**
Net Emissions From Natural Gas Usage					**898.97**	**0.08**	**0.00**	**901.05**

Summary of Stationary Emissions

	CO_2	CH_4	N_2O	CO_2e
Total Existing Emissions (lbs/day)	-	-	-	-
Total Project Emissions (lbs/day)	3,822.85	0.10	0.01	3,829.11
Total Net Emissions (lbs/day)	**3,822.85**	**0.10**	**0.01**	**3,829.11**

[a] Electricity Usage Rates from Table A9-11-A, CEQA Air Quality Handbook, SCAQMD, 1993.

[b] Emission Factors from Table C.2 and Table C.3, General Reporting Protocol, California Climate Action Registry, April 2008.

[c] Global Warming Potential is 21 for CH_4 and 310 for N_2O, General Reporting Protocol, California Climate Action Registry, April 2008.

[d] Natural Gas Usage Rates from Table A9-12-A, CEQA Air Quality Handbook, SCAQMD, 1993.

[e] Emission Factors from Table C.6 and Table C.7, General Reporting Protocol, California Climate Action Registry, March 2007.

[f] 1 Cubic Foot of natural gas = 1,026 Btu. Energy Information Administration. Available http://www.eia.doe.gov/basics/conversion_basics.html

Mobile Sources

Vehicle Type	Percent Type 0	VMT by Type 0	Emission Factors [a] CH_4	Emission Factors [a] N_2O	CH_4	N_2O	CO_2e 21/310[b]
Existing					**Emissions from Mobile Sources (lbs/day)**		
Light Auto	0.0	-	0.05	0.05	-	-	-
Light Truck < 3750 lbs	0.0	-	0.07	0.08	-	-	-
Light Truck 3751-5750 lbs	0.0	-	0.07	0.08	-	-	-
Med Truck 5751-8500 lbs	0.0	-	0.12	0.20	-	-	-
Lite-Heavy Truck 8501-10,000 lbs	0.0	-	0.12	0.20	-	-	-
Lite-Heavy Truck 10,001-14,000 lbs	0.0	-	0.12	0.20	-	-	-
Med-Heavy Truck 14,001-33,000 lbs	0.0	-	0.08	0.05	-	-	-
Heavy-Heavy Truck 33,001-60,000 lbs	0.0	-	0.08	0.05	-	-	-
Other Bus	0.0	-	0.08	0.05	-	-	-
Urban Bus	0.0	-	0.08	0.05	-	-	-
Motorcycle	0.0	-	0.42	0.01	-	-	-
School Bus	0.0	-	0.08	0.05	-	-	-
Motor Home	0.0	-	0.07	0.08	-	-	-
Total Existing			**1.44**	**1.15**	**-**	**-**	**-**

Vehicle Type	Percent Type 100	VMT by Type 28398.46	Emission Factors [a] CH_4	Emission Factors [a] N_2O	CH_4	N_2O	CO_2e 21/310[b]
Project							
Light Auto	50.9	14,454.82	0.05	0.05	1.59	1.59	527.41
Light Truck < 3750 lbs	7.3	2,073.09	0.07	0.08	0.32	0.37	120.06
Light Truck 3751-5750 lbs	23.2	6,588.44	0.07	0.08	1.02	1.16	381.57
Med Truck 5751-8500 lbs	10.8	3,067.03	0.12	0.20	0.81	1.35	436.26
Lite-Heavy Truck 8501-10,000 lbs	1.7	482.77	0.12	0.20	0.13	0.21	68.67
Lite-Heavy Truck 10,001-14,000 lbs	0.5	141.99	0.12	0.20	0.04	0.06	20.20
Med-Heavy Truck 14,001-33,000 lbs	0.9	255.59	0.08	0.05	0.05	0.03	9.68
Heavy-Heavy Truck 33,001-60,000 lbs	0.6	170.39	0.08	0.05	0.03	0.02	6.45
Other Bus	0.1	28.40	0.08	0.05	0.01	0.00	1.08
Urban Bus	0.1	28.40	0.08	0.05	0.01	0.00	1.08
Motorcycle	2.9	823.56	0.42	0.01	0.76	0.02	21.64
School Bus	0.1	28.40	0.08	0.05	0.01	0.00	1.08
Motor Home	0.9	255.59	0.07	0.08	0.04	0.05	14.80
Total Project			**1.44**	**1.15**	**4.80**	**4.87**	**1,609.98**
Net Emissions From Mobile Sources					**4.80**	**4.87**	**1,609.98**

[a] Emission factors from Table C.5, General Reporting Protocol, California Climate Action Registry, April 2008.

[b] Global Warming Potential is 21 for CH_4 and 310 for N_2O, General Reporting Protocol, California Climate Action Registry, April 2008.

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Wilmington Waterfront (2020)

Regional Emission Calculations (lbs/day)

	ROC	NOx	CO	SOx	PM10	PM2.5
Existing Condition						
Mobile	0.0	0.0	0.0	0.0	0.0	0.0
Area	0.0	0.0	0.0	0.0	0.0	0.0
Stationary	0.0	0.0	0.0	0.0	0.0	0.0
Total Existing	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Project Condition						
Mobile	21.7	30.3	242.2	0.5	83.2	16.2
Area	1.9	1.6	7.7	0.0	0.0	0.0
Stationary	0.1	8.3	1.4	0.7	0.2	0.2
Total Project	**23.8**	**40.1**	**251.3**	**1.2**	**83.5**	**16.4**
Net Project Emissions						
Net Mobile	21.7	30.3	242.2	0.5	83.2	16.2
Net Area	1.9	1.6	7.7	0.0	0.0	0.0
Net Stationary	0.1	8.3	1.4	0.7	0.2	0.2
Total Net	23.8	40.1	251.3	1.2	83.5	16.4
SCAQMD Significance Threshold	55	55	550	150	150	55
Difference	**(31)**	**(15)**	**(299)**	**(149)**	**(67)**	**(39)**
Significant?	**No**	**No**	**No**	**No**	**No**	**No**

Electricity Usage

Land Use	1,000 Sqft	Electricity Usage Rate [a] (kWh\sq.ft\yr)	Total Electricity Usage (KWh\year)	Total Electricity Usage (MWh\Day)	Emission Factors (lbs/MWh) [b] CO 0.2	ROC 0.01	NOx 1.15	PM10 0.04	SOx 0.12
Existing					Emissions from Electricity Consumption (lbs/day)				
Office	0.0	12.95	0	0.000	0.000	0.000	0.000	0.000	0.000
Retail	0.0	13.55	0	0.000	0.000	0.000	0.000	0.000	0.000
Hotel/Motel	0.0	9.95	0	0.000	0.000	0.000	0.000	0.000	0.000
Restaurant	0.0	47.45	0	0.000	0.000	0.000	0.000	0.000	0.000
Food Store	0.0	53.30	0	0.000	0.000	0.000	0.000	0.000	0.000
Warehouse	0.0	4.35	0	0.000	0.000	0.000	0.000	0.000	0.000
College/University	0.0	11.55	0	0.000	0.000	0.000	0.000	0.000	0.000
High School	0.0	10.50	0	0.000	0.000	0.000	0.000	0.000	0.000
Elementary School	0.0	5.90	0	0.000	0.000	0.000	0.000	0.000	0.000
Hospital	0.0	21.70	0	0.000	0.000	0.000	0.000	0.000	0.000
Miscellaneous	0.0	10.50	0	0.000	0.000	0.000	0.000	0.000	0.000
Residential (DU)	0.0	5,627	0	0.000	0.000	0.000	0.000	0.000	0.000
	Total Existing		**0**	**0.000**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Project									
Office	0.0	12.95	0	0.000	0.000	0.000	0.000	0.000	0.000
Retail	58.0	13.55	785,900	2.153	0.431	0.022	2.476	0.086	0.258
Hotel/Motel	0.0	9.95	0	0.000	0.000	0.000	0.000	0.000	0.000
Restaurant	12.0	47.45	569,400	1.560	0.312	0.016	1.794	0.062	0.187
Food Store	0.0	53.3	0	0.000	0.000	0.000	0.000	0.000	0.000
Warehouse	150.0	4.35	652,500	1.788	0.358	0.018	2.056	0.072	0.215
College/University	0.0	11.55	0	0.000	0.000	0.000	0.000	0.000	0.000
High School	0.0	10.5	0	0.000	0.000	0.000	0.000	0.000	0.000
Elementary School	0.0	5.9	0	0.000	0.000	0.000	0.000	0.000	0.000
Hospital	0.0	21.7	0	0.000	0.000	0.000	0.000	0.000	0.000
Miscellaneous	17.5	10.5	183,225	0.502	0.100	0.005	0.577	0.020	0.060
Residential (DU)	0.0	5,627	0	0.000	0.000	0.000	0.000	0.000	0.000
	Total Project		**2,191,025**	**6.003**	**1.20**	**0.06**	**6.90**	**0.24**	**0.72**
	Net Emissions From Electricity Usage				**1.20**	**0.06**	**6.90**	**0.24**	**0.72**

Natural Gas Usage

Land Use	1,000 Sqft	Natural Gas Usage Rate [c] (cu.ft\sq.ft\mo)	Total Natural Gas Usage (cu.ft\mo)	Total Natural Gas Usage (cu.ft\DAY)	Emission Factors (lbs/MCuft) [d] CO 20	ROC 5.3	NOx 120/80 [e]	PM10 0.2	SOx 0
Existing					Emissions from Natural Gas Consumption (lbs/day)				
Office	0.0	2.0	**0**	**0**	0.000	0.000	0.000	0.000	--
Retail	0.0	2.9	**0**	**0**	0.000	0.000	0.000	0.000	--
Hotel/Motel	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000	--
Restaurant	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000	--
Food Store	0.0	2.9	**0**	**0**	0.000	0.000	0.000	0.000	--
Warehouse	0.0	2.0	**0**	**0**	0.000	0.000	0.000	0.000	--
College/University	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000	--
High School	0.0	2.9	**0**	**0**	0.000	0.000	0.000	0.000	--
Elementary School	0.0	2.0	**0**	**0**	0.000	0.000	0.000	0.000	--
Hospital	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000	--
Miscellaneous	0.0	2.9	**0**	**0**	0.000	0.000	0.000	0.000	--
Residential (Single Family DU)	0.0	6,665	**0**	**0**	0.000	0.000	0.000	0.000	
Residential (Multi-Family DU)	0.0	4,012	**0**	**0**	0.000	0.000	0.000	0.000	--
	Total Existing		**0**	**0**	**0.00**	**0.00**	**0.00**	**0.00**	--
Project									
Office	0.0	2.0	**0**	**0**	0.000	0.000	0.000	0.000	--
Retail	0.0	2.9	**0**	**0**	0.000	0.000	0.000	0.000	--
Hotel/Motel	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000	--
Restaurant	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000	--
Food Store	0.0	2.9	**0**	**0**	0.000	0.000	0.000	0.000	--
Warehouse	150.0	2.0	**300,000**	**10,000**	0.200	0.053	1.200	0.002	--
College/University	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000	--
High School	0.0	2.9	**0**	**0**	0.000	0.000	0.000	0.000	--
Elementary School	0.0	2.0	**0**	**0**	0.000	0.000	0.000	0.000	--
Hospital	0.0	4.8	**0**	**0**	0.000	0.000	0.000	0.000	--
Miscellaneous	17.5	2.9	**50,605**	**1,687**	0.034	0.009	0.202	0.000	--
Residential (Single Family DU)	0.0	6,665	**0**	**0**	0.000	0.000	0.000	0.000	
Residential (Multi-Family DU)	0.0	4,012	**0**	**0**	0.000	0.000	0.000	0.000	--
	Total Project		**350,605**	**11,687**	**0.23**	**0.06**	**1.40**	**0.00**	--
	Net Emissions From Natural Gas Usage				**0.23**	**0.06**	**1.40**	**0.00**	**--**

Summary of Stationary Emissions

	CO	ROC	NOx	PM10	SOx
Total Existing Emissions (lbs/day)	0.00	0.00	0.00	0.00	0.00
Total Project Emissions (lbs/day)	1.43	0.12	8.31	0.24	0.72
Total Net Emissions (lbs/day)	**1.43**	**0.12**	**8.31**	**0.24**	**0.72**

[a] Electricity Usage Rates from Table A9-11-A,CEQA Air Quality Handbook SCAQMD, 1993.

[b] Emission Factors from Table A9-11-B,CEQA Air Quality Handbook SCAQMD, 1993.

[c] Natural Gas Usage Rates from Table A9-12-A,CEQA Air Quality Handbook SCAQMD, 1993.

[d] Emission Factors from Table A9-12-B,CEQA Air Quality Handbook SCAQMD, 1993.

[e] The emission factors for NOx in lbs per million cuft of natural gas are 120 for nonresidential uses and 80 for residential uses.

Wilmington Waterfront (2020)

Regional Greenhouse Gas Emission Calculations (lbs/day)

	CO_2	CH_4	N_2O	CO_2e
Existing Condition				
Mobile	-	-	-	-
Area	-	-	-	-
Stationary	-	-	-	-
Total Existing	**-**	**-**	**-**	**-**
Project Condition				
Mobile	49,894.16	6.77	7.09	52,234.92
Area	1,789.43	-	-	1,789.43
Stationary	7,042.70	0.19	0.03	7,054.74
Total Project	**58,726.29**	**6.97**	**7.12**	**61,079.08**
Net Project Emissions				
Net Mobile	49,894.16	6.77	7.09	52,234.92
Net Area	1,789.43	-	-	1,789.43
Net Stationary	7,042.70	0.19	0.03	7,054.74
Total Net	58,726.29	6.97	7.12	61,079.08
SCAQMD Significance Threshold	--	--	--	--
Difference	**--**	**--**	**--**	**--**
Significant?	**No**	**No**	**No**	**No**

Wilmington Waterfront (2020) — Stationary Sources

Electricity Usage

Land Use	1,000 Sqft	Electricity Usage Rate [a] (kWh\sq.ft\yr)	Total Electricity Usage (KWh\year)	Total Electricity Usage (MWh\day)	Emission Factors (lbs/MWh) [b] CO_2 878.71	CH_4 0.0067	N_2O 0.0037	CO_2e 21/310[c]
Existing					**Emissions from Electricity (lbs/day)**			
Office	0.0	12.95	-	-	-	-	-	-
Retail	0.0	13.55	-	-	-	-	-	-
Hotel/Motel	0.0	9.95	-	-	-	-	-	-
Restaurant	0.0	47.45	-	-	-	-	-	-
Food Store	0.0	53.30	-	-	-	-	-	-
Warehouse	0.0	4.35	-	-	-	-	-	-
College/University	0.0	11.55	-	-	-	-	-	-
High School	0.0	10.50	-	-	-	-	-	-
Elementary School	0.0	5.90	-	-	-	-	-	-
Hospital	0.0	21.70	-	-	-	-	-	-
Miscellaneous	0.0	10.50	-	-	-	-	-	-
Residential (DU)	0.0	5,627	-	-	-	-	-	-
Total Existing			**-**	**-**	**-**	**-**	**-**	**-**
Project								
Office	0.0	12.95	-	-	-	-	-	-
Retail	58.0	13.55	785,900.00	2.15	1,892.00	0.01	0.01	1,894.77
Hotel/Motel	0.0	9.95	-	-	-	-	-	-
Restaurant	12.0	47.45	569,400.00	1.56	1,370.79	0.01	0.01	1,372.86
Food Store	0.0	53.3	-	-	-	-	-	-
Warehouse	150.0	4.35	652,500.00	1.79	1,570.85	0.01	0.01	1,573.27
College/University	0.0	11.55	-	-	-	-	-	-
High School	0.0	10.5	-	-	-	-	-	-
Elementary School	0.0	5.9	-	-	-	-	-	-
Hospital	0.0	21.7	-	-	-	-	-	-
Miscellaneous	17.5	10.5	183,225.00	0.50	441.10	0.00	0.00	441.78
Residential (DU)	0.0	5,627	-	-	-	-	-	-
Total Project			**2,191,025.00**	**6.00**	**5,274.73**	**0.04**	**0.02**	**5,282.68**
Net Emissions From Electricity Usage					**5,274.73**	**0.04**	**0.02**	**5,282.68**

Natural Gas Usage

Land Use	1,000 Sqft	Natural Gas Usage Rate [d] (cu.ft\sq.ft\mo)	Total Natural Gas Usage (cu.ft\mo)	Total Natural Gas Usage (Btu/day)[f]	Emission Factors (kg/MMBtu) [e] CO_2 66.88	CH_4 0.0059	N_2O 0.0001	CO_2e 21/310[c]
Existing					**Emissions from Natural Gas (lbs/day)**			
Office	0.0	2.0	-	-	-	-	-	-
Retail	0.0	2.9	-	-	-	-	-	-
Hotel/Motel	0.0	4.8	-	-	-	-	-	-
Restaurant	0.0	4.8	-	-	-	-	-	-
Food Store	0.0	2.9	-	-	-	-	-	-
Warehouse	0.0	2.0	-	-	-	-	-	-
College/University	0.0	4.8	-	-	-	-	-	-
High School	0.0	2.9	-	-	-	-	-	-
Elementary School	0.0	2.0	-	-	-	-	-	-
Hospital	0.0	4.8	-	-	-	-	-	-
Miscellaneous	0.0	2.9	-	-	-	-	-	-
Residential (Single Family DU)	0.0	6,665	-	-	-	-	-	-
Residential (Multi-Family DU)	0.0	4,012	-	-	-	-	-	-
Total Existing			**-**	**-**	**-**	**-**	**-**	**-**
Project								
Office	0.0	2.0	-	-	-	-	-	-
Retail	0.0	2.9	-	-	-	-	-	-
Hotel/Motel	0.0	4.8	-	-	-	-	-	-
Restaurant	0.0	4.8	-	-	-	-	-	-
Food Store	0.0	2.9	-	-	-	-	-	-
Warehouse	150.0	2.0	**300,000.00**	**10,260,000.00**	1,512.79	0.13	0.00	1,516.29
College/University	0.0	4.8	-	-	-	-	-	-
High School	0.0	2.9	-	-	-	-	-	-
Elementary School	0.0	2.0	-	-	-	-	-	-
Hospital	0.0	4.8	-	-	-	-	-	-
Miscellaneous	17.5	2.9	**50,605.00**	**1,730,691.00**	255.18	0.02	0.00	255.77
Residential (Single Family DU)	0.0	6,665	-	-	-	-	-	-
Residential (Multi-Family DU)	0.0	4,012	-	-	-	-	-	-
Total Project			**350,605.00**	**11,990,691.00**	**1,767.97**	**0.16**	**0.00**	**1,772.06**
Net Emissions From Natural Gas Usage					**1,767.97**	**0.16**	**0.00**	**1,772.06**

Summary of Stationary Emissions

	CO_2	CH_4	N_2O	CO_2e
Total Existing Emissions (lbs/day)	-	-	-	-
Total Project Emissions (lbs/day)	7,042.70	0.19	0.03	7,054.74
Total Net Emissions (lbs/day)	**7,042.70**	**0.19**	**0.03**	**7,054.74**

[a] Electricity Usage Rates from Table A9-11-A, CEQA Air Quality Handbook, SCAQMD, 1993.

[b] Emission Factors from Table C.2 and Table C.3, General Reporting Protocol, California Climate Action Registry, April 2008.

[c] Global Warming Potential is 21 for CH_4 and 310 for N_2O, General Reporting Protocol, California Climate Action Registry, April 2008.

[d] Natural Gas Usage Rates from Table A9-12-A, CEQA Air Quality Handbook, SCAQMD, 1993.

[e] Emission Factors from Table C.6 and Table C.7, General Reporting Protocol, California Climate Action Registry, March 2007.

[f] 1 Cubic Foot of natural gas = 1,026 Btu. Energy Information Administration. Available http://www.eia.doe.gov/basics/conversion_basics.html

Mobile Sources

Vehicle Type	Percent Type	VMT by Type	Emission Factors [a] CH_4	Emission Factors [a] N_2O	CH_4	N_2O	CO_2e 21/310[b]
	100	0					
Existing					**Emissions from Mobile Sources (lbs/day)**		
Light Auto	50.6	-	0.05	0.04	-	-	-
Light Truck < 3750 lbs	7.2	-	0.06	0.06	-	-	-
Light Truck 3751-5750 lbs	23.3	-	0.06	0.06	-	-	-
Med Truck 5751-8500 lbs	11.0	-	0.12	0.20	-	-	-
Lite-Heavy Truck 8501-10,000 lbs	1.7	-	0.12	0.20	-	-	-
Lite-Heavy Truck 10,001-14,000 lbs	0.5	-	0.12	0.20	-	-	-
Med-Heavy Truck 14,001-33,000 lbs	1.0	-	0.06	0.05	-	-	-
Heavy-Heavy Truck 33,001-60,000 lbs	0.6	-	0.06	0.05	-	-	-
Other Bus	0.1	-	0.06	0.05	-	-	-
Urban Bus	0.1	-	0.06	0.05	-	-	-
Motorcycle	2.9	-	0.09	0.01	-	-	-
School Bus	0.1	-	0.06	0.05	-	-	-
Motor Home	0.9	-	0.06	0.06	-	-	-
Total Existing			**0.98**	**1.08**	**-**	**-**	**-**

Vehicle Type	Percent Type	VMT by Type	Emission Factors [a] CH_4	Emission Factors [a] N_2O	CH_4	N_2O	CO_2e 21/310[b]
	100	48214.12					
Project							
Light Auto	50.6	24,396.34	0.05	0.04	2.69	2.15	723.40
Light Truck < 3750 lbs	7.2	3,471.42	0.06	0.06	0.46	0.46	151.99
Light Truck 3751-5750 lbs	23.3	11,233.89	0.06	0.06	1.49	1.49	491.86
Med Truck 5751-8500 lbs	11.0	5,303.55	0.12	0.20	1.40	2.34	754.39
Lite-Heavy Truck 8501-10,000 lbs	1.7	819.64	0.12	0.20	0.22	0.36	116.59
Lite-Heavy Truck 10,001-14,000 lbs	0.5	241.07	0.12	0.20	0.06	0.11	34.29
Med-Heavy Truck 14,001-33,000 lbs	1.0	482.14	0.06	0.05	0.06	0.05	17.81
Heavy-Heavy Truck 33,001-60,000 lbs	0.6	289.28	0.06	0.05	0.04	0.03	10.69
Other Bus	0.1	48.21	0.06	0.05	0.01	0.01	1.78
Urban Bus	0.1	48.21	0.06	0.05	0.01	0.01	1.78
Motorcycle	2.9	1,398.21	0.09	0.01	0.28	0.03	15.38
School Bus	0.1	48.21	0.06	0.05	0.01	0.01	1.78
Motor Home	0.9	433.93	0.06	0.06	0.06	0.06	19.00
Total Project			**0.98**	**1.08**	**6.77**	**7.09**	**2,340.76**
Net Emissions From Mobile Sources					**6.77**	**7.09**	**2,340.76**

[a] Emission factors from Table C.5, General Reporting Protocol, California Climate Action Registry, April 2008.

[b] Global Warming Potential is 21 for CH_4 and 310 for N_2O, General Reporting Protocol, California Climate Action Registry, April 2008.

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URBEMIS2007 Output Sheets

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: F:\Work\Wilmington Waterfront\Impact Analysis\URBEMIS\ExistingWWF.urb924

Project Name: Existing WWF

Project Location: South Coast AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	1.56	1.74	6.05	0.00	0.02	0.02	2,021.32

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	9.37	10.96	98.69	0.11	11.63	2.29	6,955.74

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	10.93	12.70	104.74	0.11	11.65	2.31	8,977.06

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.12	1.68	1.41	0.00	0.00	0.00	2,012.89
Hearth - No Summer Emissions							
Landscape	0.37	0.06	4.64	0.00	0.02	0.02	8.43
Consumer Products	0.00						
Architectural Coatings	1.07						
TOTALS (lbs/day, unmitigated)	1.56	1.74	6.05	0.00	0.02	0.02	2,021.32

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Government (civic center)	3.04	4.24	37.60	0.04	4.48	0.88	2,672.63
General light industry	5.23	6.70	60.87	0.07	7.12	1.40	4,267.44
General heavy industry	1.10	0.02	0.22	0.00	0.03	0.01	15.67
TOTALS (lbs/day, unmitigated)	9.37	10.96	98.69	0.11	11.63	2.29	6,955.74

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2006 Temperature (F): 80 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Government (civic center)		27.92	1000 sq ft	10.00	279.20	2,586.79

General light industry	6.97	1000 sq ft	55.00	383.35	4,111.43
General heavy industry	0.01	1000 sq ft	118.00	1.18	15.09
				663.73	6,713.31

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	52.0	2.5	97.1	0.4
Light Truck < 3750 lbs	7.4	5.4	90.5	4.1
Light Truck 3751-5750 lbs	22.6	0.9	98.7	0.4
Med Truck 5751-8500 lbs	10.5	1.9	98.1	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	82.4	17.6
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	0.9	0.0	22.2	77.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.6	0.0	0.0	100.0
Other Bus	0.1	0.0	100.0	0.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.7	81.5	18.5	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.8	12.5	75.0	12.5

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Government (civic center)				10.0	5.0	85.0
General light industry				50.0	25.0	25.0
General heavy industry				90.0	5.0	5.0

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Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: F:\Work\Wilmington Waterfront\Impact Analysis\URBEMIS\ExistingWWF.urb924

Project Name: Existing WWF

Project Location: South Coast AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	1.19	1.68	1.41	0.00	0.00	0.00	2,012.89

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	9.53	13.27	95.61	0.10	11.63	2.29	6,318.59

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	10.72	14.95	97.02	0.10	11.63	2.29	8,331.48

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.12	1.68	1.41	0.00	0.00	0.00	2,012.89
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping - No Winter Emissions							
Consumer Products	0.00						
Architectural Coatings	1.07						
TOTALS (lbs/day, unmitigated)	1.19	1.68	1.41	0.00	0.00	0.00	2,012.89

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Government (civic center)	3.43	5.13	36.65	0.04	4.48	0.88	2,427.12
General light industry	5.62	8.11	58.75	0.06	7.12	1.40	3,877.24
General heavy industry	0.48	0.03	0.21	0.00	0.03	0.01	14.23
TOTALS (lbs/day, unmitigated)	9.53	13.27	95.61	0.10	11.63	2.29	6,318.59

Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

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Analysis Year: 2006 Temperature (F): 60 Season: Winter

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Government (civic center)		27.92	1000 sq ft	10.00	279.20	2,586.79
General light industry		6.97	1000 sq ft	55.00	383.35	4,111.43
General heavy industry		0.01	1000 sq ft	118.00	1.18	15.09
					663.73	6,713.31

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	52.0	2.5	97.1	0.4
Light Truck < 3750 lbs	7.4	5.4	90.5	4.1
Light Truck 3751-5750 lbs	22.6	0.9	98.7	0.4
Med Truck 5751-8500 lbs	10.5	1.9	98.1	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	82.4	17.6
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	0.9	0.0	22.2	77.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.6	0.0	0.0	100.0
Other Bus	0.1	0.0	100.0	0.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.7	81.5	18.5	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.8	12.5	75.0	12.5

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
Government (civic center)				10.0	5.0	85.0
General light industry				50.0	25.0	25.0
General heavy industry				90.0	5.0	5.0

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: G:\3_Projects_Air Quality\Wilmington Waterfront\Impact Analysis\URBEMIS\Operations\InterimYear2011Operation.urb924

Project Name: Wilmington Waterfront Interim Year 2011 Operations

Project Location: South Coast AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	0.54	0.85	3.89	0.00	0.01	0.01	971.94

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	2.28	2.99	27.34	0.03	4.91	0.95	2,939.77

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	2.82	3.84	31.23	0.03	4.92	0.96	3,911.71

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.06	0.81	0.68	0.00	0.00	0.00	966.44
Hearth - No Summer Emissions							
Landscape	0.26	0.04	3.21	0.00	0.01	0.01	5.50
Consumer Products	0.00						
Architectural Coatings	0.22						
TOTALS (lbs/day, unmitigated)	0.54	0.85	3.89	0.00	0.01	0.01	971.94

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
City park	0.05	0.05	0.41	0.00	0.07	0.01	44.51
General light industry	2.23	2.94	26.93	0.03	4.84	0.94	2,895.26
TOTALS (lbs/day, unmitigated)	2.28	2.99	27.34	0.03	4.91	0.95	2,939.77

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Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2011 Temperature (F): 80 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
City park		1.59	acres	3.00	4.77	43.32
General light industry		6.97	1000 sq ft	37.50	261.37	2,803.25
					266.14	2,846.57

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	51.6	0.8	99.0	0.2
Light Truck < 3750 lbs	7.3	2.7	94.6	2.7
Light Truck 3751-5750 lbs	23.0	0.4	99.6	0.0
Med Truck 5751-8500 lbs	10.6	0.9	99.1	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.6	0.0	81.2	18.8
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	0.9	0.0	22.2	77.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.8	64.3	35.7	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.9	0.0	88.9	11.1

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
City park				5.0	2.5	92.5
General light industry				50.0	25.0	25.0

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Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: G:\3_Projects_Air Quality\Wilmington Waterfront\Impact Analysis\URBEMIS\Operations\InterimYear2011Operation.urb924

Project Name: Wilmington Waterfront Interim Year 2011 Operations

Project Location: South Coast AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	0.28	0.81	0.68	0.00	0.00	0.00	966.44

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	2.41	3.61	26.01	0.02	4.91	0.95	2,662.61

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	2.69	4.42	26.69	0.02	4.91	0.95	3,629.05

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.06	0.81	0.68	0.00	0.00	0.00	966.44
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping - No Winter Emissions							
Consumer Products	0.00						
Architectural Coatings	0.22						
TOTALS (lbs/day, unmitigated)	0.28	0.81	0.68	0.00	0.00	0.00	966.44

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
City park	0.04	0.06	0.39	0.00	0.07	0.01	40.29
General light industry	2.37	3.55	25.62	0.02	4.84	0.94	2,622.32
TOTALS (lbs/day, unmitigated)	2.41	3.61	26.01	0.02	4.91	0.95	2,662.61

7/1/2008 12:16:52 PM
Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2011 Temperature (F): 60 Season: Winter

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
City park		1.59	acres	3.00	4.77	43.32
General light industry		6.97	1000 sq ft	37.50	261.37	2,803.25
					266.14	2,846.57

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	51.6	0.8	99.0	0.2
Light Truck < 3750 lbs	7.3	2.7	94.6	2.7
Light Truck 3751-5750 lbs	23.0	0.4	99.6	0.0
Med Truck 5751-8500 lbs	10.6	0.9	99.1	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.6	0.0	81.2	18.8
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	0.9	0.0	22.2	77.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.5	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.8	64.3	35.7	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.9	0.0	88.9	11.1

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
City park				5.0	2.5	92.5
General light industry				50.0	25.0	25.0

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Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: G:\3_Projects_Air Quality\Wilmington Waterfront\Impact Analysis\URBEMIS\Phase1Operation.urb924

Project Name: Wilmington Waterfront Phase I Operations

Project Location: South Coast AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	1.27	1.43	5.96	0.00	0.01	0.01	1,647.48

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	15.09	21.58	193.02	0.29	49.06	9.55	29,286.77

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	16.36	23.01	198.98	0.29	49.07	9.56	30,934.25

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.10	1.37	1.15	0.00	0.00	0.00	1,639.24
Hearth - No Summer Emissions							
Landscape	0.39	0.06	4.81	0.00	0.01	0.01	8.24
Consumer Products	0.00						
Architectural Coatings	0.78						
TOTALS (lbs/day, unmitigated)	1.27	1.43	5.96	0.00	0.01	0.01	1,647.48

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
City park	0.28	0.34	3.01	0.00	0.77	0.15	458.12
Strip mall	11.55	17.02	151.05	0.23	38.60	7.51	23,020.04
General light industry	3.26	4.22	38.96	0.06	9.69	1.89	5,808.61
TOTALS (lbs/day, unmitigated)	15.09	21.58	193.02	0.29	49.06	9.55	29,286.77

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Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2015 Temperature (F): 80 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
City park		5.02	acres	9.75	48.94	444.54
Strip mall		42.94	1000 sq ft	58.00	2,490.52	22,347.43
General light industry		6.97	1000 sq ft	75.00	522.75	5,606.49
					3,062.21	28,398.46

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	50.9	0.2	99.6	0.2
Light Truck < 3750 lbs	7.3	1.4	95.9	2.7
Light Truck 3751-5750 lbs	23.2	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.8	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	82.4	17.6
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	0.9	0.0	22.2	77.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.6	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.9	48.3	51.7	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.9	0.0	88.9	11.1

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
City park				5.0	2.5	92.5
Strip mall				2.0	1.0	97.0
General light industry				50.0	25.0	25.0

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Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: G:\3_Projects_Air Quality\Wilmington Waterfront\Impact Analysis\URBEMIS\Phase1Operation.urb924

Project Name: Wilmington Waterfront Phase I Operations

Project Location: South Coast AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	0.88	1.37	1.15	0.00	0.00	0.00	1,639.24

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	16.68	25.94	183.03	0.24	49.06	9.55	26,496.47

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	17.56	27.31	184.18	0.24	49.06	9.55	28,135.71

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.10	1.37	1.15	0.00	0.00	0.00	1,639.24
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping - No Winter Emissions							
Consumer Products	0.00						
Architectural Coatings	0.78						
TOTALS (lbs/day, unmitigated)	0.88	1.37	1.15	0.00	0.00	0.00	1,639.24

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
City park	0.28	0.41	2.86	0.00	0.77	0.15	414.44
Strip mall	12.96	20.45	143.62	0.19	38.60	7.51	20,824.29
General light industry	3.44	5.08	36.55	0.05	9.69	1.89	5,257.74
TOTALS (lbs/day, unmitigated)	16.68	25.94	183.03	0.24	49.06	9.55	26,496.47

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Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2015 Temperature (F): 60 Season: Winter

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
City park		5.02	acres	9.75	48.94	444.54
Strip mall		42.94	1000 sq ft	58.00	2,490.52	22,347.43
General light industry		6.97	1000 sq ft	75.00	522.75	5,606.49
					3,062.21	28,398.46

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	50.9	0.2	99.6	0.2
Light Truck < 3750 lbs	7.3	1.4	95.9	2.7
Light Truck 3751-5750 lbs	23.2	0.0	100.0	0.0
Med Truck 5751-8500 lbs	10.8	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	82.4	17.6
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	0.9	0.0	22.2	77.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.6	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.9	48.3	51.7	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.9	0.0	88.9	11.1

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
City park				5.0	2.5	92.5
Strip mall				2.0	1.0	97.0
General light industry				50.0	25.0	25.0

Urbemis 2007 Version 9.2.4

Combined Summer Emissions Reports (Pounds/Day)

File Name: G:\3_Projects_Air Quality\Wilmington Waterfront\Impact Analysis\URBEMIS\FullBuildOutOperations.urb924

Project Name: Wilmington Waterfront Full Build Out Operations

Project Location: South Coast AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	1.92	1.55	7.65	0.00	0.02	0.02	1,789.43

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	19.75	25.21	242.20	0.51	83.22	16.16	49,894.16

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	21.67	26.76	249.85	0.51	83.24	16.18	51,683.59

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.11	1.48	1.24	0.00	0.00	0.00	1,778.44
Hearth - No Summer Emissions							
Landscape	0.52	0.07	6.41	0.00	0.02	0.02	10.99
Consumer Products	0.00						
Architectural Coatings	1.29						
TOTALS (lbs/day, unmitigated)	1.92	1.55	7.65	0.00	0.02	0.02	1,789.43

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
City park	0.39	0.42	3.98	0.01	1.37	0.27	822.48
High turnover (sit-down) rest.	5.40	7.26	69.27	0.15	23.92	4.64	14,326.01
Strip mall	8.90	11.72	111.47	0.23	38.57	7.49	23,092.20
General light industry	5.06	5.81	57.48	0.12	19.36	3.76	11,653.47
TOTALS (lbs/day, unmitigated)	19.75	25.21	242.20	0.51	83.22	16.16	49,894.16

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Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2020 Temperature (F): 80 Season: Summer

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
City park		5.02	acres	17.45	87.60	795.62
High turnover (sit-down) rest.		127.15	1000 sq ft	12.00	1,525.80	13,858.08
Strip mall		42.94	1000 sq ft	58.00	2,490.52	22,347.43
General light industry		6.97	1000 sq ft	150.00	1,045.50	11,212.99
					5,149.42	48,214.12

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	50.6	0.0	100.0	0.0
Light Truck < 3750 lbs	7.2	0.0	98.6	1.4
Light Truck 3751-5750 lbs	23.3	0.0	100.0	0.0
Med Truck 5751-8500 lbs	11.0	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	82.4	17.6
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.6	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.9	41.4	58.6	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.9	0.0	88.9	11.1

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
City park				5.0	2.5	92.5
High turnover (sit-down) rest.				5.0	2.5	92.5
Strip mall				2.0	1.0	97.0
General light industry				50.0	25.0	25.0

Urbemis 2007 Version 9.2.4

Combined Winter Emissions Reports (Pounds/Day)

File Name: G:\3_Projects_Air Quality\Wilmington Waterfront\Impact Analysis\URBEMIS\FullBuildOutOperations.urb924

Project Name: Wilmington Waterfront Full Build Out Operations

Project Location: South Coast AQMD

On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	1.40	1.48	1.24	0.00	0.00	0.00	1,778.44

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	21.74	30.28	228.16	0.42	83.22	16.16	45,111.57

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	23.14	31.76	229.40	0.42	83.22	16.16	46,890.01

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.11	1.48	1.24	0.00	0.00	0.00	1,778.44
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping - No Winter Emissions							
Consumer Products	0.00						
Architectural Coatings	1.29						
TOTALS (lbs/day, unmitigated)	1.40	1.48	1.24	0.00	0.00	0.00	1,778.44

Area Source Changes to Defaults

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
City park	0.39	0.50	3.75	0.01	1.37	0.27	743.56
High turnover (sit-down) rest.	6.11	8.72	65.40	0.12	23.92	4.64	12,951.36
Strip mall	9.95	14.07	105.35	0.19	38.57	7.49	20,875.45
General light industry	5.29	6.99	53.66	0.10	19.36	3.76	10,541.20
TOTALS (lbs/day, unmitigated)	21.74	30.28	228.16	0.42	83.22	16.16	45,111.57

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Operational Settings:

Does not include correction for passby trips

Does not include double counting adjustment for internal trips

Analysis Year: 2020 Temperature (F): 60 Season: Winter

Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
City park		5.02	acres	17.45	87.60	795.62
High turnover (sit-down) rest.		127.15	1000 sq ft	12.00	1,525.80	13,858.08
Strip mall		42.94	1000 sq ft	58.00	2,490.52	22,347.43
General light industry		6.97	1000 sq ft	150.00	1,045.50	11,212.99
					5,149.42	48,214.12

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	50.6	0.0	100.0	0.0
Light Truck < 3750 lbs	7.2	0.0	98.6	1.4
Light Truck 3751-5750 lbs	23.3	0.0	100.0	0.0
Med Truck 5751-8500 lbs	11.0	0.0	100.0	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.7	0.0	82.4	17.6
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	1.0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs	0.6	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.1	0.0	0.0	100.0
Motorcycle	2.9	41.4	58.6	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.9	0.0	88.9	11.1

Travel Conditions

	Residential			Commercial		
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4	8.9
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6	12.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1			
% of Trips - Commercial (by land use)						
City park				5.0	2.5	92.5
High turnover (sit-down) rest.				5.0	2.5	92.5
Strip mall				2.0	1.0	97.0
General light industry				50.0	25.0	25.0

Emfac2007 Emission Factors

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Title : Los Angeles County Avg Annual All CYrs 2009 to 2017 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2008/07/10 11:33:35
Scen Year: 2009 -- All model years in the range 1965 to 2009 selected
Season : Annual
Area : Los Angeles
****

Year: 2009 -- Model Years 1965 to 2009 Inclusive -- Annual
Emfac2007 Emission Factors: V2.3 Nov 1 2006

County Average | Los Angeles | County Average

Table 1: Running Exhaust Emissions (grams/mile; grams/idle-hour)

Pollutant Name: Reactive Org Gases Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	12.541	0.574
10	0.289	7.776	0.631
25	0.115	1.683	0.187
30	0.094	1.352	0.151
55	0.073	0.978	0.114

Pollutant Name: Carbon Monoxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	46.902	2.146
10	4.399	22.618	5.232
25	3.05	10.219	3.378
30	2.787	8.579	3.052
55	2.241	5.738	2.401

Pollutant Name: Oxides of Nitrogen Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	103.478	4.734
10	0.375	29.578	1.711
25	0.284	17.768	1.084
30	0.269	17.207	1.044
55	0.265	16.77	1.02

Pollutant Name: Carbon Dioxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	6312.903	288.784
10	724.634	3096.795	833.149
25	391.169	1980.264	463.862
30	343.095	1861.875	412.571
55	310.863	1609.255	370.258

Pollutant Name: Sulfur Dioxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0.06	0.003
10	0.007	0.03	0.008
25	0.004	0.019	0.004
30	0.003	0.018	0.004
55	0.003	0.015	0.004

Pollutant Name: PM10 Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	1.884	0.086
10	0.033	2.012	0.123
25	0.013	0.766	0.047
30	0.01	0.655	0.04
55	0.007	0.653	0.037

Pollutant Name: PM10 - Tire Wear Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0.008	0.035	0.009
25	0.008	0.035	0.009
30	0.008	0.035	0.009
55	0.008	0.035	0.009

Pollutant Name: PM10 - Break Wear Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0.013	0.028	0.013
25	0.013	0.028	0.013
30	0.013	0.028	0.013
55	0.013	0.028	0.013

Pollutant Name: Gasoline - mi/gal Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	12.108	4.612	12.092
25	22.392	11.285	22.368
30	25.525	13.628	25.499
55	28.235	15.355	28.207

Pollutant Name: Diesel - mi/gal Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	27.71	3.184	4.129
25	27.71	4.935	5.811
30	27.71	5.238	6.103
55	27.71	6.064	6.897

Title : Los Angeles County Avg Annual All CYrs 2009 to 2017 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2008/07/10 11:33:35
Scen Year: 2010 -- All model years in the range 1966 to 2010 selected
Season : Annual
Area : Los Angeles
****

Year: 2010 -- Model Years 1966 to 2010 Inclusive -- Annual
Emfac2007 Emission Factors: V2.3 Nov 1 2006

County Average | Los Angeles | County Average

Table 1: Running Exhaust Emissions (grams/mile; grams/idle-hour)

Pollutant Name: Reactive Org Gases Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	11.967	0.561
10	0.246	7.225	0.573
25	0.097	1.564	0.166
30	0.079	1.258	0.134
55	0.061	0.903	0.1

Pollutant Name: Carbon Monoxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	46.283	2.169
10	3.93	20.692	4.715
25	2.754	9.253	3.058
30	2.518	7.792	2.765
55	1.991	5.314	2.147

Pollutant Name: Oxides of Nitrogen Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	105.673	4.953
10	0.337	27.282	1.6
25	0.254	16.327	1.007
30	0.24	15.771	0.968
55	0.235	15.255	0.939

Pollutant Name: Carbon Dioxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	6341.961	297.232
10	722.868	3103.352	834.435
25	390.175	1986.225	464.978
30	342.212	1867.83	413.714
55	310.055	1614.326	371.183

Pollutant Name: Sulfur Dioxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0.061	0.003
10	0.007	0.03	0.008
25	0.004	0.019	0.005
30	0.003	0.018	0.004
55	0.003	0.015	0.004

Pollutant Name: PM10 Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	1.718	0.081
10	0.033	1.795	0.116
25	0.013	0.686	0.044
30	0.01	0.588	0.037
55	0.007	0.604	0.035

Pollutant Name: PM10 - Tire Wear Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0.008	0.035	0.009
25	0.008	0.035	0.009
30	0.008	0.035	0.009
55	0.008	0.035	0.009

Pollutant Name: PM10 - Break Wear Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0.013	0.028	0.013
25	0.013	0.028	0.013
30	0.013	0.028	0.013
55	0.013	0.028	0.013

Pollutant Name: Gasoline - mi/gal Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	12.148	4.611	12.133
25	22.47	11.283	22.447
30	25.614	13.626	25.59
55	28.331	15.353	28.305

Pollutant Name: Diesel - mi/gal Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	27.746	3.184	3.985
25	27.746	4.935	5.678
30	27.746	5.238	5.972
55	27.746	6.064	6.77

Title : Los Angeles County Avg Annual All CYrs 2009 to 2017 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2008/07/10 11:33:35
Scen Year: 2011 -- All model years in the range 1967 to 2011 selected
Season : Annual
Area : Los Angeles
****

Year: 2011 -- Model Years 1967 to 2011 Inclusive -- Annual
Emfac2007 Emission Factors: V2.3 Nov 1 2006

County Average | Los Angeles | County Average

Table 1: Running Exhaust Emissions (grams/mile; grams/idle-hour)

Pollutant Name: Reactive Org Gases Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	11.43	0.545
10	0.211	6.631	0.517
25	0.082	1.438	0.147
30	0.067	1.16	0.119
55	0.051	0.825	0.088

Pollutant Name: Carbon Monoxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	45.685	2.178
10	3.524	18.678	4.246
25	2.493	8.268	2.768
30	2.281	6.989	2.505
55	1.777	4.871	1.925

Pollutant Name: Oxides of Nitrogen Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	107.71	5.136
10	0.303	24.88	1.475
25	0.227	14.833	0.924
30	0.214	14.289	0.885
55	0.209	13.705	0.852

Pollutant Name: Carbon Dioxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	6368.055	303.651
10	721.367	3109.241	835.229
25	389.328	1991.58	465.729
30	341.46	1873.18	414.497
55	309.366	1618.88	371.808

Pollutant Name: Sulfur Dioxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0.061	0.003
10	0.007	0.03	0.008
25	0.004	0.019	0.005
30	0.003	0.018	0.004
55	0.003	0.015	0.004

Pollutant Name: PM10 Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	1.557	0.074
10	0.033	1.577	0.107
25	0.013	0.607	0.041
30	0.01	0.522	0.035
55	0.008	0.555	0.034

Pollutant Name: PM10 - Tire Wear Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0.008	0.035	0.009
25	0.008	0.035	0.009
30	0.008	0.035	0.009
55	0.008	0.035	0.009

Pollutant Name: PM10 - Break Wear Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0.013	0.028	0.013
25	0.013	0.028	0.013
30	0.013	0.028	0.013
55	0.013	0.028	0.013

Pollutant Name: Gasoline - mi/gal Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	12.183	4.619	12.169
25	22.538	11.302	22.517
30	25.692	13.648	25.67
55	28.415	15.378	28.39

Pollutant Name: Diesel - mi/gal Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	27.788	3.184	3.864
25	27.788	4.935	5.566
30	27.788	5.238	5.861
55	27.788	6.064	6.663

Title : Los Angeles County Avg Annual All CYrs 2009 to 2017 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2008/07/10 11:33:35
Scen Year: 2012 -- All model years in the range 1968 to 2012 selected
Season : Annual
Area : Los Angeles
****

Year: 2012 -- Model Years 1968 to 2012 Inclusive -- Annual
Emfac2007 Emission Factors: V2.3 Nov 1 2006

County Average | Los Angeles | County Average

Table 1: Running Exhaust Emissions (grams/mile; grams/idle-hour)

Pollutant Name: Reactive Org Gases Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	10.935	0.532
10	0.182	6.014	0.466
25	0.07	1.309	0.131
30	0.057	1.059	0.106
55	0.043	0.745	0.077

Pollutant Name: Carbon Monoxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	45.125	2.196
10	3.168	16.653	3.824
25	2.262	7.299	2.507
30	2.071	6.198	2.272
55	1.59	4.425	1.728

Pollutant Name: Oxides of Nitrogen Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	109.606	5.334
10	0.273	22.473	1.353
25	0.204	13.345	0.843
30	0.192	12.815	0.806
55	0.186	12.174	0.769

Pollutant Name: Carbon Dioxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	6392.797	311.086
10	720.103	3114.823	836.635
25	388.614	1996.655	466.865
30	340.825	1878.251	415.639
55	308.785	1623.198	372.747

Pollutant Name: Sulfur Dioxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0.061	0.003
10	0.007	0.03	0.008
25	0.004	0.019	0.005
30	0.003	0.018	0.004
55	0.003	0.016	0.004

Pollutant Name: PM10 Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	1.404	0.068
10	0.034	1.365	0.099
25	0.013	0.531	0.038
30	0.01	0.46	0.032
55	0.008	0.504	0.032

Pollutant Name: PM10 - Tire Wear Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0.008	0.035	0.009
25	0.008	0.035	0.009
30	0.008	0.035	0.009
55	0.008	0.035	0.009

Pollutant Name: PM10 - Break Wear Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0.013	0.028	0.013
25	0.013	0.028	0.013
30	0.013	0.028	0.013
55	0.013	0.028	0.013

Pollutant Name: Gasoline - mi/gal Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	12.213	4.633	12.2
25	22.596	11.335	22.577
30	25.76	13.688	25.739
55	28.487	15.42	28.464

Pollutant Name: Diesel - mi/gal Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	27.839	3.184	3.758
25	27.839	4.935	5.468
30	27.839	5.238	5.765
55	27.839	6.064	6.571

Title : Los Angeles County Avg Annual All CYrs 2009 to 2017 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2008/07/10 11:33:35
Scen Year: 2013 -- All model years in the range 1969 to 2013 selected
Season : Annual
Area : Los Angeles
****

Year: 2013 -- Model Years 1969 to 2013 Inclusive -- Annual
Emfac2007 Emission Factors: V2.3 Nov 1 2006

County Average | Los Angeles | County Average

Table 1: Running Exhaust Emissions (grams/mile; grams/idle-hour)

Pollutant Name: Reactive Org Gases Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	10.477	0.522
10	0.157	5.39	0.418
25	0.06	1.179	0.116
30	0.049	0.958	0.094
55	0.037	0.665	0.068

Pollutant Name: Carbon Monoxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	44.601	2.22
10	2.858	14.66	3.446
25	2.057	6.36	2.272
30	1.885	5.43	2.061
55	1.429	3.982	1.556

Pollutant Name: Oxides of Nitrogen Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	111.397	5.546
10	0.246	20.105	1.235
25	0.183	11.89	0.766
30	0.172	11.378	0.73
55	0.166	10.692	0.69

Pollutant Name: Carbon Dioxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	6416.956	319.471
10	719.047	3120.276	838.594
25	388.016	2001.613	468.349
30	340.293	1883.203	417.107
55	308.297	1627.416	373.969

Pollutant Name: Sulfur Dioxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0.061	0.003
10	0.007	0.03	0.008
25	0.004	0.019	0.005
30	0.003	0.018	0.004
55	0.003	0.016	0.004

Pollutant Name: PM10 Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	1.257	0.063
10	0.034	1.163	0.09
25	0.013	0.46	0.035
30	0.01	0.4	0.03
55	0.008	0.454	0.03

Pollutant Name: PM10 - Tire Wear Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0.008	0.035	0.009
25	0.008	0.035	0.009
30	0.008	0.035	0.009
55	0.008	0.035	0.009

Pollutant Name: PM10 - Break Wear Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0.013	0.028	0.013
25	0.013	0.028	0.013
30	0.013	0.028	0.013
55	0.013	0.028	0.013

Pollutant Name: Gasoline - mi/gal Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	12.239	4.65	12.227
25	22.647	11.378	22.629
30	25.818	13.739	25.799
55	28.548	15.476	28.528

Pollutant Name: Diesel - mi/gal Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	27.9	3.184	3.664
25	27.9	4.935	5.381
30	27.9	5.238	5.679
55	27.9	6.064	6.488

Title : Los Angeles County Avg Annual All CYrs 2009 to 2017 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2008/07/10 11:33:35
Scen Year: 2014 -- All model years in the range 1970 to 2014 selected
Season : Annual
Area : Los Angeles
****

Year: 2014 -- Model Years 1970 to 2014 Inclusive -- Annual
Emfac2007 Emission Factors: V2.3 Nov 1 2006

County Average | Los Angeles | County Average

Table 1: Running Exhaust Emissions (grams/mile; grams/idle-hour)

Pollutant Name: Reactive Org Gases Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	10.044	0.518
10	0.137	4.788	0.377
25	0.052	1.055	0.104
30	0.042	0.861	0.084
55	0.031	0.589	0.06

Pollutant Name: Carbon Monoxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	44.09	2.273
10	2.591	12.959	3.126
25	1.88	5.559	2.07
30	1.724	4.774	1.881
55	1.29	3.613	1.409

Pollutant Name: Oxides of Nitrogen Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	113.043	5.827
10	0.224	17.84	1.132
25	0.166	10.507	0.699
30	0.156	10.017	0.664
55	0.149	9.304	0.621

Pollutant Name: Carbon Dioxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	6437.659	331.85
10	718.186	3124.946	842.251
25	387.527	2005.86	470.949
30	339.858	1887.446	419.634
55	307.898	1631.028	376.103

Pollutant Name: Sulfur Dioxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0.061	0.003
10	0.007	0.03	0.008
25	0.004	0.019	0.005
30	0.003	0.018	0.004
55	0.003	0.016	0.004

Pollutant Name: PM10 Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	1.113	0.057
10	0.035	0.976	0.083
25	0.013	0.393	0.033
30	0.01	0.345	0.028
55	0.008	0.405	0.028

Pollutant Name: PM10 - Tire Wear Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0.008	0.035	0.009
25	0.008	0.035	0.009
30	0.008	0.035	0.009
55	0.008	0.035	0.009

Pollutant Name: PM10 - Break Wear Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0.013	0.028	0.013
25	0.013	0.028	0.013
30	0.013	0.028	0.013
55	0.013	0.028	0.013

Pollutant Name: Gasoline - mi/gal Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	12.26	4.663	12.249
25	22.69	11.407	22.673
30	25.867	13.774	25.849
55	28.6	15.511	28.581

Pollutant Name: Diesel - mi/gal Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	27.952	3.184	3.583
25	27.952	4.935	5.305
30	27.952	5.238	5.604
55	27.952	6.064	6.415

Title : Los Angeles County Avg Annual All CYrs 2009 to 2017 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2008/07/10 11:33:35
Scen Year: 2015 -- All model years in the range 1971 to 2015 selected
Season : Annual
Area : Los Angeles
****

Year: 2015 -- Model Years 1971 to 2015 Inclusive -- Annual
Emfac2007 Emission Factors: V2.3 Nov 1 2006

County Average | Los Angeles | County Average

Table 1: Running Exhaust Emissions (grams/mile; grams/idle-hour)

Pollutant Name: Reactive Org Gases Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	9.652	0.516
10	0.12	4.222	0.339
25	0.045	0.938	0.093
30	0.036	0.769	0.075
55	0.027	0.518	0.053

Pollutant Name: Carbon Monoxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	43.621	2.33
10	2.358	11.38	2.84
25	1.723	4.829	1.889
30	1.58	4.173	1.719
55	1.169	3.263	1.281

Pollutant Name: Oxides of Nitrogen Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	114.525	6.117
10	0.204	15.738	1.033
25	0.15	9.231	0.635
30	0.141	8.765	0.602
55	0.135	8.038	0.557

Pollutant Name: Carbon Dioxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	6456.258	344.863
10	717.482	3129.144	846.302
25	387.126	2009.677	473.795
30	339.5	1891.258	422.388
55	307.569	1634.274	378.436

Pollutant Name: Sulfur Dioxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0.062	0.003
10	0.007	0.03	0.008
25	0.004	0.019	0.005
30	0.003	0.018	0.004
55	0.003	0.016	0.004

Pollutant Name: PM10 Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0.978	0.052
10	0.035	0.808	0.076
25	0.013	0.334	0.03
30	0.011	0.295	0.026
55	0.008	0.359	0.026

Pollutant Name: PM10 - Tire Wear Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0.008	0.035	0.009
25	0.008	0.035	0.009
30	0.008	0.035	0.009
55	0.008	0.035	0.009

Pollutant Name: PM10 - Break Wear Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0.013	0.028	0.013
25	0.013	0.028	0.013
30	0.013	0.028	0.013
55	0.013	0.028	0.013

Pollutant Name: Gasoline - mi/gal Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	12.279	4.679	12.268
25	22.726	11.447	22.711
30	25.909	13.822	25.893
55	28.644	15.56	28.626

Pollutant Name: Diesel - mi/gal Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	28.013	3.184	3.512
25	28.013	4.935	5.239
30	28.013	5.238	5.538
55	28.013	6.064	6.353

Title : Los Angeles County Avg Annual All CYrs 2009 to 2017 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2008/07/10 11:33:35
Scen Year: 2016 -- All model years in the range 1972 to 2016 selected
Season : Annual
Area : Los Angeles
****

Year: 2016 -- Model Years 1972 to 2016 Inclusive -- Annual
Emfac2007 Emission Factors: V2.3 Nov 1 2006

County Average Los Angeles County Average

Table 1: Running Exhaust Emissions (grams/mile; grams/idle-hour)

Pollutant Name: Reactive Org Gases Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	9.331	0.509
10	0.106	3.766	0.306
25	0.04	0.844	0.084
30	0.032	0.696	0.068
55	0.023	0.461	0.047

Pollutant Name: Carbon Monoxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	43.235	2.361
10	2.163	10.117	2.597
25	1.591	4.25	1.736
30	1.459	3.697	1.581
55	1.069	2.984	1.173

Pollutant Name: Oxides of Nitrogen Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	115.753	6.32
10	0.187	14.071	0.945
25	0.137	8.219	0.579
30	0.129	7.772	0.546
55	0.123	7.034	0.5

Pollutant Name: Carbon Dioxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	6472.218	353.396
10	716.924	3132.745	848.832
25	386.807	2012.951	475.597
30	339.216	1894.53	424.139
55	307.308	1637.06	379.915

Pollutant Name: Sulfur Dioxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0.062	0.003
10	0.007	0.03	0.008
25	0.004	0.019	0.005
30	0.003	0.018	0.004
55	0.003	0.016	0.004

Pollutant Name: PM10 Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0.863	0.047
10	0.035	0.676	0.07
25	0.013	0.287	0.028
30	0.011	0.256	0.024
55	0.008	0.322	0.025

Pollutant Name: PM10 - Tire Wear Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0.008	0.035	0.01
25	0.008	0.035	0.01
30	0.008	0.035	0.01
55	0.008	0.035	0.01

Pollutant Name: PM10 - Break Wear Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0.013	0.028	0.013
25	0.013	0.028	0.013
30	0.013	0.028	0.013
55	0.013	0.028	0.013

Pollutant Name: Gasoline - mi/gal Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	12.294	4.694	12.284
25	22.756	11.482	22.742
30	25.944	13.863	25.929
55	28.68	15.602	28.663

Pollutant Name: Diesel - mi/gal Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	28.086	3.184	3.458
25	28.086	4.935	5.189
30	28.086	5.238	5.49
55	28.086	6.064	6.306

Title : Los Angeles County Avg Annual All CYrs 2009 to 2017 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2008/07/10 11:33:35
Scen Year: 2017 -- All model years in the range 1973 to 2017 selected
Season : Annual
Area : Los Angeles
****

Year: 2017 -- Model Years 1973 to 2017 Inclusive -- Annual
Emfac2007 Emission Factors: V2.3 Nov 1 2006

County Average | Los Angeles | County Average

Table 1: Running Exhaust Emissions (grams/mile; grams/idle-hour)

Pollutant Name: Reactive Org Gases Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	9.049	0.502
10	0.094	3.383	0.277
25	0.035	0.765	0.075
30	0.028	0.634	0.061
55	0.02	0.414	0.042

Pollutant Name: Carbon Monoxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	42.893	2.38
10	1.982	9.074	2.376
25	1.466	3.775	1.595
30	1.346	3.305	1.455
55	0.976	2.751	1.074

Pollutant Name: Oxides of Nitrogen Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	116.812	6.482
10	0.171	12.684	0.865
25	0.125	7.379	0.528
30	0.118	6.95	0.497
55	0.111	6.207	0.45

Pollutant Name: Carbon Dioxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	6485.529	359.89
10	716.437	3135.749	850.687
25	386.528	2015.683	476.932
30	338.967	1897.258	425.438
55	307.079	1639.383	381.01

Pollutant Name: Sulfur Dioxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0.062	0.003
10	0.007	0.03	0.008
25	0.004	0.019	0.005
30	0.003	0.018	0.004
55	0.003	0.016	0.004

Pollutant Name: PM10 Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0.76	0.042
10	0.035	0.567	0.065
25	0.013	0.249	0.026
30	0.011	0.224	0.023
55	0.008	0.289	0.023

Pollutant Name: PM10 - Tire Wear Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0.008	0.036	0.01
25	0.008	0.036	0.01
30	0.008	0.036	0.01
55	0.008	0.036	0.01

Pollutant Name: PM10 - Break Wear Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0.013	0.028	0.013
25	0.013	0.028	0.013
30	0.013	0.028	0.013
55	0.013	0.028	0.013

Pollutant Name: Gasoline - mi/gal Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	12.307	4.708	12.298
25	22.783	11.514	22.77
30	25.975	13.901	25.961
55	28.712	15.64	28.697

Pollutant Name: Diesel - mi/gal Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	28.142	3.184	3.413
25	28.142	4.935	5.147
30	28.142	5.238	5.448
55	28.142	6.064	6.266

Title : Mitigated Los Angeles County Avg Annual All CYrs 2009 to 2011 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2008/07/10 15:27:18
Scen Year: 2009 -- All model years in the range 2004 to 2009 selected
Season : Annual
Area : Los Angeles
****

Year: 2009 -- Model Years 2004 to 2009 Inclusive -- Annual
Emfac2007 Emission Factors: V2.3 Nov 1 2006

County Average | Los Angeles | County Average

Table 1: Running Exhaust Emissions (grams/mile; grams/idle-hour)

Pollutant Name: Reactive Org Gases Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	7.408	0.277
10	0.032	1.992	0.105
25	0.012	0.494	0.03
30	0.009	0.428	0.025
55	0.007	0.243	0.016

Pollutant Name: Carbon Monoxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	40.108	1.502
10	1.043	6.631	1.252
25	0.804	2.585	0.871
30	0.741	2.361	0.802
55	0.514	2.442	0.586

Pollutant Name: Oxides of Nitrogen Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	119.582	4.478
10	0.087	17.304	0.732
25	0.064	9.732	0.426
30	0.06	8.828	0.388
55	0.054	6.899	0.31

Pollutant Name: Carbon Dioxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	6406.238	239.902
10	712.801	3117.857	802.866
25	384.479	1999.414	444.955
30	337.147	1881.006	394.961
55	305.412	1625.544	354.849

Pollutant Name: Sulfur Dioxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0.061	0.002
10	0.007	0.03	0.008
25	0.004	0.019	0.004
30	0.003	0.018	0.004
55	0.003	0.016	0.003

Pollutant Name: PM10 Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0.492	0.018
10	0.016	0.272	0.026
25	0.006	0.22	0.014
30	0.005	0.222	0.013
55	0.004	0.372	0.017

Pollutant Name: PM10 - Tire Wear Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0.008	0.035	0.009
25	0.008	0.035	0.009
30	0.008	0.035	0.009
55	0.008	0.035	0.009

Pollutant Name: PM10 - Break Wear Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0.013	0.028	0.013
25	0.013	0.028	0.013
30	0.013	0.028	0.013
55	0.013	0.028	0.013

Pollutant Name: Gasoline - mi/gal Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	12.4	4.928	12.391
25	22.968	12.035	22.955
30	26.189	14.52	26.175
55	28.934	16.266	28.919

Pollutant Name: Diesel - mi/gal Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0	3.184	3.184
25	0	4.935	4.935
30	0	5.238	5.238
55	0	6.064	6.064

Title : Mitigated Los Angeles County Avg Annual All CYrs 2009 to 2011 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2008/07/10 15:27:18
Scen Year: 2010 -- All model years in the range 2004 to 2010 selected
Season : Annual
Area : Los Angeles

****

Year: 2010 -- Model Years 2004 to 2010 Inclusive -- Annual
Emfac2007 Emission Factors: V2.3 Nov 1 2006

County Average | Los Angeles | County Average

Table 1: Running Exhaust Emissions (grams/mile; grams/idle-hour)

Pollutant Name: Reactive Org Gases Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	7.452	0.307
10	0.031	2.029	0.114
25	0.011	0.502	0.032
30	0.009	0.436	0.027
55	0.007	0.247	0.017

Pollutant Name: Carbon Monoxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	40.347	1.664
10	1.027	6.383	1.248
25	0.791	2.48	0.861
30	0.729	2.279	0.793
55	0.506	2.376	0.583

Pollutant Name: Oxides of Nitrogen Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	120.294	4.961
10	0.083	15.395	0.715
25	0.062	8.655	0.416
30	0.058	7.851	0.379
55	0.052	6.133	0.303

Pollutant Name: Carbon Dioxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	6444.365	265.776
10	712.801	3126.461	812.344
25	384.479	2007.237	451.404
30	337.147	1888.821	401.14
55	305.412	1632.199	360.131

Pollutant Name: Sulfur Dioxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0.062	0.003
10	0.007	0.03	0.008
25	0.004	0.019	0.004
30	0.003	0.018	0.004
55	0.003	0.016	0.003

Pollutant Name: PM10 Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0.429	0.018
10	0.018	0.25	0.028
25	0.007	0.202	0.015
30	0.005	0.205	0.014
55	0.004	0.342	0.018

Pollutant Name: PM10 - Tire Wear Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0.008	0.035	0.009
25	0.008	0.035	0.009
30	0.008	0.035	0.009
55	0.008	0.035	0.009

Pollutant Name: PM10 - Break Wear Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0.013	0.028	0.013
25	0.013	0.028	0.013
30	0.013	0.028	0.013
55	0.013	0.028	0.013

Pollutant Name: Gasoline - mi/gal Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	12.401	4.911	12.392
25	22.97	11.993	22.957
30	26.191	14.47	26.177
55	28.936	16.211	28.921

Pollutant Name: Diesel - mi/gal Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0	3.184	3.184
25	0	4.935	4.935
30	0	5.238	5.238
55	0	6.064	6.064

Title : Mitigated Los Angeles County Avg Annual All CYrs 2009 to 2011 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2008/07/10 15:27:18
Scen Year: 2011 -- All model years in the range 2004 to 2011 selected
Season : Annual
Area : Los Angeles
****

Year: 2011 -- Model Years 2004 to 2011 Inclusive -- Annual
Emfac2007 Emission Factors: V2.3 Nov 1 2006

County Average | Los Angeles | County Average

Table 1: Running Exhaust Emissions (grams/mile; grams/idle-hour)

Pollutant Name: Reactive Org Gases Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	7.481	0.332
10	0.031	2.04	0.12
25	0.011	0.505	0.033
30	0.009	0.438	0.028
55	0.007	0.249	0.017

Pollutant Name: Carbon Monoxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	40.504	1.799
10	1.007	6.177	1.237
25	0.776	2.395	0.848
30	0.716	2.211	0.782
55	0.496	2.318	0.577

Pollutant Name: Oxides of Nitrogen Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	120.763	5.363
10	0.08	13.832	0.691
25	0.059	7.775	0.402
30	0.055	7.052	0.366
55	0.05	5.508	0.292

Pollutant Name: Carbon Dioxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	6469.497	287.305
10	712.801	3132.132	820.242
25	384.479	2012.393	456.773
30	337.147	1893.973	406.284
55	305.412	1636.585	364.529

Pollutant Name: Sulfur Dioxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0.062	0.003
10	0.007	0.03	0.008
25	0.004	0.019	0.004
30	0.003	0.018	0.004
55	0.003	0.016	0.004

Pollutant Name: PM10 Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0.382	0.017
10	0.02	0.231	0.029
25	0.007	0.187	0.015
30	0.006	0.189	0.014
55	0.004	0.316	0.018

Pollutant Name: PM10 - Tire Wear Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0.008	0.035	0.009
25	0.008	0.035	0.009
30	0.008	0.035	0.009
55	0.008	0.035	0.009

Pollutant Name: PM10 - Break Wear Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0.013	0.028	0.013
25	0.013	0.028	0.013
30	0.013	0.028	0.013
55	0.013	0.028	0.013

Pollutant Name: Gasoline - mi/gal Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	12.401	4.898	12.394
25	22.971	11.962	22.96
30	26.192	14.432	26.18
55	28.937	16.169	28.924

Pollutant Name: Diesel - mi/gal Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0	3.184	3.184
25	0	4.935	4.935
30	0	5.238	5.238
55	0	6.064	6.064

Title : Mitigated Los Angeles County Avg Annual All CYrs 2012 to 2017 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2008/07/10 15:28:21
Scen Year: 2012 -- All model years in the range 2007 to 2012 selected
Season : Annual
Area : Los Angeles
****

Year: 2012 -- Model Years 2007 to 2012 Inclusive -- Annual
Emfac2007 Emission Factors: V2.3 Nov 1 2006

County Average | Los Angeles | County Average

Table 1: Running Exhaust Emissions (grams/mile; grams/idle-hour)

Pollutant Name: Reactive Org Gases Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	7.568	0.373
10	0.02	1.472	0.092
25	0.008	0.363	0.025
30	0.006	0.316	0.021
55	0.004	0.18	0.013

Pollutant Name: Carbon Monoxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	40.972	2.021
10	0.629	3.85	0.788
25	0.485	1.478	0.534
30	0.447	1.39	0.494
55	0.31	1.492	0.368

Pollutant Name: Oxides of Nitrogen Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	122.159	6.026
10	0.051	8.313	0.459
25	0.038	4.663	0.266
30	0.035	4.227	0.242
55	0.032	3.294	0.193

Pollutant Name: Carbon Dioxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	6544.263	322.843
10	712.801	3149.003	832.984
25	384.479	2027.734	465.544
30	337.147	1909.297	414.704
55	305.412	1649.634	371.726

Pollutant Name: Sulfur Dioxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0.062	0.003
10	0.007	0.03	0.008
25	0.004	0.019	0.004
30	0.003	0.018	0.004
55	0.003	0.016	0.004

Pollutant Name: PM10 Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0.109	0.005
10	0.016	0.068	0.019
25	0.006	0.055	0.008
30	0.005	0.056	0.007
55	0.004	0.093	0.008

Pollutant Name: PM10 - Tire Wear Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0.008	0.036	0.009
25	0.008	0.036	0.009
30	0.008	0.036	0.009
55	0.008	0.036	0.009

Pollutant Name: PM10 - Break Wear Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0.013	0.028	0.013
25	0.013	0.028	0.013
30	0.013	0.028	0.013
55	0.013	0.028	0.013

Pollutant Name: Gasoline - mi/gal Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	12.413	4.989	12.408
25	23	12.182	22.993
30	26.226	14.696	26.22
55	28.966	16.461	28.959

Pollutant Name: Diesel - mi/gal Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0	3.184	3.184
25	0	4.935	4.935
30	0	5.238	5.238
55	0	6.064	6.064

Title : Mitigated Los Angeles County Avg Annual All CYrs 2012 to 2017 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2008/07/10 15:28:21
Scen Year: 2013 -- All model years in the range 2007 to 2013 selected
Season : Annual
Area : Los Angeles
****

Year: 2013 -- Model Years 2007 to 2013 Inclusive -- Annual
Emfac2007 Emission Factors: V2.3 Nov 1 2006

County Average | Los Angeles | County Average

Table 1: Running Exhaust Emissions (grams/mile; grams/idle-hour)

Pollutant Name: Reactive Org Gases Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	7.57	0.399
10	0.021	1.49	0.098
25	0.008	0.367	0.027
30	0.006	0.32	0.023
55	0.004	0.182	0.014

Pollutant Name: Carbon Monoxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	40.986	2.159
10	0.639	3.891	0.811
25	0.493	1.494	0.546
30	0.454	1.405	0.504
55	0.315	1.508	0.378

Pollutant Name: Oxides of Nitrogen Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	122.198	6.438
10	0.051	7.732	0.456
25	0.038	4.339	0.265
30	0.035	3.933	0.241
55	0.032	3.066	0.192

Pollutant Name: Carbon Dioxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	6546.376	344.912
10	712.801	3149.479	841.183
25	384.479	2028.167	471.081
30	337.147	1909.731	420.002
55	305.412	1650.002	376.255

Pollutant Name: Sulfur Dioxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0.062	0.003
10	0.007	0.03	0.008
25	0.004	0.019	0.005
30	0.003	0.018	0.004
55	0.003	0.016	0.004

Pollutant Name: PM10 Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0.109	0.006
10	0.018	0.072	0.021
25	0.007	0.058	0.009
30	0.005	0.059	0.008
55	0.004	0.098	0.009

Pollutant Name: PM10 - Tire Wear Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0.008	0.036	0.009
25	0.008	0.036	0.009
30	0.008	0.036	0.009
55	0.008	0.036	0.009

Pollutant Name: PM10 - Break Wear Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0.013	0.028	0.013
25	0.013	0.028	0.013
30	0.013	0.028	0.013
55	0.013	0.028	0.013

Pollutant Name: Gasoline - mi/gal Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	12.412	4.98	12.408
25	22.999	12.161	22.992
30	26.225	14.671	26.218
55	28.965	16.433	28.958

Pollutant Name: Diesel - mi/gal Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0	3.184	3.184
25	0	4.935	4.935
30	0	5.238	5.238
55	0	6.064	6.064

Title : Mitigated Los Angeles County Avg Annual All CYrs 2012 to 2017 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2008/07/10 15:28:21
Scen Year: 2014 -- All model years in the range 2007 to 2014 selected
Season : Annual
Area : Los Angeles
****

Year: 2014 -- Model Years 2007 to 2014 Inclusive -- Annual
Emfac2007 Emission Factors: V2.3 Nov 1 2006

County Average | Los Angeles | County Average

Table 1: Running Exhaust Emissions (grams/mile; grams/idle-hour)

Pollutant Name: Reactive Org Gases Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	7.572	0.427
10	0.021	1.495	0.104
25	0.008	0.369	0.028
30	0.006	0.321	0.024
55	0.005	0.182	0.015

Pollutant Name: Carbon Monoxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	40.995	2.314
10	0.649	3.906	0.833
25	0.5	1.5	0.556
30	0.461	1.41	0.515
55	0.32	1.514	0.387

Pollutant Name: Oxides of Nitrogen Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	122.226	6.899
10	0.052	7.281	0.46
25	0.038	4.086	0.267
30	0.036	3.705	0.243
55	0.032	2.888	0.193

Pollutant Name: Carbon Dioxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	6547.867	369.618
10	712.801	3149.816	850.367
25	384.479	2028.473	477.28
30	337.147	1910.036	425.934
55	305.412	1650.263	381.327

Pollutant Name: Sulfur Dioxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0.063	0.004
10	0.007	0.03	0.008
25	0.004	0.019	0.005
30	0.003	0.018	0.004
55	0.003	0.016	0.004

Pollutant Name: PM10 Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0.109	0.006
10	0.019	0.074	0.023
25	0.007	0.06	0.01
30	0.006	0.061	0.009
55	0.004	0.102	0.01

Pollutant Name: PM10 - Tire Wear Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0.008	0.036	0.01
25	0.008	0.036	0.01
30	0.008	0.036	0.01
55	0.008	0.036	0.01

Pollutant Name: PM10 - Break Wear Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0.013	0.028	0.013
25	0.013	0.028	0.013
30	0.013	0.028	0.013
55	0.013	0.028	0.013

Pollutant Name: Gasoline - mi/gal Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	12.412	4.972	12.407
25	22.998	12.142	22.991
30	26.224	14.649	26.217
55	28.964	16.409	28.957

Pollutant Name: Diesel - mi/gal Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0	3.184	3.184
25	0	4.935	4.935
30	0	5.238	5.238
55	0	6.064	6.064

Title : Mitigated Los Angeles County Avg Annual All CYrs 2012 to 2017 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2008/07/10 15:28:21
Scen Year: 2015 -- All model years in the range 2007 to 2015 selected
Season : Annual
Area : Los Angeles
****

Year: 2015 -- Model Years 2007 to 2015 Inclusive -- Annual
Emfac2007 Emission Factors: V2.3 Nov 1 2006

County Average | Los Angeles | County Average

Table 1: Running Exhaust Emissions (grams/mile; grams/idle-hour)

Pollutant Name: Reactive Org Gases Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	7.573	0.453
10	0.021	1.489	0.109
25	0.008	0.367	0.029
30	0.006	0.319	0.025
55	0.005	0.182	0.015

Pollutant Name: Carbon Monoxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	41.002	2.453
10	0.654	3.896	0.848
25	0.504	1.496	0.564
30	0.465	1.407	0.521
55	0.322	1.51	0.393

Pollutant Name: Oxides of Nitrogen Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	122.248	7.313
10	0.052	6.911	0.462
25	0.038	3.879	0.268
30	0.036	3.517	0.244
55	0.032	2.743	0.194

Pollutant Name: Carbon Dioxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	6549.034	391.771
10	712.801	3150.079	858.602
25	384.479	2028.712	482.839
30	337.147	1910.275	431.253
55	305.412	1650.466	385.875

Pollutant Name: Sulfur Dioxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0.063	0.004
10	0.007	0.03	0.008
25	0.004	0.019	0.005
30	0.003	0.018	0.004
55	0.003	0.016	0.004

Pollutant Name: PM10 Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0.109	0.007
10	0.021	0.076	0.024
25	0.008	0.062	0.011
30	0.006	0.062	0.01
55	0.005	0.104	0.011

Pollutant Name: PM10 - Tire Wear Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0.008	0.036	0.01
25	0.008	0.036	0.01
30	0.008	0.036	0.01
55	0.008	0.036	0.01

Pollutant Name: PM10 - Break Wear Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0.013	0.028	0.013
25	0.013	0.028	0.013
30	0.013	0.028	0.013
55	0.013	0.028	0.013

Pollutant Name: Gasoline - mi/gal Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	12.412	4.966	12.407
25	22.998	12.128	22.991
30	26.224	14.631	26.216
55	28.964	16.389	28.956

Pollutant Name: Diesel - mi/gal Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0	3.184	3.184
25	0	4.935	4.935
30	0	5.238	5.238
55	0	6.064	6.064

Title : Mitigated Los Angeles County Avg Annual All CYrs 2012 to 2017 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2008/07/10 15:28:21
Scen Year: 2016 -- All model years in the range 2007 to 2016 selected
Season : Annual
Area : Los Angeles
****

Year: 2016 -- Model Years 2007 to 2016 Inclusive -- Annual
Emfac2007 Emission Factors: V2.3 Nov 1 2006

County Average | Los Angeles | County Average

Table 1: Running Exhaust Emissions (grams/mile; grams/idle-hour)

Pollutant Name: Reactive Org Gases Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	7.575	0.468
10	0.021	1.493	0.112
25	0.008	0.368	0.03
30	0.006	0.32	0.026
55	0.005	0.182	0.016

Pollutant Name: Carbon Monoxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	41.012	2.533
10	0.661	3.911	0.861
25	0.509	1.502	0.571
30	0.469	1.412	0.528
55	0.325	1.515	0.399

Pollutant Name: Oxides of Nitrogen Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	122.277	7.551
10	0.052	6.71	0.463
25	0.038	3.768	0.269
30	0.036	3.416	0.245
55	0.032	2.664	0.195

Pollutant Name: Carbon Dioxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	6550.578	404.512
10	712.801	3150.427	863.329
25	384.479	2029.029	486.033
30	337.147	1910.592	434.31
55	305.412	1650.736	388.489

Pollutant Name: Sulfur Dioxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0.063	0.004
10	0.007	0.03	0.008
25	0.004	0.019	0.005
30	0.003	0.018	0.004
55	0.003	0.016	0.004

Pollutant Name: PM10 Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0.109	0.007
10	0.022	0.079	0.026
25	0.008	0.063	0.012
30	0.007	0.064	0.01
55	0.005	0.107	0.011

Pollutant Name: PM10 - Tire Wear Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0.008	0.036	0.01
25	0.008	0.036	0.01
30	0.008	0.036	0.01
55	0.008	0.036	0.01

Pollutant Name: PM10 - Break Wear Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0.013	0.028	0.014
25	0.013	0.028	0.014
30	0.013	0.028	0.014
55	0.013	0.028	0.014

Pollutant Name: Gasoline - mi/gal Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	12.412	4.958	12.407
25	22.997	12.107	22.99
30	26.223	14.606	26.216
55	28.964	16.361	28.955

Pollutant Name: Diesel - mi/gal Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0	3.184	3.184
25	0	4.935	4.935
30	0	5.238	5.238
55	0	6.064	6.064

Title : Mitigated Los Angeles County Avg Annual All CYrs 2012 to 2017 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2008/07/10 15:28:21
Scen Year: 2017 -- All model years in the range 2007 to 2017 selected
Season : Annual
Area : Los Angeles
****

Year: 2017 -- Model Years 2007 to 2017 Inclusive -- Annual
Emfac2007 Emission Factors: V2.3 Nov 1 2006

County Average | Los Angeles | County Average

Table 1: Running Exhaust Emissions (grams/mile; grams/idle-hour)

Pollutant Name: Reactive Org Gases Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	7.577	0.476
10	0.021	1.5	0.114
25	0.008	0.37	0.031
30	0.006	0.322	0.026
55	0.005	0.183	0.016

Pollutant Name: Carbon Monoxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	41.02	2.578
10	0.665	3.93	0.87
25	0.513	1.509	0.575
30	0.473	1.418	0.532
55	0.328	1.523	0.403

Pollutant Name: Oxides of Nitrogen Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	122.302	7.685
10	0.052	6.589	0.463
25	0.038	3.699	0.268
30	0.036	3.354	0.244
55	0.032	2.616	0.195

Pollutant Name: Carbon Dioxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	6551.934	411.719
10	712.801	3150.734	865.999
25	384.479	2029.308	487.839
30	337.147	1910.87	436.038
55	305.412	1650.973	389.966

Pollutant Name: Sulfur Dioxide Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0.063	0.004
10	0.007	0.03	0.008
25	0.004	0.019	0.005
30	0.003	0.018	0.004
55	0.003	0.016	0.004

Pollutant Name: PM10 Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0.109	0.007
10	0.024	0.081	0.027
25	0.009	0.065	0.012
30	0.007	0.066	0.011
55	0.005	0.111	0.012

Pollutant Name: PM10 - Tire Wear Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0.008	0.036	0.01
25	0.008	0.036	0.01
30	0.008	0.036	0.01
55	0.008	0.036	0.01

Pollutant Name: PM10 - Break Wear Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0.013	0.028	0.014
25	0.013	0.028	0.014
30	0.013	0.028	0.014
55	0.013	0.028	0.014

Pollutant Name: Gasoline - mi/gal Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	12.412	4.949	12.407
25	22.997	12.086	22.99
30	26.223	14.582	26.215
55	28.963	16.335	28.955

Pollutant Name: Diesel - mi/gal Temperature: 60F Relative Humidity: 50%

Speed MPH	LDA ALL	HHD ALL	ALL ALL
0	0	0	0
10	0	3.184	3.184
25	0	4.935	4.935
30	0	5.238	5.238
55	0	6.064	6.064

Title : Los Angeles County Avg Annual CYr 2015 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2008/05/01 17:04:37
Scen Year: 2015 -- All model years in the range 1971 to 2015 selected
Season : Annual
Area : Los Angeles
****

Year: 2015 -- Model Years 1971 to 2015 Inclusive -- Annual
Emfac2007 Emission Factors: V2.3 Nov 1 2006

Los Angeles County Average

Table 1: Running Exhaust Emissions (grams/mile)
Pollutant Name: Carbon Monoxide
Temperature: 60F
Relative Humidity: 50%

Speed MPH	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	ALL
3	2.833	5.149	4.154	5.713	11.687	5.805	9.211	16.755	7.249	26.271	27.934	18.977	24.611	4.574
4	2.754	4.954	4.036	5.504	11.687	5.805	9.211	16.755	7.249	26.271	27.934	18.977	24.611	4.471
5	2.679	4.772	3.925	5.309	11.687	5.805	9.211	16.755	7.249	26.271	27.934	18.977	24.611	4.375
6	2.609	4.601	3.819	5.128	10.729	5.338	8.493	15.52	6.675	23.978	26.884	17.473	22.587	4.194
7	2.541	4.441	3.718	4.958	9.871	4.918	7.846	14.369	6.158	21.936	25.92	16.122	20.775	4.027
8	2.477	4.292	3.622	4.8	9.101	4.541	7.263	13.298	5.693	20.115	25.034	14.905	19.151	3.871
9	2.416	4.152	3.531	4.651	8.41	4.202	6.737	12.303	5.274	18.488	24.22	13.809	17.692	3.726
10	2.358	4.021	3.444	4.511	7.789	3.896	6.261	11.38	4.896	17.032	23.472	12.82	16.38	3.591
11	2.302	3.898	3.361	4.38	7.229	3.62	5.83	10.527	4.554	15.727	22.786	11.925	15.199	3.465
12	2.249	3.783	3.281	4.256	6.724	3.371	5.44	9.74	4.245	14.555	22.156	11.116	14.135	3.347
13	2.198	3.674	3.205	4.139	6.268	3.146	5.086	9.018	3.965	13.503	21.58	10.383	13.173	3.237
14	2.149	3.572	3.132	4.029	5.855	2.942	4.764	8.358	3.711	12.555	21.053	9.718	12.304	3.134
15	2.102	3.475	3.063	3.925	5.482	2.757	4.472	7.758	3.48	11.701	20.572	9.114	11.518	3.038
16	2.057	3.384	2.996	3.827	5.144	2.589	4.206	7.218	3.271	10.93	20.134	8.566	10.805	2.948
17	2.014	3.298	2.932	3.733	4.837	2.436	3.963	6.734	3.08	10.234	19.738	8.066	10.159	2.864
18	1.973	3.217	2.87	3.645	4.558	2.297	3.742	6.307	2.906	9.604	19.381	7.612	9.573	2.785
19	1.933	3.14	2.811	3.561	4.305	2.171	3.54	5.918	2.748	9.034	19.06	7.197	9.04	2.712
20	1.894	3.066	2.754	3.481	4.075	2.056	3.355	5.709	2.604	8.517	18.775	6.819	8.556	2.646
21	1.858	2.997	2.699	3.405	3.865	1.951	3.187	5.512	2.472	8.049	18.523	6.474	8.115	2.585
22	1.822	2.931	2.646	3.333	3.674	1.856	3.033	5.326	2.352	7.623	18.305	6.159	7.714	2.526
23	1.788	2.869	2.596	3.265	3.501	1.768	2.892	5.151	2.242	7.237	18.118	5.871	7.349	2.47
24	1.755	2.81	2.547	3.199	3.343	1.689	2.763	4.986	2.141	6.886	17.962	5.608	7.017	2.418
25	1.723	2.754	2.5	3.137	3.198	1.616	2.645	4.829	2.049	6.567	17.836	5.368	6.714	2.368
26	1.692	2.7	2.455	3.078	3.067	1.55	2.537	4.682	1.966	6.278	17.741	5.148	6.438	2.32
27	1.663	2.649	2.411	3.021	2.948	1.49	2.438	4.543	1.889	6.015	17.675	4.948	6.188	2.275
28	1.634	2.601	2.369	2.968	2.839	1.435	2.347	4.412	1.819	5.776	17.638	4.765	5.96	2.232
29	1.607	2.555	2.329	2.916	2.741	1.385	2.265	4.289	1.755	5.56	17.631	4.598	5.753	2.192
30	1.58	2.512	2.289	2.868	2.651	1.339	2.189	4.173	1.697	5.364	17.655	4.446	5.566	2.153
31	1.554	2.47	2.252	2.821	2.57	1.298	2.121	4.064	1.645	5.186	17.708	4.307	5.396	2.117
32	1.53	2.431	2.216	2.777	2.497	1.261	2.058	3.963	1.597	5.027	17.793	4.182	5.244	2.082
33	1.506	2.394	2.181	2.735	2.432	1.227	2.002	3.867	1.553	4.883	17.91	4.068	5.106	2.049
34	1.483	2.359	2.147	2.695	2.373	1.197	1.95	3.779	1.514	4.754	18.06	3.966	4.984	2.018
35	1.461	2.326	2.114	2.657	2.321	1.169	1.904	3.696	1.479	4.639	18.245	3.874	4.874	1.989
36	1.439	2.295	2.083	2.621	2.275	1.145	1.862	3.62	1.448	4.538	18.465	3.792	4.778	1.961
37	1.418	2.265	2.053	2.587	2.234	1.124	1.825	3.55	1.42	4.448	18.723	3.719	4.694	1.935
38	1.399	2.238	2.024	2.555	2.2	1.106	1.793	3.485	1.396	4.371	19.02	3.655	4.622	1.911
39	1.379	2.212	1.996	2.525	2.17	1.09	1.764	3.427	1.374	4.305	19.359	3.599	4.56	1.888
40	1.361	2.188	1.97	2.497	2.146	1.076	1.739	3.374	1.356	4.249	19.743	3.552	4.51	1.867

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Title   : Los Angeles County Avg Annual CYr 2020 Default Title
Version : Emfac2007 V2.3 Nov 1 2006
Run Date : 2008/05/01 17:05:16
Scen Year: 2020 -- All model years in the range 1976 to 2020 selected
Season   : Annual
Area   : Los Angeles
****

Year: 2020 -- Model Years 1976 to 2020 Inclusive -- Annual
     Emfac2007 Emission Factors: V2.3 Nov 1 2006
Los Angeles County Average

Table 1: Running Exhaust Emissions (grams/mile)

Pollutant Name: Carbon Monoxide
Temperature: 60F
Relative Humidity: 50%

Speed MPH	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH	ALL
3	1.818	2.914	3.052	4.018	6.974	3.292	6.594	10.538	5.749	21.491	25.073	15.342	7.94	3.079
4	1.776	2.834	2.978	3.894	6.974	3.292	6.594	10.538	5.749	21.491	25.073	15.342	7.94	3.022
5	1.736	2.757	2.907	3.777	6.974	3.292	6.594	10.538	5.749	21.491	25.073	15.342	7.94	2.968
6	1.697	2.684	2.839	3.667	6.404	3.031	6.087	9.68	5.301	19.616	24.176	14.139	7.288	2.854
7	1.66	2.613	2.774	3.564	5.894	2.796	5.63	8.882	4.897	17.947	23.349	13.056	6.705	2.748
8	1.624	2.546	2.711	3.466	5.435	2.584	5.217	8.142	4.533	16.458	22.586	12.08	6.181	2.65
9	1.589	2.483	2.651	3.373	5.024	2.394	4.844	7.456	4.204	15.127	21.884	11.2	5.711	2.557
10	1.556	2.422	2.592	3.285	4.654	2.222	4.506	6.823	3.907	13.937	21.237	10.405	5.289	2.471
11	1.523	2.364	2.536	3.201	4.32	2.067	4.2	6.242	3.638	12.87	20.641	9.685	4.908	2.39
12	1.492	2.308	2.482	3.122	4.019	1.926	3.922	5.71	3.395	11.912	20.092	9.034	4.565	2.314
13	1.462	2.255	2.43	3.047	3.747	1.799	3.67	5.227	3.174	11.051	19.587	8.443	4.255	2.243
14	1.433	2.204	2.38	2.975	3.501	1.684	3.44	4.792	2.973	10.276	19.124	7.906	3.974	2.176
15	1.404	2.155	2.331	2.906	3.278	1.579	3.231	4.403	2.79	9.577	18.699	7.419	3.721	2.114
16	1.377	2.108	2.284	2.841	3.077	1.484	3.04	4.059	2.624	8.947	18.311	6.975	3.491	2.056
17	1.351	2.063	2.239	2.778	2.893	1.397	2.867	3.76	2.473	8.377	17.957	6.571	3.282	2.001
18	1.325	2.02	2.195	2.719	2.727	1.318	2.708	3.505	2.335	7.862	17.635	6.203	3.093	1.95
19	1.3	1.979	2.153	2.661	2.576	1.246	2.563	3.28	2.209	7.396	17.345	5.867	2.921	1.903
20	1.276	1.939	2.112	2.607	2.438	1.181	2.43	3.179	2.094	6.973	17.084	5.561	2.765	1.86
21	1.253	1.9	2.072	2.554	2.313	1.121	2.309	3.085	1.988	6.59	16.851	5.281	2.623	1.82
22	1.23	1.863	2.034	2.504	2.199	1.066	2.198	2.997	1.892	6.242	16.646	5.025	2.493	1.782
23	1.208	1.828	1.997	2.455	2.095	1.016	2.096	2.914	1.804	5.926	16.468	4.791	2.375	1.746
24	1.187	1.793	1.961	2.409	2.001	0.971	2.003	2.836	1.724	5.639	16.315	4.576	2.268	1.711
25	1.166	1.76	1.926	2.365	1.914	0.929	1.917	2.764	1.65	5.378	16.188	4.381	2.17	1.678
26	1.146	1.729	1.892	2.322	1.836	0.891	1.839	2.696	1.583	5.141	16.086	4.202	2.081	1.646
27	1.126	1.698	1.859	2.281	1.764	0.857	1.768	2.633	1.521	4.926	16.008	4.038	2	1.616
28	1.107	1.668	1.828	2.241	1.699	0.825	1.702	2.574	1.465	4.731	15.956	3.888	1.926	1.587
29	1.089	1.64	1.797	2.203	1.64	0.796	1.642	2.519	1.413	4.554	15.928	3.752	1.859	1.56
30	1.071	1.612	1.767	2.167	1.587	0.77	1.587	2.469	1.366	4.393	15.925	3.627	1.799	1.534
31	1.054	1.586	1.738	2.132	1.538	0.746	1.537	2.421	1.323	4.248	15.948	3.514	1.744	1.509
32	1.037	1.56	1.71	2.098	1.495	0.724	1.491	2.378	1.284	4.117	15.997	3.411	1.695	1.485
33	1.021	1.535	1.683	2.066	1.455	0.704	1.449	2.338	1.249	4	16.073	3.317	1.65	1.462
34	1.005	1.511	1.657	2.035	1.42	0.687	1.412	2.301	1.217	3.894	16.176	3.233	1.61	1.44
35	0.989	1.488	1.631	2.005	1.388	0.671	1.378	2.268	1.188	3.8	16.308	3.157	1.575	1.42
36	0.974	1.466	1.606	1.977	1.361	0.657	1.347	2.238	1.162	3.717	16.469	3.089	1.544	1.4
37	0.96	1.445	1.582	1.949	1.336	0.644	1.319	2.211	1.139	3.644	16.662	3.028	1.516	1.382
38	0.945	1.424	1.559	1.923	1.315	0.633	1.295	2.187	1.119	3.581	16.888	2.974	1.493	1.364
39	0.932	1.405	1.537	1.898	1.297	0.624	1.273	2.167	1.101	3.527	17.148	2.928	1.473	1.348
40	0.918	1.386	1.515	1.874	1.283	0.615	1.255	2.149	1.085	3.481	17.445	2.888	1.457	1.332

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Offroad2007 Results

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Marine Pleasure Craft Emissions - 2015

Vessel Type		% of SC Population	Project Trips	HP (avg.)	LF	NOx EF (g/bhp-hr)	CO EF (g/bhp-hr)	ROG EF (g/bhp-hr)	PM EF (g/bhp-hr)	NOx (lbs/day)	CO (lbs/day)	ROG (lbs/day)	PM-10 (lbs/day)	PM-2.5 (lbs/day)
Vessels w/Outboard Engines	G2	49%	18	211	21%	0.074	3.046	1.625	0.151	0.13	5.25	2.80	0.26	0.24
Sailboat Auxiliary Outboard Engines	G2	2%	1	27	32%	0.000	0.021	0.013	0.001	0.00	0.04	0.02	0.00	0.00
Vessels w/Inboard Engines	G4	11%	4	211	21%	1.890	48.156	1.895	0.025	3.26	82.98	3.26	0.04	0.04
Vessels w/Outboard Engines	G4	3%	1	211	21%	0.057	1.720	0.068	0.001	0.10	2.96	0.12	0.00	0.00
Vessels w/Sterndrive Engines	G4	30%	11	211	21%	3.082	81.211	3.207	0.042	5.31	139.94	5.53	0.07	0.07
Sailboat Auxiliary Inboard Engines	G4	1%	0	27	32%	0.001	0.022	0.001	0.000	0.00	0.04	0.00	0.00	0.00
Vessels w/Inboard Engines	D	2%	1	211	21%	0.663	0.294	0.196	0.017	1.14	0.51	0.34	0.03	0.03
Sailboat Auxiliary Inboard Engines	D	2%	1	27	32%	0.009	0.004	0.003	0.000	0.02	0.01	0.00	0.00	0.000
Water Taxis	D		16	211	21%	0.074	3.046	1.625	0.151	0.13	5.25	2.80	0.26	0.239
total			**36**							**10.1**	**237.0**	**14.9**	**0.7**	**0.6**

Percentage of SC Population taked from 2002 ARB Pleasure Craft Exhaust Emissions Inventory
Average hp and LF were taken from ARB's Attachment D, Emission Inventory Development
ARB's numbers were based on the Systems Applications International (SAI) report.
The SAI report is entitled "Development of an Improved Inventory of Emissions from Pleasure Craft in California, dated June 1995.
Average hp for outboards taken from table 4, MSC98-14, Proposed Pleasure Craft Emissions Inventory
ARB's EF vary for 2 stroke, 4 stroke, and diesel engines, taken from table 8a and 8b, of MSC 98-34
ARB uses OFFROAD model for estimating the emissions
Personal Water Crafts (Jet Skis) are not part of the POLA inventory
Fuel Correction factors are multiplicative factors applied to emission rates.
Deterioration Rates (DR), table 9 of MSC 98-34
Fuel Correction factors (FCF), table 10 and 11 of MSC 98-34
Fuel correction factors vary by vessel year (pre-1992,1992-1995,1996+) for gasoline powered engines and by summer/winter
Median engine age is 13 years, making 2015 inventory have 2002 average engine age.

TOG = 1.07*HC for diesel, 1.04*HC for gasoline
PM is assumed to be PM-10
PM-2.5 is 92% of PM-10

Did not take into account deterioration factor or fuel correction factor

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Marine Pleasure Craft Emissions - 2020

Vessel Type		% of SC Population	Project Trips	HP (avg.)	LF	NOx EF (g/bhp-hr)	CO EF (g/bhp-hr)	ROG EF (g/bhp-hr)	PM EF (g/bhp-hr)	NOx (lbs/day)	CO (lbs/day)	ROG (lbs/day)	PM-10 (lbs/day)	PM-2.5 (lbs/day)
Vessels w/Outboard Engines	G2	49%	18	211	21%	0.141	1.167	0.609	0.149	0.24	2.01	1.05	0.26	0.24
Sailboat Auxiliary Outboard Engines	G2	2%	1	27	32%	0.001	0.007	0.004	0.001	0.00	0.01	0.01	0.00	0.00
Vessels w/Inboard Engines	G4	11%	4	211	21%	2.667	68.624	2.033	0.045	4.59	118.25	3.50	0.08	0.07
Vessels w/Outboard Engines	G4	3%	1	211	21%	0.059	1.944	0.073	0.001	0.10	3.35	0.13	0.00	0.00
Vessels w/Sterndrive Engines	G4	30%	11	211	21%	3.645	95.141	2.790	0.063	6.28	163.95	4.81	0.11	0.10
Sailboat Auxiliary Inboard Engines	G4	1%	0	27	32%	0.001	0.023	0.001	0.000	0.00	0.04	0.00	0.00	0.00
Vessels w/Inboard Engines	D	2%	1	211	21%	1.201	0.527	0.351	0.031	2.07	0.91	0.60	0.05	0.05
Sailboat Auxiliary Inboard Engines	D	2%	1	27	32%	0.008	0.003	0.002	0.000	0.01	0.01	0.00	0.00	0.000
Water Taxis	D		16	211	21%	0.074	3.046	1.625	0.151	0.13	5.25	2.80	0.26	0.239
total			**36**							**13.4**	**293.8**	**12.9**	**0.8**	**0.7**

Percentage of SC Population taked from 2002 ARB Pleasure Craft Exhaust Emissions Inventory
Average hp and LF were taken from ARB's Attachment D, Emission Inventory Development
ARB's numbers were based on the Systems Applications International (SAI) report.
The SAI report is entitled "Development of an Improved Inventory of Emissions from Pleasure Craft in California, dated June 1995.
Average hp for outboards taken from table 4, MSC98-14, Proposed Pleasure Craft Emissions Inventory
ARB's EF vary for 2 stroke, 4 stroke, and diesel engines, taken from table 8a and 8b, of MSC 98-34
ARB uses OFFROAD model for estimating the emissions
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Fuel Correction factors are multiplicative factors applied to emission rates.
Deterioration Rates (DR), table 9 of MSC 98-34
Fuel Correction factors (FCF), table 10 and 11 of MSC 98-34
Fuel correction factors vary by vessel year (pre-1992,1992-1995,1996+) for gasoline powered engines and by summer/winter
Median engine age is 13 years, making 2020 inventory have 2017 average engine age.

TOG = 1.07*HC for diesel, 1.04*HC for gasoline
PM is assumed to be PM-10
PM-2.5 is 92% of PM-10

Did not take into account deterioration factor or fuel correction factor

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Caline4 Output Sheets

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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1

              JOB:   MARINE AVE AND HARRY BRIDGES BLVD AMNP
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide

  I.  SITE VARIABLES

        U=    .5 M/S            Z0= 100. CM           ALT=     0. (M)
      BRG= WORST CASE           VD=   .0 CM/S
     CLAS=     7 (G)            VS=   .0 CM/S
     MIXH= 1000. M             AMB=   .0 PPM
    SIGTH=    5. DEGREES       TEMP= 15.6 DEGREE (C)

 II.  LINK VARIABLES

      LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
----------------*-------------------------*------------------------------
A. NF           *     2  -450     2  -150 *  AG     19   2.2     .0  10.5
B. NA           *     2  -150     2     0 *  AG     17   4.6     .0   9.9
C. ND           *     2     0     2   150 *  AG     57   4.6     .0   9.9
D. NE           *     2   150     2   450 *  AG     57   2.2     .0  10.5
E. SF           *    -2   450    -2   150 *  AG     33   2.2     .0  10.5
F. SA           *    -2   150    -2     0 *  AG     19   4.6     .0   9.9
G. SD           *    -2     0    -2  -150 *  AG      9   4.6     .0   9.9
H. SE           *    -2  -150    -2  -450 *  AG      9   2.2     .0  10.5
I. WF           *   450     5   150     5 *  AG   1004   2.2     .0  15.0
J. WA           *   150     5     0     5 *  AG   1002   3.0     .0   9.9
K. WD           *     0     5  -150     5 *  AG   1008   2.3     .0   9.9
L. WE           *  -150     5  -450     5 *  AG   1008   2.2     .0  15.0
M. EF           *  -450    -5  -150    -5 *  AG    773   2.2     .0  15.0
N. EA           *  -150    -5     0    -5 *  AG    730   3.0     .0   9.9
O. ED           *     0    -5   150    -5 *  AG    755   2.3     .0   9.9
P. EE           *   150    -5   450    -5 *  AG    755   2.2     .0  15.0
Q. NL           *     0     0     2  -150 *  AG      2   4.6     .0   9.9
R. SL           *     0     0    -2   150 *  AG     14   4.6     .0   9.9
S. WL           *     0     0   150     2 *  AG      2   2.9     .0   9.9
T. EL           *     0     0  -150    -2 *  AG     43   2.9     .0   9.9

 III.  RECEPTOR LOCATIONS

            *    COORDINATES (M)
  RECEPTOR  *    X      Y      Z
------------*--------------------
1. NE3      *      8     12   1.8
2. SE3      *      8    -12   1.8
3. SW3      *     -8    -12   1.8
4. NW3      *     -8     12   1.8

  IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

            *       * PRED  *                CONC/LINK
            *  BRG  * CONC  *                  (PPM)
  RECEPTOR  * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
------------*-------*-------*-----------------------------------------
1. NE3      *  265. *    .6 *   .0   .0   .0   .0   .0   .0   .0   .0
2. SE3      *  275. *    .6 *   .0   .0   .0   .0   .0   .0   .0   .0
3. SW3      *  275. *    .6 *   .0   .0   .0   .0   .0   .0   .0   .0
4. NW3      *   95. *    .7 *   .0   .0   .0   .0   .0   .0   .0   .0

            *                          CONC/LINK
            *                            (PPM)
  RECEPTOR  *   I    J    K    L    M    N    O    P    Q    R    S    T
------------*-------------------------------------------------------------
1. NE3      *   .0   .0   .3   .0   .0   .0   .0   .0   .0   .0   .0   .0
2. SE3      *   .0   .0   .0   .1   .0   .3   .0   .0   .0   .0   .0   .0
3. SW3      *   .0   .0   .0   .1   .0   .3   .0   .0   .0   .0   .0   .0
4. NW3      *   .0   .4   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0
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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1

              JOB:   MARINE AVE AND HARRY BRIDGES BLVD AMWP
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide

  I.  SITE VARIABLES

        U=    .5 M/S            Z0= 100. CM           ALT=     0. (M)
      BRG= WORST CASE           VD=   .0 CM/S
     CLAS=     7 (G)            VS=   .0 CM/S
     MIXH= 1000. M             AMB=   .0 PPM
    SIGTH=    5. DEGREES       TEMP= 15.6 DEGREE (C)

 II.  LINK VARIABLES

      LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
----------------*-------------------------*------------------------------
A. NF           *     2  -450     2  -150 *  AG     27   2.2     .0  10.5
B. NA           *     2  -150     2     0 *  AG     23   4.6     .0   9.9
C. ND           *     2     0     2   150 *  AG     80   4.6     .0   9.9
D. NE           *     2   150     2   450 *  AG     80   2.2     .0  10.5
E. SF           *    -2   450    -2   150 *  AG     42   2.2     .0  10.5
F. SA           *    -2   150    -2     0 *  AG     28   4.6     .0   9.9
G. SD           *    -2     0    -2  -150 *  AG     20   4.6     .0   9.9
H. SE           *    -2  -150    -2  -450 *  AG     20   2.2     .0  10.5
I. WF           *   450     5   150     5 *  AG   1014   2.2     .0  15.0
J. WA           *   150     5     0     5 *  AG   1012   3.0     .0   9.9
K. WD           *     0     5  -150     5 *  AG   1018   2.3     .0   9.9
L. WE           *  -150     5  -450     5 *  AG   1018   2.2     .0  15.0
M. EF           *  -450    -5  -150    -5 *  AG    810   2.2     .0  15.0
N. EA           *  -150    -5     0    -5 *  AG    754   3.0     .0   9.9
O. ED           *     0    -5   150    -5 *  AG    775   2.3     .0   9.9
P. EE           *   150    -5   450    -5 *  AG    775   2.2     .0  15.0
Q. NL           *     0     0     2  -150 *  AG      4   4.6     .0   9.9
R. SL           *     0     0    -2   150 *  AG     14   4.6     .0   9.9
S. WL           *     0     0   150     2 *  AG      2   2.9     .0   9.9
T. EL           *     0     0  -150    -2 *  AG     56   2.9     .0   9.9

 III.  RECEPTOR LOCATIONS

            *    COORDINATES (M)
  RECEPTOR  *    X      Y      Z
------------*--------------------
1. NE3      *      8     12   1.8
2. SE3      *      8    -12   1.8
3. SW3      *     -8    -12   1.8
4. NW3      *     -8     12   1.8

  IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

            *       * PRED  *                CONC/LINK
            *  BRG  * CONC  *                  (PPM)
  RECEPTOR  * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
------------*-------*-------*-----------------------------------------
1. NE3      *  265. *    .6 *   .0   .0   .0   .0   .0   .0   .0   .0
2. SE3      *  275. *    .6 *   .0   .0   .0   .0   .0   .0   .0   .0
3. SW3      *  275. *    .6 *   .0   .0   .0   .0   .0   .0   .0   .0
4. NW3      *   95. *    .7 *   .0   .0   .0   .0   .0   .0   .0   .0

            *                          CONC/LINK
            *                            (PPM)
  RECEPTOR  *   I    J    K    L    M    N    O    P    Q    R    S    T
------------*-------------------------------------------------------------
1. NE3      *   .0   .0   .3   .0   .1   .0   .0   .0   .0   .0   .0   .0
2. SE3      *   .0   .0   .0   .1   .0   .3   .0   .0   .0   .0   .0   .0
3. SW3      *   .0   .0   .0   .1   .0   .3   .0   .0   .0   .0   .0   .0
4. NW3      *   .0   .4   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0
```

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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1

              JOB:   MARINE AVE AND HARRY BRIDGES BLVD PMNP
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide

  I.  SITE VARIABLES

        U=    .5 M/S            Z0= 100. CM            ALT=     0. (M)
      BRG= WORST CASE           VD=   .0 CM/S
     CLAS=     7 (G)            VS=   .0 CM/S
     MIXH= 1000. M             AMB=   .0 PPM
    SIGTH=    5. DEGREES       TEMP= 15.6 DEGREE (C)

 II.  LINK VARIABLES

      LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
----------------*-------------------------*------------------------------
A. NF           *     2  -450     2  -150 *  AG     54   2.2     .0  10.5
B. NA           *     2  -150     2     0 *  AG     50   4.6     .0   9.9
C. ND           *     2     0     2   150 *  AG     82   4.6     .0   9.9
D. NE           *     2   150     2   450 *  AG     82   2.2     .0  10.5
E. SF           *    -2   450    -2   150 *  AG     57   2.2     .0  10.5
F. SA           *    -2   150    -2     0 *  AG     38   4.6     .0   9.9
G. SD           *    -2     0    -2  -150 *  AG      1   4.6     .0   9.9
H. SE           *    -2  -150    -2  -450 *  AG      1   2.2     .0  10.5
I. WF           *   450     5   150     5 *  AG   1048   2.2     .0  15.0
J. WA           *   150     5     0     5 *  AG   1048   3.0     .0   9.9
K. WD           *     0     5  -150     5 *  AG   1077   2.3     .0   9.9
L. WE           *  -150     5  -450     5 *  AG   1077   2.2     .0  15.0
M. EF           *  -450    -5  -150    -5 *  AG   1143   2.2     .0  15.0
N. EA           *  -150    -5     0    -5 *  AG   1076   3.0     .0   9.9
O. ED           *     0    -5   150    -5 *  AG   1142   2.3     .0   9.9
P. EE           *   150    -5   450    -5 *  AG   1142   2.2     .0  15.0
Q. NL           *     0     0     2  -150 *  AG      4   4.6     .0   9.9
R. SL           *     0     0    -2   150 *  AG     19   4.6     .0   9.9
S. WL           *     0     0   150     2 *  AG      0   2.9     .0   9.9
T. EL           *     0     0  -150    -2 *  AG     67   2.9     .0   9.9

 III.  RECEPTOR LOCATIONS

            *    COORDINATES (M)
  RECEPTOR  *    X      Y      Z
------------*--------------------
1. NE3      *      8     12   1.8
2. SE3      *      8    -12   1.8
3. SW3      *     -8    -12   1.8
4. NW3      *     -8     12   1.8

  IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

            *       * PRED  *                CONC/LINK
            *  BRG  * CONC  *                  (PPM)
  RECEPTOR  * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
------------*-------*-------*---------------------------------------
1. NE3      *  264. *    .7 *   .0   .0   .0   .0   .0   .0   .0   .0
2. SE3      *  275. *    .8 *   .0   .0   .0   .0   .0   .0   .0   .0
3. SW3      *  276. *    .7 *   .0   .0   .0   .0   .0   .0   .0   .0
4. NW3      *   95. *    .7 *   .0   .0   .0   .0   .0   .0   .0   .0

            *                          CONC/LINK
            *                            (PPM)
  RECEPTOR  *   I    J    K    L    M    N    O    P    Q    R    S    T
------------*-------------------------------------------------------------
1. NE3      *   .0   .0   .3   .0   .1   .1   .0   .0   .0   .0   .0   .0
2. SE3      *   .0   .0   .0   .1   .0   .4   .0   .0   .0   .0   .0   .0
3. SW3      *   .0   .0   .0   .1   .0   .4   .0   .0   .0   .0   .0   .0
4. NW3      *   .0   .4   .0   .0   .0   .0   .0   .1   .0   .0   .0   .0
```

```
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1

              JOB:   MARINE AVE AND HARRY BRIDGES BLVD PMWP
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide

  I.  SITE VARIABLES

        U=    .5 M/S            Z0= 100. CM           ALT=     0. (M)
      BRG= WORST CASE           VD=   .0 CM/S
     CLAS=     7 (G)            VS=   .0 CM/S
     MIXH= 1000. M             AMB=   .0 PPM
    SIGTH=    5. DEGREES      TEMP= 15.6 DEGREE (C)

 II.  LINK VARIABLES

      LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
----------------*-------------------------*------------------------------
A. NF           *     2  -450     2  -150 *  AG     79   2.2     .0  10.5
B. NA           *     2  -150     2     0 *  AG     64   4.6     .0   9.9
C. ND           *     2     0     2   150 *  AG     98   4.6     .0   9.9
D. NE           *     2   150     2   450 *  AG     98   2.2     .0  10.5
E. SF           *    -2   450    -2   150 *  AG     89   2.2     .0  10.5
F. SA           *    -2   150    -2     0 *  AG     66   4.6     .0   9.9
G. SD           *    -2     0    -2  -150 *  AG     27   4.6     .0   9.9
H. SE           *    -2  -150    -2  -450 *  AG     27   2.2     .0  10.5
I. WF           *   450     5   150     5 *  AG   1070   2.2     .0  15.0
J. WA           *   150     5     0     5 *  AG   1070   3.0     .0   9.9
K. WD           *     0     5  -150     5 *  AG   1123   2.3     .0   9.9
L. WE           *  -150     5  -450     5 *  AG   1123   2.2     .0  15.0
M. EF           *  -450    -5  -150    -5 *  AG   1162   2.2     .0  15.0
N. EA           *  -150    -5     0    -5 *  AG   1093   3.0     .0   9.9
O. ED           *     0    -5   150    -5 *  AG   1152   2.3     .0   9.9
P. EE           *   150    -5   450    -5 *  AG   1152   2.2     .0  15.0
Q. NL           *     0     0     2  -150 *  AG     15   4.6     .0   9.9
R. SL           *     0     0    -2   150 *  AG     23   4.6     .0   9.9
S. WL           *     0     0   150     2 *  AG      0   2.9     .0   9.9
T. EL           *     0     0  -150    -2 *  AG     69   2.9     .0   9.9

 III.  RECEPTOR LOCATIONS

            *    COORDINATES (M)
  RECEPTOR  *    X      Y      Z
------------*---------------------
1. NE3      *      8     12   1.8
2. SE3      *      8    -12   1.8
3. SW3      *     -8    -12   1.8
4. NW3      *     -8     12   1.8

  IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

            *       * PRED  *                CONC/LINK
            *  BRG  * CONC  *                  (PPM)
  RECEPTOR  * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
------------*-------*-------*-----------------------------------------
1. NE3      *  264. *    .7 *   .0   .0   .0   .0   .0   .0   .0   .0
2. SE3      *  275. *    .8 *   .0   .0   .0   .0   .0   .0   .0   .0
3. SW3      *  276. *    .7 *   .0   .0   .0   .0   .0   .0   .0   .0
4. NW3      *   95. *    .8 *   .0   .0   .0   .0   .0   .0   .0   .0

            *                          CONC/LINK
            *                            (PPM)
  RECEPTOR  *   I    J    K    L    M    N    O    P    Q    R    S    T
------------*-------------------------------------------------------------
1. NE3      *   .0   .0   .4   .0   .1   .1   .0   .0   .0   .0   .0   .0
2. SE3      *   .0   .0   .0   .1   .0   .4   .0   .0   .0   .0   .0   .0
3. SW3      *   .0   .0   .0   .1   .0   .4   .0   .0   .0   .0   .0   .0
4. NW3      *   .0   .4   .0   .0   .0   .0   .0   .1   .0   .0   .0   .0
```

```
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1

              JOB:   MARINE AVE AND HARRY BRIDGES BLVD AMNP
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide

  I.  SITE VARIABLES

        U=    .5 M/S            Z0= 100. CM           ALT=     0. (M)
      BRG= WORST CASE           VD=   .0 CM/S
     CLAS=     7 (G)            VS=   .0 CM/S
     MIXH= 1000. M             AMB=   .0 PPM
    SIGTH=    5. DEGREES       TEMP= 15.6 DEGREE (C)

 II.  LINK VARIABLES

      LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
----------------*-------------------------*------------------------------
A. NF           *     2  -450     2  -150 *  AG     19   1.5     .0  10.5
B. NA           *     2  -150     2     0 *  AG     17   3.1     .0   9.9
C. ND           *     2     0     2   150 *  AG     59   3.1     .0   9.9
D. NE           *     2   150     2   450 *  AG     59   1.5     .0  10.5
E. SF           *    -2   450    -2   150 *  AG     34   1.5     .0  10.5
F. SA           *    -2   150    -2     0 *  AG     20   3.1     .0   9.9
G. SD           *    -2     0    -2  -150 *  AG      9   3.1     .0   9.9
H. SE           *    -2  -150    -2  -450 *  AG      9   1.5     .0  10.5
I. WF           *   450     5   150     5 *  AG   1025   1.5     .0  15.0
J. WA           *   150     5     0     5 *  AG   1023   2.1     .0   9.9
K. WD           *     0     5  -150     5 *  AG   1029   1.7     .0   9.9
L. WE           *  -150     5  -450     5 *  AG   1029   1.5     .0  15.0
M. EF           *  -450    -5  -150    -5 *  AG    790   1.5     .0  15.0
N. EA           *  -150    -5     0    -5 *  AG    746   2.1     .0   9.9
O. ED           *     0    -5   150    -5 *  AG    771   1.6     .0   9.9
P. EE           *   150    -5   450    -5 *  AG    771   1.5     .0  15.0
Q. NL           *     0     0     2  -150 *  AG      2   3.1     .0   9.9
R. SL           *     0     0    -2   150 *  AG     14   3.1     .0   9.9
S. WL           *     0     0   150     2 *  AG      2   2.0     .0   9.9
T. EL           *     0     0  -150    -2 *  AG     44   2.0     .0   9.9

 III.  RECEPTOR LOCATIONS

            *    COORDINATES (M)
  RECEPTOR  *    X      Y      Z
------------*--------------------
1. NE3      *      8     12   1.8
2. SE3      *      8    -12   1.8
3. SW3      *     -8    -12   1.8
4. NW3      *     -8     12   1.8

  IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

            *       * PRED  *                CONC/LINK
            *  BRG  * CONC  *                  (PPM)
  RECEPTOR  * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
------------*-------*-------*-----------------------------------------
1. NE3      *  264. *    .4 *   .0   .0   .0   .0   .0   .0   .0   .0
2. SE3      *  275. *    .4 *   .0   .0   .0   .0   .0   .0   .0   .0
3. SW3      *  276. *    .4 *   .0   .0   .0   .0   .0   .0   .0   .0
4. NW3      *   95. *    .5 *   .0   .0   .0   .0   .0   .0   .0   .0

            *                          CONC/LINK
            *                            (PPM)
  RECEPTOR  *   I    J    K    L    M    N    O    P    Q    R    S    T
------------*-------------------------------------------------------------
1. NE3      *   .0   .0   .2   .0   .0   .0   .0   .0   .0   .0   .0   .0
2. SE3      *   .0   .0   .0   .0   .0   .2   .0   .0   .0   .0   .0   .0
3. SW3      *   .0   .0   .0   .0   .0   .2   .0   .0   .0   .0   .0   .0
4. NW3      *   .0   .3   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0
```

```
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1

              JOB:   MARINE AVE AND HARRY BRIDGES BLVD AMWP
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide

  I.  SITE VARIABLES

        U=    .5 M/S            Z0= 100. CM           ALT=     0. (M)
      BRG= WORST CASE           VD=   .0 CM/S
     CLAS=     7 (G)            VS=   .0 CM/S
     MIXH= 1000. M             AMB=   .0 PPM
    SIGTH=    5. DEGREES       TEMP= 15.6 DEGREE (C)

 II.  LINK VARIABLES

      LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
----------------*-------------------------*------------------------------
A. NF           *     2  -450     2  -150 *  AG     27   1.5     .0  10.5
B. NA           *     2  -150     2     0 *  AG     23   3.1     .0   9.9
C. ND           *     2     0     2   150 *  AG     82   3.1     .0   9.9
D. NE           *     2   150     2   450 *  AG     82   1.5     .0  10.5
E. SF           *    -2   450    -2   150 *  AG     43   1.5     .0  10.5
F. SA           *    -2   150    -2     0 *  AG     29   3.1     .0   9.9
G. SD           *    -2     0    -2  -150 *  AG     20   3.1     .0   9.9
H. SE           *    -2  -150    -2  -450 *  AG     20   1.5     .0  10.5
I. WF           *   450     5   150     5 *  AG   1035   1.5     .0  15.0
J. WA           *   150     5     0     5 *  AG   1033   2.1     .0   9.9
K. WD           *     0     5  -150     5 *  AG   1039   1.7     .0   9.9
L. WE           *  -150     5  -450     5 *  AG   1039   1.5     .0  15.0
M. EF           *  -450    -5  -150    -5 *  AG    827   1.5     .0  15.0
N. EA           *  -150    -5     0    -5 *  AG    770   2.1     .0   9.9
O. ED           *     0    -5   150    -5 *  AG    791   1.6     .0   9.9
P. EE           *   150    -5   450    -5 *  AG    791   1.5     .0  15.0
Q. NL           *     0     0     2  -150 *  AG      4   3.1     .0   9.9
R. SL           *     0     0    -2   150 *  AG     14   3.1     .0   9.9
S. WL           *     0     0   150     2 *  AG      2   2.0     .0   9.9
T. EL           *     0     0  -150    -2 *  AG     57   2.0     .0   9.9

 III.  RECEPTOR LOCATIONS

            *    COORDINATES (M)
  RECEPTOR  *    X      Y      Z
------------*--------------------
1. NE3      *      8     12   1.8
2. SE3      *      8    -12   1.8
3. SW3      *     -8    -12   1.8
4. NW3      *     -8     12   1.8

  IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

            *       * PRED  *                CONC/LINK
            *  BRG  * CONC  *                  (PPM)
  RECEPTOR  * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
------------*-------*-------*---------------------------------------
1. NE3      *  264. *    .4 *   .0   .0   .0   .0   .0   .0   .0   .0
2. SE3      *  275. *    .4 *   .0   .0   .0   .0   .0   .0   .0   .0
3. SW3      *  276. *    .4 *   .0   .0   .0   .0   .0   .0   .0   .0
4. NW3      *   95. *    .5 *   .0   .0   .0   .0   .0   .0   .0   .0

            *                          CONC/LINK
            *                            (PPM)
  RECEPTOR  *   I    J    K    L    M    N    O    P    Q    R    S    T
------------*-------------------------------------------------------------
1. NE3      *   .0   .0   .2   .0   .0   .0   .0   .0   .0   .0   .0   .0
2. SE3      *   .0   .0   .0   .0   .0   .2   .0   .0   .0   .0   .0   .0
3. SW3      *   .0   .0   .0   .0   .0   .2   .0   .0   .0   .0   .0   .0
4. NW3      *   .0   .3   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0
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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1

              JOB:   MARINE AVE AND HARRY BRIDGES BLVD PMNP
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide

  I.  SITE VARIABLES

        U=    .5 M/S            Z0= 100. CM           ALT=     0. (M)
      BRG= WORST CASE           VD=   .0 CM/S
     CLAS=     7 (G)            VS=   .0 CM/S
     MIXH= 1000. M             AMB=   .0 PPM
    SIGTH=    5. DEGREES      TEMP= 15.6 DEGREE (C)

 II.  LINK VARIABLES

      LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
----------------*-------------------------*------------------------------
A. NF           *     2  -450     2  -150 *  AG     56   1.5     .0  10.5
B. NA           *     2  -150     2     0 *  AG     52   3.1     .0   9.9
C. ND           *     2     0     2   150 *  AG     83   3.1     .0   9.9
D. NE           *     2   150     2   450 *  AG     83   1.5     .0  10.5
E. SF           *    -2   450    -2   150 *  AG     59   1.5     .0  10.5
F. SA           *    -2   150    -2     0 *  AG     39   3.1     .0   9.9
G. SD           *    -2     0    -2  -150 *  AG      1   3.1     .0   9.9
H. SE           *    -2  -150    -2  -450 *  AG      1   1.5     .0  10.5
I. WF           *   450     5   150     5 *  AG   1071   1.5     .0  15.0
J. WA           *   150     5     0     5 *  AG   1071   2.1     .0   9.9
K. WD           *     0     5  -150     5 *  AG   1101   1.7     .0   9.9
L. WE           *  -150     5  -450     5 *  AG   1101   1.5     .0  15.0
M. EF           *  -450    -5  -150    -5 *  AG   1165   1.5     .0  15.0
N. EA           *  -150    -5     0    -5 *  AG   1097   2.1     .0   9.9
O. ED           *     0    -5   150    -5 *  AG   1166   1.7     .0   9.9
P. EE           *   150    -5   450    -5 *  AG   1166   1.5     .0  15.0
Q. NL           *     0     0     2  -150 *  AG      4   3.1     .0   9.9
R. SL           *     0     0    -2   150 *  AG     20   3.1     .0   9.9
S. WL           *     0     0   150     2 *  AG      0   2.0     .0   9.9
T. EL           *     0     0  -150    -2 *  AG     68   2.0     .0   9.9

 III.  RECEPTOR LOCATIONS

            *    COORDINATES (M)
  RECEPTOR  *    X      Y      Z
------------*--------------------
1. NE3      *      8     12   1.8
2. SE3      *      8    -12   1.8
3. SW3      *     -8    -12   1.8
4. NW3      *     -8     12   1.8

  IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

            *       * PRED  *                CONC/LINK
            *  BRG  * CONC  *                  (PPM)
  RECEPTOR  * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
------------*-------*-------*---------------------------------------
1. NE3      *  264. *    .5 *   .0   .0   .0   .0   .0   .0   .0   .0
2. SE3      *  275. *    .5 *   .0   .0   .0   .0   .0   .0   .0   .0
3. SW3      *  276. *    .5 *   .0   .0   .0   .0   .0   .0   .0   .0
4. NW3      *   95. *    .5 *   .0   .0   .0   .0   .0   .0   .0   .0

            *                          CONC/LINK
            *                            (PPM)
  RECEPTOR  *   I    J    K    L    M    N    O    P    Q    R    S    T
------------*-------------------------------------------------------------
1. NE3      *   .0   .0   .3   .0   .0   .0   .0   .0   .0   .0   .0   .0
2. SE3      *   .0   .0   .0   .0   .0   .3   .0   .0   .0   .0   .0   .0
3. SW3      *   .0   .0   .0   .0   .0   .3   .0   .0   .0   .0   .0   .0
4. NW3      *   .0   .3   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0
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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1

              JOB:   MARINE AVE AND HARRY BRIDGES BLVD PMWP
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide

  I.  SITE VARIABLES

        U=    .5 M/S            Z0= 100. CM           ALT=     0. (M)
      BRG= WORST CASE           VD=   .0 CM/S
     CLAS=     7 (G)            VS=   .0 CM/S
     MIXH= 1000. M             AMB=   .0 PPM
    SIGTH=    5. DEGREES      TEMP= 15.6 DEGREE (C)

 II.  LINK VARIABLES

      LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
----------------*-------------------------*------------------------------
A. NF           *     2  -450     2  -150 *  AG     81   1.5     .0  10.5
B. NA           *     2  -150     2     0 *  AG     66   3.1     .0   9.9
C. ND           *     2     0     2   150 *  AG     99   3.1     .0   9.9
D. NE           *     2   150     2   450 *  AG     99   1.5     .0  10.5
E. SF           *    -2   450    -2   150 *  AG     91   1.5     .0  10.5
F. SA           *    -2   150    -2     0 *  AG     67   3.1     .0   9.9
G. SD           *    -2     0    -2  -150 *  AG     27   3.1     .0   9.9
H. SE           *    -2  -150    -2  -450 *  AG     27   1.5     .0  10.5
I. WF           *   450     5   150     5 *  AG   1093   1.5     .0  15.0
J. WA           *   150     5     0     5 *  AG   1093   2.1     .0   9.9
K. WD           *     0     5  -150     5 *  AG   1147   1.7     .0   9.9
L. WE           *  -150     5  -450     5 *  AG   1147   1.5     .0  15.0
M. EF           *  -450    -5  -150    -5 *  AG   1184   1.5     .0  15.0
N. EA           *  -150    -5     0    -5 *  AG   1114   2.2     .0   9.9
O. ED           *     0    -5   150    -5 *  AG   1176   1.7     .0   9.9
P. EE           *   150    -5   450    -5 *  AG   1176   1.5     .0  15.0
Q. NL           *     0     0     2  -150 *  AG     15   3.1     .0   9.9
R. SL           *     0     0    -2   150 *  AG     24   3.1     .0   9.9
S. WL           *     0     0   150     2 *  AG      0   2.0     .0   9.9
T. EL           *     0     0  -150    -2 *  AG     70   2.0     .0   9.9

 III.  RECEPTOR LOCATIONS

            *    COORDINATES (M)
  RECEPTOR  *    X      Y      Z
------------*--------------------
1. NE3      *      8     12   1.8
2. SE3      *      8    -12   1.8
3. SW3      *     -8    -12   1.8
4. NW3      *     -8     12   1.8

  IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

            *       * PRED  *                CONC/LINK
            *  BRG  * CONC  *                  (PPM)
  RECEPTOR  * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
------------*-------*-------*---------------------------------------
1. NE3      *  264. *    .5 *   .0   .0   .0   .0   .0   .0   .0   .0
2. SE3      *  276. *    .6 *   .0   .0   .0   .0   .0   .0   .0   .0
3. SW3      *  276. *    .5 *   .0   .0   .0   .0   .0   .0   .0   .0
4. NW3      *   95. *    .5 *   .0   .0   .0   .0   .0   .0   .0   .0

            *                          CONC/LINK
            *                            (PPM)
  RECEPTOR  *   I    J    K    L    M    N    O    P    Q    R    S    T
------------*-------------------------------------------------------------
1. NE3      *   .0   .0   .3   .0   .0   .1   .0   .0   .0   .0   .0   .0
2. SE3      *   .0   .0   .0   .0   .0   .3   .0   .0   .0   .0   .0   .0
3. SW3      *   .0   .0   .0   .0   .0   .3   .0   .0   .0   .0   .0   .0
4. NW3      *   .0   .3   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0
```

```
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1

              JOB:   AVALON BLVD AND ANAHEIM ST   AMNP
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide

  I.  SITE VARIABLES

        U=    .5 M/S            Z0= 100. CM            ALT=     0. (M)
      BRG= WORST CASE           VD=   .0 CM/S
     CLAS=     7 (G)            VS=   .0 CM/S
     MIXH= 1000. M             AMB=   .0 PPM
    SIGTH=    5. DEGREES       TEMP= 15.6 DEGREE (C)

 II.  LINK VARIABLES

      LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
----------------*-------------------------*------------------------------
A. NF           *     5  -450     5  -150 *  AG    414   1.5     .0  15.0
B. NA           *     5  -150     5     0 *  AG    353   2.6     .0   9.9
C. ND           *     5     0     5   150 *  AG    489   1.8     .0   9.9
D. NE           *     5   150     5   450 *  AG    489   1.5     .0  15.0
E. SF           *    -5   450    -5   150 *  AG    614   1.5     .0  15.0
F. SA           *    -5   150    -5     0 *  AG    500   2.7     .0   9.9
G. SD           *    -5     0    -5  -150 *  AG    505   1.8     .0   9.9
H. SE           *    -5  -150    -5  -450 *  AG    505   1.5     .0  15.0
I. WF           *   450     7   150     7 *  AG    899   1.5     .0  15.0
J. WA           *   150     7     0     7 *  AG    822   2.2     .0  13.5
K. WD           *     0     7  -150     7 *  AG    935   1.7     .0   9.9
L. WE           *  -150     7  -450     7 *  AG    935   1.5     .0  15.0
M. EF           *  -450    -7  -150    -7 *  AG    877   1.5     .0  15.0
N. EA           *  -150    -7     0    -7 *  AG    770   2.2     .0  13.5
O. ED           *     0    -7   150    -7 *  AG    875   1.7     .0   9.9
P. EE           *   150    -7   450    -7 *  AG    875   1.5     .0  15.0
Q. NL           *     0     0     2  -150 *  AG     61   2.6     .0   9.9
R. SL           *     0     0    -2   150 *  AG    114   2.6     .0   9.9
S. WL           *     0     0   150     5 *  AG     77   2.1     .0   9.9
T. EL           *     0     0  -150    -5 *  AG    107   2.1     .0   9.9

 III.  RECEPTOR LOCATIONS

            *    COORDINATES (M)
  RECEPTOR  *    X      Y      Z
------------*--------------------
1. NE3      *     12     14   1.8
2. SE3      *     12    -14   1.8
3. SW3      *    -12    -14   1.8
4. NW3      *    -12     14   1.8

  IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

            *       * PRED  *                CONC/LINK
            *  BRG  * CONC  *                  (PPM)
  RECEPTOR  * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
------------*-------*-------*---------------------------------------
1. NE3      *  262. *    .6 *   .0   .0   .0   .0   .0   .0   .0   .0
2. SE3      *  275. *    .5 *   .0   .0   .0   .0   .0   .0   .0   .0
3. SW3      *   82. *    .5 *   .0   .0   .0   .0   .0   .0   .0   .0
4. NW3      *   95. *    .6 *   .0   .0   .0   .0   .0   .0   .0   .0

            *                          CONC/LINK
            *                            (PPM)
  RECEPTOR  *   I    J    K    L    M    N    O    P    Q    R    S    T
------------*-------------------------------------------------------------
1. NE3      *   .0   .0   .2   .0   .0   .0   .0   .0   .0   .0   .0   .0
2. SE3      *   .0   .0   .0   .0   .0   .3   .0   .0   .0   .0   .0   .0
3. SW3      *   .0   .0   .0   .0   .0   .0   .2   .0   .0   .0   .0   .0
4. NW3      *   .0   .3   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0
```

```
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1

              JOB:   AVALON BLVD AND ANAHEIM ST   AMWP
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide

  I.  SITE VARIABLES

        U=    .5 M/S            Z0= 100. CM            ALT=     0. (M)
      BRG= WORST CASE           VD=   .0 CM/S
     CLAS=     7 (G)            VS=   .0 CM/S
     MIXH= 1000. M             AMB=   .0 PPM
    SIGTH=    5. DEGREES       TEMP= 15.6 DEGREE (C)

 II.  LINK VARIABLES

      LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
----------------*-------------------------*------------------------------
A. NF           *     5  -450     5  -150 *  AG    424   1.5     .0  15.0
B. NA           *     5  -150     5     0 *  AG    363   2.6     .0   9.9
C. ND           *     5     0     5   150 *  AG    499   1.8     .0   9.9
D. NE           *     5   150     5   450 *  AG    499   1.5     .0  15.0
E. SF           *    -5   450    -5   150 *  AG    637   1.5     .0  15.0
F. SA           *    -5   150    -5     0 *  AG    523   2.7     .0   9.9
G. SD           *    -5     0    -5  -150 *  AG    531   1.8     .0   9.9
H. SE           *    -5  -150    -5  -450 *  AG    531   1.5     .0  15.0
I. WF           *   450     7   150     7 *  AG    910   1.5     .0  15.0
J. WA           *   150     7     0     7 *  AG    830   2.2     .0  13.5
K. WD           *     0     7  -150     7 *  AG    946   1.7     .0   9.9
L. WE           *  -150     7  -450     7 *  AG    946   1.5     .0  15.0
M. EF           *  -450    -7  -150    -7 *  AG    881   1.5     .0  15.0
N. EA           *  -150    -7     0    -7 *  AG    774   2.2     .0  13.5
O. ED           *     0    -7   150    -7 *  AG    876   1.7     .0   9.9
P. EE           *   150    -7   450    -7 *  AG    876   1.5     .0  15.0
Q. NL           *     0     0     2  -150 *  AG     61   2.6     .0   9.9
R. SL           *     0     0    -2   150 *  AG    114   2.6     .0   9.9
S. WL           *     0     0   150     5 *  AG     80   2.1     .0   9.9
T. EL           *     0     0  -150    -5 *  AG    107   2.1     .0   9.9

 III.  RECEPTOR LOCATIONS

            *    COORDINATES (M)
  RECEPTOR  *    X      Y      Z
------------*--------------------
1. NE3      *     12     14   1.8
2. SE3      *     12    -14   1.8
3. SW3      *    -12    -14   1.8
4. NW3      *    -12     14   1.8

  IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

            *       * PRED  *                CONC/LINK
            *  BRG  * CONC  *                  (PPM)
  RECEPTOR  * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
------------*-------*-------*---------------------------------------
1. NE3      *  262. *    .6 *   .0   .0   .0   .0   .0   .0   .0   .0
2. SE3      *  275. *    .5 *   .0   .0   .0   .0   .0   .0   .0   .0
3. SW3      *   82. *    .5 *   .0   .0   .0   .0   .0   .0   .0   .0
4. NW3      *   95. *    .6 *   .0   .0   .0   .0   .0   .0   .0   .0

            *                          CONC/LINK
            *                            (PPM)
  RECEPTOR  *   I    J    K    L    M    N    O    P    Q    R    S    T
------------*-------------------------------------------------------------
1. NE3      *   .0   .0   .2   .0   .0   .0   .0   .0   .0   .0   .0   .0
2. SE3      *   .0   .0   .0   .0   .0   .3   .0   .0   .0   .0   .0   .0
3. SW3      *   .0   .0   .0   .0   .0   .0   .2   .0   .0   .0   .0   .0
4. NW3      *   .0   .3   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0
```

```
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1

              JOB:   AVALON BLVD AND ANAHEIM ST   PMNP
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide

  I.  SITE VARIABLES

        U=    .5 M/S             Z0= 100. CM            ALT=     0. (M)
      BRG= WORST CASE            VD=   .0 CM/S
     CLAS=     7 (G)             VS=   .0 CM/S
     MIXH= 1000. M              AMB=   .0 PPM
    SIGTH=    5. DEGREES       TEMP= 15.6 DEGREE (C)

 II.  LINK VARIABLES

      LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
----------------*-------------------------*------------------------------
A. NF           *     5  -450     5  -150 *  AG    585   1.5     .0  15.0
B. NA           *     5  -150     5     0 *  AG    499   2.6     .0   9.9
C. ND           *     5     0     5   150 *  AG    678   1.8     .0   9.9
D. NE           *     5   150     5   450 *  AG    678   1.5     .0  15.0
E. SF           *    -5   450    -5   150 *  AG    696   1.5     .0  15.0
F. SA           *    -5   150    -5     0 *  AG    614   2.7     .0   9.9
G. SD           *    -5     0    -5  -150 *  AG    600   1.8     .0   9.9
H. SE           *    -5  -150    -5  -450 *  AG    600   1.5     .0  15.0
I. WF           *   450     7   150     7 *  AG   1146   1.5     .0  15.0
J. WA           *   150     7     0     7 *  AG   1060   2.2     .0  13.5
K. WD           *     0     7  -150     7 *  AG   1129   1.7     .0   9.9
L. WE           *  -150     7  -450     7 *  AG   1129   1.5     .0  15.0
M. EF           *  -450    -7  -150    -7 *  AG    951   1.5     .0  15.0
N. EA           *  -150    -7     0    -7 *  AG    860   2.2     .0  13.5
O. ED           *     0    -7   150    -7 *  AG    971   1.7     .0   9.9
P. EE           *   150    -7   450    -7 *  AG    971   1.5     .0  15.0
Q. NL           *     0     0     2  -150 *  AG     86   2.6     .0   9.9
R. SL           *     0     0    -2   150 *  AG     82   2.6     .0   9.9
S. WL           *     0     0   150     5 *  AG     86   2.2     .0   9.9
T. EL           *     0     0  -150    -5 *  AG     91   2.2     .0   9.9

 III.  RECEPTOR LOCATIONS

            *    COORDINATES (M)
  RECEPTOR  *    X      Y      Z
------------*--------------------
1. NE3      *     12     14   1.8
2. SE3      *     12    -14   1.8
3. SW3      *    -12    -14   1.8
4. NW3      *    -12     14   1.8

  IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

            *       * PRED  *                CONC/LINK
            *  BRG  * CONC  *                  (PPM)
  RECEPTOR  * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
------------*-------*-------*-----------------------------------------
1. NE3      *  262. *    .6 *   .0   .0   .0   .0   .0   .0   .0   .0
2. SE3      *  354. *    .6 *   .0   .0   .2   .0   .0   .0   .0   .0
3. SW3      *   82. *    .6 *   .0   .0   .0   .0   .0   .0   .0   .0
4. NW3      *   95. *    .7 *   .0   .0   .0   .0   .0   .1   .0   .0

            *                          CONC/LINK
            *                            (PPM)
  RECEPTOR  *   I    J    K    L    M    N    O    P    Q    R    S    T
------------*-------------------------------------------------------------
1. NE3      *   .0   .0   .3   .0   .0   .0   .0   .0   .0   .0   .0   .0
2. SE3      *   .0   .0   .0   .0   .0   .0   .1   .0   .0   .0   .0   .0
3. SW3      *   .0   .1   .0   .0   .0   .0   .2   .0   .0   .0   .0   .0
4. NW3      *   .0   .3   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0
```

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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1

              JOB:   AVALON BLVD AND ANAHEIM ST  PMWP
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide

  I.  SITE VARIABLES

        U=    .5 M/S             Z0= 100. CM            ALT=     0. (M)
      BRG= WORST CASE            VD=   .0 CM/S
     CLAS=     7 (G)             VS=   .0 CM/S
     MIXH= 1000. M              AMB=   .0 PPM
    SIGTH=    5. DEGREES       TEMP= 15.6 DEGREE (C)

 II.  LINK VARIABLES

      LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
----------------*-------------------------*------------------------------
A. NF           *     5  -450     5  -150 *  AG    617   1.5     .0  15.0
B. NA           *     5  -150     5     0 *  AG    528   2.7     .0   9.9
C. ND           *     5     0     5   150 *  AG    707   1.8     .0   9.9
D. NE           *     5   150     5   450 *  AG    707   1.5     .0  15.0
E. SF           *    -5   450    -5   150 *  AG    716   1.5     .0  15.0
F. SA           *    -5   150    -5     0 *  AG    634   2.7     .0   9.9
G. SD           *    -5     0    -5  -150 *  AG    620   1.8     .0   9.9
H. SE           *    -5  -150    -5  -450 *  AG    620   1.5     .0  15.0
I. WF           *   450     7   150     7 *  AG   1147   1.5     .0  15.0
J. WA           *   150     7     0     7 *  AG   1061   2.2     .0  13.5
K. WD           *     0     7  -150     7 *  AG   1133   1.7     .0   9.9
L. WE           *  -150     7  -450     7 *  AG   1133   1.5     .0  15.0
M. EF           *  -450    -7  -150    -7 *  AG    962   1.5     .0  15.0
N. EA           *  -150    -7     0    -7 *  AG    868   2.2     .0  13.5
O. ED           *     0    -7   150    -7 *  AG    982   1.7     .0   9.9
P. EE           *   150    -7   450    -7 *  AG    982   1.5     .0  15.0
Q. NL           *     0     0     2  -150 *  AG     89   2.6     .0   9.9
R. SL           *     0     0    -2   150 *  AG     82   2.6     .0   9.9
S. WL           *     0     0   150     5 *  AG     86   2.2     .0   9.9
T. EL           *     0     0  -150    -5 *  AG     94   2.2     .0   9.9

 III.  RECEPTOR LOCATIONS

            *    COORDINATES (M)
  RECEPTOR  *    X      Y      Z
------------*--------------------
1. NE3      *     12     14   1.8
2. SE3      *     12    -14   1.8
3. SW3      *    -12    -14   1.8
4. NW3      *    -12     14   1.8

  IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

            *       * PRED  *                CONC/LINK
            *  BRG  * CONC  *                  (PPM)
  RECEPTOR  * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
------------*-------*-------*-----------------------------------------
1. NE3      *  262. *    .7 *   .0   .0   .0   .0   .0   .0   .0   .0
2. SE3      *  354. *    .6 *   .0   .0   .2   .0   .0   .0   .0   .0
3. SW3      *   82. *    .6 *   .0   .0   .0   .0   .0   .0   .0   .0
4. NW3      *   95. *    .7 *   .0   .0   .0   .0   .0   .1   .0   .0

            *                          CONC/LINK
            *                            (PPM)
  RECEPTOR  *   I    J    K    L    M    N    O    P    Q    R    S    T
------------*-------------------------------------------------------------
1. NE3      *   .0   .0   .3   .0   .0   .0   .0   .0   .0   .0   .0   .0
2. SE3      *   .0   .0   .0   .0   .0   .0   .1   .0   .0   .0   .0   .0
3. SW3      *   .0   .1   .0   .0   .0   .0   .2   .0   .0   .0   .0   .0
4. NW3      *   .0   .3   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0
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          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1

              JOB:   ALAMEDA ST AND ANAHEIM ST   AMNP
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide

  I.  SITE VARIABLES

        U=    .5 M/S            Z0= 100. CM            ALT=     0. (M)
      BRG= WORST CASE           VD=   .0 CM/S
     CLAS=     7 (G)            VS=   .0 CM/S
     MIXH= 1000. M             AMB=   .0 PPM
    SIGTH=    5. DEGREES       TEMP= 15.6 DEGREE (C)

 II.  LINK VARIABLES

      LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
----------------*-------------------------*------------------------------
A. NF           *     5  -450     5  -150 *  AG    784   1.5     .0  15.0
B. NA           *     5  -150     5     0 *  AG    764   2.8     .0   9.9
C. ND           *     5     0     5   150 *  AG    420   1.8     .0   9.9
D. NE           *     5   150     5   450 *  AG    420   1.5     .0  15.0
E. SF           *    -5   450    -5   150 *  AG    537   1.5     .0  15.0
F. SA           *    -5   150    -5     0 *  AG    524   2.7     .0   9.9
G. SD           *    -5     0    -5  -150 *  AG    699   1.8     .0   9.9
H. SE           *    -5  -150    -5  -450 *  AG    699   1.5     .0  15.0
I. WF           *   450     7   150     7 *  AG   1278   1.5     .0  15.0
J. WA           *   150     7     0     7 *  AG    931   2.2     .0  13.5
K. WD           *     0     7  -150     7 *  AG   1132   1.7     .0   9.9
L. WE           *  -150     7  -450     7 *  AG   1132   1.5     .0  15.0
M. EF           *  -450    -7  -150    -7 *  AG    996   1.5     .0  15.0
N. EA           *  -150    -7     0    -7 *  AG    884   2.2     .0  13.5
O. ED           *     0    -7   150    -7 *  AG   1344   1.7     .0   9.9
P. EE           *   150    -7   450    -7 *  AG   1344   1.5     .0  15.0
Q. NL           *     0     0     2  -150 *  AG     20   2.6     .0   9.9
R. SL           *     0     0    -2   150 *  AG     13   2.6     .0   9.9
S. WL           *     0     0   150     5 *  AG    347   2.2     .0   9.9
T. EL           *     0     0  -150    -5 *  AG    112   2.1     .0   9.9

 III.  RECEPTOR LOCATIONS

            *    COORDINATES (M)
  RECEPTOR  *    X      Y      Z
------------*--------------------
1. NE3      *     12     14   1.8
2. SE3      *     12    -14   1.8
3. SW3      *    -12    -14   1.8
4. NW3      *    -12     14   1.8

  IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

            *       * PRED  *                CONC/LINK
            *  BRG  * CONC  *                  (PPM)
  RECEPTOR  * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
------------*-------*-------*---------------------------------------
1. NE3      *  186. *    .7 *   .0   .3   .0   .0   .0   .0   .0   .0
2. SE3      *  275. *    .7 *   .0   .1   .0   .0   .0   .0   .0   .0
3. SW3      *   82. *    .8 *   .0   .0   .0   .0   .0   .0   .0   .0
4. NW3      *   95. *    .7 *   .0   .0   .0   .0   .0   .0   .0   .0

            *                          CONC/LINK
            *                            (PPM)
  RECEPTOR  *   I    J    K    L    M    N    O    P    Q    R    S    T
------------*-------------------------------------------------------------
1. NE3      *   .0   .1   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0
2. SE3      *   .0   .0   .0   .0   .0   .3   .0   .0   .0   .0   .0   .0
3. SW3      *   .0   .0   .0   .0   .0   .0   .3   .0   .0   .0   .0   .0
4. NW3      *   .0   .3   .0   .0   .0   .0   .0   .1   .0   .0   .0   .0
```

```
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1

              JOB:   ALAMEDA ST AND ANAHEIM ST   AMWP
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide

  I.  SITE VARIABLES

        U=    .5 M/S            Z0= 100. CM           ALT=     0. (M)
      BRG= WORST CASE           VD=   .0 CM/S
     CLAS=     7 (G)            VS=   .0 CM/S
     MIXH= 1000. M             AMB=   .0 PPM
    SIGTH=    5. DEGREES      TEMP= 15.6 DEGREE (C)

 II.  LINK VARIABLES

      LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
----------------*-------------------------*------------------------------
A. NF           *     5  -450     5  -150 *  AG    802   1.5     .0  15.0
B. NA           *     5  -150     5     0 *  AG    782   2.8     .0   9.9
C. ND           *     5     0     5   150 *  AG    431   1.8     .0   9.9
D. NE           *     5   150     5   450 *  AG    431   1.5     .0  15.0
E. SF           *    -5   450    -5   150 *  AG    556   1.5     .0  15.0
F. SA           *    -5   150    -5     0 *  AG    543   2.7     .0   9.9
G. SD           *    -5     0    -5  -150 *  AG    725   1.9     .0   9.9
H. SE           *    -5  -150    -5  -450 *  AG    725   1.5     .0  15.0
I. WF           *   450     7   150     7 *  AG   1309   1.5     .0  15.0
J. WA           *   150     7     0     7 *  AG    955   2.2     .0  13.5
K. WD           *     0     7  -150     7 *  AG   1156   1.7     .0   9.9
L. WE           *  -150     7  -450     7 *  AG   1156   1.5     .0  15.0
M. EF           *  -450    -7  -150    -7 *  AG   1001   1.5     .0  15.0
N. EA           *  -150    -7     0    -7 *  AG    889   2.2     .0  13.5
O. ED           *     0    -7   150    -7 *  AG   1356   1.7     .0   9.9
P. EE           *   150    -7   450    -7 *  AG   1356   1.5     .0  15.0
Q. NL           *     0     0     2  -150 *  AG     20   2.6     .0   9.9
R. SL           *     0     0    -2   150 *  AG     13   2.6     .0   9.9
S. WL           *     0     0   150     5 *  AG    354   2.2     .0   9.9
T. EL           *     0     0  -150    -5 *  AG    112   2.1     .0   9.9

 III.  RECEPTOR LOCATIONS

            *    COORDINATES (M)
  RECEPTOR  *    X      Y      Z
------------*---------------------
1. NE3      *     12     14   1.8
2. SE3      *     12    -14   1.8
3. SW3      *    -12    -14   1.8
4. NW3      *    -12     14   1.8

  IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

            *       * PRED  *                CONC/LINK
            *  BRG  * CONC  *                  (PPM)
  RECEPTOR  * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
------------*-------*-------*---------------------------------------
1. NE3      *  186. *    .7 *   .0   .3   .0   .0   .0   .0   .0   .0
2. SE3      *  275. *    .7 *   .0   .1   .0   .0   .0   .0   .0   .0
3. SW3      *   82. *    .8 *   .0   .0   .0   .0   .0   .0   .0   .0
4. NW3      *   95. *    .7 *   .0   .0   .0   .0   .0   .0   .0   .0

            *                          CONC/LINK
            *                            (PPM)
  RECEPTOR  *   I    J    K    L    M    N    O    P    Q    R    S    T
------------*-------------------------------------------------------------
1. NE3      *   .0   .1   .0   .0   .0   .0   .0   .0   .0   .0   .0   .0
2. SE3      *   .0   .0   .0   .0   .0   .3   .0   .0   .0   .0   .0   .0
3. SW3      *   .0   .0   .0   .0   .0   .0   .3   .0   .0   .0   .0   .0
4. NW3      *   .0   .3   .0   .0   .0   .0   .0   .1   .0   .0   .0   .0
```

```
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1

              JOB:   ALAMEDA ST AND ANAHEIM ST   PMNP
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide

  I.  SITE VARIABLES

        U=    .5 M/S            Z0= 100. CM           ALT=     0. (M)
      BRG= WORST CASE           VD=   .0 CM/S
     CLAS=     7 (G)            VS=   .0 CM/S
     MIXH= 1000. M             AMB=   .0 PPM
    SIGTH=    5. DEGREES       TEMP= 15.6 DEGREE (C)

 II.  LINK VARIABLES

      LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
----------------*-------------------------*------------------------------
A. NF           *     5  -450     5  -150 *  AG   1135   1.5     .0  15.0
B. NA           *     5  -150     5     0 *  AG   1116   3.0     .0   9.9
C. ND           *     5     0     5   150 *  AG    590   1.8     .0   9.9
D. NE           *     5   150     5   450 *  AG    590   1.5     .0  15.0
E. SF           *    -5   450    -5   150 *  AG    558   1.5     .0  15.0
F. SA           *    -5   150    -5     0 *  AG    526   2.6     .0   9.9
G. SD           *    -5     0    -5  -150 *  AG    682   1.8     .0   9.9
H. SE           *    -5  -150    -5  -450 *  AG    682   1.5     .0  15.0
I. WF           *   450     7   150     7 *  AG   1240   1.5     .0  15.0
J. WA           *   150     7     0     7 *  AG    990   2.2     .0  13.5
K. WD           *     0     7  -150     7 *  AG   1082   1.7     .0   9.9
L. WE           *  -150     7  -450     7 *  AG   1082   1.5     .0  15.0
M. EF           *  -450    -7  -150    -7 *  AG   1152   1.5     .0  15.0
N. EA           *  -150    -7     0    -7 *  AG   1054   2.3     .0  13.5
O. ED           *     0    -7   150    -7 *  AG   1731   2.0     .0   9.9
P. EE           *   150    -7   450    -7 *  AG   1731   1.5     .0  15.0
Q. NL           *     0     0     2  -150 *  AG     19   2.6     .0   9.9
R. SL           *     0     0    -2   150 *  AG     32   2.6     .0   9.9
S. WL           *     0     0   150     5 *  AG    250   2.2     .0   9.9
T. EL           *     0     0  -150    -5 *  AG     98   2.2     .0   9.9

 III.  RECEPTOR LOCATIONS

            *    COORDINATES (M)
  RECEPTOR  *    X      Y      Z
------------*--------------------
1. NE3      *     12     14   1.8
2. SE3      *     12    -14   1.8
3. SW3      *    -12    -14   1.8
4. NW3      *    -12     14   1.8

  IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

            *       * PRED  *                CONC/LINK
            *  BRG  * CONC  *                  (PPM)
  RECEPTOR  * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
------------*-------*-------*---------------------------------------
1. NE3      *  186. *    .9 *   .0   .5   .0   .0   .0   .0   .0   .0
2. SE3      *  275. *    .8 *   .0   .2   .0   .0   .0   .0   .0   .0
3. SW3      *   82. *    .9 *   .0   .1   .0   .0   .0   .0   .0   .0
4. NW3      *   95. *    .7 *   .0   .0   .0   .0   .0   .0   .0   .0

            *                          CONC/LINK
            *                            (PPM)
  RECEPTOR  *   I    J    K    L    M    N    O    P    Q    R    S    T
------------*-------------------------------------------------------------
1. NE3      *   .0   .1   .0   .0   .0   .0   .1   .0   .0   .0   .0   .0
2. SE3      *   .0   .0   .0   .0   .0   .4   .0   .0   .0   .0   .0   .0
3. SW3      *   .0   .0   .0   .0   .0   .0   .4   .0   .0   .0   .0   .0
4. NW3      *   .0   .3   .0   .0   .0   .0   .0   .1   .0   .0   .0   .0
```

```
          CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
                   JUNE 1989 VERSION
                   PAGE   1

              JOB:   ALAMEDA ST AND ANAHEIM ST   PMWP
              RUN: Hour 1           (WORST CASE ANGLE)
        POLLUTANT: Carbon Monoxide

  I.  SITE VARIABLES

        U=    .5 M/S            Z0= 100. CM           ALT=     0. (M)
      BRG= WORST CASE           VD=   .0 CM/S
     CLAS=     7 (G)            VS=   .0 CM/S
     MIXH= 1000. M             AMB=   .0 PPM
    SIGTH=    5. DEGREES      TEMP= 15.6 DEGREE (C)

 II.  LINK VARIABLES

      LINK      *  LINK COORDINATES (M)   *              EF     H     W
   DESCRIPTION  *   X1    Y1    X2    Y2  * TYPE  VPH  (G/MI)  (M)   (M)
----------------*-------------------------*------------------------------
A. NF           *     5  -450     5  -150 *  AG   1169   1.5     .0  15.0
B. NA           *     5  -150     5     0 *  AG   1150   3.0     .0   9.9
C. ND           *     5     0     5   150 *  AG    619   1.8     .0   9.9
D. NE           *     5   150     5   450 *  AG    619   1.5     .0  15.0
E. SF           *    -5   450    -5   150 *  AG    583   1.5     .0  15.0
F. SA           *    -5   150    -5     0 *  AG    551   2.6     .0   9.9
G. SD           *    -5     0    -5  -150 *  AG    715   1.8     .0   9.9
H. SE           *    -5  -150    -5  -450 *  AG    715   1.5     .0  15.0
I. WF           *   450     7   150     7 *  AG   1261   1.5     .0  15.0
J. WA           *   150     7     0     7 *  AG   1003   2.2     .0  13.5
K. WD           *     0     7  -150     7 *  AG   1095   1.7     .0   9.9
L. WE           *  -150     7  -450     7 *  AG   1095   1.5     .0  15.0
M. EF           *  -450    -7  -150    -7 *  AG   1185   1.5     .0  15.0
N. EA           *  -150    -7     0    -7 *  AG   1087   2.3     .0  13.5
O. ED           *     0    -7   150    -7 *  AG   1769   2.1     .0   9.9
P. EE           *   150    -7   450    -7 *  AG   1769   1.5     .0  15.0
Q. NL           *     0     0     2  -150 *  AG     19   2.5     .0   9.9
R. SL           *     0     0    -2   150 *  AG     32   2.5     .0   9.9
S. WL           *     0     0   150     5 *  AG    258   2.2     .0   9.9
T. EL           *     0     0  -150    -5 *  AG     98   2.2     .0   9.9

 III.  RECEPTOR LOCATIONS

            *    COORDINATES (M)
  RECEPTOR  *    X      Y      Z
------------*---------------------
1. NE3      *     12     14   1.8
2. SE3      *     12    -14   1.8
3. SW3      *    -12    -14   1.8
4. NW3      *    -12     14   1.8

  IV.  MODEL RESULTS (WORST CASE WIND ANGLE )

            *       * PRED  *                CONC/LINK
            *  BRG  * CONC  *                  (PPM)
  RECEPTOR  * (DEG) * (PPM) *   A    B    C    D    E    F    G    H
------------*-------*-------*---------------------------------------
1. NE3      *  186. *    .9 *   .0   .5   .0   .0   .0   .0   .0   .0
2. SE3      *  275. *    .8 *   .0   .2   .0   .0   .0   .0   .0   .0
3. SW3      *   82. *   1.0 *   .0   .1   .0   .0   .0   .0   .0   .0
4. NW3      *   95. *    .8 *   .0   .0   .0   .0   .0   .0   .0   .0

            *                          CONC/LINK
            *                            (PPM)
  RECEPTOR  *   I    J    K    L    M    N    O    P    Q    R    S    T
------------*-------------------------------------------------------------
1. NE3      *   .0   .1   .0   .0   .0   .0   .1   .0   .0   .0   .0   .0
2. SE3      *   .0   .0   .0   .0   .0   .4   .0   .0   .0   .0   .0   .0
3. SW3      *   .0   .0   .0   .0   .0   .0   .5   .0   .0   .0   .0   .0
4. NW3      *   .0   .3   .0   .0   .0   .0   .0   .1   .0   .0   .0   .0
```

Climate and Ambient Monitoring Data

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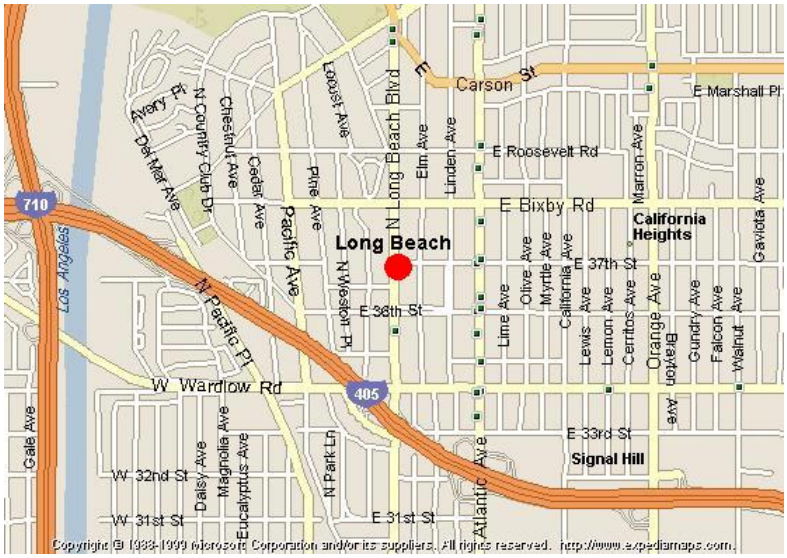
Quality Assurance
Site Information for North Long Beach (Long Beach)

This page updated May 15, 2008



AIRS Number	ARB Number	Site Start Date	Reporting Agency and Agency Code
060374002	70072	5/1/69	South Coast AQMD (061)

Site Address	County	Air Basin	Latitude	Longitude	Elevation
3648 N. Long Beach Bl, Long Beach CA 90807	Los Angeles	South Coast	33° 49' 25"	118° 11' 19"	6

Pollutants Monitored (click on parameter link for real-time data)
CO, SO_2, NO_2, O_3, PM_{10}, $TEOM_{PM10}$, $PM_{2.5}$, TSP, Toxics, Cr^{6+}, Outdoor Temperature, Relative Humidity, Wind Direction, Horizontal Wind Speed, Barometric Pressure, Solar Radiation

Site Photos	Photo Sequences	Site Surveys
--Select Photos--	--Select Position And Direction--	--Select Survey--

Other ARB Database Information	Real-Time Met Data	Aerial Photos and Topo Maps Of Site
--Select Database--	--Select Data Server--	--Select External Map--

Site Information Menu Top Page | Quality Assurance Programs | Search QA Site Information Database

For real-time air quality data visit: Air Quality and Meteorological Information System (AQMIS)

For further information contact:

Merrin Wright, *Manager*
Quality Assurance Section

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Welcome to California

Air Resources Board

iADAM

Highest 4 Daily Maximum Hourly Ozone Measurements

North Long Beach

FAQs

Year:	2005		2006		2007	
	Date	Measurement	Date	Measurement	Date	Measurement
First High:	May 14	0.091	Jul 22	0.081	Sep 3	0.099
Second High:	Sep 3	0.084	Jun 16	0.077	Sep 2	0.083
Third High:	Aug 27	0.077	Sep 4	0.074	May 19	0.073
Fourth High:	Apr 18	0.073	Aug 31	0.073	Sep 1	0.071
# Days Above State Standard:		0		0		1
California Designation Value:		0.09		0.09		0.08
Expected Peak Day Conc.:		0.093		0.088		0.080
# Days Above Nat'l Standard:		*0*		*0*		*0*
National Design Value:		*0.089*		*0.088*		*0.083*
Year Coverage:		98		97		95

Go Backward One Year | New Top 4 Summary | Go Forward One Year

Notes: All concentrations are expressed in parts per million.
The national 1-hour ozone standard was revoked in June 2005 and is no longer in effect. Statistics related to the revoked standard are shown in *italics* or *italics* .
State exceedances are shown in **yellow** . Exceedances of the revoked national 1-hour standard are shown in *orange* .
An exceedance is not necessarily a violation.
Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period.
* There was insufficient (or no) data available to determine the value.

Switch: 8-Hour Ozone | PM10 | PM2.5 | Carbon Monoxide | Nitrogen Dioxide | Sulfur Dioxide | Hydrogen Sulfide

Go to: Data Statistics Home Page | Top 4 Summaries Start Page

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Air Resources Board

iADAM

Highest 4 Daily Maximum 8-Hour Ozone Averages

North Long Beach

FAQs

Year:	2005		2006		2007	
	Date	8-Hr Average	Date	8-Hr Average	Date	8-Hr Average
National:						
First High:	May 14	0.069	Sep 3	0.058	Sep 3	0.073
Second High:	Apr 17	0.068	May 10	0.057	Sep 2	0.068
Third High:	Apr 18	0.064	Jun 16	0.057	May 19	0.063
Fourth High:	Aug 25	0.060	Jul 22	0.057	May 20	0.057
California:						
First High:	Apr 17	0.069	Sep 3	0.059	Sep 3	0.074
Second High:	May 14	0.069	May 10	0.058	Sep 2	0.068
Third High:	Apr 18	0.064	Jun 16	0.058	May 19	0.064
Fourth High:	May 13	0.060	Jul 22	0.057	May 18	0.057
National:						
# Days Above Nat'l 1997 Std.:		0		0		0
Nat'l 1997 Std. Design Value:		0.064		0.062		0.058
National Year Coverage:		99		97		95
California:						
# Days Above State Standard:		0		0		1
California Designation Value:		0.073		0.071		0.064
Expected Peak Day Conc.:		0.074		0.070		0.064
California Year Coverage:		98		97		95

Go Backward One Year | New Top 4 Summary | Go Forward One Year

Notes: All averages are expressed in parts per million.
National exceedances are shown in **orange** . State exceedances are shown in **yellow** .
An exceedance is not necessarily a violation.
Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period.
* There was insufficient (or no) data available to determine the value.

Switch: Hourly Ozone | PM10 | PM2.5 | Carbon Monoxide | Nitrogen Dioxide | Sulfur Dioxide | Hydrogen Sulfide

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Air Resources Board

iADAM

Highest 4 Daily Maximum 8-Hour Carbon Monoxide Averages

North Long Beach

FAQs

Year:	2005		2006		2007	
	Date	Measurement	Date	Measurement	Date	Measurement
National:						
First High:	Nov 18	3.51	Feb 9	3.36	Jan 16	2.59
Second High:	Nov 18	3.07	Dec 7	3.31	Jan 24	2.44
Third High:	Nov 19	2.91	Feb 9	3.01	Aug 31	2.43
Fourth High:	Nov 17	2.90	Dec 8	2.93	Dec 5	2.41
California:						
First High:	Nov 18	3.51	Feb 9	3.36	Jan 16	2.59
Second High:	Nov 19	2.91	Dec 7	3.31	Jan 24	2.44
Third High:	Nov 17	2.90	Dec 8	2.80	Aug 31	2.43
Fourth High:	Oct 14	2.81	Feb 8	2.79	Dec 5	2.41
# Days Above Nat'l Standard:		0		0		0
# Days Above State Standard:		0		0		0
Year Coverage:		97		96		97

Go Backward One Year | New Top 4 Summary | Go Forward One Year

Notes: All averages are expressed in parts per million.
State exceedances are shown in **yellow** . National exceedances are shown in **orange** .
An exceedance is not necessarily a violation.
Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period.
* There was insufficient (or no) data available to determine the value.

Switch: Hourly Ozone | 8-Hour Ozone | PM10 | PM2.5 | Nitrogen Dioxide | Sulfur Dioxide | Hydrogen Sulfide

Go to: Data Statistics Home Page | Top 4 Summaries Start Page

Air Resources Board

iADAM

Highest 4 Daily Maximum Hourly Nitrogen Dioxide Measurements

North Long Beach

FAQs

Year:	2005		2006		2007	
	Date	Measurement	Date	Measurement	Date	Measurement
First High:	Oct 14	0.136	Apr 12	0.102	Oct 25	0.107
Second High:	Oct 13	0.110	Nov 20	0.092	Mar 12	0.090
Third High:	Oct 7	0.089	Dec 7	0.084	Nov 15	0.082
Fourth High:	Oct 5	0.081	Nov 18	0.083	Jan 24	0.081
# Days Above State Standard:		0		0		0
Annual Average:		0.024		0.022		0.020
Year Coverage:		98		97		97

Go Backward One Year | New Top 4 Summary | Go Forward One Year

Notes: All concentrations are expressed in parts per million.
State exceedances are shown in **yellow** . National exceedances are shown in **orange** .
An exceedance is not necessarily a violation.
Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.
* There was insufficient (or no) data available to determine the value.

Switch: Hourly Ozone | 8-Hour Ozone | PM10 | PM2.5 | Carbon Monoxide | Sulfur Dioxide | Hydrogen Sulfide

Go to: Data Statistics Home Page | Top 4 Summaries Start Page

Air Resources Board

iADAM

Highest 4 Daily Maximum 24-Hour Sulfur Dioxide Averages

North Long Beach

FAQs

Year:	2005		2006		2007	
	Date	Measurement	Date	Measurement	Date	Measurement
First High:	Dec 9	0.010	Aug 28	0.010	Sep 2	0.010
Second High:	Jul 21	0.009	Jan 7	0.009	Jan 24	0.010
Third High:	Jul 12	0.007	Aug 27	0.007	Jan 19	0.010
Fourth High:	Oct 7	0.007	Aug 23	0.005	Feb 7	0.009
# Days Above Nat'l Standard:		0		0		0
# Days Above State Standard:		0		0		0
Annual Average:		0.002		0.001		0.003
Year Coverage:		97		98		95

Go Backward One Year | New Top 4 Summary | Go Forward One Year

Notes: All averages are expressed in parts per million.
State exceedances are shown in **yellow** . National exceedances are shown in **orange** .
National exceedances are also state exceedances.
An exceedance is not necessarily a violation.
Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period.
* There was insufficient (or no) data available to determine the value.

Switch: Hourly Ozone | 8-Hour Ozone | PM10 | PM2.5 | Carbon Monoxide | Nitrogen Dioxide | Hydrogen Sulfide

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Air Resources Board

iADAM

Highest 4 Daily PM10 Measurements

North Long Beach

FAQs

Year:	2005		2006		2007	
	Date	Measurement	Date	Measurement	Date	Measurement
National:						
First High:	Nov 6	66.0	Dec 7	78.0	Oct 21	232.0
Second High:	Jan 22	61.0	May 11	64.0	Apr 12	75.0
Third High:	Nov 24	57.0	Dec 1	63.0	Jan 6	54.0
Fourth High:	Dec 21	54.0	Oct 26	58.0	Jan 24	53.0
California:						
First High:	Nov 6	66.0	Dec 7	78.0	Oct 21	232.0
Second High:	Jan 22	61.0	May 11	64.0	Apr 12	75.0
Third High:	Nov 24	57.0	Dec 1	63.0	Jan 6	54.0
Fourth High:	Dec 21	54.0	Oct 26	57.0	Jan 24	53.0
Measured:						
# Days Above Nat'l Standard:		0		0		1
# Days Above State Standard:		4		5		6
Estimated:						
3-Yr Avg # Days Above Nat'l Std:		0.0		0.0		2.0
# Days Above Nat'l Standard:		0.0		0.0		6.1
# Days Above State Standard:		23.7		29.3		*
State 3-Yr Maximum Average:		33		33		31
State Annual Average:		29.5		30.9		*
National 3-Year Average:		*32*		*31*		*31*
National Annual Average:		*29.7*		*31.0*		*33.5*
Year Coverage:		97		100		98

Go Backward One Year | New Top 4 Summary | Go Forward One Year

Notes: All concentrations are expressed in micrograms per cubic meter.
The national annual average PM10 standard was revoked in December 2006 and is no longer in effect.
Statistics related to the revoked standard are shown in *italics* or *italics* .
State exceedances are shown in **yellow** . National exceedances are shown in **orange** .
An exceedance is not necessarily a violation.
Statistics may include data that are related to an exceptional event.
State and national statistics may differ for the following reasons:
State statistics are based on California approved samplers, whereas national statistics are based on samplers using federal reference or equivalent methods.
State and national statistics may therefore be based on different samplers.
State statistics for 1998 and later are based on *local* conditions (except for sites in the South Coast Air Basin, where State statistics for 2002 and later are based on *local* conditions).
National statistics are based on *standard* conditions.
State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.
Measurements are usually collected every six days. Measured days counts the days that a measurement was greater than the level of the standard; Estimated days mathematically estimates how many days concentrations would have been greater than the level of the standard had each day been monitored.
3-Year statistics represent the listed year and the 2 years before the listed year.
Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.
* There was insufficient (or no) data available to determine the value.

Switch: Hourly Ozone | 8-Hour Ozone | PM2.5 | Carbon Monoxide | Nitrogen Dioxide | Sulfur Dioxide | Hydrogen Sulfide

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Welcome to California

Air Resources Board

iADAM

Highest 4 Daily PM2.5 Measurements

North Long Beach

FAQs

Year:	2005		2006		2007	
	Date	Measurement	Date	Measurement	Date	Measurement
National:						
First High:	Oct 21	53.8	Feb 11	58.5	Nov 19	82.8
Second High:	Mar 10	52.6	Feb 25	49.8	Nov 18	59.4
Third High:	Jan 22	51.3	Feb 4	43.4	Nov 2	47.9
Fourth High:	Nov 6	48.0	Feb 5	41.4	Nov 3	46.9
California:						
First High:	Oct 21	53.8	Feb 11	58.5	Nov 19	82.8
Second High:	Mar 10	52.6	Feb 25	49.8	Nov 18	59.4
Third High:	Jan 22	51.3	Feb 4	43.4	Nov 2	47.9
Fourth High:	Nov 6	48.0	Feb 5	41.4	Nov 3	46.9
Est Days > Nat'l '97 24-Hr Std:		*		*		1.1
Measured Days > Nat'l '97 24-Hr Std:		0		0		1
Nat'l '97 24-Hour Std Design Value:		*		*		*
Nat'l '97 24-Hr Std 98th Percentile:		*		*		40.7
National Annual Std Design Value:		17.3		16.0		14.9
National Annual Average:		15.9		14.1		14.6
State Ann'l Std Designation Value:		*		*		*
State Annual Average:		*		*		*
Year Coverage:		87		71		87

Go Backward One Year | New Top 4 Summary | Go Forward One Year

Notes: All concentrations are expressed in micrograms per cubic meter.
State exceedances are shown in **yellow** . National exceedances are shown in **orange** .
An exceedance is not necessarily a violation.
State and national statistics may differ for the following reasons:
State statistics are based on California approved samplers, whereas national statistics are based on samplers using federal reference or equivalent methods.
State and national statistics may therefore be based on different samplers.
State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.
Year Coverage indicates the extent to which available monitoring data represent the time of the year when concentrations are expected to be highest. 0 means that data represent none of the high period; 100 means that data represent the entire high period. A high Year Coverage does not mean that there was sufficient data for annual statistics to be considered valid.
* There was insufficient data available throughout the year to determine the value.

Switch: Hourly Ozone | 8-Hour Ozone | PM10 | Carbon Monoxide | Nitrogen Dioxide | Sulfur Dioxide | Hydrogen Sulfide

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SPECIAL-STATUS SPECIES BIOLOGY AND LIKELIHOOD OF OCCURRENCE ANALYSIS

The following information provides explanation for conclusions regarding likelihood of occurrence. The brief synopses of biology are provided as limited background only, and no attempt is made to compile or summarize all potentially relevant information on the species.

This appendix addresses all species with applicable special regulatory or management status that includes the Project study area within their general range and for which grossly appropriate habitat is present on or near the Project study area. Conclusions here are limited to biology, with no reflection of regulatory or management issues. For interpretation of this information under applicable laws, regulations and court precedent, see the relevant portion(s) of the report. Judgments regarding likelihood of occurrence are based on evaluation of all available biological information regarding regional and local conditions, species biology, available evaluations of the Project study area and vicinity, and professional experience conducting field investigations across California over many years.

Specific factors substantially affect likelihood of occurrence for individual species on any particular study area. These factors are relevant at multiple scales, including regionally, locally, and within the Project study area. These factors include the presence or absence of many other particular species (e.g., predators, prey), climate, ongoing disturbances, historical land use and other past disturbances such as fire history, surface and subsurface hydrology, soil texture and chemistry, Project study area and habitat size and topology (i.e., shape and fragmentation), past population fluctuations of the species in response to random and nonrandom events, and many other factors, including many not readily visible. Note that some species, including many birds and bats, can occur in multiple roles. Thus, likelihood of occurrence, habitat use, and abundance may vary accordingly. Where multiple codes are given for a species, underlined codes refer to the likelihood of occurrence in potentially constraining roles (e.g., breeding, as opposed to migration or dispersal, for many state Species of Special Concern birds).

TERMS FOR LIKELIHOOD OF OCCURRENCE IN THE PROJECT STUDY AREA

NONE: Based on available information, it is judged that the species does not occur. This determination is based on some combination of these facts: (1) the Project study area is clearly outside the current range based on available information, and/or (2) the Project study area does not contain suitable or extensive enough habitat (including any adjacent off-Project study area habitat) to hold the species or confirmed to be absent based on negative results of a focused survey for the species conducted in appropriate habitat at appropriate time(s) of year, using biologically sound methods and qualified personnel. Further evaluation should not be required at this time.

VERY LOW: Although remotely possible, the probability of occurrence on the Project study area is almost none, and the likelihood of meaningful use is less than reasonable. The species may include the Project study area within its general range, however, no appropriate or adequately extensive habitat is found (either on or immediately adjacent to the Project study area). Neither the species nor any indication of its presence was detected. In some cases this likelihood may indicate that based on the best available information, the Project study area has a very high probability of being outside of the species' current range. In all of these cases, the species cannot be definitively ruled out, but is strongly expected to be absent based on the best available evidence. In some cases, the species may occur on rare occasions and in very low numbers, but such stray individuals are unlikely to make more than very brief, incidental use of the Project study area. Certainly there are no substantial populations utilizing the Project study area at any time of year. Further evaluation should not normally be required.

LOW: The species is unlikely because of some combination of facts: (1) it was the subject of unsuccessful searches conducted under reasonable circumstances, (2) only marginal or minimal habitat is present, (3) the best available information suggests the species is absent from the Project study area, and/or (4) available information sheds no clear light on the species likelihood on the Project study area, but it is known to be rare at best in the vicinity. No individuals were detected, nor is there any direct indication of them. Although individuals may have been missed, it is unlikely that substantial populations are present. Further evaluation should usually not be required for individual species except, in most cases, for threatened or endangered species. Note however, that where several non-listed species hold this status, a much higher likelihood of occurrence for "one or more" will generally hold. This is due both to the increased number of species, and the fact that an array of possibilities often correlates with greater alpha diversity and lower actual disturbance levels.

MODERATE: The Project study area is within the range of the species, and appears to contain appropriate habitat. No individuals or diagnostic sign were detected, it is nevertheless reasonable that some individuals have been overlooked. The best available information on the species with regard to the Project study area is either very uncertain, or is about equally weighted for and against occurrence. Depending upon local and special legal status, extent of habitat, and the nature and sensitivity of the project, focused surveys for the species may be warranted or presence may be assumed.

HIGH: The Project study area is known to be within the range of the species, and appears to contain habitat with substantial potential for occupancy. Although no individuals or diagnostic sign were detected, it is judged likely that it is present to some degree, given the best available information. Depending upon regulatory status, local rarity, public interest, extent of habitat on the Project study area and the nature of potential project impacts, a substantial basis may exist for either conducting focused surveys for the species or for assuming presence.

VERY HIGH: Based on the best available information, the Project study area is within the current range of the species and sufficient very appropriate or characteristic habitat is present on or contiguous with the Project study area for occupancy. Although individuals and/or diagnostic sign were not definitely detected at the current time, it is judged to be very highly likely to occur. In some cases the species may be known to have occurred on the Project study area historically or in the recent past, with no clear basis to assume extirpation since then. In rare cases, changes off of the Project study area (e.g., fire or other disturbance) may provide a basis to assume current presence as a result. Although focused surveys for this species would be required to absolutely confirm presence or absence, such surveys are judged to have a very high probability of confirming presence. Without such surveys presence should generally be assumed.

CONFIRMED: Confirmed present by a qualified biologist or other highly reliable source and there is no specific evidence that the species is now absent. Depending on the species and other information available, it may or may not be possible to determine what portions of the Project study area are currently in use without further studies.

ABSENT: Confirmed to be absent on the Project study area as a practical matter. Most often, this is a determination based on negative results of a focused survey for the species conducted in appropriate habitat at appropriate time(s) of year, using biologically sound methods and qualified personnel. In the remaining cases, it may be based on a simple Project study area examination, for species and Project study area contexts where it is easily determined that the species is absent; for example, a tidal marsh insect and a dry mountainside Project study area, or a disturbance-intolerant chaparral shrub where the Project study area is a long-standing, degraded grassland far from chaparral. The relevant field work was also in all cases conducted within a time frame sufficiently recent to conclude that the species remains absent, based on Project study area conditions and the species' known ecology. In most cases a specific, established survey protocol and/or guidelines have been followed.

Table 1. Status Code Explanations

Status code	Explanation
FE	Federally Endangered
FT	Federally Threatened
FPE	Federally proposed Endangered
FPT	Federally proposed Threatened
FC	Federal Candidate species
FW	Federally "warranted for listing, but listing is precluded by higher priority actions"
EPA	Covered under the Federal "Bald and Golden Eagle Protection Act"
SE	State Endangered
ST	State Threatened
SR	State Rare (used for plants only)
SCE	State Candidate for Endangered listing
SCT	State Candidate for Threatened listing
SSC	State Species of Special Concern
CFP	California Fully Protected species
CSP	California Specially Protected species
CNDDB	Tracked by the California Department of Fish and Game "Natural Diversity Data Base", but with no other special regulatory or management status
1A	California Native Plant Society (CPS) List 1A plant ("Plants presumed extinct in California")
1B	CNPS List 1B plant ("Plants rare, threatened or endangered in California and elsewhere")
2	CNPS List 2 plant ("Plants rare, threatened or endangered in California, but more common elsewhere")
P	"pt" or "pd": the taxon has been formally proposed to be down-listed, either from Endangered to Threatened ("pt"), or delisted completely ("pd")

Table 2. Special Status Species Information

SPECIES / NATURAL COMMUNITIES[1]	SPECIAL STATUS[2]	OCCURRENCE[3] LIKELIHOOD	COMMENTS[4]
PLANTS			
Aphanisma (*Aphanisma blitoides*)	1B	None	Annual herb; habitat includes sandy soils in coastal bluff scrub, coastal dunes, coastal scrub at 1 to 305 meters elevation. These types of vegetation communities are absent from the Project study area.
South Coast Saltscale (*Atriplex pacifica*)	1B	None	Annual herb; habitat includes coastal bluff scrub, coastal dunes, coastal scrub, and playas at 0 to 140 meters elevation. These habitats are absent from the Project study area.
Parish's Brittlescale (*Atriplex parishii*)	1B	None	Not recorded in the San Pedro quadrangle; annual herb; associated with chenopod scrub, playas, and vernal pools at 25 to 1900 meters elevation. Such habitats are absent from the Project study area.
Davidson's Saltscale (*Atriplex serenana* var. *davidsonii*)	1B	None	Annual herb; found in alkaline soils within coastal bluff scrub and coastal scrub vegetation communities at 10 to 200 meters elevation. Habitat absent from Project study area.
Lewis's Evening-Primrose (*Camissonia lewisii*)	3	None	Not recorded in the San Pedro quadrangle; annual herb found in sandy and clay soils of coastal bluff scrub, cismontaine woodland, coastal dune, coastal scrub, and valley and foothill grassland at 0 to 300 meters elevation. No such habitats are present within the Project study area.
Southern Tarplant (*Centromadia parryi* ssp. *australis*)	1B	None	Not recorded from the San Pedro quadrangle; an annual herb found at the margins of marshes and swamps, in mesic valley and foothill grasslands, and vernal pools at elevations of 0 to 425 meters. No potentially suitable habitat is present within the Project study area.
Orcutt's Pincushion (*Chaenactis glabriuscula* var. *orcuttiana*)	1B	None	Not recorded in the San Pedro quadrangle; annual herb found in sandy soils associated with coastal bluff scrub and coastal dunes at elevations of 0 to 300 meters. No habitat is present within the Project study area.
Salt Marsh Bird's-Beak (*Cordylanthus maritimus* ssp. *maritimus*)	FE, SE, 1B	None	Not recorded within the San Pedro quadrangle; annual herb that is found in coastal dunes and coastal salt marshes and swamps at 0-30 meters elevation. A small amount of coastal salt marsh is present Cabrillo. Although historically this area was an expansive saltmarsh/mudflat complex prior to World War II, all that remains is the 3.25-acre Cabrillo salt marsh that was constructed in 1982 (Los Angeles Harbor Department and EDAW, Inc. 1982. Cabrillo Salt Marsh Construction, p. 101-

SPECIES / NATURAL COMMUNITIES[1]	SPECIAL STATUS[2]	OCCURRENCE[3] LIKELIHOOD	COMMENTS[4]
			102. In M. Josselyn (Ed.), Wetland Restoration and Enhancement in California. Report T-CSGCP-007, California Sea Grant College Program, University of California, La Jolla). Given the historical disturbances to the area, relative isolation, and artificial construction of marsh, no potential for the species is judged present.
Catalina Crossosoma (*Crossosoma californicum*)	1B	None	Not recorded from San Pedro quadrangle; perrential deciduous shrub found in rocky chaparral and coastal scrub at elevations of 0 to 500 meters. No potential habitat is present within the Project study area.
Beach Spectaclepod (*Dithyrea maritima*)	1B	None	Not found w/in San Pedro quadrangle; perennial herb that is associated with coastal dunes and coastal scrub at 3 to 50 meters elevation. No habitat present in Project study area.
Island Green Dudleya (*Dudleya virens* ssp. *insularis*)	1B	None	Not recorded from San Pedro quadrangle; perennial herb found in rocky coastal bluff scrub and coastal scrub at elevations of 5 to 300 meters. Potential habitat absent from Project study area.
Coulter's Goldfields (*Lasthenia glabrata* ssp. *coulteri*)	1B	None	Not recorded from San Pedro quadrangle; annual herb that inhabits coastal salt marshes and swamps as well as playas and vernal pools at elevations of 1 to 1220 meters. Only extant salt marsh present w/in the vicinity of the Project study area is at Cabrillo. This marsh was created in 1982 and given the time lapse between historical wetlands to the area (prior to World War II) and the isolated conditions of the created Cabrillo salt marsh, no potential for the species is judged present. Vernal pools and playas are absent from the Project study area.
Santa Catalina Island Desert-Thorn (*Lycium brevipes* var. *hassei*)	1B	None	Not recorded from the San Pedro quadrangle; perennial deciduous shrub found at elevations of 10 to 300 meters w/in coastal bluff scrub and coast scrub. No potential habitat is present w/in the Project study area.
Prostrate Navarretia (*Navarretia prostrata*)	1B	None	Not recorded from San Pedro quadrangle; annual herb found in coastal scrub, meadows and seeps, valley and foothill grasslands, and vernal pools; typically associated with alkaline soils and mesic soil conditions at 15 to 700 meters elevation. Single record for species w/in geographical region is dated 1882 and from Wilmington (CDFG 2005). In addition, the freshwater marsh located at the 22nd Street/Old Tank Farm Land open space is far too degraded and disturbed to provide potentially suitable habitat for this species. Soils adjacent to the marsh are compacted and have been "amended" with asphalt, concrete, and gravel.
Coast Woolly-heads (*Nemacaulis denudata* var. *denudata*)	1B	None	Not recorded from San Pedro quadrangle; annual herb found at 0

SPECIES / NATURAL COMMUNITIES[1]	SPECIAL STATUS[2]	OCCURRENCE[3] LIKELIHOOD	COMMENTS[4]
			to 100 meters elevation in coastal dunes. Habitat absent from the Project study area.
Lyon's Pentachaeta (*Pentachaeta lyonii*)	FE, SE, 1B	None	Not recorded for San Pedro quadrangle; annual herb associated with chaparral, coastal scrub, and valley and foothill grasslands at 30 to 630 meters elevation. No potential habitat w/in Project study area.
Brand's Phacelia (*Phacelia stellaris*)	1B	None	Not recorded from the San Pedro quadrangle; annual herb found at 1 to 400 meters elevation w/in coastal scrub and dunes. No potential habitat present w/in Project study area.
Estuary Seablite (*Suaeda esteroa*)	1B	None	Not recorded w/in San Pedro quadrangle; perennial herb found in coastal salt marshes and swamps at elevations of 0 to 5 meters. Only extant salt marsh is at Cabrillo. This marsh was created in 1982 and isolated from other salt marshes. Given the conditions by which the marsh was created along with it being isolated, the species is judged absent from the Project study area.
ANIMALS			
Palos Verdes Blue Butterfly (*Glaucopsyche lygdamus palosverdesensis*)	FE	None	Species limited to a single small population at the former Palos Verdes Navy Housing Area located directly north of the Defense Fuel Supply Point in San Pedro. Associate w/ coastal sage scrub. Potential habitat absent from Project study area and species not known from other locations.
Monarch Butterfly (*Danaus plexippus*)	CNDDB	Moderate as migrant only.	Winter roost sites extend along the coast from northern Mendocino to Baja California. Roosts located in wind-protected tree groves (gum trees, Monterey pines, cypress) with nectar and water sources nearby. Small numbers expected to migrate through Project study area in fall. No potential roost sites w/in Project study area.
Tidewater Goby (*Eucuclogobius newberryi*)	FE, SSC	None	Historically, the Los Angeles basin provided shallow, brackish lagoon habitat suitable for the tidewater goby. Currently, however, this area is a gap between the Santa Monica (in western L.A. County) and Alisa Creeks (in Orange County) populations (USFWS 2004 – Andy Wones citation). The Project study area contains no habitat suitable for the species and there is no designated federal Critical Habitat for this species (Federal Register 65(224:69693-69717) in the Project study area.
Green Sea Turtle (*Chelonia mydas*)	FT	Very Low as transient	Has been observed sporadically in the Los Angeles/Long Beach Harbor area (http://www.mxsocal.org/oldweb/hspappendh.htm).
Leatherback Sea Turtle (*Dermochelys coriacea*)	FE	Very Low as transient	Has been observed sporadically in the Los Angeles/Long Beach Harbor area (http://www.mxsocal.org/oldweb/hspappendh.htm).
Loggerhead Sea Turtle (*Caretta caretta*)	FT	Very Low as transient	Has been observed sporadically in the Los Angeles/Long Beach Harbor area (http://www.mxsocal.org/oldweb/hspappendh.htm).

SPECIES / NATURAL COMMUNITIES[1]	SPECIAL STATUS[2]	OCCURRENCE[3] LIKELIHOOD	COMMENTS[4]
Olive Ridley (*Lepidochelys olivacea*)	FT	Very Low as transient	Has been observed sporadically in the Los Angeles/Long Beach Harbor area (http://www.mxsocal.org/oldweb/hspappendh.htm).
San Diego Coast Horned Lizard (*Phrynosoma coronatum blainvillei*)	SSC,	None	Inhabits coastal sage scrub and chaparral in arid and semi-arid climate conditions; prefers friable, rocky, or shaley sandy soils. Potential habitat absent from Project study area.
Common Loon (*Gavia immer*)	SSC	Confirmed as migrant and winter resident only	Southern California outside species breeding range; species has been documented w/in the Project study area during fall, winter, and spring (MEC 2002 - Analytical Systems, Inc. 2002. Ports of Long Beach and Los Angeles Year 2000 Biological Baseline Study of San Pedro Bay. Prepared for Port of Los Angeles, Planning Division. Carlsbad, CA. June).
California Brown Pelican (*Pelecanus occidentalis californicus*)	FE, SE, CFP	Confirmed as year-round non-breeder	Species uses the Harbor for foraging and roosting only; breeds on the Channel Islands and islands off the coast of Baja California (LAHD 2004 – Draft EIR for Berth 206-209, Interim Container Terminal Reuse Project. Prepared with assistance from CH2MHILL, Santa Ana, California. May 2004).
Double-crested Cormorant (*Phalacrocorax auritus*)	SSC	Confirmed as year-round non-breeder	This colonial piscivore (fish eater) is an uncommon transient and winter resident in coastal southern California, especially at major rivers and lakes with undisturbed shallows. Species is known to forage and roost w/in the Harbor year-round. Breeds along the coast and on the Channel Islands in undisturbed settings.
Osprey (*Pandion haliaetus*)	SSC	Confirmed as migrant and wintering resident non-breeder	Diet consists almost entirely of fish. It was formerly a common and widespread breeder in southern California (Grinnell and Miller 1944 - Grinnell, J., and A. H. Miller. 1944. The Distribution of the Birds of California. Pacific Coast Avifauna 27.), but no longer breeds regularly in California anywhere south of the northern San Francisco Bay (Small 1994 - Small, A. 1994. California Birds: Their Status and Distribution. Ibis Publishing Company, Vista, CA. 342 pp.). Declines are directly attributed to environmental pollution, with secondary causes including harassment by fishermen, disturbance at nest sites, and loss of habitat quality (including increased turbidity and fish stock declines in some rivers). Species is known to forage in Harbor waters for fish and roosts on tall undisturbed poles, tree snags, etc.
White-tailed Kite (*Elanus leucurus*)	CFP	Low as migrant; non-breeder	A bird of prey that hunts in open country. It is found across most of California. Nests are located low in trees and large shrubs near foraging areas in savannahs and at edges between open habitat and woodland or forest areas; vulnerable to human disturbance, especially during nesting. Species is not recorded for the Harbor and is not likely to occur except as a rare brief

SPECIES / NATURAL COMMUNITIES[1]	SPECIAL STATUS[2]	OCCURRENCE[3] LIKELIHOOD	COMMENTS[4]
			migrant.
Bald Eagle (*Haliaeetus leucocephalus*)	FT, EPA, SE, CFP	Very Low as migrant non-breeder	Species eats mainly fish and carrion, and formerly nested locally along the coast of southern California. It is now a very localized winter resident and rare migrant, with only very rare breeding efforts in coastal southern California (e.g., Lake Skinner, Riverside County). Within Los Angeles Harbor an individual may occur in some years during migration and/or winter. Coastally the species is known to nest on Santa Catalina Island.
Sharp-shinned Hawk (*Accipiter striatus*)	SSC	Low as non-breeding migrant	This small raptor specializes in hunting small birds and winters widely and fairly commonly in California including urban settings. It is a rare breeder south of northern San Luis Obispo County, and then only in high elevation forest and riparian habitats. Within the Project study area this species is likely to occur sporadically as a migrant or winter visitor.
Cooper's Hawk (*Accipiter cooperii*)	SSC	Low as non-breeding migrant	This medium sized hawk is a specialist in hunting small birds in closed quarters. It winters widely and fairly commonly in California as birds breeding to the north move in. In southern California Cooper's Hawks breed primarily in woodland habitats, especially riparian zones, but also oak woodland, walnut woodland, gumtrees (*Eucalyptus* spp.), and occasionally in dense, abandoned or otherwise undisturbed orchards. Within the Project study area this species would likely be an uncommon visitor.
Merlin (*Falco columbarius*)	SSC	Low as non-breeding migrant	This is a falcon which breeds only to the north and east of California and winters here sparsely. Like larger falcons such as peregrine falcon, merlins specialize in hunting birds in open country, especially wetlands and extensive grasslands next to trees. Within the Project study area it is reasonable that this species could occur uncommonly as migrant and/or brief winter visitor.
American Peregrine Falcon (*Falco peregrinus anatum*)	SE, CFP	Confirmed	This subspecies of peregrine falcon formerly bred over most of North America. It was listed as a federally endangered species on 13 October 1970, and as state endangered on 27 June 1971. The species is currently undergoing a slow, steady recovery, and again breeds in small numbers through much of non-desert portions of California. Habitat at all seasons is primarily areas with accessible open water and high densities of prey species such as ducks and shorebirds. The American peregrine falcon was formally delisted under the federal Endangered Species Act on 25 August 1999 (USFWS 1999 - U.S. Fish and Wildlife Service. 1999. Endangered and Threatened Wildlife and Plants:

SPECIES / NATURAL COMMUNITIES[1]	SPECIAL STATUS[2]	OCCURRENCE[3] LIKELIHOOD	COMMENTS[4]
			Final Rule to Remove the American Peregrine Falcon from the List of Federal Endangered and Threatened Wildlife, and to Remove the Similarity of Appearance Provision for Free-flying Peregrines in the Conterminous United States; Final Rule. Fed. Reg. 64:46542-46558. 25 August 1999.), as were individuals of all other subspecies occurring within the range of this subspecies. The species as a whole remains listed as Endangered at the state level, throughout California. This species is known to nest within Los Angeles and Long Beach Harbors. The nearest known nesting location to the Project study area is the Vincent Thomas Bridge and the species may forage any where waterbird and pigeons concentrate and thus, may range widely when foraging.
Light-footed Clapper Rail (*Rallus longirostris levipes*)	FE, SE	None	This subspecies of clapper rail is restricted to the lower elevations of coastal marshes with active tidal flow. No substantial seasonal movements occur, although rare individuals wander away from known breeding locales. The population trend at this time is uncertain, but nearly all remaining populations are vulnerable to extirpation due to nonnative predators, human disturbance, poor water quality (especially due to siltation of marshes from upland runoff), and habitat degradation and loss. Within the Project study area the only possible location for the species is the Cabrillo salt marsh. The marsh vegetation w/in Cabrillo is far too small to support a clapper rail. This species is judged absent from the Project study area.
Western Snowy Plover (*Charadrius alexandrinus nivosus*)	FT, SSC	Confirmed as non-breeder	Breeding habitat requirements include open, relatively flat areas with little or no vegetation. This includes undisturbed beaches, salt flats, playas, dredge spoils, levees, and even river bars. Food is virtually all aquatic and terrestrial invertebrates, which is typically captured through active observation, running, and then gleaning from the ground surface of tidal mudflats. Causes of decline are loss and, especially, intensive human disturbance of nesting areas, and introduction of nonnative predators. The federal listing of Threatened applies only to populations less than 50 miles from the nearest point of the Pacific Ocean. Along the southern California coastline this species is much more "common" as a migrant and winter visitor than a breeder where it can be found foraging and roosting along undisturbed beaches, lagoons, and estuaries. Within the Harbor this species is an occasional visitor to Pier 400 during the tern breeding season (May through August) (Keane Biological Consulting 2004 –

SPECIES / NATURAL COMMUNITIES[1]	SPECIAL STATUS[2]	OCCURRENCE[3] LIKELIHOOD	COMMENTS[4]
			Keane Biological Consulting. Final Report Breeding Biology of the California Least Tern in Los Angeles Harbor 2004 Season. Prepared for Los Angeles Harbor Department, Environmental Management Division. January 2005) with use of the Project study area expected to be limited to beach and mudflat habitats for foraging and roosting and rare.
Long-billed Curlew (*Numenious americanus*)	SSC	Confirmed as non-breeding migrant/winter visitor	Within southern California, this species occurs as a spring/fall migrant and/or winter visitor along beaches and mudflats. This species is known to occur w/in the Harbor as an infrequent transient.
California Gull (*Larus californicus*)	SSC	Confirmed as non-breeder	This gull breeds in large colonies east of the Sierra Nevada mountains and in San Francisco Bay, and is one of about a dozen species of "seagulls" that winter in and migrate through coastal southern California. Concentrations occur along the coast, major rivers, lakes, open landfills, and at parks with duck ponds. This species is confirmed to occur as a non-breeder within the Project study area with highest numbers during fall/spring and winter. This species is expected to forage and roost within the Study Area.
Black Skimmer *(Rynchops niger*)	SSC	Confirmed as breeder	This species breeds at Pier 400 in small numbers (Keane Biological Consulting - Keane Biological Consulting. Final Report Breeding Biology of the California Least Tern in Los Angeles Harbor 2004 Season. Prepared for Los Angeles Harbor Department, Environmental Management Division. January 2005) and is expected to forage within the Study Area. This bird skims along surface coastal waters for fish and can be seen feeding along quiet protected waters as well as open nearshore waters. Based on MEC (2002 - Analytical Systems, Inc. 2002. Ports of Long Beach and Los Angeles Year 2000 Biological Baseline Study of San Pedro Bay. Prepared for Port of Los Angeles, Planning Division. Carlsbad, CA. June) this species is most common to the Harbor in July and August when post-breeding dispersal from larger breeding colonies occurs along the coast is expected to occur. The lowest number of individuals was recorded in May-June and October-January.
California Least Tern (*Sterna antillarum browni*)	FE, SE, CFP	Confirmed as breeder	This subspecies of least tern historically bred in scattered, mostly small colonies along the coast from Monterey Bay south into Baja California. Today they breed in far fewer colonies, heavily managed to control predators and human disturbance, from San Francisco Bay (Alameda County) south to a few sites along the Pacific Coast of Baja California, Mexico. Most individuals breed at a few relatively large colonies in coastal southern

SPECIES / NATURAL COMMUNITIES[1]	SPECIAL STATUS[2]	OCCURRENCE[3] LIKELIHOOD	COMMENTS[4]
			California including Pier 400 in Los Angeles Harbor. They are extremely rare more than a few miles offshore, or inland except for occasional foraging at favorable fresh and brackish water locations. Winter distribution is unknown, but presumed to be open ocean off of Central America or South America; there are no winter records for California. The species feeds by diving for small surface fish from in flight. The U.S. Fish and Wildlife Service designates the breeding window as 15 April through 15 September; occasional individuals are seen as early as the beginning of April. Colonies are located near the ocean shoreline (within 0.5 miles [about 800 meters]), typically on nearly flat, loose sandy substrates with lightly scattered short vegetation and debris, although some colonies have been located on hard-packed surfaces, even unused asphalt. Colony sites must provide access to the shoreline for juveniles, and must be relatively free of predators. Documented predators include an extremely wide range of hawks, falcons, owls, shrikes, and mammals, even including herons and ground squirrels. The species is vulnerable due to their colonial nesting in a conspicuous, frequently disturbed habitat, along with their small size and dependence on small fishes whose populations vary greatly from year to year. Threats include loss and degradation of nesting and foraging habitat, direct disturbance from humans and pets, and increased predation risks due to the introduction of nonnative predators and increasing reliance on a few large colonies rather than many small, less conspicuous sites. With intensive management, recent population trends are upward. In 2004, an estimated 951 pairs of least terns nested at Pier 400 with 1,042 nests documented. In general, breeding success at this colony is above average compared to other colonies within Los Angeles and Orange Counties. Although the breeding colony is technically just outside the Project study area this species is expected to heavily use the aquatic environs w/in the Project study area for foraging from April through August.
Elegant Tern (*Sterna elegans*)	SSC	Confirmed as breeder	This tern forages in coastal and offshore waters including nearshore, bay, and estuarine situations where it feeds strictly on fish by aerial predation. Within the Harbor, elegant's breed at Pier 400 with an estimated 10, 170 nests recorded in 2004 (Keane Biological Consulting 2004 - Keane Biological Consulting. Final Report Breeding Biology of the California Least Tern in Los Angeles Harbor 2004 Season. Prepared for Los Angeles Harbor Department, Environmental Management

SPECIES / NATURAL COMMUNITIES[1]	SPECIAL STATUS[2]	OCCURRENCE[3] LIKELIHOOD	COMMENTS[4]
			Division. January 2005.). The Harbor in the vicinity of the Project study area is expected to provide important forage for breeding adults and dispersing juvenile. The species is expected to occur between April through October but individuals can be seen in most months.
Tufted Puffin (*Fratercula cirrhata*)	SSC	Confirmed as non-breeder (rare)	This seabird is a rare occurrence within southern California coastal waters but an individual was recorded in 2000 (MEC 2002 - Analytical Systems, Inc. 2002. Ports of Long Beach and Los Angeles Year 2000 Biological Baseline Study of San Pedro Bay. Prepared for Port of Los Angeles, Planning Division. Carlsbad, CA. June.). Any sighting of this species is expected to be a rare occurrence.
Burrowing Owl (*Athene cunicularia*)	SSC	Confirmed as non-breeder at Pier 400; None w/in Project study area.	This small owl is unusual among birds of prey in utilizing underground burrows. Burrowing owls are widely but thinly scattered through much of the western United States into southern Canada, with a disjunct population in Florida and the Caribbean. Generally they use burrows already dug by fossorial mammals such as ground squirrels, but can also use natural cavities and even man-made structures, such as piles of concrete or openings at the base of structures. Declines have been due to a variety of factors, including direct persecution, habitat loss, and control of both prey species and animals that create burrows. Within the Harbor an individual burrowing owl was relocated from Pier 400 in 2004 (Keane Biological Consulting 2004 - Keane Biological Consulting - Final Report Breeding Biology of the California Least Tern in Los Angeles Harbor 2004 Season. Prepared for Los Angeles Harbor Department, Environmental Management Division. January 2005.). During the current field work for the project, the open lands within the Project study area were carefully checked for potential habitat including ground squirrel burrows. Based on current conditions within the Project study area, potential habitat is absent.
Vaux's Swift (*Chaetura vauxi*)	SSC	High	Swifts spend most of their lives in flight, hunting small insects. Vaux's swifts nest in snags in old growth forests from central California to southeast Alaska (as well as in Mexico southward), and winter from central Mexico to northern South America. They are fairly common as spring and fall migrants in southern California. Within the Project study area this species is expected to occur occasionally in fall and spring when the species is migrating to southern wintering grounds or northern breeding ground.

SPECIES / NATURAL COMMUNITIES[1]	SPECIAL STATUS[2]	OCCURRENCE[3] LIKELIHOOD	COMMENTS[4]
Loggerhead Shrike (*Lanius ludovicianus*)	SSC	Confirmed	This species typically hunts in sparsely vegetated lands with perches for scanning, and fairly dense shrubs/brush for nesting (Small 1994 - Small, A. 1994. California Birds: Their Status and Distribution. Ibis Publishing Company, Vista, CA. 342 pp.). An individual was recorded during the current field work for the project at the 22nd Street/Old Tank Farm Land open space. It is likely that a pair of this species nests within the brush lining the adjacent cliffs and forages in the remaining open lands within the close vicinity.
California Horned Lark (*Eremophila alpestris actia*)	SSC	Confirmed	Species nests in grasslands interrupted by bare ground, dunes, grassy hillsides, mesas, plowed agricultural land, and alkali flats to name a few (Small 1994 - Small, A. 1994. California Birds: Their Status and Distribution. Ibis Publishing Company, Vista, CA. 342 pp) and can be seen year-round in similar habitats including beaches. Several individuals were observed at the 22nd Street/Old Tank Farm Land open space during the current field work and it is expected to occur at other open space w/in the Project study area. It is also expected to breed in small numbers in these same areas.
Coastal California Gnatcatcher (*Polioptila californica californica*)	FT, SSC	None	This species is an "obligate" resident of coastal sage scrub. No potential habitat within or adjacent to the Project study area.
Western Yellow Warbler (*Dendroica petechia brewsteri*)	SSC	Moderate as non-breeding migrant	Within the southern California coastal zone, breeding habitat for this warbler is found in riparian woodlands. Although the breeding habitat for this species is riparian, migrant yellow warblers during spring and fall can be found in a wide variety of habitats ranging from arid coastal sage scrub to urban landscaping (e.g., gum trees). Within the Project study area this species is expected to be limited to migrants in spring and summer and only a small number of individuals are expected. No breeding habitat is present.
Belding's Savannah Sparrow (*Passerculus sandwichensis beldingi*)	SE	Confirmed transient visitor	This subspecies of savannah sparrow is a locally common non-migratory resident of coastal saltmarsh. It is distributed from northwestern Baja California north to Santa Barbara County. This subspecies was formerly numerous and widespread within this restricted range, as noted by Willett (1912): "Abundant resident of the salt marshes along the coast". In some places it extends inland into alkaline marshes as much as 8 miles (about 12.9 kilometers), but all known localities are within 100 feet (about 30.5 meters) elevation above mean sea level. It is an obligate breeder in middle elevation saltmarsh, nearly always characterized by pickleweed (Salicornia spp.), either in tidal situations or non-tidal alkaline flats nearby. Although the

SPECIES / NATURAL COMMUNITIES[1]	SPECIAL STATUS[2]	OCCURRENCE[3] LIKELIHOOD	COMMENTS[4]
			majority of its subsistence stems from the saltmarsh and closely adjacent mudflat, individuals, particularly post-breeding birds, can be found foraging in a wide variety of habitats including upper marsh, adjacent ruderal and ornamental vegetation, open beach and mudflat, and even dirt and gravel parking lots. During fall, winter and spring, several other races of Savannah Sparrow occur in the same areas as Belding's, with complete overlap in habitat use (though the migrants remain more common in uplands). Migrants may be present within the range of Belding's from at least late August through early April. With good views of individual birds a knowledgeable and experienced observer may reliably identify Savannah Sparrows as Belding's or non-Belding's under field conditions. Non-Belding's savannah sparrows were recorded during the current field work. The breeding season for Belding's Savannah Sparrow has been estimated as mid-March to mid-July, though some young may fledge and remain dependent into August. Primary threats to the subspecies are loss and degradation of middle elevation coastal saltmarsh, and disturbance and predation. Belding's savannah sparrow is not recorded within the Project study area or Los Angeles Harbor. The last documented sighting occurred in 1984 within Long Beach harbor where an individual was observed (LAHD 2002 -). The small amount of pickleweed present within the Cabrillo marsh is not sufficient to support this subspecies. It is expected that if this species were to occur within the Project study area it would be extremely rare and brief.
Tricolored Blackbird (*Agelaius tricolor*)	SSC	None	This species colonially nests in freshwater marshes with dense stands of cattails and/or bulrushes, and occasionally in other riparian-associated thick brush (Small 1994 - Small, A. 1994. California Birds: Their Status and Distribution. Ibis Publishing Company, Vista, CA. 342 pp.); foraging during nesting occurs in open lands with sparse vegetation in vicinity to the nesting colony. At other times of the year this species can be found in flocks foraging in open, expansive sparsely vegetated lands. Within the Project study area it is conceivable that the species could occur but it is highly unlikely given the surrounding urban setting and the limited open space present within the Project study area.
California Western Mastiff Bat (*Eumops perotis californicus*)	SSC	Low	In southern California this subspecies of mastiff bat is found throughout the coastal lowlands up to drier mid-elevation mountains. Habitats include dry woodlands, shrublands,

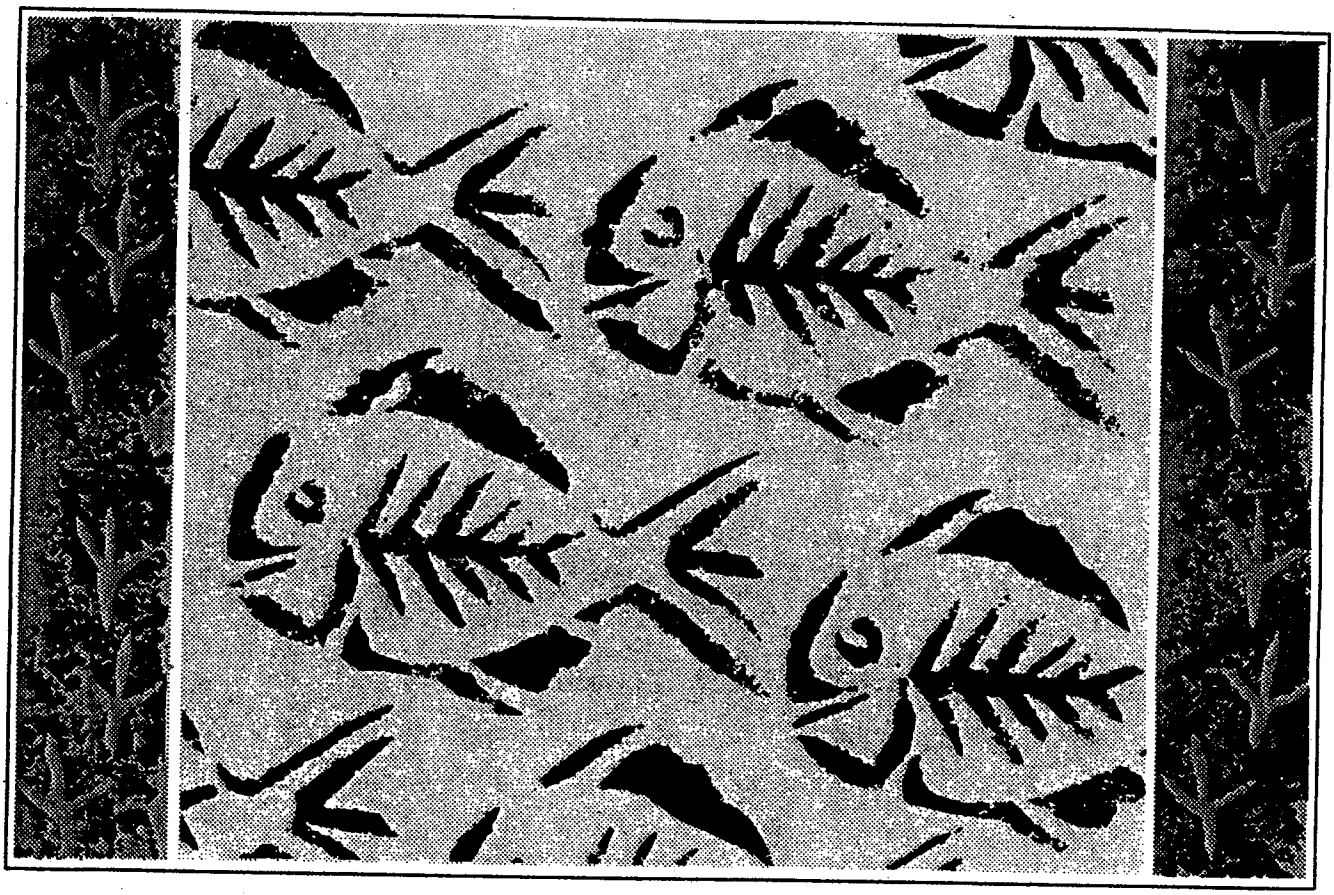
SPECIES / NATURAL COMMUNITIES[1]	SPECIAL STATUS[2]	OCCURRENCE[3] LIKELIHOOD	COMMENTS[4]
			grasslands, and occasionally even developed areas. This big bat forages in flight. They are active at night year round and are documented to travel over 15 miles (24 kilometers) in foraging bouts. Roost sites may be in natural rock or in tall buildings, large trees or elsewhere, but must be at least 2 inches (5 centimeters) wide and 12 inches (30 centimeters) deep, and narrow to at most 1 inch (2.5 cm) at their upper end. Nursery roosts must be deeper yet. All roosts open well up on a cliff or other steep face, at least 6.5 feet (2 meters) vertically above the substrate, to allow flight from the roost. Roosts may be communal (up to 100 individuals) or solitary, and commonly include other species of bats. Within the Project study area this species has not been documented, however it is possible that roosting habitat may include crevices or compartments in buildings or warehouses.
Big Free-tailed Bat (*Nyctinomops (=Tadarida) macrotis*)	SSC	None	This species of bat is nearly restricted to Mexico, with small numbers of incursions recorded into the developed portions of western San Diego County and a few additional records elsewhere in the state. The species roost in high rock crevices and cliffs, and forage primarily on large moths, especially over water. Habitats are arid, with particular preference for rough, rocky country. An individual of this species was collected in Long Beach in 1983. The species is a rarity at best and is not expected to occur within the Project study area.
Pacific Pocket Mouse (*Perognathus longimembris pacificus*)	FE, SSC	None	This subspecies is an obligate resident of fine-grained sandy soils of coastal strand, coastal dunes, river and marine alluvium, and coastal sage scrub in close proximity to the ocean, and has never been collected more than 2 miles (about 3 kilometers) from the coast or above 600 feet (about 180 meters) elevation. No potential habitat for this species is present within the Project study area.
San Diego Desert Woodrat (*Neotoma lepida intermedia*)	SSC, MSHCP	None	This is a medium-sized native rat locally common in a variety of sunny shrub habitats, frequently in rocky and/or steep terrain and upper drainages. Sage scrub communities are frequently occupied, but with other communities also used as suitable microhabitats are available. Potentially suitable habitat for the species is absent from the Project study area.
NATURAL COMMUNITIES			
Coastal and Valley Freshwater Marsh	CNDDB	Confirmed	A 0.3-acre freshwater marsh is located within the Project study area at the 22nd Street/Old Tank Farm Land open space. This marsh is highly degraded and isolated. Refer to Section 3.3.2.1

SPECIES / NATURAL COMMUNITIES[1]	SPECIAL STATUS[2]	OCCURRENCE[3] LIKELIHOOD	COMMENTS[4]
			for further details and the jurisdictional delineation performed.
Southern Coastal Salt Marsh	CNDDB	Confirmed	A 3.25-acre coastal salt marsh is present at Cabrillo. It was created in 1982 and is vegetated by nonnative and native vegetation in the uplands and native pickleweeds (*Salicornia virginica*, *S. subterminalis*) and saltgrass (*Distichlis spicata*) along the periphery of the intertidal mudflats. The shallow waters provide spawning and nursery areas for fish and a variety of watersbirds are expected to regularly roost and/or forage w/in the marsh throughout the year.

Inner Harbor

MEMORANDUM OF UNDERSTANDING

AMONG
THE HARBOR DEPARTMENT OF THE CITY OF LOS ANGELES,
THE CALIFORNIA DEPARTMENT OF FISH AND GAME,
THE NATIONAL MARINE FISHERIES SERVICE, AND
THE FISH AND WILDLIFE SERVICE,
TO
ESTABLISH A PROCEDURE FOR ADVANCE COMPENSATION
OF MARINE HABITAT LOSSES
INCURRED BY SELECTED PORT DEVELOPMENT PROJECTS
WITHIN THE HARBOR DISTRICT OF THE CITY OF LOS ANGELES.



HARBOR DEPARTMENT
AGREEMENT 1327
CITY OF LOS ANGELES

MEMORANDUM OF UNDERSTANDING AMONG THE HARBOR DEPARTMENT OF THE CITY OF LOS ANGELES, THE CALIFORNIA DEPARTMENT OF FISH AND GAME, THE NATIONAL MARINE FISHERIES SERVICE, AND THE FISH AND WILDLIFE SERVICE, TO ESTABLISH A PROCEDURE FOR ADVANCE COMPENSATION OF MARINE HABITAT LOSSES INCURRED BY SELECTED PORT DEVELOPMENT PROJECTS WITHIN THE HARBOR DISTRICT OF THE CITY OF LOS ANGELES,

THIS MEMORANDUM OF UNDERSTANDING (MOU) is entered into by the UNITED STATES OF AMERICA, acting by and through the FISH AND WILDLIFE SERVICE, UNITED STATES DEPARTMENT OF THE INTERIOR, ("FWS"), and the NATIONAL MARINE FISHERIES SERVICE, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, UNITED STATES DEPARTMENT OF COMMERCE, ("NMFS"), and the STATE OF CALIFORNIA, acting by and through the DEPARTMENT OF FISH AND GAME, RESOURCES AGENCY, ("CDFG"), and the CITY OF LOS ANGELES, acting by and through the BOARD OF HARBOR COMMISSIONERS, ("BOARD").

WHEREAS, the BOARD is mandated to foster the orderly and necessary development of the Port of Los Angeles (see Exhibit A, Part 1), which may include the creation of new land or water areas in the Harbor District of the City of Los Angeles by fill or excavation ("Harbor District" is, for the purposes of this MOU, defined as only those areas which are shown shaded on Exhibit B); and

WHEREAS, the FWS and the CDFG have as their primary mandate, in this matter, the conservation, protection, and enhancement of marine fish and migratory birds and their habitats, including the planning of biological loss avoidance, minimization, and

compensation; and the NMFS has as its primary mandate, the conservation, protection, and enhancement of marine fisheries resources, including the planning of biological loss avoidance, minimization, and compensation, thereof; and

WHEREAS, port development landfills are subject to State regulation pursuant to the California Coastal Act and Federal regulation pursuant to the River and Harbor Act and Clean Water Act; and

WHEREAS, the implementation in June 1975 of the regulatory requirements of Section 404 of the Federal Water Pollution Control Act (later the Clean Water Act), marked the beginning of a national program to restore and maintain the physical, chemical, and biological integrity of the waters and wetlands of the United States, which is applicable to port development projects involving the discharge of dredge or fill material; and

WHEREAS, the BOARD contemplates several small harbor developments within the Harbor District, which will require landfill or create new water area; and

WHEREAS, the contemplated harbor development landfills are expected to be necessary and water-dependent port improvements and the minimum landfill to fulfill the purpose; and

WHEREAS, contemplated Harbor District projects have the potential to create or to eliminate marine habitat of value to public fish and wildlife resources, (Exhibit A, Part 2), which may require mitigation; and

WHEREAS, the parties would like to facilitate permit processing for contemplated small Harbor District projects, landfills which permanently eliminate marine habitat or excavations which create marine habitat, by assuring that habitat loss compensation for the impacts on the marine environment has been provided; and

WHEREAS, the creation of appropriate fish and wildlife habitat within the Harbor District could constitute in advance or concurrent compensation for Harbor District project impacts, as specified by Federal policy; and

WHEREAS, numerous port development projects, which required permits pursuant to Section 404 of the Clean Water Act, have been implemented and have resulted in marine habitat gain, loss, or both; and

WHEREAS, the creation of new water area by excavation of land within the Harbor District which offsets water area losses resulting from fill within the Harbor District can be considered equal in habitat value when the water surface area, measured at the Mean High Water level (plus 4.8 feet Mean Lower Low Water) is equal,

NOW, THEREFORE, IT IS AGREED THAT:

1. The implementation of Federal Water Pollution Control/Clean Water Act Section 404 (FWPCA/CWA Sec 404) permit

requirements in the Harbor District, in June 1975, marked the beginning of a national program which heightened the BOARD's responsibilities to restore and maintain the physical, chemical, and biological integrity of the waters and wetlands within its boundaries.

2. The BOARD has been responsible for the implementation of or has allowed numerous port development projects which altered the marine habitats within the Harbor District boundaries (defined as the shaded area of Exhibit B, incorporated by reference hereby), as measured by the change in water surface area.

3. Marine habitat loss resulting from Harbor District fill, and measured by the water surface area at Mean High Water (plus 4.8 feet Mean Lower Low Water), can be considered offset by the gain of an equal area of water surface created in the Harbor District by excavation or removal of existing fill. That is, water areas of equal surface acreage within the Harbor District (defined as the area within the shaded zone on Exhibit B) are considered to have essentially equal habitat value.

4. The net habitat gain and loss accounting shown on Exhibit C, incorporated by reference hereby, constitutes an equitable and accurate summary of habitat gain and loss within the Harbor District since the inception of FWPCA/CWA Sec 404 permit program. The net gain/loss total established by this MOU is plus 17.7 acres.

5. The BOARD may charge the marine habitat losses resulting from contemplated port development landfills, within the Harbor District that are shown to be necessary, the minimum possible, water dependent and port related, against the then remaining balance of previously created habitat values, with the agreement of all parties. The BOARD may accrue gains in marine habitat values resulting from Harbor District development projects which create water surface area. Such marine habitat values shall be credited on a project-by-project basis and only upon the approval of all parties.

6. Such agreement, specified in item 5. shall be indicated at the earliest appropriate opportunity by all parties in an official and public manner, during completion of the environmental review process required under the California Environmental Quality Act or the National Environmental Policy Act, and the regulatory process required under the California Coastal Act or the River and Harbor Act or the Clean Water Act.

7. Previously created habitat value may not be considered adequate compensation and the contemplated landfills may not be placed until all parties have declared their agreement specified in the above item 6.

8. The contemplated BOARD projects likely to create or eliminate water surface area are listed on Exhibit D, incorporated by reference hereby. Other BOARD landfill projects in the Harbor District may be added or deleted with the written consent of all parties.

9. Projects outside the Harbor District boundaries, as defined in this agreement, are excluded from consideration under this MOU. Contemplated projects with potential for effecting a State or Federal endangered species are also excluded from consideration under this MOU.

10. The BOARD, with the written consent of all parties may allow the use of previously created habitat value as compensation by others proposing a landfill in the Harbor District or accrue habitat value from excavation by others, with the prior approval of the BOARD when the authorized person or entity is an applicant for a Corps of Engineers permit.

11. No contemplated harbor landfill, considered under this MOU, shall exceed in area the then remaining balance of previously created habitat value, as determined in items 3 and 4, and subsequently modified by items 5 and 6 of this MOU.

12. This MOU shall remain valid until the balance of created habitat value has been consumed or until rescinded by written consent of all parties.

13. Nothing contained in this MOU shall be deemed or construed as an agreement by any of the parties that would apply to any port project other than those expressly described in Exhibits B, C, or D, or as agreed to by written consent of all parties, as required by item 6. Nor will any agreement or consent required under this agreement be unreasonably withheld.

THIS MEMORANDUM OF UNDERSTANDING SHALL BE IN FULL FORCE AND EFFECT FROM THE DATE WHICH ALL PARTICIPANTS HAVE SIGNIFIED AGREEMENT BY SIGNATURE OF THE DESIGNATED REPRESENTATIVE.

THE CITY OF LOS ANGELES, acting by and through its Board of Harbor Commissioners

By: _____ 10-17-84
Ernest L. Perry — Date
Executive Director

Attest: _____

THE FISH AND WILDLIFE SERVICE,
U.S. Department of Interior

By: _____ 10.3.84
for Richard J. Myshak — Date
Regional Director, Region I

THE DEPARTMENT OF FISH AND GAME,
The Resources Agency of California

By: _____ 9/27/84
Jack C. Parnell — Date
Director

THE NATIONAL MARINE FISHERIES SERVICE,
NOAA, U.S. Department of Commerce

By: _____ 9-28-84
E.C. Fullerton — Date
Regional Director

EXHIBIT A

Part 1 PURPOSE AND VALUE OF THE PORT OF LOS ANGELES

The Port of Los Angeles and its facilities are a primary economic and coastal resource of the State, and an essential element of the maritime industry, and a vital strategic facility in the national defense system of the United States. Port development has a significant positive effect on both the regional and national economies.

The objectives of the Port, as set forth in its Master Plan, include: 1) to consistently develop, expand, and alter the port in both the short-term period and long-term period for purposes of commerce, navigation, fisheries, port dependent activities, and general public recreation; and 2) to integrate into the port development process, all of the economic, environmental, safety, and engineering skill required to evaluate and quantify the long-term effect on both the natural and economic environment of the port and its surrounding areas, of alternate decisions and tradeoffs, in order to arrive at proper decisions in response to development demands.

Part 2 FISH AND WILDLIFE RESOURCES OF THE PORT OF LOS ANGELES

The Los Angeles Harbor District occupies part of the 6000-acre marine coastal embayment known as San Pedro Bay, which is semi-enclosed by 9 miles of breakwater. Southern California's highly productive, relatively shallow, marine, semi-enclosed, coastal embayments have been modified and greatly diminished in extent during the last century. San Pedro Bay is considered to provide high habitat value for fish and wildlife resources and to be scarce in extent in the region. Within Los Angeles Harbor, a major commercial port, the water depths are mostly greater than twenty feet deep, most shoreline is protected with rock or bulkhead, and land uses are urban/industrial in nature.

The significant groups of public fish and wildlife resources relying on San Pedro Bay, are marine fishes and water-associated migratory birds. Fish populations are diverse and abundant, with 130 species reported and 70 considered common in occurrence. Seven species rank high in abundance and are: white croaker, queenfish, white seaperch, northern anchovy, tonguefish, speckled sanddab, and shiner perch. A ranking by biomass would usually include: jacksmelt, white croaker, bat ray, brown smoothhound, corbina, California halibut, and white seabass. The area also supports a nursery function for a variety of coastal marine fishes. The migratory bird community of San Pedro Bay is also large and diverse, including about 150 species. The most abundant birds are water-associated and include several gull species, brown pelican, surf scoter, cormorant species, grebe species, tern species, scaups, sanderling, and willet.

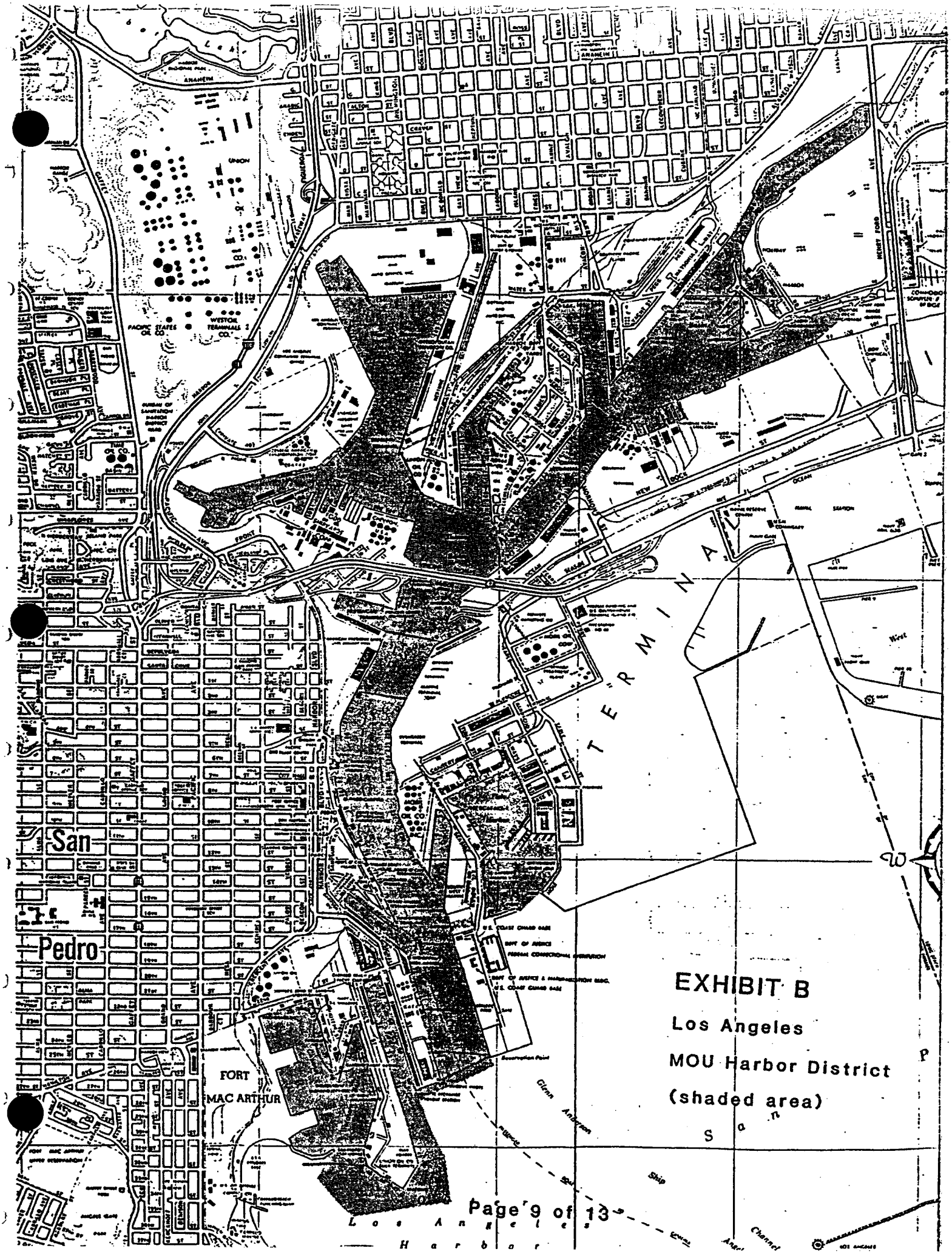


EXHIBIT B
Los Angeles
MOU Harbor District
(shaded area)
San
Pedro
FORT
MAC ARTHUR
TERMINAL
Page 9 of 13

EXHIBIT C

PERTINENT DEVELOPMENT PROJECTS IN THE PORT OF LOS ANGELES (POLA) AS IDENTIFIED BY CORPS (ACE) PERMITS SINCE IMPLEMENTATION OF SECTION 404

PROJECTS	ACE PERMIT NO.	LOSS IN WATER SURFACE AREA (ACRES)	GAIN IN WATER SURFACE AREA (ACRES)	TOTAL GAIN/LOSS (ACRES)	COMMENTS
POLA-Five Year Maintenance Dredging Program	75-1	---	---	---	No fill involved. No cumulative condition on ACE permit.
Skipper's 22nd St. Landing	76-125	---	---	---	Addition of two floats. No fill involved.
POLA-Filling of Slip 232	76-170	Mitigated by the creation of the 3.5-acre salt marsh at Cabrillo Beach.			No cumulative condition on ACE permit.
American Society of Military Hist.	77-57	---	---	---	ACE application withdrawn on October 21, 1977.
POLA-Filling of Berth 206	77-82	Mitigated by the creation of the 3.5-acre salt marsh at Cabrillo Beach.			No cumulative condition on ACE permit.
POLA-West Basin Storm Drain at Berth 142	77-92	---	---	---	No fill involved. No cumulative condition on ACE permit.
L.A. County-Launching Ramp	77-200	---	---	---	Groin and float construction. No fill involved.
L.A. County-Mooring Facility	77-206	---	---	---	ACE application withdrawn on December 16, 1982.
POLA-Water Taxi Facility at Berth 28	77-216	---	---	---	ACE application withdrawn on Nov. 23, 1977.
POLA-Princess Louise Relocation	78-180	---	---	---	No fill involved. No cumulative condition on ACE permit.
San Pedro Fish Market	79-149	-0.1	---	-0.1	Minor fill involved. Mitigation done by tenant.
L.A. City-TITP Outfall Extension	79-173	---	---	---	No fill involved.
U.S. Borax - Maintenance Dredging	79-204	---	---	---	U.S. Borax owns its land - POLA is not involved.
POLA-Harbor Deepening Project	80-154	Mitigated by the creation of the shallow water habitat.			No cumulative condition on ACE permit.
POLA-Berths 184-185 Wharf Demolition	80-156	---	---	---	No cumulative condition on ACE permit. Removal of 485 wooden pilings. No fill involved.

EXHIBIT C

PERTINENT DEVELOPMENT PROJECTS IN THE PORT OF LOS ANGELES (POLA) AS IDENTIFIED BY CORPS (ACE) PERMITS SINCE IMPLEMENTATION OF SECTION 404

PROJECTS	ACE PERMIT NO.	LOSS IN WATER SURFACE AREA (ACRES)	GAIN IN WATER SURFACE AREA (ACRES)	TOTAL GAIN/LOSS (ACRES)	COMMENTS
POLA-West Channel/Cabrillo Beach Marina Complex	80-167	-2.6	+22.2	+19.7	3.5 acre salt marsh and kelp bed not included in calculations. No cumulative condition on ACE permit.
POLA-Berths 156-160 Wharf Demolition	80-176	---	---	---	No cumulative condition on ACE permit. Removal of 1,955 wooden pilings. No fill involved.
Skipper's 22nd St. Landing	81-51	---	---	---	Install dolphins, floating walk and finger floats. No fill involved.
POLA-Seaplane Anchorage - Demolition of Docks	81-65	---	---	---	No fill involved. No cumulative condition on ACE permit.
POLA-Berths 121-126 Wharf and Backland Improvements	81-79	-4.0	+2.7	-1.3	Excavation and fill were done.
POLA-Five Year Maintenance Dredging	81-90	---	---	---	No fill involved. No cumulative condition on ACE permit.
POLA-Berths 216-218 Wharf Extension	81-114	-0.7	---	-0.7	Minor fill involved.
Ralph M. Parsons Company Assemble Modules	81-122	---	---	---	Project cancelled.
Todd Shipyards - Shiplift	81-127	-2.1	+2.3	+0.2	Cumulative condition on ACE permit.
San Pedro Fish Market	81-145	---	---	---	Amend from ACE Permit 79-149. No fill involved.
POLA-T.I. Coal Handling Project	81-159	Permit process pending. Separate negotiation on mitigations are ongoing between POLA and wildlife agencies.			
POLA-Berths 188-190 Wharf Modification and Dredging Slip 5	81-208	---	---	---	No fill involved.
POLA-Berth 236 Wharf Extension	82-3	-0.2	+0.1	-0.1	Minor backfill and excavation.
San Pedro Marine - New Floats	82-32	---	---	---	Install dolphins, floats, guide pilings. No fill involved.

EXHIBIT C

PERTINENT DEVELOPMENT PROJECTS IN THE PORT OF LOS ANGELES (POLA) AS IDENTIFIED BY CORPS (ACE) PERMITS SINCE IMPLEMENTATION OF SECTION 404

PROJECTS	ACE PERMIT NO.	LOSS IN WATER SURFACE AREA (ACRES)	GAIN IN WATER SURFACE AREA (ACRES)	TOTAL GAIN/LOSS (ACRES)	COMMENTS
POLA-Berth 200 Gap	82-80	---	---	---	No fill involved.
Todd Shipyards - Pump Station	82-95	---	---	---	Dredge to install seawater pump station.
POLA-Berth 213 Wharf Demolition	82-102	---	---	---	No cumulative condition on ACE permit. Removal of 2,090 wooden pilings. No fill involved.
POLA-Berth 84-85 Ferry Bldg. Boat Landing	82-111	---	---	---	No fill involved.
Todd Shipyards - Shiplift	82-142	---	---	---	Amend ACE Permit 81-127.
USC - Marine Support Facility	82-105	---	---	---	Boat floats installed. No fill involved.
POLA-Consolidated Slip Dredging	82-109	---	---	---	ACE application withdrawn on April 13, 1983.
POLA-Berths 210-211	82-192	---	---	---	No fill involved.
POLA-Berth 115	83-20	-0.2	---	-0.2	Minor fill.
POLA-Peninsh Cabrillo Beach Area	83-22	-0.9	---	-0.9	No cumulative condition on ACE permit.
POLA-Berths 145-146	83-45	---	+1.3	+1.3	Excavation but no fill required.
POLA-Berths 188-190	83-54	---	---	---	Amended from ACE Permit 81-208. No fill involved.
POLA-Berths 218-221 Wharf Improvements	83-112	-0.2	---	-0.2	Minor fill.
POLA-Berths 57-60	83-151	---	---	---	No ACE permit issued, since project is no longer planned.
Skipper's 22nd St. Landing	83-158	---	---	---	Install floats and dolphins. No fill involved.
GRAND TOTAL		-10.9	+28.6	+17.7	

EXHIBIT D

Los Angeles Harbor
Contemplated Harbor District Landfills *

1) Berth 225-229 Wharf and Backland Improvement Project

Gain Ø.Ø acres Loss 6.7 acres NET CHANGE -6.7 ACRES

2) Berth 212-213 Wharf and Backland Improvement Project

Gain Ø.Ø acres Loss 7.Ø acres NET CHANGE -7.Ø ACRES

* Actual project acres will be determined based upon the "as built" condition.

Jones & Stokes

Fax Transmission

Date: June 4, 2008

Attention: Native American Heritage Commission

Fax Number: 916-657-5390

Phone Number: 916-653-4082

Number of Pages: 1 (including this page)

From: Noelle C.S. Shaver M.A., RPA
Fax: 951-506-4138
Phone: 951-506-4038

Client: Los Angeles Harbor Department
Project Title: Wilmington Waterfront EIR
Project Number: 00859.07

Subject: **Sacred Lands File Search Request**

Dear NAHC,

Please process the following location for a Sacred Lands file search and interested parties list.

Study Area Size: 125 acres

County: Los Angeles

USGS 7.5' Quad: Torrance, Calif.

Township: 5 South

Range: 13 West

Section: Un-sectioned (portion of the Los Palos Verdes land grant)

Base Meridian: SBBM

Please call at the number listed above if you have any questions or need additional information.

Thank you for your assistance.

42145 Lyndie Lane, Suite 200 · Temecula, CA 92591 · tel. 951 506 4038 · fax 951 506 4138
www.jonesandstokes.com

STATE OF CALIFORNIA Arnold Schwarzenegger, Governor

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390
Web Site www.nahc.ca.gov
e-mail: ds_nahc@pacbell.net

June 5, 2008

Noelle C.S. Shaver M.A., RPA
Jones & Stokes
42145 Lyndie Lane, Suite 200
Temecula, CA 92591

Sent by Fax: 951-506-4138
Number of Pages: 2

Re: Proposed Wilmington Waterfront EIR. Project Number 00859.07; Los Angeles County.

Dear Ms. Shaver:

The Native American Heritage Commission was able to perform a record search of its Sacred Lands File (SLF) for the affected project area. The SLF failed to indicate the presence of Native American cultural resources in the immediate project area. The absence of specific site information in the Sacred Lands File does not guarantee the absence of cultural resources in any 'area of potential effect (APE).'

Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries once a project is underway. Enclosed are the nearest tribes that may have knowledge of cultural resources in the project area. A List of Native American contacts are attached to assist you. The Commission makes no recommendation of a single individual or group over another. It is advisable to contact the person listed; if they cannot supply you with specific information about the impact on cultural resources, they may be able to refer you to another tribe or person knowledgeable of the cultural resources in or near the affected project area (APE).

Lack of surface evidence of archeological resources does not preclude the existence of archeological resources. Lead agencies should consider avoidance, as defined in Section 15370 of the California Environmental Quality Act (CEQA) when significant cultural resources could be affected by a project. Also, Public Resources Code Section 5097.98 and Health & Safety Code Section 7050.5 provide for provisions for accidentally discovered archeological resources during construction and mandate the processes to be followed in the event of an accidental discovery of any human remains in a project location other than a 'dedicated cemetery. Discussion of these should be included in your environmental documents, as appropriate.

If you have any questions about this response to your request, please do not hesitate to contact me at (916) 653-6251.

Sincerely,

Dave Singleton
Program Analyst

Attachment: Native American Contact List

Native American Contacts
Los Angeles County
June 5, 2008

LA City/County Native American Indian Comm
Ron Andrade, Director
3175 West 6th Street, Rm. 403
Los Angeles , CA 90020
(213) 351-5324
(213) 386-3995 FAX

Gabrieleno/Tongva San Gabriel Band of Mission
Anthony Morales, Chairperson
PO Box 693 Gabrielino Tongva
San Gabriel , CA 91778
ChiefRBwife@aol.com
(626) 286-1632
(626) 286-1758 - Home
(626) 286-1262 Fax

Owl Clan
Qun-tan Shup
48825 Sapaque Road Chumash
Bradley , CA 93426
(805) 472-9536
(805) 835-2382 - CELL

Gabrielino/Tongva Council / Gabrielino Tongva Nation
Sam Dunlap, Tribal Secretary
761 Terminal Street; Bldg 1, 2nd floor Gabrielino Tongva
Los Angeles , CA 90021
office @tongvatribe.net
(213) 489-5001 - Office
(909) 262-9351 - cell
(213) 489-5002 Fax

Ti'At Society
Cindi Alvitre
6515 E. Seaside Walk, #C Gabrielino
Long Beach , CA 90803
calvitre@yahoo.com
(714) 504-2468 Cell

Gabrielino Tongva Indians of California Tribal Council
Robert Dorame, Tribal Chair/Cultural Resources
5450 Slauson, Ave, Suite 151 PMB Gabrielino Tongva
Culver City , CA 90230
gtongva@verizon.net
562-761-6417 - voice
562-925-7989 - fax

Tongva Ancestral Territorial Tribal Nation
John Tommy Rosas, Tribal Admin.
, Gabrielino Tongva
tattnlaw@gmail.com
310-570-6567

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the propose Wilmington Waterfron EIR Project of the Los Angeles Harbor Department; Los Angeles County, California for which a Sacred Lands File search and Native American Contacts list were requested.

ICF Jones & Stokes
an ICF International Company

June 16, 2008

Tongva Ancestral Territorial Tribal Nation
John Tommy Rosas, Tribal Admin.

SUBJECT: Wilmington Waterfront Development Program

Dear John Tommy Rosas:

ICF Jones & Stokes is conducting a Phase I cultural resources study for the Los Angeles Harbor Department's (LAHD) *Wilmington Waterfront Development Program* located within the Port of Los Angeles (Port) and the community of Wilmington in the City of Los Angeles. The LAHD administers development within the Port and is the lead agency under the California Environmental Quality Act (CEQA).

On May 14, 2008 ICF Jones & Stokes sent you initial correspondence describing a 58-acre project. Since that date, the project area has expanded to a new total of 123 acres although the analysis of impacts in the additional acreage is focused solely on planning/ administrative changes resulting from various planning document boundary adjustments and future conceptual designs. Direct impacts are anticipated only in specific locations within the 58 acres that comprise the *Avalon Boulevard Corridor* and the *Wilmington Waterfront District* portions of the project (see enclosed map).

The project area is located on Port land as well as a portion of the un-sectioned Los Palos Verdes land grant within Township 5 South, Range 13 West. The anticipated areas of direct impact are bounded by Lagoon Avenue, Broad Avenue, C Street, and Banning's Landing (at waterfront) as depicted on the accompanying USGS 7.5' quadrangle. The proposed project includes the development of a variety of land uses within the project area including: public waterfront and open space areas, light industrial and commercial development, and transportation and parking facilities.

The Native American Heritage Commission supplied your name as a contact for this area. We are seeking information regarding resources that may be affected by this project. We would appreciate your comments identifying any concerns or issues pertinent to this project. Knowing that some information is not available outside of the Native American Community, we

42145 Lyndie Lane, Suite 200 — Temecula, CA 92591 — 951.506.4038 — 951.506.4138 fax — icfi.com — jonesandstokes.com

encourage your participation in this investigation. Please respond by letter or telephone at (951) 506-4038 no later than July 14, 2008.

Sincerely,

Noelle C.S. Shaver

Noelle C.S. Shaver M.A., RPA
Project Archaeologist

Enclosure

ICF Jones & Stokes
an ICF International Company

June 16, 2008

Gabrielino/Tongva Indians of California Tribal Council
Robert Dorame, Tribal Chair/Cultural Resources
5450 Slauson, Ave., Suite 151 PMB
Culver City, CA 90230

SUBJECT: Wilmington Waterfront Development Program

Dear Robert Dorame:

ICF Jones & Stokes is conducting a Phase I cultural resources study for the Los Angeles Harbor Department's (LAHD) *Wilmington Waterfront Development Program* located within the Port of Los Angeles (Port) and the community of Wilmington in the City of Los Angeles. The LAHD administers development within the Port and is the lead agency under the California Environmental Quality Act (CEQA).

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Sincerely,

Noelle C.S. Shaver

Noelle C.S. Shaver M.A., RPA
Project Archaeologist

Enclosure

ICF Jones & Stokes
an ICF International Company

June 16, 2008

Gabrielino/Tongva Council/Gabrielino Tongva Nation
Sam Dunlap, Tribal Secretary
761 Terminal Street, Bldg. 1, 2nd Floor
Los Angeles, CA 90021

SUBJECT: Wilmington Waterfront Development Program

Dear Sam Dunlap:

ICF Jones & Stokes is conducting a Phase I cultural resources study for the Los Angeles Harbor Department's (LAHD) *Wilmington Waterfront Development Program* located within the Port of Los Angeles (Port) and the community of Wilmington in the City of Los Angeles. The LAHD administers development within the Port and is the lead agency under the California Environmental Quality Act (CEQA).

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Sincerely,

Noelle C.S. Shaver

Noelle C.S. Shaver M.A., RPA
Project Archaeologist

Enclosure

ICF Jones & Stokes
an ICF International Company

June 16, 2008

Gabrieleno/Tongva San Gabriel Band of Mission
Anthony Morales, Cahirperson
P.O. Box 693
San Gabriel, CA 91778

SUBJECT: Wilmington Waterfront Development Program

Dear Anthony Morales:

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Sincerely,

Noelle C.S. Shaver

Noelle C.S. Shaver M.A., RPA
Project Archaeologist

Enclosure

ICF Jones & Stokes
an ICF International Company

June 16, 2008

Ti'At Society
Cindi Alvitre
6515 E. Seaside Walk, # C
Long Beach, CA 90803

SUBJECT: Wilmington Waterfront Development Program

Dear Cindi Alvitre:

ICF Jones & Stokes is conducting a Phase I cultural resources study for the Los Angeles Harbor Department's (LAHD) *Wilmington Waterfront Development Program* located within the Port of Los Angeles (Port) and the community of Wilmington in the City of Los Angeles. The LAHD administers development within the Port and is the lead agency under the California Environmental Quality Act (CEQA).

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Sincerely,

Noelle C.S. Shaver

Noelle C.S. Shaver M.A., RPA
Project Archaeologist

Enclosure

ICF Jones & Stokes
an ICF International Company

June 16, 2008

Owl Clan
Qun-tan Shup
48825 Sapaque Road
Bradley, CA 93426

SUBJECT: Wilmington Waterfront Development Program

Dear Qun-tan Shup:

ICF Jones & Stokes is conducting a Phase I cultural resources study for the Los Angeles Harbor Department's (LAHD) *Wilmington Waterfront Development Program* located within the Port of Los Angeles (Port) and the community of Wilmington in the City of Los Angeles. The LAHD administers development within the Port and is the lead agency under the California Environmental Quality Act (CEQA).

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Sincerely,

Noelle C.S. Shaver

Noelle C.S. Shaver M.A., RPA
Project Archaeologist

Enclosure

ICF Jones & Stokes
an ICF International Company

June 16, 2008

LA City/County Native American Indian Commission
Attn: Mr. Ron Andrade
3175 West 6th Street, Rm. 403
Los Angeles, CA 90020

SUBJECT: Wilmington Waterfront Development Program

Dear Mr. Andrade:

ICF Jones & Stokes is conducting a Phase I cultural resources study for the Los Angeles Harbor Department's (LAHD) *Wilmington Waterfront Development Program* located within the Port of Los Angeles (Port) and the community of Wilmington in the City of Los Angeles. The LAHD administers development within the Port and is the lead agency under the California Environmental Quality Act (CEQA).

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Sincerely,

Noelle C.S. Shaver

Noelle C.S. Shaver M.A., RPA
Project Archaeologist

Enclosure

Noelle Shaver

From: Noelle Shaver
Sent: Monday, June 16, 2008 3:54 PM
To: 'tattnlaw@gmail.com'
Subject: Wilmington Waterfront Development Program

Mr. Rosas,

Thank you for responding so quickly and I appreciate your willingness to express concerns regarding the proposed project and resources of concern to Native Americans and the TATTN. The intent of the notification letter is to inform you of the Phase I cultural resources study and a time frame for responses is included as a means for your comments to be included in the environmental document prior to its public circulation.

If you have specific concerns regarding impacts to cultural resources that you would like to discuss in more detail, please respond by email or contact me at the number below.

Sincerely,
Noelle Shaver

Noelle C.S. Shaver M.A., RPA
Archaeologist/Senior Consultant I
ICF Jones & Stokes
42145 Lyndie Lane Suite 200 I Temecula I CA 92591
t 951.506.4038 I f 951.506.4138 I c 951.240.8718 I e nshaver@jsanet.com
Please consider the environment before printing this message.

From: Johntommy Rosas [mailto:tattnlaw@gmail.com]
Sent: Monday, June 16, 2008 12:16 PM
To: Denise Souliotes
Subject: Re: Wilmington Waterfront Development Program

I confirm receipt of this document and will be sending you further documents soon. I will now state and put you on NOTICE that we/TATTN will not be limited in any way by you on TIME frames to respond,This type of comment in your letter is illegal and dis-respectfull, also we /TATTN now gives NOTICE to you as to our OBJECTION and OPPOSITION to this expansion and re-expansion [from you comments] to this project . This proposed project is on our land and illegally affects our Indigenous Rights on numerous grounds and levels, we will be sending more documents when we receive more information from you, My suggestion is you submit all up to date information on this proposal asap, Thanks Johntommy

On 6/16/08, **Denise Souliotes** <dsouliotes@jsanet.com> wrote:

John Tommy Rosas,

Attached is the Phase 1 Cultural Resource study for the Los Angeles Department's (LAHD) Wilmington Waterfront Development Program located within the Port of Los Angeles (Port) and the community of Wilmington in the City of Los Angeles.

Sincerely,

Denise Souliotes

Administrative Assistant

ICF Jones & Stokes

42145 Lyndie Lane Suite 200

Temecula, CA 92591

W: 951.506.4038 Fx: 951.506.4138

dsouliotes@jsanet.com www.jonesandstokes.com www.icfi.com

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--
JOHN TOMMY ROSAS
TRIBAL ADMINISTRATOR
TRIBAL LITIGATOR
TONGVA ANCESTRAL TERRITORIAL TRIBAL NATION
OFFICIAL TATTN E-MAIL CONFIDENTIAL
PROJECT TRACKING SERVICES

ICF Jones & Stokes
an ICF International Company

Report of Conversation

Conversation Type:
[Phone conversation, message, or other?]
[Who contacted whom?]

Client: Los Angeles Harbor Department

Job: Wilmington Waterfront Development Program

Project/Task Number: 00859.07

Date: July 9, 2008

Time: 4:00 pm

Contact: Mr. Anthony Morales
Chairperson
Gabrieliño/Tongva San Gabriel Band of Mission Indians

Phone: 626-286-1632 Ext: N/A

J&S Employee: Noelle C.S. Shaver
Senior Consultant I/Archaeologist
Temecula

Phone: 951-506-4038 Ext: 22

Subject: **Native American concerns re: the Wilmington project**

Mr. Anthony Morales contacted ICF Jones & Stokes by telephone in response to correspondence sent by ICF Jones & Stokes informing Native Americans of the proposed project and asking for comments and concerns.

Mr. Morales stated that the area was traditionally utilized by the Gabrieliño and requested that he be contacted should the project warrant monitoring by Native Americans. In addition, he requested that he be contacted in the event that subsurface archaeological deposits and/or human remains are unearthed during ground disturbing activities.

Ninyo & Moore
Geotechnical and Environmental Sciences Consultants

PRELIMINARY
HAZARDOUS MATERIALS ASSESSMENT
WILMINGTON WATERFRONT PROJECT
WILMINGTON, CALIFORNIA

DRAFT

PREPARED FOR:
Jones & Stokes
17310 Red Hill Avenue, Suite 320
Irvine, California 92614

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

August 20, 2008
Project No. 207374001

August 20, 2008
Project No. 207374001

Mr. Lee Lisecki
Jones & Stokes
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Irvine, California 92614

Subject: Preliminary Hazardous Materials Assessment
Wilmington Waterfront Project
Port of Los Angeles
Wilmington, California

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Dear Mr. Lisecki:

In accordance with your authorization, Ninyo & Moore has completed a Preliminary Hazardous Materials Assessment for incorporation into the Environmental Impact Report (EIR) for the Wilmington Waterfront Project, in Wilmington, California. The report describes our findings, methodologies, and conclusions.

Sincerely,
NINYO & MOORE

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BAP/DIS/sc

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1. INTRODUCTION

Jones & Stokes (J&S, the Client) has authorized Ninyo & Moore to perform a Preliminary Hazardous Materials Assessment (HMA) for incorporation into the Environmental Impact Report (EIR) for the Wilmington Waterfront Project (proposed Project), in Wilmington, California. The HMA was performed to identify, to the extent practical, contaminated, and potentially contaminated areas and other hazardous materials issues within the proposed project area. This HMA addresses the Los Angeles Harbor Department Wilmington Waterfront Project at the Port of Los Angeles (POLA) in Wilmington, Los Angeles County, California. The proposed Project area includes approximately 60 acres of land adjacent to the Wilmington community. The area is generally bounded by Lagoon Avenue and North Broad Avenue, and C Street and Bannings Landing. The project area includes Harry Bridges Boulevard from North Broad Street in the east and extends west continuing on to John S Gibson Boulevard and North Front Street, ending at the Vincent Thomas Bridge in the south. The Project area also includes the Olympic Tank Site, which is not contiguous with the rest of the site and located approximately 1.5-mile northeast of Harry Bridges Boulevard on the southeastern corner of Alameda Street and Robidoux Street (site, Figures 1). The HMA has been performed in accordance with Ninyo & Moore's proposal and cost estimate dated June 5, 2007.

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The proposed Project includes construction and building of new pedestrian oriented features and a waterfront promenade, enhancement of the Avalon Boulevard commercial corridor, commercial, industrial, and retail development, open space, transportation enhancements and improvements, and construction of the Red Car Museum.

1.1. Purpose and Scope of Investigation

The purpose of this HMA was to evaluate the likelihood that hazardous materials may be present in soil or groundwater beneath the proposed Project as a result of on-site activities. The likelihood of specific areas of the proposed Project being contaminated by hazardous materials was ranked as high, moderate, or low based on the following descriptions:

- **High** – Property with known or probable contamination within the area of the project. An example of a property in this category would be a leaking underground storage tank (UST) facility where remediation had not been started or was not yet finished.

- **Moderate** – Property with potential or suspected contamination within the area of the project. Examples of properties in this category would be leaking UST facilities in final stages of remediation or in post-remediation monitoring. A second example would be a property with known use and storage of hazardous materials which had received violation notices from inspecting agency or where visual evidence of inadequate chemical and storage practices (such as significant staining) were observed but where no environmental assessments had occurred. Also included in this category are facilities where USTs are likely present and/or facilities that have used significant quantities of hazardous materials, but appear to be abandoned by their former operators. Active and abandoned oil wells would also be placed in this category. Also included within this category would be properties with a long history of industrial use such as, but not limited to, lumber yards, boat yards, ship builders, and railroad right-of-ways.

- **Low** – Property which uses or stores hazardous materials but with no significant violations, known releases, or evidence of inadequate chemical handling practices. Example properties would be UST or dry cleaning facilities with no documented releases or where remediation of previous releases had been completed.

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As presented in this report, Ninyo & Moore has been retained to conduct an HMA which will be incorporated in to the EIR within the proposed Project area outlined on Figure 1 to identify areas of the proposed Project where unauthorized releases of hazardous materials have occurred. The scope of this HMA included but was not limited to the following tasks:

- Perform a site visit to visually evaluate site characteristics for possible contaminated surface soil or surface water, improperly stored hazardous materials, possible sources of polychlorinated biphenyls (PCBs), and possible risks of site contamination from activities at the site. Properties within and adjoining the project areas were visually evaluated from public rights-of-way, only.

- Perform a site vicinity reconnaissance to evaluate characteristics of adjacent properties for possible environmental influences on the site.

- Perform a review of a computerized database search of readily available government and regulatory agency environmental lists for the site and for properties located within approximately $^{1}/_{8}$ mile of the project site. The objective of the database search was to evaluate locations where hazardous materials may have been used or stored and their possible effects on the site. On-site properties of possible concern were further evaluated by requesting information for these properties from the Port. Locations of properties of concern are shown on maps of the site vicinity.

- Perform a review State of California, Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) oil field maps, and perform a review of information provided by the California State Fire Marshal regarding oil and natural gas pipelines.

- Perform a review of site and adjacent historical land use to provide an overview of past uses that likely involved the use or storage of hazardous materials. Information that was used to review the site history included readily available historical aerial photographs (provided by a single vendor), historic United States Geological Survey (USGS) Topographic Maps, and review of Sanborn Insurance Maps. Ninyo & Moore attempted to note historical site uses involving the use or storage of hazardous materials from the time when the site was undeveloped.

- Develop preliminary mitigation alternatives for hazardous materials issues which may impact the project.

- Prepare this stand-alone HMA technical report. This report documents work scope findings and provide a discussion of findings, conclusions, and mitigation measures regarding the current environmental condition of the site and recommendations for supplemental site assessment, as appropriate. This report addresses concerns noted throughout the project area, excluding the Buffer zone, as defined in the December 18, 2006, draft Master Plan provided to Ninyo & Moore by Jones & Stokes.

In addition to this scope of work, POLA requested a limited scope be conducted for two additional areas designated as "Area D" and the "Olympic Tank Site." The work requested for these two areas was limited to:

- Perform a review of a computerized database search of readily available government and regulatory agency environmental lists for the site and for properties located within approximately $^1/_8$ mile of the project site. The objective of the database search was to evaluate locations where hazardous materials may have been used or stored and their possible effects on the site.

Sections 2.1, 2.5, and 2.6 describe these two areas and their locations.

1.2. Limitations

This HMA has been prepared for use by J&S. The information presented in this report is based on the project scope of work (Section 1.1). Ninyo & Moore has relied on information provided by others in our description of historical conditions and our review of regulatory databases and files. However, Ninyo & Moore makes no warranties or guarantees regarding

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the accuracy or completeness of the information provided or compiled by others. Ninyo & Moore observed properties from public rights-of-way only. Ninyo & Moore did not conduct interviews with individual tenants within the area of the proposed Project.

No HMA can completely eliminate uncertainty regarding the potential for hazardous materials conditions in connection with a property. Performance of this HMA is intended to reduce, but not eliminate, uncertainty regarding the presence of hazardous materials conditions. The available data do not provide definitive information relative to past uses, operations, or incidents at the proposed Project or adjacent properties. The existence of contamination within the proposed Project area that was not identified during this HMA is possible and cannot be adequately assessed without additional research beyond the stated scope of work. Further evaluation of these types of risks could include subsurface exploration, sampling, and/or other forms of testing.

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In addition, some substances may be present within the proposed Project area or in the vicinity in quantities below those categorized as actionable by current environmental regulations. Ninyo & Moore cannot be responsible if regulatory standards are changed in the future in a manner that renders the current proposed Project conditions actionable.

2. SITE DESCRIPTION/SETTING

The following sections provide a description of the land uses at the proposed Project. Because of the size of the proposed Project, we have, for this report, divided the proposed Project into five geographic areas, Area A, Area B, Area C, Area D, and the Olympic Tank Site, as discussed in the following sections (Figure 1).

2.1. Overview

The proposed Project includes approximately 60 acres within the POLA. The area is generally bounded by Lagoon Avenue and North Broad Avenue, and C Street and Bannings Landing. The project area includes Harry Bridges Boulevard from North Broad Street in the

east and extends west continuing on to John S Gibson Boulevard and North Front Street, ending at the Vincent Thomas Bridge in the south.

The Olympic Tank Site is not contiguous with the rest of the site and located approximately 1.5-mile northeast of Harry Bridges Boulevard on the southeastern corner of Alameda Street and Robidoux Street.

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2.2. Area A

Area A is bound to the north by C Street, to the east by North Broad Avenue, to the south by Harry Bridges Boulevard, and to the west by Lagoon Avenue.

Area A includes industrial, light industrial, commercial, and retail businesses such as Smokey's Cycle, Coastal Recovery Center (a rehabilitation center), JM Costello Supply Co, Avalon Rafts, the Monterey Inn, Dockside Machine and Ship Repair, Bromma Authorized Warranty Repair, Wilmington Iron Works, and Bekins Moving and Storage.

2.3. Area B

Area B is bound to the north by Harry Bridges Boulevard, to the east by North Broad Avenue and Avalon Boulevard, to the south by Berths 183 through 186, and to the west by Fries Avenue.

Area B includes the Los Angeles Department of Water and Power (LADWP) parcel which is currently leased to Valero (a fuel company with two very large ASTs and one smaller AST), the College of Oceaneering, Dockside Machine and Ship Repair, Omstar Environmental Products, Catalina Freight Berth 184, and the Banning Landing Community Center.

2.4. Area C

Area C includes Harry Bridges Boulevard from Lagoon Avenue in the east, extending west to Figueroa Street. The area continues south along John S Gibson Boulevard and North Front Street, ending at the Vincent Saint Thomas Bridge. For the purpose of this report, fa-

cilities within 50 feet of the roads were evaluated. The following adjoining properties were evaluated as part of Area C, Trans Pacific Container Service (Trapac), Unlimited Auto, Sapaguita Restaurant, J&J body shop and other small retail stores.

2.5. Area D

Area D is bound to the north by Harry Bridges Boulevard, to the east by Marine Avenue, to the south by railroad right-of-ways, and to the west by Lagoon Avenue. Because of the limited scope of work requested for this area, a site reconnaissance and historical review was not performed. However, based on our review of the database report, Area D appears to include a LADWP power generation facility, and other industrial and commercial businesses.

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2.6. Olympic Tank Site

The Olympic Tank Site is bound to the north by Robidoux Street, to the east by Goodrich Avenue, to the south by railroad right-of-ways, and to the west by Alameda Street. Because of the limited scope of work requested for this area, a site reconnaissance and historical review was not performed. However, based our review of the database report, the Olympic Tank Site appears to comprise several large aboveground storage tanks associated with the Ultramar Olympic Tank Farm. Based on the database report, the ASTs are currently or have previously been used for storage of petroleum products.

3. AREA GEOLOGY AND HYDROGEOLOGY

The proposed Project is located within the Los Angeles Basin, which is part of the Transverse Ranges geomorphic province of southern California (Norris and Webb, 1990). The Los Angeles Basin has been divided into four blocks which are generally separated by prominent fault systems: the Northwestern Block, the Southwestern Block, the Central Block, and the Northeastern Block. The proposed Project is located within the southwestern block, which is bounded on the east by the Newport-Inglewood Fault Zone. The Southwestern Block includes anticlinal and synclinal structural features within the basement rocks which are overlain by younger sedimentary rocks and alluvium.

Surficial geology of the Los Angeles Harbor is characterized by Holocene-age, nearshore, marine and non-marine deposits, including beach, estuary, tidal flat, lagoon, shallow-water bay sediments, and shoreline terrace deposits. Dredging and filling operations have modified these native sediments to create extensive land masses of dredged fill material that support numerous harbor facilities. Consequently, most of the harbor facilities at the proposed Project area have been constructed on dredged fill material. Both the fill and the native sediments overlie older late-Pleistocene age deposits. These older deposits are exposed in the bluffs that border the westerly side of the proposed Project area and include the San Pedro Sand comprised primarily of sand and pebbly gravel and the San Timms Point Silt consisting largely of siltstone (Dibblee, 1999). Detailed descriptions of geology and hydrology are presented in Chapter 3 of the EIR.

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Based on prior geotechnical studies completed by Ninyo & Moore within the proposed Project area, depth to groundwater in 2002 ranged from approximately 10 feet to 14 feet below the ground surface. Seepage and saturated soil were also encountered at a depth of approximately 3 feet. During our previous exploration, groundwater was encountered at depths ranging from approximately 9 to 18 feet. Groundwater levels are influenced by seasonal precipitation and run-off, irrigation, groundwater pumping, and subsurface stratification and are subject to variation.

4. ENVIRONMENTAL DATABASE REVIEW

Ninyo & Moore obtained and reviewed a database search report for the proposed Project. The report is dated February 29, 2008. The following sections summarize information obtained from the database search reports, which are included in Appendix A.

4.1. Federal and State Database Search Results

Ninyo & Moore subcontracted FirstSearch™ to perform an environmental records search of federal, state, and local files for properties located within the proposed Project. For this project, Ninyo & Moore ordered an area search with a search radius of 0.125 mile around the proposed Project.

The FirstSearch™ reports also include a list of "orphan sites" that could not be mapped by the addresses included in the file. Ninyo & Moore reviewed this list and found that 1 of the 68 "orphan sites" was located within the proposed Project area. This facility has been included in our assessment of the proposed Project and has been verified by other investigative means (site reconnaissance and historical data review).

Table 1 – Environmental Database Search (Areas A)

Database(s)	Description	Site Facilities Listed*
Federal Databases		
NPL	The NPL is the EPA's database of uncontrolled or abandoned hazardous waste facilities that have been listed for priority remedial actions under the Superfund Program. Updated quarterly.	0
CERCLIS/ NFRAP	The CERCLIS database is a compilation of facilities which the EPA has investigated or is currently investigating for a release or threatened release of hazardous substances pursuant to the CERCLA of 1980. NFRAP refers to facilities that have been removed and archived from its inventory of CERCLA sites.	1
Institutional Control	Superfund sites that have either an engineering or an institutional control. The data includes the control and the media contaminated.	0
RCRA CORRACTS/ TSD	The EPA maintains a database of RCRA facilities associated with TSD of hazardous materials that are undergoing "corrective action." A "Corrective action" order is issued when there has been a release of hazardous waste or constituents into the environment from a RCRA facility.	0
RCRA Non-CORRACTS/ TSD	The RCRA Non-CORRACTS/TSD Database is a compilation by the EPA of facilities that report storage, transportation, treatment, or disposal of hazardous waste. Unlike the RCRA CORRACTS/TSD database, the RCRA Non-CORRACTS/TSD database does not include RCRA facilities where corrective action is required.	0
RCRA Generators	The RCRA Generators database, maintained by the EPA, lists facilities that generate hazardous waste as part of their normal business practices. Generators are listed as large, small, or conditionally exempt. LQGs produce at least 1,000 kg/month of non-acutely hazardous waste or 1 kg/month of acutely hazardous waste. SQGs produce 100 to 1,000 kg/month of non-acutely hazardous waste. CESQGs are those that generate less than 100 kg/month of non-acutely hazardous waste.	5
ERNS	ERNS records and stores information on reported releases of oil and hazardous substances.	7
State Databases		
Cal Sites	The Cal Sites database is maintained by the Cal-EPA, DTSC. This database contains information on AWP, and both known and potentially contaminated properties. Two-thirds of these properties have been classified, based on available information, as needing NFA by the DTSC. The remaining properties are in various stages of review and remediation to determine if a problem exists.	0

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Table 1 – Environmental Database Search (Areas A)

Database(s)	Description	Site Facilities Listed*
State	DTSC electronic database system with information about sites that are known to be contaminated with hazardous substances as well as information about sites that are know to be contaminated with hazardous substances as well as information on uncharacterized properties where further studies may reveal problems.	1
Spills - 1990	The California RWQCBs maintain report of sites that have records of spills, leaks, investigation, and cleanups.	1
SWLFs	The SWLF database consists of open and closed solid waste disposal facilities and transfer stations. The data comes from the IWMB's SWIS database.	0
LUST	Databases of the LUST information system are maintained by the SWRCB and RWQCB.	2
UST	The UST Information System is maintained by the SWRCB, which may include the owner and location of the USTs. This database may also include registered ASTs.	4

Notes:
AST – Aboveground Storage Tank
AWP – Annual Workplan Properties
Cal-EPA – California Environmental Protection Agency
CERCLA – Comprehensive Environmental Response, Compensation and Liability Act
CERCLIS – Comprehensive Environmental Response, Compensation, and Liability Information System
CESQG – Conditionally Exempt Small Quantity Generators
CORRACTS – Corrective Action Report
DTSC – Department of Toxic Substances Control
EPA – United States Environmental Protection Agency
ERNS – Emergency Response Notification System
IWMB – Integrated Waste Management Board
kg – kilograms
LQG – Large Quantity Generator
LUST – Leaking Underground Storage Tanks
NFA – No Further Action
NFRAP – No Further Remedial Action Planned
NPL – National Priorities List
RCRA – Resource Conservation and the Recovery Act
RWQCB – Regional Water Quality Control Board
SQG – Small Quantity Generators
SWIS – Solid Waste Information System
SWLF – Solid Waste Landfill
SWRCB – State Water Resources Control Board
TSD – Treatment, Storage, and Disposal
UST – Underground Storage Tank
*Some facilities have multiple listings under a single database.

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No facilities within the proposed Project area were listed on the National Priorities List (NPL) database.

One facility within the proposed Project area was listed on the Comprehensive Environmental Response, Compensation, and Liability Information System/No Further Remedial Action Planned (CERCLIS/NFRAP) database. Koppers Co Inc., (210 South Avalon Boulevard) was listed on this database as being a former wood treating plant. Soil contamination (pentachlorophenol [PCP], copper, chromium, and arsenic) was discovered at 4 to 8 feet below surface. The report indicates that the site is now capped by asphalt paving. Based on this information, this facility would be an environmental concern.

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No facilities within the proposed Project area were listed on the Institutional Control database.

No facilities within the proposed Project area were listed on the Resource Conservation and Recovery Act (RCRA) Corrective Action Report/Treatment Storage and Disposal (CORRACTS/TSD) or the RCRA Non-CORRACTS/TSD databases.

The RCRA Generator database identifies facilities that generate hazardous waste as defined by RCRA. Inclusion on these lists is for permitting purposes and is not indicative of a release. Four facilities were listed on the database. According to FirstSearch™, the properties listed included Metropolitan Stevedore (at 211 Marine Avenue), Wilmington Iron Works (432 West C Street), Korody Colyer Corp (218 North Avalon Boulevard), Shimizu Automotive (402 West C Street), and Cavanaugh Machine Works (220 East B Street). Three of the facilities were listed as small quantity generators and two were listed as no longer in business or generating hazardous materials. These facilities had no violations reported. These properties are not considered significant environmental concern based on the RCRA listing.

The ERNS database contains information of reported releases of oil and hazardous substances. Seven facilities were listed on this database. One of the listings was for Injection Well 23 and indicated a leak in the injection well, and water overfilled the well cellar. This listing would not be considered an environmental concern. Two of the listings had no information available. GATX (Broad Street and Avalon Street) was listed on this database as having a crude oil release of 1 barrel in 1991. The status is listed as “pipeline related.” This

release is limited, and would not be considered an environmental concern based on the ERNS listing. Exxon (200 South Avalon) was listed as having a release of an unknown amount of crude oil in 1991. This released occurred over fifteen years ago, and was not subsequently listed on additional databases. We assume that this release has been cleaned up, and would not be considered an environmental concern. Exxon (Lagoon Avenue and B Street) was listed as having a one gallon release of crude oil in 1992. This release is very limited, and would not be considered an environmental concern based on the ERNS listing. Mitchell, Thomas, and Sons (222 North Lagoon Avenue) was listed as having an 8,700 gallon release of hydrochloric acid. The status is listed as a "fixed facility."

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No facilities within the proposed Project area were listed on the Cal Sites database.

One facility was listed on the STATE database. Koppers-Los Angeles (210 South Avalon Boulevard) is listed as having been referred to the RWQCB. No other information was given in this listing. Koppers is also listed on the OTHER database as having site screening completed and being paved prior to 1981. Refer to the NFRAP section above for more information.

One facility was listed on the SPILLS-1990 database. Wilmington Town Lot 525 (202 West C Street) was listed. The report referred to the State Water Resources Control Board's GeoTracker website (www.geotracker.com) for spills, leaks, investigation, and cleanup (SLIC) information. The GeoTracker website did not contain any further information.

No facilities within the proposed Project area were listed on the Solid Waste Landfill (SWLF) database.

Two facilities were listed on the LUST database. Wilmington Iron Works (432 C Street) was listed as having a release of benzene. The regulatory status of this facility is listed as "case closed." The second facility, Moine/Locke Property (127 B Street) is listed as having a gasoline release. The regulatory status of this facility is listed as "case closed." Based on the regulatory status of these facilities, they would not be considered an environmental concern.

The UST database is maintained by the California Environmental Protection Agency (Cal-EPA) and provides listing of facilities with USTs. Four properties were listed on this database. Metropolitan Stevedore (211 Marine) was listed as "inactive," Wilmington Iron Works (432 C Street) was listed as "inactive," California Hardwood Products Inc., (218 B Street) was listed as "inactive," and the City of Los Angeles (214 North Avalon Boulevard) was listed as "inactive." No other information was available for these facilities, and they would not be considered an environmental concern to the proposed Project based on the UST listing.

The following table lists site facilities within Area B, which are listed on environmental databases.

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Table 2 – Environmental Database Search Results (Areas B)

Database(s)	Description	Site Facilities Listed*
Federal Databases		
NPL	The NPL is the EPA's database of uncontrolled or abandoned hazardous waste facilities that have been listed for priority remedial actions under the Superfund Program. Updated quarterly.	0
CERCLIS/ NFRAP	The CERCLIS database is a compilation of facilities which the EPA has investigated or is currently investigating for a release or threatened release of hazardous substances pursuant to the CERCLA of 1980. NFRAP refers to facilities that have been removed and archived from its inventory of CERCLA sites.	1
Institutional Control	Superfund sites that have either an engineering or an institutional control. The data includes the control and the media contaminated.	0
RCRA CORRACTS/ TSD	The EPA maintains a database of RCRA facilities associated with TSD of hazardous materials that are undergoing "corrective action." A "Corrective action" order is issued when there has been a release of hazardous waste or constituents into the environment from a RCRA facility.	2
RCRA Non-CORRACTS/ TSD	The RCRA Non-CORRACTS/TSD Database is a compilation by the EPA of facilities that report storage, transportation, treatment, or disposal of hazardous waste. Unlike the RCRA CORRACTS/TSD database, the RCRA Non-CORRACTS/TSD database does not include RCRA facilities where corrective action is required.	0
RCRA Generators	The RCRA Generators database, maintained by the EPA, lists facilities that generate hazardous waste as part of their normal business practices. Generators are listed as large, small, or conditionally exempt. LQGs produce at least 1,000 kg/month of non-acutely hazardous waste or 1 kg/month of acutely hazardous waste. SQGs produce 100 to 1,000 kg/month of non-acutely hazardous waste. CESQGs are those that generate less than 100 kg/month of non-acutely hazardous waste.	8
ERNS	ERNS records and stores information on reported releases of oil and hazardous substances.	1

Table 2 – Environmental Database Search Results (Areas B)

Database(s)	Description	Site Facilities Listed*
State Databases		
Cal Sites	The Cal Sites database is maintained by the Cal-EPA, DTSC. This database contains information on AWP, and both known and potentially contaminated properties. Two-thirds of these properties have been classified, based on available information, as needing NFA by the DTSC. The remaining properties are in various stages of review and remediation to determine if a problem exists.	0
State	DTSC electronic database system with information about sites that are known to be contaminated with hazardous substances as well as information about sites that are know to be contaminated with hazardous substances as well as information on uncharacterized properties where further studies may reveal problems.	0
Spills - 1990	The California RWQCBs maintain report of sites that have records of spills, leaks, investigation, and cleanups.	0
SWLFs	The SWLF database consists of open and closed solid waste disposal facilities and transfer stations. The data come from the Integrated Waste Management Board's SWIS database.	0
LUST	Databases of the LUST information system are maintained by the SWRCB and RWQCB.	1
UST	The UST Information System is maintained by the SWRCB, which may include the owner and location of the USTs. This database may also include registered ASTs.	8

Notes:
AST – Aboveground Storage Tank
AWP – Annual Workplan Properties
Cal-EPA – California Environmental Protection Agency
CERCLA – Comprehensive Environmental Response, Compensation and Liability Act
CERCLIS – Comprehensive Environmental Response, Compensation, and Liability Information System
CORRACTS – Corrective Action Report
CESQG – Conditionally Exempt Small Quantity Generators
DTSC – Department of Toxic Substances Control
EPA – United States Environmental Protection Agency
ERNS – Emergency Response Notification System
LQG – Large Quantity Generator
LUST – Leaking Underground Storage Tank
NFA – No Further Action
NFRAP – No Further Remedial Action Planned
NPL – National Priorities List
RCRA – Resource Conservation and the Recovery Act
RWQCB – Regional Water Quality Control Board
SQG – Small Quantity Generators
SWIS – Solid Waste Information System
SWLF – Solid Waste Landfill
SWRCB – State Water Resources Control Board
TSD – Treatment, Storage, and Disposal
UST – Underground Storage Tank
*Some facilities have multiple listings under a single database.

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No facilities within the proposed Project area were listed on the NPL database.

One facility was listed on the CERCLIS/NFRAP database. Roehl Disposal Services (131 North Marine Avenue) was listed on this database. The listing indicates that this facility was discovered in 1987 and then archived in 1996. No other information was available. This facility would not be considered an environmental concern based on this listing.

The institutional controls database contains a list of superfund sites that have either engineering or institutional controls. No facilities were listed on this database.

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One facility listed on the RCRA CORRACTS and RCRA TSD databases. Roehl Disposal Services (131 North Marine Avenue) was listed on the RCRA CORRACTS database as having eleven violations for financial responsibility and oversight requirements. These eleven violations were subsequently resolved. The listing also indicates that this facility is of "California medium priority." This facility was listed on the RCRA TSD database as having eleven violations for financial responsibility and oversight requirements. It appears that only one of these eleven violations was resolved, but the remaining ten listings do not appear to be indicative of an unauthorized release of hazardous materials. This facility would not be considered an environmental concern based on the RCRA listing.

The RCRA Generator database identifies sites that generate hazardous waste as defined by RCRA. Inclusion on these lists is for permitting purposes and is not indicative of a release. There are eight listings for six separate facilities. The Los Angeles Department of Water and Power (LADWP) located at 130 West A Street, is listed as a small quantity generator, a large quantity generator, and as no longer in business or generating hazardous materials. United Checker Cab (117 West B Street) was listed as a small quantity generator. EW Saybolt and Co Inc. (115 North Avalon Boulevard) was listed as a large quantity generator. Safety Kleen Corp (131 North Marine Avenue) was listed as no longer in business or generating hazardous materials. Dockside Machine and Ship Repair (131 North Marine Avenue) was listed as a small quantity generator. No violations were reported for these listings. Roehl Disposal Services is listed as a small quantity generator. The listing indicates eleven violations for fi-

nancial responsibility and oversight requirements. These eleven violations were subsequently resolved. These properties are not considered significant environmental concern based on the RCRA listing.

The ERNS database contains information of reported releases of oil and hazardous substances. One facility was listed on this database. An unnamed facility at 100 West Water Street was listed on this database. The report indicates that this facility had a release of an unknown amount of oil: diesel. The status is listed as "vessel." It appears that this listing indicates a boat that had a release, presumably to the harbor. This would not be considered an environmental concern.

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No facilities within the proposed Project area were listed on the Cal Sites database.

The State database is electronic database system with information about sites that are known to be contaminated with hazardous substances as well as information about sites that are known to be contaminated with hazardous substances as well as information on uncharacterized properties where further studies may reveal problems. No facilities were listed on the State database.

The Spills – 1990 database identifies all Regional Water Quality Control Board (RWQCB) reports of sites that have records of spills, leaks, investigation, and cleanups that are non-UST based. No facilities are listed on this database.

No facilities within the proposed Project area were listed on the SWLF database.

One facility was listed on the LUST database. E W Saybolt and Company Inc (115 North Avalon Boulevard) was listed on this database. It is listed as having a regulatory status as "case closed." Based on this information, this facility would not be an environmental concern to the proposed Project.

Six facilities made up the eight listings in the UST database. Marine Tank Farm (130 West A Street) is listed with a status that indicates this is an AST. E W Saybolt and Co Inc., (115

Avalon Boulevard) is listed as "inactive." Dockside Machine and Boiler Work (131 Avalon Boulevard) is listed as "active." The College of Oceaneering (201 Water Street) is listed as "active." The City of Los Angeles (100 Water Street) is listed as "active." No other information was available for these facilities and they would not be considered an environmental concern to the proposed Project based on the UST listing.

The following table lists site facilities within Area C, which are listed on environmental databases.

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Table 3 – Environmental Database Search Results (Area C)

Database(s)	Description	Site Facilities Listed*
Federal Databases		
NPL	The NPL is the EPA's database of uncontrolled or abandoned hazardous waste facilities that have been listed for priority remedial actions under the Superfund Program. Updated quarterly.	0
CERCLIS/ NFRAP	The CERCLIS database is a compilation of facilities which the EPA has investigated or is currently investigating for a release or threatened release of hazardous substances pursuant to the CERCLA of 1980. NFRAP refers to facilities that have been removed and archived from its inventory of CERCLA sites.	0
Institutional Control	Superfund sites that have either an engineering or an institutional control. The data includes the control and the media contaminated.	0
RCRA CORRACTS/ TSD	The EPA maintains a database of RCRA facilities associated with TSD of hazardous materials that are undergoing "corrective action." A "Corrective action" order is issued when there has been a release of hazardous waste or constituents into the environment from a RCRA facility.	0
RCRA Non-CORRACTS/ TSD	The RCRA Non-CORRACTS/TSD Database is a compilation by the EPA of facilities that report storage, transportation, treatment, or disposal of hazardous waste. Unlike the RCRA CORRACTS/TSD database, the RCRA Non-CORRACTS/TSD database does not include RCRA facilities where corrective action is required.	0
RCRA Generators	The RCRA Generators database, maintained by the EPA, lists facilities that generate hazardous waste as part of their normal business practices. Generators are listed as large, small, or conditionally exempt. LQGs produce at least 1,000 kg/month of non-acutely hazardous waste or 1 kg/month of acutely hazardous waste. SQGs produce 100 to 1,000 kg/month of non-acutely hazardous waste. CESQGs are those that generate less than 100 kg/month of non-acutely hazardous waste.	5
ERNS	ERNS records and stores information on reported releases of oil and hazardous substances.	26

Table 3 – Environmental Database Search Results (Area C)

Database(s)	Description	Site Facilities Listed*
State Databases		
Cal Sites	The Cal Sites database is maintained by the Cal-EPA, DTSC. This database contains information on AWP, and both known and potentially contaminated properties. Two-thirds of these properties have been classified, based on available information, as needing NFA by the DTSC. The remaining properties are in various stages of review and remediation to determine if a problem exists.	0
State	DTSC electronic database system with information about sites that are known to be contaminated with hazardous substances as well as information about sites that are know to be contaminated with hazardous substances as well as information on uncharacterized properties where further studies may reveal problems.	0
Spills - 1990	The California RWQCBs maintain report of sites that have records of spills, leaks, investigation, and cleanups.	0
SWLFs	The SWLF database consists of open and closed solid waste disposal facilities and transfer stations. The data come from the Integrated Waste Management Board's SWIS database.	0
LUST	Databases of the LUST information system are maintained by the SWRCB and RWQCB.	3
UST	The UST Information System is maintained by the SWRCB, which may include the owner and location of the USTs. This database may also include registered ASTs.	9

Notes:
AST – Aboveground Storage Tank
AWP – Annual Workplan Properties
Cal-EPA – California Environmental Protection Agency
CERCLA – Comprehensive Environmental Response, Compensation and Liability Act
CERCLIS – Comprehensive Environmental Response, Compensation, and Liability Information System
CORRACTS – Corrective Action Report
CESQG – Conditionally Exempt Small Quantity Generators
DTSC – Department of Toxic Substances Control
EPA – United States Environmental Protection Agency
ERNS – Emergency Response Notification System
LQG – Large Quantity Generator
LUST – Leaking Underground Storage Tank
NFA – No Further Action
NFRAP – No Further Remedial Action Planned
NPL – National Priorities List
RCRA – Resource Conservation and the Recovery Act
RWQCB – Regional Water Quality Control Board
SQG – Small Quantity Generators
SWIS – Solid Waste Information System
SWLF – Solid Waste Landfill
SWRCB – State Water Resources Control Board
TSD – Treatment, Storage, and Disposal
UST – Underground Storage Tank
*Some facilities have multiple listings under a single database.

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No facilities within the proposed Project area were listed on the NPL database.

No facilities within the proposed Project area were listed on the CERCLIS/NFRAP database.

No facilities within the proposed Project area were listed on the Institutional Control database.

No facilities within the proposed Project area were listed on the RCRA CORRACTS/TSD or the RCRA Non-CORRACTS/TSD databases.

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The RCRA Generator database identifies sites that generate hazardous waste as defined by RCRA. Inclusion on these lists is for permitting purposes and is not indicative of a release. Five facilities were listed on this database. Trans Pacific Container Services (920 West B Street) is listed as a small quantity generator with no violations recorded. No other information is available. Todd Pacific Shipyards Corporations (710 North Front Street) was listed as no longer in business or generating hazardous materials, with no violations recorded. No other information was available. LA Pumping Plant 77 (1220 West B Street) was listed as a small quantity generator with no violations recorded. No other information was available. Keep on Trucking (607 West B Street) was listed as a small quantity generator with no violations recorded. No other information was available. American President Lines (2001 John S Gibson Boulevard) was listed as no longer in business or generating hazardous materials, with no violations recorded. No other information was available. Based on this information, these facilities would not be considered an environmental concern.

The ERNS database contains information of reported releases of oil and hazardous substances. Four facilities make up the 26 ERNS listings. Trapac (920 West B Street) had two listings. The first listing indicated that 55 gallons of “3.3 flammable liquid” had been released from a storage tank in 2000. The second listing indicated that 5 gallons of ethanol had been released in 1994. This facility represents an environmental concern.

American President Lines, Sexton Trucking, and Australian New Zealand (2001 John S Gibson Boulevard) have the remaining nineteen listings. Based on the location, this listing appears to be associated with the Trapac facility. The listings indicate varying amounts of different chemicals that have been released. Chemicals include carbon disulfide, triethylamine, potassium nitrate, ethyl butyrate, terpene hydrocarbons, oil: diesel, miscellaneous oils, petroleum distillates, 1,1,1-trichloroethane (1,1,1-TCA), fak aerosols, corrosive liquid, diethylenetriamine, propylene glycol, pesticides, and ethyl methacrylate. This facility would be considered an environmental concern.

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Marine Terminal Corp (1830 John S Gibson Boulevard) had three ERNS listings. The first listing indicated that one quart of alkyl sulphonic acid was released in 1994. The second listing indicated that a 20 foot tank container leaked in 1992. The third listing appeared to be a continuation of the second listing and indicated that an unknown amount of hydrogen peroxide was released in 1992. Based on the contaminants listed this facility does not represent an environmental concern.

Two ERNS listings are for an unnamed facility at 920 Harry Bridges Boulevard. One of the ERNS listings is not representative of a hazardous materials release. The second listing indicates that approximately 1 pint of aerosol was released due to equipment failure. Based on the small amount of product released, this facility would not be considered an environmental concern.

No facilities within the proposed Project area were listed on the Cal Sites database.

No facilities within the proposed Project area were listed on the STATE database.

No facilities within the proposed Project area were listed on the SPILLS-1990 database.

No facilities within the proposed Project area were listed on the SWLF database.

Three facilities were listed on the LUST database. Keep on Trucking (607 West B Street) is listed as having a diesel fuel release in 1990. The regulatory status of the facility is “case

closed." The Harbor Police Station (2175 John S. Gibson Boulevard) was listed as having a diesel fuel release in 1986. The regulatory status of the facility is "case closed." Yang Ming Container Terminal (2050 John S. Gibson Boulevard) was listed as having a diesel fuel release in 2000. Ninyo & Moore conducted assessment activities at this facility in May 2000 which included removal of three USTs, soil sampling, and groundwater sampling. Total recoverable petroleum hydrocarbons (TRPH) up to 16 milligrams per kilogram (mg/kg), and total lead up to 3.03 mg/kg was detected in soil samples. Diesel fuel was detected up to 8.1 milligrams per liter (mg/l) in a groundwater sample. As requested by the RWQCB, Ninyo & Moore installed groundwater monitoring wells in 2002 and recommended continuing monitoring as requested by the RWQCB for one year (Ninyo & Moore, 2002). In 2004, the facility received "case closed" status from the RWQCB. This case closure was negotiated by parties other than Ninyo & Moore. Based on this information, these facilities would not be considered an environmental concern.

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Six different facilities make up the nine listings on the UST database. Todd Pacific Shipyards (710 Front Street) is listed as "active," Port of Los Angeles (1830 John S. Gibson Boulevard) is listed as "inactive," Yang Ming and American President Lines (2050 John S. Gibson Boulevard) is listed as "active," Tuneup Masters Inc (1050 Pacific Avenue) is listed as "inactive," and the Harbor Police Station (2175 John S. Gibson Boulevard) is listed as "active." Keep on Trucking Co (607 West Harry Bridges Boulevard) is listed with no details available. No information was listed in the report. These facilities would not be considered an environmental concern.

Table 4 – Environmental Database Search Results (Area D)

Database(s)	Description	Site Facilities Listed*
Federal Databases		
NPL	The NPL is the EPA's database of uncontrolled or abandoned hazardous waste facilities that have been listed for priority remedial actions under the Superfund Program. Updated quarterly.	0

Table 4 – Environmental Database Search Results (Area D)

Database(s)	Description	Site Facilities Listed*
CERCLIS/ NFRAP	The CERCLIS database is a compilation of facilities which the EPA has investigated or is currently investigating for a release or threatened release of hazardous substances pursuant to the CERCLA of 1980. NFRAP refers to facilities that have been removed and archived from its inventory of CERCLA sites.	0
Institutional Control	Superfund sites that have either an engineering or an institutional control. The data includes the control and the media contaminated.	0
RCRA CORRACTS/ TSD	The EPA maintains a database of RCRA facilities associated with TSD of hazardous materials that are undergoing "corrective action." A "Corrective action" order is issued when there has been a release of hazardous waste or constituents into the environment from a RCRA facility.	0
RCRA Non-CORRACTS/ TSD	The RCRA Non-CORRACTS/TSD Database is a compilation by the EPA of facilities that report storage, transportation, treatment, or disposal of hazardous waste. Unlike the RCRA CORRACTS/TSD database, the RCRA Non-CORRACTS/TSD database does not include RCRA facilities where corrective action is required.	0
RCRA Generators	The RCRA Generators database, maintained by the EPA, lists facilities that generate hazardous waste as part of their normal business practices. Generators are listed as large, small, or conditionally exempt. LQGs produce at least 1,000 kg/month of non-acutely hazardous waste or 1 kg/month of acutely hazardous waste. SQGs produce 100 to 1,000 kg/month of non-acutely hazardous waste. CESQGs are those that generate less than 100 kg/month of non-acutely hazardous waste.	1
ERNS	ERNS records and stores information on reported releases of oil and hazardous substances.	1
State Databases		
Cal Sites	The Cal Sites database is maintained by the Cal-EPA, DTSC. This database contains information on AWP, and both known and potentially contaminated properties. Two-thirds of these properties have been classified, based on available information, as needing NFA by the DTSC. The remaining properties are in various stages of review and remediation to determine if a problem exists.	0
State	DTSC electronic database system with information about sites that are known to be contaminated with hazardous substances as well as information about sites that are know to be contaminated with hazardous substances as well as information on uncharacterized properties where further studies may reveal problems.	0
Spills - 1990	The California RWQCBs maintain report of sites that have records of spills, leaks, investigation, and cleanups.	0
SWLFs	The SWLF database consists of open and closed solid waste disposal facilities and transfer stations. The data come from the Integrated Waste Management Board's SWIS database.	0
LUST	Databases of the LUST information system are maintained by the SWRCB and RWQCB.	0

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Table 4 – Environmental Database Search Results (Area D)

Database(s)	Description	Site Facilities Listed*
UST	The UST Information System is maintained by the SWRCB, which may include the owner and location of the USTs. This database may also include registered ASTs.	2

Notes:
AST – Aboveground Storage Tank
AWP – Annual Workplan Properties
Cal-EPA – California Environmental Protection Agency
CERCLA – Comprehensive Environmental Response, Compensation and Liability Act
CERCLIS – Comprehensive Environmental Response, Compensation, and Liability Information System
CORRACTS – Corrective Action Report
CESQG – Conditionally Exempt Small Quantity Generators
DTSC – Department of Toxic Substances Control
EPA – United States Environmental Protection Agency
ERNS – Emergency Response Notification System
LQG – Large Quantity Generator
LUST – Leaking Underground Storage Tank
NFA – No Further Action
NFRAP – No Further Remedial Action Planned
NPL – National Priorities List
RCRA – Resource Conservation and the Recovery Act
RWQCB – Regional Water Quality Control Board
SQG – Small Quantity Generators
SWIS – Solid Waste Information System
SWLF – Solid Waste Landfill
SWRCB – State Water Resources Control Board
TSD – Treatment, Storage, and Disposal
UST – Underground Storage Tank
*Some facilities have multiple listings under a single database.

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No facilities within the proposed Project area were listed on the NPL database.

No facilities within the proposed Project area were listed on the CERCLIS/NFRAP database.

No facilities within the proposed Project area were listed on the Institutional Control database.

No facilities within the proposed Project area were listed on the RCRA CORRACTS/TSD or the RCRA Non-CORRACTS/TSD databases.

The RCRA Generator database identifies sites that generate hazardous waste as defined by RCRA. Inclusion on these lists is for permitting purposes and is not indicative of a release. One facility was listed on this database. The Harbor Generating Station - LADWP (161 North Island Avenue) is listed as a large quantity generator with no violations recorded. Other information indicated that this facility is a fossil fuel and electric power generator, for transmission and distribution, and provides steam and air conditioning. No other information was available. Based on this information, this facility would not be considered an environmental concern.

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The ERNS database contains information of reported releases of oil and hazardous substances. One facility is listed on this database. The Harbor Generating Station - LADWP (161 North Island Avenue) is listed as having a 2,300 gallon spill of fuel oil distillate from aboveground storage tank. The spill was contained and cleaned up. Based on this information, this facility does not represent an environmental concern.

No facilities within the proposed Project area were listed on the Cal Sites database.

No facilities within the proposed Project area were listed on the STATE database.

No facilities within the proposed Project area were listed on the SPILLS-1990 database.

No facilities within the proposed Project area were listed on the SWLF database.

No facilities within the proposed Project area were listed on the LUST database.

One facility has two listings on the UST database. The Harbor Generating Station - LADWP (161 North Island Avenue) is listed with a status of “inactive” and “AST SWRCB Region 4.” No other information was provided for either listing. This facility would not be considered an environmental concern, based on the listings.

Table 5 – Environmental Database Search Results (Olympic Tank Site)

Database(s)	Description	Site Facilities Listed*
Federal Databases		
NPL	The NPL is the EPA's database of uncontrolled or abandoned hazardous waste facilities that have been listed for priority remedial actions under the Superfund Program. Updated quarterly.	0
CERCLIS/ NFRAP	The CERCLIS database is a compilation of facilities which the EPA has investigated or is currently investigating for a release or threatened release of hazardous substances pursuant to the CERCLA of 1980. NFRAP refers to facilities that have been removed and archived from its inventory of CERCLA sites.	0
Institutional Control	Superfund sites that have either an engineering or an institutional control. The data includes the control and the media contaminated.	0
RCRA CORRACTS/ TSD	The EPA maintains a database of RCRA facilities associated with TSD of hazardous materials that are undergoing "corrective action." A "Corrective action" order is issued when there has been a release of hazardous waste or constituents into the environment from a RCRA facility.	0
RCRA Non-CORRACTS/ TSD	The RCRA Non-CORRACTS/TSD Database is a compilation by the EPA of facilities that report storage, transportation, treatment, or disposal of hazardous waste. Unlike the RCRA CORRACTS/TSD database, the RCRA Non-CORRACTS/TSD database does not include RCRA facilities where corrective action is required.	0
RCRA Generators	The RCRA Generators database, maintained by the EPA, lists facilities that generate hazardous waste as part of their normal business practices. Generators are listed as large, small, or conditionally exempt. LQGs produce at least 1,000 kg/month of non-acutely hazardous waste or 1 kg/month of acutely hazardous waste. SQGs produce 100 to 1,000 kg/month of non-acutely hazardous waste. CESQGs are those that generate less than 100 kg/month of non-acutely hazardous waste.	1
ERNS	ERNS records and stores information on reported releases of oil and hazardous substances.	0
State Databases		
Cal Sites	The Cal Sites database is maintained by the Cal-EPA, DTSC. This database contains information on AWP, and both known and potentially contaminated properties. Two-thirds of these properties have been classified, based on available information, as needing NFA by the DTSC. The remaining properties are in various stages of review and remediation to determine if a problem exists.	0
State	DTSC electronic database system with information about sites that are known to be contaminated with hazardous substances as well as information about sites that are know to be contaminated with hazardous substances as well as information on uncharacterized properties where further studies may reveal problems.	0
Spills - 1990	The California RWQCBs maintain report of sites that have records of spills, leaks, investigation, and cleanups.	0
SWLFs	The SWLF database consists of open and closed solid waste disposal facilities and transfer stations. The data come from the Integrated Waste Management Board's SWIS database.	0

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Table 5 – Environmental Database Search Results (Olympic Tank Site)

Database(s)	Description	Site Facilities Listed*
LUST	Databases of the LUST information system are maintained by the SWRCB and RWQCB.	0
UST	The UST Information System is maintained by the SWRCB, which may include the owner and location of the USTs. This database may also include registered ASTs.	3

Notes:
AST – Aboveground Storage Tank
AWP – Annual Workplan Properties
Cal-EPA – California Environmental Protection Agency
CERCLA – Comprehensive Environmental Response, Compensation and Liability Act
CERCLIS – Comprehensive Environmental Response, Compensation, and Liability Information System
CORRACTS – Corrective Action Report
CESQG – Conditionally Exempt Small Quantity Generators
DTSC – Department of Toxic Substances Control
EPA – United States Environmental Protection Agency
ERNS – Emergency Response Notification System
LQG – Large Quantity Generator
LUST – Leaking Underground Storage Tank
NFA – No Further Action
NFRAP – No Further Remedial Action Planned
NPL – National Priorities List
RCRA – Resource Conservation and the Recovery Act
RWQCB – Regional Water Quality Control Board
SQG – Small Quantity Generators
SWIS – Solid Waste Information System
SWLF – Solid Waste Landfill
SWRCB – State Water Resources Control Board
TSD – Treatment, Storage, and Disposal
UST – Underground Storage Tank
*Some facilities have multiple listings under a single database.

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No facilities within the proposed Project area were listed on the NPL database.

No facilities within the proposed Project area were listed on the CERCLIS/NFRAP database.

No facilities within the proposed Project area were listed on the Institutional Control database.

No facilities within the proposed Project area were listed on the RCRA CORRACTS/TSD or the RCRA Non-CORRACTS/TSD databases.

The RCRA Generator database identifies sites that generate hazardous waste as defined by RCRA. Inclusion on these lists is for permitting purposes and is not indicative of a release. One facility was listed on this database. Ultramar Inc., Olympic Tank Farm (1220 Alameda Street) is listed as a large quantity generator with no violations recorded. Other information indicated that this facility is a petroleum and petroleum products merchant wholesaler. No other information was available. Based on this information, this facility would not be considered an environmental concern. Although no violations or documented releases are noted for the Olympic Tank Site, we believe this facility is an environmental concern based on the large volume of petroleum products that have been stored at this site.

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No facilities within the proposed Project area were listed on the ERNS database.

No facilities within the proposed Project area were listed on the Cal Sites database.

No facilities within the proposed Project area were listed on the STATE database.

No facilities within the proposed Project area were listed on the SPILLS-1990 database.

No facilities within the proposed Project area were listed on the SWLF database.

No facilities within the proposed Project area were listed on the LUST database.

Two facilities make up the three listings on the UST database. The Olympic Tank Farm (1220 Alameda Street) has two listings with statuses of “inactive” and “AST SWRCB Region 4.” No other information was provided for either listing. This facility would not be considered an environmental concern.

Asbury Transportation (1150 Alameda Street) is listed on the UST database with a status of “active.” No other information was provided. This facility would not be considered an environmental concern.

Table 6 presents a brief summary of properties of concern revealed by the review of the database reports.

Table 6 – Summary of Properties of Concern from the FirstSearch™ Database Reports

Business Name and Address	Case Summary
Area A	
Koppers Co. Inc. 210 South Avalon Boulevard	Soil contamination discovered (PCP, copper, chromium, and arsenic). Site was paved over; contamination left in place.
Area B	
No properties of concern.	
Area C	
Trapac 920 West B Street	The database report indicated that 55 gallons of "3.3 flammable liquid" had been released from a storage tank and that 5 gallons of ethanol had been released.
American President Lines Sexton Trucking Australian New Zealand Lines 2001 John S. Gibson Boulevard (Trapac)	The listings indicate varying amounts of different chemicals that have been released. Chemicals include carbon disulfide, triethylamine, potassium nitrate, ethyl butyrate, terpene hydrocarbons, oil: diesel, miscellaneous oils, petroleum distillates, 1,1,1-TCA, fak aerosols, corrosive liquid, diethylenetriamine, propylene glycol, pesticides, and ethyl methacrylate.
Area D	
No properties of concern	
Olympic Tank Site	
Ultramar Olympic Tank Farm 1220 North Alameda Street	Current and/or historic large bulk storage of petroleum products.
Notes: ERNS – Emergency Response Notification System DTSC – Department of Toxic Substances Control LUST – Leaking Underground Storage Tank PET – petroleum SVOC – Semi-Volatile Organic Compound 1,1,1-TCA – 1,1,1-Trichloroethane VOC – Volatile Organic Compound	

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5. REVIEW OF HISTORICAL INFORMATION

The following sections summarize the results of our review of historical source including general photographs, Sanborn Fire Insurance maps, historical city directories, topographic maps, and oil and gas maps.

5.1. Sanborn Fire Insurance Maps

Sanborn Maps were compiled by the Sanborn Fire Insurance Company for use by all insurance companies in setting fire insurance rates based on building construction types. Sanborn maps were compiled from the late 1800s to the late 1960s, and include a wealth of detail regarding site development features at a specific moment in time. Sanborn maps are particularly useful because in many cases they predate aerial photographs and environmental records and often provide the only source of information regarding site development and use. Sanborn fire insurance maps were provided for review by Environmental Data Resources, Inc. (EDR).

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Table 7 – Sanborn Fire Insurance Maps (Area A)

Sanborn Map Date or Range of Dates	Descriptions	Specific Concerns
1921	**Between North Broad Avenue and Avalon Boulevard**: Marine laundry, 3 dwellings, bank, post office, and shops. **Between Avalon Boulevard and Marine Avenue**: Shops, dwellings, and the Wilmington Police Station. **Between Marine Avenue and Fries Avenue**: Vacant land and railroad right-of-way. **Between Fries Avenue and Island Avenue**: The Harbor Warehouse No. 1, Smart & Final Co, Whole groceries, Wilmington Storage & Transfer Co, railroad right-of-way, and a shell grinder. **Between Island Avenue and Lagoon Avenue**: Vacant land.	Railroad right-of-way: herbicides, pesticides, fuels

Table 7 – Sanborn Fire Insurance Maps (Area A)

Sanborn Map Date or Range of Dates	Descriptions	Specific Concerns
1950	**Between North Broad Avenue and Avalon Boulevard**: Marine laundry, dwellings, gas & oil (200 Avalon Boulevard/101 East B Street), restaurant, post office, and shop. **Between Avalon Boulevard and Marine Avenue**: Shops, prints & ships supply, the Wilmington Police Station, garage & repairs, marine solvents (214 Marine Avenue), filter equipment, and machine shop/welding. **Between Marine Avenue and Fries Avenue**: Shop building, equipment storage, Pacific Electric Company substation, machine shop, and railroad right-of-way.	Gas & Oil (200 Avalon Boulevard/101 East B Street): fuels, oils, lubricants Garage & repair shops: fuels, oils, lubricants Garage & repair shops: fuels, oils, lubricants Marine solvents (214 Marine Avenue): solvents Machine shop/welding: metals, lubricants
1969	**Between North Broad Avenue and Avalon Boulevard**: "Oil well & tank" notation on the northeast. Marine laundry, electrical supplies, parking, general storage, electric motor assembly (iron), electric motor shop, electric parts storage (steel), steel assembling, and shops. **Between Avalon Boulevard and Marine Avenue**: Offices, parking, shops, garage, electrical supplies manufacturing, machine shop, and pump warehouse. **Between Marine Avenue and Fries Avenue**: "Oil well & tanks" notation on the northeast and southwest. Equipment storage yard, office, shop, soft water service, railroad right-of-way.	"Oil well & tank" notation: oil, oil field wastes Motor assembly and shop: metals, fuels, lubricants, PCBs. Manufacturing: fuels, lubricants Machine shop: fuels, lubricants Railroad: pesticides, herbicides, fuels Iron shops (402 West C Street and 221 Island Avenue), iron works (432 West C Street), iron warehouse (230 Lagoon Avenue), iron manufacturing (222 Lagoon Avenue): metals, lubricants

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Table 7 – Sanborn Fire Insurance Maps (Area A)

Sanborn Map Date or Range of Dates	Descriptions	Specific Concerns
1969 (Continued)	**Between Fries Avenue and Island Avenue**: Oil tanks (2), oil wells (2), on the southeast. Marine supplies warehouse, Warehouse #3, general storage and railroad right-of-way. **Between Island Avenue and Lagoon Avenue**: Iron shops (402 West C Street and 221 Island Avenue), iron works (432 West C Street), iron warehouse (230 Lagoon Avenue), iron manufacturing (222 Lagoon Avenue), brass works (227 Island Avenue), and dwellings. Two ASTs, one oil well.	Brass works (227 Island Avenue): metals, lubricants ASTs: fuels, lubricants, solvents Oil well: oil, and oil field waste
Note: SP – Southern Pacific PCBs – Polychlorinated biphenyls UST – Underground Storage Tank		

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Properties of concern include gas & oil facilities, garage & repair shops, marine solvents, machine shop/welding, iron works, brass works, oil wells, ASTs, and railroad rights-of-way. Associated chemicals of concern include, but are not limited to, fuels, oil, lubricants, solvents, metals, wood preservatives, PCBs, pesticides, and herbicides.

The following table represents descriptions and specific concerns noted in Sanborn maps for Area B.

Table 8 – Sanborn Fire Insurance Maps (Area B)

Sanborn Map Date or Range of Dates	Descriptions	Specific Concerns
1921	The Wilmington Garage, shops, dwellings are located in the northern portion of Area B. Wilmington Warehouse Company (paper storage), Wilmington Hall, three sheds, and railroad right-of-ways are located within the central portion of Area B.	Garage: fuels, lubricants, oils Steamship terminal: fuel, oils

Table 8 – Sanborn Fire Insurance Maps (Area B)

Sanborn Map Date or Range of Dates	Descriptions	Specific Concerns
1921 (Continued)	The Los Angeles City Water Street Shed (Santa Catalina Island Steamship Terminal) is located on the southern portion of Area B. Railroad right-of-ways are located in the southwestern portion of Area B.	Railroad right-of-way: herbicides, pesticides
1950	Marine & Industrial supply, shops, offices, dwellings, foundry, cabinet shop, restaurant, L.A.P.E. storage yard, fire brick storage, rubber and ASB works, welding and boiler works in the northern portion of Area B. Marina supply storage, general storage, used crates and box storage, Associated Banning Co. and railroad right-of-ways are located in the central portion of Area B. The Los Angeles City Water Street Shed (occupied by the Wilmington Transportation Coalition passenger station) is located on the southern portion of Area B. Railroad right-of-ways are located in the southwestern portion of Area B.	Foundry: fuels, lubricants, metals Welding and boiler works: metals, lubricants Railroad right-of-ways: herbicides, pesticides, fuels
1969	A restaurant, wire rope storage, marine engine repair, iron shop, truck parts and diesel warehouse, and a ship building yard are located southwest of B Street and North Broad Avenue. An office, steel shop, machine shop, boat building yards (125 West A Street and 128 Avalon Boulevard), manufacturing, and welding are located in the northwestern portion of Area B. The notation: “oil wells and tanks” are observed in 4 separate locations throughout the area.	Marine engine repair: fuels, lubricants, oil Iron shop: metals Truck parts and diesel warehouse: fuels, lubricants Ship building yards (125 West A Street and 128 Avalon Boulevard): fuels, lubricants, PCBs Steel shop: metals Machine shop: fuels, lubricants

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Table 8 – Sanborn Fire Insurance Maps (Area B)

Sanborn Map Date or Range of Dates	Descriptions	Specific Concerns
1969 (Continued)	The POLA water street shed (garage) appeared near Slip 5 along the southern boundary. The Quaker Oats Company appeared on the southwestern portion of the area. Railroad right-of-ways appeared to run through the southwestern and central portions of Area B.	Welding shop: metals "Oil wells & tanks" notation: oil, oil field waste Railroad: pesticides, herbicides
Notes: AST – Aboveground Storage Tank PCBs – Polychlorinated biphenyls		

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Properties of concern include engine repair, iron shops, truck and diesel warehouses, ship yards, foundries, steel shops, ASTs, oil wells, and railroad right-of-ways. Associated chemicals of concern include, but are not limited to, fuels, lubricants, oil, diesel, metals, PCBs, pesticides, and herbicides.

The following table represents descriptions and specific concerns noted in Sanborn maps for Area C.

Table 9 – Sanborn Fire Insurance Maps (Area C)

Sanborn Map Date Range	Descriptions	Specific Concerns
1921	The Wilmington and San Pedro Road (currently North Front Street) appeared primarily undeveloped.	
1950	Wilmington and San Pedro Road (North Pacific Avenue) appeared developed with a gas & oil facility (837 Wilmington and San Pedro Road [North Pacific Avenue]), shops, and auto repair. A gas & oil facility (789 Wilmington and San Pedro Road [North Front Street]) appeared on the eastern corner of Wilmington and San Pedro Road (currently North Front Street) and North Pacific Avenue. Wilmington and San Pedro Road (currently North Front Street) appeared generally undeveloped, with the exception of a restaurant.	Gas & oil facility (837 Wilmington and San Pedro Road [North Pacific Avenue]): fuels, oil, lubricants

Table 9 – Sanborn Fire Insurance Maps (Area C)

Sanborn Map Date Range	Descriptions	Specific Concerns
1969	North Pacific Avenue appeared to be partially developed with, shops, offices, and parking. An iron shop and a restaurant appeared on the eastern corner of Front Street and North Pacific Avenue. The southern portion of Front Street appeared to be primarily undeveloped. The Harbor Belt Line (railroad-right-of-way) appeared to run through the southern portion Front Street.	Iron shop: metals, lubricants, solvents Railroad right-of-way: pesticides, herbicides

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Properties of concern include gas & oil facilities, iron shop, and railroad right-of-ways. Associated chemicals of concern include, but are not limited to, fuels, lubricants, metals, solvents, pesticides, and herbicides.

5.2. Aerial Photograph Review

Aerial photographs have been collected for the continental United States since the 1920s, with variable coverage and frequency (generally based on an area's importance to national defense). Aerial photographs offer an opportunity for direct observation of the proposed projects conditions across a period of time. These observations may include the locations of tank pits, drums, pits, ponds, lagoons, stained/stressed vegetation, or other development features that can indicate potential contaminant sources.

Aerial photographs of the project area were provided by FirstSearch™. For this study, Ninyo & Moore reviewed aerial photographs taken in 1928, 1947, 1952, 1965, 1976, 1981, 1994, and 2002. The photographs reviewed varied in scale and clarity, and were taken from various altitudes.

The aerial photograph review served to verify information gained from other sources, and in some cases, served as the primary source of information. Information that was gathered from aerial photographs is summarized in the following tables. Since the project area includes a

large area, the tables include limited data in the interest of brevity. The data are limited primarily to parcels of potential concern as revealed by regulatory data or our site reconnaissance. Historical features of potential environmental concern noted which were not revealed by other sources are also described in the tables.

Table 10 – Historical Aerial Photo Review (Areas A, B, and C)

Map Year	Area A	Area B	Area C
1928	The eastern portion of Area A can not be seen in this aerial photograph. The remainder of Area A appeared generally commercial and developed with small shops, businesses, and warehouses. The railroad right-of-way appeared to cross through the area in the western vicinity.	The northern portion of Area B appeared to be partially developed with small businesses. The central portion of Area B appeared generally vacant with several warehouse facilities and railroad right-of-ways through the central portion of the area. The southern portion of Area B, near the water, appeared developed with the POLA Water Street Shed.	West B Street (currently Harry Bridges Boulevard) appeared in its current location. Small businesses are developed along the West B Street The former Wilmington and San Pedro Road is developed partially in the place of the current John S. Gibson Boulevard and North Front Street. The entire John S. Gibson Boulevard is not yet developed. The surrounding vicinity appeared mostly as vacant land and harbor development.
1947	Area A can not be seen from this aerial photograph.	The site appeared similar to that observed in the 1928 except the northern portion of Area B appeared more densely developed with warehouse buildings and businesses.	Area C appeared similar to that observed in the 1928 aerial photograph. Additional rows of structures (possibly warehouses) are located in west of the Wilmington and San Pedro Road, in the current location of John S. Gibson Boulevard.
1952	Area A appeared generally as it did in the 1928 aerial photograph, generally industrial with small shops, businesses and warehouses developed throughout.	Area B appeared similar to that observed in the 1947 aerial photograph. The central portion of the site appeared more densely developed.	Area C appeared similar to the 1947 photograph.
1965	Area A appeared generally as it did in the 1952 aerial photograph, except more densely developed.	The site appeared similar to that observed in the 1952 photograph.	Area C appeared similar to that observed in the 1952 aerial photograph, except the rows of warehouse structures no longer appear west of the Wilmington and San Pedro Road. Also, the Highway 110 appeared developed west of Area C.

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Table 10 – Historical Aerial Photo Review (Areas A, B, and C)

Map Year	Area A	Area B	Area C
1976	Area A appeared generally as it did in the 1965 aerial photograph.	The site appeared similar to that observed in the 1965 photograph except that three ASTs appeared in the central portion of the site (at the current Valero location).	Area C appeared similar to that observed at the time of the site reconnaissance.
1981	Area A appeared generally as it did in the 1976 photograph.	The site appeared similar to that observed in the 1976 aerial photograph.	Area C appeared similar to that observed at the time of the site reconnaissance.
1994	The site appeared similar to that observed at the time of the site reconnaissance.	The site appeared similar to that observed in the 1981 aerial photograph, except several long warehouse type buildings appeared in the southeastern portion of the site and the Water Street Shed no longer appears on the southern boundary of the site. It has been replaced by a smaller structure.	Area C appeared similar to that observed at the time of the site reconnaissance.
2002	The site appeared similar to that observed at the time of the site reconnaissance.	The site appeared similar to that observed at the time of the site reconnaissance.	Area C appeared similar to that observed at the time of the site reconnaissance.

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The review of aerial photos did not reveal specific areas of concern beyond those noted or revealed by other data sources or our site reconnaissance.

5.3. Topographic Maps

Ninyo & Moore obtained historical topographic maps from Environmental Data Resources, Inc. (EDR), for the years 1951, 1964, 1972, and 1981. USGS 7.5 Minute Series maps for San Pedro, Wilmington, and Long Beach vicinity included the proposed Project area. The following is a brief description of the proposed Project area based on review of the historical topographic maps.

5.3.1. Area A

Area A is generally flat and has an approximate elevation ranging from 10 to 15 feet above mean sea level (MSL). These topographic maps show the SP Railroad tracks through the proposed Project area. Structures are noted throughout Area A from 1951 through 1981, and likely associated with the businesses noted on the Sanborn maps and aerial photographs.

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5.3.2. Area B

Area B is generally flat and has an approximate elevation ranging from 0 to 15 feet above MSL. The SP Railroad tracks are shown traversing the southern portion of Area B. Three oil wells appeared in the northern portion of Area B in 1964. One AST (near the three oil wells in the northern portion of Area B), and three additional ASTs (in the current location of the College of Oceaneering) are indicated on the 1972 and 1981 map. The 1981 map shows three additional ASTs in the central portion of the site (at the current Valero location). Several structures are shown in these topographic maps at the current location of businesses in the north, and the POLA Water Street shed along the southern boundary, also noted in the Sanborn maps.

5.3.3. Area C

Area C is generally flat and has an approximate elevation ranging from 10 to 100 feet above MSL. From 1951 through 1981, the current Harry Bridges Boulevard was B Street. The current John S. Gibson Boulevard was noted in the 1981 map. Prior to 1981, it was referred to as the Wilmington and San Pedro Road and was located east of its current location.

The review of historical topographic maps did not reveal specific areas of concern beyond those noted or revealed in the database section (Section 4.0), Sanborn map (Section 5.0), aerial photographs (Section 5.2), interviews (Section 5.5), and site reconnaissance (Section 6.0).

5.4. Oil and Gas Maps

Ninyo & Moore reviewed the State of California, Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) Regional Wildcat Map W1-6 and Map 128. Based on these maps, Area A, Area B, and a portion of Area C appear to lie within the Wilmington Oil Field.

According to Map 128, seven wells are located within Area A. Five completed wells named "Exxon (WTU-)" numbered: 641, 601, 602, 643, and 644, one completed directional well named "Exxon (WTU-)" number 600, and one plugged and abandoned oil well named "13 Comm" number 6. The presence of these active and abandoned oil wells is an environmental concern.

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According to Map 128, eleven wells are located within Area B. The eleven wells are completed wells named "Exxon (TUA-1)" numbered: 112, 113, 114, 115, 116B, 126, 127, 128, 129, 130, and 131. The presence of these active and abandoned oil wells is an environmental concern.

Six wells lie within the vicinity of Area C. One well named King Oil Inc "King;" two wells named Hogan Pet Co. "Burkhard;" and three wells named Hogan Pet Co. "Burkhard Core Hole" were shown as plugged and abandoned dry holes. The existence of abandoned dry holes represents a potential concern.

5.5. Interviews, Correspondence, and Other Sources

Ninyo & Moore requested information regarding the Project area from Mr. Chris Foley and Mr. Ken Ragland from the POLA Environmental Management Division. The following is a summary of the information provided by POLA, as well as information obtained by Ninyo & Moore from the DTSC Envirostor website (www.envirostor.com).

Area A – Former Koppers Site (210 South Avalon Boulevard), soil and groundwater have been affected by total petroleum hydrocarbons diesel (TPHd), polyaromatic hydrocarbons (PAHs), PCP, volatile organic compounds (VOCs), and arsenic above the RWQCB screen-

ing levels. A former treatment plant was located in the southwestern portion of the site. The treatment plant contained retorts, diesel, and creosote ASTs, a boiler house, and wood treatment infrastructure.

Dockside Machine and Ship Repair (211 North Marine Avenue), the soil and groundwater have been affected by two former USTs (one diesel and one gasoline) and a clarifier. Soil was impacted with less than 50 mg/kg of TPH and groundwater contained up to 480 mg/L of TPH and up to 0.061 mg/L of benzene. Concentrations of benzene exceed the MCL and this facility would be considered an environmental concern.

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Wilmington Iron Works (432 West C Street) had groundwater affected by benzene. This property was completed and case closed as of October, 1997. This information would not indicate an environmental concern.

Area B – Avalon Triangle (bound by Harry Bridges Boulevard, Broad Avenue, and Avalon Boulevard), the past uses of this property include oil field operation, manufacturing of industrial machinery, metal manufacturing, metal finishing, oil/water separators, retail service station, degreasing facility, engine testing/repair, fuel vehicle storage and refueling, and machine shop. Soil in this area has been contaminated by TPH exceeding 1,000 mg/kg. According to Envirostor, surface soil has been affected with arsenic above the "DTSC acceptable limit." VOCs have contaminated soil, groundwater, and soil vapor in the vicinity of former oil production wells, and this property would be considered an environmental concern.

Banning Landing Community Center (100 West Water Street), PAHs were detected in shallow soil (24 mg/kg of benzo(a)anthracene, 24 mg/kg of chrysene, 110 mg/kg of fluoranthene, 59 mg/kg of phenanthrene, and 71 mg/kg pyrene. TPH) was detected less than 300 mg/kg in soil. The reported concentrations of benzo(a)anthracene exceed the industrial PRG and this facility would be considered an environmental concern.

Marine Tank Farm (130 West A Street), a Phase II ESA was provided for this property. The report indicated that soil, soil vapor, and groundwater sampling were performed to evaluate

the subsurface. Soil samples were analyzed for Title 22 metals, VOCs, total extractable petroleum hydrocarbons (TEPH), semi volatile organic compounds (SVOCs), and PCBs. Arsenic, total chromium, and lead were detected at concentrations exceeding 10 times the State of California soluble threshold limit concentration (STLC) value. These samples were then analyzed for soluble metals and were found below the STLC value. TEPH was detected ranging from 1.0 mg/kg to 25.1 mg/kg. Several SVOCs were detected, but were below their respective residential and United States Environmental Protection Agency Industrial preliminary remediation guideline (PRG) values. VOCs and PCBs were not detected at or above the method detection limits (MDLs) and the practical quantitation limits (PQLs) in the soil.

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Soil vapor was analyzed for VOCs. VOCs detected were below their corresponding San Francisco (SF) RWQCB Residential Environmental Screening Levels (ESLs) or below the Ambient Air PRG when an ESL was not available.

Groundwater samples were analyzed for Title 22 metals, VOCs, TEPH, GRO, SVOCs, organochlorine pesticides, and PCBs. Antimony, arsenic, barium, cadmium, total chromium, cobalt, copper, lead, nickel, selenium, and vanadium were detected above tap water PRGs. Benzene, bromodichloromethane, chloroform, dibromochloromethane, 1,1-Dichloroethane, cis-1,2-dichloroethene, trans-1,2-dichloroethene, ethylbenzene, naphthalene, trichloroethylene, and vinyl chloride were detected exceeding tap water PRGs and/or the Primary MCL. TEPH and GRO were detected at 58.7 mg/L and 2.2 mg/L. This facility would present an environmental concern.

Roehl Disposal Services (131 North Marine Avenue) was previously utilized as a hazardous waste storage and recycling facility. The facility was purchase by POLA in 1985. In 2004 Corrective Action Consent Agreement was signed by the DTSC and POLA. An investigation work plan was approved in 2005, and the site is listed on the Envirostor website as “active.” Based on this information, this facility would be considered an environmental concern.

E W Saybolt (115 Avalon Boulevard) had soil contaminated by gasoline. The site was completed and case closed as of May, 1996. In April, 2000, remediation by excavation and disposal occurred. This information would not indicate an environmental concern.

Area C – Harbor Police Station (2175 John S. Gibson Boulevard) has groundwater affected by diesel. The facility was opened for site assessment in 1993 and was completed and case closed as of May, 2002. This information would not indicate an environmental concern.

Yang Ming Container Terminal (2050 John S Gibson Boulevard) has groundwater affected by diesel. This facility was opened for site assessment in 2000 and was completed and case closed as of April, 2004. This information would not indicate an environmental concern.

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5.6. Previous Reports

A report completed by Ninyo & Moore Yang Ming facility, located in Area C, is discussed in Section 4.

6. SITE RECONNAISSANCE

A site reconnaissance was conducted to provide us with specific, current information about the proposed Project area that is not obtainable through an environmental records review or aerial photograph/historical sources review. Ninyo & Moore performed a site reconnaissance of the project area March 4, 2008. The inspection included a reconnaissance of the proposed Project area from public rights-of-way (R/W). Photographs of the proposed Project area are presented in Appendix B.

During the site reconnaissance, we looked for several indicators of potential environmental impacts to the project including, but not limited to, significant staining or degraded pavement, USTs, ASTs, storage of hazardous materials and wastes, groundwater monitoring wells and remediation systems, dry cleaning facilities, transformers, pesticide use, industrial facilities, current or historic gasoline stations, distressed vegetation, and the presence of pits, ponds, or

lagoons. The presence of features such as ASTs, USTs, or chemical storage areas alone is not cause to classify a property as Moderate or High with regard to risk.

The following sections summarize observations at properties where environmental risk indicators were noted by the field assessor. In general, properties were viewed from public rights-of-way; interviews with property personnel were not conducted. Tables which follow contain observation checklists for the properties of concern.

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Table 11 – Site Reconnaissance (Areas A)

Area	Address/ General Location	Business Name	Site Use	Chemical Storage Areas	Dumped, Burned Material	Hydraulic Equipment (Lifts)	Bermed, Recessed, or Diked Areas	Chemical/Pesticide Mixing Areas	Sumps, Pits, Ponds, Lagoons, Clarifiers	Discharges/Disposal Areas	Groundwater Monitoring Wells or Other Wells	Remediation Equipment/Evidence or Remediation	Discolored or Polluted Water	Storage Tanks (Underground or Aboveground)	Drums	Stressed Vegetation	Discolored/Stained Soils	Degraded/Heavy Stained Pavement
A	211 North Marine Avenue	Dockside Machine and Ship Repair	Ship repair	Y*	N	Y*	N	N	N	N	N	Y	N	Y*	Y*	N	N	N
	North Marine Avenue	Bromma Author-ized Warranty Repair Facility	Repair facility	Y*	N	N	N	N	N	N	N	N	N	Y*	N	N	N	N
	432 C Street	Wilmington Iron Works	Iron Works	Y*	Y*	Y*	N	N	N	N	N	N	N	Y*	N	N	Y	N
	402 C Street	Yard, Warehouse	Sign indicated “used motor oil”	Y*	N	N	N	N	N	N	N	N	N	Y*	N	N	N	N
B	Southeast corner of West Harry Bridges Boulevard and Avalon Boulevard	Avalon Triangle (vacant land)	11 monument well casings, 7 drums, soil vapor probes,	N	U	N	N	N	N	U	Y	Y	N	N	Y	N	N	N
	Avalon Boulevard	Dockside Machine and Ship Repair	Machine and ship repair	Y*	N	Y*	N	N	N	N	N	Y	N	Y*	Y*	N	N	N
	Southwest corner of Avalon Boulevard and West A Street	Valero	See Footnote 1	Y 1	N	U	U	N	N	N	U	N	N	Y 1	U	N	N	N
C	South of Bayview and Harry Bridges	Propane Tank	Propane	N	N	N	N	N	N	N	N	N	N	Y	N	N	N	N
	Berths 136-139	Trapac truck stag-ing area	Trucking facility	N	N	U	N	N	N	N	N	N	N	Y*	N	N	N	N
	837 John S Gibson Boulevard	J & J Body Shop	Auto repair facility	Y*	N	Y*	N	N	N	N	N	N	N	Y*	Y*	N	N	N
	Eastern corner of John S Gibson Boulevard and North Front Street	Unlimited Auto	Auto Repair facility	Y*	N	Y*	N	N	N	N	N	N	N	Y*	Y*	N	N	N

Table 11 – Site Reconnaissance (Areas A)

Area	Address/ General Location	Business Name	Site Use	Chemical Storage Areas	Dumped, Burned Material	Hydraulic Equipment (Lifts)	Bermed, Recessed, or Diked Areas	Chemical/Pesticide Mixing Areas	Sumps, Pits, Ponds, Lagoons, Clarifiers	Discharges/Disposal Areas	Groundwater Monitoring Wells or Other Wells	Remediation Equipment/Evidence or Remediation	Discolored or Polluted Water	Storage Tanks (Underground or Aboveground)	Drums	Stressed Vegetation	Discolored/Stained Soils	Degraded/Heavy Stained Pavement

Notes:
Y – Yes
N – No
U – Unknown
Y* – Not directly observed, but assumed to be present.
1 – Two very large ASTs and one smaller AST were observed at this property. Their contents could not be evaluated during the site reconnaissance. Based on information provided by Jones & Stokes, the parcel containing the ASTs is leased by Valero from the LADWP. Jones & Stokes did not have additional information on the age of the ASTs.
The existence of, for example, tanks or chemical storage areas alone is generally not cause to classify a property as moderate or high with regard to risk. Evidence of a release, such as significant staining, groundwater monitoring wells or remediation equipment, would be cause to classify a property as Moderate or High.

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7. PROPERTIES OF CONCERN

Based on the results of our historical research, review of the environmental database, regulatory agency inquiries, and our site reconnaissance, properties were evaluated and classified as High, Moderate, or Low with regard to the potential for detrimental impacts during construction activities for proposed Project. Specific Properties of High or Moderate risk are presented in Table 12. Properties categorized as High or Moderate risk in Table 10 were evaluated based on the information obtained and the likelihood that hazardous materials might impact soil and/or groundwater likely to be disturbed during construction.

Table 12 – Specific Properties of High or Moderate Concern

Area	Property Name/Address	Site Operations - Reason for Risk Class (1)	Data Source (2)	Risk Class (3)	Map ID
A	Dockside Machine and Ship Repair 211 North Marine Avenue	Machine and ship repair (metals, lubricants, fuels) TPH and benzene detected in groundwater	R, H, I	M	A1
	Bromma Authorized Warranty Repair Facility North Marine Avenue	Repair facility (metals, lubricants, fuels)	R	M	A2

Table 12 – Specific Properties of High or Moderate Concern

Area	Property Name/Address	Site Operations - Reason for Risk Class (1)	Data Source (2)	Risk Class (3)	Map ID
	Wilmington Iron Works 432 C Street	Iron works (metals, lubricants, solvents)	R, H	M	A3
	Iron shops (402 West C Street and 221 Island Avenue), iron works (432 West C Street), iron warehouse (230 Lagoon Avenue), iron manufacturing (222 Lagoon Avenue)	Iron works (metals, lubricants, solvents)	R and/or H	M	A4
	Former Brass Works 227 Island Avenue	Brass works (metals, lubricants, solvents)	H	M	A5
	Former Koppers Co. Inc. 210 South Avalon Boulevard	Soil contamination left in place (PCP, TPHd, PNAs, VOCs, copper, chromium, and arsenic).	D, I	H	A6
	Former gas & oil Facility 200 Avalon Boulevard/101 East B Street	Gas and oil	H	M	A7
	Former Marine Solvents 214 Marine Avenue	Solvents	H	M	A8
	Five completed wells named "Exxon (WTU-)" numbered: 641, 601, 602, 643, and 644, one completed directional well named "Exxon (WTU-)" number 600, and one plugged and abandoned oil well named "13 Comm" number 6	Completed and plugged and abandoned oil wells	H	M	
B	Former boat building yards 125 West A Street and 128 Avalon Boulevard	Boat building (metals, lubricants, fuels)	H	M	B1
	Avalon Triangle (vacant land) Southeast corner of West Harry Bridges Boulevard and Avalon Boulevard	Wells, soil vapor probes present (on-going remediation) TPH and arsenic in soil, and VOCs in soil, groundwater, and soil vapor	R, I	H	B2
	Dockside Machine and Ship Repair Avalon Boulevard	Ship repair facility (metals, lubricants, fuels)	R	M	B3
	Valero Southwest corner of Avalon Boulevard and West A Street	Facility contains two very large ASTs and one smaller AST of unknown use; parcel leased from the LADWP	R, I	M	B4
	Banning Landing Community Center 100 West Water Street	Benzo (a)anthracene exceeds industrial PRGs in shallow soils.	I	H	B5
	Roehl Disposal Services 131 North Marine Avenue	Active remediation site	I	H	B6
	Eleven completed oil wells named "Exxon (TUA-1)" numbered: 112, 113, 114, 115, 116B, 126, 127, 128, 129, 130, and 131	Completed wells	H	M	

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Table 12 – Specific Properties of High or Moderate Concern

Area	Property Name/Address	Site Operations - Reason for Risk Class (1)	Data Source (2)	Risk Class (3)	Map ID
C	Trans Pacific Container Terminal (Trapac) 920 West B Street	Release of "3.3 flammable liquid" and ethanol	R , D, H	M	C1
	American President Lines Sexton Trucking Australian New Zealand Lines 2001 John S. Gibson Boulevard (Trapac)	Release of varying amounts of different chemicals that have been released. Chemicals include carbon disulfide, triethylamine, potassium nitrate, ethyl butyrate, terpene hydrocarbons, oil: diesel, miscellaneous oils, petroleum distillates, 1,1,1-TCA, fak aerosols, corrosive liquid, diethylenetriamine, propylene glycol, pesticides, and ethyl methacrylate.	D, H	H	C2
	Former gas & oil facility 837 Wilmington & San Pedro Road (North Pacific Avenue)	Gas and oil	H	M	C3
	Former gas & oil facility 789 Wilmington & San Pedro Road (North Front Street)	Gas and oil	H	M	C4
	J&J Body Shop 837 North Pacific Avenue	Repair facility (metals, lubricants, fuels)	R	M	C3
	Unlimited Auto 789 North Front Street	Repair Facility (metals, lubricants, fuels)	R	M	C4
	Six plugged and abandoned dry holes. One well named King Oil Inc "King;" two wells named Hogan Pet Co "Burkhard;" and three wells named Hogan Pet Co "Burkhard Core Hole"	Plugged and abandoned dry holes	H	M	
Olympic Tank Site	Ultramar Olympic Tank Farm 1220 North Alameda Street	Large ASTs used to store petroleum products, operated by Ultramar refinery	D	M	

Notes:
HMI – Hazardous Material Impact
MAP ID – Map Identification
LUST – Leaking Underground Storage Tank
PAH – polynuclear hydrocarbons
PCBs –polychlorinated biphenyls
SVOC – Semi-Volatile Organic Compound
1,1,1-TCA – 1,1,1-Trichloroethane
TPH – Total Petroleum Hydrocarbons
VOC – Volatile Organic Compound

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Table 12 – Specific Properties of High or Moderate Concern

Area	Property Name/Address	Site Operations - Reason for Risk Class (1)	Data Source (2)	Risk Class (3)	Map ID
(1) Description of site operations/primary reasons for risk class (2) Indicates primary information sources for listing: R=Reconnaissance, D=Database, H=Historical Documentation, I= Interviews with POLA or Jones & Stokes staff (3) Risk Class H = high, M = moderate, L = low					

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As indicated in Table 12, several of the properties were listed based on historical and or database listings alone. In such cases, these facilities no longer exist and have been replaced by vacant land or other businesses. In these instances, the exact locations of these former facilities are not known.

8. NON-SPECIFIC AREAS OF CONCERN

The following are non-specific concerns within the proposed Project areas. These concerns include widespread (throughout the noted areas) industrial-type operations that occurred in the noted areas over several decades.

- **Area A** – widespread and varied historical industrial usage. Uses include the former gas and oil facilities, railroad rights-of-way, machine shops, and repair shops.
- **Area B** – varied historical industrial uses including railroad rights-of-way, machine shops, and repair shops.
- **Area C** – varied historical industrial and retail uses. Uses included gas and oil facilities, machine shops, and repair shops.
- **Area D** – based on limited information available and the nature of industrial businesses in this area, Area D is considered a non-specific area of concern

9. HAZARDOUS MATERIAL IMPACTS

Based on the results of this HMA, Ninyo & Moore has developed Hazardous Material Impacts (HMI) for the project area; some of the HMIs apply to all areas of the project and some are specific to certain areas of concern noted in Table 12.

9.1. Project Wide Hazardous Materials Impacts (HMI-1 through HMI-3)

- **HMI-1** – Demolition of structures built prior to 1980 may result in the exposure of the public and/or the environment to asbestos containing materials (ACMs) and/or lead based paint (LBP).

- **HMI-2** – Construction activities may encounter previously unidentified USTs, hazardous materials, petroleum hydrocarbons, or hazardous or solid wastes and may result in the exposure of the public and/or the environment to hazardous materials.

- **HMI-3** – Construction activities, including demolition, may encounter or generate hazardous or solid wastes and debris and may result in the exposure of the public and/or the environment to hazardous materials.

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Regarding abandoned oil wells, we recommend the following: Locate (and expose) the well with geophysical or other methods and contact DOGGR to review abandonment records and inquire whether re-abandonment is necessary prior to any construction. Some wells may be readily located by geophysical methods, others may require other methods such as trenching or pot-holing. Whether or not re-abandonment will be required will depend on well-specific factors including the date and method of original abandonment and proximity to proposed structures. Leak testing will likely be required; installation of venting systems may also be required. Implement corrective action as directed by DOGGR. Because active oil wells, and presumably associated pipelines and other infrastructure are present in various areas of the site, DOGGR should be contacted prior to any construction work to avoid any damage to active features.

9.2. Area A HMI:

In addition to HMI-1 through HMI-3, the following HMIs also apply to Area A.

- **HMI-4** – Construction activities may result in exposure of the public and/or the environment to contaminated soil at the properties listed in Table 12.

- **HMI-5** – Construction activities may result in exposure of the public and/or the environment to contaminated groundwater at the properties listed in Table 12.

- **HMI-6** – Construction activities along existing and former rail lines may result in exposure of the public and/or the environment to soil contaminated with herbicides petroleum hydrocarbons and metals.

Because of elevated concentrations of contaminants in soil and groundwater in this area (former Koppers Co. Inc.), it will be necessary to negotiate conditions for construction in the vicinity of existing engineered cap and comply with their requirements, with the RWQCB prior to construction activities.

9.3. Area B HMI

In addition to HMI-1 through HMI-3, HMI-4, HMI-5, and HMI-6, the following HMI also apply to Area B:

- **HMI-7** – Construction activities may include demolition of large ASTs at fueling (such as Valero), which may result in exposure of the public and/or the environment to contaminants including, but not limited to, chemicals, fuels, oils, lubricants, and metals at the properties listed in Table 12.

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9.4. Area C HMI

HMI-1 through HMI-3, HMI-4, and HMI-5, apply at the properties listed in Table 12.

9.5. Area D HMI

HMI-1 through HMI-3 applies to this entire area.

Based on our limited scope of services for this area, no site reconnaissance and no historical document reviews were performed. The database report indicates the presence of current or historical businesses in this area which likely store or use hazardous materials. Ninyo & Moore recommends performing additional assessment in this area to gain a more detailed understanding of current and past site uses.

9.6. Olympic Tank Site HMI

HMI-1 through HMI-3 applies to this entire area.

Based on our limited scope of services for this area, no site reconnaissance and no historical document reviews were performed. The database report indicates the Olympic Tank Farm is currently (or formerly) used to store large quantities of petroleum products in ASTs; the fa-

cility appears to be operated by the Ultramar refinery. Ninyo & Moore recommends performing additional assessment of this facility. Depending on specific planned uses for this facility, a Phase II ESA may be warranted.

10. PRELIMINARY MITIGATION MEASURES

The following sections describe preliminary mitigation measures are proposed measures for each HMI; At the request of POLA, this discussion excludes Area D and the Olympic Tank Site.

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- **HMI-1** – Prior to construction activities, POLA, or its contractors, will conduct an evaluation of all buildings (built prior to 1980) to be demolished to evaluate the presence of asbestos-containing building materials and lead-based paint. Remediation will be implemented in accordance with the recommendations of these evaluations.

- **HMI-2** – POLA or its contractors will prepare a hazardous materials contingency plan addressing the potential for discovery of unidentified USTs, hazardous materials, petroleum hydrocarbons, or hazardous or solid wastes encountered during constructions. The contingency plan will address UST decommissioning, field screening and materials testing methods, mitigation and contaminant management requirements, and health and safety requirements.

- **HMI-3** – Construction contractors will dispose of all hazardous or solid wastes and debris encountered or generated during construction and demolition activities in accordance with all federal, state, and local laws and regulations.

- **HMI-4** – POLA or its contractor will prepare a soil management plan prior to construction and will implement it during all phases of construction. Disturbed soils will be monitored for visual evidence of contamination (e.g., staining or discoloration). Soil will also be monitored for the presence of VOCs using appropriate field instruments such as organic vapor measurement with photoionization detectors or flame ionization detectors. If the monitoring procedures indicate the possible presence of contaminated soil, a contaminated soil contingency plan will be implemented and will include procedures for segregation, sampling, and chemical analysis of soil. Contaminated soil will be profiled for disposal and will be transported with appropriate hazardous or non-hazardous waste or recycling facility licensed to accept and treat the type of waste indicated by the profiling process. The contaminated soil contingency plan will be developed and in place during all construction activities. If these processes generate any contaminated groundwater that must be disposed of outside of the dewatering/National Pollutant Discharge Elimination System (NPDES) process, the groundwater will be profiled, manifested, hauled, and disposed of in the same manner.

  Alternatively, preparation of a Phase II Environmental Site Assessment (ESA) will be prepared. In general, the Phase II ESA includes the following:

- A work plan that includes the number and locations of proposed soil/monitoring wells, sampling intervals, drilling and sampling methods, analytical methods, sampling rationale, site geohydrology, field screening methods, quality control/quality assurance, and reporting methods. Where appropriate, the work plan is approved by a regulatory agency such as the Los Angeles Fire Department or the RWQCB.

- A site-specific heal and safety plan signed by a Certified Industrial Hygienist.

- Necessary permits for encroachment, boring completion, and well installation.

- A traffic safety plan.

- Sampling program (fieldwork) in accordance with the work plan and health and safety plan. Fieldwork is completed under the supervision of a State of California registered geologist.

- Hazardous materials testing through a state-certified laboratory.

- Documentation including a description of filed procedures, boring logs/well construction diagrams, tabulations of analytical results, cross-sections, an evaluation of the levels and extent of contaminants found, and conclusions and recommendation regarding the environmental condition of the site and the need for further assessment. Recommendations may include additional assessment or handling of the contaminants found though the contaminated soil contingency plan. If the contaminated soil contingency plan is inadequate for the contamination found, a remedial action plan will be developed. Contaminated groundwater will generally be handled through the NPDES/dewatering process.

- Disposal process including transport by a state-certified hazardous material hauler to a state-certified disposal or recycling facility licensed to accept and treat the identified type of waste.

- **HMI-5** – Prior to dewatering activities, POLA will obtain a NPDES permit. In areas of suspected contaminated groundwater, special conditions will apply with regard to acquisition of the NPDES permit, including testing and monitoring, as well as discharge limitations under the NPDES permits.

- **HMI-6** – Soil along and immediately adjacent to existing and former rail lines which will be disturbed during construction should be assessed for the presence of herbicides, petroleum hydrocarbons, and metals. This assessment should be completed as described under HMI-4.

- **HMI-7** – Demolition of chemical/fuel storage facilities will include decommissioning and removal of USTs and ASTs in accordance with local and state regulatory agencies. These agencies will likely require soil and groundwater sampling. This sampling should be conducted in accordance with local and state regulatory agency requirements.

DRAFT

11. SELECTED REFERENCES

Dibblee, T.W., Jr., 1999, Geologic Map of the Palos Verdes Peninsula and Vicinity Redondo Beach, Torrance and San Pedro Quadrangles, Los Angeles County, California: Dibblee Geological Foundation, DF-70, Scale 1:24,000.

Ninyo & Moore, 2002, Groundwater Monitoring Well Installation, Yang Ming Container Terminal, 2050 John S. Gibson Boulevard, San Pedro, California, prepared for the City of Los Angeles Harbor Department, dated April 23.

Norris, R.M., and Webb, R.W., 1990, Geology of California, New York, N.Y., John Wiley & Sons, Inc.

DRAFT

SOURCE: GOOGLE EARTH, 2008.

APPROXIMATE SCALE IN FEET

0 2,400 4,800

N

NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

Ninyo & Moore	SITE LOCATION MAP	FIGURE
PROJECT NO. 207374001 / DATE 8/08	WILMINGTON WATERFRONT PROJECT LONG BEACH, CALIFORNIA	1

207374 – A3.DWG

SOURCE: GOOGLE EARTH, 2008.

Area	Property Name/Address	Site Operations - Reason for Risk Class	Map ID
A	"Dockside Machine and Ship Repair 211 North Marine Avenue"	Machine and ship repair (metals, lubricants, fuels)	A1
	"Bromma Authorized Warranty Repair Facility North Marine Avenue"	Repair facility (metals, lubricants, fuels)	A2
	"Wilmington Iron Works 432 C Street"	Iron works (metals, lubricants, solvents)	A3
	Iron shops (402 West C Street and 221 Island Avenue), iron works (432 West C Street), iron warehouse (230 Lagoon Avenue), iron manufacturing (222 Lagoon Avenue)	Iron works (metals, lubricants, solvents)	A4
	"Former Brass Works 227 Island Avenue"	Brass works (metals, lubricants, solvents)	A5
	"Former Koppers Co. Inc. 210 South Avalon Boulevard"	Soil contamination left in place (PCP, copper, chromium, and arsenic).	A6
	"Former gas & oil Facility 200 Avalon Boulevard/101 East B Street"	Gas and oil	A7
	"Former Marine Solvents 214 Marine Avenue"	Solvents	A8

N

APPROXIMATE SCALE IN FEET

0 500 1,000

NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

207374 – A2.DWG

Ninyo & Moore

PROJECT NO.	DATE
207374001	8/08

AREAS OF CONCERN
AREA A

WILMINGTON WATERFRONT PROJECT
LONG BEACH, CALIFORNIA

FIGURE

2A

SOURCE: GOOGLE EARTH, 2008.

N

APPROXIMATE SCALE IN FEET

0 500 1,000

NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

Area	Property Name/Address	Site Operations - Reason for Risk Class	Map ID
B	"Former boat building yards 125 West A Street and 128 Avalon Boulevard"	Boat building (metals, lubricants, fuels)	B1
	"Vacant Land Southeast corner of West Harry Bridges Boulevard and Avalon Boulevard"	Wells, soil vapor probes present (on-going remediation)	B2
	"Dockside Machine and Ship Repair Avalon Boulevard"	Ship repair facility (metals, lubricants, fuels)	B3
	"Valero Southwest corner of Avalon Boulevard and West A Street"	Facility contains two very large ASTs and one smaller AST of unknown use; parcel leased from the LADWP.	B4
	Banning Landing Community Center 100 West Water Street	Benzo(a)anthracene exceeds industrial PRGs in shallow soils.	B5
	Roehl Disposal Services 131 North Maine Avenue	Active Remediation Site	B6

207374 – A4.DWG

Ninyo & Moore

PROJECT NO.	DATE
207374001	8/08

AREAS OF CONCERN
AREA B

WILMINGTON WATERFRONT PROJECT
LONG BEACH, CALIFORNIA

FIGURE

2B

SOURCE: GOOGLE EARTH, 2008.

Area	Property Name/Address	Site Operations - Reason for Risk Class	Map ID
C	"Trans Pacific Container Terminal (Trapac) 920 West B Street"	Release of "3.3 flammable liquid" and ethanol	C1
	"American President Lines Sexton Trucking Australian New Zealand Lines 2001 John S. Gibson Boulevard (Trapac)"	Release of varying amounts of different chemicals that have been released. Chemicals include carbon disulfide, triethylamine, potassium nitrate, ethyl butyrate, terpene hydrocarbons, oil: diesel, miscellaneous oils, petroleum distillates, 1,1,1-TCA, fak aerosols, corrosive liquid, diethylenetriamine, propylene glycol, pesticides, and ethyl methacrylate.	C2
	"Former gas & oil facility 837 Wilmington & San Pedro Road (North Pacific Avenue)"	Gas and oil	C3
	"Former gas & oil facility 789 Wilmington & San Pedro Road (North Front Street)"	Gas and oil	C4
	"J&J Body Shop 837 North Pacific Avenue"	Repair facility (metals, lubricants, fuels)	C3
	"Unlimited Auto 789 North Front Street"	Repair Facility (metals, lubricants, fuels)	C4

N

APPROXIMATE SCALE IN FEET

0 2,000 4,000

NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

207374 – A1.DWG

Ninyo & Moore

AREAS OF CONCERN
AREA C

FIGURE
2C

PROJECT NO.	DATE
207374001	8/08

WILMINGTON WATERFRONT PROJECT
LONG BEACH, CALIFORNIA

SOURCE: GOOGLE EARTH, 2008.

APPROXIMATE SCALE IN FEET

0 2,400 4,800

N

NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

207374-A6.DWG

Ninyo & Moore	AREAS OF CONCERN	FIGURE
PROJECT NO. 207374001 / DATE 8/08	WILMINGTON WATERFRONT PROJECT LONG BEACH, CALIFORNIA	3

DRAFT

APPENDIX A

FIRSTSEARCH ENVIRONMENTAL DATABASE REPORTS

TRACK INFO SERVICES, LLC

Environmental FirstSearch™ Report

Target Property:

HARRY BRIDGES BLVD

WILMINGTON CA 90744

Job Number: 207374001

PREPARED FOR:

Ninyo and Moore

475 Goddard, Suite 200

Irvine, CA 92618

02-29-08

Tel: (866) 664-9981 *Fax: (818) 249-4227*

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Environmental FirstSearch
Search Summary Report

Target Site: HARRY BRIDGES BLVD
WILMINGTON CA 90744

FirstSearch Summary

Database	Sel	Updated	Radius	Site	1/8	1/4	1/2	1/2>	ZIP	TOTALS
NPL	Y	02-08-08	0.12	0	0	-	-	-	0	0
NPL Delisted	Y	02-08-08	0.12	0	0	-	-	-	0	0
CERCLIS	Y	02-08-08	0.12	0	1	-	-	-	0	1
NFRAP	Y	02-08-08	0.12	3	0	-	-	-	1	4
RCRA COR ACT	Y	06-06-06	0.12	1	1	-	-	-	0	2
RCRA TSD	Y	06-06-06	0.12	1	1	-	-	-	0	2
RCRA GEN	Y	06-06-06	0.12	13	21	-	-	-	6	40
RCRA NLR	Y	06-06-06	0.12	5	1	-	-	-	1	7
Federal IC / EC	Y	01-18-08	0.12	0	0	-	-	-	0	0
ERNS	Y	12-31-07	0.12	19	26	-	-	-	33	78
Tribal Lands	Y	12-01-05	0.12	0	0	-	-	-	0	0
State/Tribal Sites	Y	08-08-07	0.12	2	2	-	-	-	2	6
State Spills 90	Y	11-06-07	0.12	2	7	-	-	-	21	30
State/Tribal SWL	Y	09-24-07	0.12	1	2	-	-	-	1	4
State/Tribal LUST	Y	10-18-07	0.12	5	13	-	-	-	0	18
State/Tribal UST/AST	Y	01-03-07	0.12	21	36	-	-	-	2	59
State/Tribal EC	Y	NA	0.12	0	0	-	-	-	0	0
State/Tribal IC	Y	04-27-07	0.12	0	0	-	-	-	0	0
State/Tribal VCP	Y	08-15-06	0.12	0	0	-	-	-	0	0
State/Tribal Brownfields	Y	08-08-07	0.12	0	0	-	-	-	0	0
State Permits	Y	03-29-07	0.12	0	0	-	-	-	0	0
State Other	Y	08-08-07	0.12	5	1	-	-	-	1	7
FI Map Coverage	Y	12-04-07	0.12	4	0	-	-	-	0	4
- TOTALS -				82	112	0	0	0	68	262

Notice of Disclaimer

Due to the limitations, constraints, inaccuracies and incompleteness of government information and computer mapping data currently available to TRACK Info Services, certain conventions have been utilized in preparing the locations of all federal, state and local agency sites residing in TRACK Info Services's databases. All EPA NPL and state landfill sites are depicted by a rectangle approximating their location and size. The boundaries of the rectangles represent the eastern and western most longitudes; the northern and southern most latitudes. As such, the mapped areas may exceed the actual areas and do not represent the actual boundaries of these properties. All other sites are depicted by a point representing their approximate address location and make no attempt to represent the actual areas of the associated property. Actual boundaries and locations of individual properties can be found in the files residing at the agency responsible for such information.

Waiver of Liability

Although TRACK Info Services uses its best efforts to research the actual location of each site, TRACK Info Services does not and can not warrant the accuracy of these sites with regard to exact location and size. All authorized users of TRACK Info Services's services proceeding are signifying an understanding of TRACK Info Services's searching and mapping conventions, and agree to waive any and all liability claims associated with search and map results showing incomplete and or inaccurate site locations.

Environmental FirstSearch
Site Information Report

Request Date: 02-29-08
Requestor Name: Beth Padgett
Standard: ASTM-05

Search Type: AREA
0.12 sq mile(s)
Job Number: 207374001
Filtered Report

Target Site: HARRY BRIDGES BLVD
WILMINGTON CA 90744

Demographics

Sites: 262 **Non-Geocoded:** 68 **Population:** NA

Radon: NA

Site Location

	Degrees (Decimal)	Degrees (Min/Sec)		UTMs
Longitude:	-118.275525	-118:16:32	**Easting:**	381872.824
Latitude:	33.761045	33:45:40	**Northing:**	3736198.75
			Zone:	11

Comment

Comment:

Additional Requests/Services

Adjacent ZIP Codes: 1 Mile(s)

ZIP Code	City Name	ST	Dist/Dir	Sel
90275	NCHO PALOS VERDES	CA	0.62 NW	Y
90731	SAN PEDRO	CA	0.00 --	Y
90732	SAN PEDRO	CA	0.32 SW	Y
90802	LONG BEACH	CA	0.92 SE	N
90822	LONG BEACH	CA	0.99 SE	N

Services:

	Requested?	Date
Sanborns	Yes	02/29/08
Aerial Photographs	Yes	02-29-08
Historical Topos	Yes	02-29-08
City Directories	No	
Title Search/Env Liens	No	
Municipal Reports	No	
Online Topos	No	

Environmental FirstSearch
Sites Summary Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

TOTAL: 262 **GEOCODED:** 194 **NON GEOCODED:** 68 **SELECTED:** 0

Page No.	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
1	RCRAGN	METROPOLITAN STEVEDORE CAD045231990/SGN	211 MARINE AVE WILMINGTON CA 90744	0.00 --	1
2	UST	METROPOLITAN STEVEDORE COMPANY TISID-STATE4569/INACTIVE	211 MARINE WILMINGTON CA 90744	0.00 --	1
3	UST	MARINE TANK FARM AST12/AST SWRCB REG.4	130 W A ST WILMINGTON CA 90744	0.00 --	2
4	ERNS	LOS ANGELES DEPT OF WATER 621276/FIXED FACILITY	130 WEST A STREET WILMINGTON CA	0.00 --	2
5	RCRAGN	DEPT WATER and POWER CAR000087981/SGN	130 W A ST WILMINGTON CA 90744	0.00 --	2
6	RCRAGN	ULTRAMAR INC MARINE TANK FARM CAR000095125/LGN	130 W A ST WILMINGTON CA 90744	0.00 --	2
7	RCRANLR	DEPT WATER and POWER CAR000087981/NLR	130 W A ST WILMINGTON CA 90744	0.00 --	2
8	RCRANLR	CAVANAUGH MACHINE WORKS CAD982329112/NLR	220 EAST B ST WILMINGTON CA 90744	0.00 --	3
9	UST	WILMINGTON IRON WORKS INC TISID-STATE4724/INACTIVE	432 C WILMINGTON CA 90744	0.00 --	4
10	LUST	WILMINGTON IRON WORKS T0603701665/CASE CLOSED	432 C ST W WILMINGTON CA 90744	0.00 --	4
11	RCRAGN	WILMINGTON IRON WORKS CAR000015040/SGN	432 WEST C ST WILMINGTON CA 90744	0.00 --	4
12	RCRAGN	UNITED CHECKER CAB CAD982320731/SGN	117 WEST B ST WILMINGTON CA 90744	0.00 --	5
13	ERNS	 NRC-535438/STORAGE TANK	920 WEST B STREET WILMINGTON CA	0.00 --	6
16	RCRAGN	TRANS PACIFIC CONTAINER SVC CAD983581968/SGN	920 W B ST WILMINGTON CA 90744	0.00 --	6
17	ERNS	TRANS-PACIFIC CONTAINER 395693/HIGHWAY RELATED	920 WEST B STREET WILMINGTON CA 90744	0.00 --	6
18	ERNS	 53366/UNKNOWN	B ST AND BROAD ST WATER INJ WILMINGTON CA 90744	0.00 --	7
18	ERNS	AM PUMPING CO O CONNOR 105380/UNKNOWN	BROAD ST AT B ST WILMINGTON CA 90744	0.00 --	7
19	ERNS	UNK 105317/UNKNOWN	B ST AND BROAD ST WILMINGTON CA 90744	0.00 --	7
19	UST	PORT OF LA LACTY/NONCRTFD200	217 N LAGOON WILMINGTON CA 90744	0.00 --	8
20	OTHER	CALIFORNIA SALVAGE OCEAN DUMPING CAL19420001/REFER: OTHER AGENCY	217 NORTH LAGOON AVENUE WILMINGTON CA 90744	0.00 --	8
22	RCRAGN	NORTH AMERICAN ENVIRONMENTAL INC CAD980665947/SGN	217 NORTH LAGOON DR WILMINGTON CA 90744	0.00 --	8

Environmental FirstSearch
Sites Summary Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

TOTAL: 262 **GEOCODED:** 194 **NON GEOCODED:** 68 **SELECTED:** 0

Page No.	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
23	UST	PORT OF LA LACTY/NONCRTFD626	217 N LAGOON WILMINGTON CA 90744	0.00 --	8
23	UST	NORTH AMERICAN ENVIRONMENTAL TISID-STATE26638/ACTIVE	217 LAGOON WILMINGTON CA	0.00 --	8
24	STATE	CALIFORNIA SALVAGE OCEAN DUMPING CAL19420001/PROPERTY/SITE REFERR	217 NORTH LAGOON AVENUE WILMINGTON CA 90744	0.00 --	8
27	NFRAP	NORTH AMERICAN ENVIRONMENTAL CAD980665947/NFRAP-N	217 N. LAGOON AVE. WILMINGTON CA 90744	0.00 --	8
28	UST	PORT OF LA LACTY/NONCRTFD161	217 N LAGOON WILMINGTON CA 90744	0.00 --	8
28	UST	TODD PACIFIC SHIPYARDS CORP TISID-STATE25107/ACTIVE	710 FRONT SAN PEDRO CA 90731	0.00 --	9
29	RCRANLR	TODD PACIFIC SHIPYARDS CORPORATION CAD008350332/NLR	710 N FRONT ST SAN PEDRO CA 90731	0.00 --	9
30	RCRAGN	LA PUMPIMG PLANT 77 CAD981987183/SGN	1220 W B ST WILMINGTON CA 90744	0.00 --	10
31	RCRAGN	KEEPING ON TRUCKING CAD981971534/SGN	607 W B ST WILMINGTON CA 90744	0.00 --	11
32	LUST	KEEP ON TRUCKING, INC. T0603701654/CASE CLOSED	607 B ST W WILMINGTON CA 90744	0.00 --	11
33	UST	E W SAYBOLT and CO INC TISID-STATE4872/INACTIVE	115 AVALON WILMINGTON CA 90744	0.00 --	12
34	RCRAGN	EW SAYBOLT and CO INC CAD010705671/LGN	115 N AVALON BLVD WILMINGTON CA 90744	0.00 --	12
35	LUST	E W SAYBOLT and COMPANY INC T0603701652/CASE CLOSED	115 AVALON BLVD WILMINGTON CA 90744	0.00 --	12
36	RCRANLR	SAFETY KLEEN CORP CAD981692098/NLR	131 N MARINE AVE WILMINGTON CA 90744	0.00 --	13
37	RCRAGN	DOCKSIDE MACH and SHIP RPR CAD981442262/SGN	131 N AVALON BLVD WILMINGTON CA 90744	0.00 --	13
38	NFRAP	ROEHL DISPOSAL SERVICES CAD980737548/NFRAP-N	131 NORTH MARINE AVE WILMINGTON CA 90744	0.00 --	13
38	UST	DOCKSIDE MACHINE and BOILER WORK TISID-STATE27509/ACTIVE	131 AVALON WILMINGTON CA 90744	0.00 --	13
39	UST	DOCKSIDE MACHINE and BOILER WORK LACTY/NONCRTFD144	131 N AVALON BL WILMINGTON CA 90744	0.00 --	13
40	RCRA	ROEHL DISPOSAL SERVICES CAD980737548/TSD	131 NORTH MARINE AVENUE WILLINGTON CA 90744	0.00 --	14
43	RCRAGN	ROEHL DISPOSAL SERVICES CAD980737548/SGN	131 NORTH MARINE AVE WILLINGTON CA 90744	0.00 --	14

Environmental FirstSearch
Sites Summary Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

TOTAL: 262 **GEOCODED:** 194 **NON GEOCODED:** 68 **SELECTED:** 0

Page No.	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
45	RCRACOR	ROEHL DISPOSAL SERVICES CAD980737548/CA	131 NORTH MARINE AVE WILLINGTON CA 90744	0.00 --	14
48	ERNS	MARINE TERMINALS 376609/HIGHWAY RELATED	1830 JOHN S GIBSON BLVD SAN PEDRO CA 90731	0.00 --	15
49	ERNS	MARINE TERMINAL CORP. 467891/FIXED FACILITY	1830 JOHN GIBSON BLVD SAN PEDRO CA 90751	0.00 --	15
51	UST	PORT OF LOS ANGELES TISID-STATE6327/INACTIVE	1830 JOHN GIBSON SAN PEDRO CA 90731	0.00 --	15
52	ERNS	MARINE TERMINAL CORP. 282903/FIXED FACILITY	1830 JOHN GIBSON BLVD SAN PEDRO CA 90731	0.00 --	15
54	ERNS	NRC-759862/VESSEL	920 HARRY BRIDGES WILMINGTON CA	0.00 --	16
57	ERNS	NRC-803229/STORAGE TANK	920 WESTHARRY BRIDGES BLVD WILMINGTON CA 90744	0.00 --	16
60	ERNS	VESSEL FAUST 16572/UNKNOWN	200 A, QUAYSIDE WILMINGTON CA 90744	0.00 --	17
60	ERNS	UNOCAL 105386/UNKNOWN	NEPTUNE and B STREET WILMINGTON CA 90744	0.00 --	18
60	ERNS	UNOCAL 105248/UNKNOWN	B ST AND NEPTUNE ST WILMINGTON CA 90744	0.00 --	18
61	UST	CALIF HARDWOOD PRODUCTS INC TISID-STATE5277/INACTIVE	218 B WILMINGTON CA 90744	0.00 --	19
62	RCRANLR	KORODY COLYER CORP CAD981456122/NLR	218 N AVALON BLVD WILMINGTON CA 90744	0.00 --	19
63	ERNS	GATX 205164/PIPELINE RELATED	BROAD and AVALON STS WILMINGTON CA 90744	0.00 --	20
65	ERNS	EXXON 226876	200 SOUTH AVALON WILMINGTON CA 90744	0.00 --	21
67	ERNS	EXXON 257373/PF	LAGOON and B ST WILMINGTON CA 90744	0.00 --	22
69	OTHER	KOPPERS - LOS ANGELES CAL19280085/REFER: RWQCB	210 SOUTH AVALON BOULEVARD WILMINGTON CA 90744	0.00 --	23
71	NFRAP	KOPPERS CO INC CAD008267072/NFRAP-N	210 S AVALON BLVD WILMINGTON CA 90744	0.00 --	23
72	STATE	KOPPERS - LOS ANGELES CAL19280085/PROPERTY/SITE REFERR	210 SOUTH AVALON BOULEVARD WILMINGTON CA 90744	0.00 --	23
76	ERNS	MITCHELL, THOMAS AND SONS 447002/FIXED FACILITY	222 N LAGOON WILMINGTON CA 90744	0.00 --	24
77	SPILLS	WILMINGTON TOWN LOT 525 G_SLT43495493	202 W. C ST WILMINGTON CA 90744	0.00 --	25

Environmental FirstSearch
Sites Summary Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

TOTAL: 262 **GEOCODED:** 194 **NON GEOCODED:** 68 **SELECTED:** 0

Page No.	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
78	UST	COLLEGE OF OCEANEERING TISID-STATE28190/ACTIVE	201 WATER WILMINGTON CA 90744	0.00 --	26
79	UST	CITY OF LOS ANGELES TISID-STATE28912/ACTIVE	100 WATER WILMINGTON CA 90744	0.00 --	27
81	UST	CITY OF LOS ANGELES LACTY/NONCRTFD130	100 E WATER ST WILMINGTON CA 90744	0.00 --	27
81	FIMAP	FIRE INSURANCE MAP CA-FS-181/SANBORN	 WILMINGTON CA	0.00 --	28
81	UST	CITY OF LOS ANGELES LACTY/NONCRTFD145	214 N AVALON BL WILMINGTON CA 90744	0.00 --	29
81	FIMAP	FIRE INSURANCE MAP POLY-11027/SANBORN	 CARSON CA 90745	0.00 --	30
82	LUST	YANG MING CONTAINER TERMINAL T0603792955/CASE CLOSED	2050 JOHN S. GIBSON BLVD SAN PEDRO CA 90731	0.00 --	31
83	UST	YANG MING LACTY/NONCRTFD603	2050 JOHN S GIBSON BL SAN PEDRO CA 90731	0.00 --	31
83	UST	AMERICAN PRESIDENT LINES, LTD TISID-STATE26236/ACTIVE	2050 JOHN S. GIBSON SAN PEDRO CA 90731	0.00 --	31
84	OTHER	TODD SHIPYARDS LACO_SITEMIT_90S1	00701 FRONT ST SAN PEDRO CA 90731	0.00 --	32
85	OTHER	D.W. RUSSEL CO., INC. CAL19990048/REFER: 1248 LOCAL AG	412 W. HARRY BRIDGES BLVD. WILMINGTON CA 90744	0.00 --	33
86	OTHER	D.W. RUSSELL CO., INC. CAL19990051/REFER: 1248 LOCAL AG	412 W. HARRY BRIDGES BLVD. WILMINGTON CA 90744	0.00 --	33
87	STATE	IT TRANSPORTATION CORP - WILMINGTO CAL19420028/PROPERTY/SITE REFERR	233 EAST D STREET WILMINGTON CA 90744	0.11 NE	34
90	CERCLIS	IT TRANSP CORP WILMINGTON CAD029654894/NOT PROPOSED	233 E D ST WILMINGTON CA 90744	0.11 NE	34
91	SWL	IT CORPORATION-WILMINGTON WMUD4 190253NUR	233 EAST D STREET WILMINGTON CA 90744	0.00 --	34
92	OTHER	IT TRANSPORTATION CORP - WILMINGTO CAL19420028/REFER: RCRA	233 EAST D STREET WILMINGTON CA 90744	0.11 NE	34
94	RCRAGN	SHIMIZU AUTOMOTIVE CAR000086983/SGN	402 W C ST WILMINGTON CA 90744	0.00 --	35
95	UST	TUNEUP MASTERS INC. 0023 TISID-STATE6077/INACTIVE	1050 PACIFIC SAN PEDRO CA 90731	0.00 --	36
96	UST	MARINE TANK FARM TISID-STATE4427/INACTIVE	130 A LOS ANGELES CA 90744	0.00 --	37
97	FIMAP	FIRE INSURANCE MAP POLY-11171/SANBORN	 SAN PEDRO CA 90731	0.00 --	38

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97	FIMAP	FIRE INSURANCE MAP POLY-11170/SANBORN	SAN PEDRO CA 90731	0.00 --	39
98	SPILLS	WILMINGTON TOWN LOT 150 G_SLT43539537	133-141 N. MARINA AVE WILMINGTON CA 90744	0.00 --	40
99	LUST	MOINE/LOCKE PROPERTY T0603701666/CASE CLOSED	127 B ST W WILMINGTON CA 90744	0.00 --	41
100	ERNS	NRC-819952/VESSEL	100 WEST WATER ST WILMINGTON CA	0.00 --	42
103	ERNS	ALL AMERICAN PAINT and BODY 173421/FIXED FACILITY	214 MCDONALD WILMINGTON CA 90744	0.01 NW	43
104	ERNS	AMERICAN PRESIDENT LINES 328429/FIXED FACILITY	2001 JOHN GIBSON BLVD SAN PEDRO CA 90731	0.01 SE	44
105	ERNS	APL 474330/FIXED FACILITY	2001 JOHN GIBSON BLVD BERTH SAN PEDRO CA 90731	0.01 SE	44
106	ERNS	AMERICAN PRESIDENT LINES 241040/MARINE- RELEASED FRO	2001 JOHN GIBSON BLVD SAN PEDRO CA 90731	0.01 SE	44
108	ERNS	AMERICAN PRESIDENT LINES 112822/UNKNOWN	2001 JOHN S GIBSON BLVD SAN PEDRO CA 90731	0.01 SE	44
109	ERNS	AMERICAN PRESIDENT LINES 466015/FIXED FACILITY	2001 JOHN GIBSON BLVD. SAN PEDRO CA 90731	0.01 SE	44
110	ERNS	AMERICAN PRESIDENT LINES 465694/PIPELINE RELATED	2001 JOHN GIBSON BLVD SAN PEDRO CA	0.01 SE	44
111	ERNS	AMERICAN PRESIDENT LINES 172099/PIPELINE RELATED	2001 JOHN GIBSON BLVD SAN PIEDRO CA 90731	0.01 SE	44
112	ERNS	AMERICAN PRESIDENT LINES 465884/HIGHWAY RELATED	2001 JOHN GIBSON BLVD. SAN PEDRO CA 90731	0.01 SE	44
113	RCRANLR	AMERICAN PRESIDENT LINES LTD CAR000013250/NLR	2001 JOHN GIBSON BLVD SAN PEDRO CA 90731	0.01 SE	44
114	ERNS	AUSTALIA/NEW ZEALAND D L 330684/FIXED FACILITY	2001 JOHN GIBSON BLVD SAN PEDRO CA 90731	0.01 SE	44
115	ERNS	AMERICAN PRESIDENT LINES 179116/HIGHWAY RELATED	2001 JOHN GIBSON BLVD. SAN PEDRO CA 90731	0.01 SE	44
116	ERNS	AMERICAN PRESIDENT LINES 184268/MARINE- RELEASED FRO	2001 JOHN GIBSON BLVD. SAN PEDRO CA 90731	0.01 SE	44
117	ERNS	AMERICAN PRESIDENT LINES 184426/FIXED FACILITY	2001 JOHN GIBSON BLVD. SAN PEDRO CA 90731	0.01 SE	44
118	ERNS	AMERICAN PRESIDENT LINES 435038/FIXED FACILITY	2001 JOHN GIBSON BLVD SAN PEDRO CA 90731	0.01 SE	44
119	ERNS	SEXTON TRUCKING 438586/HIGHWAY RELATED	2001 JOHN S GIBSON BLVD BER SAN PEDRO CA 90731	0.01 SE	44

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120	ERNS	AMERICAN PRESIDENT LINES 238610/FIXED FACILITY	2001 JOHN GIBSON BLVD. SAN PEDRO CA 90731	0.01 SE	44
122	ERNS	AUSTRALIA NEWZEALAND 234418/FIXED FACILITY	2001 JOHN GIBSON BLVD BERTH SAN PEDRO CA 90731	0.01 SE	44
124	ERNS	 18377/UNKNOWN	2001 JOHN GIBSON BLVD PIER SAN PEDRO CA 90731	0.01 SE	44
125	ERNS	AUSTRIALIAN NEW ZELAND LN 317958/FIXED FACILITY	2001 JOHN GIBSON BLVD BERTH SAN PEDRO CA 90731	0.01 SE	44
126	RCRAGN	PACIFIC MOLASSES CO CAD071902936/SGN	395 WATER ST WILMINGTON CA 90744	0.01 SW	45
127	UST	PACIFIC MOLASSES COMPANY TISID-STATE4386/INACTIVE	395 WATER WILMINGTON CA 90744	0.01 SW	45
128	UST	CITY OF LA HARBOR DEPARTMENT LACTY/NONCRTFD130	395 WATER ST WILMINGTON CA 90744	0.01 SW	45
128	RCRAGN	PACKERS LTD CAP000057380/LGN	100 BROAD AVE WILMINGTON CA 90748	0.01 -E	46
129	UST	PACKERS ENTERPRISES INC TISID-STATE27502/ACTIVE	100 BROAD WILMINGTON CA 90744	0.01 -E	46
130	UST	HARBOR POLICE STATION TISID-STATE27562/ACTIVE	2175 JOHN S. GIBSON SAN PEDRO CA 90732	0.01 SE	47
131	LUST	HARBOR POLICE STATION T0603701648/CASE CLOSED	2175 JOHN GIBSON BLVD S SAN PEDRO CA 90732	0.01 SE	47
132	UST	HARBOR POLICE STATION LACITY/CERTNO2507	2175 W JOHN S GIBSON BL SAN PEDRO CA 90732	0.01 SE	47
132	UST	HARBOR POLICE STATION LACITY/CERTNO2444	2175 W JOHN S GIBSON BL SAN PEDRO CA 90732	0.01 SE	47
133	SPILLS	WILMINGTON TOWN LOT 526.1, 526.2 G_SLT43570568	300 MARINE AVE WILMINGTON CA 90744	0.01 NW	48
134	ERNS	UNKNOWN 186491/UNKNOWN (NRC)	2001 E. JOHN GIBSON ST SAN PEDRO CA 90731	0.01 SE	49
135	SPILLS	DICHTER LUMBER SALES SLC40828	221 GULF AVENUE LOS ANGELES CA 90744	0.01 NW	50
135	UST	DIST and AUTO SERVICE CENTER INC TISID-STATE28279/ACTIVE	205 MATSONIA WILMINGTON CA 90744	0.01 SE	51
136	LUST	DICHTER LUMBER SALES, INC. T0603701675/CASE CLOSED	220 GULF AVE LOS ANGELES CA 90744	0.02 NW	52
137	UST	WILMINGTON DISTRIBUTION HQ TISID-STATE27212/ACTIVE	315 ISLAND WILMINGTON CA 90744	0.02 NW	53
138	UST	WILMINGTON SERVICE CENTER LACITY/CERTNO2344	315 N ISLAND AV WILMINGTON CA 90744	0.02 NW	53

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138	RCRAGN	WILMINGTON SERVICE CTR CAD983613431/SGN	315 N ISLAND AVE WILMINGTON CA 90744	0.02 NW	53
139	SPILLS	DICHTER LUMBER SALES G_SLT4L8281879	221 GULF AVE. LOS ANGELES CA 90744	0.02 NW	54
140	UST	TRANSIT CONTRACTORS TISID-STATE28332/ACTIVE	221 MAR VISTA WILMINGTON CA 90744	0.02 NW	55
141	ERNS	RYDER PUBLIC TRANS SERV 455188/FIXED FACILITY	221 MAR VISTA ST WILMINGTON CA 90744	0.02 NW	55
142	RCRAGN	TRANSIT CONTRACTS CAD981435902/SGN	221 MAR VISTA WILMINGTON CA 90744	0.02 NW	55
143	SPILLS	WILMINGTON TOWN LOT 510 G_SLT43512510	225 GULF AVE WILMINGTON CA 90744	0.02 NW	56
144	LUST	PAN PACIFIC CANNERY T0603701655/CASE CLOSED	545 FRIES AVE S WILMINGTON CA 90744	0.02 SE	57
145	UST	CALIFORNIA HOME BRANDS INC TISID-STATE4489/INACTIVE	545 FRIES WILMINGTON CA 90744	0.02 SE	57
146	RCRAGN	WILMINGTON INSTRUMENT CO CAD982048449/SGN	332 N FRIES AVE WILMINGTON CA 90744	0.03 NW	58
147	RCRAGN	GARIS COMPLETE AUTO REPAIR CAD982460990/SGN	330 MARINE AVE WILMINGTON CA 90744	0.03 NW	59
148	RCRAGN	ADVANCE AUTO CAD981444292/SGN	637 BATTERY ST SAN PEDRO CA 90731	0.04 NW	60
149	RCRAGN	HARBOR GENERATING STATION - LADWP CAD000633180/LGN	161 NORTH ISLAND AVENUE WILMINGTON CA 90744	0.04 SE	61
150	UST	HARBOR GENERATING STATION TISID-STATE4996/INACTIVE	161 ISLAND LOS ANGELES CA 90744	0.04 SE	61
151	UST	HARBOR GENERATING STATION AST11/AST SWRCB REG.4	161 N ISLAND AVE WILMINGTON CA 90744	0.04 SE	61
151	RCRAGN	LA BUNKER SURVEYORS CAD982350175/SGN	239 MAR CISTA AVE WILMINGTON CA 90744	0.04 NW	62
152	UST	GOLTEN MARINE CO INC/J R JOHNS TISID-STATE27511/ACTIVE	330 BROAD WILMINGTON CA 90744	0.04 NE	63
153	UST	GOLTEN MARINE CO INC/J R JOHNS LACTY/NONCRTFD227	330 N BROAD ST WILMINGTON CA 90744	0.04 NE	64
153	UST	GOLTEN MARINE CO INC/J R JOHNS LACITY/CERTNO2404	330 N BROAD ST WILMINGTON CA 90744	0.04 NE	64
154	RCRAGN	HARBOR WATER RECYCLE PROJECT - LAD CAR000088294/LGN	150 N NEPTUNE STREET WILMINGTON CA 90744	0.05 SE	65
155	RCRAGN	LA USD HARBOR OCCUPATIONAL CTR CAD981625080/SGN	740 N PACIFIC AVE SAN PEDRO CA 90731	0.06 SE	66

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156	UST	HARBOR OCCUPATIONAL/CENTER LACTY/NONCRTFD827	740 N PACIFIC AV SAN PEDRO CA 90731	0.06 SE	66
157	ERNS	EXXON 240343/PIPELINE RELATED	C STREET and NEPTUNE WILMINGTON CA 90744	0.07 SW	67
159	LUST	CHERON STATION 9-9747 T0603721231/LEAK BEING CONFIRMED	1105 GAFFEY STREET, NORTH SAN PEDRO CA 90731	0.07 SW	68
160	RCRAGN	LA PUMPING PLANT 66 CAD981986870/SGN	647 S FRIES AVE WILMINGTON CA 90744	0.07 SE	69
161	LUST	CHEVRON 9-9747 T0603701610/CASE CLOSED	1105 GAFFEY ST N TERMINAL ISLAN CA 90731	0.08 SW	70
162	RCRAGN	CHEVRON STATION NO 99747 CA0000889691/SGN	1105 N GAFFEY ST SAN PEDRO CA 90731	0.08 SW	70
163	UST	CHEVRON STATION 9-9747 LACITY/CERTNO2311	1105 N GAFFEY ST SAN PEDRO CA 90731	0.08 SW	70
164	LUST	ARCO 03069 T0603713907/POLLUTION CHARACTERI	701 W CHANNEL STREET SAN PEDRO CA 90731	0.08 SW	71
165	SWL	ROLL-AWAY DISPOSAL TS SWIS19-AA-1015/TO BE DETERMINED	790 BASIN ST SAN PEDRO CA 90731	0.08 -W	72
166	UST	KWANG HEE LEE TISID-STATE25924/ACTIVE	701 CHANNEL SAN PEDRO CA 90731	0.08 SW	73
167	LUST	ARCO 3069 907310234/CASE CLOSED	701 CHANNEL ST TERMINAL ISLAN CA 90731	0.08 SW	73
168	UST	ARCO SS 3069 LACITY/CERTNO2301	701 W CHANNEL ST SAN PEDRO CA 90731	0.08 SW	73
169	LUST	ARCO 3069 T0603701629/CASE CLOSED	701 CHANNEL ST TERMINAL ISLAN CA 90731	0.08 SW	73
170	SWL	EURECTEC-WILMINGTON SWIS19-TI-0032/CLOSED	444 N QUAY AVE UNIT 1 WILMINGTON CA 90744	0.08 NE	74
171	ERNS	NRC-641357/PIPELINE	100 LAKME BLVD WILMINGTON CA	0.08 NE	75
174	RCRAGN	STATE FISH PLANT 1 CAD983601840/SGN	1130 W C ST WILMINGTON CA 90744	0.09 NW	76
175	ERNS	EXXON (J. ODOM) 74173/UNKNOWN	C AND GULF STREETS WILMINGTON CA 90744	0.09 NW	77
175	ERNS	69029/UNKNOWN	C AND GULF STREETS WILMINGTON CA 90744	0.09 NW	77
176	RCRAGN	ADVANCE GERMAN CAR CAD981691827/SGN	1303 N GAFFEY ST SAN PEDRO CA 90731	0.09 NW	78
177	UST	SAN PEDRO RENTALS INCORPORATED TISID-STATE5272/INACTIVE	1303 GAFFEY SAN PEDRO CA 90731	0.09 NW	78

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178	LUST	SAN PEDRO RENTALS T0603701635/CASE CLOSED	1303 GAFFEY ST N SAN PEDRO CA 90731	0.09 NW	78
179	STATE	WORLD INTERNATIONAL CAL19470011/CERTIFIED	1000 WEST C STREET WILMINGTON CA 90744	0.09 NW	79
180	UST	MEMORIAL PARK DEVEL ASSN INC TISID-STATE5154/INACTIVE	718 BATTERY SAN PEDRO CA 90732	0.09 NW	80
181	LUST	PAUL IACONO STRUCTURAL ENG.INC T0603701646/CASE CLOSED	718 BATTERY ST W SAN PEDRO CA 90732	0.09 NW	80
182	UST	TAISEI-PANKOW TISID-STATE28308/ACTIVE	375 MATSONIA WILMINGTON CA 90744	0.10 SE	81
183	UST	TAISEI-PANKOW LACTY/NONCRTFD715	375 MATSONIA WY WILMINGTON CA 90744	0.10 SE	81
184	LUST	HARBOR DISTRICT FACILITIES T0603701642/CASE CLOSED	1400 GAFFEY ST N TERMINAL ISLAN CA 90731	0.10 NW	82
185	UST	GAFFEY STREET YARD LACITY/CERTNO2445	1400 N. GAFFEY ST. SAN PEDRO CA 90731	0.10 NW	82
185	UST	DAECO FUELS AND ENGINEERING CO LACTY/NONCRTFD363	201 W D ST WILMINGTON CA 90744	0.11 NW	83
186	UST	DAECO FUELS AND ENGINEERING CO TISID-STATE26325/ACTIVE	201 D WILMINGTON CA 90744	0.11 NW	83
187	UST	HARBOR ANIMAL SHELTER TISID-STATE26376/ACTIVE	735 BATTERY SAN PEDRO CA 90731	0.11 NW	84
188	RCRAGN	LA HARBOR ANIMAL SHELTER CAD981987951/SGN	735 BATTERY ST SAN PEDRO CA 90731	0.11 NW	84
189	SPILLS	WILMINGTON TOWN LOT 511 G_SLT43569567	315 MCDONALD AVE WILMINGTON CA 90744	0.11 NW	85
190	RCRAGN	LA FIRE STATION 49 CAD981962657/SGN	400 MATSONIA WAY WILMINGTON CA 90744	0.11 SE	86
191	UST	LOS ANGELES FIRE STATION 49 TISID-STATE26503/ACTIVE	400 MATSONIA WILMINGTON CA 90012	0.11 SE	86
192	RCRACOR	LAIDLAW ENVIRON SVCS OF CA INC CAD029654894/CA	221 E D ST WILMINGTON CA 90744	0.11 NE	87
194	RCRA	LAIDLAW ENVIRON SVCS OF CA INC CAD029654894/TSD	221 E D ST WILMINGTON CA 90744	0.11 NE	87
196	UST	ANTHONY CRANE RENTAL LP LACITY/CERTNO2449	221 E D ST WILMINGTON CA 90744	0.11 NE	87
196	RCRAGN	LAIDLAW ENVIRON SVCS OF CA INC CAD029654894/SGN	221 E D ST WILMINGTON CA 90744	0.11 NE	87
197	LUST	LAIDLAW ENVIRONMENTAL SERVICES T0603701650/CASE CLOSED	221 D ST E WILMINGTON CA 90744	0.11 NE	87

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198	UST	ANTHONY CRANE RENTAL LP AST101317/AST SWRCB REG.4	221 E D ST WILMINGTON CA 90744	0.11 NE	87
198	UST	GSX SERVICES OF CALIFORNIA, IN TISID-STATE25732/ACTIVE	221 D WILMINGTON CA 90744	0.11 NE	87
199	UST	JOHN L MEEK CONSTRUCTION CO TISID-STATE4747/INACTIVE	1032 C WILMINGTON CA 90744	0.11 NW	88
200	LUST	ROCKET 5 T0603701659/POLLUTION CHARACTERI	302 FIGUEROA ST N WILMINGTON CA 90744	0.11 NW	89
201	UST	GARIN OIL COMPANY 5 LACTY/NONCRTFD431	302 N FIGUEROA ST WILMINGTON CA 90744	0.11 NW	89
201	UST	GARIN OIL COMPANY 5 TISID-STATE26054/ACTIVE	302 FIGUEROA WILMINGTON CA 90744	0.11 NW	89
202	RCRAGN	AVALON ENGINE REBUILDERS CAD982047573/SGN	411 N AVALON WILMINGTON CA 90744	0.11 NW	90
203	SPILLS	WILMINGTON TOWN LOT 439 G_SLT43489487	410 FRIES AVE WILMINGTON CA 90744	0.12 NW	91
204	ERNS	EXXON 167664/FIXED FACILITY	325 MCDONNEL STREET WILMINGTON CA 90744	0.12 NW	92
205	SPILLS	WILMINGTON TOWN LOT 439 SLC40655K8	410 FRIES AVENUE WILMINGTON CA 90744	0.12 NW	93
205	UST	DISTRIBUTION/AUTO SERVICES INC LACITY/CERTNO2419	500 E WATER ST LOS ANGELES CA 90744	0.12 SE	94
206	RCRAGN	KRUPP MAK CAD983645300/SGN	729 BASIN ST SAN PEDRO CA 90731	0.12 NW	95
207	RCRAGN	GAFFEY STREET YARD CAD981575897/LGN	1400 NORTH GAFFEY STREET SAN PEDRO CA 90731	0.12 NW	96

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208	SPILLS	WILMINGTON TOWN LOT 273 G_SLT43551549	948 N. MCDONALD AVE WILMINGTON CA 90744	NON GC	
208	SPILLS	WILMINGTON TOWN LOT 080 G_SLT43413411	LAGOON AVE WILMINGTON CA 90744	NON GC	
209	SPILLS	WILMINGTON TOWN LOT 108 G_SLT43415413	MCDONALD AVE WILMINGTON CA 90744	NON GC	
209	SPILLS	WILMINGTON TOWN LOT 110 G_SLT43416414	MCDONALD AVE WILMINGTON CA 90744	NON GC	
210	SPILLS	WILMINGTON TOWN LOT 137 G_SLT43537535	1261-1265 N. BROAD AVE WILMINGTON CA 90744	NON GC	
210	ERNS	EXXON/GREG MANUEL 131604/UNKNOWN	WELL 973 ON MCDONALD ST/*8 WILMINGTON CA	NON GC	
211	RCRANLR	BANNING ELEMENTARY SCHOOL CAR000126847/NLR	500 N ISLAND AVE LOS ANGELES CA 90744	NON GC	
211	RCRAGN	LOS ANGELES POLICE DEPT HARBOR RAN CAR000156653/SGN	2981 N GAFFEY AVE SAN PEDRO CA 90731	NON GC	
212	RCRAGN	ORYX M WILMINGTON CAT000617811/SGN	NO. WILMINGTON UNIT L.A. CO WILMINGTON CA 90744	NON GC	
213	SPILLS	WILMINGTON TOWN LOT 154 G_SLT43422420	MCDONALD AVE WILMINGTON CA 90744	NON GC	
213	SPILLS	WILMINGTON TOWN LOT 285 G_SLT43447445	ISLAND AVE WILMINGTON CA 90744	NON GC	
214	SPILLS	WILMINGTON TOWN LOT 008 G_SLT43396394	MCDONALD AVE WILMINGTON CA 90744	NON GC	
214	SPILLS	WILMINGTON TOWN LOT 307 SLC40655G5	LAKME AVENUE WILMINGTON CA 90744	NON GC	
215	RCRAGN	BANNING ELEMENTARY SCHOOL CAR000126847/LGN	500 N ISLAND AVE LOS ANGELES CA 90744	NON GC	
216	UST	PORT OF LOS ANGELES TISID-STATE25860/ACTIVE	BERTH 161 PIER A ST WILMINGTON CA 90744	NON GC	
217	RCRAGN	PORT OF LOS ANGELES - BERTH 161 ON CAD021863964/LGN	500 PIER A STREET WILMINGTON CA 90744	NON GC	
218	SWL	EDMISTON DUMP WMUD4 190013NUR	189TH and FIGUEROA STREET WILMINGTON CA	NON GC	
219	SPILLS	FORMER CHEVRON MARINE TERMINAL G_SL0603707909	1510 SWINFORD STREET SAN PEDRO CA 90731	NON GC	
219	SPILLS	WILMINGTON TOWN LOT 221 G_SLT43438436	ISLAND AVE WILMINGTON CA 90744	NON GC	
220	SPILLS	WILMINGTON TOWN LOT 285 SLC40655G1	ISLAND AVENUE WILMINGTON CA 90744	NON GC	

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220	SPILLS	WILMINGTON TOWN LOT 307 G_SLT43451449	LAKME AVE WILMINGTON CA 90744	NON GC	
221	OTHER	UNION OIL CO OF CA LA MARINE TERMI CAL19281189/REFER: OTHER AGENCY	BERTH 150 PIER A ST (BERTHS WILMINGTON CA 90744	NON GC	
222	RCRAGN	CONOCOPHILLIPS LAR, MARINE TERMINA CAT000611228/LGN	BERTH 151 PIER A STREET WILMINGTON CA 90744	NON GC	
224	ERNS	NRC-854289/STORAGE TANK	401 CANAL AVE WILMINGTON CA 90744	NON GC	
225	STATE	SOUTH REGION SPAN K-8 1, SITE 15 CAL60000421/ACTIVE	EAST M STREET/NORTH AVALON LOS ANGELES CA 90744	NON GC	
226	ERNS	WESTERN FUEL OIL CO. 216989/PIPELINE RELATED	I-110 ACROSS FROM 2100 N. G SAN PEDRO CA 90731	NON GC	
228	ERNS	UNOCAL REFINERY 393517/UNKNOWN (EPA REGIONS	WEST BASIN CHANNEL, LA (CHA SAN PEDRO CA 90731	NON GC	
229	UST	KEEP ON TRUCKING CO INC LACTY/NONCRTFD532	607 W HARRY BRIDGES ST SAN PEDRO CA 90731	NON GC	
229	ERNS	UNION PACIFIC RESOURCE *87 74364/UNKNOWN	UNION PACIFIC RESOURCE *87 WILMINGTON CA	NON GC	
230	ERNS	UNION PACIFIC RESOURCES 74609/UNKNOWN	UNION PACIFIC RESOURCES WILMINGTON CA	NON GC	
231	ERNS	UNION PACIFIC RESOURCES 239082/FIXED FACILITY	UNION PACIFIC RESOURCES ON SAN PEDRO CA 90731	NON GC	
233	ERNS	UNION PACIFIC RESOURCES 256677/FIXED FACILITY	WELL M-F 28B WILMINGTON LEA WILMINGTON CA	NON GC	
235	ERNS	RP=UNK 22020/UNKNOWN	BERTH - 149 + 150/WILMINGTO WILMINGTON CA	NON GC	
236	ERNS	WEST BASIN NRC-537398/FIXED	BERTH 149 PIER A STREET WILMINGTON CA	NON GC	
239	ERNS	TIDELANDS OIL CO 238283/FIXED FACILITY	WELL UP406, WILMINGTON FIE WILMINGTON CA	NON GC	
241	ERNS	101897/UNKNOWN	GULF AND WILMINGTON AVE PRO WILMINGTON CA	NON GC	
241	ERNS	69362/UNKNOWN	UNION PACIFIC RESOURCES REF WILMINGTON CA	NON GC	
242	ERNS	111139/UNKNOWN	CORNER OF WATER AND CANAL S WILMINGTON CA	NON GC	
242	ERNS	111138/UNKNOWN	CORNER OF WATER AND CANAL S WILMINGTON CA	NON GC	
243	ERNS	NRC-641050/FIXED	WILMINGTON ASPHALT PLANT 16 WILMINGTON CA	NON GC	

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246	ERNS	NRC-789778/PIPELINE	1200 N. ISLAND AVE. WILMINGTON CA	NON GC	
249	ERNS	7631/UNKNOWN	AT BERTH 179 IN WILMINGTON WILMINGTON CA	NON GC	
250	ERNS	ZIMM SHIPPING COMPANY 466406	PORT OF LA BERTH 146 370 WE WILMINGTON CA 90744	NON GC	
252	ERNS	WICKLAND OIL COMPANY 217056/UNKNOWN (NRC)	FRIGATE STREET BETWEEN PACI WILMINGTON CA	NON GC	
254	ERNS	NRC-841263/STORAGE TANK	401 CANAL ST WILMINGTON CA 90744	NON GC	
254	ERNS	FLETCHER OIL (D LUEBECKE) 56831/UNKNOWN	1500 S OF LOMITA AVE WILMIN WILMINGTON CA	NON GC	
255	SPILLS	WILMINGTON TOWN LOT 209 G_SLT43434432	WILMINGTON BLVD WILMINGTON CA 90744	NON GC	
255	SPILLS	WILMINGTON TOWN LOT 187 G_SLT43431429	LAKME AVE WILMINGTON CA 90744	NON GC	
256	SPILLS	WILMINGTON TOWN LOT 185 G_SLT43430428	BROAD AVE WILMINGTON CA 90744	NON GC	
256	SPILLS	WILMINGTON TOWN LOT 168 G_SLT43428426	ISLAND AVE WILMINGTON CA 90744	NON GC	
257	ERNS	FLETCHER OIL 215407/UNKNOWN (NRC)	WILMINGTON BLVD M ST. WILMINGTON CA 90744	NON GC	
259	ERNS	NRC-853866/STORAGE TANK	161 NORTH ISLAND AVENUE WILMINGTON CA 90744	NON GC	
259	NFRAP	UNION OIL CO OF CA LA REF MARINE T CAT000611228/NFRAP-N	BERTH 150 PIER A ST WILMINGTON CA 90744	NON GC	
260	ERNS	WICKLAND OIL 203484/PIPELINE RELATED	ALLEYWAY BET. WILMINGTON BL WILMINGTON CA 90744	NON GC	
262	RCRAGN	CALTRANS VINCENT THOMAS BR CAR000031021/SGN	VINCENT THOMAS BR L A HWY 4 SAN PEDRO CA 90731	NON GC	
263	STATE	UNION OIL CO OF CA LA MARINE TERMI CAL19281189/PROPERTY/SITE REFERR	BERTH 150 PIER A ST (BERTHS WILMINGTON CA 90744	NON GC	
266	ERNS	EXXON 493049/FIXED FACILITY	WILMINGTON TOWN LOT UNIT, W WILMINGTON CA 90744	NON GC	
267	SPILLS	ACTA PARCEL LBX-880 G_SL0603710201	SOUTHERN PACIFIC DRIVE WILMINGTON CA	NON GC	
268	ERNS	GATX 597897/PIPELINE RELATED	JOHN GIBSON BLVD and FIGUER WILMINGTON CA	NON GC	
269	ERNS	HARBOR GENERATING STATION NRC-820141/STORAGE TANK	161 N. ISLAND AVE. WILMINGTON CA	NON GC	

Environmental FirstSearch
Sites Summary Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

TOTAL: 262 **GEOCODED:** 194 **NON GEOCODED:** 68 **SELECTED:** 0

Page No.	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
272	ERNS	HARBOR GENERATION STATION NRC-705883/FIXED	161 NORTH ISLAND AVE WILMINGTON CA	NON GC	
275	ERNS	SOUTHERN PACIFIC RAILROAD 297649/RAILROAD	HARBOR FREEWAY AT SOUTHERN WILMINGTON CA 90744	NON GC	
277	SPILLS	WILMINGTON TOWN LOT 038 G_SLT43404402	MCDONALD AVE WILMINGTON CA 90744	NON GC	
277	SPILLS	WILMINGTON TOWN LOT 033 G_SLT43401399	MCDONALD AVE WILMINGTON CA 90744	NON GC	
278	SPILLS	ACTA PARCEL LBX-880 G_SL0603774154	SOUTHERN PACIFIC WILMINGTON CA	NON GC	
279	ERNS	TB PROPERTIES 493245/FIXED FACILITY	WILMINGTON OIL FIELD, COMMO WILMINGTON CA	NON GC	
280	ERNS	EXXON/J MARCHESSI 117298/UNKNOWN	N OF M ST BETWEEN AVALON an WILMINGTON CA	NON GC	
281	ERNS	DEDICATED TRANSPORT 200761/HIGHWAY RELATED	91 FREEWAY AT WILMINGTON WILMINGTON CA 90744	NON GC	

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 29 **DIST/DIR:** 0.00 -- **MAP ID:** 1

NAME:	METROPOLITAN STEVEDORE	**REV:**	6/6/06
ADDRESS:	211 MARINE AVE	**ID1:**	CAD045231990
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	SGN
CONTACT:	ENVIRONMENTAL MANAGER	**PHONE:**	2138306220

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
211 MARINE AVE
WILMINGTON CA 90744

PHONE: 2138306220

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 155 **DIST/DIR:** 0.00 -- **MAP ID:** 1

NAME:	METROPOLITAN STEVEDORE COMPANY	**REV:**	01/01/94
ADDRESS:	211 MARINE	**ID1:**	TISID-STATE4569
	WILMINGTON CA 90744	**ID2:**	
	Los Angeles	**STATUS:**	INACTIVE
CONTACT:		**PHONE:**	

UST HISTORICAL DATA

This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names and locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.

The UST information included in FIDS as provided by the Office of Hazardous Data Management was originally collected from the SWEEPS database. The SWEEPS database recorded Underground Storage Tanks and was maintained by the State Water Resources Control Board (SWRCB). That agency no longer maintains the SWEEPS database and last updated it in 1994. The last release of that 1994 database was in 1997.

Oversight of Underground Storage Tanks within California is now conducted by Certified Unified Program Agencies referred to as CUPA s. There are approximately 102 CUPA s and Local Oversight Programs (LOP s) in the State of California. Most are city or county government agencies. As of 1998, all sites or facilities with underground storage tanks were required by Federal mandate to obtain certification by designated UST oversight agencies (in this case, CUPA s) that the UST/s at their location were upgraded or removed in adherence with the 1998 RCRA standards.

Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by Track Info Services. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 153 **DIST/DIR:** 0.00 -- **MAP ID:** 2

NAME:	MARINE TANK FARM	**REV:**	05/30/01
ADDRESS:	130 W A ST	**ID1:**	AST12
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	AST SWRCB REG.4
CONTACT:		**PHONE:**	

CALIFORNIA ABOVEGROUND PETROLEUM STORAGE TANKS INFORMATION LIST

As reported by the responsible agency, there are currently no details associated with this record.

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 73 **DIST/DIR:** 0.00 -- **MAP ID:** 2

NAME: LOS ANGELES DEPT OF WATER
ADDRESS: 130 WEST A STREET
WILMINGTON CA
Los Angeles
CONTACT:

REV: 5/11/99
ID1: 621276
ID2:
STATUS: FIXED FACILITY
PHONE:

SPILL INFORMATION
DATE OF SPILL: 5/11/1999 **TIME OF SPILL:** 0001

PRODUCT RELEASED (1): OIL, MISC: LUBRICATING
QUANTITY (1): 500
UNITS (1): BBL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: NO **FIXED FACILITY:** NO
WATER: NO **OTHER:** YES
WATERBODY AFFECTED BY RELEASE: CONCRETE IN PLANT

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** NO
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: RELEASE IS SECURED / ALL MATERIAL CONTAINED ON SITE / CLEANUP CREWS ARE RESPONDING WILL USE VAC TRUCKS
RELEASE DETECTION: PIPELINE RUPTURE CONNECTED TO TANK / CAUSE UNKNOWN / CAPACITY OF TANK UNKNOWN
MISC. NOTES: AREA AFFECTED: CONTAINMENT AREA UNKNOWN ALL ON SITE NO WATER AFFECTED CALLERS RESPONSE PHONE NUMBER IS 562 425 7870

DISCHARGER INFORMATION
DISCHARGER ID: 621276
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: LOS ANGELES DEPT OF WATER
ADDRESS: 1111 NORTH HOPE ST
LOS ANGELES CA 90012

DUN and BRADSTREET :

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 13 **DIST/DIR:** 0.00 -- **MAP ID:** 2

NAME:	DEPT WATER and POWER	**REV:**	1/14/02
ADDRESS:	130 W A ST	**ID1:**	CAR000087981
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	SGN
CONTACT:	BARRY ONELL	**PHONE:**	8003425397

SITE INFORMATION

CONTACT INFORMATION: BARRY ONELL
SPVR
130 W A ST
WILMINGTON CA 90744

PHONE: 8003425397

UNIVERSE NAME:

SGN: GENERATES 100 - 1000 KG/MONTH OF HAZARDOUS WASTE

SIC INFORMATION:

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 38 **DIST/DIR:** 0.00 -- **MAP ID:** 2

NAME:	ULTRAMAR INC MARINE TANK FARM	**REV:**	6/6/06
ADDRESS:	130 W A ST	**ID1:**	CAR000095125
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	LGN
CONTACT:	DAVID BERNSTEIN	**PHONE:**	5624955490

SITE INFORMATION

CONTACT INFORMATION: DAVID BERNSTEIN
2402 E ANAHEIM ST
WILMINGTON CA 90744

PHONE: 5624955490

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

Tank bottoms (leaded) from the petroleum refining industry.
Ignitable waste
Slop oil emulsion solids from the petroleum refining industry.

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRANLR

SEARCH ID: 45 **DIST/DIR:** 0.00 -- **MAP ID:** 2

NAME:	DEPT WATER and POWER	**REV:**	6/6/06
ADDRESS:	130 W A ST	**ID1:**	CAR000087981
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	NLR
CONTACT:	MICHAEL HANSON	**PHONE:**	2133670634

SITE INFORMATION

CONTACT INFORMATION: MICHAEL HANSON
P O BOX 51111
LOS ANGELES CA 900510100

PHONE: 2133670634

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

Tetrachloroethylene
Ignitable waste

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRANLR

SEARCH ID: 44 **DIST/DIR:** 0.00 -- **MAP ID:** 3

NAME:	CAVANAUGH MACHINE WORKS	**REV:**	6/6/06
ADDRESS:	220 EAST B ST	**ID1:**	CAD982329112
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	NLR
CONTACT:	JOHN WEBER	**PHONE:**	5624371126

SITE INFORMATION

CONTACT INFORMATION: JOHN WEBER
1540 SANTA FE AVE
LONG BEACH CA 90813

PHONE: 5624371126

UNIVERSE INFORMATION:

NAIC INFORMATION

333319 - OTHER COMMERCIAL AND SERVICE INDUSTRY MACHINERY MANUFACTURING

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 170 **DIST/DIR:** 0.00 -- **MAP ID:** 4

NAME: WILMINGTON IRON WORKS INC
ADDRESS: 432 C
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 01/01/94
ID1: TISID-STATE4724
ID2:
STATUS: INACTIVE
PHONE:

UST HISTORICAL DATA

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Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

LUST

SEARCH ID: 189 **DIST/DIR:** 0.00 -- **MAP ID:** 4

NAME: WILMINGTON IRON WORKS
ADDRESS: 432 C ST W
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 10/18/07
ID1: T0603701665
ID2:
STATUS: CASE CLOSED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

Please note that some data previously provided by the State Water Resources Control Board in the LUSTIS database is not currently being provided by the agency in the most recent edition. Incidents that occurred after the year 2000 may not have much information. Field headers with blank information following after should be interpreted as unreported by the agency.

LEAD AGENCY: *REGIONAL BOARD*
REGIONAL BOARD: *04*
LOCAL CASE NUMBER:
RESPONSIBLE PARTY: *WILMINGTON IRON WORKS*
ADDRESS OF RESPONSIBLE PARTY: *432 WEST C ST., WILMINGTON, CA 90744*
SITE OPERATOR: *OLD CASE 011791-02*
WATER SYSTEM:

CASE NUMBER: *907440207M*
CASE TYPE: *OTHER*
SUBSTANCE LEAKED: *BENZENE*
SUBSTANCE QUANTITY:
LEAK CAUSE: *UNKNOWN*
LEAK SOURCE: *UNKNOWN*
HOW LEAK WAS DISCOVERED:
DATE DISCOVERED (blank if not reported):
HOW LEAK WAS STOPPED:
STOP DATE (blank if not reported):
STATUS: *CASE CLOSED*
ABATEMENT METHOD (please note that not all code translations have been provided by the reporting agency):
ENFORCEMENT TYPE (please note that not all code translations have been provided by the reporting agency):
DATE OF ENFORCEMENT (blank if not reported):

ENTER DATE (blank if not reported): *1991-01-17*
REVIEW DATE (blank if not reported): *1997-12-30*
DATE OF LEAK CONFIRMATION (blank if not reported):
DATE PRELIMINARY SITE ASSESSMENT PLAN WAS SUBMITTED (blank if not reported):
DATE PRELIMINARY SITE ASSESSMENT PLAN BEGAN (blank if not reported): *1989-05-31*
DATE POLLUTION CHARACTERIZATION PLAN BEGAN (blank if not reported):
DATE REMEDIATION PLAN WAS SUBMITTED (blank if not reported):
DATE REMEDIAL ACTION UNDERWAY (blank if not reported):
DATE POST REMEDIAL ACTION MONITORING BEGAN (blank if not reported):
DATE CLOSURE LETTER ISSUED (SITE CLOSED) (blank if not reported): *1997-10-28*
REPORT DATE (blank if not reported): *1990-11-07*

MTBE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

MTBE DATE(Date of historical maximum MTBE concentration): *1965-01-01*
MTBE GROUNDWATER CONCENTRATION (parts per billion): *ND*
MTBE SOIL CONCENTRATION (parts per million):
MTBE CNTS: *1*
MTBE FUEL: *0*
MTBE TESTED: *YES*
MTBE CLASS: *

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 41 **DIST/DIR:** 0.00 -- **MAP ID:** 4

NAME:	WILMINGTON IRON WORKS	**REV:**	6/6/06
ADDRESS:	432 WEST C ST	**ID1:**	CAR000015040
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	SGN
CONTACT:	WILLIAM BRADSHAW	**PHONE:**	3105183213

SITE INFORMATION

CONTACT INFORMATION: WILLIAM BRADSHAW
432 WEST C ST
WILMINGTON CA 90744

PHONE: 3105183213

UNIVERSE INFORMATION:

NAIC INFORMATION

336611 - SHIP BUILDING AND REPAIRING

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 39 **DIST/DIR:** 0.00 -- **MAP ID:** 5

NAME:	UNITED CHECKER CAB	**REV:**	6/6/06
ADDRESS:	117 WEST B ST	**ID1:**	CAD982320731
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	SGN
CONTACT:	ENVIRONMENTAL MANAGER	**PHONE:**	2135496900

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
117 WEST B ST
WILMINGTON CA 90744

PHONE: 2135496900

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 88 **DIST/DIR:** 0.00 -- **MAP ID:** 6

NAME:
ADDRESS: 920 WEST B STREET
WILMINGTON CA 90744
LOS ANGELES
CONTACT: UNKNOWN

REV: 12/31/00
ID1: NRC-535438
ID2:
STATUS: STORAGE TANK
PHONE:

SITE INFORMATION

THIS INFORMATION WAS OBTAINED FROM THE NATIONAL RESPONSE CENTER

DATE RECEIVED:	14-JUL-00	**DATE COMPLETE:**	14-JUL-00
CALL TAKER:	JVT9878	**CALL TYPE:**	INC

RESPONSIBLE PARTY: UNKNOWN
PHONE 1:
PHONE 2:
PHONE 3:

RESPONSIBLE COMPANY:
ORGANIZATION TYPE: UNKNOWN

ADDRESS:
XX

INITIALLY REPORTED BY:
PHONE:

INIT REPORTED COMPANY:
ON BEHALF OF: N
SOURCE: UNAVAILABLE

INCIDENT INFORMATION

INCIDENT DESCRIPTION: CALLER STATED THERE IS A FLAMMABLE MATERIAL SPILLING OUT OF A 40 FOOT CONTAINER. CAUSE OF SPILL IS UNKNOWN.

INCIDENT TYPE:	STORAGE TANK	**INCIDENT CAUSE:**	UNKNOWN
INCIDENT DATE:	14-JUL-00	**INCIDENT DATE DESC:**	DISCOVERED
DISTANCE FROM CITY:		**DISTANCE UNITS:**	
DIRECTION FROM CITY:		**LOCATION SECTION:**	
LOCATION TOWNSHIP:		**LOCATION RANGE:**	
WMD CHEM FLAG:	F	**RAD FLAG:**	F
BIO FLAG:	F	**OIL FLAG:**	
POTENTIAL_FLAG:		**AMT MATERIAL FLAG:**	
MILITARY ORG FLAG:		**LNG FLAG:**	
AIRCRAFT TYPE:		**AIRCRAFT MODEL:**	
AIRCRAFT ID:		**AIRCRAFT FUEL CAPACITY:**	
AIRCRAFT FUEL CAPACITY UNITS:		**AIRCRAFT FUEL ON BOARD:**	
AIRCRAFT FUEL ON BOARD UNITS:		**AIRCRAFT SPOT NUMBER:**	
AIRCRAFT HANGER:		**AIRCRAFT RUNWAY NUM:**	
ROAD MILE MARKER:		**BUILDING ID:**	
TYPE OF FIXED OBJECT:		**POWER GEN FACILITY:**	U
GENERATING CAPACITY:		**TYPE OF FUEL:**	
NPDES:		**NPDES COMPLIANCE:**	U

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 88 **DIST/DIR:** 0.00 -- **MAP ID:** 6

NAME:
ADDRESS: 920 WEST B STREET
WILMINGTON CA 90744
LOS ANGELES
CONTACT: UNKNOWN

REV: 12/31/00
ID1: NRC-535438
ID2:
STATUS: STORAGE TANK
PHONE:

PIPELINE TYPE:		**DOT REGULATED:**	U
PIPELINE ABOVE GROUND:	ABOVE	**EXPOSED UNDERWATER:**	N
PIPELINE COVERED:	U	**RAILROAD HOTLINE:**	N
GRADE CROSSING:	N	**LOCATION SUBDIVISION:**	
RAILROAD MILEPOST:		**TYPE VEHICLE INVOLVED:**	
CROSSING DEVICE TYPE:		**DEVICE OPERATIONAL:**	Y
DOT CROSSING NUMBER:		**BRAKE FAILURE:**	N
TANK ABOVE GROUND:	ABOVE	**TRANSPORTABLE CONTAINER:**	Y
TANK REGULATED:	U	**TANK REGULATED BY:**	
TANK ID:	UNKNOWN	**CAPACITY OF TANK:**	55
CAPACITY OF TANK UNITS:	GALLON(S)	**ACTUAL AMOUNT:**	55
ACTUAL AMOUNT UNITS:	GALLON(S)	**PLATFORM RIG NAME:**	
PLATFORM LETTER:		**LOCATION AREA ID:**	
LOCATION BLOCK ID:			
DESCRIPTION OF TANK:	55 GALLON DRUMS		
OCSG NUMBER:		**OCSP NUMBER:**	
STATE LEASE NUMBER:		**PIER DOCK NUMBER:**	
BERTH SLIP NUMBER:		**CONTIN RELEASE TYPE:**	
INITIAL CONT RELEASE NUM:		**CONT RELEASE PERMIT:**	
ALLISION:	N	**TYPE OF STRUCTURE:**	
STRUCTURE NAME:		**STRUCT OPERATIONAL:**	U
AIRBAG DEPLOYED:		**DATE NORMAL SERVICE:**	
SERVICE DISRUPT TIME:		**SERVICE DISRUPT UNITS:**	
TRANSIT BUS FLAG:		**CR BEGIN DATE:**	
CR END DATE:		**CR CHANGE DATE:**	
FIRE INVOLVED:	N	**FIRE EXTINGUISHED:**	U
ANY EVACUATIONS:	N	**NUMBER EVACUATED:**	
WHO EVACUATED:		**RADIUS OF EVACUATION:**	
ANY INJURIES:	N	**NUMBER INJURED:**	
NUMBER HOSPITALIZED:		**ANY FATALITIES:**	N
NUMBER FATALITIES:		**ANY DAMAGES:**	N
DAMAGE AMOUNT:		**AIR CORRIDOR CLOSED:**	N
AIR CORRIDOR DESC:		**AIR CLOSURE TIME:**	
WATERWAY CLOSED:	N	**WATERWAY DESC:**	
WATERWAY CLOSURE TIME:		**ROAD CLOSED:**	N
ROAD DESC:		**ROAD CLOSURE TIME:**	
CLOSURE DIRECTION:		**MAJOR ARTERY:**	N
TRACK CLOSED:	N	**TRACK DESC:**	
TRACK CLOSURE TIME:		**MEDIA INTEREST:**	NONE
MEDIUM DESC:	LAND	**ADDTL MEDIUM INFO:**	ASPHALT
BODY OF WATER:		**TRIBUTARY OF:**	
NEAREST RIVER MILE MARK:		**RELEASE SECURED:**	N
EST DUR OF RELEASE:		**RELEASE RATE:**	
TRACK CLOSE DIR:		**ST AGENCY ON SCENE:**	FIRE
ST AGENCY RPT NUM:		**OTHER AGENCY NOTIFIED:**	
WEATHER CONDITIONS:		**AIR TEMPERATURE:**	
WIND SPEED:		**WIND DIRECTION:**	
WATER SUPPLY CONTAM:	U	**SHEEN SIZE:**	

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 88 **DIST/DIR:** 0.00 -- **MAP ID:** 6

NAME:
ADDRESS: 920 WEST B STREET
WILMINGTON CA 90744
LOS ANGELES
CONTACT: UNKNOWN

REV: 12/31/00
ID1: NRC-535438
ID2:
STATUS: STORAGE TANK
PHONE:

SHEEN COLOR:
SHEEN ODOR DESCRIPTION:
CURRENT SPEED:
WATER TEMPERATURE:
DIR OF SHEEN TRAVEL:
WAVE CONDITION:
CURRENT DIRECTION:

DESC OF REMEDIAL ACTION: ABSORBENTS APPLIED,CONTRACTOR HAS BEEN HIRED; ANCON ENVIRONMENTAL

EMPL FATALITY:		**PASS FATALITY:**	
COMMUNITY IMPACT:	N	**WIND SPEED UNITS:**	
EMPLOYEE INJURIES:		**PASSENGER INJURIES:**	
OCCUPANT FATALITY:		**CURRENT SPEED UNITS:**	M
ROAD CLOSURE UNITS:		**TRACK CLOSURE UNITS:**	
SHEEN SIZE UNITS:		**STATE AGENCY NOTIFIED:**	FIRE
FED AGENCY NOTIFIED:	MSO LA/LB	**STRUCTURE NAME:**	
TYPE OF STRUCTURE:		**ALLISION:**	
STRUCTURE OPERATIONAL:		**NEAREST RIVER MILE MARK:**	
SHEEN SIZE LENGTH:		**SHEEN SIZE LENGTH UNITS:**	
SHEEN SIZE WIDTH:		**SHEEN SIZE WIDTH UNITS:**	
OFFSHORE:	N	**DURATION UNIT:**	
RELEASE RATE UNIT:		**RELEASE RATE RATE:**	

ADDITIONAL INFO: CALLER HAD NO ADDITIONAL INFORMATION.

MATERIAL INFORMATION

CHRIS CODE:	NCC	**CASE NUMBER:**	000000-00-0
UN NUMBER:		**REACHED WATER:**	NO

NAME OF MATERIAL: 3.3 FLAMMABLE LIQUID
AMOUNT OF MATERIAL: 0 UNKNOWN AMOUNT
AMOUNT IN WATER:

OTHER MATERIAL INFORMATION

MOBILE DETAILS INFORMATION

TRAIN INFORMATION

VESSEL INFORMATION

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 36 **DIST/DIR:** 0.00 -- **MAP ID:** 6

NAME:	TRANS PACIFIC CONTAINER SVC	**REV:**	6/6/06
ADDRESS:	920 W B ST	**ID1:**	CAD983581968
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	SGN
CONTACT:		**PHONE:**	

SITE INFORMATION

CONTACT INFORMATION: PAUL RICHEY
920 W B ST
WILMINGTON CA 90744

PHONE: 2135137417

UNIVERSE INFORMATION:

NAIC INFORMATION

48832 - MARINE CARGO HANDLING

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 80 **DIST/DIR:** 0.00 -- **MAP ID:** 6

NAME: TRANS-PACIFIC CONTAINER
ADDRESS: 920 WEST B STREET
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 9/28/94
ID1: 395693
ID2:
STATUS: HIGHWAY RELATED
PHONE:

SPILL INFORMATION
DATE OF SPILL: 9/28/1994 **TIME OF SPILL:** 1600

PRODUCT RELEASED (1): ETHANOL (UN 1170)
QUANTITY (1): 5
UNITS (1): GAL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: ASPHALT

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** NO
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: RELEASE ONGOING/ABSORBENTS USED/CREWS ON SITE
RELEASE DETECTION: INTERMODAL LIQUID TANK/LEAKED DUE TO UNKNOWN CAUSES
MISC. NOTES: AREA AFFECTED 5 DIA/TANKS CONTAINS APPROX 2500 GAL

DISCHARGER INFORMATION
DISCHARGER ID: 395693
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: TRANS-PACIFIC CONTAINER
ADDRESS: 920 WEST B STREET
WILMINGTON CA 90744

DUN and BRADSTREET :

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 89 **DIST/DIR:** 0.00 -- **MAP ID:** 7

NAME:
ADDRESS: B ST AND BROAD ST WATER INJECTION WELL 23
WILMINGTON CA
Los Angeles
CONTACT:

REV:
ID1: 53366
ID2:
STATUS: UNKNOWN
PHONE:

CERCLIS (Y/N):

MAT: PRODUCE SALT WATER **QUANT:** 1 BARRELS

LOCATION: B ST AND BROAD ST WATER INJECTION WELL 23
CITY: **REPORTED:** 03/17/88

SOURCE: UNKNOWN **MEDIUM:** WATER
PACKER LEAK IN INJECTION WELL AND OVER RAN WELL CELLAR.
CAUSE: UNKNOWN

ACT: SHUT THE WELL IN AND STARTED CLEAN UP.
BY:

ERNS

SEARCH ID: 50 **DIST/DIR:** 0.00 -- **MAP ID:** 7

NAME: AM PUMPING CO O CONNOR
ADDRESS: BROAD ST AT B ST
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV:
ID1: 105380
ID2:
STATUS: UNKNOWN
PHONE:

THERE ARE NO DETAILS AVAILABLE FOR THIS SITE

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 81 **DIST/DIR:** 0.00 -- **MAP ID:** 7

NAME: UNK
ADDRESS: B ST AND BROAD ST
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV:
ID1: 105317
ID2:
STATUS: UNKNOWN
PHONE:

THERE ARE NO DETAILS AVAILABLE FOR THIS SITE

UST

SEARCH ID: 159 **DIST/DIR:** 0.00 -- **MAP ID:** 8

NAME: PORT OF LA
ADDRESS: 217 N LAGOON
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 12/01/2000
ID1: LACTY/NONCRTFD2003
ID2:
STATUS:
PHONE:

DETAILS NOT AVAILABLE

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

OTHER

SEARCH ID: 110 **DIST/DIR:** 0.00 -- **MAP ID:** 8

NAME:	CALIFORNIA SALVAGE OCEAN DUMPING	**REV:**	08/07/07
ADDRESS:	217 NORTH LAGOON AVENUE	**ID1:**	CAL19420001
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	REFER: OTHER AGENCY
CONTACT:		**PHONE:**	

GENERAL SITE INFORMATION

Site Type:	*Historical*
Status:	*Refer: Other Agency*
Status Date:	*1984-03-06 00:00:00*
NPL Site:	*NO*
Funding:	
Regulatory Agencies Involved:	*NONE SPECIFIED*
Lead Agency:	*NONE SPECIFIED*
Project Manager:	
Supervisor:	*Referred - Not Assigned*
Branch:	*So Cal - Cypress*
Acres:	
Assessor s Parcel Number:	*NONE SPECIFIED*
Past Uses:	*NONE SPECIFIED*
Potential Contaminants:	*HALOGENATED SOLVENTS, Metals - Sludge, OTHER ORGANIC SOLIDS, Sludge - Paint, UNSPECIFIED ACID SOLUTION, UNSPECIFIED OIL CONTAINING WASTE, POLYMERIC RESIN WASTE*
Confirmed Contaminants:	*NONE SPECIFIED*
Potential Media Affected:	*NONE SPECIFIED*
Restricted Use:	*NO*
Site Management Required:	*NONE SPECIFIED*
Special Programs Associated with this Site:	** RCRA 3012 - Past Haz Waste Disp Inven Site*

OTHER SITE NAMES (blank below = not reported by agency)

CAD980735914

DELUCA FISH COMPANY

IT CORPORATION

IT YARD

19420001

COMPLETED ACTIVITIES AND DTSC COMMENTS REGARDING THIS SITE (blank below = not reported by agency)

Area Name:	***PROJECT WIDE***
Sub- Area Name:	
Document Type:	***Preliminary Assessment Report***
Completion Date:	***1984-03-06***
Comments:	*FACILITY DRIVE-BY ASAP. FENCED and COMPLETELY PAVED SUBMIT TO EPA PRELIM ASSESS DONE RCRA 3012*

Area Name:	***PROJECT WIDE***
Sub- Area Name:	
Document Type:	***Discovery***
Completion Date:	***1983-09-26***
Comments:	*FACILITY IDENTIFIED ID FROM ERRIS*

Area Name:	***PROJECT WIDE***
Sub- Area Name:	
Document Type:	***Discovery***

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

OTHER

SEARCH ID: 110 **DIST/DIR:** 0.00 -- **MAP ID:** 8

NAME:	CALIFORNIA SALVAGE OCEAN DUMPING	**REV:**	08/07/07
ADDRESS:	217 NORTH LAGOON AVENUE	**ID1:**	CAL19420001
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	REFER: OTHER AGENCY
CONTACT:		**PHONE:**	

Completion Date: ***1981-10-15***
Comments: *FACILITY IDENTIFIED ECKHARDT SURVEY*

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 30 **DIST/DIR:** 0.00 -- **MAP ID:** 8

NAME: NORTH AMERICAN ENVIRONMENTAL INC
ADDRESS: 217 NORTH LAGOON DR
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 6/6/06
ID1: CAD980665947
ID2:
STATUS: SGN
PHONE:

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
217 NORTH LAGOON DR
WILMINGTON CA 90744

PHONE: 2138308923

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

AGENCY: S - STATE **DATE:** 3/11/1994
TYPE: 210 - INITIAL 3008(A) COMPLIANCE ORDER

AGENCY: S - STATE **DATE:** 7/14/1993
TYPE: 120 - WRITTEN INFORMAL

AGENCY: S - STATE **DATE:** 3/11/1994
TYPE: 210 - INITIAL 3008(A) COMPLIANCE ORDER

AGENCY: S - STATE **DATE:** 7/14/1993
TYPE: 120 - WRITTEN INFORMAL

VIOLATION INFORMATION:

VIOLATION NUMBER: 0001 **RESPONSIBLE:** S - STATE
DETERMINED: 7/14/1993 **DETERMINED BY:** S - STATE
CITATION: 264.140-150.H
RESOLVED: 7/1/1994
TYPE: TSD-FINANCIAL RESPONSIBILITY REQUIREMENTS

VIOLATION NUMBER: 0002 **RESPONSIBLE:** S - STATE
DETERMINED: 7/14/1993 **DETERMINED BY:** S - STATE
CITATION: 264.110-120.G
RESOLVED: 7/1/1994
TYPE: TSD-CLOSURE/POST-CLOSURE REQUIREMENTS

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 160 **DIST/DIR:** 0.00 -- **MAP ID:** 8

NAME: PORT OF LA
ADDRESS: 217 N LAGOON
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 03/24/99
ID1: LACTY/NONCRTFD626
ID2:
STATUS:
PHONE:

DETAILS NOT AVAILABLE

UST

SEARCH ID: 156 **DIST/DIR:** 0.00 -- **MAP ID:** 8

NAME: NORTH AMERICAN ENVIRONMENTAL
ADDRESS: 217 LAGOON
WILMINGTON CA
Los Angeles
CONTACT:

REV: 01/01/94
ID1: TISID-STATE26638
ID2:
STATUS: ACTIVE
PHONE:

UST HISTORICAL DATA

This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names and locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.

The UST information included in FIDS as provided by the Office of Hazardous Data Management was originally collected from the SWEEPS database. The SWEEPS database recorded Underground Storage Tanks and was maintained by the State Water Resources Control Board (SWRCB). That agency no longer maintains the SWEEPS database and last updated it in 1994. The last release of that 1994 database was in 1997.

Oversight of Underground Storage Tanks within California is now conducted by Certified Unified Program Agencies referred to as CUPA s. There are approximately 102 CUPA s and Local Oversight Programs (LOP s) in the State of California. Most are city or county government agencies. As of 1998, all sites or facilities with underground storage tanks were required by Federal mandate to obtain certification by designated UST oversight agencies (in this case, CUPA s) that the UST/s at their location were upgraded or removed in adherence with the 1998 RCRA standards.

Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by Track Info Services. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

STATE

SEARCH ID: 94 **DIST/DIR:** 0.00 -- **MAP ID:** 8

NAME: CALIFORNIA SALVAGE OCEAN DUMPING
ADDRESS: 217 NORTH LAGOON AVENUE
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 07/03/00
ID1: CAL19420001
ID2:
STATUS: PROPERTY/SITE REFERRED TO ANOT
PHONE:

OTHER SITE NAMES (blank below = not reported by agency)

OTHER SITE NAMES (blank below = not reported by agency)

OTHER SITE NAMES (blank below = not reported by agency)

OTHER SITE NAMES (blank below = not reported by agency)
DELUCA FISH COMPANY

GENERAL SITE INFORMATION
File Name (if different than site name):

Status: *PROPERTY/SITE REFERRED TO ANOTHER AGENCY (REFOA)*
AWP Site Type: *N/A*
NPL Site:
Fund:
Status Date: *03061984*
Lead:
Staff:
Senior Supervisor:

DTSC Region and RWQCB : *4 / LONG BEACH*
Branch: *SOUTHERN CA. - B*
RWQCB: *LOS ANGELES*
Site Access: *Controlled*
On Cortese List:
Groundwater Contamination:
Haz Ranking Score:
Haz Ranking Score:
Number of Sources Contributing to Contamination at the Site: *0*

OTHER AGENCY ID NUMBERS (blank below = not reported by agency)
ID SOURCE NAME, and VALUE: *EPA IDENTIFICATION NUMBER CAD980735914*

INFORMATION ON SPECIAL PROGRAMS THE SITE IS ASSOCIATED WITH (blank below = not reported by agency)
RCRA 3012

PROJECTED ACTIVITIES (blank below = not reported by agency)

PROJECTED ACTIVITIES (blank below = not reported by agency)

PROJECTED ACTIVITIES (blank below = not reported by agency)
Activity: ***DISCOVERY (DISC)***
Activity Status: *PROPERTY/SITE REFERRED TO ANOTHER AGENCY*
Completion Due Date:
Revised Completion Due Date:
Date Activity Actually Completed: *10151981*
Yards of Solids Removed: *0*

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

STATE

SEARCH ID: 94 **DIST/DIR:** 0.00 -- **MAP ID:** 8

NAME: CALIFORNIA SALVAGE OCEAN DUMPING
ADDRESS: 217 NORTH LAGOON AVENUE
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 07/03/00
ID1: CAL19420001
ID2:
STATUS: PROPERTY/SITE REFERRED TO ANOT
PHONE:

Yards of Solids Treated: *0*
Gallons of Liquid Removed: *0*
Gallons of Liquid Treated: *0*

Activity: ***DISCOVERY (DISC)***
Activity Status: *PROPERTY/SITE REFERRED TO ANOTHER AGENCY*
Completion Due Date:
Revised Completion Due Date:
Date Activity Actually Completed: *09261983*
Yards of Solids Removed: *0*
Yards of Solids Treated: *0*
Gallons of Liquid Removed: *0*
Gallons of Liquid Treated: *0*

Activity: ***(PA)***
Activity Status: *PROPERTY/SITE REFERRED TO ANOTHER AGENCY*
Completion Due Date:
Revised Completion Due Date:
Date Activity Actually Completed: *03061984*
Yards of Solids Removed: *0*
Yards of Solids Treated: *0*
Gallons of Liquid Removed: *0*
Gallons of Liquid Treated: *0*

DTSC COMMENTS REGARDING THIS SITE (blank below = not reported by agency)

DATE	COMMENT
10201980	*FACILITY DRIVE-BY A TRANSFER STATION NOW ON SITE.*
10211980	*FIRE CHIEF, FandG, and RWQCB REC SEARCHED.*
10251980	*RWQCB,CO ENVR HLTH RECORDS SEARCHED.*
12051980	*GROUND PHOTOS SLIDES TAKEN.*
02051981	*CO ENGR REC SEARCH.*
06081981	*FINAL STRATEGY WILL CONTINUE INVESTIGATION*
07271981	*FINAL STRATEGY SITE REFERRED: TO DFG and DEPT COAST GUARD*
10151981	*FACILITY IDENTIFIED ECKHARDT SURVEY*
09261983	*FACILITY IDENTIFIED ID FROM ERRIS*
DATE	**COMMENT**

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

STATE

SEARCH ID: 94 **DIST/DIR:** 0.00 -- **MAP ID:** 8

NAME:	CALIFORNIA SALVAGE OCEAN DUMPING	**REV:**	07/03/00
ADDRESS:	217 NORTH LAGOON AVENUE	**ID1:**	CAL19420001
	WILMINGTON CA 90744	**ID2:**	
	Los Angeles	**STATUS:**	PROPERTY/SITE REFERRED TO ANOT
CONTACT:		**PHONE:**	

03011984 *T/C W/D.BROADBENT,IT CORP,213-378-9933,*

DATE	COMMENT
03011984	*1)SOURCE ACT: INDUST/MARINE DISP SERVICE*
03011984	*(IT)HAZ WASTE TREATMENT,TRANSPORT,andTEMP*
03011984	*STORAGE FAC.*
03011984	*INCIDENT: 1983 FIRE DESTROYED MOST BLDGS*
03011984	*NO INFO IS ABOUT CALIFORNIA SALVAGE CO*
03061984	*FACILITY DRIVE-BY ASAP. FENCED and COMPLETELY PAVED*
03061984	*SUBMIT TO EPA*
03061984	*PRELIM ASSESS DONE RCRA 3012*
11041988	*EPA prepared a PA Reassess. recom. NFA under CERCLA because:*
11041988	*lack of analytical data documenting a release; lack of tar-*
11041988	*get population for surface or GW routes.*

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

NFRAP

SEARCH ID: 3 **DIST/DIR:** 0.00 -- **MAP ID:** 8

NAME: NORTH AMERICAN ENVIRONMENTAL
ADDRESS: 217 N. LAGOON AVE.
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 12/3/07
ID1: CAD980665947
ID2: 0904272
STATUS: NFRAP-N
PHONE:

DESCRIPTION:

ACTION/QUALITY	AGENCY/RPS	START/RAA	END	
ISSUE REQUEST LETTERS (104E)	Federal Enforcement		12-22-1992	
NON-NATIONAL PRIORITIES LIST POTENTIALLY RESPONSIBLE PARTY SEARCH Search Complete, No Viable PRPs	Federal Enforcement Primary		06-23-1992	02-24-1993
ISSUE REQUEST LETTERS (104E)	Federal Enforcement		09-01-1992	
ISSUE REQUEST LETTERS (104E)	Federal Enforcement		09-11-1992	
ISSUE REQUEST LETTERS (104E)	Federal Enforcement		10-29-1992	
ISSUE REQUEST LETTERS (104E)	Federal Enforcement		12-10-1992	
ISSUE REQUEST LETTERS (104E)	Federal Enforcement		11-03-1992	
ARCHIVE SITE	EPA In-House		02-22-1989	
Notice Letters Issued	Federal Enforcement		08-17-1992	
COST RECOVERY NEGOTIATIONS	Federal Enforcement Primary	08-06-1993	11-29-1993	
DISCOVERY	EPA Fund-Financed		11-01-1979	
PRELIMINARY ASSESSMENT NFRAP (No Futher Remedial Action Planned	EPA Fund-Financed		02-22-1989	
PRELIMINARY ASSESSMENT Low	State, Fund Financed	06-01-1984	11-01-1984	

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 161 **DIST/DIR:** 0.00 -- **MAP ID:** 8

NAME: PORT OF LA
ADDRESS: 217 N LAGOON
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 05/01/2000
ID1: LACTY/NONCRTFD1618
ID2:
STATUS:
PHONE:

DETAILS NOT AVAILABLE

UST

SEARCH ID: 166 **DIST/DIR:** 0.00 -- **MAP ID:** 9

NAME: TODD PACIFIC SHIPYARDS CORP
ADDRESS: 710 FRONT
SAN PEDRO CA 90731
Los Angeles
CONTACT:

REV: 01/01/94
ID1: TISID-STATE25107
ID2:
STATUS: ACTIVE
PHONE:

UST HISTORICAL DATA

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Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRANLR

SEARCH ID: 48 **DIST/DIR:** 0.00 -- **MAP ID:** 9

NAME:	TODD PACIFIC SHIPYARDS CORPORATION	**REV:**	6/6/06
ADDRESS:	710 N FRONT ST	**ID1:**	CAD008350332
	SAN PEDRO CA 90731	**ID2:**	
	LOS ANGELES	**STATUS:**	NLR
CONTACT:	ENVIRONMENTAL MANAGER	**PHONE:**	2138323361

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
710 N FRONT ST
SAN PEDRO CA 90731

PHONE: 2138323361

UNIVERSE INFORMATION:

NAIC INFORMATION

336611 - SHIP BUILDING AND REPAIRING
336611 - SHIP BUILDING AND REPAIRING

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 25 **DIST/DIR:** 0.00 -- **MAP ID:** 10

NAME:	LA PUMPIMG PLANT 77	**REV:**	6/6/06
ADDRESS:	1220 W B ST	**ID1:**	CAD981987183
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	SGN
CONTACT:	ENVIRONMENTAL MANAGER	**PHONE:**	2134857527

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
1220 W B ST
WILMINGTON CA 90744

PHONE: 2134857527

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 20 **DIST/DIR:** 0.00 -- **MAP ID:** 11

NAME:	KEEPING ON TRUCKING	**REV:**	6/6/06
ADDRESS:	607 W B ST	**ID1:**	CAD981971534
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	SGN
CONTACT:	ENVIRONMENTAL MANAGER	**PHONE:**	2138306610

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
607 W B ST
WILMINGTON CA 90744

PHONE: 2138306610

UNIVERSE INFORMATION:

NAIC INFORMATION

48411 - GENERAL FREIGHT TRUCKING, LOCAL

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

LUST

SEARCH ID: 182 **DIST/DIR:** 0.00 -- **MAP ID:** 11

NAME: KEEP ON TRUCKING, INC.
ADDRESS: 607 B ST W
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 10/18/07
ID1: T0603701654
ID2:
STATUS: CASE CLOSED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

Please note that some data previously provided by the State Water Resources Control Board in the LUSTIS database is not currently being provided by the agency in the most recent edition. Incidents that occurred after the year 2000 may not have much information. Field headers with blank information following after should be interpreted as unreported by the agency.

LEAD AGENCY: *REGIONAL BOARD*
REGIONAL BOARD: *04*
LOCAL CASE NUMBER:
RESPONSIBLE PARTY: *BETSY FOLEY*
ADDRESS OF RESPONSIBLE PARTY: *425 S. PALOS VERDES ST.*
SITE OPERATOR:
WATER SYSTEM:

CASE NUMBER: *907440070*
CASE TYPE: *OTHER*
SUBSTANCE LEAKED: *DIESEL*
SUBSTANCE QUANTITY:
LEAK CAUSE: *UNKNOWN*
LEAK SOURCE: *UNKNOWN*
HOW LEAK WAS DISCOVERED:
DATE DISCOVERED (blank if not reported):
HOW LEAK WAS STOPPED:
STOP DATE (blank if not reported):
STATUS: *CASE CLOSED*
ABATEMENT METHOD (please note that not all code translations have been provided by the reporting agency):
ENFORCEMENT TYPE (please note that not all code translations have been provided by the reporting agency): *CLOS*
DATE OF ENFORCEMENT (blank if not reported):

ENTER DATE (blank if not reported): *1990-11-07*
REVIEW DATE (blank if not reported):
DATE OF LEAK CONFIRMATION (blank if not reported): *1990-09-13*
DATE PRELIMINARY SITE ASSESSMENT PLAN WAS SUBMITTED (blank if not reported): *1992-02-06*
DATE PRELIMINARY SITE ASSESSMENT PLAN BEGAN (blank if not reported): *1996-12-20*
DATE POLLUTION CHARACTERIZATION PLAN BEGAN (blank if not reported):
DATE REMEDIATION PLAN WAS SUBMITTED (blank if not reported):
DATE REMEDIAL ACTION UNDERWAY (blank if not reported):
DATE POST REMEDIAL ACTION MONITORING BEGAN (blank if not reported):
DATE CLOSURE LETTER ISSUED (SITE CLOSED) (blank if not reported): *2004-10-29*
REPORT DATE (blank if not reported): *1990-09-13*

MTBE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

MTBE DATE(Date of historical maximum MTBE concentration): *1965-01-01*
MTBE GROUNDWATER CONCENTRATION (parts per billion): *57*
MTBE SOIL CONCENTRATION (parts per million):
MTBE CNTS: *1*
MTBE FUEL: *0*
MTBE TESTED: *YES*
MTBE CLASS:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 134 **DIST/DIR:** 0.00 -- **MAP ID:** 12

NAME:	E W SAYBOLT and CO INC	**REV:**	01/01/94
ADDRESS:	115 AVALON	**ID1:**	TISID-STATE4872
	WILMINGTON CA 90744	**ID2:**	
	Los Angeles	**STATUS:**	INACTIVE
CONTACT:		**PHONE:**	

UST HISTORICAL DATA

This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names and locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.

The UST information included in FIDS as provided by the Office of Hazardous Data Management was originally collected from the SWEEPS database. The SWEEPS database recorded Underground Storage Tanks and was maintained by the State Water Resources Control Board (SWRCB). That agency no longer maintains the SWEEPS database and last updated it in 1994. The last release of that 1994 database was in 1997.

Oversight of Underground Storage Tanks within California is now conducted by Certified Unified Program Agencies referred to as CUPA s. There are approximately 102 CUPA s and Local Oversight Programs (LOP s) in the State of California. Most are city or county government agencies. As of 1998, all sites or facilities with underground storage tanks were required by Federal mandate to obtain certification by designated UST oversight agencies (in this case, CUPA s) that the UST/s at their location were upgraded or removed in adherence with the 1998 RCRA standards.

Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by Track Info Services. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 15 **DIST/DIR:** 0.00 -- **MAP ID:** 12

NAME:	EW SAYBOLT and CO INC	**REV:**	6/6/06
ADDRESS:	115 N AVALON BLVD	**ID1:**	CAD010705671
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	LGN
CONTACT:	ENVIRONMENTAL MANAGER	**PHONE:**	2135497990

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
PO BOX 1146
WILMINGTON CA 90748

PHONE:

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
115 N AVALON BLVD
WILMINGTON CA 90744

PHONE: 2135497990

UNIVERSE INFORMATION:

NAIC INFORMATION

324199 - ALL OTHER PETROLEUM AND COAL PRODUCTS MANUFACTURING
54138 - TESTING LABORATORIES

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

LUST

SEARCH ID: 179 **DIST/DIR:** 0.00 -- **MAP ID:** 12

NAME: E W SAYBOLT and COMPANY INC
ADDRESS: 115 AVALON BLVD
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 10/18/07
ID1: T0603701652
ID2:
STATUS: CASE CLOSED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

Please note that some data previously provided by the State Water Resources Control Board in the LUSTIS database is not currently being provided by the agency in the most recent edition. Incidents that occurred after the year 2000 may not have much information. Field headers with blank information following after should be interpreted as unreported by the agency.

LEAD AGENCY: *REGIONAL BOARD*
REGIONAL BOARD: *04*
LOCAL CASE NUMBER:
RESPONSIBLE PARTY: *BLANK RP*
ADDRESS OF RESPONSIBLE PARTY:
SITE OPERATOR:
WATER SYSTEM:

CASE NUMBER: *907440052*
CASE TYPE: *SOIL ONLY*
SUBSTANCE LEAKED: *GASOLINE*
SUBSTANCE QUANTITY:
LEAK CAUSE: *UNKNOWN*
LEAK SOURCE: *UNKNOWN*
HOW LEAK WAS DISCOVERED:
DATE DISCOVERED (blank if not reported):
HOW LEAK WAS STOPPED:
STOP DATE (blank if not reported):
STATUS: *CASE CLOSED*
ABATEMENT METHOD (please note that not all code translations have been provided by the reporting agency): *EXCAVATE AND DISPOSE-REMOVE CONTAMINATED SOIL AND DISPOSE IN APPROVED SITE*
ENFORCEMENT TYPE (please note that not all code translations have been provided by the reporting agency):
DATE OF ENFORCEMENT (blank if not reported):

ENTER DATE (blank if not reported): *1986-12-31*
REVIEW DATE (blank if not reported): *1988-04-18*
DATE OF LEAK CONFIRMATION (blank if not reported):
DATE PRELIMINARY SITE ASSESSMENT PLAN WAS SUBMITTED (blank if not reported):
DATE PRELIMINARY SITE ASSESSMENT PLAN BEGAN (blank if not reported):
DATE POLLUTION CHARACTERIZATION PLAN BEGAN (blank if not reported): *1996-05-02*
DATE REMEDIATION PLAN WAS SUBMITTED (blank if not reported):
DATE REMEDIAL ACTION UNDERWAY (blank if not reported):
DATE POST REMEDIAL ACTION MONITORING BEGAN (blank if not reported):
DATE CLOSURE LETTER ISSUED (SITE CLOSED) (blank if not reported): *1996-05-02*
REPORT DATE (blank if not reported): *1985-08-26*

MTBE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

MTBE DATE(Date of historical maximum MTBE concentration):
MTBE GROUNDWATER CONCENTRATION (parts per billion):
MTBE SOIL CONCENTRATION (parts per million):
MTBE CNTS: *0*
MTBE FUEL: *1*
MTBE TESTED: *SITE NOT TESTED FOR MTBE. INCLUDES UNKNOWN AND NOT ANALYZED*
MTBE CLASS: ***

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRANLR

SEARCH ID: 47 **DIST/DIR:** 0.00 -- **MAP ID:** 13

NAME: SAFETY KLEEN CORP
ADDRESS: 131 N MARINE AVE
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 12/9/02
ID1: CAD981692098
ID2:
STATUS: NLR
PHONE:

SITE INFORMATION

CONTACT INFORMATION: SCOTT DAVIES
ENV MGR
8795 FOLSOM BLVD STE 108
SACRAMENTO CA 95826

PHONE: 9163876063

UNIVERSE TYPE:

SIC INFORMATION:

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 14 **DIST/DIR:** 0.00 -- **MAP ID:** 13

NAME: DOCKSIDE MACH and SHIP RPR
ADDRESS: 131 N AVALON BLVD
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 6/6/06
ID1: CAD981442262
ID2:
STATUS: SGN
PHONE:

SITE INFORMATION

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

NFRAP

SEARCH ID: 4 **DIST/DIR:** 0.00 -- **MAP ID:** 13

NAME: ROEHL DISPOSAL SERVICES
ADDRESS: 131 NORTH MARINE AVE
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 12/3/07
ID1: CAD980737548
ID2: 0900177
STATUS: NFRAP-N
PHONE:

DESCRIPTION:

ACTION/QUALITY	AGENCY/RPS	START/RAA	END
ARCHIVE SITE	EPA In-House		01-23-1996
DISCOVERY	EPA Fund-Financed		08-01-1987
PRELIMINARY ASSESSMENT Deferred to RCRA (Subtitle C)	EPA Fund-Financed		06-01-1990

UST

SEARCH ID: 132 **DIST/DIR:** 0.00 -- **MAP ID:** 13

NAME: DOCKSIDE MACHINE and BOILER WORK
ADDRESS: 131 AVALON
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 01/01/94
ID1: TISID-STATE27509
ID2:
STATUS: ACTIVE
PHONE:

UST HISTORICAL DATA

This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names and locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.

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Oversight of Underground Storage Tanks within California is now conducted by Certified Unified Program Agencies referred to as CUPA s. There are approximately 102 CUPA s and Local Oversight Programs (LOP s) in the State of California. Most are city or county government agencies. As of 1998, all sites or facilities with underground storage tanks were required by Federal mandate to obtain certification by designated UST oversight agencies (in this case, CUPA s) that the UST/s at their location were upgraded or removed in adherence with the 1998 RCRA standards.

Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by Track Info Services. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 133 **DIST/DIR:** 0.00 -- **MAP ID:** 13

NAME:	DOCKSIDE MACHINE and BOILER WORK	**REV:**	05/01/2000
ADDRESS:	131 N AVALON BL	**ID1:**	LACTY/NONCRTFD144
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	
CONTACT:		**PHONE:**	

DETAILS NOT AVAILABLE

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRA

SEARCH ID: 6 **DIST/DIR:** 0.00 -- **MAP ID:** 14

NAME: ROEHL DISPOSAL SERVICES
ADDRESS: 131 NORTH MARINE AVENUE
WILLINGTON CA 90744
LOS ANGELES
CONTACT: MANAGER ENVIRONMENTAL

REV: 4/19/01
ID1: CAD980737548
ID2:
STATUS: TSD
PHONE: 7148463231

SITE INFORMATION

CONTACT INFORMATION: MANAGER ENVIRONMENTAL
ENVIRO MANAGER
131 NORTH MARINE AVENUE
WILLINGTON CA 90744

PHONE: 7148463231

UNIVERSE NAME:
DF: LAND DISPOSAL FACILITY
SUBJECT TO CORRECTIVE ACTION
TSDS SUBJECT TO CORRECTIVE ACT
SUBJECT TO CEI
ST: STORAGE AND TREATMENT
INCINERATOR

SIC INFORMATION:

RAATS INFORMATION:

DOCKET NUMBER: RCRA-09-89-0028 **INITIAL DATE:** 4241989
DATE RECEIVED: 10161989 **AMOUNT:** 5000.00
ORDER TYPE: 3008(A) **FACILITY:** PRIVATELY HELD FACILITY
COMMENTS: ALLEGED FAILURE TO RESPOND TO INFORMATION REQUEST PURSUANT TO 3007 OF RCRA

ENFORCEMENT INFORMATION:

AGENCY: STATE **DATE:** 5/23/89
ACTION TYPE: 210 - INITIAL FORMAL 3008(a) COMPLIANCE ORDER

AGENCY: STATE **DATE:** 3/14/90
ACTION TYPE: 120 - WRITTEN INFORMAL

AGENCY: STATE **DATE:** 3/5/91
ACTION TYPE: 120 - WRITTEN INFORMAL

AGENCY: STATE **DATE:** 7/25/89
ACTION TYPE: 210 - INITIAL FORMAL 3008(a) COMPLIANCE ORDER

AGENCY: STATE **DATE:** 6/8/89
ACTION TYPE: 120 - WRITTEN INFORMAL

AGENCY: STATE **DATE:** 3/2/87
ACTION TYPE: 120 - WRITTEN INFORMAL

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRA

SEARCH ID: 6 **DIST/DIR:** 0.00 -- **MAP ID:** 14

NAME: ROEHL DISPOSAL SERVICES
ADDRESS: 131 NORTH MARINE AVENUE
WILLINGTON CA 90744
LOS ANGELES
CONTACT: MANAGER ENVIRONMENTAL

REV: 4/19/01
ID1: CAD980737548
ID2:
STATUS: TSD
PHONE: 7148463231

VIOLATION INFORMATION:

VIOLATION NUMBER:	0001	**AGENCY:**	STATE
DETERMINED:	1/24/91	**CLASS:**	CLASS 2
SCHEDULED:		**RESOLVED:**	
AREA:	DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)		

VIOLATION NUMBER:	0002	**AGENCY:**	STATE
DETERMINED:	1/3/91	**CLASS:**	CLASS 1
SCHEDULED:		**RESOLVED:**	
AREA:	DFR - TSD FINANCIAL RESPONSIBILITY REQUIREMENTS		

VIOLATION NUMBER:	0003	**AGENCY:**	STATE
DETERMINED:	2/28/90	**CLASS:**	CLASS 1
SCHEDULED:		**RESOLVED:**	
AREA:	DFR - TSD FINANCIAL RESPONSIBILITY REQUIREMENTS		

VIOLATION NUMBER:	0004	**AGENCY:**	STATE
DETERMINED:	2/13/90	**CLASS:**	CLASS 2
SCHEDULED:		**RESOLVED:**	
AREA:	DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)		

VIOLATION NUMBER:	0005	**AGENCY:**	STATE
DETERMINED:	1/3/90	**CLASS:**	CLASS 1
SCHEDULED:		**RESOLVED:**	
AREA:	DFR - TSD FINANCIAL RESPONSIBILITY REQUIREMENTS		

VIOLATION NUMBER:	0006	**AGENCY:**	STATE
DETERMINED:	3/9/89	**CLASS:**	CLASS 2
SCHEDULED:		**RESOLVED:**	
AREA:	DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)		

VIOLATION NUMBER:	0007	**AGENCY:**	STATE
DETERMINED:	3/9/89	**CLASS:**	CLASS 2
SCHEDULED:		**RESOLVED:**	
AREA:	DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)		

VIOLATION NUMBER:	0008	**AGENCY:**	STATE
DETERMINED:	3/9/89	**CLASS:**	CLASS 1
SCHEDULED:		**RESOLVED:**	
AREA:	DFR - TSD FINANCIAL RESPONSIBILITY REQUIREMENTS		

VIOLATION NUMBER:	0009	**AGENCY:**	STATE
DETERMINED:	3/3/89	**CLASS:**	CLASS 1
SCHEDULED:		**RESOLVED:**	
AREA:	DFR - TSD FINANCIAL RESPONSIBILITY REQUIREMENTS		

VIOLATION NUMBER:	0010	**AGENCY:**	STATE
DETERMINED:	3/3/89	**CLASS:**	CLASS 1
SCHEDULED:		**RESOLVED:**	5/8/90
AREA:	DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)		

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRA

SEARCH ID: 6 **DIST/DIR:** 0.00 -- **MAP ID:** 14

NAME:	ROEHL DISPOSAL SERVICES	**REV:**	4/19/01
ADDRESS:	131 NORTH MARINE AVENUE	**ID1:**	CAD980737548
	WILLINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	TSD
CONTACT:	MANAGER ENVIRONMENTAL	**PHONE:**	7148463231

VIOLATION NUMBER:	0011	**AGENCY:**	STATE
DETERMINED:	12/29/87	**CLASS:**	CLASS 1
SCHEDULED:		**RESOLVED:**	
AREA:	DCL - TSD CLOSURE/POST CLOSURE REQUIREMENTS		

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 33 **DIST/DIR:** 0.00 -- **MAP ID:** 14

NAME: ROEHL DISPOSAL SERVICES
ADDRESS: 131 NORTH MARINE AVE
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 12/9/02
ID1: CAD980737548
ID2:
STATUS: SGN
PHONE:

SITE INFORMATION

UNIVERSE TYPE:

SQG - SMALL QUANTITY GENERATOR: GENERATES 100 - 1000 KG/MONTH OF HAZARDOUS WASTE
PERMPROG - PERMITTING/CLOSURE/POST-CLOSURE PROGRESS
TRANSPORT - TRANSPORTER
CLOSWRKLD - CLOSURE WORKLOAD
SUBJINSP - SUBJECT TO INSPECTION

SIC INFORMATION:

RAATS INFORMATION:

DOCKET NUMBER: RCRA-09-89-0028 **INITIAL DATE:** 4241989
DATE RECEIVED: 10161989 **AMOUNT:** 5000.00
ORDER TYPE: 3008(A) **FACILITY:** PRIVATELY HELD FACILITY
COMMENTS: ALLEGED FAILURE TO RESPOND TO INFORMATION REQUEST PURSUANT TO 3007 OF RCRA

ENFORCEMENT INFORMATION:

AGENCY: S - STATE **DATE:** 08-JUN-89
TYPE: 120 - WRITTEN INFORMAL

AGENCY: S - STATE **DATE:** 14-MAR-90
TYPE: 120 - WRITTEN INFORMAL

AGENCY: S - STATE **DATE:** 05-MAR-91
TYPE: 120 - WRITTEN INFORMAL

AGENCY: S - STATE **DATE:** 02-MAR-87
TYPE: 120 - WRITTEN INFORMAL

AGENCY: S - STATE **DATE:** 25-JUL-89
TYPE: 210 - INITIAL 3008(A) COMPLIANCE ORDER

AGENCY: S - STATE **DATE:** 23-MAY-89
TYPE: 210 - INITIAL 3008(A) COMPLIANCE ORDER

VIOLATION INFORMATION:

VIOLATION NUMBER: 0001 **RESPONSIBLE:** S - STATE
DETERMINED: 29-DEC-87 **DETERMINED BY:** S - STATE
CITATION: 264.110-120.G **RESOLVED:** 20-APR-89
TYPE: DCL - TSD CLOSURE/POST CLOSURE REQUIREMENTS

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 33 **DIST/DIR:** 0.00 -- **MAP ID:** 14

NAME: ROEHL DISPOSAL SERVICES
ADDRESS: 131 NORTH MARINE AVE
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 12/9/02
ID1: CAD980737548
ID2:
STATUS: SGN
PHONE:

VIOLATION NUMBER: 0002 **RESPONSIBLE:** S - STATE
DETERMINED: 03-MAR-89 **DETERMINED BY:** S - STATE
CITATION: 264.140-150.H **RESOLVED:** 12-APR-90
TYPE: DFR - TSD FINANCIAL RESPONSIBILITY REQUIREMENTS

VIOLATION NUMBER: 0003 **RESPONSIBLE:** S - STATE
DETERMINED: 03-MAR-89 **DETERMINED BY:** S - STATE
CITATION: 270 **RESOLVED:** 08-MAY-90
TYPE: DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)

VIOLATION NUMBER: 0004 **RESPONSIBLE:** S - STATE
DETERMINED: 09-MAR-89 **DETERMINED BY:** S - STATE
CITATION: 264.70-77.E **RESOLVED:** 12-APR-90
TYPE: DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)

VIOLATION NUMBER: 0005 **RESPONSIBLE:** S - STATE
DETERMINED: 09-MAR-89 **DETERMINED BY:** S - STATE
CITATION: 270 **RESOLVED:** 12-APR-90
TYPE: DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)

VIOLATION NUMBER: 0006 **RESPONSIBLE:** S - STATE
DETERMINED: 09-MAR-89 **DETERMINED BY:** S - STATE
CITATION: 264.140-150.H **RESOLVED:** 12-APR-90
TYPE: DFR - TSD FINANCIAL RESPONSIBILITY REQUIREMENTS

VIOLATION NUMBER: 0007 **RESPONSIBLE:** S - STATE
DETERMINED: 03-JAN-90 **DETERMINED BY:** S - STATE
CITATION: 264.140-150.H **RESOLVED:** 03-JAN-91
TYPE: DFR - TSD FINANCIAL RESPONSIBILITY REQUIREMENTS

VIOLATION NUMBER: 0008 **RESPONSIBLE:** S - STATE
DETERMINED: 13-FEB-90 **DETERMINED BY:** S - STATE
CITATION: 270 **RESOLVED:** 03-JAN-91
TYPE: DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)

VIOLATION NUMBER: 0009 **RESPONSIBLE:** S - STATE
DETERMINED: 28-FEB-90 **DETERMINED BY:** S - STATE
CITATION: 264.140-150.H **RESOLVED:** 03-JAN-91
TYPE: DFR - TSD FINANCIAL RESPONSIBILITY REQUIREMENTS

VIOLATION NUMBER: 0010 **RESPONSIBLE:** S - STATE
DETERMINED: 03-JAN-91 **DETERMINED BY:** S - STATE
CITATION: 264.140-150.H **RESOLVED:** 24-JAN-91
TYPE: DFR - TSD FINANCIAL RESPONSIBILITY REQUIREMENTS

VIOLATION NUMBER: 0011 **RESPONSIBLE:** S - STATE
DETERMINED: 24-JAN-91 **DETERMINED BY:** S - STATE
CITATION: 264.70-77.E **RESOLVED:** 31-OCT-91
TYPE: DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRACOR

SEARCH ID: 8 **DIST/DIR:** 0.00 -- **MAP ID:** 14

NAME: ROEHL DISPOSAL SERVICES
ADDRESS: 131 NORTH MARINE AVE
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 6/6/06
ID1: CAD980737548
ID2:
STATUS: CA
PHONE:

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
131 NORTH MARINE AVENUE
WILLINGTON CA 90744

PHONE: 7148463231

UNIVERSE INFORMATION:

NAIC INFORMATION

RAATS INFORMATION:

DOCKET NUMBER: RCRA-09-89-0028 **INITIAL DATE:** 4241989
DATE RECEIVED: 10161989 **AMOUNT:** 5000.00
ORDER TYPE:

ENFORCEMENT INFORMATION:

AGENCY: S - STATE **DATE:** 6/8/1989
TYPE: 120 - WRITTEN INFORMAL

AGENCY: S - STATE **DATE:** 5/23/1989
TYPE: 210 - INITIAL 3008(A) COMPLIANCE ORDER

AGENCY: S - STATE **DATE:** 3/14/1990
TYPE: 120 - WRITTEN INFORMAL

AGENCY: S - STATE **DATE:** 3/5/1991
TYPE: 120 - WRITTEN INFORMAL

AGENCY: S - STATE **DATE:** 3/5/1991
TYPE: 120 - WRITTEN INFORMAL

AGENCY: S - STATE **DATE:** 3/2/1987
TYPE: 120 - WRITTEN INFORMAL

AGENCY: S - STATE **DATE:** 7/25/1989
TYPE: 210 - INITIAL 3008(A) COMPLIANCE ORDER

AGENCY: S - STATE **DATE:** 6/8/1989
TYPE: 120 - WRITTEN INFORMAL

AGENCY: S - STATE **DATE:** 3/14/1990

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRACOR

SEARCH ID: 8 **DIST/DIR:** 0.00 -- **MAP ID:** 14

NAME: ROEHL DISPOSAL SERVICES
ADDRESS: 131 NORTH MARINE AVE
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 6/6/06
ID1: CAD980737548
ID2:
STATUS: CA
PHONE:

TYPE: 120 - WRITTEN INFORMAL

AGENCY: S - STATE **DATE:** 5/23/1989
TYPE: 210 - INITIAL 3008(A) COMPLIANCE ORDER

AGENCY: S - STATE **DATE:** 3/2/1987
TYPE: 120 - WRITTEN INFORMAL

AGENCY: S - STATE **DATE:** 7/25/1989
TYPE: 210 - INITIAL 3008(A) COMPLIANCE ORDER

VIOLATION INFORMATION:

VIOLATION NUMBER: 0001 **RESPONSIBLE:** S - STATE
DETERMINED: 12/29/1987 **DETERMINED BY:** S - STATE
CITATION: 264.110-120.G
RESOLVED: 4/20/1989
TYPE: TSD-CLOSURE/POST-CLOSURE REQUIREMENTS

VIOLATION NUMBER: 0002 **RESPONSIBLE:** S - STATE
DETERMINED: 3/3/1989 **DETERMINED BY:** S - STATE
CITATION: 264.140-150.H
RESOLVED: 4/12/1990
TYPE: TSD-FINANCIAL RESPONSIBILITY REQUIREMENTS

VIOLATION NUMBER: 0003 **RESPONSIBLE:** S - STATE
DETERMINED: 3/3/1989 **DETERMINED BY:** S - STATE
CITATION: 270
RESOLVED: 5/8/1990
TYPE: TSD-OTHER REQUIREMENTS (OVERSIGHT)

VIOLATION NUMBER: 0004 **RESPONSIBLE:** S - STATE
DETERMINED: 3/9/1989 **DETERMINED BY:** S - STATE
CITATION: 264.70-77.E
RESOLVED: 4/12/1990
TYPE: TSD-OTHER REQUIREMENTS (OVERSIGHT)

VIOLATION NUMBER: 0005 **RESPONSIBLE:** S - STATE
DETERMINED: 3/9/1989 **DETERMINED BY:** S - STATE
CITATION: 270
RESOLVED: 4/12/1990
TYPE: TSD-OTHER REQUIREMENTS (OVERSIGHT)

VIOLATION NUMBER: 0006 **RESPONSIBLE:** S - STATE
DETERMINED: 3/9/1989 **DETERMINED BY:** S - STATE
CITATION: 264.140-150.H
RESOLVED: 4/12/1990
TYPE: TSD-FINANCIAL RESPONSIBILITY REQUIREMENTS

VIOLATION NUMBER: 0007 **RESPONSIBLE:** S - STATE
DETERMINED: 1/3/1990 **DETERMINED BY:** S - STATE
CITATION: 264.140-150.H

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRACOR

SEARCH ID: 8 **DIST/DIR:** 0.00 -- **MAP ID:** 14

NAME: ROEHL DISPOSAL SERVICES
ADDRESS: 131 NORTH MARINE AVE
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 6/6/06
ID1: CAD980737548
ID2:
STATUS: CA
PHONE:

RESOLVED: 1/3/1991
TYPE: TSD-FINANCIAL RESPONSIBILITY REQUIREMENTS

VIOLATION NUMBER: 0008 **RESPONSIBLE:** S - STATE
DETERMINED: 2/13/1990 **DETERMINED BY:** S - STATE
CITATION: 270
RESOLVED: 1/3/1991
TYPE: TSD-OTHER REQUIREMENTS (OVERSIGHT)

VIOLATION NUMBER: 0009 **RESPONSIBLE:** S - STATE
DETERMINED: 2/28/1990 **DETERMINED BY:** S - STATE
CITATION: 264.140-150.H
RESOLVED: 1/3/1991
TYPE: TSD-FINANCIAL RESPONSIBILITY REQUIREMENTS

VIOLATION NUMBER: 0010 **RESPONSIBLE:** S - STATE
DETERMINED: 1/3/1991 **DETERMINED BY:** S - STATE
CITATION: 264.140-150.H
RESOLVED: 1/24/1991
TYPE: TSD-FINANCIAL RESPONSIBILITY REQUIREMENTS

VIOLATION NUMBER: 0011 **RESPONSIBLE:** S - STATE
DETERMINED: 1/24/1991 **DETERMINED BY:** S - STATE
CITATION: 264.70-77.E
RESOLVED: 10/31/1991
TYPE: TSD-OTHER REQUIREMENTS (OVERSIGHT)

CORRECTIVE ACTION INFORMATION

CA EVENT: 10/12/1994 CA075ME - CA PRIORITIZATION-MEDIUM CA PRIORITY

CA EVENT: 10/12/1994 CA225YE - STABILIZATION MEASURES EVALUATION-FACILITY IS AMENABLE TO STABILIZATION

CA EVENT: 10/17/2005 CA150 - RFI WORKPLAN APPROVED

CA EVENT: 3/15/2005 CA100 - RFI IMPOSITION

CA EVENT: 6/1/1990 CA075ME - CA PRIORITIZATION-MEDIUM CA PRIORITY

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 76 **DIST/DIR:** 0.00 -- **MAP ID:** 15

NAME: MARINE TERMINALS
ADDRESS: 1830 JOHN S GIBSON BLVD
SAN PEDRO CA 90731
Los Angeles
CONTACT:

REV: 6/8/94
ID1: 376609
ID2:
STATUS: HIGHWAY RELATED
PHONE:

SPILL INFORMATION
DATE OF SPILL: 6/8/1994 **TIME OF SPILL:** 2000

PRODUCT RELEASED (1): ALKYL SULPHONIC ACID
QUANTITY (1): 1
UNITS (1): QRT

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED

AIR:	NO	**GROUNDWATER:**	NO
LAND:	YES	**FIXED FACILITY:**	NO
WATER:	NO	**OTHER:**	NO

WATERBODY AFFECTED BY RELEASE: ASPHALT

CAUSE OF RELEASE

DUMPING:	NO	**EQUIPMENT FAILURE:**	NO
NATURAL PHENOMENON:	NO	**OPERATOR ERROR:**	NO
OTHER CAUSE:	NO	**TRANSP. ACCIDENT:**	NO
UNKNOWN:	NO		

ACTIONS TAKEN: ISOLATED CONTAINER/ DISCHARGE IS ONGOING/ NO RECOVERY AT TIME OF REPORT
RELEASE DETECTION: 40 INTERMODAL CONTAINER/ CAUSE IN UNKNOWN/ 20 PALLETS OF 51.5 PLASTIC CONTAINERS
MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 376609
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: MARINE TERMINALS
ADDRESS: 1830 JOHN S GIBSON BLVD
SAN PEDRO CA 90731

DUN and BRADSTREET :

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 75 **DIST/DIR:** 0.00 -- **MAP ID:** 15

NAME: MARINE TERMINAL CORP.
ADDRESS: 1830 JOHN GIBSON BLVD
SAN PEDRO CA 90751
Los Angeles
CONTACT:

REV: 9/17/92
ID1: 467891
ID2:
STATUS: FIXED FACILITY
PHONE:

SPILL INFORMATION
DATE OF SPILL: 9/17/1992 **TIME OF SPILL:** 0220

PRODUCT RELEASED (1):
QUANTITY (1):
UNITS (1):

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE:

SPILL INFORMATION
DATE OF SPILL: 9/17/1992 **TIME OF SPILL:** 0220

PRODUCT RELEASED (1):
QUANTITY (1):
UNITS (1):

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE:

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** YES
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: FIRE DEPT HAZMAT TEAM IS ON SCENE
RELEASE DETECTION: 20FT TANK CONTAINER/LEAKED

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 75 **DIST/DIR:** 0.00 -- **MAP ID:** 15

NAME: MARINE TERMINAL CORP.
ADDRESS: 1830 JOHN GIBSON BLVD
SAN PEDRO CA 90751
Los Angeles
CONTACT:

REV: 9/17/92
ID1: 467891
ID2:
STATUS: FIXED FACILITY
PHONE:

MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 467891
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: MARINE TERMINAL CORP.
ADDRESS: 1830 JOHN F. GIBSON BLVD
SAN PEDRO CA 90751

DUN and BRADSTREET :

CAUSE OF RELEASE

DUMPING:	NO	**EQUIPMENT FAILURE:**	YES
NATURAL PHENOMENON:	NO	**OPERATOR ERROR:**	NO
OTHER CAUSE:	NO	**TRANSP. ACCIDENT:**	NO
UNKNOWN:	NO		

ACTIONS TAKEN: FIRE DEPT HAZMAT TEAM IS ON SCENE
RELEASE DETECTION: 20FT TANK CONTAINER/LEAKED
MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 467891
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: MARINE TERMINAL CORP.
ADDRESS: 1830 JOHN F. GIBSON BLVD
SAN PEDRO CA 90751

DUN and BRADSTREET :

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 162 **DIST/DIR:** 0.00 -- **MAP ID:** 15

NAME: PORT OF LOS ANGELES
ADDRESS: 1830 JOHN GIBSON
SAN PEDRO CA 90731
Los Angeles
CONTACT:

REV: 01/01/94
ID1: TISID-STATE6327
ID2:
STATUS: INACTIVE
PHONE:

UST HISTORICAL DATA

This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names and locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.

The UST information included in FIDS as provided by the Office of Hazardous Data Management was originally collected from the SWEEPS database. The SWEEPS database recorded Underground Storage Tanks and was maintained by the State Water Resources Control Board (SWRCB). That agency no longer maintains the SWEEPS database and last updated it in 1994. The last release of that 1994 database was in 1997.

Oversight of Underground Storage Tanks within California is now conducted by Certified Unified Program Agencies referred to as CUPA s. There are approximately 102 CUPA s and Local Oversight Programs (LOP s) in the State of California. Most are city or county government agencies. As of 1998, all sites or facilities with underground storage tanks were required by Federal mandate to obtain certification by designated UST oversight agencies (in this case, CUPA s) that the UST/s at their location were upgraded or removed in adherence with the 1998 RCRA standards.

Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by Track Info Services. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 74 **DIST/DIR:** 0.00 -- **MAP ID:** 15

NAME: MARINE TERMINAL CORP.
ADDRESS: 1830 JOHN GIBSON BLVD
SAN PEDRO CA 90731
LOS ANGELES
CONTACT:

REV: 9/17/92
ID1: 282903
ID2:
STATUS: FIXED FACILITY
PHONE:

SPILL INFORMATION
DATE OF SPILL: 9/17/1992 **TIME OF SPILL:** 0220

PRODUCT RELEASED (1): HYDROGEN PEROXIDE
QUANTITY (1): 0
UNITS (1): UNK

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: ASPHALT

SPILL INFORMATION
DATE OF SPILL: 9/17/1992 **TIME OF SPILL:** 0220

PRODUCT RELEASED (1): HYDROGEN PEROXIDE
QUANTITY (1): 0
UNITS (1): UNK

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: ASPHALT

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** NO
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: FIRE DEPT HAZMAT TEAM IS ON SCENE
RELEASE DETECTION: 20FT TANK CONTAINER/LEAKED

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 74 **DIST/DIR:** 0.00 -- **MAP ID:** 15

NAME: MARINE TERMINAL CORP.
ADDRESS: 1830 JOHN GIBSON BLVD
SAN PEDRO CA 90731
LOS ANGELES
CONTACT:

REV: 9/17/92
ID1: 282903
ID2:
STATUS: FIXED FACILITY
PHONE:

MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 282903
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: MARINE TERMINAL CORP.
ADDRESS: 1830 JOHN F. GIBSON BLVD
SAN PEDRO CA 90751

DUN and BRADSTREET :

CAUSE OF RELEASE

DUMPING:	NO	**EQUIPMENT FAILURE:**	NO
NATURAL PHENOMENON:	NO	**OPERATOR ERROR:**	NO
OTHER CAUSE:	NO	**TRANSP. ACCIDENT:**	NO
UNKNOWN:	NO		

ACTIONS TAKEN: FIRE DEPT HAZMAT TEAM IS ON SCENE
RELEASE DETECTION: 20FT TANK CONTAINER/LEAKED
MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 282903
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: MARINE TERMINAL CORP.
ADDRESS: 1830 JOHN F. GIBSON BLVD
SAN PEDRO CA 90751

DUN and BRADSTREET :

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 93 **DIST/DIR:** 0.00 -- **MAP ID:** 16

NAME:
ADDRESS: 920 HARRY BRIDGES
WILMINGTON CA
LOS ANGELES
CONTACT: UNKNOWN

REV: 12/31/05
ID1: NRC-759862
ID2:
STATUS: VESSEL
PHONE:

SITE INFORMATION

THIS INFORMATION WAS OBTAINED FROM THE NATIONAL RESPONSE CENTER

DATE RECEIVED: 5/25/2005 3:14:23 AM **DATE COMPLETE:** 5/25/2005 3:21:39 AM
CALL TAKER: JLC2872 **CALL TYPE:** INC

RESPONSIBLE PARTY: UNKNOWN
PHONE 1:
PHONE 2:
PHONE 3:

RESPONSIBLE COMPANY:
ORGANIZATION TYPE: UNKNOWN

ADDRESS:
XX

SOURCE: TELEPHONE

INCIDENT INFORMATION

INCIDENT DESCRIPTION: THE CALLER DISCOVERED SIX STOWAWAYS WHEN THEY JUMPED OFF A SHIP AT THE TERMINAL. THE STOWAWAYS HAVE NOT BEEN APREHENDED AT THIS TIME.

INCIDENT TYPE: VESSEL **INCIDENT CAUSE:** OTHER
INCIDENT DATE: 5/24/2005 7:30:00 PM **INCIDENT DATE DESC:** OCCURRED
DISTANCE FROM CITY: **DISTANCE UNITS:**
DIRECTION FROM CITY: **LOCATION SECTION:**
LOCATION TOWNSHIP: **LOCATION RANGE:**

AIRCRAFT TYPE: **AIRCRAFT MODEL:**
AIRCRAFT ID: **AIRCRAFT FUEL CAPACITY:**
AIRCRAFT FUEL CAPACITY UNITS: **AIRCRAFT FUEL ON BOARD:**
AIRCRAFT FUEL ON BOARD UNITS: **AIRCRAFT SPOT NUMBER:**
AIRCRAFT HANGER: **AIRCRAFT RUNWAY NUM:**
ROAD MILE MARKER: **BUILDING ID:**
TYPE OF FIXED OBJECT: **POWER GEN FACILITY:** U
GENERATING CAPACITY: **TYPE OF FUEL:**
NPDES: **NPDES COMPLIANCE:** U
PIPELINE TYPE: **DOT REGULATED:** U
PIPELINE ABOVE GROUND: ABOVE **EXPOSED UNDERWATER:** N
PIPELINE COVERED: U **GRADE CROSSING:** N
LOCATION SUBDIVISION: **RAILROAD MILEPOST:**
TYPE VEHICLE INVOLVED: **CROSSING DEVICE TYPE:**
DEVICE OPERATIONAL: Y

DOT CROSSING NUMBER: **BRAKE FAILURE:** N

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 93 **DIST/DIR:** 0.00 -- **MAP ID:** 16

NAME:
ADDRESS: 920 HARRY BRIDGES
WILMINGTON CA
LOS ANGELES
CONTACT: UNKNOWN

REV: 12/31/05
ID1: NRC-759862
ID2:
STATUS: VESSEL
PHONE:

TANK ABOVE GROUND:	ABOVE	**TRANSPORTABLE CONTAINER:**	U
TANK REGULATED:	U	**TANK REGULATED BY:**	
TANK ID:		**CAPACITY OF TANK:**	
CAPACITY OF TANK UNITS:		**ACTUAL AMOUNT:**	
ACTUAL AMOUNT UNITS:		**PLATFORM RIG NAME:**	
PLATFORM LETTER:		**LOCATION AREA ID:**	
LOCATION BLOCK ID:			

DESCRIPTION OF TANK:

OCSG NUMBER:		**OCSP NUMBER:**	
STATE LEASE NUMBER:		**PIER DOCK NUMBER:**	
BERTH SLIP NUMBER:		**CONTIN RELEASE TYPE:**	
INITIAL CONT RELEASE NUM:		**CONT RELEASE PERMIT:**	
ALLISION:	N	**TYPE OF STRUCTURE:**	
STRUCTURE NAME:		**STRUCT OPERATIONAL:**	U
AIRBAG DEPLOYED:		**DATE NORMAL SERVICE:**	
SERVICE DISRUPT TIME:		**SERVICE DISRUPT UNITS:**	
TRANSIT BUS FLAG:		**CR BEGIN DATE:**	
CR END DATE:		**CR CHANGE DATE:**	
FIRE INVOLVED:	N	**FIRE EXTINGUISHED:**	U
ANY EVACUATIONS:	N	**NUMBER EVACUATED:**	
WHO EVACUATED:		**RADIUS OF EVACUATION:**	
ANY INJURIES:	N	**NUMBER INJURED:**	
NUMBER HOSPITALIZED:		**ANY FATALITIES:**	N
NUMBER FATALITIES:		**ANY DAMAGES:**	N
DAMAGE AMOUNT:		**AIR CORRIDOR CLOSED:**	N
AIR CORRIDOR DESC:		**AIR CLOSURE TIME:**	
WATERWAY CLOSED:	N	**WATERWAY DESC:**	
WATERWAY CLOSURE TIME:		**ROAD CLOSED:**	N
ROAD DESC:		**ROAD CLOSURE TIME:**	
CLOSURE DIRECTION:		**MAJOR ARTERY:**	N
TRACK CLOSED:	N	**TRACK DESC:**	
TRACK CLOSURE TIME:		**MEDIA INTEREST:**	NONE
MEDIUM DESC:	NON-RELEASE (N/A)	**ADDTL MEDIUM INFO:**	
BODY OF WATER:		**TRIBUTARY OF:**	
NEAREST RIVER MILE MARK:		**RELEASE SECURED:**	U
EST DUR OF RELEASE:		**RELEASE RATE:**	
TRACK CLOSE DIR:		**ST AGENCY ON SCENE:**	PORT POLICE
ST AGENCY RPT NUM:	NONE	**OTHER AGENCY NOTIFIED:**	
WEATHER CONDITIONS:	UNKNOWN	**AIR TEMPERATURE:**	
WIND SPEED:		**WIND DIRECTION:**	
WATER SUPPLY CONTAM:	U	**SHEEN SIZE:**	
SHEEN COLOR:		**DIR OF SHEEN TRAVEL:**	
SHEEN ODOR DESCRIPTION:		**WAVE CONDITION:**	
CURRENT SPEED:		**CURRENT DIRECTION:**	
WATER TEMPERATURE:			

DESC OF REMEDIAL ACTION: CUSTOMS AND PORT POLICE ARE ON SCENE

EMPL FATALITY: **PASS FATALITY:**

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 93 **DIST/DIR:** 0.00 -- **MAP ID:** 16

NAME:
ADDRESS: 920 HARRY BRIDGES
WILMINGTON CA
LOS ANGELES
CONTACT: UNKNOWN

REV: 12/31/05
ID1: NRC-759862
ID2:
STATUS: VESSEL
PHONE:

COMMUNITY IMPACT:	N	**WIND SPEED UNITS:**	
EMPLOYEE INJURIES:		**PASSENGER INJURIES:**	
OCCUPANT FATALITY:		**CURRENT SPEED UNITS:**	
ROAD CLOSURE UNITS:		**TRACK CLOSURE UNITS:**	
SHEEN SIZE UNITS:		**STATE AGENCY NOTIFIED:**	NO
FED AGENCY NOTIFIED:	CUSTOMS	**NEAREST RIVER MILE MARK:**	
SHEEN SIZE LENGTH:		**SHEEN SIZE LENGTH UNITS:**	
SHEEN SIZE WIDTH:		**SHEEN SIZE WIDTH UNITS:**	
OFFSHORE:	N	**DURATION UNIT:**	
RELEASE RATE UNIT:		**RELEASE RATE RATE:**	

ADDITIONAL INFO: THE CALLER HAS NO ADDITIONAL INFORMATION

MATERIAL INFORMATION

OTHER MATERIAL INFORMATION

MOBILE DETAILS INFORMATION

TRAIN INFORMATION

VESSEL INFORMATION

VESSEL NAME:	THAMES	**VESSEL TYPE:**	CONTAINER
VESSEL NUMBER:	1912690C	**VESSEL LENGTH:**	
HULL CONSTRUCTION:		**FUEL CAPACITY:**	
FUEL ON BOARD:		**CARGO CAPACITY:**	
CARGO ON BOARD:		**VESSEL AGROUND:**	N
FLAG:	PANAMA	**BREADTH:**	
DRAUGHT:			

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 87 **DIST/DIR:** 0.00 -- **MAP ID:** 16

NAME:
ADDRESS: 920 WESTHARRY BRIDGES BLVD
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 12/31/06
ID1: NRC-803229
ID2:
STATUS: STORAGE TANK
PHONE:

SITE INFORMATION

THIS INFORMATION WAS OBTAINED FROM THE NATIONAL RESPONSE CENTER

DATE RECEIVED: 7/6/2006 6:12:39 PM **DATE COMPLETE:** 7/6/2006 6:20:41 PM
CALL TAKER: **CALL TYPE:** INC

RESPONSIBLE PARTY:
PHONE 1:
PHONE 2:
PHONE 3:

RESPONSIBLE COMPANY:
ORGANIZATION TYPE: UNKNOWN

ADDRESS:
XX

SOURCE: TELEPHONE

INCIDENT INFORMATION

INCIDENT DESCRIPTION: REPORTING A RELEASE OF MATERIALS ONTO THE GROUND FROM A STEEL CONTAINER DUE TO EQUIPMENT FAILURE.

INCIDENT TYPE: STORAGE TANK **INCIDENT CAUSE:** EQUIPMENT FAILURE
INCIDENT DATE: 7/6/2006 2:00:00 PM **INCIDENT DATE DESC:** DISCOVERED
DISTANCE FROM CITY: **DISTANCE UNITS:**
DIRECTION FROM CITY: **LOCATION SECTION:**
LOCATION TOWNSHIP: **LOCATION RANGE:**

AIRCRAFT TYPE: **AIRCRAFT MODEL:**
AIRCRAFT ID: **AIRCRAFT FUEL CAPACITY:**
AIRCRAFT FUEL CAPACITY UNITS: **AIRCRAFT FUEL ON BOARD:**
AIRCRAFT FUEL ON BOARD UNITS: **AIRCRAFT SPOT NUMBER:**
AIRCRAFT HANGER: **AIRCRAFT RUNWAY NUM:**
ROAD MILE MARKER: **BUILDING ID:**
TYPE OF FIXED OBJECT: **POWER GEN FACILITY:** UNKNOWN
GENERATING CAPACITY: **TYPE OF FUEL:**
NPDES: **NPDES COMPLIANCE:** UNKNOWN
PIPELINE TYPE: **DOT REGULATED:** UNKNOWN
PIPELINE ABOVE GROUND: ABOVE **EXPOSED UNDERWATER:** NO
PIPELINE COVERED: UNKNOWN **GRADE CROSSING:** NO
LOCATION SUBDIVISION: **RAILROAD MILEPOST:**
TYPE VEHICLE INVOLVED: **CROSSING DEVICE TYPE:**
DEVICE OPERATIONAL: YES

DOT CROSSING NUMBER: **BRAKE FAILURE:** NO

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 87 **DIST/DIR:** 0.00 -- **MAP ID:** 16

NAME:
ADDRESS: 920 WESTHARRY BRIDGES BLVD
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 12/31/06
ID1: NRC-803229
ID2:
STATUS: STORAGE TANK
PHONE:

TANK ABOVE GROUND:	ABOVE	**TRANSPORTABLE CONTAINER:**	UNKNOWN
TANK REGULATED:	UNKNOWN	**TANK REGULATED BY:**	
TANK ID:		**CAPACITY OF TANK:**	
CAPACITY OF TANK UNITS:		**ACTUAL AMOUNT:**	
ACTUAL AMOUNT UNITS:		**PLATFORM RIG NAME:**	
PLATFORM LETTER:		**LOCATION AREA ID:**	
LOCATION BLOCK ID:			

DESCRIPTION OF TANK: STEEL CONTAINER

OCSG NUMBER:		**OCSP NUMBER:**	
STATE LEASE NUMBER:		**PIER DOCK NUMBER:**	
BERTH SLIP NUMBER:		**CONTIN RELEASE TYPE:**	
INITIAL CONT RELEASE NUM:		**CONT RELEASE PERMIT:**	
ALLISION:	NO	**TYPE OF STRUCTURE:**	
STRUCTURE NAME:		**STRUCT OPERATIONAL:**	UNKNOWN
AIRBAG DEPLOYED:		**DATE NORMAL SERVICE:**	
SERVICE DISRUPT TIME:		**SERVICE DISRUPT UNITS:**	
TRANSIT BUS FLAG:		**CR BEGIN DATE:**	
CR END DATE:		**CR CHANGE DATE:**	
FIRE INVOLVED:	NO	**FIRE EXTINGUISHED:**	UNKNOWN
ANY EVACUATIONS:	NO	**NUMBER EVACUATED:**	
WHO EVACUATED:		**RADIUS OF EVACUATION:**	
ANY INJURIES:	NO	**NUMBER INJURED:**	
NUMBER HOSPITALIZED:		**ANY FATALITIES:**	NO
NUMBER FATALITIES:		**ANY DAMAGES:**	NO
DAMAGE AMOUNT:		**AIR CORRIDOR CLOSED:**	NO
AIR CORRIDOR DESC:		**AIR CLOSURE TIME:**	
WATERWAY CLOSED:	NO	**WATERWAY DESC:**	
WATERWAY CLOSURE TIME:		**ROAD CLOSED:**	NO
ROAD DESC:		**ROAD CLOSURE TIME:**	
CLOSURE DIRECTION:		**MAJOR ARTERY:**	NO
TRACK CLOSED:	NO	**TRACK DESC:**	
TRACK CLOSURE TIME:		**MEDIA INTEREST:**	NONE
MEDIUM DESC:	LAND	**ADDTL MEDIUM INFO:**	
BODY OF WATER:		**TRIBUTARY OF:**	
NEAREST RIVER MILE MARK:		**RELEASE SECURED:**	UNKNOWN
EST DUR OF RELEASE:		**RELEASE RATE:**	
TRACK CLOSE DIR:		**ST AGENCY ON SCENE:**	
ST AGENCY RPT NUM:	NO REPORT	**OTHER AGENCY NOTIFIED:**	
WEATHER CONDITIONS:	CLEAR	**AIR TEMPERATURE:**	85
WIND SPEED:		**WIND DIRECTION:**	
WATER SUPPLY CONTAM:	UNKNOWN	**SHEEN SIZE:**	
SHEEN COLOR:		**DIR OF SHEEN TRAVEL:**	
SHEEN ODOR DESCRIPTION:		**WAVE CONDITION:**	
CURRENT SPEED:		**CURRENT DIRECTION:**	
WATER TEMPERATURE:			

DESC OF REMEDIAL ACTION: MAKING NOTIFICATIONS

EMPL FATALITY: **PASS FATALITY:**

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 87 **DIST/DIR:** 0.00 -- **MAP ID:** 16

NAME:
ADDRESS: 920 WESTHARRY BRIDGES BLVD
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 12/31/06
ID1: NRC-803229
ID2:
STATUS: STORAGE TANK
PHONE:

COMMUNITY IMPACT:	NO	**WIND SPEED UNITS:**	
EMPLOYEE INJURIES:		**PASSENGER INJURIES:**	
OCCUPANT FATALITY:		**CURRENT SPEED UNITS:**	
ROAD CLOSURE UNITS:		**TRACK CLOSURE UNITS:**	
SHEEN SIZE UNITS:		**STATE AGENCY NOTIFIED:**	LA FIRE DEPT
FED AGENCY NOTIFIED:		**NEAREST RIVER MILE MARK:**	
SHEEN SIZE LENGTH:		**SHEEN SIZE LENGTH UNITS:**	
SHEEN SIZE WIDTH:		**SHEEN SIZE WIDTH UNITS:**	
OFFSHORE:	N	**DURATION UNIT:**	
RELEASE RATE UNIT:		**RELEASE RATE RATE:**	

ADDITIONAL INFO: THE CALLER HAD NO ADDITIONAL INFORMATION

MATERIAL INFORMATION

CHRIS CODE:	NCC	**CASE NUMBER:**	000000-00-0
UN NUMBER:		**REACHED WATER:**	NO

NAME OF MATERIAL: AEROSOL
AMOUNT OF MATERIAL: 1 PINT(S)
AMOUNT IN WATER:

OTHER MATERIAL INFORMATION

MOBILE DETAILS INFORMATION

TRAIN INFORMATION

VESSEL INFORMATION

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 85 **DIST/DIR:** 0.00 -- **MAP ID:** 17

NAME: VESSEL FAUST
ADDRESS: 200 A, QUAYSIDE
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV:
ID1: 16572
ID2:
STATUS: UNKNOWN
PHONE:

THERE ARE NO DETAILS AVAILABLE FOR THIS SITE

ERNS

SEARCH ID: 83 **DIST/DIR:** 0.00 -- **MAP ID:** 18

NAME: UNOCAL
ADDRESS: NEPTUNE and B STREET
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV:
ID1: 105386
ID2:
STATUS: UNKNOWN
PHONE:

THERE ARE NO DETAILS AVAILABLE FOR THIS SITE

ERNS

SEARCH ID: 84 **DIST/DIR:** 0.00 -- **MAP ID:** 18

NAME: UNOCAL
ADDRESS: B ST AND NEPTUNE ST
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV:
ID1: 105248
ID2:
STATUS: UNKNOWN
PHONE:

THERE ARE NO DETAILS AVAILABLE FOR THIS SITE

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 120 **DIST/DIR:** 0.00 -- **MAP ID:** 19

NAME: CALIF HARDWOOD PRODUCTS INC
ADDRESS: 218 B
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 01/01/94
ID1: TISID-STATE5277
ID2:
STATUS: INACTIVE
PHONE:

UST HISTORICAL DATA

This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names and locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.

The UST information included in FIDS as provided by the Office of Hazardous Data Management was originally collected from the SWEEPS database. The SWEEPS database recorded Underground Storage Tanks and was maintained by the State Water Resources Control Board (SWRCB). That agency no longer maintains the SWEEPS database and last updated it in 1994. The last release of that 1994 database was in 1997.

Oversight of Underground Storage Tanks within California is now conducted by Certified Unified Program Agencies referred to as CUPA s. There are approximately 102 CUPA s and Local Oversight Programs (LOP s) in the State of California. Most are city or county government agencies. As of 1998, all sites or facilities with underground storage tanks were required by Federal mandate to obtain certification by designated UST oversight agencies (in this case, CUPA s) that the UST/s at their location were upgraded or removed in adherence with the 1998 RCRA standards.

Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by Track Info Services. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRANLR

SEARCH ID: 46 **DIST/DIR:** 0.00 -- **MAP ID:** 19

NAME:	KORODY COLYER CORP	**REV:**	6/6/06
ADDRESS:	218 N AVALON BLVD	**ID1:**	CAD981456122
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	NLR
CONTACT:	ANTHONY MEDINA	**PHONE:**	3106399511

SITE INFORMATION

CONTACT INFORMATION: ANTHONY MEDINA
PO BOX 9059
COMPTON CA 902249059

PHONE: 3106399511

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 72 **DIST/DIR:** 0.00 -- **MAP ID:** 20

NAME: GATX
ADDRESS: BROAD and AVALON STS
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 2/16/91
ID1: 205164
ID2:
STATUS: PIPELINE RELATED
PHONE:

SPILL INFORMATION
DATE OF SPILL: 2/16/1991 **TIME OF SPILL:** 0300

PRODUCT RELEASED (1): CRUDE OIL
QUANTITY (1): 1
UNITS (1): BBL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: NONE

SPILL INFORMATION
DATE OF SPILL: 2/16/1991 **TIME OF SPILL:** 0300

PRODUCT RELEASED (1): CRUDE OIL
QUANTITY (1): 1
UNITS (1): BBL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: NONE

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** YES
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: CLEANUP BY RP
RELEASE DETECTION: OIL OOZING OUT OF GROUND

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 72 **DIST/DIR:** 0.00 -- **MAP ID:** 20

NAME: GATX
ADDRESS: BROAD and AVALON STS
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 2/16/91
ID1: 205164
ID2:
STATUS: PIPELINE RELATED
PHONE:

MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 205164
TYPE OF DISCHARGER: PRIVATE CITIZEN
NAME OF DISCHARGER: GATX
ADDRESS: 2000 E. SEPULVEDA BLVD
CARSON CA 90810-

DUN and BRADSTREET :

CAUSE OF RELEASE

DUMPING:	NO	**EQUIPMENT FAILURE:**	YES
NATURAL PHENOMENON:	NO	**OPERATOR ERROR:**	NO
OTHER CAUSE:	NO	**TRANSP. ACCIDENT:**	NO
UNKNOWN:	NO		

ACTIONS TAKEN: CLEANUP BY RP
RELEASE DETECTION: OIL OOZING OUT OF GROUND
MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 205164
TYPE OF DISCHARGER: PRIVATE CITIZEN
NAME OF DISCHARGER: GATX
ADDRESS: 2000 E. SEPULVEDA BLVD
CARSON CA 90810-

DUN and BRADSTREET :

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 69 **DIST/DIR:** 0.00 -- **MAP ID:** 21

NAME: EXXON
ADDRESS: 200 SOUTH AVALON
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 7/25/91
ID1: 226876
ID2:
STATUS:
PHONE:

SPILL INFORMATION
DATE OF SPILL: 7/25/1991 **TIME OF SPILL:** 1600

PRODUCT RELEASED (1): CRUDE OIL
QUANTITY (1): 0
UNITS (1): UNK

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: NONE

SPILL INFORMATION
DATE OF SPILL: 7/25/1991 **TIME OF SPILL:** 1600

PRODUCT RELEASED (1): CRUDE OIL
QUANTITY (1): 0
UNITS (1): UNK

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: NONE

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** NO
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: YES

ACTIONS TAKEN: FURTHER ASSESSMENT NEEDED BEFORE CLEANUP
RELEASE DETECTION: DISCOVERED HOLES IN TANKS WHILE CLEANING, UNKNOWN IF THERE WAS ANY LEA KAGE

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 69 **DIST/DIR:** 0.00 -- **MAP ID:** 21

NAME: EXXON
ADDRESS: 200 SOUTH AVALON
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 7/25/91
ID1: 226876
ID2:
STATUS:
PHONE:

MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 226876
TYPE OF DISCHARGER: PRIVATE CITIZEN
NAME OF DISCHARGER: EXXON
ADDRESS: 225 W. HILLCREST DR.
THOUSAND OAKS CA 91360-

DUN and BRADSTREET :

CAUSE OF RELEASE

DUMPING:	NO	**EQUIPMENT FAILURE:**	NO
NATURAL PHENOMENON:	NO	**OPERATOR ERROR:**	NO
OTHER CAUSE:	NO	**TRANSP. ACCIDENT:**	NO
UNKNOWN:	YES		

ACTIONS TAKEN: FURTHER ASSESSMENT NEEDED BEFORE CLEANUP
RELEASE DETECTION: DISCOVERED HOLES IN TANKS WHILE CLEANING, UNKNOWN IF THERE WAS ANY LEA KAGE
MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 226876
TYPE OF DISCHARGER: PRIVATE CITIZEN
NAME OF DISCHARGER: EXXON
ADDRESS: 225 W. HILLCREST DR.
THOUSAND OAKS CA 91360-

DUN and BRADSTREET :

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 68 **DIST/DIR:** 0.00 -- **MAP ID:** 22

NAME: EXXON
ADDRESS: LAGOON and B ST
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 2/28/92
ID1: 257373
ID2:
STATUS: PF
PHONE:

SPILL INFORMATION
DATE OF SPILL: 2/28/1992 **TIME OF SPILL:** 1500

PRODUCT RELEASED (1): CRUDE OIL
QUANTITY (1): 1
UNITS (1): GAL

PRODUCT RELEASED (2): PRODUCED WATER
QUANTITY (2): 2
UNITS (2): BBL

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE:

SPILL INFORMATION
DATE OF SPILL: 2/28/1992 **TIME OF SPILL:** 1500

PRODUCT RELEASED (1): CRUDE OIL
QUANTITY (1): 1
UNITS (1): GAL

PRODUCT RELEASED (2): PRODUCED WATER
QUANTITY (2): 2
UNITS (2): BBL

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE:

CAUSE OF RELEASE
DUMPING: YES **EQUIPMENT FAILURE:** NO
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: RP CLEANUP
RELEASE DETECTION: LINE LEAK

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 68 **DIST/DIR:** 0.00 -- **MAP ID:** 22

NAME: EXXON
ADDRESS: LAGOON and B ST
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 2/28/92
ID1: 257373
ID2:
STATUS: PF
PHONE:

MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 257373
TYPE OF DISCHARGER: PRIVATE CITIZEN
NAME OF DISCHARGER: EXXON
ADDRESS: LAGOON and B ST
WILMINGTON CA 0000 -

DUN and BRADSTREET :

CAUSE OF RELEASE

DUMPING:	YES	**EQUIPMENT FAILURE:**	NO
NATURAL PHENOMENON:	NO	**OPERATOR ERROR:**	NO
OTHER CAUSE:	NO	**TRANSP. ACCIDENT:**	NO
UNKNOWN:	NO		

ACTIONS TAKEN: RP CLEANUP
RELEASE DETECTION: LINE LEAK
MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 257373
TYPE OF DISCHARGER: PRIVATE CITIZEN
NAME OF DISCHARGER: EXXON
ADDRESS: LAGOON and B ST
WILMINGTON CA 0000 -

DUN and BRADSTREET :

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

OTHER

SEARCH ID: 114 **DIST/DIR:** 0.00 -- **MAP ID:** 23

NAME: KOPPERS - LOS ANGELES
ADDRESS: 210 SOUTH AVALON BOULEVARD
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 08/07/07
ID1: CAL19280085
ID2:
STATUS: REFER: RWQCB
PHONE:

GENERAL SITE INFORMATION

Site Type:	*Historical*
Status:	*Refer: RWQCB*
Status Date:	*1989-01-24 00:00:00*
NPL Site:	*NO*
Funding:	
Regulatory Agencies Involved:	*RWQCB 4 - Los Angeles*
Lead Agency:	*NONE SPECIFIED*
Project Manager:	
Supervisor:	*Referred - Not Assigned*
Branch:	*So Cal - Cypress*
Acres:	
Assessor s Parcel Number:	*NONE SPECIFIED*
Past Uses:	*NONE SPECIFIED*
Potential Contaminants:	*HALOGENATED SOLVENTS, OTHER ORGANIC SOLIDS, Arsenic, Chromium VI*
Confirmed Contaminants:	*NONE SPECIFIED*
Potential Media Affected:	*NONE SPECIFIED*
Restricted Use:	*NO*
Site Management Required:	*NONE SPECIFIED*
Special Programs Associated with this Site:	** CERC2*

OTHER SITE NAMES (blank below = not reported by agency)

P43060

CAD008267072

400082

KOPPERS - PORT OF LOS ANGELES

KOPPERS CHEMICAL - WILMINGTON

19280085

COMPLETED ACTIVITIES AND DTSC COMMENTS REGARDING THIS SITE (blank below = not reported by agency)

Area Name:	***PROJECT WIDE***
Sub- Area Name:	
Document Type:	***Site Screening***
Completion Date:	***1988-08-31***
Comments:	*SITE SCREENING DONE EandE REVIEW OF THE PA COMPLETED BY DHS RECOMMENDS A MEDIUM PRIORITY SSI FOR EPA*

Area Name:	***PROJECT WIDE***
Sub- Area Name:	
Document Type:	***Preliminary Assessment Report***
Completion Date:	***1987-12-01***
Comments:	*PRELIM ASSESS DONE DHS-SITE SUBMITTED TO BEP AND HAS BEEN HAZARD RANKED.*

Area Name:	***PROJECT WIDE***
Sub- Area Name:	

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

OTHER

SEARCH ID: 114 **DIST/DIR:** 0.00 -- **MAP ID:** 23

NAME:	KOPPERS - LOS ANGELES	**REV:**	08/07/07
ADDRESS:	210 SOUTH AVALON BOULEVARD	**ID1:**	CAL19280085
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	REFER: RWQCB
CONTACT:		**PHONE:**	

Document Type: ***Site Screening***
Completion Date: ***1987-02-13***
Comments: *SITE SCREENING DONE PAVED PRIOR TO 1981. WOOD TREATMENT FAC. WSTS DISCH TO 3000 CU YD SUMP*

Area Name: ***PROJECT WIDE***
Sub- Area Name:
Document Type: ***Discovery***
Completion Date: ***1980-08-01***
Comments: *FACILITY IDENTIFIED ECKHARDT LIST*

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

NFRAP

SEARCH ID: 2 **DIST/DIR:** 0.00 -- **MAP ID:** 23

NAME: KOPPERS CO INC
ADDRESS: 210 S AVALON BLVD
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 12/3/07
ID1: CAD008267072
ID2: 0901010
STATUS: NFRAP-N
PHONE:

DESCRIPTION:
FORMER WOOD TREATING PLANT. SOIL CONTAMINATION (PCP,COPPER,CHROMIUM,ARSENIC) LIES AT 4 TO 8 FT BELOW SURFACE. SITE NOW CAPPED BY ASPHALT PAVING.

ACTION/QUALITY	AGENCY/RPS	START/RAA	END
ARCHIVE SITE	EPA In-House		11-19-1991
DISCOVERY	EPA Fund-Financed		11-01-1979
PRELIMINARY ASSESSMENT Low	State, Fund Financed		11-29-1988
SITE INSPECTION Low	EPA Fund-Financed		10-12-1990
SITE INSPECTION High	EPA Fund-Financed		09-01-1984
SITE INSPECTION NFRAP (No Futher Remedial Action Planned	EPA Fund-Financed		11-19-1991

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

STATE

SEARCH ID: 96 **DIST/DIR:** 0.00 -- **MAP ID:** 23

NAME: KOPPERS - LOS ANGELES
ADDRESS: 210 SOUTH AVALON BOULEVARD
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 07/03/00
ID1: CAL19280085
ID2:
STATUS: PROPERTY/SITE REFERRED TO RWQC
PHONE:

OTHER SITE NAMES (blank below = not reported by agency)

OTHER SITE NAMES (blank below = not reported by agency)

OTHER SITE NAMES (blank below = not reported by agency)
KOPPERS - PORT OF LOS ANGELES

GENERAL SITE INFORMATION
File Name (if different than site name):

Status: *PROPERTY/SITE REFERRED TO RWQCB (REFRW)*
AWP Site Type: *N/A*
NPL Site: *N*
Fund:
Status Date: *01241989*
Lead: *RWQCB*
Staff:
Senior Supervisor:

DTSC Region and RWQCB : *4 / LONG BEACH*
Branch: *SOUTHERN CA. - B*
RWQCB: *LOS ANGELES*
Site Access: *Controlled*
On Cortese List:
Groundwater Contamination: *N*
Haz Ranking Score:
Haz Ranking Score:
Number of Sources Contributing to Contamination at the Site: *0*

OTHER AGENCY ID NUMBERS (blank below = not reported by agency)

OTHER AGENCY ID NUMBERS (blank below = not reported by agency)
ID SOURCE NAME, and VALUE: *EPA IDENTIFICATION NUMBER CAD008267072*

ID SOURCE NAME, and VALUE: *BEP DATABASE PCODE P43060*

INFORMATION ON SPECIAL PROGRAMS THE SITE IS ASSOCIATED WITH (blank below = not reported by agency)
CERCLA II

PROJECTED ACTIVITIES (blank below = not reported by agency)

PROJECTED ACTIVITIES (blank below = not reported by agency)

PROJECTED ACTIVITIES (blank below = not reported by agency)

PROJECTED ACTIVITIES (blank below = not reported by agency)
Activity: ***DISCOVERY (DISC)***
Activity Status: *PROPERTY/SITE REFERRED TO RWQCB*

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

STATE

SEARCH ID: 96 **DIST/DIR:** 0.00 -- **MAP ID:** 23

NAME: KOPPERS - LOS ANGELES
ADDRESS: 210 SOUTH AVALON BOULEVARD
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 07/03/00
ID1: CAL19280085
ID2:
STATUS: PROPERTY/SITE REFERRED TO RWQC
PHONE:

Completion Due Date:
Revised Completion Due Date:
Date Activity Actually Completed: *08011980*
Yards of Solids Removed: *0*
Yards of Solids Treated: *0*
Gallons of Liquid Removed: *0*
Gallons of Liquid Treated: *0*

Activity: ***(SS)***
Activity Status: *PROPERTY/SITE REFERRED TO RWQCB*
Completion Due Date:
Revised Completion Due Date:
Date Activity Actually Completed: *02131987*
Yards of Solids Removed: *0*
Yards of Solids Treated: *0*
Gallons of Liquid Removed: *0*
Gallons of Liquid Treated: *0*

Activity: ***(PA)***
Activity Status: *PROPERTY/SITE REFERRED TO RWQCB*
Completion Due Date:
Revised Completion Due Date:
Date Activity Actually Completed: *12011987*
Yards of Solids Removed: *0*
Yards of Solids Treated: *0*
Gallons of Liquid Removed: *0*
Gallons of Liquid Treated: *0*

Activity: ***(SS)***
Activity Status: *PROPERTY/SITE REFERRED TO RWQCB*
Completion Due Date:
Revised Completion Due Date:
Date Activity Actually Completed: *08311988*
Yards of Solids Removed: *0*
Yards of Solids Treated: *0*
Gallons of Liquid Removed: *0*
Gallons of Liquid Treated: *0*

DTSC COMMENTS REGARDING THIS SITE (blank below = not reported by agency)

DATE	COMMENT
05301980	*SITE REPORT SUBMITTED*
08011980	*FACILITY IDENTIFIED ECKHARDT LIST*
08191980	*INSPECTION(STATE) ASP INSPECTION BURIED POND*
01011981	*SAMPLE RESULTS ASP SAMPLES: PCP, CR, AS, PAH S*
06231981	*INSPECTION(STATE) SAMPLES TAKEN BY ASP/PORT OF LA CONSULTA*

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

STATE

SEARCH ID: 96 **DIST/DIR:** 0.00 -- **MAP ID:** 23

NAME: KOPPERS - LOS ANGELES
ADDRESS: 210 SOUTH AVALON BOULEVARD
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 07/03/00
ID1: CAL19280085
ID2:
STATUS: PROPERTY/SITE REFERRED TO RWQC
PHONE:

DATE	COMMENT
01011983	*This is the date the site was first listed pursuant to*
DATE	**COMMENT**
01011983	*section 25356.*
DATE	**COMMENT**
03051984	*SAMPLE RESULTS LA HARBOR DEPT. TOOK 4 SOIL BORINGS ALON*
DATE	**COMMENT**
03051984	*W. BORBER; 3 RESULTS NON-HAZ; LOC 11*
DATE	**COMMENT**
03051984	*CONTM W/CREOSOTE TO AN 8FT DEPTH.*
DATE	**COMMENT**
02131987	*SITE SCREENING DONE PAVED PRIOR TO 1981. WOOD TREATMENT FAC.*
DATE	**COMMENT**
02131987	*WSTS DISCH TO 3000 CU YD SUMP*
DATE	**COMMENT**
07081987	*DHS-FILES INCLUDE DRILLING LOGS and LETTER*
DATE	**COMMENT**
07081987	*BTWN FACILITY and DEPT.*
DATE	**COMMENT**
07101987	*CITY OF LA: HARBOR DEPT-FILES ON LAB*
DATE	**COMMENT**
07101987	*ANALYSIS*
DATE	**COMMENT**
07131987	*PUBLIC WORKS: BUREAU OF SANITATION-FILES*
DATE	**COMMENT**
07141987	*FACILITY DRIVE-BY HIGH SECURITY FENCE W/GUARD; SITE CAPPED*
DATE	**COMMENT**
07141987	*W/ASPHALT-- NO DIRECT EXPOSURE.*
DATE	**COMMENT**
12011987	*PRELIM ASSESS DONE DHS-SITE SUBMITTED TO BEP AND HAS BEEN*
DATE	**COMMENT**
12011987	*HAZARD RANKED.*
DATE	**COMMENT**
02111988	*SUBMIT TO EPA RECOMMENDATION OF SI MED UNDER CERCLA2*
DATE	**COMMENT**

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

STATE

SEARCH ID: 96 **DIST/DIR:** 0.00 -- **MAP ID:** 23

NAME:	KOPPERS - LOS ANGELES	**REV:**	07/03/00
ADDRESS:	210 SOUTH AVALON BOULEVARD	**ID1:**	CAL19280085
	WILMINGTON CA 90744	**ID2:**	
	Los Angeles	**STATUS:**	PROPERTY/SITE REFERRED TO RWQC
CONTACT:		**PHONE:**	

08311988 *SITE SCREENING DONE EandE REVIEW OF THE PA COMPLETED BY DHS*

DATE	COMMENT
08311988	*RECOMMENDS A MEDIUM PRIORITY SSI FOR EPA*

DATE	COMMENT
06191989	*SITE IS ON 1989 BOND EXPENDITURE PLAN*

DATE	COMMENT
01141991	*DHS RCVD FIT SSI REASSESSMENT- EPA RECOM*

DATE	COMMENT
01141991	*MENDS LOW PRIORITY LSI 10-12-90.*

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 77 **DIST/DIR:** 0.00 -- **MAP ID:** 24

NAME: MITCHELL, THOMAS AND SONS
ADDRESS: 222 N LAGOON
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 7/20/95
ID1: 447002
ID2:
STATUS: FIXED FACILITY
PHONE:

SPILL INFORMATION
DATE OF SPILL: 7/20/1995 **TIME OF SPILL:** 1425

PRODUCT RELEASED (1): HYDROCHLORIC ACID
QUANTITY (1): 8700
UNITS (1): GAL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: CONCRETE

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** NO
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: LEAK SECURED/MATERIAL CONTAINED IN DIKE AREA/FD ON SCENE
RELEASE DETECTION: PIPELINE INSIDE FACILITY/LINE BROKE
MISC. NOTES: ONE BLOCK OF PRIVATE CITIZENS WAS EVACUATED

DISCHARGER INFORMATION
DISCHARGER ID: 447002 **DUN and BRADSTREET :**
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: MITCHELL, THOMAS AND SONS
ADDRESS:
WILMINGTON CA

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

SPILLS

SEARCH ID: 105 **DIST/DIR:** 0.00 -- **MAP ID:** 25

NAME: WILMINGTON TOWN LOT 525
ADDRESS: 202 W. C ST
WILMINGTON CA 90744
CONTACT:

REV: 11/06/07
ID1: G_SLT43495493
ID2:
STATUS:
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

Please note that some SLIC data previously provided by the State Water Resources Control Board via the Regional Boards is not currently provided by the agency in the new GEOTRACKER format. To ensure that our data is as complete as possible we have retained the original Regional Boards SLIC records as well as loaded all GEOTRACKER SLIC listings. GEOTRACKER records are distinguished by an initial G at the start of the ID.

LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *MANJULIKA CHAKRABARTI*
LEAD AGENCY CASE NUMBER: *0655L5*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded):
RECENT DTW:
STATUS:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 127 **DIST/DIR:** 0.00 -- **MAP ID:** 26

NAME:	COLLEGE OF OCEANEERING	**REV:**	01/01/94
ADDRESS:	201 WATER	**ID1:**	TISID-STATE28190
	WILMINGTON CA 90744	**ID2:**	
	Los Angeles	**STATUS:**	ACTIVE
CONTACT:		**PHONE:**	

UST HISTORICAL DATA

This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names and locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.

The UST information included in FIDS as provided by the Office of Hazardous Data Management was originally collected from the SWEEPS database. The SWEEPS database recorded Underground Storage Tanks and was maintained by the State Water Resources Control Board (SWRCB). That agency no longer maintains the SWEEPS database and last updated it in 1994. The last release of that 1994 database was in 1997.

Oversight of Underground Storage Tanks within California is now conducted by Certified Unified Program Agencies referred to as CUPA s. There are approximately 102 CUPA s and Local Oversight Programs (LOP s) in the State of California. Most are city or county government agencies. As of 1998, all sites or facilities with underground storage tanks were required by Federal mandate to obtain certification by designated UST oversight agencies (in this case, CUPA s) that the UST/s at their location were upgraded or removed in adherence with the 1998 RCRA standards.

Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by Track Info Services. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 125 **DIST/DIR:** 0.00 -- **MAP ID:** 27

NAME:	CITY OF LOS ANGELES	**REV:**	01/01/94
ADDRESS:	100 WATER	**ID1:**	TISID-STATE28912
	WILMINGTON CA 90744	**ID2:**	
	Los Angeles	**STATUS:**	ACTIVE
CONTACT:		**PHONE:**	

UST HISTORICAL DATA

This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names and locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.

The UST information included in FIDS as provided by the Office of Hazardous Data Management was originally collected from the SWEEPS database. The SWEEPS database recorded Underground Storage Tanks and was maintained by the State Water Resources Control Board (SWRCB). That agency no longer maintains the SWEEPS database and last updated it in 1994. The last release of that 1994 database was in 1997.

Oversight of Underground Storage Tanks within California is now conducted by Certified Unified Program Agencies referred to as CUPA s. There are approximately 102 CUPA s and Local Oversight Programs (LOP s) in the State of California. Most are city or county government agencies. As of 1998, all sites or facilities with underground storage tanks were required by Federal mandate to obtain certification by designated UST oversight agencies (in this case, CUPA s) that the UST/s at their location were upgraded or removed in adherence with the 1998 RCRA standards.

Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by Track Info Services. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 126 **DIST/DIR:** 0.00 -- **MAP ID:** 27

NAME: CITY OF LOS ANGELES
ADDRESS: 100 E WATER ST
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 05/01/2000
ID1: LACTY/NONCRTFD1307
ID2:
STATUS:
PHONE:

DETAILS NOT AVAILABLE

FIMAP

SEARCH ID: 191 **DIST/DIR:** 0.00 -- **MAP ID:** 28

NAME: FIRE INSURANCE MAP
ADDRESS:
LOS ANGELES COUNTY CA
CONTACT:

REV: 12/04/07
ID1: CA-FS-181
ID2:
STATUS: SANBORN
PHONE:

SITE INFORMATION

SOURCE COLLECTION: SANBORN

NUMBER OF MAPS: UNDETERMINED

POSSIBLE MAP LOCATION

LOS ANGELES COUNTY

UST

SEARCH ID: 124 **DIST/DIR:** 0.00 -- **MAP ID:** 29

NAME: CITY OF LOS ANGELES
ADDRESS: 214 N AVALON BL
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 05/01/2000
ID1: LACTY/NONCRTFD145
ID2:
STATUS:
PHONE:

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 124 **DIST/DIR:** 0.00 -- **MAP ID:** 29

NAME: CITY OF LOS ANGELES
ADDRESS: 214 N AVALON BL
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 05/01/2000
ID1: LACTY/NONCRTFD145
ID2:
STATUS:
PHONE:

DETAILS NOT AVAILABLE

FIMAP

SEARCH ID: 192 **DIST/DIR:** 0.00 -- **MAP ID:** 30

NAME: FIRE INSURANCE MAP
ADDRESS:
SAN PEDRO CA 90745
CONTACT:

REV: 11/18/98
ID1: POLY-11027
ID2:
STATUS: SANBORN
PHONE:

SITE INFORMATION

SOURCE COLLECTION: SANBORN

NUMBER OF MAPS: UNDETERMINED

POSSIBLE MAP LOCATION

SAN PEDRO

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

LUST

SEARCH ID: 190 **DIST/DIR:** 0.00 -- **MAP ID:** 31

NAME: YANG MING CONTAINER TERMINAL
ADDRESS: 2050 JOHN S. GIBSON BLVD
SAN PEDRO CA 90731
LOS ANGELES
CONTACT:

REV: 10/18/07
ID1: T0603792955
ID2:
STATUS: CASE CLOSED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

Please note that some data previously provided by the State Water Resources Control Board in the LUSTIS database is not currently being provided by the agency in the most recent edition. Incidents that occurred after the year 2000 may not have much information. Field headers with blank information following after should be interpreted as unreported by the agency.

LEAD AGENCY: *REGIONAL BOARD*
REGIONAL BOARD: *04*
LOCAL CASE NUMBER:
RESPONSIBLE PARTY: *PAUL ROBERTS*
ADDRESS OF RESPONSIBLE PARTY: *9272 JERONIMO RD., STE. 123A*
SITE OPERATOR:
WATER SYSTEM:

CASE NUMBER: *907310407*
CASE TYPE: *OTHER*
SUBSTANCE LEAKED: *DIESEL*
SUBSTANCE QUANTITY:
LEAK CAUSE: *UNKNOWN*
LEAK SOURCE: *TANK*
HOW LEAK WAS DISCOVERED: *NO DESCRIPTION*
DATE DISCOVERED (blank if not reported): *2000-05-05*
HOW LEAK WAS STOPPED:
STOP DATE (blank if not reported):
STATUS: *CASE CLOSED*
ABATEMENT METHOD (please note that not all code translations have been provided by the reporting agency): *NO ACTION REQUIRED-INCIDENT IS MINOR REQUIRING NO REMEDIAL ACTION*
ENFORCEMENT TYPE (please note that not all code translations have been provided by the reporting agency): *CLOS*
DATE OF ENFORCEMENT (blank if not reported):

ENTER DATE (blank if not reported):
REVIEW DATE (blank if not reported): *2002-09-19*
DATE OF LEAK CONFIRMATION (blank if not reported): *2000-08-23*
DATE PRELIMINARY SITE ASSESSMENT PLAN WAS SUBMITTED (blank if not reported): *2001-07-25*
DATE PRELIMINARY SITE ASSESSMENT PLAN BEGAN (blank if not reported): *2001-10-18*
DATE POLLUTION CHARACTERIZATION PLAN BEGAN (blank if not reported): *2001-10-18*
DATE REMEDIATION PLAN WAS SUBMITTED (blank if not reported):
DATE REMEDIAL ACTION UNDERWAY (blank if not reported):
DATE POST REMEDIAL ACTION MONITORING BEGAN (blank if not reported):
DATE CLOSURE LETTER ISSUED (SITE CLOSED) (blank if not reported): *2004-04-02*
REPORT DATE (blank if not reported): *2000-08-23*

MTBE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

MTBE DATE(Date of historical maximum MTBE concentration): *1965-01-01*
MTBE GROUNDWATER CONCENTRATION (parts per billion): *LESS THAN 5.0*
MTBE SOIL CONCENTRATION (parts per million): *LESS THAN 5.0*
MTBE CNTS: *2*
MTBE FUEL: *0*
MTBE TESTED: *YES*
MTBE CLASS:

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 172 **DIST/DIR:** 0.00 -- **MAP ID:** 31

NAME: YANG MING
ADDRESS: 2050 JOHN S GIBSON BL
SAN PEDRO CA 90731
LOS ANGELES
CONTACT:

REV: 05/01/2000
ID1: LACTY/NONCRTFD603
ID2:
STATUS:
PHONE:

DETAILS NOT AVAILABLE

UST

SEARCH ID: 116 **DIST/DIR:** 0.00 -- **MAP ID:** 31

NAME: AMERICAN PRESIDENT LINES, LTD
ADDRESS: 2050 JOHN S. GIBSON
SAN PEDRO CA 90731
Los Angeles
CONTACT:

REV: 01/01/94
ID1: TISID-STATE26236
ID2:
STATUS: ACTIVE
PHONE:

UST HISTORICAL DATA

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Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

OTHER

SEARCH ID: 115 **DIST/DIR:** 0.00 -- **MAP ID:** 32

NAME: TODD SHIPYARDS
ADDRESS: 00701 FRONT ST
SAN PEDRO CA 90731
Los Angeles
CONTACT:

REV: 06/02/2000
ID1: LACO_SITEMIT_90S191
ID2:
STATUS:
PHONE:

LA COUNTY SITE MITIGATION LIST INFORMATION

This agency has no consistent update schedule. According to the Los Angeles County Health Hazardous Materials Division the following information is current as of 01/11/01

Case Number: *90S191*
Abated: *03-31-97*
Assigned: *DT*

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

OTHER

SEARCH ID: 111 **DIST/DIR:** 0.00 -- **MAP ID:** 33

NAME:	D.W. RUSSEL CO., INC.	**REV:**	08/07/07
ADDRESS:	412 W. HARRY BRIDGES BLVD.	**ID1:**	CAL19990048
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	REFER: 1248 LOCAL AGENCY
CONTACT:		**PHONE:**	

GENERAL SITE INFORMATION

Site Type:	*Evaluation*
Status:	*Refer: 1248 Local Agency*
Status Date:	*2004-05-16 00:00:00*
NPL Site:	*NO*
Funding:	*Not Applicable*
Regulatory Agencies Involved:	*NONE SPECIFIED*
Lead Agency:	*NONE SPECIFIED*
Project Manager:	
Supervisor:	*Referred - Not Assigned*
Branch:	*So Cal - Cypress*
Acres:	
Assessor s Parcel Number:	*NONE SPECIFIED*
Past Uses:	*NONE SPECIFIED*
Potential Contaminants:	*NONE SPECIFIED*
Confirmed Contaminants:	*NONE SPECIFIED*
Potential Media Affected:	*NONE SPECIFIED*
Restricted Use:	*NO*
Site Management Required:	*NONE SPECIFIED*
Special Programs Associated with this Site:	

OTHER SITE NAMES (blank below = not reported by agency)

19990048

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

OTHER

SEARCH ID: 112 **DIST/DIR:** 0.00 -- **MAP ID:** 33

NAME:	D.W. RUSSELL CO., INC.	**REV:**	08/07/07
ADDRESS:	412 W. HARRY BRIDGES BLVD.	**ID1:**	CAL19990051
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	REFER: 1248 LOCAL AGENCY
CONTACT:		**PHONE:**	

GENERAL SITE INFORMATION

Site Type:	*Evaluation*
Status:	*Refer: 1248 Local Agency*
Status Date:	*2004-02-20 00:00:00*
NPL Site:	*NO*
Funding:	*Not Applicable*
Regulatory Agencies Involved:	*NONE SPECIFIED*
Lead Agency:	*NONE SPECIFIED*
Project Manager:	
Supervisor:	*Referred - Not Assigned*
Branch:	*So Cal - Cypress*
Acres:	
Assessor s Parcel Number:	*NONE SPECIFIED*
Past Uses:	*NONE SPECIFIED*
Potential Contaminants:	*NONE SPECIFIED*
Confirmed Contaminants:	*NONE SPECIFIED*
Potential Media Affected:	*NONE SPECIFIED*
Restricted Use:	*NO*
Site Management Required:	*NONE SPECIFIED*
Special Programs Associated with this Site:	

OTHER SITE NAMES (blank below = not reported by agency)

19990051

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

STATE

SEARCH ID: 95 **DIST/DIR:** 0.11 NE **MAP ID:** 34

NAME: IT TRANSPORTATION CORP - WILMINGTON
ADDRESS: 233 EAST D STREET
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 07/03/00
ID1: CAL19420028
ID2:
STATUS: PROPERTY/SITE REFERRED TO RCRA
PHONE:

OTHER SITE NAMES (blank below = not reported by agency)

OTHER SITE NAMES (blank below = not reported by agency)
FIX and BRAIN (1960-1979).

GENERAL SITE INFORMATION
File Name (if different than site name):

Status: *PROPERTY/SITE REFERRED TO RCRA (REFRC)*
AWP Site Type: *N/A*
NPL Site:
Fund:
Status Date: *03011984*
Lead:
Staff:
Senior Supervisor:

DTSC Region and RWQCB : *4 / LONG BEACH*
Branch: *SOUTHERN CA. - B*
RWQCB:
Site Access: *Controlled*
On Cortese List:
Groundwater Contamination:
Haz Ranking Score:
Haz Ranking Score:
Number of Sources Contributing to Contamination at the Site: *0*

OTHER AGENCY ID NUMBERS (blank below = not reported by agency)
ID SOURCE NAME, and VALUE: *EPA IDENTIFICATION NUMBER CAD029654894*

INFORMATION ON SPECIAL PROGRAMS THE SITE IS ASSOCIATED WITH (blank below = not reported by agency)
RCRA 3012

PROJECTED ACTIVITIES (blank below = not reported by agency)

PROJECTED ACTIVITIES (blank below = not reported by agency)

PROJECTED ACTIVITIES (blank below = not reported by agency)
Activity: ***DISCOVERY (DISC)***
Activity Status: *PROPERTY/SITE REFERRED TO RCRA*
Completion Due Date:
Revised Completion Due Date:
Date Activity Actually Completed: *09261983*
Yards of Solids Removed: *0*
Yards of Solids Treated: *0*
Gallons of Liquid Removed: *0*
Gallons of Liquid Treated: *0*

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

STATE

SEARCH ID: 95 **DIST/DIR:** 0.11 NE **MAP ID:** 34

NAME: IT TRANSPORTATION CORP - WILMINGTON
ADDRESS: 233 EAST D STREET
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 07/03/00
ID1: CAL19420028
ID2:
STATUS: PROPERTY/SITE REFERRED TO RCRA
PHONE:

Activity: *(PA)*
Activity Status: *PROPERTY/SITE REFERRED TO RCRA*
Completion Due Date:
Revised Completion Due Date:
Date Activity Actually Completed: *03011984*
Yards of Solids Removed: *0*
Yards of Solids Treated: *0*
Gallons of Liquid Removed: *0*
Gallons of Liquid Treated: *0*

Activity: *(SS)*
Activity Status: *PROPERTY/SITE REFERRED TO RCRA*
Completion Due Date:
Revised Completion Due Date:
Date Activity Actually Completed: *05011995*
Yards of Solids Removed: *0*
Yards of Solids Treated: *0*
Gallons of Liquid Removed: *0*
Gallons of Liquid Treated: *0*

DTSC COMMENTS REGARDING THIS SITE (blank below = not reported by agency)

DATE	COMMENT
10291980	*INSPECTION(STATE) DHS. F-U INSP ON SPILL OF 10/28/84.*
10291980	*VISIBLE SURFACE FILM OF FINE LIGHT,GREY*
10291980	*DUST and SCATTERED SPOTS WHITISH POWDER.*
10291980	*SEEM TO PRESENT ONLY A AESTHETIC PROBLEM*
12181981	*INSPECTION(STATE) DHS. ISD COMPLI INSP. SUBMIT CONSTRUCTIO*
12181981	*PLAN FOR TANK FARM, INSTALL WARNING SIGN*
03051982	*INSPECTION(STATE) DHS. ISD COMPLI INSP.*
09261983	*FACILITY IDENTIFIED ID FROM ERRIS*
03011984	*PERMIT(OTHER) IT FULLY PERMITED BY DHS,CO SANIT,RWQCB,*
03011984	*and SCAQMD.*
03011984	*FACILITY DRIVE-BY FENCED, PAVED and GUARDED BY SECURITY*

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

STATE

SEARCH ID: 95 **DIST/DIR:** 0.11 NE **MAP ID:** 34

NAME: IT TRANSPORTATION CORP - WILMINGTON
ADDRESS: 233 EAST D STREET
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 07/03/00
ID1: CAL19420028
ID2:
STATUS: PROPERTY/SITE REFERRED TO RCRA
PHONE:

DATE	COMMENT
03011984	*(FIX and BRAIN)SAME OPER AS IT CORP. W/ A*
03011984	*PERMIT OF LAND FARMING OF OIL WASTES ON*
03011984	*HARBOR DEPT PROPERTY APPROX. 2MILES AWAY*
03011984	*T/C W/D.BROADBENT,IT CORP,213-378-9933,*
03011984	*4/6/84 - 1)SOURCE ACT: HAZ WASTES TREAT*
03011984	*MENT,TRANSPORT and TEMPORARY STORAGE.*
03011984	*2) YR OF OPER: 1979 TO PRESENT*
03011984	*3)FAC TYPE: STORAGE- 3 6,500GAL POLYETHL*
03011984	*TANKS, 9 10,000GAL U/G TANKS,6 46,000GAL*
03011984	*STEEL TANKS,43 TRUCKS,TRAILRS 100-120BBL*
03011984	*10 BOBTAIL TRUCKS 50-70 BBL.*
03011984	*INCIDENT:10/28/80 SPILLAGE OF CATALYST*
03011984	*FINES ON AZUSA AVE FROM HWY 60 TO BKK*
03011984	*LDFL BY IT CORP HAULER. IT CLEANED UP.*
03011984	*SUBMIT TO EPA*
03011984	*PRELIM ASSESS DONE RCRA 3012*

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

CERCLIS

SEARCH ID: 1 **DIST/DIR:** 0.11 NE **MAP ID:** 34

NAME:	IT TRANSP CORP WILMINGTON	**REV:**	2/8/08
ADDRESS:	233 E D ST	**ID1:**	CAD029654894
	WILMINGTON CA 90744	**ID2:**	0901296
	LOS ANGELES	**STATUS:**	NOT PROPOSED
CONTACT:	DAWN RICHMOND	**PHONE:**	4159723097

DESCRIPTION:

ACTION/QUALITY	AGENCY/RPS	START/RAA	END
DISCOVERY	EPA Fund-Financed		06-01-1981
PRELIMINARY ASSESSMENT	State, Fund Financed	08-01-1984	05-01-1985
NFRAP (No Futher Remedial Action Planned			

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

SWL

SEARCH ID: 107 **DIST/DIR:** 0.00 -- **MAP ID:** 34

NAME: IT CORPORATION-WILMINGTON
ADDRESS: 233 EAST D STREET
WILMINGTON CA
Los Angeles
CONTACT:

REV: 07/03/00
ID1: WMUD4 190253NUR
ID2:
STATUS:
PHONE:

WMUDS FACILITY INFORMATION (blank = not reported)

Regional ID :
NPDES ID :
Region: *4*
Edit Date:
Last Edit:

Waste Discharger Facility: *No*

Sub Chapter 15 Facility: *No*
Solid Waste Assessment Test Site: *Yes*
Toxic Pits Cleanup Act Facility: *No*
RCRA Facility: *No*
Department of Defense Facility: *No*
Municipal Solid Waste Facility: *No*

Total WMUS at Facility: *1*
Facility Open to the Public: *No*
Facility Type:
SIC 1 and SIC 2: */*

Primary Waste Type:
Secondary Waste Type:
Tons Per Day: *0*
Complexity:

LAND OWNER INFORMATION

Land Owner:
Department:
Contact and Phone: *,*
Land Owner Address: *, , CA*

AGENCY INFORMATION

Agency Name: *IT CORPORATION*
Department:
Agency Contact and Phone: *,*

WASTE MANAGEMENT UNIT INFORMATION (blank = not reported)

WMU ID : *4 190253NUR-01*
WMU Status: *CEASE DISCHARGE*
WMU Size in Acres:
Year WMU Will Reach Capacity:
Close Plan: *0*
Avg Depth to Groundwater: *0*
Primary Liner Present: *0*

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

OTHER

SEARCH ID: 113 **DIST/DIR:** 0.11 NE **MAP ID:** 34

NAME:	IT TRANSPORTATION CORP - WILMINGTON	**REV:**	08/07/07
ADDRESS:	233 EAST D STREET	**ID1:**	CAL19420028
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	REFER: RCRA
CONTACT:		**PHONE:**	

GENERAL SITE INFORMATION

Site Type: *Historical*
Status: *Refer: RCRA*
Status Date: *1984-03-01 00:00:00*
NPL Site: *NO*
Funding:
Regulatory Agencies Involved: *NONE SPECIFIED*
Lead Agency: *NONE SPECIFIED*
Project Manager:
Supervisor: *Referred - Not Assigned*
Branch: *So Cal - Cypress*
Acres:
Assessor s Parcel Number: *NONE SPECIFIED*
Past Uses: *NONE SPECIFIED*
Potential Contaminants: *HALOGENATED SOLVENTS, Metals - Other Inorganic Solid Waste, ORGANIC LIQUIDS WITH METALS, Sludge - Paint, UNSPECIFIED ACID SOLUTION, UNSPECIFIED ALKALINE SOLUTIONS, UNSPECIFIED SOLVENT MIXTURES*
Confirmed Contaminants: *NONE SPECIFIED*
Potential Media Affected: *NONE SPECIFIED*
Restricted Use: *NO*
Site Management Required: *NONE SPECIFIED*
Special Programs Associated with this Site: ** RCRA 3012 - Past Haz Waste Disp Inven Site*

OTHER SITE NAMES (blank below = not reported by agency)

CAD029654894

FIX and BRAIN (1960-1979).

19420028

LAIDLAW ENVIRONMENTAL SERVICES

COMPLETED ACTIVITIES AND DTSC COMMENTS REGARDING THIS SITE (blank below = not reported by agency)

Area Name: ***PROJECT WIDE***
Sub- Area Name:
Document Type: ***Site Screening***
Completion Date: ***1995-05-01***
Comments:

Area Name: ***PROJECT WIDE***
Sub- Area Name:
Document Type: ***Preliminary Assessment Report***
Completion Date: ***1984-03-01***
Comments: *PERMIT(OTHER) IT FULLY PERMITED BY DHS,CO SANIT,RWQCB, and SCAQMD. FACILITY DRIVE-BY FENCED, PAVED and GUARDED BY SECURITY (FIX and BRAIN)SAME OPER AS IT CORP. W/ A PERMIT OF LAND FARMING OF OIL WASTES ON HARBOR DEPT PROPERTY APPROX. 2MILES AWAY T/C W/D.BROADBENT,IT CORP,213-378-9933, 4/6/84 - 1)SOURCE ACT: HAZ WASTES TREAT MENT,TRANSPORT and TEMPORARY STORAGE. 2) YR OF OPER: 1979 TO PRESENT 3)FAC TYPE: STORAGE- 3 6,500GAL POLYETHL TANKS, 9 10,000GAL U/G TANKS,6 46,000GAL STEEL TANKS,43 TRUCKS,TRAILRS 100-120BBL 10 BOBTAIL TRUCKS 50-70 BBL. INCIDENT:10/28/80 SPILLAGE OF CATALYST FINES ON AZUSA AVE FROM HWY 60 TO BKK LDFL BY IT CORP HAULER. IT CLEANED UP. SUBMIT TO EPA PRELIM ASSESS DONE RCRA 3012*

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

OTHER

SEARCH ID: 113 **DIST/DIR:** 0.11 NE **MAP ID:** 34

NAME:	IT TRANSPORTATION CORP - WILMINGTON	**REV:**	08/07/07
ADDRESS:	233 EAST D STREET	**ID1:**	CAL19420028
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	REFER: RCRA
CONTACT:		**PHONE:**	

Area Name:	***PROJECT WIDE***
Sub- Area Name:	
Document Type:	***Discovery***
Completion Date:	***1983-09-26***
Comments:	*FACILITY IDENTIFIED ID FROM ERRIS*

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 34 **DIST/DIR:** 0.00 -- **MAP ID:** 35

NAME:	SHIMIZU AUTOMOTIVE	**REV:**	6/6/06
ADDRESS:	402 W C ST	**ID1:**	CAR000086983
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	SGN
CONTACT:	JOHNY SHIMIZU	**PHONE:**	3108347615

SITE INFORMATION

CONTACT INFORMATION: JOHNY SHIMIZU
402 W C ST
WILMINGTON CA 90744

PHONE: 3108347615

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

Ignitable waste
Tetrachloroethylene

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 168 **DIST/DIR:** 0.00 -- **MAP ID:** 36

NAME: TUNEUP MASTERS INC. 0023
ADDRESS: 1050 PACIFIC
SAN PEDRO CA 90731
Los Angeles
CONTACT:

REV: 01/01/94
ID1: TISID-STATE6077
ID2:
STATUS: INACTIVE
PHONE:

UST HISTORICAL DATA

This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names and locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.

The UST information included in FIDS as provided by the Office of Hazardous Data Management was originally collected from the SWEEPS database. The SWEEPS database recorded Underground Storage Tanks and was maintained by the State Water Resources Control Board (SWRCB). That agency no longer maintains the SWEEPS database and last updated it in 1994. The last release of that 1994 database was in 1997.

Oversight of Underground Storage Tanks within California is now conducted by Certified Unified Program Agencies referred to as CUPA s. There are approximately 102 CUPA s and Local Oversight Programs (LOP s) in the State of California. Most are city or county government agencies. As of 1998, all sites or facilities with underground storage tanks were required by Federal mandate to obtain certification by designated UST oversight agencies (in this case, CUPA s) that the UST/s at their location were upgraded or removed in adherence with the 1998 RCRA standards.

Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by Track Info Services. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 152 **DIST/DIR:** 0.00 -- **MAP ID:** 37

NAME: MARINE TANK FARM
ADDRESS: 130 A
LOS ANGELES CA 90744
Los Angeles
CONTACT:

REV: 01/01/94
ID1: TISID-STATE4427
ID2:
STATUS: INACTIVE
PHONE:

UST HISTORICAL DATA

This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names and locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.

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Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by Track Info Services. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

FIMAP

SEARCH ID: 194 **DIST/DIR:** 0.00 -- **MAP ID:** 38

NAME: FIRE INSURANCE MAP
ADDRESS:
SAN PEDRO CA 90731
CONTACT:

REV: 11/18/98
ID1: POLY-11171
ID2:
STATUS: SANBORN
PHONE:

SITE INFORMATION

SOURCE COLLECTION: SANBORN

NUMBER OF MAPS: UNDETERMINED

POSSIBLE MAP LOCATION

SAN PEDRO

FIMAP

SEARCH ID: 193 **DIST/DIR:** 0.00 -- **MAP ID:** 39

NAME: FIRE INSURANCE MAP
ADDRESS:
SAN PEDRO CA 90731
CONTACT:

REV: 11/18/98
ID1: POLY-11170
ID2:
STATUS: SANBORN
PHONE:

SITE INFORMATION

SOURCE COLLECTION: SANBORN

NUMBER OF MAPS: UNDETERMINED

POSSIBLE MAP LOCATION

SAN PEDRO

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

SPILLS

SEARCH ID: 100 **DIST/DIR:** 0.00 -- **MAP ID:** 40

NAME: WILMINGTON TOWN LOT 150
ADDRESS: 133-141 N. MARINA AVE
WILMINGTON CA 90744
CONTACT:

REV: 11/06/07
ID1: G_SLT43539537
ID2:
STATUS:
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

Please note that some SLIC data previously provided by the State Water Resources Control Board via the Regional Boards is not currently provided by the agency in the new GEOTRACKER format. To ensure that our data is as complete as possible we have retained the original Regional Boards SLIC records as well as loaded all GEOTRACKER SLIC listings. GEOTRACKER records are distinguished by an initial G at the start of the ID.

LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *MANJULIKA CHAKRABARTI*
LEAD AGENCY CASE NUMBER: *0655R4*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded):
RECENT DTW:
STATUS: *Case Closed*

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

LUST

SEARCH ID: 184 **DIST/DIR:** 0.00 -- **MAP ID:** 41

NAME: MOINE/LOCKE PROPERTY
ADDRESS: 127 B ST W
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 10/18/07
ID1: T0603701666
ID2:
STATUS: CASE CLOSED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

Please note that some data previously provided by the State Water Resources Control Board in the LUSTIS database is not currently being provided by the agency in the most recent edition. Incidents that occurred after the year 2000 may not have much information. Field headers with blank information following after should be interpreted as unreported by the agency.

LEAD AGENCY: *REGIONAL BOARD*
REGIONAL BOARD: *04*
LOCAL CASE NUMBER:
RESPONSIBLE PARTY: *BLANK RP*
ADDRESS OF RESPONSIBLE PARTY: *1110 W ANAHEIM ST, WILMINGTON CA 90744*
SITE OPERATOR: *OLD CASE 040590-06*
WATER SYSTEM:

CASE NUMBER: *907440216*
CASE TYPE: *OTHER*
SUBSTANCE LEAKED: *GASOLINE*
SUBSTANCE QUANTITY:
LEAK CAUSE: *UNKNOWN*
LEAK SOURCE: *TANK*
HOW LEAK WAS DISCOVERED: *TANK CLOSURE*
DATE DISCOVERED (blank if not reported): *1989-09-08*
HOW LEAK WAS STOPPED:
STOP DATE (blank if not reported):
STATUS: *CASE CLOSED*
ABATEMENT METHOD (please note that not all code translations have been provided by the reporting agency):
ENFORCEMENT TYPE (please note that not all code translations have been provided by the reporting agency):
DATE OF ENFORCEMENT (blank if not reported):

ENTER DATE (blank if not reported): *1990-04-04*
REVIEW DATE (blank if not reported): *1990-04-05*
DATE OF LEAK CONFIRMATION (blank if not reported):
DATE PRELIMINARY SITE ASSESSMENT PLAN WAS SUBMITTED (blank if not reported):
DATE PRELIMINARY SITE ASSESSMENT PLAN BEGAN (blank if not reported): *1990-03-21*
DATE POLLUTION CHARACTERIZATION PLAN BEGAN (blank if not reported):
DATE REMEDIATION PLAN WAS SUBMITTED (blank if not reported):
DATE REMEDIAL ACTION UNDERWAY (blank if not reported):
DATE POST REMEDIAL ACTION MONITORING BEGAN (blank if not reported):
DATE CLOSURE LETTER ISSUED (SITE CLOSED) (blank if not reported): *1997-01-10*
REPORT DATE (blank if not reported): *1990-03-21*

MTBE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

MTBE DATE(Date of historical maximum MTBE concentration):
MTBE GROUNDWATER CONCENTRATION (parts per billion):
MTBE SOIL CONCENTRATION (parts per million):
MTBE CNTS: *0*
MTBE FUEL: *1*
MTBE TESTED: *SITE NOT TESTED FOR MTBE. INCLUDES UNKNOWN AND NOT ANALYZED*
MTBE CLASS: ***

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 91 **DIST/DIR:** 0.00 -- **MAP ID:** 42

NAME:
ADDRESS: 100 WEST WATER ST
WILMINGTON CA
LOS ANGELES
CONTACT:

REV: 12/31/06
ID1: NRC-819952
ID2:
STATUS: VESSEL
PHONE:

SITE INFORMATION

THIS INFORMATION WAS OBTAINED FROM THE NATIONAL RESPONSE CENTER

DATE RECEIVED: 12/4/2006 11:10:45 PM **DATE COMPLETE:** 12/4/2006 11:17:02 PM
CALL TAKER: **CALL TYPE:** INC

RESPONSIBLE PARTY:
PHONE 1:
PHONE 2:
PHONE 3:

RESPONSIBLE COMPANY: CATALINA FREIGHT LINE
ORGANIZATION TYPE: PRIVATE ENTERPRISE

ADDRESS:
WILMINGTON CA

SOURCE: TELEPHONE

INCIDENT INFORMATION

INCIDENT DESCRIPTION: CALLER REPORTED THE STERN PORTION OF A PLEASURE CRAFT WAS FOUND BELOW WATER WHEN AND TUG WAS BROUGHT IN TO TIE THE TUG DOWN SO THAT THE VESSEL WOULD NOT SINK. IT IS UNKNOWN IF ANY MATERIAL HAS RELEASED. THE AREA HAS BEEN BOOMED. THE COAST GUARD IS ON S

INCIDENT TYPE:	VESSEL	**INCIDENT CAUSE:**	VESSEL SINKING
INCIDENT DATE:	12/4/2006 4:15:00 PM	**INCIDENT DATE DESC:**	OCCURRED
DISTANCE FROM CITY:		**DISTANCE UNITS:**	
DIRECTION FROM CITY:		**LOCATION SECTION:**	
LOCATION TOWNSHIP:		**LOCATION RANGE:**	
AIRCRAFT TYPE:		**AIRCRAFT MODEL:**	
AIRCRAFT ID:		**AIRCRAFT FUEL CAPACITY:**	
AIRCRAFT FUEL CAPACITY UNITS:		**AIRCRAFT FUEL ON BOARD:**	
AIRCRAFT FUEL ON BOARD UNITS:		**AIRCRAFT SPOT NUMBER:**	
AIRCRAFT HANGER:		**AIRCRAFT RUNWAY NUM:**	
ROAD MILE MARKER:		**BUILDING ID:**	
TYPE OF FIXED OBJECT:		**POWER GEN FACILITY:**	UNKNOWN
GENERATING CAPACITY:		**TYPE OF FUEL:**	
NPDES:		**NPDES COMPLIANCE:**	UNKNOWN
PIPELINE TYPE:		**DOT REGULATED:**	UNKNOWN
PIPELINE ABOVE GROUND:	ABOVE	**EXPOSED UNDERWATER:**	NO
PIPELINE COVERED:	UNKNOWN	**GRADE CROSSING:**	UNKNOWN
LOCATION SUBDIVISION:		**RAILROAD MILEPOST:**	
TYPE VEHICLE INVOLVED:		**CROSSING DEVICE TYPE:**	
DEVICE OPERATIONAL:	YES		

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 91 **DIST/DIR:** 0.00 -- **MAP ID:** 42

NAME:
ADDRESS: 100 WEST WATER ST
WILMINGTON CA
LOS ANGELES
CONTACT:

REV: 12/31/06
ID1: NRC-819952
ID2:
STATUS: VESSEL
PHONE:

DOT CROSSING NUMBER:		**BRAKE FAILURE:**	UNKNOWN
TANK ABOVE GROUND:	ABOVE	**TRANSPORTABLE CONTAINER:**	UNKNOWN
TANK REGULATED:	UNKNOWN	**TANK REGULATED BY:**	
TANK ID:		**CAPACITY OF TANK:**	
CAPACITY OF TANK UNITS:		**ACTUAL AMOUNT:**	
ACTUAL AMOUNT UNITS:		**PLATFORM RIG NAME:**	
PLATFORM LETTER:		**LOCATION AREA ID:**	
LOCATION BLOCK ID:			

DESCRIPTION OF TANK:

OCSG NUMBER:		**OCSP NUMBER:**	
STATE LEASE NUMBER:		**PIER DOCK NUMBER:**	
BERTH SLIP NUMBER:		**CONTIN RELEASE TYPE:**	
INITIAL CONT RELEASE NUM:		**CONT RELEASE PERMIT:**	
ALLISION:	UNKNOWN	**TYPE OF STRUCTURE:**	
STRUCTURE NAME:		**STRUCT OPERATIONAL:**	UNKNOWN
AIRBAG DEPLOYED:	UNKNOWN	**DATE NORMAL SERVICE:**	
SERVICE DISRUPT TIME:		**SERVICE DISRUPT UNITS:**	
TRANSIT BUS FLAG:		**CR BEGIN DATE:**	
CR END DATE:		**CR CHANGE DATE:**	
FIRE INVOLVED:	NO	**FIRE EXTINGUISHED:**	UNKNOWN
ANY EVACUATIONS:	NO	**NUMBER EVACUATED:**	
WHO EVACUATED:		**RADIUS OF EVACUATION:**	
ANY INJURIES:	NO	**NUMBER INJURED:**	
NUMBER HOSPITALIZED:		**ANY FATALITIES:**	NO
NUMBER FATALITIES:		**ANY DAMAGES:**	NO
DAMAGE AMOUNT:		**AIR CORRIDOR CLOSED:**	NO
AIR CORRIDOR DESC:		**AIR CLOSURE TIME:**	
WATERWAY CLOSED:	NO	**WATERWAY DESC:**	
WATERWAY CLOSURE TIME:		**ROAD CLOSED:**	NO
ROAD DESC:		**ROAD CLOSURE TIME:**	
CLOSURE DIRECTION:		**MAJOR ARTERY:**	NO
TRACK CLOSED:	NO	**TRACK DESC:**	
TRACK CLOSURE TIME:		**MEDIA INTEREST:**	NONE
MEDIUM DESC:	NON-RELEASE (N/A)		**ADDTL MEDIUM INFO:**
POTENTIAL DIESEL FUEL SPILL			
BODY OF WATER:		**TRIBUTARY OF:**	
NEAREST RIVER MILE MARK:		**RELEASE SECURED:**	NO
EST DUR OF RELEASE:		**RELEASE RATE:**	
TRACK CLOSE DIR:		**ST AGENCY ON SCENE:**	NONE
ST AGENCY RPT NUM:	NONE	**OTHER AGENCY NOTIFIED:**	
WEATHER CONDITIONS:		**AIR TEMPERATURE:**	
WIND SPEED:		**WIND DIRECTION:**	
WATER SUPPLY CONTAM:	UNKNOWN	**SHEEN SIZE:**	
SHEEN COLOR:		**DIR OF SHEEN TRAVEL:**	
SHEEN ODOR DESCRIPTION:		**WAVE CONDITION:**	
CURRENT SPEED:		**CURRENT DIRECTION:**	
WATER TEMPERATURE:			

DESC OF REMEDIAL ACTION: CREWS ARE ENROUTE TO THE SCENE TO TAKE CARE OF THE VESSEL

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 91 **DIST/DIR:** 0.00 -- **MAP ID:** 42

NAME:
ADDRESS: 100 WEST WATER ST
WILMINGTON CA
LOS ANGELES
CONTACT:

REV: 12/31/06
ID1: NRC-819952
ID2:
STATUS: VESSEL
PHONE:

EMPL FATALITY:		**PASS FATALITY:**	
COMMUNITY IMPACT:	NO	**WIND SPEED UNITS:**	
EMPLOYEE INJURIES:		**PASSENGER INJURIES:**	
OCCUPANT FATALITY:		**CURRENT SPEED UNITS:**	
ROAD CLOSURE UNITS:		**TRACK CLOSURE UNITS:**	
SHEEN SIZE UNITS:		**STATE AGENCY NOTIFIED:**	NONE
FED AGENCY NOTIFIED:	USCG	**NEAREST RIVER MILE MARK:**	
SHEEN SIZE LENGTH:		**SHEEN SIZE LENGTH UNITS:**	
SHEEN SIZE WIDTH:		**SHEEN SIZE WIDTH UNITS:**	
OFFSHORE:	N	**DURATION UNIT:**	
RELEASE RATE UNIT:		**RELEASE RATE RATE:**	

ADDITIONAL INFO: CALLER HAD NO ADDITIONAL INFORMATION.

MATERIAL INFORMATION

CHRIS CODE:	ODS	**CASE NUMBER:**	000000-00-0
UN NUMBER:		**REACHED WATER:**	UNKNOWN

NAME OF MATERIAL: OIL: DIESEL
AMOUNT OF MATERIAL: 0 UNKNOWN AMOUNT
AMOUNT IN WATER: 0 UNKNOWN AMOUNT

OTHER MATERIAL INFORMATION

MOBILE DETAILS INFORMATION

TRAIN INFORMATION

VESSEL INFORMATION

VESSEL NAME:	REBEL	**VESSEL TYPE:**	PLEASURE CRAFT
VESSEL NUMBER:	CF0101NE	**VESSEL LENGTH:**	35
HULL CONSTRUCTION:		**FUEL CAPACITY:**	
FUEL ON BOARD:		**CARGO CAPACITY:**	
CARGO ON BOARD:		**VESSEL AGROUND:**	N
FLAG:		**BREADTH:**	
DRAUGHT:			

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 49 **DIST/DIR:** 0.01 NW **MAP ID:** 43

NAME: ALL AMERICAN PAINT and BODY
ADDRESS: 214 MCDONALD
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 7/16/90 0:
ID1: 173421
ID2:
STATUS: FIXED FACILITY
PHONE:

SPILL INFORMATION
DATE OF SPILL: 7/16/1990 **TIME OF SPILL:** 1200

PRODUCT RELEASED (1): PAINT, THINNER, SOLVENTS
QUANTITY (1): 3
UNITS (1): GAL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: NO **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE:

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** NO
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: TAT ISSUED CAP
RELEASE DETECTION: WASTE FROM OPERATION OF BUSINESS
MISC. NOTES: * REFERRED: RICARDO TADEO

DISCHARGER INFORMATION
DISCHARGER ID: 173421 **DUN and BRADSTREET :**
TYPE OF DISCHARGER: PRIVATE CITIZEN
NAME OF DISCHARGER: ALL AMERICAN PAINT and BODY
ADDRESS: 214 MCDONALD
WILMINGTON CA 90744-

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 56 **DIST/DIR:** 0.01 SE **MAP ID:** 44

NAME: AMERICAN PRESIDENT LINES
ADDRESS: 2001 JOHN GIBSON BLVD
SAN PEDRO CA 90731
Los Angeles
CONTACT:

REV: 6/29/93
ID1: 328429
ID2:
STATUS: FIXED FACILITY
PHONE:

SPILL INFORMATION
DATE OF SPILL: 6/29/1993 **TIME OF SPILL:** 1930

PRODUCT RELEASED (1): CARBON DISULFIDE
QUANTITY (1): 0
UNITS (1): GAL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED

AIR:	NO	**GROUNDWATER:**	NO
LAND:	YES	**FIXED FACILITY:**	NO
WATER:	NO	**OTHER:**	NO

WATERBODY AFFECTED BY RELEASE: ASPHALT

CAUSE OF RELEASE

DUMPING:	NO	**EQUIPMENT FAILURE:**	NO
NATURAL PHENOMENON:	NO	**OPERATOR ERROR:**	NO
OTHER CAUSE:	NO	**TRANSP. ACCIDENT:**	NO
UNKNOWN:	NO		

ACTIONS TAKEN: CONTAINER HAS BEEN ISOLATED AND USING SORBENTS
RELEASE DETECTION: CARGO CONTAINER/LEAKING DUE TO UNKNOWN REASONS
MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 328429
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: AMERICAN PRESIDENT LINES
ADDRESS: 2001 JOHN GIBSON BLVD
SAN PEDRO CA 90731

DUN and BRADSTREET :

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 63 **DIST/DIR:** 0.01 SE **MAP ID:** 44

NAME: APL
ADDRESS: 2001 JOHN GIBSON BLVD BERTH 126
SAN PEDRO CA 90731
Los Angeles
CONTACT:

REV: 1/20/96
ID1: 474330
ID2:
STATUS: FIXED FACILITY
PHONE:

SPILL INFORMATION
DATE OF SPILL: 1/20/1996 **TIME OF SPILL:** 1900

PRODUCT RELEASED (1): TRIETHYLAMINE
QUANTITY (1): 4
UNITS (1): OUN

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: ASPHALT

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** NO
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: MATERIAL ISOLATED BEHIND LOCKED FENCE. ABSORBENTS APPLIED. CONTRACTEDHAZMAT TEAM TO CLEANUP.
RELEASE DETECTION: DRUMS IN 20FT CONTAINER / LEAKING THROUGH BOTTOM
MISC. NOTES: NONE WILL NOTIFY: OES, FIRE DEPARTMENT

DISCHARGER INFORMATION
DISCHARGER ID: 474330
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: APL
ADDRESS: 2001 JOHN GIBSON BLVD
SAN PEDRO CA 90731
DUN and BRADSTREET :

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 62 **DIST/DIR:** 0.01 SE **MAP ID:** 44

NAME: AMERICAN PRESIDENT LINES
ADDRESS: 2001 JOHN GIBSON BLVD
SAN PEDRO CA 90731
LOS ANGELES
CONTACT:

REV: 12/23/91
ID1: 241040
ID2:
STATUS: MARINE- RELEASED FROM A MARINE
PHONE:

SPILL INFORMATION
DATE OF SPILL: 12/23/1991 **TIME OF SPILL:** 2100

PRODUCT RELEASED (1): POTASSIUM NITRATE
QUANTITY (1): 1
UNITS (1): LBS

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE:

SPILL INFORMATION
DATE OF SPILL: 12/23/1991 **TIME OF SPILL:** 2100

PRODUCT RELEASED (1): POTASSIUM NITRATE
QUANTITY (1): 1
UNITS (1): LBS

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE:

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** NO
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: HIRED CONTRACTOR TO CLEAN UP SPILL
RELEASE DETECTION: SHIPPING CONTAINER/UNKNOWN

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 62 **DIST/DIR:** 0.01 SE **MAP ID:** 44

NAME: AMERICAN PRESIDENT LINES
ADDRESS: 2001 JOHN GIBSON BLVD
SAN PEDRO CA 90731
LOS ANGELES
CONTACT:

REV: 12/23/91
ID1: 241040
ID2:
STATUS: MARINE- RELEASED FROM A MARINE
PHONE:

MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 241040
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: AMERICAN PRESIDENT LINES
ADDRESS: 2001 JOHN GIBSON BLVD
SAN PEDRO CA 90731

DUN and BRADSTREET :

CAUSE OF RELEASE

DUMPING:	NO	**EQUIPMENT FAILURE:**	NO
NATURAL PHENOMENON:	NO	**OPERATOR ERROR:**	NO
OTHER CAUSE:	NO	**TRANSP. ACCIDENT:**	NO
UNKNOWN:	NO		

ACTIONS TAKEN: HIRED CONTRACTOR TO CLEAN UP SPILL
RELEASE DETECTION: SHIPPING CONTAINER/UNKNOWN
MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 241040
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: AMERICAN PRESIDENT LINES
ADDRESS: 2001 JOHN GIBSON BLVD
SAN PEDRO CA 90731

DUN and BRADSTREET :

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 61 **DIST/DIR:** 0.01 SE **MAP ID:** 44

NAME:	AMERICAN PRESIDENT LINES	**REV:**	
ADDRESS:	2001 JOHN S GIBSON BLVD	**ID1:**	112822
	SAN PEDRO CA 90731	**ID2:**	
	LOS ANGELES	**STATUS:**	UNKNOWN
CONTACT:		**PHONE:**	

THERE ARE NO DETAILS AVAILABLE FOR THIS SITE

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 60 **DIST/DIR:** 0.01 SE **MAP ID:** 44

NAME: AMERICAN PRESIDENT LINES
ADDRESS: 2001 JOHN GIBSON BLVD.
SAN PEDRO CA 90731
Los Angeles
CONTACT:

REV: 10/31/90 0
ID1: 466015
ID2:
STATUS: FIXED FACILITY
PHONE:

SPILL INFORMATION
DATE OF SPILL: 10/31/1990 **TIME OF SPILL:** 1530

PRODUCT RELEASED (1): ETHYL BUTYRATE
QUANTITY (1): 0
UNITS (1): UNK

PRODUCT RELEASED (2): TERPENE HYDROCARBON NOS
QUANTITY (2): 0
UNITS (2): UNK

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: PAVEMENT UNDER THE CONTAINER

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** YES
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: IT CORP. IS EN ROUTE TO PERFORM CLEANUPS. LCL F/D IS EN ROUTE.
RELEASE DETECTION: QUANTITY=UNKNOWN 20 ROLL-OFF CONTAINER/UNK-DISCOVERED MATERIALS LEAKING FROM THE CONTAINER
MISC. NOTES: WILL NOTIFY OES.

DISCHARGER INFORMATION
DISCHARGER ID: 466015 **DUN and BRADSTREET :**
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: AMERICAN PRESIDENT LINES
ADDRESS: 2001 JOHN GIBSON BLVD.
SAN PEDRO CA 90731-

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 59 **DIST/DIR:** 0.01 SE **MAP ID:** 44

NAME: AMERICAN PRESIDENT LINES
ADDRESS: 2001 JOHN GIBSON BLVD
SAN PEDRO CA
Los Angeles
CONTACT:

REV: 7/14/90 0:
ID1: 465694
ID2:
STATUS: PIPELINE RELATED
PHONE:

SPILL INFORMATION
DATE OF SPILL: 7/14/1990 **TIME OF SPILL:** 1830

PRODUCT RELEASED (1): OIL: DIESEL
QUANTITY (1): 0
UNITS (1): UNK

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: YES **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: SUBSURFACE

CAUSE OF RELEASE
DUMPING: YES **EQUIPMENT FAILURE:** NO
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: LINE SHUT DOWN AND USING SORBENTS TO RECOVER MATERIAL THAT SEAPS TO THE TOP
RELEASE DETECTION: UNDERGROUND DOCK SIDE FUEL LINE RUPTURED
MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 465694
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: AMERICAN PRESIDENT LINES
ADDRESS: 2001 JOHN GIBSON BLVD
SAN PEDRO CA 90731-

DUN and BRADSTREET :

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 55 **DIST/DIR:** 0.01 SE **MAP ID:** 44

NAME: AMERICAN PRESIDENT LINES
ADDRESS: 2001 JOHN GIBSON BLVD
SAN PIEDRO CA 90731
LOS ANGELES
CONTACT:

REV: 7/14/90 0:
ID1: 172099
ID2:
STATUS: PIPELINE RELATED
PHONE:

SPILL INFORMATION
DATE OF SPILL: 7/14/1990 **TIME OF SPILL:** 1830

PRODUCT RELEASED (1): OIL: DIESEL
QUANTITY (1): 0
UNITS (1): UNK

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED

AIR:	NO	**GROUNDWATER:**	YES
LAND:	NO	**FIXED FACILITY:**	NO
WATER:	NO	**OTHER:**	NO

WATERBODY AFFECTED BY RELEASE: SUBSURFACE

CAUSE OF RELEASE

DUMPING:	NO	**EQUIPMENT FAILURE:**	NO
NATURAL PHENOMENON:	NO	**OPERATOR ERROR:**	NO
OTHER CAUSE:	NO	**TRANSP. ACCIDENT:**	NO
UNKNOWN:	NO		

ACTIONS TAKEN: LINE SHUT DOWN AND USING SORBENTS TO RECOVER MATERIAL THAT SEAPS TO THE TOP
RELEASE DETECTION: UNDERGROUND DOCK SIDE FUEL LINE RUPTURED
MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 172099
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: AMERICAN PRESIDENT LINES
ADDRESS: 2001 JOHN GIBSON BLVD
SAN PIEDRO CA 90731

DUN and BRADSTREET :

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 57 **DIST/DIR:** 0.01 SE **MAP ID:** 44

NAME: AMERICAN PRESIDENT LINES
ADDRESS: 2001 JOHN GIBSON BLVD.
SAN PEDRO CA 90731
Los Angeles
CONTACT:

REV: 9/5/90 0:0
ID1: 465884
ID2:
STATUS: HIGHWAY RELATED
PHONE:

SPILL INFORMATION
DATE OF SPILL: 9/5/1990 **TIME OF SPILL:** 1430

PRODUCT RELEASED (1): MISC. OILS
QUANTITY (1): 0
UNITS (1): UNK

PRODUCT RELEASED (2): PETROLEUM DISTILLATES
QUANTITY (2): 0
UNITS (2): UNK

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: INSIDE OF THE SHIPPING CONTAIN

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** YES
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: IT CORP. WILL BE CONTRACTED TO PERFORM CLEANUPS.
RELEASE DETECTION: DRUMS IN A SHIPPING CONTAINER / CAUSE OF SPILL IS UNKNOWN. MATERIAL WAS DISC
MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 465884
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: AMERICAN PRESIDENT LINES
ADDRESS: 2001 JOHN GIBSON BLVD.
SAN PEDRO CA 90731-

DUN and BRADSTREET :

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRANLR

SEARCH ID: 43 **DIST/DIR:** 0.01 SE **MAP ID:** 44

NAME:	AMERICAN PRESIDENT LINES LTD	**REV:**	6/6/06
ADDRESS:	2001 JOHN GIBSON BLVD	**ID1:**	CAR000013250
	SAN PEDRO CA 90731	**ID2:**	
	LOS ANGELES	**STATUS:**	NLR
CONTACT:	HALDIS FEARN	**PHONE:**	5102728285

SITE INFORMATION

CONTACT INFORMATION: HALDIS FEARN
1111 BROADWAY 7TH FLOOR
OAKLAND CA 94607

PHONE: 5102728285

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 64 **DIST/DIR:** 0.01 SE **MAP ID:** 44

NAME: AUSTALIA/NEW ZEALAND D L
ADDRESS: 2001 JOHN GIBSON BLVD
SAN PEDRO CA 90731
Los Angeles
CONTACT:

REV: 7/15/93
ID1: 330684
ID2:
STATUS: FIXED FACILITY
PHONE:

SPILL INFORMATION
DATE OF SPILL: 7/15/1993 **TIME OF SPILL:** 1500

PRODUCT RELEASED (1): 1,1,1-TRICHLOROETHANE
QUANTITY (1): 2
UNITS (1): OTH

PRODUCT RELEASED (2): FAK ARESOLS
QUANTITY (2): 2
UNITS (2): OTH

PRODUCT RELEASED (3): CORROSIVE LIQUID NOS
QUANTITY (3): 24
UNITS (3): OTH

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: ASPHALT

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** NO
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: OTH = CARTONS / FD ON SCENE / PRIVATE CONTRACTOR HIRED (IT CORP)
RELEASE DETECTION: 40 SEA GOING CONTAINER IN YARD / UNKNOWN CONTAINER APPEARS TO BE DAMAGED FROM RAILROAD TRANSPORTATION
MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 330684 **DUN and BRADSTREET :**
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: AUSTALIA/NEW ZEALAND D L
ADDRESS:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 53 **DIST/DIR:** 0.01 SE **MAP ID:** 44

NAME: AMERICAN PRESIDENT LINES
ADDRESS: 2001 JOHN GIBSON BLVD.
SAN PEDRO CA 90731
LOS ANGELES
CONTACT:

REV: 9/5/90 0:0
ID1: 179116
ID2:
STATUS: HIGHWAY RELATED
PHONE:

SPILL INFORMATION
DATE OF SPILL: 9/5/1990 **TIME OF SPILL:** 1430

PRODUCT RELEASED (1): MISC. OILS
QUANTITY (1): 0
UNITS (1): UNK

PRODUCT RELEASED (2): PETROLEUM DISTILLATES
QUANTITY (2): 0
UNITS (2): UNK

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: INSIDE OF THE SHIPPING CONTAINER, GROUND

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** NO
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: IT CORP. WILL BE CONTRACTED TO PERFORM CLEANUPS. ONE OF THE TWO MATERIALS SPILLED; NOT EXACTLY SURE WHICH ONE.
RELEASE DETECTION: DRUMS IN A SHIPPING CONTAINER / CAUSE OF SPILL IS UNKNOWN. MATERIAL WAS DISCOVERED SPILLED IN THE CONTAINER.
MISC. NOTES: WILL NOTIFY LCL F/D, STATE

DISCHARGER INFORMATION
DISCHARGER ID: 179116
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: AMERICAN PRESIDENT LINES
ADDRESS: 2001 JOHN GIBSON BLVD.
SAN PEDRO CA 90731

DUN and BRADSTREET :

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 54 **DIST/DIR:** 0.01 SE **MAP ID:** 44

NAME: AMERICAN PRESIDENT LINES
ADDRESS: 2001 JOHN GIBSON BLVD.
SAN PEDRO CA 90731
LOS ANGELES
CONTACT:

REV: 10/29/90 0
ID1: 184268
ID2:
STATUS: MARINE- RELEASED FROM A MARINE
PHONE:

SPILL INFORMATION
DATE OF SPILL: 10/29/1990 **TIME OF SPILL:** 1215

PRODUCT RELEASED (1): DIETHYLENETRIAMINE
QUANTITY (1): 0
UNITS (1): GAL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: NO **FIXED FACILITY:** NO
WATER: NO **OTHER:** YES
WATERBODY AFFECTED BY RELEASE: DECK OF SHIP

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** NO
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: CONTRACTORS EN ROUTE.
RELEASE DETECTION: CONTAINER ON CARGO SHIP / UNKNOWN ICSU434892
MISC. NOTES: FIRE DEP EN ROUTE.

DISCHARGER INFORMATION
DISCHARGER ID: 184268 **DUN and BRADSTREET :**
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: AMERICAN PRESIDENT LINES
ADDRESS: 2001 JOHN GIBSON BLVD.
SAN PEDRO CA 90731

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 52 **DIST/DIR:** 0.01 SE **MAP ID:** 44

NAME: AMERICAN PRESIDENT LINES
ADDRESS: 2001 JOHN GIBSON BLVD.
SAN PEDRO CA 90731
LOS ANGELES
CONTACT:

REV: 10/31/90 0
ID1: 184426
ID2:
STATUS: FIXED FACILITY
PHONE:

SPILL INFORMATION
DATE OF SPILL: 10/31/1990 **TIME OF SPILL:** 1530

PRODUCT RELEASED (1): ETHYL BUTYRATE
QUANTITY (1): 0
UNITS (1): UNK

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: PAVEMENT UNDER THE CONTAINER

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** NO
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: IT CORP. IS EN ROUTE TO PERFORM CLEANUPS. LCL F/D IS EN ROUTE.
RELEASE DETECTION: 20 ROLL-OFF CONTAINER / UNKNOWN - DISCOVERED MATERIALS LEAKING FROM THE CONTAINER
MISC. NOTES: WILL NOTIFY OES.

DISCHARGER INFORMATION
DISCHARGER ID: 184426 **DUN and BRADSTREET :**
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: AMERICAN PRESIDENT LINES
ADDRESS: 2001 JOHN GIBSON BLVD.
SAN PEDRO CA 90731

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 58 **DIST/DIR:** 0.01 SE **MAP ID:** 44

NAME: AMERICAN PRESIDENT LINES
ADDRESS: 2001 JOHN GIBSON BLVD
SAN PEDRO CA 90731
Los Angeles
CONTACT:

REV: 5/11/95
ID1: 435038
ID2:
STATUS: FIXED FACILITY
PHONE:

SPILL INFORMATION
DATE OF SPILL: 5/11/1995 **TIME OF SPILL:** 1640

PRODUCT RELEASED (1): UNKNOWN MATERIAL-CORROSIVE and FLA
QUANTITY (1): 0
UNITS (1): UNK

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED

AIR:	NO	**GROUNDWATER:**	NO
LAND:	YES	**FIXED FACILITY:**	NO
WATER:	NO	**OTHER:**	NO

WATERBODY AFFECTED BY RELEASE: SOIL

CAUSE OF RELEASE

DUMPING:	NO	**EQUIPMENT FAILURE:**	NO
NATURAL PHENOMENON:	NO	**OPERATOR ERROR:**	NO
OTHER CAUSE:	NO	**TRANSP. ACCIDENT:**	NO
UNKNOWN:	NO		

ACTIONS TAKEN: NONE CONTAINER HAS 72 FIFTY FIVE GAL DRUMS AND 10 PACKAGES
RELEASE DETECTION: CONTAINER/LEAKING
MISC. NOTES: WILL CALL: CHEMTREC AND FIRE DEP

DISCHARGER INFORMATION
DISCHARGER ID: 435038
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: AMERICAN PRESIDENT LINES
ADDRESS: 2001 JOHN GIBSON BLVD
SAN PEDRO CA 90731
DUN and BRADSTREET :

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 79 **DIST/DIR:** 0.01 SE **MAP ID:** 44

NAME: SEXTON TRUCKING
ADDRESS: 2001 JOHN S GIBSON BLVD BERTH 121-126
SAN PEDRO CA 90731
Los Angeles
CONTACT:

REV: 5/31/95
ID1: 438586
ID2:
STATUS: HIGHWAY RELATED
PHONE:

SPILL INFORMATION
DATE OF SPILL: 5/31/1995 **TIME OF SPILL:** 1015

PRODUCT RELEASED (1): OIL, FUEL: NO. 2-D
QUANTITY (1): 10
UNITS (1): GAL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: ASPHALT

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** NO
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: SECURED//CONTRACTOR TO CLEAN UP MATERIALS WITH ABSORBENTS
RELEASE DETECTION: FUEL TANK//DRIVER HIT FENCE RIPPING HOLE IN TANKS ALLOWING MATERIALS TOBE RELEASED//TANK CAPACITY 85GAL
MISC. NOTES: WILL NOTIFY:

DISCHARGER INFORMATION
DISCHARGER ID: 438586
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: SEXTON TRUCKING
ADDRESS: 1326 W COMPTON
COMPTON CA

DUN and BRADSTREET :

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 51 **DIST/DIR:** 0.01 SE **MAP ID:** 44

NAME: AMERICAN PRESIDENT LINES
ADDRESS: 2001 JOHN GIBSON BLVD.
SAN PEDRO CA 90731
LOS ANGELES
CONTACT:

REV: 11/25/91
ID1: 238610
ID2:
STATUS: FIXED FACILITY
PHONE:

SPILL INFORMATION
DATE OF SPILL: 11/25/1991 **TIME OF SPILL:** 0715

PRODUCT RELEASED (1): PROPYLENE GLYCOL
QUANTITY (1): 0
UNITS (1): UNK

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: CONCRETE

SPILL INFORMATION
DATE OF SPILL: 11/25/1991 **TIME OF SPILL:** 0715

PRODUCT RELEASED (1): PROPYLENE GLYCOL
QUANTITY (1): 0
UNITS (1): UNK

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: CONCRETE

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** NO
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: CONTAINED AND CREW EN ROUTE TO REMOVE
RELEASE DETECTION: MATERIAL FOUND TO BE LEAKING IN SEABOARD CARGO CONTAINER

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Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 51 **DIST/DIR:** 0.01 SE **MAP ID:** 44

NAME: AMERICAN PRESIDENT LINES
ADDRESS: 2001 JOHN GIBSON BLVD.
SAN PEDRO CA 90731
LOS ANGELES
CONTACT:

REV: 11/25/91
ID1: 238610
ID2:
STATUS: FIXED FACILITY
PHONE:

MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 238610
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: AMERICAN PRESIDENT LINES
ADDRESS: 2001 JOHN GIBSON BLVD.
SAN PEDRO CA 90731

DUN and BRADSTREET :

CAUSE OF RELEASE

DUMPING:	NO	**EQUIPMENT FAILURE:**	NO
NATURAL PHENOMENON:	NO	**OPERATOR ERROR:**	NO
OTHER CAUSE:	NO	**TRANSP. ACCIDENT:**	NO
UNKNOWN:	NO		

ACTIONS TAKEN: CONTAINED AND CREW EN ROUTE TO REMOVE
RELEASE DETECTION: MATERIAL FOUND TO BE LEAKING IN SEABOARD CARGO CONTAINER
MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 238610
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: AMERICAN PRESIDENT LINES
ADDRESS: 2001 JOHN GIBSON BLVD.
SAN PEDRO CA 90731

DUN and BRADSTREET :

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 65 **DIST/DIR:** 0.01 SE **MAP ID:** 44

NAME: AUSTRALIA NEWZEALAND
ADDRESS: 2001 JOHN GIBSON BLVD BERTH 126
SAN PEDRO CA 90731
Los Angeles
CONTACT:

REV: 10/17/91
ID1: 234418
ID2:
STATUS: FIXED FACILITY
PHONE:

SPILL INFORMATION
DATE OF SPILL: 10/17/1991 **TIME OF SPILL:** 1500

PRODUCT RELEASED (1): PESTICIDES- LIQUIDS FLAMMABLE TO
QUANTITY (1): 0
UNITS (1): UNK

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: NO **FIXED FACILITY:** NO
WATER: NO **OTHER:** YES
WATERBODY AFFECTED BY RELEASE: ASPHALT

SPILL INFORMATION
DATE OF SPILL: 10/17/1991 **TIME OF SPILL:** 1500

PRODUCT RELEASED (1): PESTICIDES- LIQUIDS FLAMMABLE TO
QUANTITY (1): 0
UNITS (1): UNK

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: NO **FIXED FACILITY:** NO
WATER: NO **OTHER:** YES
WATERBODY AFFECTED BY RELEASE: ASPHALT

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** NO
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: CG AND F/D ONSCENE
RELEASE DETECTION: 20 CONTAINER LEAKING

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Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 65 **DIST/DIR:** 0.01 SE **MAP ID:** 44

NAME: AUSTRALIA NEWZEALAND
ADDRESS: 2001 JOHN GIBSON BLVD BERTH 126
SAN PEDRO CA 90731
Los Angeles
CONTACT:

REV: 10/17/91
ID1: 234418
ID2:
STATUS: FIXED FACILITY
PHONE:

MISC. NOTES: WILL NTFY OES

DISCHARGER INFORMATION
DISCHARGER ID: 234418
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: AUSTRALIA NEWZEALAND
ADDRESS:
LONG BEACH CA

DUN and BRADSTREET :

CAUSE OF RELEASE

DUMPING:	NO	**EQUIPMENT FAILURE:**	NO
NATURAL PHENOMENON:	NO	**OPERATOR ERROR:**	NO
OTHER CAUSE:	NO	**TRANSP. ACCIDENT:**	NO
UNKNOWN:	NO		

ACTIONS TAKEN: CG AND F/D ONSCENE
RELEASE DETECTION: 20 CONTAINER LEAKING
MISC. NOTES: WILL NTFY OES

DISCHARGER INFORMATION
DISCHARGER ID: 234418
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: AUSTRALIA NEWZEALAND
ADDRESS:
LONG BEACH CA

DUN and BRADSTREET :

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 86 **DIST/DIR:** 0.01 SE **MAP ID:** 44

NAME:
ADDRESS: 2001 JOHN GIBSON BLVD PIER 126
SAN PEDRO CA 90731
LOS ANGELES
CONTACT:

REV:
ID1: 18377
ID2:
STATUS: UNKNOWN
PHONE:

THERE ARE NO DETAILS AVAILABLE FOR THIS SITE

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 66 **DIST/DIR:** 0.01 SE **MAP ID:** 44

NAME: AUSTRIALIAN NEW ZELAND LN
ADDRESS: 2001 JOHN GIBSON BLVD BERTH 126
SAN PEDRO CA 90731
Los Angeles
CONTACT:

REV: 5/15/93
ID1: 317958
ID2:
STATUS: FIXED FACILITY
PHONE:

SPILL INFORMATION
DATE OF SPILL: 5/15/1993 **TIME OF SPILL:** 0745

PRODUCT RELEASED (1): ETHYL METHACRYLATE
QUANTITY (1): 450
UNITS (1): LBS

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED

AIR:	NO	**GROUNDWATER:**	NO
LAND:	YES	**FIXED FACILITY:**	NO
WATER:	NO	**OTHER:**	NO

WATERBODY AFFECTED BY RELEASE: ASPHALT

CAUSE OF RELEASE

DUMPING:	NO	**EQUIPMENT FAILURE:**	NO
NATURAL PHENOMENON:	NO	**OPERATOR ERROR:**	NO
OTHER CAUSE:	NO	**TRANSP. ACCIDENT:**	NO
UNKNOWN:	NO		

ACTIONS TAKEN: FD ON SCENE/NO ACTIONS ARE BEING TAKEN AT THIS TIME/ISOLATED AREA AWAITING HAZ MAT TEAM
RELEASE DETECTION: 20 CONTAINER/DURING ON-LOADING THE BOTTOM OF THE CONTAINER FAILED
MISC. NOTES: THE EVACUATED WERE DOCK WORKERS/EVACUATION CONSISTED OF ISOLATING AREA OF SPILL

DISCHARGER INFORMATION
DISCHARGER ID: 317958 **DUN and BRADSTREET :**
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: AUSTRIALIAN NEW ZELAND LN
ADDRESS:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 31 **DIST/DIR:** 0.01 SW **MAP ID:** 45

NAME: PACIFIC MOLASSES CO
ADDRESS: 395 WATER ST
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 6/6/06
ID1: CAD071902936
ID2:
STATUS: SGN
PHONE:

SITE INFORMATION

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 157 **DIST/DIR:** 0.01 SW **MAP ID:** 45

NAME:	PACIFIC MOLASSES COMPANY	**REV:**	01/01/94
ADDRESS:	395 WATER	**ID1:**	TISID-STATE4386
	WILMINGTON CA 90744	**ID2:**	
	Los Angeles	**STATUS:**	INACTIVE
CONTACT:		**PHONE:**	

UST HISTORICAL DATA

This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names and locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.

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Oversight of Underground Storage Tanks within California is now conducted by Certified Unified Program Agencies referred to as CUPA s. There are approximately 102 CUPA s and Local Oversight Programs (LOP s) in the State of California. Most are city or county government agencies. As of 1998, all sites or facilities with underground storage tanks were required by Federal mandate to obtain certification by designated UST oversight agencies (in this case, CUPA s) that the UST/s at their location were upgraded or removed in adherence with the 1998 RCRA standards.

Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by Track Info Services. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 123 **DIST/DIR:** 0.01 SW **MAP ID:** 45

NAME: CITY OF LA HARBOR DEPARTMENT
ADDRESS: 395 WATER ST
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 05/01/2000
ID1: LACTY/NONCRTFD1308
ID2:
STATUS:
PHONE:

DETAILS NOT AVAILABLE

RCRAGN

SEARCH ID: 32 **DIST/DIR:** 0.01 -E **MAP ID:** 46

NAME: PACKERS LTD
ADDRESS: 100 BROAD AVE
WILMINGTON CA 90748
LOS ANGELES
CONTACT:

REV: 12/9/02
ID1: CAP000057380
ID2:
STATUS: LGN
PHONE:

SITE INFORMATION

UNIVERSE TYPE:

LQG - LARGE QUANTITY GENERATORS: GENERATES MORE THAN 1000 KG/MONTH OF HAZARDOUS WASTE

SIC INFORMATION:

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 158 **DIST/DIR:** 0.01 -E **MAP ID:** 46

NAME:	PACKERS ENTERPRISES INC	**REV:**	01/01/94
ADDRESS:	100 BROAD	**ID1:**	TISID-STATE27502
	WILMINGTON CA 90744	**ID2:**	
	Los Angeles	**STATUS:**	ACTIVE
CONTACT:		**PHONE:**	

UST HISTORICAL DATA

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Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by Track Info Services. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 146 **DIST/DIR:** 0.01 SE **MAP ID:** 47

NAME: HARBOR POLICE STATION
ADDRESS: 2175 JOHN S. GIBSON
SAN PEDRO CA 90732
Los Angeles
CONTACT:

REV: 01/01/94
ID1: TISID-STATE27562
ID2:
STATUS: ACTIVE
PHONE:

UST HISTORICAL DATA

This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names and locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.

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Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by Track Info Services. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

LUST

SEARCH ID: 181 **DIST/DIR:** 0.01 SE **MAP ID:** 47

NAME: HARBOR POLICE STATION
ADDRESS: 2175 JOHN GIBSON BLVD S
SAN PEDRO CA 90732
LOS ANGELES
CONTACT:

REV: 10/18/07
ID1: T0603701648
ID2:
STATUS: CASE CLOSED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

Please note that some data previously provided by the State Water Resources Control Board in the LUSTIS database is not currently being provided by the agency in the most recent edition. Incidents that occurred after the year 2000 may not have much information. Field headers with blank information following after should be interpreted as unreported by the agency.

LEAD AGENCY: *REGIONAL BOARD*
REGIONAL BOARD: *04*
LOCAL CASE NUMBER:
RESPONSIBLE PARTY: *M. SULLIVAN*
ADDRESS OF RESPONSIBLE PARTY: *200 N MAIN, ROOM 800,*
SITE OPERATOR: *L.A. POLICE DEPARTMENT*
WATER SYSTEM:

CASE NUMBER: *907320034*
CASE TYPE: *OTHER*
SUBSTANCE LEAKED: *DIESEL*
SUBSTANCE QUANTITY:
LEAK CAUSE: *UNKNOWN*
LEAK SOURCE: *PIPING*
HOW LEAK WAS DISCOVERED: *TANK TEST*
DATE DISCOVERED (blank if not reported): *1986-10-20*
HOW LEAK WAS STOPPED:
STOP DATE (blank if not reported): *1986-10-23*
STATUS: *CASE CLOSED*
ABATEMENT METHOD (please note that not all code translations have been provided by the reporting agency):
ENFORCEMENT TYPE (please note that not all code translations have been provided by the reporting agency): *CLOS*
DATE OF ENFORCEMENT (blank if not reported):

ENTER DATE (blank if not reported): *1986-12-31*
REVIEW DATE (blank if not reported): *2002-06-04*
DATE OF LEAK CONFIRMATION (blank if not reported):
DATE PRELIMINARY SITE ASSESSMENT PLAN WAS SUBMITTED (blank if not reported):
DATE PRELIMINARY SITE ASSESSMENT PLAN BEGAN (blank if not reported): *1993-12-07*
DATE POLLUTION CHARACTERIZATION PLAN BEGAN (blank if not reported): *1998-02-16*
DATE REMEDIATION PLAN WAS SUBMITTED (blank if not reported):
DATE REMEDIAL ACTION UNDERWAY (blank if not reported):
DATE POST REMEDIAL ACTION MONITORING BEGAN (blank if not reported):
DATE CLOSURE LETTER ISSUED (SITE CLOSED) (blank if not reported): *2002-05-06*
REPORT DATE (blank if not reported): *1986-10-29*

MTBE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

MTBE DATE(Date of historical maximum MTBE concentration): *1965-01-01*
MTBE GROUNDWATER CONCENTRATION (parts per billion): *34400*
MTBE SOIL CONCENTRATION (parts per million): *134*
MTBE CNTS: *2*
MTBE FUEL: *0*
MTBE TESTED: *YES*
MTBE CLASS:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 148 **DIST/DIR:** 0.01 SE **MAP ID:** 47

NAME: HARBOR POLICE STATION
ADDRESS: 2175 W JOHN S GIBSON BL
SAN PEDRO CA 90732
LOS ANGELES
CONTACT:

REV: 05/01/2000
ID1: LACITY/CERTNO25070
ID2:
STATUS:
PHONE:

DETAILS NOT AVAILABLE

UST

SEARCH ID: 147 **DIST/DIR:** 0.01 SE **MAP ID:** 47

NAME: HARBOR POLICE STATION
ADDRESS: 2175 W JOHN S GIBSON BL
SAN PEDRO CA 90732
LOS ANGELES
CONTACT:

REV: 03/24/99
ID1: LACITY/CERTNO24440
ID2:
STATUS:
PHONE:

DETAILS NOT AVAILABLE

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

SPILLS

SEARCH ID: 106 **DIST/DIR:** 0.01 NW **MAP ID:** 48

NAME: WILMINGTON TOWN LOT 526.1, 526.2
ADDRESS: 300 MARINE AVE
WILMINGTON CA 90744
CONTACT:

REV: 11/06/07
ID1: G_SLT43570568
ID2:
STATUS:
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

Please note that some SLIC data previously provided by the State Water Resources Control Board via the Regional Boards is not currently provided by the agency in the new GEOTRACKER format. To ensure that our data is as complete as possible we have retained the original Regional Boards SLIC records as well as loaded all GEOTRACKER SLIC listings. GEOTRACKER records are distinguished by an initial G at the start of the ID.

LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *MANJULIKA CHAKRABARTI*
LEAD AGENCY CASE NUMBER: *0655U8*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded):
RECENT DTW:
STATUS: *Case Closed*

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 82 **DIST/DIR:** 0.01 SE **MAP ID:** 49

NAME: UNKNOWN
ADDRESS: 2001 E. JOHN GIBSON ST
SAN PEDRO CA 90731
Los Angeles
CONTACT:

REV: 10/31/90 0
ID1: 186491
ID2:
STATUS: UNKNOWN (NRC)
PHONE:

SPILL INFORMATION
DATE OF SPILL: 10/31/1990 **TIME OF SPILL:** 1629

PRODUCT RELEASED (1): ETHYL BUTYRATE (SOLVENT)
QUANTITY (1): 50
UNITS (1): GAL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: NONE

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** NO
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: YES **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: IT CORP CLEANUP FULLY
RELEASE DETECTION: CARGO CONTAINER MOVING THE DRUMS-LEAKED THE CONTENTS, CONTAINED TO DOC K AREA.
MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 186491 **DUN and BRADSTREET :**
TYPE OF DISCHARGER:
NAME OF DISCHARGER: UNKNOWN
ADDRESS:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

SPILLS

SEARCH ID: 99 **DIST/DIR:** 0.01 NW **MAP ID:** 50

NAME: DICHTER LUMBER SALES
ADDRESS: 221 GULF AVENUE
LOS ANGELES CA 90744
LOS ANGELES
CONTACT:

REV: 01/03/02
ID1: SLC40828
ID2:
STATUS:
PHONE:

Staff: *JA*
Status: *INACTIVE*
Substance: *TPH*

UST

SEARCH ID: 130 **DIST/DIR:** 0.01 SE **MAP ID:** 51

NAME: DIST and AUTO SERVICE CENTER INC
ADDRESS: 205 MATSONIA
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 01/01/94
ID1: TISID-STATE28279
ID2:
STATUS: ACTIVE
PHONE:

UST HISTORICAL DATA

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Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

LUST

SEARCH ID: 178 **DIST/DIR:** 0.02 NW **MAP ID:** 52

NAME: DICHTER LUMBER SALES, INC.
ADDRESS: 220 GULF AVE
LOS ANGELES CA 90744
LOS ANGELES
CONTACT:

REV: 10/18/07
ID1: T0603701675
ID2:
STATUS: CASE CLOSED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

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LEAD AGENCY: *REGIONAL BOARD*
REGIONAL BOARD: *04*
LOCAL CASE NUMBER:
RESPONSIBLE PARTY: *CHRIS FOLEY*
ADDRESS OF RESPONSIBLE PARTY: *425 S. PALOS VERDES ST.*
SITE OPERATOR:
WATER SYSTEM:

CASE NUMBER: *907440316*
CASE TYPE: *OTHER*
SUBSTANCE LEAKED: *HYDROCARBONS*
SUBSTANCE QUANTITY:
LEAK CAUSE:
LEAK SOURCE:
HOW LEAK WAS DISCOVERED:
DATE DISCOVERED (blank if not reported):
HOW LEAK WAS STOPPED:
STOP DATE (blank if not reported):
STATUS: *CASE CLOSED*
ABATEMENT METHOD (please note that not all code translations have been provided by the reporting agency):
ENFORCEMENT TYPE (please note that not all code translations have been provided by the reporting agency): *CLOS*
DATE OF ENFORCEMENT (blank if not reported): *2000-04-20*

ENTER DATE (blank if not reported):
REVIEW DATE (blank if not reported): *2000-06-14*
DATE OF LEAK CONFIRMATION (blank if not reported):
DATE PRELIMINARY SITE ASSESSMENT PLAN WAS SUBMITTED (blank if not reported): *1998-09-23*
DATE PRELIMINARY SITE ASSESSMENT PLAN BEGAN (blank if not reported): *1998-09-23*
DATE POLLUTION CHARACTERIZATION PLAN BEGAN (blank if not reported):
DATE REMEDIATION PLAN WAS SUBMITTED (blank if not reported):
DATE REMEDIAL ACTION UNDERWAY (blank if not reported):
DATE POST REMEDIAL ACTION MONITORING BEGAN (blank if not reported): *1992-01-01*
DATE CLOSURE LETTER ISSUED (SITE CLOSED) (blank if not reported): *2004-02-18*
REPORT DATE (blank if not reported): *1992-01-01*

MTBE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE
MTBE DATE(Date of historical maximum MTBE concentration): *1965-01-01*
MTBE GROUNDWATER CONCENTRATION (parts per billion): *LESS THAN 5*
MTBE SOIL CONCENTRATION (parts per million): *LESS THAN 5*
MTBE CNTS: *2*
MTBE FUEL: *0*
MTBE TESTED: *YES*
MTBE CLASS:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 169 **DIST/DIR:** 0.02 NW **MAP ID:** 53

NAME:	WILMINGTON DISTRIBUTION HQ	**REV:**	01/01/94
ADDRESS:	315 ISLAND	**ID1:**	TISID-STATE27212
	WILMINGTON CA 90744	**ID2:**	
	Los Angeles	**STATUS:**	ACTIVE
CONTACT:		**PHONE:**	

UST HISTORICAL DATA

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Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 171 **DIST/DIR:** 0.02 NW **MAP ID:** 53

NAME: WILMINGTON SERVICE CENTER
ADDRESS: 315 N ISLAND AV
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 05/01/2000
ID1: LACITY/CERTNO23440
ID2:
STATUS:
PHONE:

DETAILS NOT AVAILABLE

RCRAGN

SEARCH ID: 42 **DIST/DIR:** 0.02 NW **MAP ID:** 53

NAME: WILMINGTON SERVICE CTR
ADDRESS: 315 N ISLAND AVE
WILMINGTON CA 90744
LOS ANGELES
CONTACT: EDWARD KARAPETIAN

REV: 6/6/06
ID1: CAD983613431
ID2:
STATUS: SGN
PHONE: 2134813250

SITE INFORMATION

CONTACT INFORMATION: EDWARD KARAPETIAN
111 N HOPE ST RM FIRST THOUSAN
LOS ANGELES CA 90012

PHONE: 2134813250

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

SPILLS

SEARCH ID: 98 **DIST/DIR:** 0.02 NW **MAP ID:** 54

NAME: DICHTER LUMBER SALES
ADDRESS: 221 GULF AVE.
LOS ANGELES CA 90744
CONTACT:

REV: 11/06/07
ID1: G_SLT4L8281879
ID2:
STATUS:
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

Please note that some SLIC data previously provided by the State Water Resources Control Board via the Regional Boards is not currently provided by the agency in the new GEOTRACKER format. To ensure that our data is as complete as possible we have retained the original Regional Boards SLIC records as well as loaded all GEOTRACKER SLIC listings. GEOTRACKER records are distinguished by an initial G at the start of the ID.

LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *JENNY AU*
LEAD AGENCY CASE NUMBER: *0828*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded): *PET*
RECENT DTW:
STATUS: *Case Open*

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 167 **DIST/DIR:** 0.02 NW **MAP ID:** 55

NAME:	TRANSIT CONTRACTORS	**REV:**	01/01/94
ADDRESS:	221 MAR VISTA	**ID1:**	TISID-STATE28332
	WILMINGTON CA 90744	**ID2:**	
	Los Angeles	**STATUS:**	ACTIVE
CONTACT:		**PHONE:**	

UST HISTORICAL DATA

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Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 78 **DIST/DIR:** 0.02 NW **MAP ID:** 55

NAME: RYDER PUBLIC TRANS SERV
ADDRESS: 221 MAR VISTA ST
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 9/26/95
ID1: 455188
ID2:
STATUS: FIXED FACILITY
PHONE:

SPILL INFORMATION
DATE OF SPILL: 9/26/1995 **TIME OF SPILL:** 0230

PRODUCT RELEASED (1): GASOLINE: AUTOMOTIVE (4.23G PB/G
QUANTITY (1): 350
UNITS (1): GAL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED

AIR:	NO	**GROUNDWATER:**	NO
LAND:	YES	**FIXED FACILITY:**	NO
WATER:	NO	**OTHER:**	NO

WATERBODY AFFECTED BY RELEASE: ASPHALT

CAUSE OF RELEASE

DUMPING:	NO	**EQUIPMENT FAILURE:**	NO
NATURAL PHENOMENON:	NO	**OPERATOR ERROR:**	NO
OTHER CAUSE:	NO	**TRANSP. ACCIDENT:**	NO
UNKNOWN:	NO		

ACTIONS TAKEN: FIRE DEPT RESPONDED AND FOAMED THE AREA / CLEANUP CONTRACTOR ON SCENE
RELEASE DETECTION: GASOLINE PUMP / DAMAGED HOSE ON PUMP
MISC. NOTES: NONE

DISCHARGER INFORMATION
DISCHARGER ID: 455188
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: RYDER PUBLIC TRANS SERV
ADDRESS: 221 MAR VISTA ST
WILMINGTON CA 90744

DUN and BRADSTREET :

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 37 **DIST/DIR:** 0.02 NW **MAP ID:** 55

NAME:	TRANSIT CONTRACTS	**REV:**	6/6/06
ADDRESS:	221 MAR VISTA	**ID1:**	CAD981435902
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	SGN
CONTACT:	ENVIRONMENTAL MANAGER	**PHONE:**	2138355859

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
221 MAR VISTA
WILMINGTON CA 90744

PHONE: 2138355859

UNIVERSE INFORMATION:

NAIC INFORMATION

48521 - INTERURBAN AND RURAL BUS TRANSPORTATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

SPILLS

SEARCH ID: 103 **DIST/DIR:** 0.02 NW **MAP ID:** 56

NAME: WILMINGTON TOWN LOT 510
ADDRESS: 225 GULF AVE
WILMINGTON CA 90744
CONTACT:

REV: 11/06/07
ID1: G_SLT43512510
ID2:
STATUS:
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

Please note that some SLIC data previously provided by the State Water Resources Control Board via the Regional Boards is not currently provided by the agency in the new GEOTRACKER format. To ensure that our data is as complete as possible we have retained the original Regional Boards SLIC records as well as loaded all GEOTRACKER SLIC listings. GEOTRACKER records are distinguished by an initial G at the start of the ID.

LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *MANJULIKA CHAKRABARTI*
LEAD AGENCY CASE NUMBER: *0655N4*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded):
RECENT DTW:
STATUS: *Case Closed*

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

LUST

SEARCH ID: 185 **DIST/DIR:** 0.02 SE **MAP ID:** 57

NAME: PAN PACIFIC CANNERY
ADDRESS: 545 FRIES AVE S
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 10/18/07
ID1: T0603701655
ID2:
STATUS: CASE CLOSED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

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LEAD AGENCY: *REGIONAL BOARD*
REGIONAL BOARD: *04*
LOCAL CASE NUMBER:
RESPONSIBLE PARTY: *DIRECTOR OF ENVR MGMT*
ADDRESS OF RESPONSIBLE PARTY: *425 S PALOS VERDES ST, SAN PEDRO 90733*
SITE OPERATOR:
WATER SYSTEM:

CASE NUMBER: *907440089*
CASE TYPE: *OTHER*
SUBSTANCE LEAKED: *DIESEL*
SUBSTANCE QUANTITY:
LEAK CAUSE: *UNKNOWN*
LEAK SOURCE: *UNKNOWN*
HOW LEAK WAS DISCOVERED:
DATE DISCOVERED (blank if not reported):
HOW LEAK WAS STOPPED:
STOP DATE (blank if not reported):
STATUS: *CASE CLOSED*
ABATEMENT METHOD (please note that not all code translations have been provided by the reporting agency):
ENFORCEMENT TYPE (please note that not all code translations have been provided by the reporting agency):
DATE OF ENFORCEMENT (blank if not reported):

ENTER DATE (blank if not reported): *1991-05-04*
REVIEW DATE (blank if not reported): *1996-04-22*
DATE OF LEAK CONFIRMATION (blank if not reported):
DATE PRELIMINARY SITE ASSESSMENT PLAN WAS SUBMITTED (blank if not reported):
DATE PRELIMINARY SITE ASSESSMENT PLAN BEGAN (blank if not reported):
DATE POLLUTION CHARACTERIZATION PLAN BEGAN (blank if not reported): *1991-07-15*
DATE REMEDIATION PLAN WAS SUBMITTED (blank if not reported):
DATE REMEDIAL ACTION UNDERWAY (blank if not reported):
DATE POST REMEDIAL ACTION MONITORING BEGAN (blank if not reported):
DATE CLOSURE LETTER ISSUED (SITE CLOSED) (blank if not reported): *1997-04-21*
REPORT DATE (blank if not reported): *1991-05-16*

MTBE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE
MTBE DATE(Date of historical maximum MTBE concentration):
MTBE GROUNDWATER CONCENTRATION (parts per billion):
MTBE SOIL CONCENTRATION (parts per million):
MTBE CNTS: *0*
MTBE FUEL: *0*
MTBE TESTED: *NOT REQUIRED TO BE TESTED*
MTBE CLASS: *

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 121 **DIST/DIR:** 0.02 SE **MAP ID:** 57

NAME:	CALIFORNIA HOME BRANDS INC	**REV:**	01/01/94
ADDRESS:	545 FRIES	**ID1:**	TISID-STATE4489
	WILMINGTON CA 90744	**ID2:**	
	Los Angeles	**STATUS:**	INACTIVE
CONTACT:		**PHONE:**	

UST HISTORICAL DATA

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Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 40 **DIST/DIR:** 0.03 NW **MAP ID:** 58

NAME:	WILMINGTON INSTRUMENT CO	**REV:**	6/6/06
ADDRESS:	332 N FRIES AVE	**ID1:**	CAD982048449
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	SGN
CONTACT:	ENVIRONMENTAL MANAGER	**PHONE:**	2134228306

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
332 N FRIES AVE
WILMINGTON CA 90744

PHONE: 2134228306

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 17 **DIST/DIR:** 0.03 NW **MAP ID:** 59

NAME:	GARIS COMPLETE AUTO REPAIR	**REV:**	6/6/06
ADDRESS:	330 MARINE AVE	**ID1:**	CAD982460990
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	SGN
CONTACT:	ENVIRONMENTAL MANAGER	**PHONE:**	2138343188

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
330 MARINE AVE
WILMINGTON CA 90744

PHONE: 2138343188

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 9 **DIST/DIR:** 0.04 NW **MAP ID:** 60

NAME: ADVANCE AUTO
ADDRESS: 637 BATTERY ST
SAN PEDRO CA 90731
LOS ANGELES
CONTACT:

REV: 6/6/06
ID1: CAD981444292
ID2:
STATUS: SGN
PHONE:

SITE INFORMATION

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 18 **DIST/DIR:** 0.04 SE **MAP ID:** 61

NAME:	HARBOR GENERATING STATION - LADWP	**REV:**	6/6/06
ADDRESS:	161 NORTH ISLAND AVENUE	**ID1:**	CAD000633180
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	LGN
CONTACT:	MARK J SEDLACEK	**PHONE:**	2133670403

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
161 NORTH ISLAND AVE
WILMINGTON CA 90744

PHONE: 2138343444

UNIVERSE INFORMATION:

NAIC INFORMATION

221112 - FOSSIL FUEL ELECTRIC POWER GENERATION
2211 - ELECTRIC POWER GENERATION, TRANSMISSION AND DISTRIBUTION
2211 - ELECTRIC POWER GENERATION, TRANSMISSION AND DISTRIBUTION
221 - UTILITIES
2211 - ELECTRIC POWER GENERATION, TRANSMISSION AND DISTRIBUTION
22133 - STEAM AND AIR-CONDITIONING SUPPLY

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 143 **DIST/DIR:** 0.04 SE **MAP ID:** 61

NAME:	HARBOR GENERATING STATION	**REV:**	01/01/94
ADDRESS:	161 ISLAND	**ID1:**	TISID-STATE4996
	LOS ANGELES CA 90744	**ID2:**	
	Los Angeles	**STATUS:**	INACTIVE
CONTACT:		**PHONE:**	

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Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 144 **DIST/DIR:** 0.04 SE **MAP ID:** 61

NAME: HARBOR GENERATING STATION
ADDRESS: 161 N ISLAND AVE
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 05/30/01
ID1: AST11
ID2:
STATUS: AST SWRCB REG.4
PHONE:

CALIFORNIA ABOVEGROUND PETROLEUM STORAGE TANKS INFORMATION LIST
As reported by the responsible agency, there are currently no details associated with this record.

RCRAGN

SEARCH ID: 22 **DIST/DIR:** 0.04 NW **MAP ID:** 62

NAME: LA BUNKER SURVEYORS
ADDRESS: 239 MAR CISTA AVE
WILMINGTON CA 90744
LOS ANGELES
CONTACT: ENVIRONMENTAL MANAGER

REV: 6/6/06
ID1: CAD982350175
ID2:
STATUS: SGN
PHONE: 2135131723

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
239 MAR CISTA AVE
WILMINGTON CA 90744

PHONE: 2135131723

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 138 **DIST/DIR:** 0.04 NE **MAP ID:** 63

NAME:	GOLTEN MARINE CO INC/J R JOHNS	**REV:**	01/01/94
ADDRESS:	330 BROAD	**ID1:**	TISID-STATE27511
	WILMINGTON CA 90744	**ID2:**	
	Los Angeles	**STATUS:**	ACTIVE
CONTACT:		**PHONE:**	

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Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 139 **DIST/DIR:** 0.04 NE **MAP ID:** 64

NAME: GOLTEN MARINE CO INC/J R JOHNS
ADDRESS: 330 N BROAD ST
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 03/24/99
ID1: LACTY/NONCRTFD227
ID2:
STATUS:
PHONE:

DETAILS NOT AVAILABLE

UST

SEARCH ID: 140 **DIST/DIR:** 0.04 NE **MAP ID:** 64

NAME: GOLTEN MARINE CO INC/J R JOHNS
ADDRESS: 330 N BROAD ST
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 05/01/2000
ID1: LACITY/CERTNO24043
ID2:
STATUS:
PHONE:

DETAILS NOT AVAILABLE

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 19 **DIST/DIR:** 0.05 SE **MAP ID:** 65

NAME:	HARBOR WATER RECYCLE PROJECT - LADWP	**REV:**	6/6/06
ADDRESS:	150 N NEPTUNE STREET	**ID1:**	CAR000088294
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	LGN
CONTACT:	MARK J SEDLACEK	**PHONE:**	2133670403

SITE INFORMATION

CONTACT INFORMATION: MICHAEL HANSON
BOX 51111
LOS ANGELES CA 90051 5700

PHONE: 213-367-0634

UNIVERSE INFORMATION:

NAIC INFORMATION

22131 - WATER SUPPLY AND IRRIGATION SYSTEMS

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

Lead
Arsenic
Ignitable waste

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 27 **DIST/DIR:** 0.06 SE **MAP ID:** 66

NAME:	LA USD HARBOR OCCUPATIONAL CTR	**REV:**	6/6/06
ADDRESS:	740 N PACIFIC AVE	**ID1:**	CAD981625080
	SAN PEDRO CA 90731	**ID2:**	
	LOS ANGELES	**STATUS:**	SGN
CONTACT:		**PHONE:**	

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
740 N PACIFIC AVE
SAN PEDRO CA 90731

PHONE: 2137427371

UNIVERSE INFORMATION:

NAIC INFORMATION

611519 - OTHER TECHNICAL AND TRADE SCHOOLS

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 145 **DIST/DIR:** 0.06 SE **MAP ID:** 66

NAME: HARBOR OCCUPATIONAL/CENTER
ADDRESS: 740 N PACIFIC AV
SAN PEDRO CA 90731
Los Angeles
CONTACT:

REV: 05/01/2000
ID1: LACTY/NONCRTFD827
ID2:
STATUS:
PHONE:

DETAILS NOT AVAILABLE

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 70 **DIST/DIR:** 0.07 SW **MAP ID:** 67

NAME: EXXON
ADDRESS: C STREET and NEPTUNE
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 11/12/91
ID1: 240343
ID2:
STATUS: PIPELINE RELATED
PHONE:

SPILL INFORMATION
DATE OF SPILL: 11/12/1991 **TIME OF SPILL:** 1600

PRODUCT RELEASED (1): INJECTION WATER
QUANTITY (1): 13
UNITS (1): BBL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: 1/2 BBL INTO STORM DRAIN

SPILL INFORMATION
DATE OF SPILL: 11/12/1991 **TIME OF SPILL:** 1600

PRODUCT RELEASED (1): INJECTION WATER
QUANTITY (1): 13
UNITS (1): BBL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: 1/2 BBL INTO STORM DRAIN

CAUSE OF RELEASE
DUMPING: YES **EQUIPMENT FAILURE:** NO
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: VACUUM TRUCK PICKING UP EXCESS WATER
RELEASE DETECTION: LEAKING LEADER LINE LINE LEAK INTO GUTTER and STREET

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 70 **DIST/DIR:** 0.07 SW **MAP ID:** 67

NAME: EXXON
ADDRESS: C STREET and NEPTUNE
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 11/12/91
ID1: 240343
ID2:
STATUS: PIPELINE RELATED
PHONE:

MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 240343
TYPE OF DISCHARGER: PRIVATE CITIZEN
NAME OF DISCHARGER: EXXON
ADDRESS: POB 19649
WILMINGTON CA 90744-

DUN and BRADSTREET :

CAUSE OF RELEASE

DUMPING:	YES	**EQUIPMENT FAILURE:**	NO
NATURAL PHENOMENON:	NO	**OPERATOR ERROR:**	NO
OTHER CAUSE:	NO	**TRANSP. ACCIDENT:**	NO
UNKNOWN:	NO		

ACTIONS TAKEN: VACUUM TRUCK PICKING UP EXCESS WATER
RELEASE DETECTION: LEAKING LEADER LINE LINE LEAK INTO GUTTER and STREET
MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 240343
TYPE OF DISCHARGER: PRIVATE CITIZEN
NAME OF DISCHARGER: EXXON
ADDRESS: POB 19649
WILMINGTON CA 90744-

DUN and BRADSTREET :

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

LUST

SEARCH ID: 176 **DIST/DIR:** 0.07 SW **MAP ID:** 68

NAME: CHERON STATION 9-9747
ADDRESS: 1105 GAFFEY STREET, NORTH
SAN PEDRO CA 90731
LOS ANGELES
CONTACT:

REV: 10/18/07
ID1: T0603721231
ID2:
STATUS: LEAK BEING CONFIRMED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

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LEAD AGENCY: *LOCAL AGENCY*
REGIONAL BOARD: *04*
LOCAL CASE NUMBER: *217*
RESPONSIBLE PARTY: *Y. M. TUAN*
ADDRESS OF RESPONSIBLE PARTY: *145 SOUTH STATE COLLEGE BOULEVARD, 4TH FLOOR*
SITE OPERATOR:
WATER SYSTEM:

CASE NUMBER:
CASE TYPE: *SOIL ONLY*
SUBSTANCE LEAKED: *TCE*
SUBSTANCE QUANTITY:
LEAK CAUSE: *UNKNOWN*
LEAK SOURCE: *UNKNOWN*
HOW LEAK WAS DISCOVERED: *NO DESCRIPTION*
DATE DISCOVERED (blank if not reported): *2006-10-11*
HOW LEAK WAS STOPPED: *OTHER MEANS*
STOP DATE (blank if not reported):
STATUS: *LEAK BEING CONFIRMED*
ABATEMENT METHOD (please note that not all code translations have been provided by the reporting agency):
ENFORCEMENT TYPE (please note that not all code translations have been provided by the reporting agency):
DATE OF ENFORCEMENT (blank if not reported):

ENTER DATE (blank if not reported):
REVIEW DATE (blank if not reported):
DATE OF LEAK CONFIRMATION (blank if not reported): *2006-10-11*
DATE PRELIMINARY SITE ASSESSMENT PLAN WAS SUBMITTED (blank if not reported):
DATE PRELIMINARY SITE ASSESSMENT PLAN BEGAN (blank if not reported):
DATE POLLUTION CHARACTERIZATION PLAN BEGAN (blank if not reported):
DATE REMEDIATION PLAN WAS SUBMITTED (blank if not reported):
DATE REMEDIAL ACTION UNDERWAY (blank if not reported):
DATE POST REMEDIAL ACTION MONITORING BEGAN (blank if not reported):
DATE CLOSURE LETTER ISSUED (SITE CLOSED) (blank if not reported):
REPORT DATE (blank if not reported): *2006-10-11*

MTBE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

MTBE DATE(Date of historical maximum MTBE concentration):
MTBE GROUNDWATER CONCENTRATION (parts per billion):
MTBE SOIL CONCENTRATION (parts per million):
MTBE CNTS: *0*
MTBE FUEL: *0*
MTBE TESTED: *NOT REQUIRED TO BE TESTED*
MTBE CLASS: *

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 26 **DIST/DIR:** 0.07 SE **MAP ID:** 69

NAME:	LA PUMPING PLANT 66	**REV:**	6/6/06
ADDRESS:	647 S FRIES AVE	**ID1:**	CAD981986870
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	SGN
CONTACT:	ENVIRONMENTAL MANAGER	**PHONE:**	2134857527

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
647 S FRIES AVE
WILMINGTON CA 90744

PHONE: 2134857527

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

LUST

SEARCH ID: 177 **DIST/DIR:** 0.08 SW **MAP ID:** 70

NAME: CHEVRON 9-9747
ADDRESS: 1105 GAFFEY ST N
TERMINAL ISLAND CA 90731
LOS ANGELES
CONTACT:

REV: 10/18/07
ID1: T0603701610
ID2:
STATUS: CASE CLOSED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

Please note that some data previously provided by the State Water Resources Control Board in the LUSTIS database is not currently being provided by the agency in the most recent edition. Incidents that occurred after the year 2000 may not have much information. Field headers with blank information following after should be interpreted as unreported by the agency.

LEAD AGENCY: *REGIONAL BOARD*
REGIONAL BOARD: *04*
LOCAL CASE NUMBER:
RESPONSIBLE PARTY: *CHEVRON USA, INC.*
ADDRESS OF RESPONSIBLE PARTY: *P.O. BOX 2833, LA HABRA, CA 90632*
SITE OPERATOR:
WATER SYSTEM:

CASE NUMBER: *907310043*
CASE TYPE: *OTHER*
SUBSTANCE LEAKED: *GASOLINE*
SUBSTANCE QUANTITY:
LEAK CAUSE: *UNKNOWN*
LEAK SOURCE: *UNKNOWN*
HOW LEAK WAS DISCOVERED:
DATE DISCOVERED (blank if not reported):
HOW LEAK WAS STOPPED:
STOP DATE (blank if not reported):
STATUS: *CASE CLOSED*
ABATEMENT METHOD (please note that not all code translations have been provided by the reporting agency): *REMOVE FREE PRODUCT-REMOVE FLOATING PRODUCT FROM WATER TABLE*
ENFORCEMENT TYPE (please note that not all code translations have been provided by the reporting agency):
DATE OF ENFORCEMENT (blank if not reported):

ENTER DATE (blank if not reported): *1987-09-08*
REVIEW DATE (blank if not reported): *1996-10-24*
DATE OF LEAK CONFIRMATION (blank if not reported):
DATE PRELIMINARY SITE ASSESSMENT PLAN WAS SUBMITTED (blank if not reported):
DATE PRELIMINARY SITE ASSESSMENT PLAN BEGAN (blank if not reported):
DATE POLLUTION CHARACTERIZATION PLAN BEGAN (blank if not reported):
DATE REMEDIATION PLAN WAS SUBMITTED (blank if not reported): *1991-04-15*
DATE REMEDIAL ACTION UNDERWAY (blank if not reported): *1988-01-05*
DATE POST REMEDIAL ACTION MONITORING BEGAN (blank if not reported):
DATE CLOSURE LETTER ISSUED (SITE CLOSED) (blank if not reported): *1996-07-24*
REPORT DATE (blank if not reported): *1986-09-29*

MTBE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

MTBE DATE(Date of historical maximum MTBE concentration):
MTBE GROUNDWATER CONCENTRATION (parts per billion):
MTBE SOIL CONCENTRATION (parts per million):
MTBE CNTS: *0*
MTBE FUEL: *1*
MTBE TESTED: *SITE NOT TESTED FOR MTBE. INCLUDES UNKNOWN AND NOT ANALYZED*
MTBE CLASS: *

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 12 **DIST/DIR:** 0.08 SW **MAP ID:** 70

NAME:	CHEVRON STATION NO 99747	**REV:**	6/6/06
ADDRESS:	1105 N GAFFEY ST	**ID1:**	CA0000889691
	SAN PEDRO CA 90731	**ID2:**	
	LOS ANGELES	**STATUS:**	SGN
CONTACT:	KATHY NORRIS	**PHONE:**	9258425931

SITE INFORMATION

CONTACT INFORMATION: KATHY NORRIS
P O BOX 6004
SAN RAMON CA 94583

PHONE: 9258425931

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

Benzene
Ignitable waste

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 122 **DIST/DIR:** 0.08 SW **MAP ID:** 70

NAME: CHEVRON STATION 9-9747
ADDRESS: 1105 N GAFFEY ST
SAN PEDRO CA 90731
LOS ANGELES
CONTACT:

REV: 05/01/2000
ID1: LACITY/CERTNO23117
ID2:
STATUS:
PHONE:

DETAILS NOT AVAILABLE

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

LUST

SEARCH ID: 173 **DIST/DIR:** 0.08 SW **MAP ID:** 71

NAME: ARCO 03069
ADDRESS: 701 W CHANNEL STREET
SAN PEDRO CA 90731
LOS ANGELES
CONTACT:

REV: 10/18/07
ID1: T0603713907
ID2:
STATUS: POLLUTION CHARACTERIZATION
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

Please note that some data previously provided by the State Water Resources Control Board in the LUSTIS database is not currently being provided by the agency in the most recent edition. Incidents that occurred after the year 2000 may not have much information. Field headers with blank information following after should be interpreted as unreported by the agency.

LEAD AGENCY: *LOCAL AGENCY*
REGIONAL BOARD: *04*
LOCAL CASE NUMBER:
RESPONSIBLE PARTY: *ATLANTIC RICHFIELD CO*
ADDRESS OF RESPONSIBLE PARTY: *FOUR CENTERPOINTE DR., LPR4-462, LA PALMA 90622*
SITE OPERATOR:
WATER SYSTEM:

CASE NUMBER:
CASE TYPE: *SOIL ONLY*
SUBSTANCE LEAKED: *GASOLINE*
SUBSTANCE QUANTITY:
LEAK CAUSE: *UNKNOWN*
LEAK SOURCE: *OTHER*
HOW LEAK WAS DISCOVERED: *NO DESCRIPTION*
DATE DISCOVERED (blank if not reported): *2001-02-28*
HOW LEAK WAS STOPPED: *NO DESCRIPTION*
STOP DATE (blank if not reported):
STATUS: *POLLUTION CHARACTERIZATION*
ABATEMENT METHOD (please note that not all code translations have been provided by the reporting agency):
ENFORCEMENT TYPE (please note that not all code translations have been provided by the reporting agency):
DATE OF ENFORCEMENT (blank if not reported):

ENTER DATE (blank if not reported):
REVIEW DATE (blank if not reported):
DATE OF LEAK CONFIRMATION (blank if not reported): *2001-08-02*
DATE PRELIMINARY SITE ASSESSMENT PLAN WAS SUBMITTED (blank if not reported):
DATE PRELIMINARY SITE ASSESSMENT PLAN BEGAN (blank if not reported):
DATE POLLUTION CHARACTERIZATION PLAN BEGAN (blank if not reported): *2001-08-02*
DATE REMEDIATION PLAN WAS SUBMITTED (blank if not reported):
DATE REMEDIAL ACTION UNDERWAY (blank if not reported):
DATE POST REMEDIAL ACTION MONITORING BEGAN (blank if not reported):
DATE CLOSURE LETTER ISSUED (SITE CLOSED) (blank if not reported):
REPORT DATE (blank if not reported): *2001-03-06*

MTBE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

MTBE DATE(Date of historical maximum MTBE concentration):
MTBE GROUNDWATER CONCENTRATION (parts per billion):
MTBE SOIL CONCENTRATION (parts per million):
MTBE CNTS: *0*
MTBE FUEL: *1*
MTBE TESTED: *SITE NOT TESTED FOR MTBE. INCLUDES UNKNOWN AND NOT ANALYZED*
MTBE CLASS: *

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

SWL

SEARCH ID: 109 **DIST/DIR:** 0.08 -W **MAP ID:** 72

NAME: ROLL-AWAY DISPOSAL TS
ADDRESS: 790 BASIN ST
SAN PEDRO (IN LOS AN CA 90733
LOS ANGELES
CONTACT:

REV: 01/12/98
ID1: SWIS19-AA-1015
ID2:
STATUS: TO BE DETERMINED
PHONE:

Activity: *Small Volume Transfer Station*
Accepted Waste:
Operational Status: *To Be Determined*
Regulatory Status *Unpermitted*
Closure Date:
Closure Type:
Permitted Throughput with Units: *0*
Permitted Capacity with Units: *0*
Remaining Capacity with Units (landfills only):
Permitted Total Acreage: *0*
Permitted Disposal Acreage:
Last Tire Inspection Count: *0*
Last Tire Inspection Count Date:
Original Tire Inspection Count: *0*
Last Tire Inspection Count Date:
Inspection Frequency: *None*

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 150 **DIST/DIR:** 0.08 SW **MAP ID:** 73

NAME: KWANG HEE LEE
ADDRESS: 701 CHANNEL
SAN PEDRO CA 90731
Los Angeles
CONTACT:

REV: 01/01/94
ID1: TISID-STATE25924
ID2:
STATUS: ACTIVE
PHONE:

UST HISTORICAL DATA

This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names and locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.

The UST information included in FIDS as provided by the Office of Hazardous Data Management was originally collected from the SWEEPS database. The SWEEPS database recorded Underground Storage Tanks and was maintained by the State Water Resources Control Board (SWRCB). That agency no longer maintains the SWEEPS database and last updated it in 1994. The last release of that 1994 database was in 1997.

Oversight of Underground Storage Tanks within California is now conducted by Certified Unified Program Agencies referred to as CUPA s. There are approximately 102 CUPA s and Local Oversight Programs (LOP s) in the State of California. Most are city or county government agencies. As of 1998, all sites or facilities with underground storage tanks were required by Federal mandate to obtain certification by designated UST oversight agencies (in this case, CUPA s) that the UST/s at their location were upgraded or removed in adherence with the 1998 RCRA standards.

Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by Track Info Services. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

LUST

SEARCH ID: 174 **DIST/DIR:** 0.08 SW **MAP ID:** 73

NAME: ARCO 3069
ADDRESS: 701 CHANNEL ST
TERMINAL ISLAND CA 90731
LOS ANGELES
CONTACT:

REV: 06/31/01
ID1: 907310234
ID2:
STATUS: CASE CLOSED
PHONE:

CASE TYPE: *OTHER*
SUBSTANCE LEAKED: *GASOLINE*
SUBSTANCE QUANTITY:
LEAD AGENCY: *REGIONAL BOARD*
REGIONAL BOARD: *LOS ANGELES REGION*
STATUS: *CASE CLOSED*
ABATEMENT METHOD:
REVIEW DATE: *1/10/97*
DATE OF LEAK CONFIRMATION:
DATE PRELIMINARY SITE ASSESSMENT PLAN WAS SUBMITTED:
DATE PRELIMINARY SITE ASSESSMENT PLAN BEGAN:
DATE POLLUTION CHARACTERIZATION PLAN BEGAN: *3/16/89*

DATE REMEDIATION PLAN WAS SUBMITTED:

DATE REMEDIAL ACTION UNDERWAY:
DATE POST REMEDIAL ACTION MONITORING BEGAN:
DATE CLOSURE LETTER ISSUED (SITE CLOSED): *9/3/96*
REPORT DATE: *11/1/87*

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 119 **DIST/DIR:** 0.08 SW **MAP ID:** 73

NAME: ARCO SS 3069
ADDRESS: 701 W CHANNEL ST
SAN PEDRO CA 90731
LOS ANGELES
CONTACT:

REV: 05/01/2000
ID1: LACITY/CERTNO23016
ID2:
STATUS:
PHONE:

DETAILS NOT AVAILABLE

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

LUST

SEARCH ID: 175 **DIST/DIR:** 0.08 SW **MAP ID:** 73

NAME: ARCO 3069
ADDRESS: 701 CHANNEL ST
TERMINAL ISLAND CA 90731
LOS ANGELES
CONTACT:

REV: 10/18/07
ID1: T0603701629
ID2:
STATUS: CASE CLOSED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

Please note that some data previously provided by the State Water Resources Control Board in the LUSTIS database is not currently being provided by the agency in the most recent edition. Incidents that occurred after the year 2000 may not have much information. Field headers with blank information following after should be interpreted as unreported by the agency.

LEAD AGENCY: *REGIONAL BOARD*
REGIONAL BOARD: *04*
LOCAL CASE NUMBER: *UNKNOWN*
RESPONSIBLE PARTY: *RAYMOND VOSE*
ADDRESS OF RESPONSIBLE PARTY: *6 CENTERPOINTE DR.*
SITE OPERATOR: *MR. DARRELL FAH*
WATER SYSTEM:

CASE NUMBER: *907310234A*
CASE TYPE: *OTHER*
SUBSTANCE LEAKED: *GASOLINE*
SUBSTANCE QUANTITY:
LEAK CAUSE: *UNKNOWN*
LEAK SOURCE: *UNKNOWN*
HOW LEAK WAS DISCOVERED: *TANK CLOSURE*
DATE DISCOVERED (blank if not reported): *2001-02-20*
HOW LEAK WAS STOPPED:
STOP DATE (blank if not reported): *1987-09-15*
STATUS: *CASE CLOSED*
ABATEMENT METHOD (please note that not all code translations have been provided by the reporting agency):
ENFORCEMENT TYPE (please note that not all code translations have been provided by the reporting agency): *CLOS*
DATE OF ENFORCEMENT (blank if not reported):

ENTER DATE (blank if not reported):
REVIEW DATE (blank if not reported):
DATE OF LEAK CONFIRMATION (blank if not reported):
DATE PRELIMINARY SITE ASSESSMENT PLAN WAS SUBMITTED (blank if not reported):
DATE PRELIMINARY SITE ASSESSMENT PLAN BEGAN (blank if not reported): *2001-05-18*
DATE POLLUTION CHARACTERIZATION PLAN BEGAN (blank if not reported): *2003-04-14*
DATE REMEDIATION PLAN WAS SUBMITTED (blank if not reported): *2003-02-14*
DATE REMEDIAL ACTION UNDERWAY (blank if not reported): *2005-01-18*
DATE POST REMEDIAL ACTION MONITORING BEGAN (blank if not reported):
DATE CLOSURE LETTER ISSUED (SITE CLOSED) (blank if not reported): *2006-06-30*
REPORT DATE (blank if not reported): *2001-02-20*

MTBE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

MTBE DATE(Date of historical maximum MTBE concentration): *2001-04-04*
MTBE GROUNDWATER CONCENTRATION (parts per billion): *EQUAL TO 44,000*
MTBE SOIL CONCENTRATION (parts per million):
MTBE CNTS: *1*
MTBE FUEL: *2*
MTBE TESTED: *YES*
MTBE CLASS: *

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

SWL

SEARCH ID: 108 **DIST/DIR:** 0.08 NE **MAP ID:** 74

NAME: EURECTEC-WILMINGTON
ADDRESS: 444 N QUAY AVE UNIT 1
WILMINGTON (IN LOS A CA 90744
LOS ANGELES
CONTACT:

REV: 01/12/98
ID1: SWIS19-TI-0032
ID2:
STATUS: CLOSED
PHONE:

Activity: *Waste Tire Location*
Accepted Waste:
Operational Status: *Closed*
Regulatory Status *Not Currently Regulated*
Closure Date:
Closure Type:
Permitted Throughput with Units: *0*
Permitted Capacity with Units: *0*
Remaining Capacity with Units (landfills only):
Permitted Total Acreage: *0*
Permitted Disposal Acreage:
Last Tire Inspection Count: *0*
Last Tire Inspection Count Date:
Original Tire Inspection Count: *0*
Last Tire Inspection Count Date:
Inspection Frequency: *None*

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 90 **DIST/DIR:** 0.08 NE **MAP ID:** 75

NAME:
ADDRESS: 100 LAKME BLVD
WILMINGTON CA
LOS ANGELES
CONTACT: THOMAS MCLANE

REV: 12/31/03
ID1: NRC-641357
ID2:
STATUS: PIPELINE
PHONE: 7145604834

SITE INFORMATION

THIS INFORMATION WAS OBTAINED FROM THE NATIONAL RESPONSE CENTER

DATE RECEIVED: 4/4/2003 7:09:24 PM **DATE COMPLETE:** 4/4/2003 7:17:51 PM
CALL TAKER: LCL3599 **CALL TYPE:** INC

RESPONSIBLE PARTY: THOMAS MCLANE
PHONE 1: 7145604834 PRIMARY
PHONE 2:
PHONE 3:

RESPONSIBLE COMPANY: KINDER MORGAN LIQUID TERMINALS LLC
ORGANIZATION TYPE: PRIVATE ENTERPRISE

ADDRESS: 1100 TOWN AND COUNTRY ROAD
ORANGE CA 92868

SOURCE: TELEPHONE

INCIDENT INFORMATION

INCIDENT DESCRIPTION: LINE RIDER DISCOVERED AN OIL STAIN ON RIGHT OF WAY DUE TO A PINHOLE LEAK IN PIPELINE. SECTION 140

INCIDENT TYPE: PIPELINE **INCIDENT CAUSE:** EQUIPMENT FAILURE
INCIDENT DATE: 3/25/2003 10:00:00 AM **INCIDENT DATE DESC:** OCCURRED
DISTANCE FROM CITY: **DISTANCE UNITS:**
DIRECTION FROM CITY: **LOCATION SECTION:**
LOCATION TOWNSHIP: **LOCATION RANGE:**

AIRCRAFT TYPE: **AIRCRAFT MODEL:**
AIRCRAFT ID: **AIRCRAFT FUEL CAPACITY:**
AIRCRAFT FUEL CAPACITY UNITS: **AIRCRAFT FUEL ON BOARD:**
AIRCRAFT FUEL ON BOARD UNITS: **AIRCRAFT SPOT NUMBER:**
AIRCRAFT HANGER: **AIRCRAFT RUNWAY NUM:**
ROAD MILE MARKER: **BUILDING ID:**
TYPE OF FIXED OBJECT: **POWER GEN FACILITY:** U
GENERATING CAPACITY: **TYPE OF FUEL:**
NPDES: **NPDES COMPLIANCE:** U
PIPELINE TYPE: GATHERING **DOT REGULATED:** Y
PIPELINE ABOVE GROUND: BELOW **EXPOSED UNDERWATER:** N
PIPELINE COVERED: U **GRADE CROSSING:** N
LOCATION SUBDIVISION: **RAILROAD MILEPOST:**
TYPE VEHICLE INVOLVED: **CROSSING DEVICE TYPE:**
DEVICE OPERATIONAL: Y

DOT CROSSING NUMBER: **BRAKE FAILURE:** N

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 90 **DIST/DIR:** 0.08 NE **MAP ID:** 75

NAME:		**REV:**	12/31/03
ADDRESS:	100 LAKME BLVD	**ID1:**	NRC-641357
	WILMINGTON CA	**ID2:**	
	LOS ANGELES	**STATUS:**	PIPELINE
CONTACT:	THOMAS MCLANE	**PHONE:**	7145604834

TANK ABOVE GROUND:	ABOVE	**TRANSPORTABLE CONTAINER:**	U
TANK REGULATED:	U	**TANK REGULATED BY:**	
TANK ID:		**CAPACITY OF TANK:**	
CAPACITY OF TANK UNITS:		**ACTUAL AMOUNT:**	
ACTUAL AMOUNT UNITS:		**PLATFORM RIG NAME:**	
PLATFORM LETTER:		**LOCATION AREA ID:**	
LOCATION BLOCK ID:			

DESCRIPTION OF TANK:

OCSG NUMBER:		**OCSP NUMBER:**	
STATE LEASE NUMBER:		**PIER DOCK NUMBER:**	
BERTH SLIP NUMBER:		**CONTIN RELEASE TYPE:**	
INITIAL CONT RELEASE NUM:		**CONT RELEASE PERMIT:**	
ALLISION:	N	**TYPE OF STRUCTURE:**	
STRUCTURE NAME:		**STRUCT OPERATIONAL:**	U
AIRBAG DEPLOYED:		**DATE NORMAL SERVICE:**	
SERVICE DISRUPT TIME:		**SERVICE DISRUPT UNITS:**	
TRANSIT BUS FLAG:		**CR BEGIN DATE:**	
CR END DATE:		**CR CHANGE DATE:**	
FIRE INVOLVED:	N	**FIRE EXTINGUISHED:**	U
ANY EVACUATIONS:	N	**NUMBER EVACUATED:**	
WHO EVACUATED:		**RADIUS OF EVACUATION:**	
ANY INJURIES:	N	**NUMBER INJURED:**	
NUMBER HOSPITALIZED:		**ANY FATALITIES:**	N
NUMBER FATALITIES:		**ANY DAMAGES:**	N
DAMAGE AMOUNT:		**AIR CORRIDOR CLOSED:**	N
AIR CORRIDOR DESC:		**AIR CLOSURE TIME:**	
WATERWAY CLOSED:	N	**WATERWAY DESC:**	
WATERWAY CLOSURE TIME:		**ROAD CLOSED:**	N
ROAD DESC:		**ROAD CLOSURE TIME:**	
CLOSURE DIRECTION:		**MAJOR ARTERY:**	N
TRACK CLOSED:	N	**TRACK DESC:**	
TRACK CLOSURE TIME:		**MEDIA INTEREST:**	NONE
MEDIUM DESC:	SOIL	**ADDTL MEDIUM INFO:**	AREA AROUND PIPELINE
BODY OF WATER:		**TRIBUTARY OF:**	
NEAREST RIVER MILE MARK:		**RELEASE SECURED:**	Y
EST DUR OF RELEASE:		**RELEASE RATE:**	
TRACK CLOSE DIR:		**ST AGENCY ON SCENE:**	
ST AGENCY RPT NUM:	03-1617	**OTHER AGENCY NOTIFIED:**	
WEATHER CONDITIONS:	CLEAR	**AIR TEMPERATURE:**	
WIND SPEED:		**WIND DIRECTION:**	
WATER SUPPLY CONTAM:	U	**SHEEN SIZE:**	
SHEEN COLOR:		**DIR OF SHEEN TRAVEL:**	
SHEEN ODOR DESCRIPTION:		**WAVE CONDITION:**	
CURRENT SPEED:		**CURRENT DIRECTION:**	
WATER TEMPERATURE:			

DESC OF REMEDIAL ACTION: EXCAVATED SOIL, REPAIRS MADE, CLEANUP COMPLETED

EMPL FATALITY: **PASS FATALITY:**

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 90 **DIST/DIR:** 0.08 NE **MAP ID:** 75

NAME:		**REV:**	12/31/03
ADDRESS:	100 LAKME BLVD	**ID1:**	NRC-641357
	WILMINGTON CA	**ID2:**	
	LOS ANGELES	**STATUS:**	PIPELINE
CONTACT:	THOMAS MCLANE	**PHONE:**	7145604834

COMMUNITY IMPACT:	N	**WIND SPEED UNITS:**	
EMPLOYEE INJURIES:		**PASSENGER INJURIES:**	
OCCUPANT FATALITY:		**CURRENT SPEED UNITS:**	
ROAD CLOSURE UNITS:		**TRACK CLOSURE UNITS:**	
SHEEN SIZE UNITS:		**STATE AGENCY NOTIFIED:**	OES
FED AGENCY NOTIFIED:		**NEAREST RIVER MILE MARK:**	
SHEEN SIZE LENGTH:		**SHEEN SIZE LENGTH UNITS:**	
SHEEN SIZE WIDTH:		**SHEEN SIZE WIDTH UNITS:**	
OFFSHORE:	N	**DURATION UNIT:**	
RELEASE RATE UNIT:		**RELEASE RATE RATE:**	

ADDITIONAL INFO: LINE SIZE UNKNOWN. DID NOT FIND OUT UNTIL TODAY THAT THE SPILL EXCEEDED THE REPORTABLE AMOUNT. CALLER HAD NO ADDITIONAL INFORMATION

MATERIAL INFORMATION

CHRIS CODE:	OIL	**CASE NUMBER:**	000000-00-0
UN NUMBER:		**REACHED WATER:**	NO

NAME OF MATERIAL: OIL: CRUDE
AMOUNT OF MATERIAL: 0 UNKNOWN AMOUNT
AMOUNT IN WATER:

OTHER MATERIAL INFORMATION

MOBILE DETAILS INFORMATION

TRAIN INFORMATION

VESSEL INFORMATION

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 35 **DIST/DIR:** 0.09 NW **MAP ID:** 76

NAME:	STATE FISH PLANT 1	**REV:**	6/6/06
ADDRESS:	1130 W C ST	**ID1:**	CAD983601840
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	SGN
CONTACT:	BRIAN SCOLES	**PHONE:**	2138308020

SITE INFORMATION

CONTACT INFORMATION: BRIAN SCOLES
1130 W C ST
WILMINGTON CA 90744

PHONE: 2138308020

UNIVERSE INFORMATION:

NAIC INFORMATION

49312 - REFRIGERATED WAREHOUSING AND STORAGE

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 71 **DIST/DIR:** 0.09 NW **MAP ID:** 77

NAME: EXXON (J. ODOM)
ADDRESS: C AND GULF STREETS
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV:
ID1: 74173
ID2:
STATUS: UNKNOWN
PHONE:

CERCLIS (Y/N):

MAT: OIL : CRUDE **QUANT:** 25 GALLONS

LOCATION: C AND GULF STREETS
CITY: WILMINGTON CA 90744 **REPORTED:** 10/25/88

SOURCE: UNKNOWN **MEDIUM:** LAND;WATER

CAUSE: UNKNOWN

ACT: BOOM PLACED IN HARBOR AS PRECAUTION
BY:

ERNS

SEARCH ID: 92 **DIST/DIR:** 0.09 NW **MAP ID:** 77

NAME:
ADDRESS: C AND GULF STREETS
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV:
ID1: 69029
ID2:
STATUS: UNKNOWN
PHONE:

CERCLIS (Y/N):

MAT: CRUDE OIL **QUANT:** 25 GALLONS

LOCATION: C AND GULF STREETS
CITY: **REPORTED:** 10/25/88

SOURCE: UNKNOWN **MEDIUM:** LAND
FLOW LINE FAILURE FROM WELL NO. 624
CAUSE: UNKNOWN

ACT: HAVE ISOLATED LEAK AND IN PROCESS OF CLEANING UP.
BY:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 10 **DIST/DIR:** 0.09 NW **MAP ID:** 78

NAME: ADVANCE GERMAN CAR
ADDRESS: 1303 N GAFFEY ST
SAN PEDRO CA 90731
LOS ANGELES
CONTACT:

REV: 6/6/06
ID1: CAD981691827
ID2:
STATUS: SGN
PHONE:

SITE INFORMATION

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 163 **DIST/DIR:** 0.09 NW **MAP ID:** 78

NAME: SAN PEDRO RENTALS INCORPORATED
ADDRESS: 1303 GAFFEY
SAN PEDRO CA 90731
Los Angeles
CONTACT:

REV: 01/01/94
ID1: TISID-STATE5272
ID2:
STATUS: INACTIVE
PHONE:

UST HISTORICAL DATA

This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names and locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.

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Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by Track Info Services. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

LUST

SEARCH ID: 188 **DIST/DIR:** 0.09 NW **MAP ID:** 78

NAME: SAN PEDRO RENTALS
ADDRESS: 1303 GAFFEY ST N
SAN PEDRO CA 90731
LOS ANGELES
CONTACT:

REV: 10/18/07
ID1: T0603701635
ID2:
STATUS: CASE CLOSED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

Please note that some data previously provided by the State Water Resources Control Board in the LUSTIS database is not currently being provided by the agency in the most recent edition. Incidents that occurred after the year 2000 may not have much information. Field headers with blank information following after should be interpreted as unreported by the agency.

LEAD AGENCY: *REGIONAL BOARD*
REGIONAL BOARD: *04*
LOCAL CASE NUMBER:
RESPONSIBLE PARTY: *SAN PEDRO RENTALS*
ADDRESS OF RESPONSIBLE PARTY: *1303 N. GAFFEY ST., SAN PEDRO, CA 90731*
SITE OPERATOR: *OLD CASE 083190-06*
WATER SYSTEM:

CASE NUMBER: *907310298*
CASE TYPE: *OTHER*
SUBSTANCE LEAKED: *DIESEL*
SUBSTANCE QUANTITY:
LEAK CAUSE: *UNKNOWN*
LEAK SOURCE: *UNKNOWN*
HOW LEAK WAS DISCOVERED:
DATE DISCOVERED (blank if not reported):
HOW LEAK WAS STOPPED:
STOP DATE (blank if not reported):
STATUS: *CASE CLOSED*
ABATEMENT METHOD (please note that not all code translations have been provided by the reporting agency):
ENFORCEMENT TYPE (please note that not all code translations have been provided by the reporting agency):
DATE OF ENFORCEMENT (blank if not reported):

ENTER DATE (blank if not reported): *1990-08-31*
REVIEW DATE (blank if not reported): *1997-04-17*
DATE OF LEAK CONFIRMATION (blank if not reported):
DATE PRELIMINARY SITE ASSESSMENT PLAN WAS SUBMITTED (blank if not reported): *1990-02-28*
DATE PRELIMINARY SITE ASSESSMENT PLAN BEGAN (blank if not reported):
DATE POLLUTION CHARACTERIZATION PLAN BEGAN (blank if not reported):
DATE REMEDIATION PLAN WAS SUBMITTED (blank if not reported):
DATE REMEDIAL ACTION UNDERWAY (blank if not reported):
DATE POST REMEDIAL ACTION MONITORING BEGAN (blank if not reported):
DATE CLOSURE LETTER ISSUED (SITE CLOSED) (blank if not reported): *1997-06-05*
REPORT DATE (blank if not reported): *1990-05-09*

MTBE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

MTBE DATE(Date of historical maximum MTBE concentration):
MTBE GROUNDWATER CONCENTRATION (parts per billion):
MTBE SOIL CONCENTRATION (parts per million):
MTBE CNTS: *0*
MTBE FUEL: *0*
MTBE TESTED: *NOT REQUIRED TO BE TESTED*
MTBE CLASS: *

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

STATE

SEARCH ID: 97 **DIST/DIR:** 0.09 NW **MAP ID:** 79

NAME: WORLD INTERNATIONAL
ADDRESS: 1000 WEST C STREET
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 07/18/05
ID1: CAL19470011
ID2:
STATUS: CERTIFIED
PHONE:

OTHER SITE NAMES (blank below = not reported by agency)
WORLD INTERNATIONAL

B AND B CERTIFIED DESTRUCTION COMPANY

GENERAL SITE INFORMATION
File Name (if different than site name):

Status: *CERTIFIED*
AWP Site Type: *RESPONSIBLE PARTY*
NPL Site:
Fund:
Status Date: *09011985*
Lead: *N/A*
Staff:
DTSC Region and RWQCB : *GLENDALE*
Branch: *SO CAL - GLENDALE*
RWQCB:
Site Access:
On Cortese List:
Groundwater Contamination:
Haz Ranking Score:
Haz Ranking Score:
Number of Sources Contributing to Contamination at the Site: *0*

BACKGROUND INFORMATION (blank below = not reported by agency)
Transporter illegally stored and disposed of various chemicals; benzene, ether, adhesives, chromic acid, oxidizes and flammable wastes at site. The Department in conjunction with Los Angeles Police Department, District Attorney s office and Health Department obtained a search warrant regarding criminal violations at the site. Since the potential did exist for fire and explosion, the Department requested an immediate cleanup. The cleanup was performed by IT Corporation and was completed in 15 hours on September 1, 1985.

PROJECTED ACTIVITIES (blank below = not reported by agency)
Activity: ***CERTIFICATION***
Activity Status: *CERTIFIED*
Completion Due Date:
Revised Completion Due Date:
Date Activity Actually Completed: *09011985*
Yards of Solids Removed: *0*
Yards of Solids Treated: *0*
Gallons of Liquid Removed: *0*
Gallons of Liquid Treated: *0*

DTSC COMMENTS REGARDING THIS SITE (blank below = not reported by agency)
Comments Date:
: *54 fifty-five-gallon drums filled and removed and 10 drums already containing waste were also removed.*

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 154 **DIST/DIR:** 0.09 NW **MAP ID:** 80

NAME:	MEMORIAL PARK DEVEL ASSN INC	**REV:**	01/01/94
ADDRESS:	718 BATTERY	**ID1:**	TISID-STATE5154
	SAN PEDRO CA 90732	**ID2:**	
	Los Angeles	**STATUS:**	INACTIVE
CONTACT:		**PHONE:**	

UST HISTORICAL DATA

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Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

LUST

SEARCH ID: 186 **DIST/DIR:** 0.09 NW **MAP ID:** 80

NAME: PAUL IACONO STRUCTURAL ENG.INC
ADDRESS: 718 BATTERY ST W
SAN PEDRO CA 90732
LOS ANGELES
CONTACT:

REV: 10/18/07
ID1: T0603701646
ID2:
STATUS: CASE CLOSED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

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LEAD AGENCY: *REGIONAL BOARD*
REGIONAL BOARD: *04*
LOCAL CASE NUMBER:
RESPONSIBLE PARTY: *STRUCTURAL ENGINEERING, INC.*
ADDRESS OF RESPONSIBLE PARTY: *2510 W 237TH ST, SUITE 100, TORRANCE CA 90505 D*
SITE OPERATOR: *OLD CASE 011692-01*
WATER SYSTEM:

CASE NUMBER: *907320016*
CASE TYPE: *OTHER*
SUBSTANCE LEAKED: *GASOLINE*
SUBSTANCE QUANTITY:
LEAK CAUSE: *UNKNOWN*
LEAK SOURCE: *UNKNOWN*
HOW LEAK WAS DISCOVERED:
DATE DISCOVERED (blank if not reported):
HOW LEAK WAS STOPPED:
STOP DATE (blank if not reported):
STATUS: *CASE CLOSED*
ABATEMENT METHOD (please note that not all code translations have been provided by the reporting agency):
ENFORCEMENT TYPE (please note that not all code translations have been provided by the reporting agency):
DATE OF ENFORCEMENT (blank if not reported):

ENTER DATE (blank if not reported): *1992-01-11*
REVIEW DATE (blank if not reported): *1992-01-06*
DATE OF LEAK CONFIRMATION (blank if not reported):
DATE PRELIMINARY SITE ASSESSMENT PLAN WAS SUBMITTED (blank if not reported):
DATE PRELIMINARY SITE ASSESSMENT PLAN BEGAN (blank if not reported): *1992-01-06*
DATE POLLUTION CHARACTERIZATION PLAN BEGAN (blank if not reported):
DATE REMEDIATION PLAN WAS SUBMITTED (blank if not reported):
DATE REMEDIAL ACTION UNDERWAY (blank if not reported):
DATE POST REMEDIAL ACTION MONITORING BEGAN (blank if not reported):
DATE CLOSURE LETTER ISSUED (SITE CLOSED) (blank if not reported): *1996-07-17*
REPORT DATE (blank if not reported): *1992-01-06*

MTBE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

MTBE DATE(Date of historical maximum MTBE concentration):
MTBE GROUNDWATER CONCENTRATION (parts per billion):
MTBE SOIL CONCENTRATION (parts per million):
MTBE CNTS: *0*
MTBE FUEL: *1*
MTBE TESTED: *SITE NOT TESTED FOR MTBE. INCLUDES UNKNOWN AND NOT ANALYZED*
MTBE CLASS: ***

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 164 **DIST/DIR:** 0.10 SE **MAP ID:** 81

NAME:	TAISEI-PANKOW	**REV:**	01/01/94
ADDRESS:	375 MATSONIA	**ID1:**	TISID-STATE28308
	WILMINGTON CA 90744	**ID2:**	
	Los Angeles	**STATUS:**	ACTIVE
CONTACT:		**PHONE:**	

UST HISTORICAL DATA

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Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 165 **DIST/DIR:** 0.10 SE **MAP ID:** 81

NAME: TAISEI-PANKOW
ADDRESS: 375 MATSONIA WY
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 05/01/2000
ID1: LACTY/NONCRTFD715
ID2:
STATUS:
PHONE:

DETAILS NOT AVAILABLE

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

LUST

SEARCH ID: 180 **DIST/DIR:** 0.10 NW **MAP ID:** 82

NAME: HARBOR DISTRICT FACILITIES
ADDRESS: 1400 GAFFEY ST N
TERMINAL ISLAND CA 90731
LOS ANGELES
CONTACT:

REV: 10/18/07
ID1: T0603701642
ID2:
STATUS: CASE CLOSED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

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LEAD AGENCY: *LOCAL AGENCY*
REGIONAL BOARD: *04*
LOCAL CASE NUMBER:
RESPONSIBLE PARTY: *E BROOKES TREIDLER*
ADDRESS OF RESPONSIBLE PARTY: *SAME AS ABOVE*
SITE OPERATOR: *OLD CASENO WAS 092088-07*
WATER SYSTEM:

CASE NUMBER: *907310361*
CASE TYPE: *SOIL ONLY*
SUBSTANCE LEAKED: *1*
SUBSTANCE QUANTITY:
LEAK CAUSE: *UNKNOWN*
LEAK SOURCE: *UNKNOWN*
HOW LEAK WAS DISCOVERED: *TANK CLOSURE*
DATE DISCOVERED (blank if not reported): *1988-07-11*
HOW LEAK WAS STOPPED:
STOP DATE (blank if not reported):
STATUS: *CASE CLOSED*
ABATEMENT METHOD (please note that not all code translations have been provided by the reporting agency):
ENFORCEMENT TYPE (please note that not all code translations have been provided by the reporting agency):
DATE OF ENFORCEMENT (blank if not reported):

ENTER DATE (blank if not reported): *1988-09-15*
REVIEW DATE (blank if not reported): *1997-07-16*
DATE OF LEAK CONFIRMATION (blank if not reported):
DATE PRELIMINARY SITE ASSESSMENT PLAN WAS SUBMITTED (blank if not reported):
DATE PRELIMINARY SITE ASSESSMENT PLAN BEGAN (blank if not reported):
DATE POLLUTION CHARACTERIZATION PLAN BEGAN (blank if not reported): *1988-09-20*
DATE REMEDIATION PLAN WAS SUBMITTED (blank if not reported):
DATE REMEDIAL ACTION UNDERWAY (blank if not reported):
DATE POST REMEDIAL ACTION MONITORING BEGAN (blank if not reported):
DATE CLOSURE LETTER ISSUED (SITE CLOSED) (blank if not reported): *1997-07-16*
REPORT DATE (blank if not reported): *1988-07-14*

MTBE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

MTBE DATE(Date of historical maximum MTBE concentration):
MTBE GROUNDWATER CONCENTRATION (parts per billion):
MTBE SOIL CONCENTRATION (parts per million):
MTBE CNTS: *0*
MTBE FUEL: *0*
MTBE TESTED: *NOT REQUIRED TO BE TESTED*
MTBE CLASS: *

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 135 **DIST/DIR:** 0.10 NW **MAP ID:** 82

NAME: GAFFEY STREET YARD
ADDRESS: 1400 N. GAFFEY ST.
SAN PEDRO CA 90731
Los Angeles
CONTACT:

REV: 05/01/2000
ID1: LACITY/CERTNO24451
ID2:
STATUS:
PHONE:

DETAILS NOT AVAILABLE

UST

SEARCH ID: 129 **DIST/DIR:** 0.11 NW **MAP ID:** 83

NAME: DAECO FUELS AND ENGINEERING CO
ADDRESS: 201 W D ST
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 05/01/2000
ID1: LACTY/NONCRTFD363
ID2:
STATUS:
PHONE:

DETAILS NOT AVAILABLE

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 128 **DIST/DIR:** 0.11 NW **MAP ID:** 83

NAME:	DAECO FUELS AND ENGINEERING CO	**REV:**	01/01/94
ADDRESS:	201 D	**ID1:**	TISID-STATE26325
	WILMINGTON CA 90744	**ID2:**	
	Los Angeles	**STATUS:**	ACTIVE
CONTACT:		**PHONE:**	

UST HISTORICAL DATA

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Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 142 **DIST/DIR:** 0.11 NW **MAP ID:** 84

NAME:	HARBOR ANIMAL SHELTER	**REV:**	01/01/94
ADDRESS:	735 BATTERY	**ID1:**	TISID-STATE26376
	SAN PEDRO CA 90731	**ID2:**	
	Los Angeles	**STATUS:**	ACTIVE
CONTACT:		**PHONE:**	

UST HISTORICAL DATA

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Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 24 **DIST/DIR:** 0.11 NW **MAP ID:** 84

NAME:	LA HARBOR ANIMAL SHELTER	**REV:**	6/6/06
ADDRESS:	735 BATTERY ST	**ID1:**	CAD981987951
	SAN PEDRO CA 90731	**ID2:**	
	LOS ANGELES	**STATUS:**	SGN
CONTACT:	ENVIRONMENTAL MANAGER	**PHONE:**	2134857527

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
735 BATTERY ST
SAN PEDRO CA 90731

PHONE: 2134857527

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

SPILLS

SEARCH ID: 104 **DIST/DIR:** 0.11 NW **MAP ID:** 85

NAME: WILMINGTON TOWN LOT 511
ADDRESS: 315 MCDONALD AVE
WILMINGTON CA 90744
CONTACT:

REV: 11/06/07
ID1: G_SLT43569567
ID2:
STATUS:
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

Please note that some SLIC data previously provided by the State Water Resources Control Board via the Regional Boards is not currently provided by the agency in the new GEOTRACKER format. To ensure that our data is as complete as possible we have retained the original Regional Boards SLIC records as well as loaded all GEOTRACKER SLIC listings. GEOTRACKER records are distinguished by an initial G at the start of the ID.

LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *MANJULIKA CHAKRABARTI*
LEAD AGENCY CASE NUMBER: *0655U7*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded):
RECENT DTW:
STATUS: *Case Closed*

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 23 **DIST/DIR:** 0.11 SE **MAP ID:** 86

NAME:	LA FIRE STATION 49	**REV:**	6/6/06
ADDRESS:	400 MATSONIA WAY	**ID1:**	CAD981962657
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	SGN
CONTACT:	ENVIRONMENTAL MANAGER	**PHONE:**	2134857527

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
400 MATSONIA WAY
WILMINGTON CA 90012

PHONE: 2134857527

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 151 **DIST/DIR:** 0.11 SE **MAP ID:** 86

NAME:	LOS ANGELES FIRE STATION 49	**REV:**	01/01/94
ADDRESS:	400 MATSONIA	**ID1:**	TISID-STATE26503
	WILMINGTON CA 90012	**ID2:**	
	Los Angeles	**STATUS:**	ACTIVE
CONTACT:		**PHONE:**	

UST HISTORICAL DATA

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Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRACOR

SEARCH ID: 7 **DIST/DIR:** 0.11 NE **MAP ID:** 87

NAME: LAIDLAW ENVIRON SVCS OF CA INC
ADDRESS: 221 E D ST
WILMINGTON CA 90744
LOS ANGELES
CONTACT: JOHN GILKAY

REV: 6/6/06
ID1: CAD029654894
ID2:
STATUS: CA
PHONE: 2132772642

SITE INFORMATION

CONTACT INFORMATION: JOHN GILKAY
1820 E 48TH PL P O BOX 58483
LOS ANGELES CA 90058

PHONE: 2132772642

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
221 E D ST
WILMINGTON CA 90744

PHONE:

UNIVERSE INFORMATION:

NAIC INFORMATION

48411 - GENERAL FREIGHT TRUCKING, LOCAL
562 - WASTE MANAGEMENT AND REMEDIATION SERVICES

ENFORCEMENT INFORMATION:

AGENCY:	S - STATE	**DATE:**	12/11/1989
TYPE:	120 - WRITTEN INFORMAL		
AGENCY:	S - STATE	**DATE:**	12/11/1989
TYPE:	120 - WRITTEN INFORMAL		
AGENCY:	S - STATE	**DATE:**	11/4/1992
TYPE:	120 - WRITTEN INFORMAL		
AGENCY:	S - STATE	**DATE:**	4/4/1988
TYPE:	120 - WRITTEN INFORMAL		
AGENCY:	S - STATE	**DATE:**	4/4/1988
TYPE:	120 - WRITTEN INFORMAL		
AGENCY:	S - STATE	**DATE:**	11/4/1992
TYPE:	120 - WRITTEN INFORMAL		

VIOLATION INFORMATION:

VIOLATION NUMBER:	0001	**RESPONSIBLE:**	S - STATE
DETERMINED:	2/24/1988	**DETERMINED BY:**	S - STATE

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRACOR

SEARCH ID: 7 **DIST/DIR:** 0.11 NE **MAP ID:** 87

NAME: LAIDLAW ENVIRON SVCS OF CA INC
ADDRESS: 221 E D ST
WILMINGTON CA 90744
LOS ANGELES
CONTACT: JOHN GILKAY

REV: 6/6/06
ID1: CAD029654894
ID2:
STATUS: CA
PHONE: 2132772642

CITATION: 264.70-77.E
RESOLVED: 5/31/1988
TYPE: TSD-OTHER REQUIREMENTS (OVERSIGHT)

VIOLATION NUMBER: 0002 **RESPONSIBLE:** S - STATE
DETERMINED: 2/24/1988 **DETERMINED BY:** S - STATE
CITATION: 270
RESOLVED: 5/31/1988
TYPE: TSD-OTHER REQUIREMENTS (OVERSIGHT)

VIOLATION NUMBER: 0003 **RESPONSIBLE:** S - STATE
DETERMINED: 2/24/1988 **DETERMINED BY:** S - STATE
CITATION: 264.110-120.G
RESOLVED: 5/31/1988
TYPE: TSD-CLOSURE/POST-CLOSURE REQUIREMENTS

VIOLATION NUMBER: 0004 **RESPONSIBLE:** S - STATE
DETERMINED: 10/26/1989 **DETERMINED BY:** S - STATE
CITATION: 270
RESOLVED: 12/27/1989
TYPE: TSD-OTHER REQUIREMENTS (OVERSIGHT)

VIOLATION NUMBER: 0005 **RESPONSIBLE:** S - STATE
DETERMINED: 11/4/1992 **DETERMINED BY:** S - STATE
CITATION: 263
RESOLVED: 11/30/1994
TYPE: TRANSPORTER-ALL REQUIREMENTS (OVERSIGHT)

VIOLATION NUMBER: 0006 **RESPONSIBLE:** S - STATE
DETERMINED: 11/4/1992 **DETERMINED BY:** S - STATE
CITATION: 262.20-23.B
RESOLVED: 11/30/1994
TYPE: GENERATOR-ALL REQUIREMENTS (OVERSIGHT)

VIOLATION NUMBER: 0007 **RESPONSIBLE:** S - STATE
DETERMINED: 11/4/1992 **DETERMINED BY:** S - STATE
CITATION: 262.30-34.C
RESOLVED: 11/30/1994
TYPE: GENERATOR-ALL REQUIREMENTS (OVERSIGHT)

VIOLATION NUMBER: 0008 **RESPONSIBLE:** S - STATE
DETERMINED: 11/4/1992 **DETERMINED BY:** S - STATE
CITATION: 262.10-12.A
RESOLVED: 11/30/1994
TYPE: GENERATOR-ALL REQUIREMENTS (OVERSIGHT)

CORRECTIVE ACTION INFORMATION

CA EVENT: 3/1/1984 CA075LO - CA PRIORITIZATION-LOW CA PRIORITY

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRA

SEARCH ID: 5 **DIST/DIR:** 0.11 NE **MAP ID:** 87

NAME:	LAIDLAW ENVIRON SVCS OF CA INC	**REV:**	6/8/02
ADDRESS:	221 E D ST	**ID1:**	CAD029654894
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	TSD
CONTACT:	ENVIRONMENTAL MANAGER	**PHONE:**	

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
ENVIRO MANAGER
221 E D ST
WILMINGTON CA 90744

PHONE:

UNIVERSE NAME:

SUBJECT TO CEI
INCINERATOR
SUBJECT TO CORRECTIVE ACTION
TSDS SUBJECT TO CORRECTIVE ACT
ST: STORAGE AND TREATMENT
DF: LAND DISPOSAL FACILITY

SIC INFORMATION:

4953 - TRANS. and UTILITIES - REFUSE SYSTEMS
4212 - TRANS. and UTILITIES - LOCAL TRUCKING, WITHOUT STORA

ENFORCEMENT INFORMATION:

AGENCY:	S - STATE	**DATE:**	04-APR-88
TYPE:	120 - WRITTEN INFORMAL		
AGENCY:	S - STATE	**DATE:**	04-NOV-92
TYPE:	120 - WRITTEN INFORMAL		
AGENCY:	S - STATE	**DATE:**	11-DEC-89
TYPE:	120 - WRITTEN INFORMAL		

VIOLATION INFORMATION:

VIOLATION NUMBER:	0001	**RESPONSIBLE:**	S - STATE
DETERMINED:	04-NOV-92	**DETERMINED BY:**	S - STATE
CITATION:		**RESOLVED:**	
TYPE:	TMR - TRANSPORTER MANIFEST/RECORD KEEPING REQUIREMENTS		
VIOLATION NUMBER:	0002	**RESPONSIBLE:**	S - STATE
DETERMINED:	04-NOV-92	**DETERMINED BY:**	S - STATE
CITATION:		**RESOLVED:**	
TYPE:	GMR - GENERATOR MANIFEST REQUIREMENTS		
VIOLATION NUMBER:	0003	**RESPONSIBLE:**	S - STATE
DETERMINED:	04-NOV-92	**DETERMINED BY:**	S - STATE

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRA

SEARCH ID: 5 **DIST/DIR:** 0.11 NE **MAP ID:** 87

NAME:	LAIDLAW ENVIRON SVCS OF CA INC	**REV:**	6/8/02
ADDRESS:	221 E D ST	**ID1:**	CAD029654894
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	TSD
CONTACT:	ENVIRONMENTAL MANAGER	**PHONE:**	

CITATION: **RESOLVED:**
TYPE: GPT - GENERATOR PRE-TRANSPORT REQUIREMENTS

VIOLATION NUMBER: 0004 **RESPONSIBLE:** S - STATE
DETERMINED: 04-NOV-92 **DETERMINED BY:** S - STATE
CITATION: **RESOLVED:**
TYPE: GGR - GENERATOR GENERAL REQUIREMENTS

VIOLATION NUMBER: 0005 **RESPONSIBLE:** S - STATE
DETERMINED: 26-OCT-89 **DETERMINED BY:** S - STATE
CITATION: **RESOLVED:** 12/27/1989
TYPE: DOR - TSD OTHER REQUIREMENTS

VIOLATION NUMBER: 0006 **RESPONSIBLE:** S - STATE
DETERMINED: 24-FEB-88 **DETERMINED BY:** S - STATE
CITATION: **RESOLVED:** 05/31/1988
TYPE: DMR - TSD MANIFEST REQUESTS

VIOLATION NUMBER: 0007 **RESPONSIBLE:** S - STATE
DETERMINED: 24-FEB-88 **DETERMINED BY:** S - STATE
CITATION: **RESOLVED:** 05/31/1988
TYPE: DOR - TSD OTHER REQUIREMENTS

VIOLATION NUMBER: 0008 **RESPONSIBLE:** S - STATE
DETERMINED: 24-FEB-88 **DETERMINED BY:** S - STATE
CITATION: **RESOLVED:** 05/31/1988
TYPE: DCL - TSD CLOSURE/POST CLOSURE REQUIREMENTS

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 118 **DIST/DIR:** 0.11 NE **MAP ID:** 87

NAME:	ANTHONY CRANE RENTAL LP	**REV:**	05/01/2000
ADDRESS:	221 E D ST	**ID1:**	LACITY/CERTNO24496
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	
CONTACT:		**PHONE:**	

DETAILS NOT AVAILABLE

RCRAGN

SEARCH ID: 28 **DIST/DIR:** 0.11 NE **MAP ID:** 87

NAME:	LAIDLAW ENVIRON SVCS OF CA INC	**REV:**	
ADDRESS:	221 E D ST	**ID1:**	CAD029654894
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	SGN
CONTACT:	LAIDLAW ENV SVCS OF CA INC	**PHONE:**	5103724800

DETAILS NOT AVAILABLE

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

LUST

SEARCH ID: 183 **DIST/DIR:** 0.11 NE **MAP ID:** 87

NAME: LAIDLAW ENVIRONMENTAL SERVICES
ADDRESS: 221 D ST E
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 10/18/07
ID1: T0603701650
ID2:
STATUS: CASE CLOSED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

Please note that some data previously provided by the State Water Resources Control Board in the LUSTIS database is not currently being provided by the agency in the most recent edition. Incidents that occurred after the year 2000 may not have much information. Field headers with blank information following after should be interpreted as unreported by the agency.

LEAD AGENCY: *REGIONAL BOARD*
REGIONAL BOARD: *04*
LOCAL CASE NUMBER:
RESPONSIBLE PARTY: *LAIDLAW ENVIRONMENTAL SERVICES*
ADDRESS OF RESPONSIBLE PARTY: *PO BOX 787 2500 W LOKERN RD BUTTONWILLOW CA 93206 C*
SITE OPERATOR: *BILL ROSS*
WATER SYSTEM:

CASE NUMBER: *907440034*
CASE TYPE: *OTHER*
SUBSTANCE LEAKED: *GASOLINE*
SUBSTANCE QUANTITY:
LEAK CAUSE: *UNKNOWN*
LEAK SOURCE: *UNKNOWN*
HOW LEAK WAS DISCOVERED:
DATE DISCOVERED (blank if not reported):
HOW LEAK WAS STOPPED:
STOP DATE (blank if not reported):
STATUS: *CASE CLOSED*
ABATEMENT METHOD (please note that not all code translations have been provided by the reporting agency): *EXCAVATE AND DISPOSE-REMOVE CONTAMINATED SOIL AND DISPOSE IN APPROVED SITE*
ENFORCEMENT TYPE (please note that not all code translations have been provided by the reporting agency):
DATE OF ENFORCEMENT (blank if not reported):

ENTER DATE (blank if not reported): *1986-12-31*
REVIEW DATE (blank if not reported): *1994-07-07*
DATE OF LEAK CONFIRMATION (blank if not reported):
DATE PRELIMINARY SITE ASSESSMENT PLAN WAS SUBMITTED (blank if not reported):
DATE PRELIMINARY SITE ASSESSMENT PLAN BEGAN (blank if not reported):
DATE POLLUTION CHARACTERIZATION PLAN BEGAN (blank if not reported): *1988-01-07*
DATE REMEDIATION PLAN WAS SUBMITTED (blank if not reported):
DATE REMEDIAL ACTION UNDERWAY (blank if not reported):
DATE POST REMEDIAL ACTION MONITORING BEGAN (blank if not reported):
DATE CLOSURE LETTER ISSUED (SITE CLOSED) (blank if not reported): *1994-07-27*
REPORT DATE (blank if not reported): *1985-04-30*

MTBE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

MTBE DATE(Date of historical maximum MTBE concentration):
MTBE GROUNDWATER CONCENTRATION (parts per billion):
MTBE SOIL CONCENTRATION (parts per million):
MTBE CNTS: *0*
MTBE FUEL: *1*
MTBE TESTED: *SITE NOT TESTED FOR MTBE. INCLUDES UNKNOWN AND NOT ANALYZED*
MTBE CLASS: ***

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 117 **DIST/DIR:** 0.11 NE **MAP ID:** 87

NAME: ANTHONY CRANE RENTAL LP
ADDRESS: 221 E D ST
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 05/30/01
ID1: AST101317
ID2:
STATUS: AST SWRCB REG.4
PHONE:

Region: *4*
Company Name: *ANTHONY CRANE RENTAL LP*
Company Name 2:

UST

SEARCH ID: 141 **DIST/DIR:** 0.11 NE **MAP ID:** 87

NAME: GSX SERVICES OF CALIFORNIA, IN
ADDRESS: 221 D
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 01/01/94
ID1: TISID-STATE25732
ID2:
STATUS: ACTIVE
PHONE:

UST HISTORICAL DATA

This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names and locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.
The UST information included in FIDS as provided by the Office of Hazardous Data Management was originally collected from the SWEEPS database. The SWEEPS database recorded Underground Storage Tanks and was maintained by the State Water Resources Control Board (SWRCB). That agency no longer maintains the SWEEPS database and last updated it in 1994. The last release of that 1994 database was in 1997.
Oversight of Underground Storage Tanks within California is now conducted by Certified Unified Program Agencies referred to as CUPA s. There are approximately 102 CUPA s and Local Oversight Programs (LOP s) in the State of California. Most are city or county government agencies. As of 1998, all sites or facilities with underground storage tanks were required by Federal mandate to obtain certification by designated UST oversight agencies (in this case, CUPA s) that the UST/s at their location were upgraded or removed in adherence with the 1998 RCRA standards.
Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by Track Info Services. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 149 **DIST/DIR:** 0.11 NW **MAP ID:** 88

NAME: JOHN L MEEK CONSTRUCTION CO
ADDRESS: 1032 C
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 01/01/94
ID1: TISID-STATE4747
ID2:
STATUS: INACTIVE
PHONE:

UST HISTORICAL DATA

This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names and locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.

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Oversight of Underground Storage Tanks within California is now conducted by Certified Unified Program Agencies referred to as CUPA s. There are approximately 102 CUPA s and Local Oversight Programs (LOP s) in the State of California. Most are city or county government agencies. As of 1998, all sites or facilities with underground storage tanks were required by Federal mandate to obtain certification by designated UST oversight agencies (in this case, CUPA s) that the UST/s at their location were upgraded or removed in adherence with the 1998 RCRA standards.

Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by Track Info Services. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

LUST

SEARCH ID: 187 **DIST/DIR:** 0.11 NW **MAP ID:** 89

NAME: ROCKET 5
ADDRESS: 302 FIGUEROA ST N
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 10/18/07
ID1: T0603701659
ID2:
STATUS: POLLUTION CHARACTERIZATION
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

Please note that some data previously provided by the State Water Resources Control Board in the LUSTIS database is not currently being provided by the agency in the most recent edition. Incidents that occurred after the year 2000 may not have much information. Field headers with blank information following after should be interpreted as unreported by the agency.

LEAD AGENCY: *REGIONAL BOARD*
REGIONAL BOARD: *04*
LOCAL CASE NUMBER:
RESPONSIBLE PARTY: *PAMELA HARPER*
ADDRESS OF RESPONSIBLE PARTY: *4102 ORANGE AVE 107*
SITE OPERATOR:
WATER SYSTEM:

CASE NUMBER: *907440134*
CASE TYPE: *OTHER*
SUBSTANCE LEAKED: *GASOLINE*
SUBSTANCE QUANTITY:
LEAK CAUSE: *UNKNOWN*
LEAK SOURCE: *UNKNOWN*
HOW LEAK WAS DISCOVERED: *SUBSURFACE MONITORING*
DATE DISCOVERED (blank if not reported): *1995-08-24*
HOW LEAK WAS STOPPED:
STOP DATE (blank if not reported):
STATUS: *POLLUTION CHARACTERIZATION*
ABATEMENT METHOD (please note that not all code translations have been provided by the reporting agency):
ENFORCEMENT TYPE (please note that not all code translations have been provided by the reporting agency): *SEL*
DATE OF ENFORCEMENT (blank if not reported):

ENTER DATE (blank if not reported): *1995-12-27*
REVIEW DATE (blank if not reported): *2002-07-17*
DATE OF LEAK CONFIRMATION (blank if not reported):
DATE PRELIMINARY SITE ASSESSMENT PLAN WAS SUBMITTED (blank if not reported): *1995-07-20*
DATE PRELIMINARY SITE ASSESSMENT PLAN BEGAN (blank if not reported): *2004-07-29*
DATE POLLUTION CHARACTERIZATION PLAN BEGAN (blank if not reported): *2005-12-15*
DATE REMEDIATION PLAN WAS SUBMITTED (blank if not reported): *2003-01-13*
DATE REMEDIAL ACTION UNDERWAY (blank if not reported): *2003-08-04*
DATE POST REMEDIAL ACTION MONITORING BEGAN (blank if not reported): *2000-10-18*
DATE CLOSURE LETTER ISSUED (SITE CLOSED) (blank if not reported):
REPORT DATE (blank if not reported): *1995-09-18*

MTBE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

MTBE DATE(Date of historical maximum MTBE concentration): *2000-10-18*
MTBE GROUNDWATER CONCENTRATION (parts per billion): *950*
MTBE SOIL CONCENTRATION (parts per million):
MTBE CNTS: *1*
MTBE FUEL: *1*
MTBE TESTED: *YES*
MTBE CLASS: *C*

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 137 **DIST/DIR:** 0.11 NW **MAP ID:** 89

NAME: GARIN OIL COMPANY 5
ADDRESS: 302 N FIGUEROA ST
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 05/01/2000
ID1: LACTY/NONCRTFD431
ID2:
STATUS:
PHONE:

DETAILS NOT AVAILABLE

UST

SEARCH ID: 136 **DIST/DIR:** 0.11 NW **MAP ID:** 89

NAME: GARIN OIL COMPANY 5
ADDRESS: 302 FIGUEROA
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 01/01/94
ID1: TISID-STATE26054
ID2:
STATUS: ACTIVE
PHONE:

UST HISTORICAL DATA

This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names and locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.
The UST information included in FIDS as provided by the Office of Hazardous Data Management was originally collected from the SWEEPS database. The SWEEPS database recorded Underground Storage Tanks and was maintained by the State Water Resources Control Board (SWRCB). That agency no longer maintains the SWEEPS database and last updated it in 1994. The last release of that 1994 database was in 1997.
Oversight of Underground Storage Tanks within California is now conducted by Certified Unified Program Agencies referred to as CUPA s. There are approximately 102 CUPA s and Local Oversight Programs (LOP s) in the State of California. Most are city or county government agencies. As of 1998, all sites or facilities with underground storage tanks were required by Federal mandate to obtain certification by designated UST oversight agencies (in this case, CUPA s) that the UST/s at their location were upgraded or removed in adherence with the 1998 RCRA standards.
Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by Track Info Services. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 11 **DIST/DIR:** 0.11 NW **MAP ID:** 90

NAME:	AVALON ENGINE REBUILDERS	**REV:**	6/6/06
ADDRESS:	411 N AVALON	**ID1:**	CAD982047573
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	SGN
CONTACT:	ENVIRONMENTAL MANAGER	**PHONE:**	2138305682

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
411 N AVALON
WILMINGTON CA 90744

PHONE: 2138305682

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

SPILLS

SEARCH ID: 102 **DIST/DIR:** 0.12 NW **MAP ID:** 91

NAME: WILMINGTON TOWN LOT 439
ADDRESS: 410 FRIES AVE
WILMINGTON CA 90744
CONTACT:

REV: 11/06/07
ID1: G_SLT43489487
ID2:
STATUS:
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

Please note that some SLIC data previously provided by the State Water Resources Control Board via the Regional Boards is not currently provided by the agency in the new GEOTRACKER format. To ensure that our data is as complete as possible we have retained the original Regional Boards SLIC records as well as loaded all GEOTRACKER SLIC listings. GEOTRACKER records are distinguished by an initial G at the start of the ID.

LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *MANJULIKA CHAKRABARTI*
LEAD AGENCY CASE NUMBER: *0655K8*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded):
RECENT DTW:
STATUS:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 67 **DIST/DIR:** 0.12 NW **MAP ID:** 92

NAME: EXXON
ADDRESS: 325 MCDONNEL STREET
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 5/19/90 0:
ID1: 167664
ID2:
STATUS: FIXED FACILITY
PHONE:

SPILL INFORMATION
DATE OF SPILL: 5/19/1990 **TIME OF SPILL:** 1330

PRODUCT RELEASED (1): CRUDE OIL
QUANTITY (1): 5
UNITS (1): GAL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED

AIR:	NO	**GROUNDWATER:**	NO
LAND:	YES	**FIXED FACILITY:**	NO
WATER:	NO	**OTHER:**	NO

WATERBODY AFFECTED BY RELEASE: NONE

CAUSE OF RELEASE

DUMPING:	NO	**EQUIPMENT FAILURE:**	NO
NATURAL PHENOMENON:	NO	**OPERATOR ERROR:**	NO
OTHER CAUSE:	NO	**TRANSP. ACCIDENT:**	NO
UNKNOWN:	NO		

ACTIONS TAKEN:
RELEASE DETECTION: STUFFING BOX FAILURE
MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 167664
TYPE OF DISCHARGER: PUBLIC UTILITY
NAME OF DISCHARGER: EXXON
ADDRESS: P.O. BOX 1234
WILMINGTON CA 90744-

DUN and BRADSTREET :

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

SPILLS

SEARCH ID: 101 **DIST/DIR:** 0.12 NW **MAP ID:** 93

NAME: WILMINGTON TOWN LOT 439
ADDRESS: 410 FRIES AVENUE
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 01/03/02
ID1: SLC40655K8
ID2:
STATUS:
PHONE:

Staff: *MC*
Status: *NO FURTHER ACTION REQUIRED*
Substance: *TPH*

UST

SEARCH ID: 131 **DIST/DIR:** 0.12 SE **MAP ID:** 94

NAME: DISTRIBUTION/AUTO SERVICES INC
ADDRESS: 500 E WATER ST
LOS ANGELES CA 90744
LOS ANGELES
CONTACT:

REV: 05/01/2000
ID1: LACITY/CERTNO24196
ID2:
STATUS:
PHONE:

DETAILS NOT AVAILABLE

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 21 **DIST/DIR:** 0.12 NW **MAP ID:** 95

NAME:	KRUPP MAK	**REV:**	6/6/06
ADDRESS:	729 BASIN ST	**ID1:**	CAD983645300
	SAN PEDRO CA 90731	**ID2:**	
	LOS ANGELES	**STATUS:**	SGN
CONTACT:	ROBERT DAY	**PHONE:**	3108328947

SITE INFORMATION

CONTACT INFORMATION: ROBERT DAY
729 BASIN ST
SAN PEDRO CA 90731

PHONE: 3108328947

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 16 **DIST/DIR:** 0.12 NW **MAP ID:** 96

NAME:	GAFFEY STREET YARD	**REV:**	6/6/06
ADDRESS:	1400 NORTH GAFFEY STREET	**ID1:**	CAD981575897
	SAN PEDRO CA 90731	**ID2:**	
	CA037	**STATUS:**	LGN
CONTACT:	SHARI H KUROKI	**PHONE:**	2134737748

SITE INFORMATION

UNIVERSE INFORMATION:

NAIC INFORMATION

811111 - GENERAL AUTOMOTIVE REPAIR

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

SPILLS

SEARCH ID: 253 **DIST/DIR:** NON GC **MAP ID:**

NAME: WILMINGTON TOWN LOT 273
ADDRESS: 948 N. MCDONALD AVE
WILMINGTON CA 90744
CONTACT:

REV: 11/06/07
ID1: G_SLT43551549
ID2:
STATUS:
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

Please note that some SLIC data previously provided by the State Water Resources Control Board via the Regional Boards is not currently provided by the agency in the new GEOTRACKER format. To ensure that our data is as complete as possible we have retained the original Regional Boards SLIC records as well as loaded all GEOTRACKER SLIC listings. GEOTRACKER records are distinguished by an initial G at the start of the ID.

LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *MANJULIKA CHAKRABARTI*
LEAD AGENCY CASE NUMBER: *0655S7*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded):
RECENT DTW:
STATUS: *Case Closed*

SPILLS

SEARCH ID: 243 **DIST/DIR:** NON GC **MAP ID:**

NAME: WILMINGTON TOWN LOT 080
ADDRESS: LAGOON AVE
WILMINGTON CA 90744
CONTACT:

REV: 11/06/07
ID1: G_SLT43413411
ID2:
STATUS:
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

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LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *MANJULIKA CHAKRABARTI*
LEAD AGENCY CASE NUMBER: *0655C3*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded):
RECENT DTW:
STATUS:

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

SPILLS

SEARCH ID: 244 **DIST/DIR:** NON GC **MAP ID:**

NAME: WILMINGTON TOWN LOT 108
ADDRESS: MCDONALD AVE
WILMINGTON CA 90744
CONTACT:

REV: 11/06/07
ID1: G_SLT43415413
ID2:
STATUS:
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

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LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *MANJULIKA CHAKRABARTI*
LEAD AGENCY CASE NUMBER: *0655C5*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded):
RECENT DTW:
STATUS:

SPILLS

SEARCH ID: 245 **DIST/DIR:** NON GC **MAP ID:**

NAME: WILMINGTON TOWN LOT 110
ADDRESS: MCDONALD AVE
WILMINGTON CA 90744
CONTACT:

REV: 11/06/07
ID1: G_SLT43416414
ID2:
STATUS:
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

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LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *MANJULIKA CHAKRABARTI*
LEAD AGENCY CASE NUMBER: *0655C6*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded):
RECENT DTW:
STATUS:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

SPILLS

SEARCH ID: 246 **DIST/DIR:** NON GC **MAP ID:**

NAME: WILMINGTON TOWN LOT 137
ADDRESS: 1261-1265 N. BROAD AVE
WILMINGTON CA 90744
CONTACT:

REV: 11/06/07
ID1: G_SLT43537535
ID2:
STATUS:
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

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LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *MANJULIKA CHAKRABARTI*
LEAD AGENCY CASE NUMBER: *0655I2*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded):
RECENT DTW:
STATUS: *Case Closed*

ERNS

SEARCH ID: 205 **DIST/DIR:** NON GC **MAP ID:**

NAME: EXXON/GREG MANUEL
ADDRESS: WELL 973 ON MCDONALD ST/*87
WILMINGTON CA
LOS ANGELES
CONTACT:

REV:
ID1: 131604
ID2:
STATUS: UNKNOWN
PHONE:

THERE ARE NO DETAILS AVAILABLE FOR THIS SITE

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRANLR

SEARCH ID: 202 **DIST/DIR:** NON GC **MAP ID:**

NAME:	BANNING ELEMENTARY SCHOOL	**REV:**	10/8/02
ADDRESS:	500 N ISLAND AVE	**ID1:**	CAR000126847
	LOS ANGELES CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	NLR
CONTACT:	SOE AUNG	**PHONE:**	2137435086

DETAILS NOT AVAILABLE

RCRAGN

SEARCH ID: 201 **DIST/DIR:** NON GC **MAP ID:**

NAME:	LOS ANGELES POLICE DEPT HARBOR RANGE	**REV:**	6/6/06
ADDRESS:	2981 N GAFFEY AVE	**ID1:**	CAR000156653
	SAN PEDRO CA 90731	**ID2:**	
	LOS ANGELES	**STATUS:**	SGN
CONTACT:	JAMES D SMALLING	**PHONE:**	310-548-9268

SITE INFORMATION

CONTACT INFORMATION: JAMES SMALLING
2175 JOHN GIBSON BLVD
SAN PEDRO CA 90731

PHONE: 310-548-9268

UNIVERSE INFORMATION:

NAIC INFORMATION

71399 - ALL OTHER AMUSEMENT AND RECREATION INDUSTRIES

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

Lead

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 198 **DIST/DIR:** NON GC **MAP ID:**

NAME:	ORYX M WILMINGTON	**REV:**	6/6/06
ADDRESS:	NO. WILMINGTON UNIT L.A. CO.	**ID1:**	CAT000617811
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	SGN
CONTACT:		**PHONE:**	

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
NO. WILMINGTON UNIT L.A. CO.
WILMINGTON CA 90744

PHONE: 8052592440

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

SPILLS

SEARCH ID: 247 **DIST/DIR:** NON GC **MAP ID:**

NAME: WILMINGTON TOWN LOT 154
ADDRESS: MCDONALD AVE
WILMINGTON CA 90744
CONTACT:

REV: 11/06/07
ID1: G_SLT43422420
ID2:
STATUS:
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

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LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *MANJULIKA CHAKRABARTI*
LEAD AGENCY CASE NUMBER: *0655D3*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded):
RECENT DTW:
STATUS:

SPILLS

SEARCH ID: 255 **DIST/DIR:** NON GC **MAP ID:**

NAME: WILMINGTON TOWN LOT 285
ADDRESS: ISLAND AVE
WILMINGTON CA 90744
CONTACT:

REV: 11/06/07
ID1: G_SLT43447445
ID2:
STATUS:
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

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LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *MANJULIKA CHAKRABARTI*
LEAD AGENCY CASE NUMBER: *0655G1*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded):
RECENT DTW:
STATUS:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

SPILLS

SEARCH ID: 240 **DIST/DIR:** NON GC **MAP ID:**

NAME: WILMINGTON TOWN LOT 008
ADDRESS: MCDONALD AVE
WILMINGTON CA 90744
CONTACT:

REV: 11/06/07
ID1: G_SLT43396394
ID2:
STATUS:
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

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LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *MANJULIKA CHAKRABARTI*
LEAD AGENCY CASE NUMBER: *0655A4*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded):
RECENT DTW:
STATUS:

SPILLS

SEARCH ID: 256 **DIST/DIR:** NON GC **MAP ID:**

NAME: WILMINGTON TOWN LOT 307
ADDRESS: LAKME AVENUE
WILMINGTON CA 90744
CONTACT:

REV: 01/03/02
ID1: SLC40655G5
ID2:
STATUS:
PHONE:

Staff: *MC*
Status: *NO FURTHER ACTION REQUIRED*
Substance: *TPH*

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 196 **DIST/DIR:** NON GC **MAP ID:**

NAME:	BANNING ELEMENTARY SCHOOL	**REV:**	6/6/06
ADDRESS:	500 N ISLAND AVE	**ID1:**	CAR000126847
	LOS ANGELES CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	LGN
CONTACT:	SOE AUNG	**PHONE:**	2137435086

SITE INFORMATION

CONTACT INFORMATION: SOE AUNG
1449 S SAN PEDRO ST
LOS ANGELES CA 90015

PHONE: 2137435086

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

Lead
D000

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 261 **DIST/DIR:** NON GC **MAP ID:**

NAME:	PORT OF LOS ANGELES	**REV:**	01/01/94
ADDRESS:	BERTH 161 PIER A ST	**ID1:**	TISID-STATE25860
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	ACTIVE
CONTACT:		**PHONE:**	

UST HISTORICAL DATA

This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names and locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.

The UST information included in FIDS as provided by the Office of Hazardous Data Management was originally collected from the SWEEPS database. The SWEEPS database recorded Underground Storage Tanks and was maintained by the State Water Resources Control Board (SWRCB). That agency no longer maintains the SWEEPS database and last updated it in 1994. The last release of that 1994 database was in 1997.

Oversight of Underground Storage Tanks within California is now conducted by Certified Unified Program Agencies referred to as CUPA s. There are approximately 102 CUPA s and Local Oversight Programs (LOP s) in the State of California. Most are city or county government agencies. As of 1998, all sites or facilities with underground storage tanks were required by Federal mandate to obtain certification by designated UST oversight agencies (in this case, CUPA s) that the UST/s at their location were upgraded or removed in adherence with the 1998 RCRA standards.

Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by Track Info Services. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 199 **DIST/DIR:** NON GC **MAP ID:**

NAME:	PORT OF LOS ANGELES - BERTH 161 ONLY	**REV:**	6/6/06
ADDRESS:	500 PIER A STREET	**ID1:**	CAD021863964
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	LGN
CONTACT:	MANUEL R RAMIREZ	**PHONE:**	3107323782

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
BERTH FIRST HUNDRED SIXTY FIRS
WILMINGTON CA 90744

PHONE: 2135193555

UNIVERSE INFORMATION:

NAIC INFORMATION

23332 - COMMERCIAL AND INSTITUTIONAL BUILDING CONSTRUCTION
48831 - PORT AND HARBOR OPERATIONS
811198 - ALL OTHER AUTOMOTIVE REPAIR AND MAINTENANCE
81149 - OTHER PERSONAL AND HOUSEHOLD GOODS REPAIR AND MAINTENANCE

ENFORCEMENT INFORMATION:

AGENCY:	E - EPA	**DATE:**	5/20/2004
TYPE:	120 - WRITTEN INFORMAL		
AGENCY:	E - EPA	**DATE:**	5/20/2004
TYPE:	120 - WRITTEN INFORMAL		

VIOLATION INFORMATION:

VIOLATION NUMBER:	0001	**RESPONSIBLE:**	E - EPA
DETERMINED:	11/3/2003	**DETERMINED BY:**	E - EPA
CITATION:			
RESOLVED:	5/20/2004		
TYPE:	GENERATOR-GENERAL REQUIREMENTS		

HAZARDOUS WASTE INFORMATION:

Corrosive waste
The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane
Tetrachloroethylene
Ignitable waste
Reactive waste

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

SWL

SEARCH ID: 259 **DIST/DIR:** NON GC **MAP ID:**

NAME:	EDMISTON DUMP	**REV:**	07/03/00
ADDRESS:	189TH and FIGUEROA STREET	**ID1:**	WMUD4 190013NUR
	WILMINGTON CA	**ID2:**	
	LOS ANGELES	**STATUS:**	
CONTACT:		**PHONE:**	

WMUDS FACILITY INFORMATION (blank = not reported)

Regional ID :	
NPDES ID :	
Region:	*4*
Edit Date:	
Last Edit:	
Waste Discharger Facility:	*No*
Sub Chapter 15 Facility:	*No*
Solid Waste Assessment Test Site:	*Yes*
Toxic Pits Cleanup Act Facility:	*No*
RCRA Facility:	*No*
Department of Defense Facility:	*No*
Municipal Solid Waste Facility:	*No*
Total WMUS at Facility:	*1*
Facility Open to the Public:	*No*
Facility Type:	
SIC 1 and SIC 2:	*/*
Primary Waste Type:	
Secondary Waste Type:	
Tons Per Day:	*0*
Complexity:	

LAND OWNER INFORMATION

Land Owner:	*DEPARTMENT OF TRANSPORTATION*
Department:	*HAZAR WASTE COORDINATOR*
Contact and Phone:	*PAT HOBERT,*
Land Owner Address:	*P.O. BOX 2304, LOS ANGELES, CA 90051*

AGENCY INFORMATION

Agency Name:	
Department:	
Agency Contact and Phone:	*,*

WASTE MANAGEMENT UNIT INFORMATION (blank = not reported)

WMU ID :	*4 190013NUR-01*
WMU Status:	
WMU Size in Acres:	
Year WMU Will Reach Capacity:	
Close Plan:	*0*
Avg Depth to Groundwater:	*0*
Primary Liner Present:	*0*

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

SPILLS

SEARCH ID: 258 **DIST/DIR:** NON GC **MAP ID:**

NAME: FORMER CHEVRON MARINE TERMINAL
ADDRESS: 1510 SWINFORD STREET
SAN PEDRO CA 90731
CONTACT:

REV: 11/06/07
ID1: G_SL0603707909
ID2:
STATUS:
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

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LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *JEFFREY HU*
LEAD AGENCY CASE NUMBER: *1150*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded):
RECENT DTW:
STATUS: *Case Open*

SPILLS

SEARCH ID: 252 **DIST/DIR:** NON GC **MAP ID:**

NAME: WILMINGTON TOWN LOT 221
ADDRESS: ISLAND AVE
WILMINGTON CA 90744
CONTACT:

REV: 11/06/07
ID1: G_SLT43438436
ID2:
STATUS:
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

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LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *MANJULIKA CHAKRABARTI*
LEAD AGENCY CASE NUMBER: *0655F1*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded):
RECENT DTW:
STATUS:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

SPILLS

SEARCH ID: 254 **DIST/DIR:** NON GC **MAP ID:**

NAME: WILMINGTON TOWN LOT 285
ADDRESS: ISLAND AVENUE
WILMINGTON CA 90744
CONTACT:

REV: 01/03/02
ID1: SLC40655G1
ID2:
STATUS:
PHONE:

Staff: *MC*
Status: *NO FURTHER ACTION REQUIRED*
Substance: *TPH*

SPILLS

SEARCH ID: 257 **DIST/DIR:** NON GC **MAP ID:**

NAME: WILMINGTON TOWN LOT 307
ADDRESS: LAKME AVE
WILMINGTON CA 90744
CONTACT:

REV: 11/06/07
ID1: G_SLT43451449
ID2:
STATUS:
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

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LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *MANJULIKA CHAKRABARTI*
LEAD AGENCY CASE NUMBER: *0655G5*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded):
RECENT DTW:
STATUS:

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

OTHER

SEARCH ID: 260 **DIST/DIR:** NON GC **MAP ID:**

NAME:	UNION OIL CO OF CA LA MARINE TERMINAL	**REV:**	08/07/07
ADDRESS:	BERTH 150 PIER A ST (BERTHS 149,150,151)	**ID1:**	CAL19281189
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	REFER: OTHER AGENCY
CONTACT:		**PHONE:**	

GENERAL SITE INFORMATION

Site Type:	*Historical*
Status:	*Refer: Other Agency*
Status Date:	*1984-03-01 00:00:00*
NPL Site:	*NO*
Funding:	
Regulatory Agencies Involved:	*NONE SPECIFIED*
Lead Agency:	*NONE SPECIFIED*
Project Manager:	
Supervisor:	*Referred - Not Assigned*
Branch:	*So Cal - Cypress*
Acres:	
Assessor s Parcel Number:	*NONE SPECIFIED*
Past Uses:	*NONE SPECIFIED*
Potential Contaminants:	** WASTE OIL and MIXED OIL*
Confirmed Contaminants:	*NONE SPECIFIED*
Potential Media Affected:	*NONE SPECIFIED*
Restricted Use:	*NO*
Site Management Required:	*NONE SPECIFIED*
Special Programs Associated with this Site:	** RCRA 3012 - Past Haz Waste Disp Inven Site*

OTHER SITE NAMES (blank below = not reported by agency)

CAT000611228

19281189

COMPLETED ACTIVITIES AND DTSC COMMENTS REGARDING THIS SITE (blank below = not reported by agency)

Area Name:	***PROJECT WIDE***
Sub- Area Name:	
Document Type:	***Site Screening***
Completion Date:	***1995-05-01***
Comments:	*DATABASE VALIDATION PROGRAM CONFIRMS NFA FOR DTSC.*

Area Name:	***PROJECT WIDE***
Sub- Area Name:	
Document Type:	***Preliminary Assessment Report***
Completion Date:	***1984-03-01***
Comments:	*T/C W/ E LANGEVIN,213-513-7600,UNION OIL 3/28/84 - SOURCE ACT: CLEANING OF SHIP BALLAST. YR OF ACT: 1919 TO PRESENT SUBMIT TO EPA VIOLATION DETECTED PUB WRK. VARIOUS SMALL SPILLS DATING BACK TO 1965.(PUB WRK) PRELIM ASSESS DONE RCRA 3012*

Area Name:	***PROJECT WIDE***
Sub- Area Name:	
Document Type:	***Discovery***
Completion Date:	***1983-10-11***
Comments:	*FACILITY IDENTIFIED ID FROM ERRIS*

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 197 **DIST/DIR:** NON GC **MAP ID:**

NAME:	CONOCOPHILLIPS LAR, MARINE TERMINAL	**REV:**	6/6/06
ADDRESS:	BERTH 151 PIER A STREET	**ID1:**	CAT000611228
	LOS ANGELES CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	LGN
CONTACT:	STEPHEN J MALLON	**PHONE:**	3105228038

SITE INFORMATION

CONTACT INFORMATION: BARNEY SWANSON
AVON REFINERY
MARTINEZ CA 945531487

PHONE: 5103703220

CONTACT INFORMATION: STEVE MALLOW
BERTH150 PIER A ST
LOS ANGELES CA 90744

PHONE: 3109526213

UNIVERSE INFORMATION:

NAIC INFORMATION

32411 - PETROLEUM REFINERIES
32419 - OTHER PETROLEUM AND COAL PRODUCTS MANUFACTURING
42271 - PETROLEUM BULK STATIONS AND TERMINALS

ENFORCEMENT INFORMATION:

AGENCY: E - EPA **DATE:** 4/15/1991
TYPE: 210 - INITIAL 3008(A) COMPLIANCE ORDER

AGENCY: E - EPA **DATE:** 2/7/1991
TYPE: 120 - WRITTEN INFORMAL

AGENCY: E - EPA **DATE:** 4/15/1991
TYPE: 210 - INITIAL 3008(A) COMPLIANCE ORDER

AGENCY: E - EPA **DATE:** 2/7/1991
TYPE: 120 - WRITTEN INFORMAL

VIOLATION INFORMATION:

VIOLATION NUMBER: 0001 **RESPONSIBLE:** E - EPA
DETERMINED: 11/8/1990 **DETERMINED BY:** E - EPA
CITATION: 262.50-60
RESOLVED: 4/15/1991
TYPE: GENERATOR-ALL REQUIREMENTS (OVERSIGHT)

VIOLATION NUMBER: 0002 **RESPONSIBLE:** E - EPA

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 197 **DIST/DIR:** NON GC **MAP ID:**

NAME:	CONOCOPHILLIPS LAR, MARINE TERMINAL	**REV:**	6/6/06
ADDRESS:	BERTH 151 PIER A STREET	**ID1:**	CAT000611228
	LOS ANGELES CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	LGN
CONTACT:	STEPHEN J MALLON	**PHONE:**	3105228038

DETERMINED:	11/8/1990	**DETERMINED BY:**	E - EPA
CITATION:	264.110-120.G		
RESOLVED:	4/15/1991		
TYPE:	TSD-CLOSURE/POST-CLOSURE REQUIREMENTS		

VIOLATION NUMBER:	0003	**RESPONSIBLE:**	E - EPA
DETERMINED:	11/8/1990	**DETERMINED BY:**	E - EPA
CITATION:	264.140-150.H		
RESOLVED:	4/15/1991		
TYPE:	TSD-FINANCIAL RESPONSIBILITY REQUIREMENTS		

HAZARDOUS WASTE INFORMATION:

Lead
Cadmium
Petroleum refinery primary oil/water/solids separation sludge - Any sludge generated from the gravitational separation of oil/water/solids during the storage or treatment of process wastewaters and oily cooling wastewaters f
Trichloroethylene
Corrosive waste

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 230 **DIST/DIR:** NON GC **MAP ID:**

NAME:
ADDRESS: 401 CANAL AVE
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 12/31/07
ID1: NRC-854289
ID2:
STATUS: STORAGE TANK
PHONE:

DETAILS NOT AVAILABLE

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

STATE

SEARCH ID: 236 **DIST/DIR:** NON GC **MAP ID:**

NAME:	SOUTH REGION SPAN K-8 1, SITE 15	**REV:**	08/07/07
ADDRESS:	EAST M STREET/NORTH AVALON BOULEVARD	**ID1:**	CAL60000421
	LOS ANGELES CA 90744	**ID2:**	SCHOOL
	LOS ANGELES	**STATUS:**	ACTIVE
CONTACT:		**PHONE:**	

GENERAL SITE INFORMATION

Site Type:	*School Cleanup*
Status:	*Active*
Status Date:	*2006-08-29*
NPL Site:	*NO*
Funding:	*Responsible Party*
Regulatory Agencies Involved:	*SMBRP*
Lead Agency:	*SMBRP*
Project Manager:	*S. STEVEN HARIRI*
Supervisor:	*Tawfiq Deek*
Branch:	*School Evaluation - Cypress*
Acres:	*6.75*
Assessor s Parcel Number:	*NONE SPECIFIED*
Past Uses:	*RETAIL*
Potential Contaminants:	*Arsenic, Lead, Polynuclear aromatic hydrocarbons (PAHs), TPH-diesel*
Confirmed Contaminants:	*Polynuclear aromatic hydrocarbons (PAHs)-NO,TPH-diesel-NO,Arsenic-NO,Lead-NO*
Potential Media Affected:	*UE*
Restricted Use:	*NO*
Site Management Required:	*NONE SPECIFIED*
Special Programs Associated with this Site:	

OTHER SITE NAMES (blank below = not reported by agency)

OTHER SITE NAMES (blank below = not reported by agency)

60000421

304541-11

FUTURE ACTIVITIES (blank below = not reported by agency)

Area Name:	***PROJECT WIDE***
Sub-Area Name:	
Document Type:	*Removal Action Workplan*
Completion Due Date:	*2008*

COMPLETED ACTIVITIES AND DTSC COMMENTS REGARDING THIS SITE (blank below = not reported by agency)

Area Name:	***PROJECT WIDE***
Sub- Area Name:	
Document Type:	***Preliminary Endangerment Assessment Report***
Completion Date:	***2007-08-03***
Comments:	

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 235 **DIST/DIR:** NON GC **MAP ID:**

NAME: WESTERN FUEL OIL CO.
ADDRESS: I-110 ACROSS FROM 2100 N. GAFFEY ST
SAN PEDRO CA 90731
LOS ANGELES
CONTACT:

REV: 4/23/91
ID1: 216989
ID2:
STATUS: PIPELINE RELATED
PHONE:

SPILL INFORMATION
DATE OF SPILL: 4/23/1991 **TIME OF SPILL:** 0100

PRODUCT RELEASED (1): GASOLINE
QUANTITY (1): 100
UNITS (1): BBL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: YES **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: STORM DRAIN TO OCEAN

SPILL INFORMATION
DATE OF SPILL: 4/23/1991 **TIME OF SPILL:** 0100

PRODUCT RELEASED (1): GASOLINE
QUANTITY (1): 100
UNITS (1): BBL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: YES **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: STORM DRAIN TO OCEAN

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** YES
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: CLEANUP BY ANCON VACUUM SERVICE E/R
RELEASE DETECTION: ** EAST SIDE OF FREEWAY GASKET FAILURE ON PIPELINE AT PETROLEUM MARINE TERMINAL STORAGE

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 235 **DIST/DIR:** NON GC **MAP ID:**

NAME: WESTERN FUEL OIL CO.
ADDRESS: I-110 ACROSS FROM 2100 N. GAFFEY ST
SAN PEDRO CA 90731
LOS ANGELES
CONTACT:

REV: 4/23/91
ID1: 216989
ID2:
STATUS: PIPELINE RELATED
PHONE:

MISC. NOTES: OTHER AGENCIES NOTIFIED: DOG/LA CO FLOOD/USFWS/COASTAL COMM/LA SO

DISCHARGER INFORMATION
DISCHARGER ID: 216989
TYPE OF DISCHARGER: PRIVATE CITIZEN
NAME OF DISCHARGER: WESTERN FUEL OIL CO.
ADDRESS: 2100 N. GAFFEY ST.
SAN PEDRO CA 90731-
DUN and BRADSTREET :

CAUSE OF RELEASE

DUMPING:	NO	**EQUIPMENT FAILURE:**	YES
NATURAL PHENOMENON:	NO	**OPERATOR ERROR:**	NO
OTHER CAUSE:	NO	**TRANSP. ACCIDENT:**	NO
UNKNOWN:	NO		

ACTIONS TAKEN: CLEANUP BY ANCON VACUUM SERVICE E/R
RELEASE DETECTION: ** EAST SIDE OF FREEWAY GASKET FAILURE ON PIPELINE AT PETROLEUM MARINE TERMINAL STORAGE
MISC. NOTES: OTHER AGENCIES NOTIFIED: DOG/LA CO FLOOD/USFWS/COASTAL COMM/LA SO

DISCHARGER INFORMATION
DISCHARGER ID: 216989
TYPE OF DISCHARGER: PRIVATE CITIZEN
NAME OF DISCHARGER: WESTERN FUEL OIL CO.
ADDRESS: 2100 N. GAFFEY ST.
SAN PEDRO CA 90731-
DUN and BRADSTREET :

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 234 **DIST/DIR:** NON GC **MAP ID:**

NAME: UNOCAL REFINERY
ADDRESS: WEST BASIN CHANNEL, LA (CHANNEL) HARBOR NEAR BERTH
SAN PEDRO CA 90731
Los Angeles
CONTACT:

REV: 7/26/94
ID1: 393517
ID2:
STATUS: UNKNOWN (EPA REGIONS)
PHONE:

SPILL INFORMATION

DATE OF SPILL: 7/26/1994 **TIME OF SPILL:** 1000

PRODUCT RELEASED (1): OIL
QUANTITY (1): 0
UNITS (1): UNK

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED

AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: LOS ANGELES HARBOR

CAUSE OF RELEASE

DUMPING: YES **EQUIPMENT FAILURE:** NO
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: UNOCAL TO CLEANUP
RELEASE DETECTION: SHEEN NOTICED IN WATER
MISC. NOTES: * AGENCY NAME: USFWS/NRC/STATE FIRE MARSHALL/LOCAL PD/

DISCHARGER INFORMATION

DISCHARGER ID: 393517 **DUN and BRADSTREET :**
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: UNOCAL REFINERY
ADDRESS: 1660 W. ANAHEIM
WILMINGTON CA 90744-

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 262 **DIST/DIR:** NON GC **MAP ID:**

NAME: KEEP ON TRUCKING CO INC
ADDRESS: 607 W HARRY BRIDGES ST
SAN PEDRO CA 90731
Los Angeles
CONTACT:

REV: 05/01/2000
ID1: LACTY/NONCRTFD532
ID2:
STATUS:
PHONE:

DETAILS NOT AVAILABLE

ERNS

SEARCH ID: 216 **DIST/DIR:** NON GC **MAP ID:**

NAME: UNION PACIFIC RESOURCE *87
ADDRESS: UNION PACIFIC RESOURCE *87
WILMINGTON CA
Los Angeles
CONTACT:

REV:
ID1: 74364
ID2:
STATUS: UNKNOWN
PHONE:

CERCLIS (Y/N):

MAT: SULFUR DIOXIDE **QUANT:** 200 POUNDS

LOCATION: UNION PACIFIC RESOURCE *87
CITY: WILMINGTON CA 90744 **REPORTED:** 11/01/88

SOURCE: UNKNOWN **MEDIUM:** AIR

CAUSE: UNKNOWN

ACT:
BY:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 217 **DIST/DIR:** NON GC **MAP ID:**

NAME: UNION PACIFIC RESOURCES
ADDRESS: UNION PACIFIC RESOURCES
WILMINGTON CA
Los Angeles
CONTACT:

REV:
ID1: 74609
ID2:
STATUS: UNKNOWN
PHONE:

CERCLIS (Y/N):

MAT: SULFUR DIOXIDE **QUANT:** 2000 POUNDS

LOCATION: UNION PACIFIC RESOURCES
CITY: WILMINGTON CA 90744 **REPORTED:** 11/04/88

SOURCE: UNKNOWN **MEDIUM:** AIR
PUMP FAILURE
CAUSE: UNKNOWN

ACT:
BY:

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 233 **DIST/DIR:** NON GC **MAP ID:**

NAME: UNION PACIFIC RESOURCES
ADDRESS: UNION PACIFIC RESOURCES ON THE WASTE WATER PH, TER
SAN PEDRO CA 90731
LOS ANGELES
CONTACT:

REV: 11/5/91
ID1: 239082
ID2:
STATUS: FIXED FACILITY
PHONE:

SPILL INFORMATION
DATE OF SPILL: 11/5/1991 **TIME OF SPILL:** 0915

PRODUCT RELEASED (1): CRUDE OIL
QUANTITY (1): 2
UNITS (1): BBL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE:

SPILL INFORMATION
DATE OF SPILL: 11/5/1991 **TIME OF SPILL:** 0915

PRODUCT RELEASED (1): CRUDE OIL
QUANTITY (1): 2
UNITS (1): BBL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE:

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** YES
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: RPR CLEANUP, SEMI CONTAINED AROUND
RELEASE DETECTION: WASTE WATER PLANT POWER OUTAGE DUMP VALVE FAILURE, CAUSING TANK OVERFLOW

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 233 **DIST/DIR:** NON GC **MAP ID:**

NAME: UNION PACIFIC RESOURCES
ADDRESS: UNION PACIFIC RESOURCES ON THE WASTE WATER PH, TER
SAN PEDRO CA 90731
LOS ANGELES
CONTACT:

REV: 11/5/91
ID1: 239082
ID2:
STATUS: FIXED FACILITY
PHONE:

MISC. NOTES:

DISCHARGER INFORMATION

DISCHARGER ID: 239082
TYPE OF DISCHARGER: PRIVATE CITIZEN
NAME OF DISCHARGER: UNION PACIFIC RESOURCES
ADDRESS: PO BOX 1317
WILMINGTON CA 90748-

DUN and BRADSTREET :

CAUSE OF RELEASE

DUMPING:	NO	**EQUIPMENT FAILURE:**	YES
NATURAL PHENOMENON:	NO	**OPERATOR ERROR:**	NO
OTHER CAUSE:	NO	**TRANSP. ACCIDENT:**	NO
UNKNOWN:	NO		

ACTIONS TAKEN: RPR CLEANUP, SEMI CONTAINED AROUND
RELEASE DETECTION: WASTE WATER PLANT POWER OUTAGE DUMP VALVE FAILURE, CAUSING TANK OVERFLOW
MISC. NOTES:

DISCHARGER INFORMATION

DISCHARGER ID: 239082
TYPE OF DISCHARGER: PRIVATE CITIZEN
NAME OF DISCHARGER: UNION PACIFIC RESOURCES
ADDRESS: PO BOX 1317
WILMINGTON CA 90748-

DUN and BRADSTREET :

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 218 **DIST/DIR:** NON GC **MAP ID:**

NAME: UNION PACIFIC RESOURCES
ADDRESS: WELL M-F 28B WILMINGTON LEASE
WILMINGTON CA
LOS ANGELES
CONTACT:

REV: 2/21/92
ID1: 256677
ID2:
STATUS: FIXED FACILITY
PHONE:

SPILL INFORMATION
DATE OF SPILL: 2/21/1992 **TIME OF SPILL:** 1450

PRODUCT RELEASED (1): CRUDE OIL
QUANTITY (1): 2
UNITS (1): BBL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: YES **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE:

SPILL INFORMATION
DATE OF SPILL: 2/21/1992 **TIME OF SPILL:** 1450

PRODUCT RELEASED (1): CRUDE OIL
QUANTITY (1): 2
UNITS (1): BBL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: YES **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE:

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** YES
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: RP CLEANUP
RELEASE DETECTION: PIPE DEVELOPED HOLE IN AN IDLE WELL PIPE/LEAK

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 218 **DIST/DIR:** NON GC **MAP ID:**

NAME: UNION PACIFIC RESOURCES
ADDRESS: WELL M-F 28B WILMINGTON LEASE
WILMINGTON CA
LOS ANGELES
CONTACT:

REV: 2/21/92
ID1: 256677
ID2:
STATUS: FIXED FACILITY
PHONE:

MISC. NOTES:

DISCHARGER INFORMATION

DISCHARGER ID: 256677
TYPE OF DISCHARGER: PRIVATE CITIZEN
NAME OF DISCHARGER: UNION PACIFIC RESOURCES
ADDRESS: 420 HENRY FORD AVENUE
WILMINGTON CA 90744-

DUN and BRADSTREET :

CAUSE OF RELEASE

DUMPING:	NO	**EQUIPMENT FAILURE:**	YES
NATURAL PHENOMENON:	NO	**OPERATOR ERROR:**	NO
OTHER CAUSE:	NO	**TRANSP. ACCIDENT:**	NO
UNKNOWN:	NO		

ACTIONS TAKEN: RP CLEANUP
RELEASE DETECTION: PIPE DEVELOPED HOLE IN AN IDLE WELL PIPE/LEAK
MISC. NOTES:

DISCHARGER INFORMATION

DISCHARGER ID: 256677
TYPE OF DISCHARGER: PRIVATE CITIZEN
NAME OF DISCHARGER: UNION PACIFIC RESOURCES
ADDRESS: 420 HENRY FORD AVENUE
WILMINGTON CA 90744-

DUN and BRADSTREET :

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 212 **DIST/DIR:** NON GC **MAP ID:**

NAME:	RP=UNK	**REV:**	
ADDRESS:	BERTH - 149 + 150/WILMINGTON HARBOR	**ID1:**	22020
	WILMINGTON CA	**ID2:**	
	LOS ANGELES	**STATUS:**	UNKNOWN
CONTACT:		**PHONE:**	

THERE ARE NO DETAILS AVAILABLE FOR THIS SITE

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 219 **DIST/DIR:** NON GC **MAP ID:**

NAME:	WEST BASIN	**REV:**	12/31/00
ADDRESS:	BERTH 149 PIER A STREET	**ID1:**	NRC-537398
	WILMINGTON CA	**ID2:**	
	LOS ANGELES	**STATUS:**	FIXED
CONTACT:	SCOTT ZERGA	**PHONE:**	3109526332

SITE INFORMATION

THIS INFORMATION WAS OBTAINED FROM THE NATIONAL RESPONSE CENTER

DATE RECEIVED:	02-AUG-00	**DATE COMPLETE:**	02-AUG-00
CALL TAKER:	LMJ2870	**CALL TYPE:**	INC

RESPONSIBLE PARTY: SCOTT ZERGA
PHONE 1: 3109526332 PRIMARY
PHONE 2:
PHONE 3:

RESPONSIBLE COMPANY: TOSCO REFINING CO.
ORGANIZATION TYPE: PRIVATE ENTERPRISE

ADDRESS: 1660 WEST ANAHEIM STREET
WILMINGTON CA 90744

INITIALLY REPORTED BY:
PHONE:

INIT REPORTED COMPANY:
ON BEHALF OF: Y
SOURCE: UNAVAILABLE

INCIDENT INFORMATION

INCIDENT DESCRIPTION: THE MATERIAL RELEASED DURING ROUTINE MAINTENANCE ON TANK PIPING WHILE USING A VACcUUM TRUCK.

INCIDENT TYPE:	FIXED	**INCIDENT CAUSE:**	EQUIPMENT FAILURE
INCIDENT DATE:	02-AUG-00	**INCIDENT DATE DESC:**	OCCURRED
DISTANCE FROM CITY:		**DISTANCE UNITS:**	
DIRECTION FROM CITY:		**LOCATION SECTION:**	
LOCATION TOWNSHIP:		**LOCATION RANGE:**	
WMD CHEM FLAG:	F	**RAD FLAG:**	F
BIO FLAG:	F	**OIL FLAG:**	
POTENTIAL_FLAG:		**AMT MATERIAL FLAG:**	
MILITARY ORG FLAG:	N	**LNG FLAG:**	
AIRCRAFT TYPE:		**AIRCRAFT MODEL:**	
AIRCRAFT ID:		**AIRCRAFT FUEL CAPACITY:**	
AIRCRAFT FUEL CAPACITY UNITS:		**AIRCRAFT FUEL ON BOARD:**	
AIRCRAFT FUEL ON BOARD UNITS:		**AIRCRAFT SPOT NUMBER:**	
AIRCRAFT HANGER:		**AIRCRAFT RUNWAY NUM:**	
ROAD MILE MARKER:		**BUILDING ID:**	
TYPE OF FIXED OBJECT:	REFINERY	**POWER GEN FACILITY:**	N
GENERATING CAPACITY:		**TYPE OF FUEL:**	
NPDES:		**NPDES COMPLIANCE:**	U

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 219 **DIST/DIR:** NON GC **MAP ID:**

NAME:	WEST BASIN	**REV:**	12/31/00
ADDRESS:	BERTH 149 PIER A STREET	**ID1:**	NRC-537398
	WILMINGTON CA	**ID2:**	
	LOS ANGELES	**STATUS:**	FIXED
CONTACT:	SCOTT ZERGA	**PHONE:**	3109526332

PIPELINE TYPE:		**DOT REGULATED:**	U
PIPELINE ABOVE GROUND:	ABOVE	**EXPOSED UNDERWATER:**	N
PIPELINE COVERED:	U	**RAILROAD HOTLINE:**	
GRADE CROSSING:	N	**LOCATION SUBDIVISION:**	
RAILROAD MILEPOST:		**TYPE VEHICLE INVOLVED:**	
CROSSING DEVICE TYPE:		**DEVICE OPERATIONAL:**	Y
DOT CROSSING NUMBER:		**BRAKE FAILURE:**	N
TANK ABOVE GROUND:	ABOVE	**TRANSPORTABLE CONTAINER:**	U
TANK REGULATED:	U	**TANK REGULATED BY:**	
TANK ID:		**CAPACITY OF TANK:**	
CAPACITY OF TANK UNITS:		**ACTUAL AMOUNT:**	
ACTUAL AMOUNT UNITS:		**PLATFORM RIG NAME:**	
PLATFORM LETTER:		**LOCATION AREA ID:**	
LOCATION BLOCK ID:			
DESCRIPTION OF TANK:			
OCSG NUMBER:		**OCSP NUMBER:**	
STATE LEASE NUMBER:		**PIER DOCK NUMBER:**	
BERTH SLIP NUMBER:		**CONTIN RELEASE TYPE:**	
INITIAL CONT RELEASE NUM:		**CONT RELEASE PERMIT:**	
ALLISION:	N	**TYPE OF STRUCTURE:**	
STRUCTURE NAME:		**STRUCT OPERATIONAL:**	U
AIRBAG DEPLOYED:		**DATE NORMAL SERVICE:**	
SERVICE DISRUPT TIME:		**SERVICE DISRUPT UNITS:**	
TRANSIT BUS FLAG:		**CR BEGIN DATE:**	
CR END DATE:		**CR CHANGE DATE:**	
FIRE INVOLVED:	N	**FIRE EXTINGUISHED:**	U
ANY EVACUATIONS:	N	**NUMBER EVACUATED:**	
WHO EVACUATED:		**RADIUS OF EVACUATION:**	
ANY INJURIES:	N	**NUMBER INJURED:**	
NUMBER HOSPITALIZED:		**ANY FATALITIES:**	N
NUMBER FATALITIES:		**ANY DAMAGES:**	N
DAMAGE AMOUNT:		**AIR CORRIDOR CLOSED:**	N
AIR CORRIDOR DESC:		**AIR CLOSURE TIME:**	
WATERWAY CLOSED:	N	**WATERWAY DESC:**	
WATERWAY CLOSURE TIME:		**ROAD CLOSED:**	N
ROAD DESC:		**ROAD CLOSURE TIME:**	
CLOSURE DIRECTION:		**MAJOR ARTERY:**	N
TRACK CLOSED:	N	**TRACK DESC:**	
TRACK CLOSURE TIME:		**MEDIA INTEREST:**	NONE
MEDIUM DESC:	LAND	**ADDTL MEDIUM INFO:**	
BODY OF WATER:		**TRIBUTARY OF:**	
NEAREST RIVER MILE MARK:		**RELEASE SECURED:**	U
EST DUR OF RELEASE:		**RELEASE RATE:**	
TRACK CLOSE DIR:		**ST AGENCY ON SCENE:**	
ST AGENCY RPT NUM:		**OTHER AGENCY NOTIFIED:**	
WEATHER CONDITIONS:	SUNNY	**AIR TEMPERATURE:**	80
WIND SPEED:		**WIND DIRECTION:**	
WATER SUPPLY CONTAM:	U	**SHEEN SIZE:**	

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Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 219 **DIST/DIR:** NON GC **MAP ID:**

NAME:	WEST BASIN	**REV:**	12/31/00
ADDRESS:	BERTH 149 PIER A STREET	**ID1:**	NRC-537398
	WILMINGTON CA	**ID2:**	
	LOS ANGELES	**STATUS:**	FIXED
CONTACT:	SCOTT ZERGA	**PHONE:**	3109526332

SHEEN COLOR:		**DIR OF SHEEN TRAVEL:**	
SHEEN ODOR DESCRIPTION:		**WAVE CONDITION:**	
CURRENT SPEED:		**CURRENT DIRECTION:**	
WATER TEMPERATURE:			

DESC OF REMEDIAL ACTION: CLEAN UP UNDERWAY

EMPL FATALITY:		**PASS FATALITY:**	
COMMUNITY IMPACT:	N	**WIND SPEED UNITS:**	
EMPLOYEE INJURIES:		**PASSENGER INJURIES:**	
OCCUPANT FATALITY:		**CURRENT SPEED UNITS:**	M
ROAD CLOSURE UNITS:		**TRACK CLOSURE UNITS:**	
SHEEN SIZE UNITS:		**STATE AGENCY NOTIFIED:**	CA EMS, FIRE DEPT.
FED AGENCY NOTIFIED:		**STRUCTURE NAME:**	
TYPE OF STRUCTURE:		**ALLISION:**	
STRUCTURE OPERATIONAL:		**NEAREST RIVER MILE MARK:**	
SHEEN SIZE LENGTH:		**SHEEN SIZE LENGTH UNITS:**	
SHEEN SIZE WIDTH:		**SHEEN SIZE WIDTH UNITS:**	
OFFSHORE:	N	**DURATION UNIT:**	
RELEASE RATE UNIT:		**RELEASE RATE RATE:**	

ADDITIONAL INFO: THE CALLER HAD NO ADDITIONAL INFORMATION.

MATERIAL INFORMATION

CHRIS CODE:	MBE	**CASE NUMBER:**	000000-00-0
UN NUMBER:		**REACHED WATER:**	NO

NAME OF MATERIAL: METHYL TERT-BUTYL ETHER
AMOUNT OF MATERIAL: 0 UNKNOWN AMOUNT
AMOUNT IN WATER:

OTHER MATERIAL INFORMATION

MOBILE DETAILS INFORMATION

TRAIN INFORMATION

VESSEL INFORMATION

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 215 **DIST/DIR:** NON GC **MAP ID:**

NAME: TIDELANDS OIL CO
ADDRESS: WELL UP406, WILMINGTON FIELD
WILMINGTON CA
LOS ANGELES
CONTACT:

REV: 10/29/91
ID1: 238283
ID2:
STATUS: FIXED FACILITY
PHONE:

SPILL INFORMATION
DATE OF SPILL: 10/29/1991 **TIME OF SPILL:** 1050

PRODUCT RELEASED (1): CRUDE OIL
QUANTITY (1): 100
UNITS (1): BBL

PRODUCT RELEASED (2): PRODUCED WATER
QUANTITY (2): 200
UNITS (2): BBL

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: NONE

SPILL INFORMATION
DATE OF SPILL: 10/29/1991 **TIME OF SPILL:** 1050

PRODUCT RELEASED (1): CRUDE OIL
QUANTITY (1): 100
UNITS (1): BBL

PRODUCT RELEASED (2): PRODUCED WATER
QUANTITY (2): 200
UNITS (2): BBL

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: NONE

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** YES
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: CLEANUP BY RP
RELEASE DETECTION: WELL BLEW OUT

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 215 **DIST/DIR:** NON GC **MAP ID:**

NAME: TIDELANDS OIL CO
ADDRESS: WELL UP406, WILMINGTON FIELD
WILMINGTON CA
LOS ANGELES
CONTACT:

REV: 10/29/91
ID1: 238283
ID2:
STATUS: FIXED FACILITY
PHONE:

MISC. NOTES:

DISCHARGER INFORMATION

DISCHARGER ID: 238283
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: TIDELANDS OIL CO
ADDRESS: CARRACK AVE/CHAPLAIN REFINERY
WILMINGTON CA 90744-

DUN and BRADSTREET :

CAUSE OF RELEASE

DUMPING:	NO	**EQUIPMENT FAILURE:**	YES
NATURAL PHENOMENON:	NO	**OPERATOR ERROR:**	NO
OTHER CAUSE:	NO	**TRANSP. ACCIDENT:**	NO
UNKNOWN:	NO		

ACTIONS TAKEN: CLEANUP BY RP
RELEASE DETECTION: WELL BLEW OUT
MISC. NOTES:

DISCHARGER INFORMATION

DISCHARGER ID: 238283
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: TIDELANDS OIL CO
ADDRESS: CARRACK AVE/CHAPLAIN REFINERY
WILMINGTON CA 90744-

DUN and BRADSTREET :

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 229 **DIST/DIR:** NON GC **MAP ID:**

NAME:
ADDRESS: GULF AND WILMINGTON AVE PRODUCTION FIELD
WILMINGTON CA
LOS ANGELES
CONTACT:

REV:
ID1: 101897
ID2:
STATUS: UNKNOWN
PHONE:

THERE ARE NO DETAILS AVAILABLE FOR THIS SITE

ERNS

SEARCH ID: 228 **DIST/DIR:** NON GC **MAP ID:**

NAME:
ADDRESS: UNION PACIFIC RESOURCES REFINERY;2402 EAST ANAHEIM
WILMINGTON CA
Los Angeles
CONTACT:

REV:
ID1: 69362
ID2:
STATUS: UNKNOWN
PHONE:

CERCLIS (Y/N):

MAT: SULFUR DIOXIDE **QUANT:** 200 POUNDS

LOCATION: UNION PACIFIC RESOURCES REFINERY;2402 EAST ANAHEIM ST
CITY: **REPORTED:** 11/01/88

SOURCE: UNKNOWN **MEDIUM:** AIR
ACID GAS FLARE AT SULFUR RECOVERY UNIT/EMERGENCY SHUT DOWN
CAUSE: UNKNOWN

ACT: UNIT BROUGHT BACK ON LINE;LASTED 20 MINUTES
BY:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 227 **DIST/DIR:** NON GC **MAP ID:**

NAME:
ADDRESS: CORNER OF WATER AND CANAL ST
WILMINGTON CA
LOS ANGELES
CONTACT:

REV:
ID1: 111139
ID2:
STATUS: UNKNOWN
PHONE:

THERE ARE NO DETAILS AVAILABLE FOR THIS SITE

ERNS

SEARCH ID: 226 **DIST/DIR:** NON GC **MAP ID:**

NAME:
ADDRESS: CORNER OF WATER AND CANAL ST
WILMINGTON CA
LOS ANGELES
CONTACT:

REV:
ID1: 111138
ID2:
STATUS: UNKNOWN
PHONE:

THERE ARE NO DETAILS AVAILABLE FOR THIS SITE

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 225 **DIST/DIR:** NON GC **MAP ID:**

NAME:
ADDRESS: WILMINGTON ASPHALT PLANT 1651 ALAMEDA STREET
WILMINGTON CA
LOS ANGELES
CONTACT: SHIRIN MANDEGARI

REV: 12/31/03
ID1: NRC-641050
ID2:
STATUS: FIXED
PHONE: 3105184000

SITE INFORMATION

THIS INFORMATION WAS OBTAINED FROM THE NATIONAL RESPONSE CENTER

DATE RECEIVED: 4/1/2003 4:51:09 PM **DATE COMPLETE:** 4/1/2003 4:58:11 PM
CALL TAKER: LCL3599 **CALL TYPE:** INC

RESPONSIBLE PARTY: SHIRIN MANDEGARI
PHONE 1: 3105184000 PRIMARY
PHONE 2:
PHONE 3:

RESPONSIBLE COMPANY: VALERO REFINING CO
ORGANIZATION TYPE: PRIVATE ENTERPRISE

ADDRESS: WILMINGTON ASPHALT PLANT 1651 ALAMEDA STREET
WILMINGTON CA

SOURCE: TELEPHONE

INCIDENT INFORMATION

INCIDENT DESCRIPTION: RELEASE OF MATERIALS OCCURED WHEN A OILY SLUDGE TANK WAS OVERFILLED AND SPILLED APPROXIMATELY 5 GALLONS OF MATERIAL ONTO THE GROUND

INCIDENT TYPE: FIXED **INCIDENT CAUSE:** OPERATOR ERROR
INCIDENT DATE: 4/1/2003 12:00:00 PM **INCIDENT DATE DESC:** OCCURRED
DISTANCE FROM CITY: **DISTANCE UNITS:**
DIRECTION FROM CITY: **LOCATION SECTION:**
LOCATION TOWNSHIP: **LOCATION RANGE:**

AIRCRAFT TYPE: **AIRCRAFT MODEL:**
AIRCRAFT ID: **AIRCRAFT FUEL CAPACITY:**
AIRCRAFT FUEL CAPACITY UNITS: **AIRCRAFT FUEL ON BOARD:**
AIRCRAFT FUEL ON BOARD UNITS: **AIRCRAFT SPOT NUMBER:**
AIRCRAFT HANGER: **AIRCRAFT RUNWAY NUM:**
ROAD MILE MARKER: **BUILDING ID:**
TYPE OF FIXED OBJECT: REFINERY **POWER GEN FACILITY:** N
GENERATING CAPACITY: **TYPE OF FUEL:**
NPDES: **NPDES COMPLIANCE:** U
PIPELINE TYPE: **DOT REGULATED:** U
PIPELINE ABOVE GROUND: ABOVE **EXPOSED UNDERWATER:** N
PIPELINE COVERED: U **GRADE CROSSING:** N
LOCATION SUBDIVISION: **RAILROAD MILEPOST:**
TYPE VEHICLE INVOLVED: **CROSSING DEVICE TYPE:**
DEVICE OPERATIONAL: Y

DOT CROSSING NUMBER: **BRAKE FAILURE:** N

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 225 **DIST/DIR:** NON GC **MAP ID:**

NAME:		**REV:**	12/31/03
ADDRESS:	WILMINGTON ASPHALT PLANT 1651 ALAMEDA STREET	**ID1:**	NRC-641050
	WILMINGTON CA	**ID2:**	
	LOS ANGELES	**STATUS:**	FIXED
CONTACT:	SHIRIN MANDEGARI	**PHONE:**	3105184000

TANK ABOVE GROUND:	ABOVE	**TRANSPORTABLE CONTAINER:**	U
TANK REGULATED:	U	**TANK REGULATED BY:**	
TANK ID:		**CAPACITY OF TANK:**	
CAPACITY OF TANK UNITS:		**ACTUAL AMOUNT:**	
ACTUAL AMOUNT UNITS:		**PLATFORM RIG NAME:**	
PLATFORM LETTER:		**LOCATION AREA ID:**	
LOCATION BLOCK ID:			

DESCRIPTION OF TANK:

OCSG NUMBER:		**OCSP NUMBER:**	
STATE LEASE NUMBER:		**PIER DOCK NUMBER:**	
BERTH SLIP NUMBER:		**CONTIN RELEASE TYPE:**	
INITIAL CONT RELEASE NUM:		**CONT RELEASE PERMIT:**	
ALLISION:	N	**TYPE OF STRUCTURE:**	
STRUCTURE NAME:		**STRUCT OPERATIONAL:**	U
AIRBAG DEPLOYED:		**DATE NORMAL SERVICE:**	
SERVICE DISRUPT TIME:		**SERVICE DISRUPT UNITS:**	
TRANSIT BUS FLAG:		**CR BEGIN DATE:**	
CR END DATE:		**CR CHANGE DATE:**	
FIRE INVOLVED:	N	**FIRE EXTINGUISHED:**	U
ANY EVACUATIONS:	N	**NUMBER EVACUATED:**	
WHO EVACUATED:		**RADIUS OF EVACUATION:**	
ANY INJURIES:	N	**NUMBER INJURED:**	
NUMBER HOSPITALIZED:		**ANY FATALITIES:**	N
NUMBER FATALITIES:		**ANY DAMAGES:**	N
DAMAGE AMOUNT:		**AIR CORRIDOR CLOSED:**	N
AIR CORRIDOR DESC:		**AIR CLOSURE TIME:**	
WATERWAY CLOSED:	N	**WATERWAY DESC:**	
WATERWAY CLOSURE TIME:		**ROAD CLOSED:**	N
ROAD DESC:		**ROAD CLOSURE TIME:**	
CLOSURE DIRECTION:		**MAJOR ARTERY:**	N
TRACK CLOSED:	N	**TRACK DESC:**	
TRACK CLOSURE TIME:		**MEDIA INTEREST:**	NONE
MEDIUM DESC:	LAND	**ADDTL MEDIUM INFO:**	GROUND AROUND TANK
BODY OF WATER:		**TRIBUTARY OF:**	
NEAREST RIVER MILE MARK:		**RELEASE SECURED:**	Y
EST DUR OF RELEASE:		**RELEASE RATE:**	
TRACK CLOSE DIR:		**ST AGENCY ON SCENE:**	
ST AGENCY RPT NUM:	03-1753	**OTHER AGENCY NOTIFIED:**	
WEATHER CONDITIONS:	SUNNY	**AIR TEMPERATURE:**	75
WIND SPEED:		**WIND DIRECTION:**	
WATER SUPPLY CONTAM:	U	**SHEEN SIZE:**	
SHEEN COLOR:		**DIR OF SHEEN TRAVEL:**	
SHEEN ODOR DESCRIPTION:		**WAVE CONDITION:**	
CURRENT SPEED:		**CURRENT DIRECTION:**	
WATER TEMPERATURE:			

DESC OF REMEDIAL ACTION: CLEANUP COMPLETED

EMPL FATALITY: **PASS FATALITY:**

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 225 **DIST/DIR:** NON GC **MAP ID:**

NAME:		**REV:**	12/31/03
ADDRESS:	WILMINGTON ASPHALT PLANT 1651 ALAMEDA STREET	**ID1:**	NRC-641050
	WILMINGTON CA	**ID2:**	
	LOS ANGELES	**STATUS:**	FIXED
CONTACT:	SHIRIN MANDEGARI	**PHONE:**	3105184000

COMMUNITY IMPACT:	N	**WIND SPEED UNITS:**	
EMPLOYEE INJURIES:		**PASSENGER INJURIES:**	
OCCUPANT FATALITY:		**CURRENT SPEED UNITS:**	
ROAD CLOSURE UNITS:		**TRACK CLOSURE UNITS:**	
SHEEN SIZE UNITS:		**STATE AGENCY NOTIFIED:**	OES
FED AGENCY NOTIFIED:		**NEAREST RIVER MILE MARK:**	
SHEEN SIZE LENGTH:		**SHEEN SIZE LENGTH UNITS:**	
SHEEN SIZE WIDTH:		**SHEEN SIZE WIDTH UNITS:**	
OFFSHORE:	N	**DURATION UNIT:**	
RELEASE RATE UNIT:		**RELEASE RATE RATE:**	

ADDITIONAL INFO: CALLER HAD NO ADDITIONAL INFORMATION

MATERIAL INFORMATION

CHRIS CODE:	OTH	**CASE NUMBER:**	000000-00-0
UN NUMBER:		**REACHED WATER:**	NO

NAME OF MATERIAL: OTHER OIL
AMOUNT OF MATERIAL: 5 GALLON(S)
AMOUNT IN WATER:

OTHER MATERIAL INFORMATION

MOBILE DETAILS INFORMATION

TRAIN INFORMATION

VESSEL INFORMATION

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 224 **DIST/DIR:** NON GC **MAP ID:**

NAME:
ADDRESS: 1200 N. ISLAND AVE.
WILMINGTON CA
LOS ANGELES
CONTACT:

REV: 12/31/06
ID1: NRC-789778
ID2:
STATUS: PIPELINE
PHONE:

SITE INFORMATION

THIS INFORMATION WAS OBTAINED FROM THE NATIONAL RESPONSE CENTER

DATE RECEIVED: 3/3/2006 12:42:54 PM **DATE COMPLETE:** 3/3/2006 12:53:05 PM
CALL TAKER: **CALL TYPE:** INC

RESPONSIBLE PARTY:
PHONE 1:
PHONE 2:
PHONE 3:

RESPONSIBLE COMPANY: WARREN EandP
ORGANIZATION TYPE: PRIVATE ENTERPRISE

ADDRESS:
LONG BEACH CA 90802

SOURCE: TELEPHONE

INCIDENT INFORMATION

INCIDENT DESCRIPTION: A FLOW LINE ON AN OIL WELL LEAKED CRUDE OIL DUE TO A HOLE IN THE PIPE WHICH CAUSED A RELEASE ONTO THE GROUND AND GUTTER.

INCIDENT TYPE:	PIPELINE	**INCIDENT CAUSE:**	EQUIPMENT FAILURE
INCIDENT DATE:	3/3/2006 9:15:00 AM	**INCIDENT DATE DESC:**	OCCURRED
DISTANCE FROM CITY:		**DISTANCE UNITS:**	
DIRECTION FROM CITY:		**LOCATION SECTION:**	
LOCATION TOWNSHIP:		**LOCATION RANGE:**	
AIRCRAFT TYPE:		**AIRCRAFT MODEL:**	
AIRCRAFT ID:		**AIRCRAFT FUEL CAPACITY:**	
AIRCRAFT FUEL CAPACITY UNITS:		**AIRCRAFT FUEL ON BOARD:**	
AIRCRAFT FUEL ON BOARD UNITS:		**AIRCRAFT SPOT NUMBER:**	
AIRCRAFT HANGER:		**AIRCRAFT RUNWAY NUM:**	
ROAD MILE MARKER:		**BUILDING ID:**	
TYPE OF FIXED OBJECT:		**POWER GEN FACILITY:**	UNKNOWN
GENERATING CAPACITY:		**TYPE OF FUEL:**	
NPDES:		**NPDES COMPLIANCE:**	UNKNOWN
PIPELINE TYPE:	FLOW	**DOT REGULATED:**	UNKNOWN
PIPELINE ABOVE GROUND:	BELOW	**EXPOSED UNDERWATER:**	NO
PIPELINE COVERED:	UNKNOWN	**GRADE CROSSING:**	NO
LOCATION SUBDIVISION:		**RAILROAD MILEPOST:**	
TYPE VEHICLE INVOLVED:		**CROSSING DEVICE TYPE:**	
DEVICE OPERATIONAL:	YES		
DOT CROSSING NUMBER:		**BRAKE FAILURE:**	NO

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 224 **DIST/DIR:** NON GC **MAP ID:**

NAME:
ADDRESS: 1200 N. ISLAND AVE.
WILMINGTON CA
LOS ANGELES
CONTACT:

REV: 12/31/06
ID1: NRC-789778
ID2:
STATUS: PIPELINE
PHONE:

TANK ABOVE GROUND:	ABOVE	**TRANSPORTABLE CONTAINER:**	UNKNOWN
TANK REGULATED:	UNKNOWN	**TANK REGULATED BY:**	
TANK ID:		**CAPACITY OF TANK:**	
CAPACITY OF TANK UNITS:		**ACTUAL AMOUNT:**	
ACTUAL AMOUNT UNITS:		**PLATFORM RIG NAME:**	
PLATFORM LETTER:		**LOCATION AREA ID:**	
LOCATION BLOCK ID:			

DESCRIPTION OF TANK:

OCSG NUMBER:		**OCSP NUMBER:**	
STATE LEASE NUMBER:		**PIER DOCK NUMBER:**	
BERTH SLIP NUMBER:		**CONTIN RELEASE TYPE:**	
INITIAL CONT RELEASE NUM:		**CONT RELEASE PERMIT:**	
ALLISION:	NO	**TYPE OF STRUCTURE:**	
STRUCTURE NAME:		**STRUCT OPERATIONAL:**	UNKNOWN
AIRBAG DEPLOYED:		**DATE NORMAL SERVICE:**	
SERVICE DISRUPT TIME:		**SERVICE DISRUPT UNITS:**	
TRANSIT BUS FLAG:		**CR BEGIN DATE:**	
CR END DATE:		**CR CHANGE DATE:**	
FIRE INVOLVED:	NO	**FIRE EXTINGUISHED:**	UNKNOWN
ANY EVACUATIONS:	NO	**NUMBER EVACUATED:**	
WHO EVACUATED:		**RADIUS OF EVACUATION:**	
ANY INJURIES:	NO	**NUMBER INJURED:**	
NUMBER HOSPITALIZED:		**ANY FATALITIES:**	NO
NUMBER FATALITIES:		**ANY DAMAGES:**	NO
DAMAGE AMOUNT:		**AIR CORRIDOR CLOSED:**	NO
AIR CORRIDOR DESC:		**AIR CLOSURE TIME:**	
WATERWAY CLOSED:	NO	**WATERWAY DESC:**	
WATERWAY CLOSURE TIME:		**ROAD CLOSED:**	NO
ROAD DESC:		**ROAD CLOSURE TIME:**	
CLOSURE DIRECTION:		**MAJOR ARTERY:**	NO
TRACK CLOSED:	NO	**TRACK DESC:**	
TRACK CLOSURE TIME:		**MEDIA INTEREST:**	NONE
MEDIUM DESC:	LAND	**ADDTL MEDIUM INFO:**	GROUND/GUTTER
BODY OF WATER:		**TRIBUTARY OF:**	
NEAREST RIVER MILE MARK:		**RELEASE SECURED:**	YES
EST DUR OF RELEASE:		**RELEASE RATE:**	
TRACK CLOSE DIR:		**ST AGENCY ON SCENE:**	
ST AGENCY RPT NUM:	06-1319	**OTHER AGENCY NOTIFIED:**	
WEATHER CONDITIONS:	PARTLY CLOUDY	**AIR TEMPERATURE:**	60
WIND SPEED:		**WIND DIRECTION:**	
WATER SUPPLY CONTAM:	UNKNOWN	**SHEEN SIZE:**	
SHEEN COLOR:		**DIR OF SHEEN TRAVEL:**	
SHEEN ODOR DESCRIPTION:		**WAVE CONDITION:**	
CURRENT SPEED:		**CURRENT DIRECTION:**	
WATER TEMPERATURE:			

DESC OF REMEDIAL ACTION: LEAK WAS CONTAINED,CONTRACTOR HAS BEEN HIRED

EMPL FATALITY: **PASS FATALITY:**

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 224 **DIST/DIR:** NON GC **MAP ID:**

NAME:
ADDRESS: 1200 N. ISLAND AVE.
WILMINGTON CA
LOS ANGELES
CONTACT:

REV: 12/31/06
ID1: NRC-789778
ID2:
STATUS: PIPELINE
PHONE:

COMMUNITY IMPACT:	NO	**WIND SPEED UNITS:**	
EMPLOYEE INJURIES:		**PASSENGER INJURIES:**	
OCCUPANT FATALITY:		**CURRENT SPEED UNITS:**	
ROAD CLOSURE UNITS:		**TRACK CLOSURE UNITS:**	
SHEEN SIZE UNITS:		**STATE AGENCY NOTIFIED:**	OES
FED AGENCY NOTIFIED:		**NEAREST RIVER MILE MARK:**	
SHEEN SIZE LENGTH:		**SHEEN SIZE LENGTH UNITS:**	
SHEEN SIZE WIDTH:		**SHEEN SIZE WIDTH UNITS:**	
OFFSHORE:	N	**DURATION UNIT:**	
RELEASE RATE UNIT:		**RELEASE RATE RATE:**	

ADDITIONAL INFO: NONE

MATERIAL INFORMATION

CHRIS CODE:	OIL	**CASE NUMBER:**	000000-00-0
UN NUMBER:		**REACHED WATER:**	UNKNOWN

NAME OF MATERIAL: OIL: CRUDE
AMOUNT OF MATERIAL: 1 BARREL(S)
AMOUNT IN WATER: 0 UNKNOWN AMOUNT

OTHER MATERIAL INFORMATION

MOBILE DETAILS INFORMATION

TRAIN INFORMATION

VESSEL INFORMATION

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 223 **DIST/DIR:** NON GC **MAP ID:**

NAME:
ADDRESS: AT BERTH 179 IN WILMINGTON THE HYUNDAI 12
WILMINGTON CA
Los Angeles
CONTACT:

REV:
ID1: 7631
ID2:
STATUS: UNKNOWN
PHONE:

CERCLIS (Y/N):

MAT: SOME OIL **QUANT:** 0 UNKNOWN

LOCATION: AT BERTH 179 IN WILMINGTON THE HYUNDAI 12
CITY: **REPORTED:** 07/07/87

SOURCE: UNKNOWN **MEDIUM:** WATER
A LARGE SHEEN IN LOS ANGELES HARBOR
CAUSE: UNKNOWN

ACT: NONE
BY:

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 222 **DIST/DIR:** NON GC **MAP ID:**

NAME: ZIMM SHIPPING COMPANY
ADDRESS: PORT OF LA BERTH 146 370 WEST WATER ST
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 2/26/91
ID1: 466406
ID2:
STATUS:
PHONE:

SPILL INFORMATION
DATE OF SPILL: 2/26/1991 **TIME OF SPILL:** 2330

PRODUCT RELEASED (1): OIL, FUEL: NO. 6
QUANTITY (1): 0
UNITS (1): UNK

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: YES **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: WEST BASIN OF LA HARBOR

SPILL INFORMATION
DATE OF SPILL: 2/26/1991 **TIME OF SPILL:** 2330

PRODUCT RELEASED (1): OIL, FUEL: NO. 6
QUANTITY (1): 0
UNITS (1): UNK

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: YES **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: WEST BASIN OF LA HARBOR

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** YES
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: CONTRACTOR (CHEMPRO) ON SCENE USING BOOMS TO CONTAIN.
RELEASE DETECTION: M/V ZIMM CALIFORNIA / LEAKING FROM HULL, UNK CAUSE. VSSL IS STBD TO PIER

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 222 **DIST/DIR:** NON GC **MAP ID:**

NAME: ZIMM SHIPPING COMPANY
ADDRESS: PORT OF LA BERTH 146 370 WEST WATER ST
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 2/26/91
ID1: 466406
ID2:
STATUS:
PHONE:

MISC. NOTES: SHEEN SIZE UNKNOWN. QUANTITY OF CARGO UNKNOWN. RATE OF DISCHARGE IS DESCRIBED AS A SLOW LEAK. CALLER NOTIFIED BY 11TH DISTRICT CG.

DISCHARGER INFORMATION

DISCHARGER ID: 466406
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: ZIMM SHIPPING COMPANY
ADDRESS: 624 SOUTH GRAND AVENUE SUITE 8
LOS ANGELES CA 90017

DUN and BRADSTREET :

CAUSE OF RELEASE

DUMPING:	NO	**EQUIPMENT FAILURE:**	YES
NATURAL PHENOMENON:	NO	**OPERATOR ERROR:**	NO
OTHER CAUSE:	NO	**TRANSP. ACCIDENT:**	NO
UNKNOWN:	NO		

ACTIONS TAKEN: CONTRACTOR (CHEMPRO) ON SCENE USING BOOMS TO CONTAIN.
RELEASE DETECTION: M/V ZIMM CALIFORNIA / LEAKING FROM HULL, UNK CAUSE. VSSL IS STBD TO PIER
MISC. NOTES: SHEEN SIZE UNKNOWN. QUANTITY OF CARGO UNKNOWN. RATE OF DISCHARGE IS DESCRIBED AS A SLOW LEAK. CALLER NOTIFIED BY 11TH DISTRICT CG.

DISCHARGER INFORMATION

DISCHARGER ID: 466406
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: ZIMM SHIPPING COMPANY
ADDRESS: 624 SOUTH GRAND AVENUE SUITE 8
LOS ANGELES CA 90017

DUN and BRADSTREET :

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 221 **DIST/DIR:** NON GC **MAP ID:**

NAME: WICKLAND OIL COMPANY
ADDRESS: FRIGATE STREET BETWEEN PACIFIC COAST HWY AND MAURE
WILMINGTON CA
LOS ANGELES
CONTACT:

REV: 5/6/91
ID1: 217056
ID2:
STATUS: UNKNOWN (NRC)
PHONE:

SPILL INFORMATION
DATE OF SPILL: 5/6/1991 **TIME OF SPILL:** 0015

PRODUCT RELEASED (1): CARBON BLACK (REFINED CRUDE)
QUANTITY (1): 4
UNITS (1): BBL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: NO **FIXED FACILITY:** NO
WATER: NO **OTHER:** YES
WATERBODY AFFECTED BY RELEASE: STREET GUTTER

SPILL INFORMATION
DATE OF SPILL: 5/6/1991 **TIME OF SPILL:** 0015

PRODUCT RELEASED (1): CARBON BLACK (REFINED CRUDE)
QUANTITY (1): 4
UNITS (1): BBL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: NO **FIXED FACILITY:** NO
WATER: NO **OTHER:** YES
WATERBODY AFFECTED BY RELEASE: STREET GUTTER

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** NO
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: MATERIAL CONTAINED WITHIN GUTTER. SAND APPLIED TO AREA, VACUUM TRUCK WILL BE USED TO CLEAN.

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 221 **DIST/DIR:** NON GC **MAP ID:**

NAME: WICKLAND OIL COMPANY
ADDRESS: FRIGATE STREET BETWEEN PACIFIC COAST HWY AND MAURE
WILMINGTON CA
LOS ANGELES
CONTACT:

REV: 5/6/91
ID1: 217056
ID2:
STATUS: UNKNOWN (NRC)
PHONE:

RELEASE DETECTION: MOBIL RECIEVED CALL FROM CHEVRON STATING THAT OIL COMING UP FROM STREET POSSIBLY A GUTTER
MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 217056
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: WICKLAND OIL COMPANY
ADDRESS:
WILMINGTON CA

DUN and BRADSTREET :

CAUSE OF RELEASE

DUMPING:	NO	**EQUIPMENT FAILURE:**	NO
NATURAL PHENOMENON:	NO	**OPERATOR ERROR:**	NO
OTHER CAUSE:	NO	**TRANSP. ACCIDENT:**	NO
UNKNOWN:	NO		

ACTIONS TAKEN: MATERIAL CONTAINED WITHIN GUTTER. SAND APPLIED TO AREA, VACUUM TRUCK WILL BE USED TO CLEAN.
RELEASE DETECTION: MOBIL RECIEVED CALL FROM CHEVRON STATING THAT OIL COMING UP FROM STREET POSSIBLY A GUTTER
MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 217056
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: WICKLAND OIL COMPANY
ADDRESS:
WILMINGTON CA

DUN and BRADSTREET :

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 232 **DIST/DIR:** NON GC **MAP ID:**

NAME:
ADDRESS: 401 CANAL ST
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 12/31/07
ID1: NRC-841263
ID2:
STATUS: STORAGE TANK
PHONE:

DETAILS NOT AVAILABLE

ERNS

SEARCH ID: 208 **DIST/DIR:** NON GC **MAP ID:**

NAME: FLETCHER OIL (D LUEBECKE)
ADDRESS: 1500 S OF LOMITA AVE WILMINGTON BLVD
WILMINGTON CA
Los Angeles
CONTACT:

REV:
ID1: 56831
ID2:
STATUS: UNKNOWN
PHONE:

CERCLIS (Y/N):

MAT: MARINE DIESEL **QUANT:** 30 BARRELS

LOCATION: 1500 S OF LOMITA AVE WILMINGTON BLVD
CITY: CARSON CA 90745 **REPORTED:** 01/12/88

SOURCE: UNKNOWN **MEDIUM:** LAND
PIPELINE LEAK/FLO TO LAND. PIPELINE LEAK/FLO TO LAND.
CAUSE: UNKNOWN

ACT: RP=CU/ ANCON CONTRACTOR
BY:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

SPILLS

SEARCH ID: 251 **DIST/DIR:** NON GC **MAP ID:**

NAME: WILMINGTON TOWN LOT 209
ADDRESS: WILMINGTON BLVD
WILMINGTON CA 90744
CONTACT:

REV: 11/06/07
ID1: G_SLT43434432
ID2:
STATUS:
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

Please note that some SLIC data previously provided by the State Water Resources Control Board via the Regional Boards is not currently provided by the agency in the new GEOTRACKER format. To ensure that our data is as complete as possible we have retained the original Regional Boards SLIC records as well as loaded all GEOTRACKER SLIC listings. GEOTRACKER records are distinguished by an initial G at the start of the ID.

LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *MANJULIKA CHAKRABARTI*
LEAD AGENCY CASE NUMBER: *0655E6*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded):
RECENT DTW:
STATUS:

SPILLS

SEARCH ID: 250 **DIST/DIR:** NON GC **MAP ID:**

NAME: WILMINGTON TOWN LOT 187
ADDRESS: LAKME AVE
WILMINGTON CA 90744
CONTACT:

REV: 11/06/07
ID1: G_SLT43431429
ID2:
STATUS:
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

Please note that some SLIC data previously provided by the State Water Resources Control Board via the Regional Boards is not currently provided by the agency in the new GEOTRACKER format. To ensure that our data is as complete as possible we have retained the original Regional Boards SLIC records as well as loaded all GEOTRACKER SLIC listings. GEOTRACKER records are distinguished by an initial G at the start of the ID.

LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *MANJULIKA CHAKRABARTI*
LEAD AGENCY CASE NUMBER: *0655E3*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded):
RECENT DTW:
STATUS:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

SPILLS

SEARCH ID: 249 **DIST/DIR:** NON GC **MAP ID:**

NAME: WILMINGTON TOWN LOT 185
ADDRESS: BROAD AVE
WILMINGTON CA 90744
CONTACT:

REV: 11/06/07
ID1: G_SLT43430428
ID2:
STATUS:
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

Please note that some SLIC data previously provided by the State Water Resources Control Board via the Regional Boards is not currently provided by the agency in the new GEOTRACKER format. To ensure that our data is as complete as possible we have retained the original Regional Boards SLIC records as well as loaded all GEOTRACKER SLIC listings. GEOTRACKER records are distinguished by an initial G at the start of the ID.

LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *MANJULIKA CHAKRABARTI*
LEAD AGENCY CASE NUMBER: *0655E2*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded):
RECENT DTW:
STATUS:

SPILLS

SEARCH ID: 248 **DIST/DIR:** NON GC **MAP ID:**

NAME: WILMINGTON TOWN LOT 168
ADDRESS: ISLAND AVE
WILMINGTON CA 90744
CONTACT:

REV: 11/06/07
ID1: G_SLT43428426
ID2:
STATUS:
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

Please note that some SLIC data previously provided by the State Water Resources Control Board via the Regional Boards is not currently provided by the agency in the new GEOTRACKER format. To ensure that our data is as complete as possible we have retained the original Regional Boards SLIC records as well as loaded all GEOTRACKER SLIC listings. GEOTRACKER records are distinguished by an initial G at the start of the ID.

LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *MANJULIKA CHAKRABARTI*
LEAD AGENCY CASE NUMBER: *0655D9*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded):
RECENT DTW:
STATUS:

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 207 **DIST/DIR:** NON GC **MAP ID:**

NAME: FLETCHER OIL
ADDRESS: WILMINGTON BLVD M ST.
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 4/9/91
ID1: 215407
ID2:
STATUS: UNKNOWN (NRC)
PHONE:

SPILL INFORMATION
DATE OF SPILL: 4/9/1991 **TIME OF SPILL:** 2400

PRODUCT RELEASED (1): BLENDED FUEL OIL
QUANTITY (1): 1
UNITS (1): BBL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: NONE

SPILL INFORMATION
DATE OF SPILL: 4/9/1991 **TIME OF SPILL:** 2400

PRODUCT RELEASED (1): BLENDED FUEL OIL
QUANTITY (1): 1
UNITS (1): BBL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: NONE

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** YES
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: CLEANUP BY PRIVATE CONTRACTORS
RELEASE DETECTION: CORROSION CAUSED P/C LEAKED

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 207 **DIST/DIR:** NON GC **MAP ID:**

NAME: FLETCHER OIL
ADDRESS: WILMINGTON BLVD M ST.
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 4/9/91
ID1: 215407
ID2:
STATUS: UNKNOWN (NRC)
PHONE:

MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 215407
TYPE OF DISCHARGER: PRIVATE CITIZEN
NAME OF DISCHARGER: FLETCHER OIL
ADDRESS: P.O. BOX 548
WILMINGTON CA 90748-

DUN and BRADSTREET :

CAUSE OF RELEASE

DUMPING:	NO	**EQUIPMENT FAILURE:**	YES
NATURAL PHENOMENON:	NO	**OPERATOR ERROR:**	NO
OTHER CAUSE:	NO	**TRANSP. ACCIDENT:**	NO
UNKNOWN:	NO		

ACTIONS TAKEN: CLEANUP BY PRIVATE CONTRACTORS
RELEASE DETECTION: CORROSION CAUSED P/C LEAKED
MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 215407
TYPE OF DISCHARGER: PRIVATE CITIZEN
NAME OF DISCHARGER: FLETCHER OIL
ADDRESS: P.O. BOX 548
WILMINGTON CA 90748-

DUN and BRADSTREET :

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 231 **DIST/DIR:** NON GC **MAP ID:**

NAME:
ADDRESS: 161 NORTH ISLAND AVENUE
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 12/31/07
ID1: NRC-853866
ID2:
STATUS: STORAGE TANK
PHONE:

DETAILS NOT AVAILABLE

NFRAP

SEARCH ID: 195 **DIST/DIR:** NON GC **MAP ID:**

NAME: UNION OIL CO OF CA LA REF MARINE TERM
ADDRESS: BERTH 150 PIER A ST
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 12/3/07
ID1: CAT000611228
ID2: 0902628
STATUS: NFRAP-N
PHONE:

DESCRIPTION:

ACTION/QUALITY	AGENCY/RPS	START/RAA	END
ARCHIVE SITE	EPA In-House		02-01-1985
DISCOVERY	EPA Fund-Financed		08-01-1980
PRELIMINARY ASSESSMENT	State, Fund Financed	05-01-1984	02-01-1985

NFRAP (No Futher Remedial Action Planned

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 220 **DIST/DIR:** NON GC **MAP ID:**

NAME: WICKLAND OIL
ADDRESS: ALLEYWAY BET. WILMINGTON BLVD and GULF AVE
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 2/2/91
ID1: 203484
ID2:
STATUS: PIPELINE RELATED
PHONE:

SPILL INFORMATION
DATE OF SPILL: 2/2/1991 **TIME OF SPILL:** 1500

PRODUCT RELEASED (1): CRUDE OIL
QUANTITY (1): 10
UNITS (1): GAL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: NONE

SPILL INFORMATION
DATE OF SPILL: 2/2/1991 **TIME OF SPILL:** 1500

PRODUCT RELEASED (1): CRUDE OIL
QUANTITY (1): 10
UNITS (1): GAL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: NONE

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** YES
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: CLEANED UP AND REPAIRING LINE
RELEASE DETECTION: HIGH PRESSURE LEAK IN PIPELINE

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 220 **DIST/DIR:** NON GC **MAP ID:**

NAME: WICKLAND OIL
ADDRESS: ALLEYWAY BET. WILMINGTON BLVD and GULF AVE
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 2/2/91
ID1: 203484
ID2:
STATUS: PIPELINE RELATED
PHONE:

MISC. NOTES: OTHER AGENCIES NOTIFIED: LA CO FLOOD/FD

DISCHARGER INFORMATION
DISCHARGER ID: 203484
TYPE OF DISCHARGER: PRIVATE CITIZEN
NAME OF DISCHARGER: WICKLAND OIL
ADDRESS: 841 LA PALOMA
WILMINGTON CA 90744-

DUN and BRADSTREET :

CAUSE OF RELEASE

DUMPING:	NO	**EQUIPMENT FAILURE:**	YES
NATURAL PHENOMENON:	NO	**OPERATOR ERROR:**	NO
OTHER CAUSE:	NO	**TRANSP. ACCIDENT:**	NO
UNKNOWN:	NO		

ACTIONS TAKEN: CLEANED UP AND REPAIRING LINE
RELEASE DETECTION: HIGH PRESSURE LEAK IN PIPELINE
MISC. NOTES: OTHER AGENCIES NOTIFIED: LA CO FLOOD/FD

DISCHARGER INFORMATION
DISCHARGER ID: 203484
TYPE OF DISCHARGER: PRIVATE CITIZEN
NAME OF DISCHARGER: WICKLAND OIL
ADDRESS: 841 LA PALOMA
WILMINGTON CA 90744-

DUN and BRADSTREET :

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 200 **DIST/DIR:** NON GC **MAP ID:**

NAME:	CALTRANS VINCENT THOMAS BR	**REV:**	6/6/06
ADDRESS:	VINCENT THOMAS BR L A HWY 47	**ID1:**	CAR000031021
	SAN PEDRO CA 90731	**ID2:**	
	LOS ANGELES	**STATUS:**	SGN
CONTACT:	JOSEPH TEHRANI	**PHONE:**	3108312471

SITE INFORMATION

CONTACT INFORMATION: JOSEPH TEHRANI
515 N BEACON ST
SAN PEDRO CA 90731

PHONE: 3108312471

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

Lead

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

STATE

SEARCH ID: 237 **DIST/DIR:** NON GC **MAP ID:**

NAME: UNION OIL CO OF CA LA MARINE TERMINAL
ADDRESS: BERTH 150 PIER A ST (BERTHS 149,150,151)
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 07/03/00
ID1: CAL19281189
ID2:
STATUS: PROPERTY/SITE REFERRED TO ANOT
PHONE:

OTHER SITE NAMES (blank below = not reported by agency)
UNION OIL CO OF CA LA MARINE TERMINAL

GENERAL SITE INFORMATION
File Name (if different than site name):

Status: *PROPERTY/SITE REFERRED TO ANOTHER AGENCY (REFOA)*
AWP Site Type: *N/A*
NPL Site:
Fund:
Status Date: *03011984*
Lead:
Staff:
Senior Supervisor:

DTSC Region and RWQCB : *4 / LONG BEACH*
Branch: *SOUTHERN CA. - B*
RWQCB:
Site Access:
On Cortese List:
Groundwater Contamination:
Haz Ranking Score:
Haz Ranking Score:
Number of Sources Contributing to Contamination at the Site: *0*

OTHER AGENCY ID NUMBERS (blank below = not reported by agency)
ID SOURCE NAME, and VALUE: *EPA IDENTIFICATION NUMBER CAT000611228*

INFORMATION ON SPECIAL PROGRAMS THE SITE IS ASSOCIATED WITH (blank below = not reported by agency)
RCRA 3012

PROJECTED ACTIVITIES (blank below = not reported by agency)

PROJECTED ACTIVITIES (blank below = not reported by agency)

PROJECTED ACTIVITIES (blank below = not reported by agency)
Activity: ***DISCOVERY (DISC)***
Activity Status: *PROPERTY/SITE REFERRED TO ANOTHER AGENCY*
Completion Due Date:
Revised Completion Due Date:
Date Activity Actually Completed: *10111983*
Yards of Solids Removed: *0*
Yards of Solids Treated: *0*
Gallons of Liquid Removed: *0*
Gallons of Liquid Treated: *0*

Activity: ***(PA)***
Activity Status: *PROPERTY/SITE REFERRED TO ANOTHER AGENCY*

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

STATE

SEARCH ID: 237 **DIST/DIR:** NON GC **MAP ID:**

NAME: UNION OIL CO OF CA LA MARINE TERMINAL
ADDRESS: BERTH 150 PIER A ST (BERTHS 149,150,151)
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 07/03/00
ID1: CAL19281189
ID2:
STATUS: PROPERTY/SITE REFERRED TO ANOT
PHONE:

Completion Due Date:
Revised Completion Due Date:
Date Activity Actually Completed: *03011984*
Yards of Solids Removed: *0*
Yards of Solids Treated: *0*
Gallons of Liquid Removed: *0*
Gallons of Liquid Treated: *0*

Activity: ***(SS)***
Activity Status: *PROPERTY/SITE REFERRED TO ANOTHER AGENCY*
Completion Due Date:
Revised Completion Due Date:
Date Activity Actually Completed: *05011995*
Yards of Solids Removed: *0*
Yards of Solids Treated: *0*
Gallons of Liquid Removed: *0*
Gallons of Liquid Treated: *0*

DTSC COMMENTS REGARDING THIS SITE (blank below = not reported by agency)

DATE	COMMENT
08311971	*VIOLATION DETECTED OIL SPILL 30-40BBLS.*
DATE	**COMMENT**
08311971	*OIL SPILL-2G/M.*
DATE	**COMMENT**
09031971	*INSPECTION(LOCAL) PUB WRK. F-U INSP ON OIL SPILL(3/31/71)*
DATE	**COMMENT**
12241972	*ENFORCEMENT(OTHER) C-U OIL SPILL IN HARBOR AREA. COMPLETED*
DATE	**COMMENT**
12241972	*2/27/72 BY CROSBY and OVERTON(PUB WRK)*
DATE	**COMMENT**
09071975	*VIOLATION DETECTED FUEL OIL SPILL 20-25 BARRELS*
DATE	**COMMENT**
09291975	*VIOLATION DETECTED GASOLINE SPILL-100GAL.*
DATE	**COMMENT**
09301975	*INSPECTION(LOCAL) PUB WRD: F/U INSP ON GASOLINE SPILL (9/*
DATE	**COMMENT**
09301975	*29/75). NO FUR ACT.*
DATE	**COMMENT**
10111983	*FACILITY IDENTIFIED ID FROM ERRIS*
DATE	**COMMENT**
03011984	*T/C W/ E LANGEVIN,213-513-7600,UNION OIL*
DATE	**COMMENT**

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

STATE

SEARCH ID: 237 **DIST/DIR:** NON GC **MAP ID:**

NAME: UNION OIL CO OF CA LA MARINE TERMINAL
ADDRESS: BERTH 150 PIER A ST (BERTHS 149,150,151)
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 07/03/00
ID1: CAL19281189
ID2:
STATUS: PROPERTY/SITE REFERRED TO ANOT
PHONE:

03011984 *3/28/84 - SOURCE ACT: CLEANING OF SHIP*

DATE	COMMENT
03011984	*BALLAST.*
03011984	*YR OF ACT: 1919 TO PRESENT*
03011984	*SUBMIT TO EPA*
03011984	*VIOLATION DETECTED PUB WRK. VARIOUS SMALL SPILLS DATING*
03011984	*BACK TO 1965.(PUB WRK)*
03011984	*PRELIM ASSESS DONE RCRA 3012*
05011995	*DATABASE VALIDATION PROGRAM CONFIRMS NFA FOR DTSC.*

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 204 **DIST/DIR:** NON GC **MAP ID:**

NAME: EXXON
ADDRESS: WILMINGTON TOWN LOT UNIT, WELL 745
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 3/6/96
ID1: 493049
ID2:
STATUS: FIXED FACILITY
PHONE:

SPILL INFORMATION
DATE OF SPILL: 3/6/1996 **TIME OF SPILL:** 0805

PRODUCT RELEASED (1): INJECTION WATER
QUANTITY (1): 65
UNITS (1): BBL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE:

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** YES
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: EXXON LAIDLAW TO C/U
RELEASE DETECTION: PACKER CAME LOOSE CAUSING CELLAR TO OVERFLOW
MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 493049 **DUN and BRADSTREET :**
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: EXXON
ADDRESS:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

SPILLS

SEARCH ID: 238 **DIST/DIR:** NON GC **MAP ID:**

NAME: ACTA PARCEL LBX-880
ADDRESS: SOUTHERN PACIFIC DRIVE
WILMINGTON CA
CONTACT:

REV: 11/06/07
ID1: G_SL0603710201
ID2:
STATUS:
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

Please note that some SLIC data previously provided by the State Water Resources Control Board via the Regional Boards is not currently provided by the agency in the new GEOTRACKER format. To ensure that our data is as complete as possible we have retained the original Regional Boards SLIC records as well as loaded all GEOTRACKER SLIC listings. GEOTRACKER records are distinguished by an initial G at the start of the ID.

LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *SU HAN*
LEAD AGENCY CASE NUMBER: *0747K9*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded): *UNK*
RECENT DTW:
STATUS: *Case Closed*

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 209 **DIST/DIR:** NON GC **MAP ID:**

NAME: GATX
ADDRESS: JOHN GIBSON BLVD and FIGUEROA STREET
WILMINGTON CA
Los Angeles
CONTACT:

REV: 10/12/98
ID1: 597897
ID2:
STATUS: PIPELINE RELATED
PHONE:

SPILL INFORMATION
DATE OF SPILL: 10/12/1998 **TIME OF SPILL:** 0855

PRODUCT RELEASED (1): OIL, FUEL: NO. 2-D
QUANTITY (1): 0
UNITS (1): UNK

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** YES
LAND: NO **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: SOIL

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** NO
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: BLOCKED IN LINE, RESPONSE CREW IS ON SCENE, BACK HOE WILL DIG UP LINE.
RELEASE DETECTION: 12-INCH BELOW GROUND PIPELINE/ BACK HOE RUPTURED LINE DURING CONSTRUCTION
MISC. NOTES: ESTIMATE SIZE OF AREA AFFECTED: 4FT DIAMETER.

DISCHARGER INFORMATION
DISCHARGER ID: 597897
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: GATX
ADDRESS: 2000 EAST SEPULVEDA
CARSON CA

DUN and BRADSTREET :

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 210 **DIST/DIR:** NON GC **MAP ID:**

NAME: HARBOR GENERATING STATION
ADDRESS: 161 N. ISLAND AVE.
WILMINGTON CA
LOS ANGELES
CONTACT:

REV: 12/31/06
ID1: NRC-820141
ID2:
STATUS: STORAGE TANK
PHONE:

SITE INFORMATION

THIS INFORMATION WAS OBTAINED FROM THE NATIONAL RESPONSE CENTER

DATE RECEIVED: 12/6/2006 12:35:47 PM **DATE COMPLETE:** 12/6/2006 12:41:57 PM
CALL TAKER: **CALL TYPE:** DRL

RESPONSIBLE PARTY:
PHONE 1:
PHONE 2:
PHONE 3:

RESPONSIBLE COMPANY: DEPARTMENT OF WATER AND POWER
ORGANIZATION TYPE: PRIVATE ENTERPRISE

ADDRESS:
LOS ANGLES CA 90012

SOURCE: TELEPHONE

INCIDENT INFORMATION

INCIDENT DESCRIPTION: ///DRILL/// 2300 GALLONS OF DISTILLATE FUEL OIL DISCHARGED FROM A STORAGE TANK INTO THE STREET AND TOWARDS A STORM DRAIN DUE TO UNKNOWN CAUSES.

INCIDENT TYPE:	STORAGE TANK	**INCIDENT CAUSE:**	UNKNOWN
INCIDENT DATE:	12/6/2006 9:07:00 AM	**INCIDENT DATE DESC:**	OCCURRED
DISTANCE FROM CITY:		**DISTANCE UNITS:**	
DIRECTION FROM CITY:		**LOCATION SECTION:**	
LOCATION TOWNSHIP:		**LOCATION RANGE:**	
AIRCRAFT TYPE:		**AIRCRAFT MODEL:**	
AIRCRAFT ID:		**AIRCRAFT FUEL CAPACITY:**	
AIRCRAFT FUEL CAPACITY UNITS:		**AIRCRAFT FUEL ON BOARD:**	
AIRCRAFT FUEL ON BOARD UNITS:		**AIRCRAFT SPOT NUMBER:**	
AIRCRAFT HANGER:		**AIRCRAFT RUNWAY NUM:**	
ROAD MILE MARKER:		**BUILDING ID:**	
TYPE OF FIXED OBJECT:		**POWER GEN FACILITY:**	UNKNOWN
GENERATING CAPACITY:		**TYPE OF FUEL:**	
NPDES:		**NPDES COMPLIANCE:**	UNKNOWN
PIPELINE TYPE:		**DOT REGULATED:**	UNKNOWN
PIPELINE ABOVE GROUND:	ABOVE	**EXPOSED UNDERWATER:**	NO
PIPELINE COVERED:	UNKNOWN	**GRADE CROSSING:**	UNKNOWN
LOCATION SUBDIVISION:		**RAILROAD MILEPOST:**	
TYPE VEHICLE INVOLVED:		**CROSSING DEVICE TYPE:**	
DEVICE OPERATIONAL:	YES		
DOT CROSSING NUMBER:		**BRAKE FAILURE:**	UNKNOWN

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 210 **DIST/DIR:** NON GC **MAP ID:**

NAME:	HARBOR GENERATING STATION	**REV:**	12/31/06
ADDRESS:	161 N. ISLAND AVE.	**ID1:**	NRC-820141
	WILMINGTON CA	**ID2:**	
	LOS ANGELES	**STATUS:**	STORAGE TANK
CONTACT:		**PHONE:**	

TANK ABOVE GROUND:	ABOVE	**TRANSPORTABLE CONTAINER:**	UNKNOWN
TANK REGULATED:	UNKNOWN	**TANK REGULATED BY:**	
TANK ID:		**CAPACITY OF TANK:**	
CAPACITY OF TANK UNITS:		**ACTUAL AMOUNT:**	
ACTUAL AMOUNT UNITS:		**PLATFORM RIG NAME:**	
PLATFORM LETTER:		**LOCATION AREA ID:**	
LOCATION BLOCK ID:			

DESCRIPTION OF TANK: STORAGE TANK

OCSG NUMBER:		**OCSP NUMBER:**	
STATE LEASE NUMBER:		**PIER DOCK NUMBER:**	
BERTH SLIP NUMBER:		**CONTIN RELEASE TYPE:**	
INITIAL CONT RELEASE NUM:		**CONT RELEASE PERMIT:**	
ALLISION:	UNKNOWN	**TYPE OF STRUCTURE:**	
STRUCTURE NAME:		**STRUCT OPERATIONAL:**	UNKNOWN
AIRBAG DEPLOYED:	UNKNOWN	**DATE NORMAL SERVICE:**	
SERVICE DISRUPT TIME:		**SERVICE DISRUPT UNITS:**	
TRANSIT BUS FLAG:		**CR BEGIN DATE:**	
CR END DATE:		**CR CHANGE DATE:**	

FIRE INVOLVED:	NO	**FIRE EXTINGUISHED:**	UNKNOWN
ANY EVACUATIONS:	NO	**NUMBER EVACUATED:**	
WHO EVACUATED:		**RADIUS OF EVACUATION:**	
ANY INJURIES:	NO	**NUMBER INJURED:**	
NUMBER HOSPITALIZED:		**ANY FATALITIES:**	NO
NUMBER FATALITIES:		**ANY DAMAGES:**	NO
DAMAGE AMOUNT:		**AIR CORRIDOR CLOSED:**	NO
AIR CORRIDOR DESC:		**AIR CLOSURE TIME:**	
WATERWAY CLOSED:	NO	**WATERWAY DESC:**	
WATERWAY CLOSURE TIME:		**ROAD CLOSED:**	NO
ROAD DESC:		**ROAD CLOSURE TIME:**	
CLOSURE DIRECTION:		**MAJOR ARTERY:**	NO

TRACK CLOSED:	NO	**TRACK DESC:**	
TRACK CLOSURE TIME:		**MEDIA INTEREST:**	NONE
MEDIUM DESC:	LAND	**ADDTL MEDIUM INFO:**	INTO THE STREET
BODY OF WATER:		**TRIBUTARY OF:**	
NEAREST RIVER MILE MARK:		**RELEASE SECURED:**	YES
EST DUR OF RELEASE:		**RELEASE RATE:**	
TRACK CLOSE DIR:		**ST AGENCY ON SCENE:**	
ST AGENCY RPT NUM:		**OTHER AGENCY NOTIFIED:**	
WEATHER CONDITIONS:	CLEAR	**AIR TEMPERATURE:**	68
WIND SPEED:		**WIND DIRECTION:**	
WATER SUPPLY CONTAM:	UNKNOWN	**SHEEN SIZE:**	
SHEEN COLOR:		**DIR OF SHEEN TRAVEL:**	
SHEEN ODOR DESCRIPTION:		**WAVE CONDITION:**	
CURRENT SPEED:		**CURRENT DIRECTION:**	
WATER TEMPERATURE:			

DESC OF REMEDIAL ACTION: RESPONSE CREWS ARE RESPONDING,CLEAN UP UNDERWAY

EMPL FATALITY: **PASS FATALITY:**

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 210 **DIST/DIR:** NON GC **MAP ID:**

NAME:	HARBOR GENERATING STATION	**REV:**	12/31/06
ADDRESS:	161 N. ISLAND AVE.	**ID1:**	NRC-820141
	WILMINGTON CA	**ID2:**	
	LOS ANGELES	**STATUS:**	STORAGE TANK
CONTACT:		**PHONE:**	

COMMUNITY IMPACT:	NO	**WIND SPEED UNITS:**	
EMPLOYEE INJURIES:		**PASSENGER INJURIES:**	
OCCUPANT FATALITY:		**CURRENT SPEED UNITS:**	
ROAD CLOSURE UNITS:		**TRACK CLOSURE UNITS:**	
SHEEN SIZE UNITS:		**STATE AGENCY NOTIFIED:**	NONE
FED AGENCY NOTIFIED:	NONE	**NEAREST RIVER MILE MARK:**	
SHEEN SIZE LENGTH:		**SHEEN SIZE LENGTH UNITS:**	
SHEEN SIZE WIDTH:		**SHEEN SIZE WIDTH UNITS:**	
OFFSHORE:	N	**DURATION UNIT:**	
RELEASE RATE UNIT:		**RELEASE RATE RATE:**	

ADDITIONAL INFO: ///DRILL/// OES,CG, FandG AND REGIONAL QUALITY CONTROL BOARD

MATERIAL INFORMATION

CHRIS CODE:	NCC	**CASE NUMBER:**	000000-00-0
UN NUMBER:		**REACHED WATER:**	NO

NAME OF MATERIAL: DISTILLATE FUEL OIL
AMOUNT OF MATERIAL: 2300 GALLON(S)
AMOUNT IN WATER:

OTHER MATERIAL INFORMATION

MOBILE DETAILS INFORMATION

TRAIN INFORMATION

VESSEL INFORMATION

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 211 **DIST/DIR:** NON GC **MAP ID:**

NAME:	HARBOR GENERATION STATION	**REV:**	12/31/03
ADDRESS:	161 NORTH ISLAND AVE	**ID1:**	NRC-705883
	WILMINGTON CA	**ID2:**	
	LOS ANGELES	**STATUS:**	FIXED
CONTACT:	JOSEFA ESPARRAGO	**PHONE:**	2133670287

SITE INFORMATION

THIS INFORMATION WAS OBTAINED FROM THE NATIONAL RESPONSE CENTER

DATE RECEIVED: 11/20/2003 12:36:31 PM **DATE COMPLETE:** 11/20/2003 12:45:44 PM
CALL TAKER: NXR7436 **CALL TYPE:** DRL

RESPONSIBLE PARTY: JOSEFA ESPARRAGO
PHONE 1: 2133670287 PRIMARY
PHONE 2:
PHONE 3:

RESPONSIBLE COMPANY: LOS ANGELES DEPT OF WATER AND POWER
ORGANIZATION TYPE: LOCAL GOVERNMENT

ADDRESS: 111 NORTH HOPE ST.
LOS ANGELES CA 90012

SOURCE: TELEPHONE

INCIDENT INFORMATION

INCIDENT DESCRIPTION: ////DRILL////CALLER STATED THAT OIL LEAKED FROM A UNIT ON THE MAIN BANK DUE TO UNKNOWN CAUSES.

INCIDENT TYPE:	FIXED	**INCIDENT CAUSE:**	UNKNOWN
INCIDENT DATE:	11/20/2003 9:00:00 AM	**INCIDENT DATE DESC:**	OCCURRED
DISTANCE FROM CITY:		**DISTANCE UNITS:**	
DIRECTION FROM CITY:		**LOCATION SECTION:**	
LOCATION TOWNSHIP:		**LOCATION RANGE:**	
AIRCRAFT TYPE:		**AIRCRAFT MODEL:**	
AIRCRAFT ID:		**AIRCRAFT FUEL CAPACITY:**	
AIRCRAFT FUEL CAPACITY UNITS:		**AIRCRAFT FUEL ON BOARD:**	
AIRCRAFT FUEL ON BOARD UNITS:		**AIRCRAFT SPOT NUMBER:**	
AIRCRAFT HANGER:		**AIRCRAFT RUNWAY NUM:**	
ROAD MILE MARKER:		**BUILDING ID:**	
TYPE OF FIXED OBJECT:	OTHER	**POWER GEN FACILITY:**	N
GENERATING CAPACITY:		**TYPE OF FUEL:**	
NPDES:		**NPDES COMPLIANCE:**	U
PIPELINE TYPE:		**DOT REGULATED:**	U
PIPELINE ABOVE GROUND:	ABOVE	**EXPOSED UNDERWATER:**	N
PIPELINE COVERED:	U	**GRADE CROSSING:**	N
LOCATION SUBDIVISION:		**RAILROAD MILEPOST:**	
TYPE VEHICLE INVOLVED:		**CROSSING DEVICE TYPE:**	
DEVICE OPERATIONAL:	Y		
DOT CROSSING NUMBER:		**BRAKE FAILURE:**	N

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 211 **DIST/DIR:** NON GC **MAP ID:**

NAME:	HARBOR GENERATION STATION	**REV:**	12/31/03
ADDRESS:	161 NORTH ISLAND AVE	**ID1:**	NRC-705883
	WILMINGTON CA	**ID2:**	
	LOS ANGELES	**STATUS:**	FIXED
CONTACT:	JOSEFA ESPARRAGO	**PHONE:**	2133670287

TANK ABOVE GROUND:	ABOVE	**TRANSPORTABLE CONTAINER:**	U
TANK REGULATED:	U	**TANK REGULATED BY:**	
TANK ID:		**CAPACITY OF TANK:**	
CAPACITY OF TANK UNITS:		**ACTUAL AMOUNT:**	
ACTUAL AMOUNT UNITS:		**PLATFORM RIG NAME:**	
PLATFORM LETTER:		**LOCATION AREA ID:**	
LOCATION BLOCK ID:			

DESCRIPTION OF TANK:

OCSG NUMBER:		**OCSP NUMBER:**	
STATE LEASE NUMBER:		**PIER DOCK NUMBER:**	
BERTH SLIP NUMBER:		**CONTIN RELEASE TYPE:**	
INITIAL CONT RELEASE NUM:		**CONT RELEASE PERMIT:**	
ALLISION:	N	**TYPE OF STRUCTURE:**	
STRUCTURE NAME:		**STRUCT OPERATIONAL:**	U
AIRBAG DEPLOYED:		**DATE NORMAL SERVICE:**	
SERVICE DISRUPT TIME:		**SERVICE DISRUPT UNITS:**	
TRANSIT BUS FLAG:		**CR BEGIN DATE:**	
CR END DATE:		**CR CHANGE DATE:**	
FIRE INVOLVED:	N	**FIRE EXTINGUISHED:**	U
ANY EVACUATIONS:	N	**NUMBER EVACUATED:**	
WHO EVACUATED:		**RADIUS OF EVACUATION:**	
ANY INJURIES:	N	**NUMBER INJURED:**	
NUMBER HOSPITALIZED:		**ANY FATALITIES:**	N
NUMBER FATALITIES:		**ANY DAMAGES:**	N
DAMAGE AMOUNT:		**AIR CORRIDOR CLOSED:**	N
AIR CORRIDOR DESC:		**AIR CLOSURE TIME:**	
WATERWAY CLOSED:	N	**WATERWAY DESC:**	
WATERWAY CLOSURE TIME:		**ROAD CLOSED:**	N
ROAD DESC:		**ROAD CLOSURE TIME:**	
CLOSURE DIRECTION:		**MAJOR ARTERY:**	N
TRACK CLOSED:	N	**TRACK DESC:**	
TRACK CLOSURE TIME:		**MEDIA INTEREST:**	NONE
MEDIUM DESC:	LAND	**ADDTL MEDIUM INFO:**	
BODY OF WATER:		**TRIBUTARY OF:**	
NEAREST RIVER MILE MARK:		**RELEASE SECURED:**	N
EST DUR OF RELEASE:		**RELEASE RATE:**	2
TRACK CLOSE DIR:		**ST AGENCY ON SCENE:**	
ST AGENCY RPT NUM:	03-6020	**OTHER AGENCY NOTIFIED:**	
WEATHER CONDITIONS:	OVERCAST	**AIR TEMPERATURE:**	70
WIND SPEED:		**WIND DIRECTION:**	
WATER SUPPLY CONTAM:	U	**SHEEN SIZE:**	
SHEEN COLOR:		**DIR OF SHEEN TRAVEL:**	
SHEEN ODOR DESCRIPTION:		**WAVE CONDITION:**	
CURRENT SPEED:		**CURRENT DIRECTION:**	
WATER TEMPERATURE:			

DESC OF REMEDIAL ACTION: UNKNOWN

EMPL FATALITY: **PASS FATALITY:**

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 211 **DIST/DIR:** NON GC **MAP ID:**

NAME:	HARBOR GENERATION STATION	**REV:**	12/31/03
ADDRESS:	161 NORTH ISLAND AVE	**ID1:**	NRC-705883
	WILMINGTON CA	**ID2:**	
	LOS ANGELES	**STATUS:**	FIXED
CONTACT:	JOSEFA ESPARRAGO	**PHONE:**	2133670287

COMMUNITY IMPACT:	N	**WIND SPEED UNITS:**	
EMPLOYEE INJURIES:		**PASSENGER INJURIES:**	
OCCUPANT FATALITY:		**CURRENT SPEED UNITS:**	
ROAD CLOSURE UNITS:		**TRACK CLOSURE UNITS:**	
SHEEN SIZE UNITS:		**STATE AGENCY NOTIFIED:**	OES
FED AGENCY NOTIFIED:		**NEAREST RIVER MILE MARK:**	
SHEEN SIZE LENGTH:		**SHEEN SIZE LENGTH UNITS:**	
SHEEN SIZE WIDTH:		**SHEEN SIZE WIDTH UNITS:**	
OFFSHORE:	N	**DURATION UNIT:**	
RELEASE RATE UNIT:	GALLON(S)	**RELEASE RATE RATE:**	MINUTE

ADDITIONAL INFO: ////DRILL////CALLER HAD NO FURTHER INFORMATION.

MATERIAL INFORMATION

CHRIS CODE:	OUN	**CASE NUMBER:**	000000-00-0
UN NUMBER:		**REACHED WATER:**	UNKNOWN

NAME OF MATERIAL: UNKNOWN OIL
AMOUNT OF MATERIAL: 0 UNKNOWN AMOUNT
AMOUNT IN WATER: 0 UNKNOWN AMOUNT

OTHER MATERIAL INFORMATION

MOBILE DETAILS INFORMATION

TRAIN INFORMATION

VESSEL INFORMATION

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 213 **DIST/DIR:** NON GC **MAP ID:**

NAME: SOUTHERN PACIFIC RAILROAD
ADDRESS: HARBOR FREEWAY AT SOUTHERN PACIFIC OVERPASS/FIGUER
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 12/7/92
ID1: 297649
ID2:
STATUS: RAILROAD
PHONE:

SPILL INFORMATION
DATE OF SPILL: 12/7/1992 **TIME OF SPILL:** 1300

PRODUCT RELEASED (1): SODIUM HYDROXIDE SOLUTION
QUANTITY (1): 0
UNITS (1): UNK

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE:

SPILL INFORMATION
DATE OF SPILL: 12/7/1992 **TIME OF SPILL:** 1300

PRODUCT RELEASED (1): SODIUM HYDROXIDE SOLUTION
QUANTITY (1): 0
UNITS (1): UNK

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE:

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** NO
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: NO SPILLAGE
RELEASE DETECTION: TANK CAR 4 CARS DERAILED TOTAL OF 5 CARS INVOLVED PLUS ENGINE and CABOSE.

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 213 **DIST/DIR:** NON GC **MAP ID:**

NAME: SOUTHERN PACIFIC RAILROAD
ADDRESS: HARBOR FREEWAY AT SOUTHERN PACIFIC OVERPASS/FIGUER
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 12/7/92
ID1: 297649
ID2:
STATUS: RAILROAD
PHONE:

MISC. NOTES: SUSPECT UNDERGROUND TANK OF GAS STATION IS LEAKING. NOTIFIED LA CITY FIRE

DISCHARGER INFORMATION

DISCHARGER ID: 297649
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: SOUTHERN PACIFIC RAILROAD
ADDRESS: 1515 ARAPAHOE
DENVER CO 80202-

DUN and BRADSTREET :

CAUSE OF RELEASE

DUMPING:	NO	**EQUIPMENT FAILURE:**	NO
NATURAL PHENOMENON:	NO	**OPERATOR ERROR:**	NO
OTHER CAUSE:	NO	**TRANSP. ACCIDENT:**	NO
UNKNOWN:	NO		

ACTIONS TAKEN: NO SPILLAGE
RELEASE DETECTION: TANK CAR 4 CARS DERAILED TOTAL OF 5 CARS INVOLVED PLUS ENGINE and CABOSE.
MISC. NOTES: SUSPECT UNDERGROUND TANK OF GAS STATION IS LEAKING. NOTIFIED LA CITY FIRE

DISCHARGER INFORMATION

DISCHARGER ID: 297649
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: SOUTHERN PACIFIC RAILROAD
ADDRESS: 1515 ARAPAHOE
DENVER CO 80202-

DUN and BRADSTREET :

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

SPILLS

SEARCH ID: 242 **DIST/DIR:** NON GC **MAP ID:**

NAME: WILMINGTON TOWN LOT 038
ADDRESS: MCDONALD AVE
WILMINGTON CA 90744
CONTACT:

REV: 11/06/07
ID1: G_SLT43404402
ID2:
STATUS:
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

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LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *MANJULIKA CHAKRABARTI*
LEAD AGENCY CASE NUMBER: *0655B3*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded):
RECENT DTW:
STATUS:

SPILLS

SEARCH ID: 241 **DIST/DIR:** NON GC **MAP ID:**

NAME: WILMINGTON TOWN LOT 033
ADDRESS: MCDONALD AVE
WILMINGTON CA 90744
CONTACT:

REV: 11/06/07
ID1: G_SLT43401399
ID2:
STATUS:
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

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LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *MANJULIKA CHAKRABARTI*
LEAD AGENCY CASE NUMBER: *0655A9*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded):
RECENT DTW:
STATUS:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

SPILLS

SEARCH ID: 239 **DIST/DIR:** NON GC **MAP ID:**

NAME: ACTA PARCEL LBX-880
ADDRESS: SOUTHERN PACIFIC
WILMINGTON CA
CONTACT:

REV: 11/06/07
ID1: G_SL0603774154
ID2:
STATUS:
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

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LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *SU HAN*
LEAD AGENCY CASE NUMBER: *0747K9*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded):
RECENT DTW:
STATUS: *Case Closed*

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 214 **DIST/DIR:** NON GC **MAP ID:**

NAME: TB PROPERTIES
ADDRESS: WILMINGTON OIL FIELD, COMMON LINE BETWEEN WELL 1,
WILMINGTON CA
Los Angeles
CONTACT:

REV: 2/25/96
ID1: 493245
ID2:
STATUS: FIXED FACILITY
PHONE:

SPILL INFORMATION

DATE OF SPILL: 2/25/1996 **TIME OF SPILL:** 1500

PRODUCT RELEASED (1): OIL:CRUDE
QUANTITY (1): 5
UNITS (1): BBL

PRODUCT RELEASED (2): PRODUCED WATER
QUANTITY (2): 5
UNITS (2): BBL

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED

AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE:

CAUSE OF RELEASE

DUMPING: NO **EQUIPMENT FAILURE:** YES
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: TB PROPERTIES TO C/U
RELEASE DETECTION: COMMON LINE TO TANK FARM PLUGGED UP CAUSING STUFFING BOXES TO BLOW
MISC. NOTES:

DISCHARGER INFORMATION

DISCHARGER ID: 493245 **DUN and BRADSTREET :**
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: TB PROPERTIES
ADDRESS:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 206 **DIST/DIR:** NON GC **MAP ID:**

NAME:	EXXON/J MARCHESSI	**REV:**	
ADDRESS:	N OF M ST BETWEEN AVALON and BROAD	**ID1:**	117298
	WILMINGTON CA	**ID2:**	
	Los Angeles	**STATUS:**	UNKNOWN
CONTACT:		**PHONE:**	

THERE ARE NO DETAILS AVAILABLE FOR THIS SITE

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 203 **DIST/DIR:** NON GC **MAP ID:**

NAME: DEDICATED TRANSPORT
ADDRESS: 91 FREEWAY AT WILMINGTON
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 1/4/91
ID1: 200761
ID2:
STATUS: HIGHWAY RELATED
PHONE:

SPILL INFORMATION
DATE OF SPILL: 1/4/1991 **TIME OF SPILL:** 0200

PRODUCT RELEASED (1): GASOLINE
QUANTITY (1): 1000
UNITS (1): GAL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: NONE

SPILL INFORMATION
DATE OF SPILL: 1/4/1991 **TIME OF SPILL:** 0200

PRODUCT RELEASED (1): GASOLINE
QUANTITY (1): 1000
UNITS (1): GAL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: NONE

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** NO
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** YES
UNKNOWN: NO

ACTIONS TAKEN: IT COPR HANDLING CLEANUP
RELEASE DETECTION: TRAFFIC ACCIDENT - OVERTURNED TANKER

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 203 **DIST/DIR:** NON GC **MAP ID:**

NAME: DEDICATED TRANSPORT
ADDRESS: 91 FREEWAY AT WILMINGTON
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 1/4/91
ID1: 200761
ID2:
STATUS: HIGHWAY RELATED
PHONE:

MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 200761
TYPE OF DISCHARGER: PRIVATE CITIZEN
NAME OF DISCHARGER: DEDICATED TRANSPORT
ADDRESS: 5711 MAYWOOD AVENUE
MAYWOOD CA 90271-

DUN and BRADSTREET :

CAUSE OF RELEASE

DUMPING:	NO	**EQUIPMENT FAILURE:**	NO
NATURAL PHENOMENON:	NO	**OPERATOR ERROR:**	NO
OTHER CAUSE:	NO	**TRANSP. ACCIDENT:**	YES
UNKNOWN:	NO		

ACTIONS TAKEN: IT COPR HANDLING CLEANUP
RELEASE DETECTION: TRAFFIC ACCIDENT - OVERTURNED TANKER
MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 200761
TYPE OF DISCHARGER: PRIVATE CITIZEN
NAME OF DISCHARGER: DEDICATED TRANSPORT
ADDRESS: 5711 MAYWOOD AVENUE
MAYWOOD CA 90271-

DUN and BRADSTREET :

Environmental FirstSearch Descriptions

NPL: ***EPA*** NATIONAL PRIORITY LIST - The National Priorities List is a list of the worst hazardous waste sites that have been identified by Superfund. Sites are only put on the list after they have been scored using the Hazard Ranking System (HRS), and have been subjected to public comment. Any site on the NPL is eligible for cleanup using Superfund Trust money.
A Superfund site is any land in the United States that has been contaminated by hazardous waste and identified by the Environmental Protection Agency (EPA) as a candidate for cleanup because it poses a risk to human health and/or the environment.
FINAL - Currently on the Final NPL
PROPOSED - Proposed for NPL

NPL DELISTED: ***EPA*** NATIONAL PRIORITY LIST Subset - Database of delisted NPL sites. 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.
DELISTED - Deleted from the Final NPL

CERCLIS: ***EPA*** COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM (CERCLIS)- CERCLIS is a database of potential and confirmed hazardous waste sites at which the EPA Superfund program has some involvement. It contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL.
PART OF NPL- Site is part of NPL site
DELETED - Deleted from the Final NPL
FINAL - Currently on the Final NPL
NOT PROPOSED - Not on the NPL
NOT VALID - Not Valid Site or Incident
PROPOSED - Proposed for NPL
REMOVED - Removed from Proposed NPL
SCAN PLAN - Pre-proposal Site
WITHDRAWN - Withdrawn

NFRAP: ***EPA*** COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM ARCHIVED SITES - database of Archive designated CERCLA sites that, to the best of EPA's knowledge, assessment has been completed and has determined no further steps will be taken to list this site on the National Priorities List (NPL). This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.
NFRAP – No Further Remedial Action Plan
P - Site is part of NPL site
D - Deleted from the Final NPL
F - Currently on the Final NPL
N - Not on the NPL
O - Not Valid Site or Incident
P - Proposed for NPL
R - Removed from Proposed NPL
S - Pre-proposal Site
W – Withdrawn

RCRA COR ACT: ***EPA*** RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.
RCRAInfo facilities that have reported violations and subject to corrective actions.

RCRA TSD: ***EPA*** RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM

TREATMENT, STORAGE, and DISPOSAL FACILITIES. - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.
Facilities that treat, store, dispose, or incinerate hazardous waste.

RCRA GEN: ***EPA*** RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM GENERATORS - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.
Facilities that generate or transport hazardous waste or meet other RCRA requirements.
LGN - Large Quantity Generators
SGN - Small Quantity Generators
VGN – Conditionally Exempt Generator.
Included are RAATS (RCRA Administrative Action Tracking System) and CMEL (Compliance Monitoring & Enforcement List) facilities.

RCRA NLR: ***EPA*** RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.
Facilities not currently classified by the EPA but are still included in the RCRAInfo database. Reasons for non classification:
Failure to report in a timely matter.
No longer in business.
No longer in business at the listed address.
No longer generating hazardous waste materials in quantities which require reporting.

Federal IC / EC: ***EPA*** BROWNFIELD MANAGEMENT SYSTEM (BMS) - database designed to assist EPA in collecting, tracking, and updating information, as well as reporting on the major activities and accomplishments of the various Brownfield grant Programs.
FEDERAL ENGINEERING AND INSTITUTIONAL CONTROLS- Superfund sites that have either an engineering or an institutional control. The data includes the control and the media contaminated.

ERNS: ***EPA/NRC*** EMERGENCY RESPONSE NOTIFICATION SYSTEM (ERNS) - Database of incidents reported to the National Response Center. These incidents include chemical spills, accidents involving chemicals (such as fires or explosions), oil spills, transportation accidents that involve oil or chemicals, releases of radioactive materials, sightings of oil sheens on bodies of water, terrorist incidents involving chemicals, incidents where illegally dumped chemicals have been found, and drills intended to prepare responders to handle these kinds of incidents. Data since January 2001 has been received from the National Response System database as the EPA no longer maintains this data.

Tribal Lands: ***DOI/BIA*** INDIAN LANDS OF THE UNITED STATES - Database of areas with boundaries established by treaty, statute, and (or) executive or court order, recognized by the Federal Government as territory in which American Indian tribes have primary governmental authority. The Indian Lands of the United States map layer shows areas of 640 acres or more, administered by the Bureau of Indian Affairs. Included are Federally-administered lands within a reservation which may or may not be considered part of the reservation.

State/Tribal Sites: ***CA EPA*** SMBRPD / CAL SITES- The California Department of Toxic Substances Control (DTSC) has developed an electronic database system with information about sites that are known to be contaminated with hazardous substances as well as information on uncharacterized properties where further studies may reveal problems. The Site Mitigation and Brownfields Reuse Program Database (SMBRPD), also known as CalSites, is used primarily by DTSC's staff as an informational tool to evaluate and track activities at

properties that may have been affected by the release of hazardous substances.
The SMBRPD displays information in six categories. The categories are:
1. CalSites Properties (CS)
2. School Property Evaluation Program Properties (SCH)
3. Voluntary Cleanup Program Properties (VCP)
4. Unconfirmed Properties Needing Further Evaluation (RFE)
Please Note: FirstSearch Reports list the above sites as DB Type (STATE).
5. Unconfirmed Properties Referred to Another Local or State Agency (REF)
6. Properties where a No Further Action Determination has been made (NFA)
Please Note: FirstSearch Reports list the above sites as DB Type (OTHER).
Each Category contains information on properties based upon the type of work taking place at the site. For example, the CalSites database is now one of the six categories within SMPBRD and contains only confirmed sites considered as posing the greatest threat to the public and/or the potential public school sites will be found within the School Property Evaluation Program, and those properties undergoing voluntary investigation and/or cleanup are in the Voluntary Cleanup Program.
CORTESE LIST-Pursuant to Government Code Section 65962.5, the Hazardous Waste and Substances Sites List has been compiled by Cal/EPA, Hazardous Materials Data Management Program. The CAL EPA Dept. of Toxic Substances Control compiles information from subsets of the following databases to make up the CORTESE list:
1. The Dept. of Toxic Substances Control; contaminated or potentially contaminated hazardous waste sites listed in the CAL Sites database. Formerly known as ASPIS are included (CALSITES formerly known as ASPIS).
2. The California State Water Resources Control Board; listing of Leaking Underground Storage Tanks are included (LTANK)
3. The California Integrated Waste Management Board; Sanitary Landfills which have evidence of groundwater contamination or known migration of hazardous materials (formerly WB-LF, now AB 3750).
Note: Track Info Services collects each of the above data sets individually and lists them separately in the following First Search categories in order to provide more current and comprehensive information: CALSITES: SPL, LTANK: LUST, WB-LF: SWL

State Spills 90: ***CA EPA*** SLIC REGIONS 1 - 9- The California Regional Water Quality Control Boards maintain report of sites that have records of spills, leaks, investigation, and cleanups.

State/Tribal SWL: ***CA IWMB/SWRCB/COUNTY*** SWIS SOLID WASTE INFORMATION SYSTEM-The California Integrated Waste Management Board maintains a database on solid waste facilities, operations, and disposal sites throughout the state of California. The types of facilities found in this database include landfills, transfer stations, material recovery facilities, composting sites, transformation facilities, waste tire sites, and closed disposal sites. For more information on individual sites call the number listed in the source field..
Please Note: This database contains poor site location information for many sites in the First Search reports; therefore, it may not be possible to locate or plot some sites in First Search reports.
WMUDS-The State Water Resources Control Board maintained the Waste Management Unit Database System (WMUDS). It is no longer updated. It tracked management units for several regulatory programs related to waste management and its potential impact on groundwater. Two of these programs (SWAT & TPCA) are no longer on-going regulatory programs as described below. Chapter 15 (SC15) is still an on-going regulatory program and information is updated periodically but not to the WMUDS database. The WMUDS System contains information from the following agency databases: Facility, Waste Management Unit (WMU), Waste Discharger System (WDS), SWAT, Chapter 15, TPCA, RCRA, Inspections, Violations, and Enforcement's.
Note: This database contains poor site location information for many sites in the First Search reports; therefore, it may not be possible to locate or plot some sites in First Search reports.
ORANGE COUNTY LANDFILLS LIST- A list maintained by the Orange County Health Department.

State/Tribal LUST: ***CA SWRCB/COUNTY*** LUSTIS- The State Water Resources Control Board maintains a database of sites with confirmed or unconfirmed leaking underground storage tanks. Information for this database is collected from the states regional boards quarterly and integrated with this database.
SAN DIEGO COUNTY LEAKING TANKS- The San Diego County Department of Environmental Health maintains a database of sites with confirmed or unconfirmed leaking underground storage tanks within its HE17/58 database. For more information on a specific file call the HazMat Duty Specialist at phone number listed in the source information field.

State/Tribal UST/AST: ***CA EPA/COUNTY/CITY*** ABOVEGROUND STORAGE TANKS LISTING-The Above Ground Petroleum Storage Act became State Law effective January 1, 1990. In general, the law requires owners or operators of AST's with petroleum products to file a storage statement and pay a fee by July 1, 1990 and every two years thereafter, take specific action to prevent spills, and in certain instances implement a

groundwater monitoring program. This law does not apply to that portion of a tank facility associated with the production oil and regulated by the State Division of Oil and Gas of the Dept. of Conservation.
SWEEPS / FIDS STATE REGISTERED UNDEGROUND STORAGE TANKS- Until 1994 the State Water Resources Control Board maintained a database of registered underground storage tanks statewide referred to as the SWEEPS System. The SWEEPS UST information was integrated with the CAL EPA's Facility Index System database (FIDS) which is a master index of information from numerous California agency environmental databases. That was last updated in 1994. Track Info Services included the UST information from the FIDS database in its First Search reports for historical purposes to help its clients identify where tanks may possibly have existed. For more information on specific sites from individual paper files archived at the State Water Resources Control Board call the number listed with the source information.
INDIAN LANDS UNDERGROUND STORAGE TANKS LIST- A listing of underground storage tanks currently on Indian Lands under federal jurisdiction. California Indian Land USTS are administered by US EPA Region 9.
CUPA DATABASES & SOURCES- Definition of a CUPA: A Certified Unified Program Agency (CUPA) is a local agency that has been certified by the CAL EPA to implement six state environmental programs within the local agency's jurisdiction. These can be a county, city, or JPA (Joint Powers Authority). This program was established under the amendments to the California Health and Safety Code made by SB 1082 in 1994.
A Participating Agency (PA) is a local agency that has been designated by the local CUPA to administer one or more Unified Programs within their jurisdiction on behalf of the CUPA. A Designated Agency (DA) is an agency that has not been certified by the CUPA but is the responsible local agency that would implement the six unified programs until they are certified.
Please Note: Track Info Services, LLC collects and maintains information regarding Underground Storage Tanks from majority of the CUPAS and Participating Agencies in the State of California. These agencies typically do not maintain nor release such information on a uniform or consistent schedule; therefor, currency of the data may vary. Please look at the details on a specific site with a UST record in the First Search Report to determine the actual currency date of the record as provided by the relevant agency. Numerous efforts are made on a regular basis to obtain updated records.

State/Tribal IC: ***CA EPA*** DEED-RESTRICTED SITES LISTING- The California EPA's Department of Toxic Substances Control Board maintains a list of deed-restricted sites, properties where the DTSC has placed limits or requirements on the future use of the property due to varying levels of cleanup possible, practical or necessary at the site.

State/Tribal VCP: ***CA EPA*** SMBRPD / CAL SITES- The California Department of Toxic Substances Control (DTSC) has developed an electronic database system with information about sites that are known to be contaminated with hazardous substances as well as information on uncharacterized properties where further studies may reveal problems. The Site Mitigation and Brownfields Reuse Program Database (SMBRPD), also known as CalSites, is used primarily by DTSC's staff as an informational tool to evaluate and track activities at properties that may have been affected by the release of hazardous substances.
The SMBRPD displays information in six categories. The categories are:
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2. School Property Evaluation Program Properties (SCH)
3. Voluntary Cleanup Program Properties (VCP)
4. Unconfirmed Properties Needing Further Evaluation (RFE)
5. Unconfirmed Properties Referred to Another Local or State Agency (REF)
6. Properties where a No Further Action Determination has been made (NFA)
Please Note: FirstSearch Reports list the above sites as DB Type VC. Each Category contains information on properties based upon the type of work taking place at the site. The VC category contains only those properties undergoing voluntary investigation and/or cleanup and which are listed in the Voluntary Cleanup Program.

RADON: ***NTIS*** NATIONAL RADON DATABASE - EPA radon data from 1990-1991 national radon project collected for a variety of zip codes across the United States.

State Permits: ***CA COUNTY*** SAN DIEGO COUNTY HE17 PERMITS- The HE17/58 database tracks establishments issued permits and the status of their permits in relation to compliance with federal, state, and local regulations that the County oversees. It tracks if a site is a hazardous waste generator, TSD, gas station, has underground tanks, violations, or unauthorized releases. For more information on a specific file call the HazMat Duty Specialist at the phone number listed in the source information field.
SAN BERNARDINO COUNTY HAZARDOUS MATERIALS PERMITS- Handlers and Generators Permit Information Maintained by the Hazardous Materials Division.

State Other: ***US DOJ*** NATIONAL CLANDESTINE LABORATORY REGISTER - Database of 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 U.S. Department of Justice ("the Department"), and the Department has not verified the entry and does not guarantee its accuracy. All sites that are included in this data set will have an id that starts with NCLR.

State Other: ***CA EPA/COUNTY*** SMBRPD / CAL SITES- The California Department of Toxic Substances Control (DTSC) has developed an electronic database system with information about sites that are known to be contaminated with hazardous substances as well as information on uncharacterized properties where further studies may reveal problems. The Site Mitigation and Brownfields Reuse Program Database (SMBRPD), also known as CalSites, is used primarily by DTSC's staff as an informational tool to evaluate and track activities at properties that may have been affected by the release of hazardous substances.
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3. Voluntary Cleanup Program Properties (VCP)
4. Unconfirmed Properties Needing Further Evaluation (RFE)
Please Note: FirstSearch Reports list the above sites as DB Type (STATE).
5. Unconfirmed Properties Referred to Another Local or State Agency (REF)
6. Properties where a No Further Action Determination has been made (NFA)
Please Note: FirstSearch Reports list the above sites as DB Type (OTHER).
Each Category contains information on properties based upon the type of work taking place at the site. For example, the CalSites database is now one of the six categories within SMPBRD and contains only confirmed sites considered as posing the greatest threat to the public and/or the potential public school sites will be found within the School Property Evaluation Program, and those properties undergoing voluntary investigation and/or cleanup are in the Voluntary Cleanup Program.
LA COUNTY SITE MITIGATION COMPLAINT CONTROL LOG- The County of Los Angeles Public Health Investigation Compliant Control Log.
ORANGE COUNTY INDUSTRIAL SITE CLEANUPS- List maintained by the Orange County Environmental Health Agency.
RIVERSIDE COUNTY WASTE GENERATORS-A list of facilities in Riverside County which generate hazardous waste.
SACRAMENTO COUNTY MASTER HAZMAT LIST-Master list of facilities within Sacramento County with potentially hazardous materials.
SACRAMENTO COUNTY TOXIC SITE CLEANUPS-A list of sites where unauthorized releases of potentially hazardous materials have occurred.

FI Map Coverage: ***PROPRIETARY*** FIRE INSURANCE MAP AVAILABILITY - Database of historical fire insurance map availability.

Environmental FirstSearch Database Sources

NPL: ***EPA*** Environmental Protection Agency

Updated quarterly

NPL DELISTED: ***EPA*** Environmental Protection Agency

Updated quarterly

CERCLIS: ***EPA*** Environmental Protection Agency

Updated quarterly

NFRAP: ***EPA*** Environmental Protection Agency.

Updated quarterly

RCRA COR ACT: ***EPA*** Environmental Protection Agency.

Updated quarterly

RCRA TSD: ***EPA*** Environmental Protection Agency.

Updated quarterly

RCRA GEN: ***EPA*** Environmental Protection Agency.

Updated quarterly

RCRA NLR: ***EPA*** Environmental Protection Agency

Updated quarterly

Federal IC / EC: ***EPA*** Environmental Protection Agency

Updated quarterly

ERNS: ***EPA/NRC*** Environmental Protection Agency

Updated semi-annually

Tribal Lands: ***DOI/BIA*** United States Department of the Interior

Updated annually

State/Tribal Sites: ***CA EPA*** The CAL EPA, Depart. Of Toxic Substances Control

Phone: (916) 323-3400

Updated quarterly/when available

State Spills 90: ***CA EPA*** The California State Water Resources Control Board

Updated when available

State/Tribal SWL: ***CA IWMB/SWRCB/COUNTY*** The California Integrated Waste Management Board
Phone:(916) 255-2331
The State Water Resources Control Board
Phone:(916) 227-4365
Orange County Health Department

Updated quarterly/when available

State/Tribal LUST: ***CA SWRCB/COUNTY*** The California State Water Resources Control Board
Phone:(916) 227-4416
San Diego County Department of Environmental Health

Updated quarterly/when available

State/Tribal UST/AST: ***CA EPA/COUNTY/CITY*** The State Water Resources Control Board
Phone:(916) 227-4364
CAL EPA Department of Toxic Substances Control
Phone:(916)227-4404
US EPA Region 9 Underground Storage Tank Program
Phone: (415) 972-3372
ALAMEDA COUNTY CUPAS:
* County of Alameda Department of Environmental Health
* Cities of Berkeley, Fremont, Hayward, Livermore / Pleasanton, Newark, Oakland, San Leandro, Union
ALPINE COUNTY CUPA:
* Health Department (Only updated by agency sporadically)
AMADOR COUNTY CUPA:
* County of Amador Environmental Health Department
BUTTE COUNTY CUPA
* County of Butte Environmental Health Division (Only updated by agency biannually)
CALAVERAS COUNTY CUPA:
* County of Calaveras Environmental Health Department
COLUSA COUNTY CUPA:
* Environmental Health Dept.
CONTRA COSTA COUNTY CUPA:
* Hazardous Materials Program
DEL NORTE COUNTY CUPA:
* Department of Health and Social Services
EL DORADO COUNTY CUPAS:
* County of El Dorado Environmental Health - Solid Waste Div (Only updated by agency annually)
* County of El Dorado EMD Tahoe Division (Only updated by agency annually)
FRESNO COUNTY CUPA:
* Haz. Mat and Solid Waste Programs
GLENN COUNTY CUPA:
* Air Pollution Control District
HUMBOLDT COUNTY CUPA:
* Environmental Health Division
IMPERIAL COUNTY CUPA:
* Department of Planning and Building
INYO COUNTY CUPA:
* Environmental Health Department

KERN COUNTY CUPA:
* County of Kern Environmental Health Department
* City of Bakersfield Fire Department
KINGS COUNTY CUPA:
* Environmental Health Services
LAKE COUNTY CUPA:
* Division of Environmental Health
LASSEN COUNTY CUPA:
* Department of Agriculture
LOS ANGELES COUNTY CUPAS:
* County of Los Angeles Fire Department CUPA Data as maintained by the Los Angeles County Department of Public Works
* County of Los Angeles Environmental Programs Division
* Cities of Burbank, El Segundo, Glendale, Long Beach/Signal Hill, Los Angeles,Pasadena, Santa Fe Springs, Santa Monica, Torrance, Vernon
MADERA COUNTY CUPA:
* Environmental Health Department
MARIN COUNTY CUPA:
* County of Marin Office of Waste Management
* City of San Rafael Fire Department
MARIPOSA COUNTY CUPA:
* Health Department
MENDOCINO COUNTY CUPA:
* Environmental Health Department
MERCED COUNTY CUPA:
* Division of Environmental Health
MODOC COUNTY CUPA:
* Department of Agriculture
MONO COUNTY CUPA:
* Health Department
MONTEREY COUNTY CUPA:
* Environmental Health Division
NAPA COUNTY CUPA:
* Hazardous Materials Section
NEVADA COUNTY CUPA:
* Environmental Health Department
ORANGE COUNTY CUPAS:
* County of Orange Environmental Health Department
* Cities of Anaheim, Fullerton, Orange, Santa Ana
* County of Orange Environmental Health Department
PLACER COUNTY CUPAS:
* County of Placer Division of Environmental Health Field Office
* Tahoe City
* City of Roseville Roseville Fire Department
PLUMAS COUNTY CUPA:
* Environmental Health Department
RIVERSIDE COUNTY CUPA:
* Environmental Health Department
SACRAMENTO COUNTY CUPA:
* County Environmental Mgmt Dept, Haz. Mat. Div.
SAN BENITO COUNTY CUPA:
* City of Hollister Environmental Service Department
SAN BERNARDINO COUNTY CUPAS:
* County of San Bernardino Fire Department, Haz. Mat. Div.
* City of Hesperia Hesperia Fire Prevention Department
*City of Victorville Victorville Fire Department
SAN DIEGO COUNTY CUPA:
* The San Diego County Dept. of Environmental Health HE 17/58
SAN FRANCISCO COUNTY CUPA:
* Department of Public Health
SAN JOAQUIN COUNTY CUPA:
* Environmental Health Division

SAN LUIS OBISPO COUNTY CUPAS:
* County of San Luis Obispo Environmental Health Division
* City of San Luis Obispo City Fire Department
SAN MATEO COUNTY CUPA:
* Environmental Health Department
SANTA BARBARA COUNTY CUPA:
* County Fire Dept Protective Services Division
SANTA CLARA COUNTY CUPAS:
* County of Santa Clara Hazardous Materials Compliance Division
* Santa Clara County Central Fire Protection District (Covers Campbell, Cupertino, Los Gatos, & Morgan Hill)
* Cities of Gilroy, Milpitas, Mountain View, Palo Alto, San Jose Fire, Santa Clara, Sunnyvale
SANTA CRUZ COUNTY CUPA:
* Environmental Health Department
SHASTA COUNTY CUPA:
* Environmental Health Department
SIERRA COUNTY CUPA:
* Health Department
SISKIYOU COUNTY CUPA:
* Environmental Health Department
SONOMA COUNTY CUPAS:
* County of Sonoma Department Of Environmental Health
* Cities of Healdsburg / Sebastopol, Petaluma, Santa Rosa
STANISLAUS COUNTY CUPA:
* Department of Environmental Resources Haz. Mat. Division
SUTTER COUNTY CUPA:
* Department of Agriculture
TEHAMA COUNTY CUPA:
* Department of Environmental Health
TRINITY COUNTY CUPA:
* Department of Health
TULARE COUNTY CUPA:
* Environmental Health Department
TUOLUMNE COUNTY CUPA:
* Environmental Health
VENTURA COUNTY CUPAS:
* County of Ventura Environmental Health Division
* Cities of Oxnard, Ventura
YOLO COUNTY CUPA:
* Environmental Health Department
YUBA COUNTY CUPA:

Updated quarterly/annually/when available

State/Tribal IC: ***CA EPA*** The California EPA Department of Toxic Substances Control.

Updated Updated quarterly/annually/when available

State/Tribal VCP: ***CA EPA*** The California EPA Department of Toxic Substances Control.

Updated Updated quarterly/annually/when available

RADON: ***NTIS*** Environmental Protection Agency, National Technical Information Services

Updated periodically

State Permits: ***CA COUNTY*** The San Diego County Depart. Of Environmental Health
Phone:(619) 338-2211
San Bernardino County Fire Department

Updated quarterly/when available

State Other: ***US DOJ*** U.S. Department of Justice

Updated when available

State Other: ***CA EPA/COUNTY*** The CAL EPA, Depart. Of Toxic Substances Control
Phone: (916) 323-3400
The Los Angeles County Hazardous Materials Division
Phone: (323) 890-7806
Orange County Environmental Health Agency
Phone: (714) 834-3536
Riverside County Department of Environmental Health, Hazardous Materials Management Division
Phone:(951) 358-5055
Sacramento County Environmental Management Department

Updated quarterly/when available

FI Map Coverage: ***PROPRIETARY*** Library of Congress
Catalogue of Maps Published by Sanborn Mapping and Geographic Information Service in February 1988®
ProQuest
Other internally produced datasets

Updated quarterly

Environmental FirstSearch
Street Name Report for Streets within .25 Mile(s) of Target Property

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

Street Name	Dist/Dir	Street Name	Dist/Dir
Bay View Ave	0.00 --	NORTH Marine Ave	0.00 --
Berth	0.18 SE	NORTH Mesa St	0.22 SE
Bonita St	0.24 SW	NORTH Neptune Ave	0.00 --
Broad Ave	0.00 --	NORTH Pacific Ave	0.00 --
C Walk	0.09 NW	NORTH Palos Verdes S	0.12 SW
Canal Ave	0.06 SE	NORTH Wilmington Blv	0.00 --
Canal St	0.00 --	Pacific Electric Rai	0.15 SE
D Ct	0.19 NW	Paraiso St	0.20 NW
D Walk	0.19 NW	Pier A St	0.00 --
E C St	0.00 --	Powell St	0.22 SW
E D St	0.10 N-	Quay Ave	0.15 -E
E E St	0.20 NW	Regan St	0.06 SE
E Harry Bridges Blvd	0.00 --	S Anacapa St	0.12 SE
E Water St	0.00 --	S Avalon Blvd	0.00 --
EAST C St	0.00 --	S Broad Ave	0.00 --
EAST D St	0.10 N-	S Fries Ave	0.00 --
EAST E St	0.20 NW	S la Paloma Ave	0.25 SE
EAST Harry Bridges B	0.00 --	S Neptune Ave	0.10 SE
EAST Water St	0.00 --	Shields Dr	0.04 SW
Figueroa St	0.00 --	SOUTH Anacapa St	0.12 SE
Frigate Ave	0.19 NW	SOUTH Avalon Blvd	0.00 --
Gatun St	0.17 NW	SOUTH Broad Ave	0.00 --
Harker St	0.21 SE	SOUTH Fries Ave	0.00 --
Hawaiian Ave	0.00 --	SOUTH la Paloma Ave	0.25 SE
I-110	0.01 NW	SOUTH Neptune Ave	0.10 SE
Island Ave	0.00 --	Swinford St	0.12 SE
John S Gibson Blvd	0.00 --	Viewland Pl	0.04 SE
Keel St	0.23 NE	Vincent Thomas Bridg	0.01 SE
King Ave	0.00 --	W A St	0.00 --
Knoll Dr	0.00 --	W Amar St	0.14 SW
Lagoon Ave	0.00 --	W Basin St	0.08 NW
Lakme Ave	0.08 -E	W Battery St	0.02 NW
Mar Vista Ave	0.00 --	W C St	0.00 --
McDonald Ave	0.00 --	W Capitol Dr	0.24 NW
Miraflores Ave	0.11 SW	W Channel St	0.00 --
N Avalon Blvd	0.00 --	W D St	0.10 NW
N Banning Blvd	0.22 NE	W E St	0.20 NW
N Beacon St	0.13 SE	W Elberon Ave	0.04 SW
N Cabrillo Ave	0.25 NW	W Harry Bridges Blvd	0.00 --
N Center St	0.04 SE	W Macarthur Ave	0.04 SW
N Centre St	0.18 SW	W O Farrell St	0.25 SW
N Fries Ave	0.00 --	W Ofarrell St	0.25 SW
N Front St	0.00 --	W Oliver St	0.19 SW
N Gaffey Pl	0.13 SW	W Summerland Ave	0.04 SW
N Gaffey St	0.06 -W	W Upland Ave	0.10 SW
N Grand Ave	0.05 SW	W Water St	0.00 --
N Gulf Ave	0.00 --	WEST A St	0.00 --
N Harbor Blvd	0.01 SE	WEST Amar St	0.14 SW

Environmental FirstSearch
Street Name Report for Streets within .25 Mile(s) of Target Property

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207374001

Street Name	Dist/Dir	Street Name	Dist/Dir
N Marine Ave	0.00 --	WEST Basin St	0.08 NW
N Mesa St	0.22 SE	WEST Battery St	0.02 NW
N Neptune Ave	0.00 --	WEST C St	0.00 --
N Pacific Ave	0.00 --	WEST Capitol Dr	0.24 NW
N Palos Verdes St	0.12 SW	WEST Channel St	0.00 --
N Wilmington Blvd	0.00 --	WEST D St	0.10 NW
Nissan Way	0.06 SE	WEST E St	0.20 NW
NORTH Avalon Blvd	0.00 --	WEST Elberon Ave	0.04 SW
NORTH Banning Blvd	0.22 NE	WEST Harry Bridges B	0.00 --
NORTH Beacon St	0.13 SE	WEST Macarthur Ave	0.04 SW
NORTH Cabrillo Ave	0.25 NW	WEST O Farrell St	0.25 SW
NORTH Center St	0.04 SE	WEST Ofarrell St	0.25 SW
NORTH Centre St	0.18 SW	WEST Oliver St	0.19 SW
NORTH Fries Ave	0.00 --	WEST Summerland Ave	0.04 SW
NORTH Front St	0.00 --	WEST Upland Ave	0.10 SW
NORTH Gaffey Pl	0.13 SW	WEST Water St	0.00 --
NORTH Gaffey St	0.06 -W	Wilmington San Pedro	0.00 --
NORTH Grand Ave	0.05 SW	Yacht St	0.14 SE
NORTH Gulf Ave	0.00 --		
NORTH Harbor Blvd	0.01 SE		

Environmental FirstSearch

1 Mile Radius from Area

Single Map:

HARRY BRIDGES BLVD, WILMINGTON CA 90744

Source: U.S. Census TIGER Files

Area Polygon ....

Identified Site, Multiple Sites, Receptor ....

NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste

Triballand...

Railroads ....

Environmental FirstSearch

.12 Mile Radius from Area

ASTM-05: Multiple Databases

HARRY BRIDGES BLVD, WILMINGTON CA 90744

Source: U.S. Census TIGER Files

Area Polygon .....

Identified Site, Multiple Sites, Receptor .....

NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste

Triballand.....

Railroads .....

TRACK INFO SERVICES, LLC

Environmental FirstSearch™ Report

Target Property:

HARRY BRIDGES BLVD

WILMINGTON CA 90744

Job Number: 207384001

PREPARED FOR:

Ninyo and Moore

475 Goddard, Suite 200

Irvine, CA 92618

05-16-08

Tel: (866) 664-9981 *Fax: (818) 249-4227*

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Environmental FirstSearch
Search Summary Report

Target Site: HARRY BRIDGES BLVD
WILMINGTON CA 90744

FirstSearch Summary

Database	Sel	Updated	Radius	Site	1/8	1/4	1/2	1/2>	ZIP	TOTALS
NPL	Y	04-07-08	0.12	0	0	-	-	-	0	0
NPL Delisted	Y	04-07-08	0.12	0	0	-	-	-	0	0
CERCLIS	Y	04-22-08	0.12	0	0	-	-	-	0	0
NFRAP	Y	04-22-08	0.12	0	2	-	-	-	1	3
RCRA COR ACT	Y	04-01-08	0.12	1	0	-	-	-	0	1
RCRA TSD	Y	04-01-08	0.12	1	0	-	-	-	0	1
RCRA GEN	Y	04-01-08	0.12	2	13	-	-	-	3	18
RCRA NLR	Y	04-01-08	0.12	0	4	-	-	-	1	5
Federal IC / EC	Y	04-01-08	0.12	0	0	-	-	-	0	0
ERNS	Y	12-31-07	0.12	3	6	-	-	-	6	15
Tribal Lands	Y	12-01-05	0.12	0	0	-	-	-	0	0
State/Tribal Sites	Y	08-08-07	0.12	0	1	-	-	-	2	3
State Spills 90	Y	11-06-07	0.12	1	2	-	-	-	5	8
State/Tribal SWL	Y	04-09-08	0.12	1	0	-	-	-	0	1
State/Tribal LUST	Y	04-11-08	0.12	0	4	-	-	-	0	4
State/Tribal UST/AST	Y	01-03-07	0.12	2	18	-	-	-	1	21
State/Tribal EC	Y	NA	0.12	0	0	-	-	-	0	0
State/Tribal IC	Y	04-27-07	0.12	0	0	-	-	-	0	0
State/Tribal VCP	Y	08-15-06	0.12	0	0	-	-	-	0	0
State/Tribal Brownfields	Y	08-08-07	0.12	0	0	-	-	-	0	0
State Permits	Y	03-29-07	0.12	0	0	-	-	-	0	0
State Other	Y	08-08-07	0.12	2	1	-	-	-	1	4
- TOTALS -				13	51	0	0	0	20	84

Notice of Disclaimer

Due to the limitations, constraints, inaccuracies and incompleteness of government information and computer mapping data currently available to TRACK Info Services, certain conventions have been utilized in preparing the locations of all federal, state and local agency sites residing in TRACK Info Services's databases. All EPA NPL and state landfill sites are depicted by a rectangle approximating their location and size. The boundaries of the rectangles represent the eastern and western most longitudes; the northern and southern most latitudes. As such, the mapped areas may exceed the actual areas and do not represent the actual boundaries of these properties. All other sites are depicted by a point representing their approximate address location and make no attempt to represent the actual areas of the associated property. Actual boundaries and locations of individual properties can be found in the files residing at the agency responsible for such information.

Waiver of Liability

Although TRACK Info Services uses its best efforts to research the actual location of each site, TRACK Info Services does not and can not warrant the accuracy of these sites with regard to exact location and size. All authorized users of TRACK Info Services's services proceeding are signifying an understanding of TRACK Info Services's searching and mapping conventions, and agree to waive any and all liability claims associated with search and map results showing incomplete and or inaccurate site locations.

Environmental FirstSearch
Site Information Report

Request Date:	05-16-08	**Search Type:**	AREA
Requestor Name:	Beth Padgett		0.05 sq mile(s)
Standard:	ASTM-05	**Job Number:**	207384001
		Filtered Report	

Target Site: HARRY BRIDGES BLVD
WILMINGTON CA 90744

Demographics

Sites:	84	**Non-Geocoded:**	20	**Population:**	NA
Radon:	NA				

Site Location

	Degrees (Decimal)	**Degrees (Min/Sec)**		**UTMs**
Longitude:	-118.264939	-118:15:54	**Easting:**	382864.624
Latitude:	33.769395	33:46:10	**Northing:**	3737112.525
			Zone:	11

Comment

Comment:

Additional Requests/Services

Adjacent ZIP Codes: 1 Mile(s)

ZIP Code	City Name	ST	Dist/Dir	Sel
90731	SAN PEDRO	CA	0.64 SE	Y

Services:

	Requested?	Date
Sanborns	No	
Aerial Photographs	No	
Historical Topos	No	
City Directories	No	
Title Search/Env Liens	No	
Municipal Reports	No	
Online Topos	No	

Environmental FirstSearch
Sites Summary Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

TOTAL: 84 **GEOCODED:** 64 **NON GEOCODED:** 20 **SELECTED:** 0

Page No.	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
1	RCRA	ROEHL DISPOSAL SERVICES CAD980737548/TSD	131 NORTH MARINE AVENUE WILLINGTON CA 90744	0.00 --	1
4	RCRACOR	ROEHL DISPOSAL SERVICES CAD980737548/CA	131 NORTH MARINE AVE WILLINGTON CA 90744	0.00 --	1
7	RCRAGN	ROEHL DISPOSAL SERVICES CAD980737548/SGN	131 NORTH MARINE AVE WILLINGTON CA 90744	0.00 --	1
9	OTHER	D.W. RUSSELL CO., INC. CAL19990051/PROPERTY/SITE REFERR	412 W. HARRY BRIDGES BLVD. WILMINGTON CA 90744	0.00 --	2
10	OTHER	D.W. RUSSEL CO., INC. CAL19990048/PROPERTY/SITE REFERR	412 W. HARRY BRIDGES BLVD. WILMINGTON CA 90744	0.00 --	2
11	ERNS	EXXON 257373/PF	LAGOON and B ST WILMINGTON CA 90744	0.00 --	3
13	ERNS	 NRC-853866/STORAGE TANK	161 NORTH ISLAND AVENUE WILMINGTON CA 90744	0.00 --	4
16	RCRAGN	HARBOR GENERATING STATION - LADWP CAD000633180/LGN	161 NORTH ISLAND AVENUE WILMINGTON CA 90744	0.00 --	4
17	UST	HARBOR GENERATING STATION TISID-STATE4996/INACTIVE	161 ISLAND LOS ANGELES CA 90744	0.00 --	4
18	UST	HARBOR GENERATING STATION AST11/AST SWRCB REG.4	161 N ISLAND AVE WILMINGTON CA 90744	0.00 --	4
18	ERNS	VESSEL FAUST 16572/UNKNOWN	200 A, QUAYSIDE WILMINGTON CA 90744	0.00 --	5
19	SPILLS	WILMINGTON TOWN LOT 150 G_SLT43539537/CASE CLOSED	133-141 N. MARINA AVE WILMINGTON CA 90744	0.00 --	6
20	SWL	IT CORPORATION-WILMINGTON WMUD4 190253NUR	233 EAST D STREET WILMINGTON CA 90744	0.00 --	7
21	UST	METROPOLITAN STEVEDORE COMPANY TISID-STATE4569/INACTIVE	211 MARINE WILMINGTON CA 90744	0.01 NW	8
22	RCRAGN	METROPOLITAN STEVEDORE CAD045231990/SGN	211 MARINE AVE WILMINGTON CA 90744	0.01 NW	8
23	NFRAP	NORTH AMERICAN ENVIRONMENTAL CAD980665947/NFRAP-N	217 N. LAGOON AVE. WILMINGTON CA 90744	0.02 NW	9
24	UST	NORTH AMERICAN ENVIRONMENTAL TISID-STATE26638/ACTIVE	217 LAGOON WILMINGTON CA	0.02 NW	9
25	UST	PORT OF LA LACTY/NONCRTFD200	217 N LAGOON WILMINGTON CA 90744	0.02 NW	9
25	UST	PORT OF LA LACTY/NONCRTFD626	217 N LAGOON WILMINGTON CA 90744	0.02 NW	9
26	OTHER	CALIFORNIA SALVAGE OCEAN DUMPING CAL19420001/PROPERTY/SITE REFERR	217 NORTH LAGOON AVENUE WILMINGTON CA 90744	0.02 NW	9
28	STATE	CALIFORNIA SALVAGE OCEAN DUMPING CAL19420001/PROPERTY/SITE REFERR	217 NORTH LAGOON AVENUE WILMINGTON CA 90744	0.02 NW	9

Environmental FirstSearch
Sites Summary Report

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Page No.	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
31	RCRAGN	NORTH AMERICAN ENVIRONMENTAL INC CAD980665947/SGN	217 NORTH LAGOON DR WILMINGTON CA 90744	0.02 NW	9
32	UST	PORT OF LA LACTY/NONCRTFD161	217 N LAGOON WILMINGTON CA 90744	0.02 NW	9
32	UST	MARINE TANK FARM TISID-STATE4427/INACTIVE	130 A LOS ANGELES CA 90744	0.02 NE	10
33	ERNS	MITCHELL, THOMAS AND SONS 447002/FIXED FACILITY	222 N LAGOON WILMINGTON CA 90744	0.03 NW	11
34	LUST	MOINE/LOCKE PROPERTY T0603701666/CASE CLOSED	127 B ST W WILMINGTON CA 90744	0.05 NE	12
35	RCRAGN	UNITED CHECKER CAB CAD982320731/SGN	117 WEST B ST WILMINGTON CA 90744	0.06 NE	13
36	UST	COLLEGE OF OCEANEERING TISID-STATE28190/ACTIVE	201 WATER WILMINGTON CA 90744	0.06 SE	14
37	RCRAGN	HARBOR WATER RECYCLE PROJECT - LAD CAR000088294/LGN	150 N NEPTUNE STREET WILMINGTON CA 90744	0.06 SW	15
38	ERNS	LOS ANGELES DEPT OF WATER 621276/FIXED FACILITY	130 WEST A STREET WILMINGTON CA	0.07 NE	16
39	RCRANLR	DEPT WATER and POWER CAR000087981/NLR	130 W A ST WILMINGTON CA 90744	0.07 NE	16
40	RCRAGN	DEPT WATER and POWER CAR000087981/SGN	130 W A ST WILMINGTON CA 90744	0.07 NE	16
41	UST	MARINE TANK FARM AST12/AST SWRCB REG.4	130 W A ST WILMINGTON CA 90744	0.07 NE	16
41	RCRAGN	ULTRAMAR INC MARINE TANK FARM CAR000095125/LGN	130 W A ST WILMINGTON CA 90744	0.07 NE	16
42	ERNS	UNOCAL 105386/UNKNOWN	NEPTUNE and B STREET WILMINGTON CA 90744	0.07 SW	17
42	ERNS	UNOCAL 105248/UNKNOWN	B ST AND NEPTUNE ST WILMINGTON CA 90744	0.07 SW	17
43	RCRAGN	KEEPING ON TRUCKING CAD981971534/SGN	607 W B ST WILMINGTON CA 90744	0.08 SW	18
44	LUST	KEEP ON TRUCKING, INC. T0603701654/CASE CLOSED	607 B ST W WILMINGTON CA 90744	0.08 SW	18
45	UST	CITY OF LOS ANGELES LACTY/NONCRTFD145	214 N AVALON BL WILMINGTON CA 90744	0.08 NE	19
45	UST	CALIF HARDWOOD PRODUCTS INC TISID-STATE5277/INACTIVE	218 B WILMINGTON CA 90744	0.09 NE	20
46	RCRANLR	KORODY COLYER CORP CAD981456122/NLR	218 N AVALON BLVD WILMINGTON CA 90744	0.09 NE	20

Environmental FirstSearch
Sites Summary Report

Target Property: HARRY BRIDGES BLVD
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JOB: 207384001

TOTAL: 84 **GEOCODED:** 64 **NON GEOCODED:** 20 **SELECTED:** 0

Page No.	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
47	NFRAP	ROEHL DISPOSAL SERVICES CAD980737548/NFRAP-N	131 NORTH MARINE AVE WILMINGTON CA 90744	0.09 NE	21
48	RCRANLR	SAFETY KLEEN CORP CAD981692098/NLR	131 N MARINE AVE WILMINGTON CA 90744	0.09 NE	21
49	RCRAGN	DOCKSIDE MACH and SHIP RPR CAD981442262/SGN	131 N AVALON BLVD WILMINGTON CA 90744	0.09 NE	21
50	UST	DOCKSIDE MACHINE and BOILER WORK TISID-STATE27509/ACTIVE	131 AVALON WILMINGTON CA 90744	0.09 NE	21
51	UST	DOCKSIDE MACHINE and BOILER WORK LACTY/NONCRTFD144	131 N AVALON BL WILMINGTON CA 90744	0.09 NE	21
51	RCRAGN	SHIMIZU AUTOMOTIVE CAR000086983/SGN	402 W C ST WILMINGTON CA 90744	0.09 NW	22
52	LUST	WILMINGTON IRON WORKS T0603701665/CASE CLOSED	432 C ST W WILMINGTON CA 90744	0.09 NW	23
53	UST	WILMINGTON IRON WORKS INC TISID-STATE4724/INACTIVE	432 C WILMINGTON CA 90744	0.09 NW	23
54	RCRAGN	WILMINGTON IRON WORKS CAR000015040/SGN	432 WEST C ST WILMINGTON CA 90744	0.09 NW	23
55	LUST	E W SAYBOLT and COMPANY INC T0603701652/CASE CLOSED	115 AVALON BLVD WILMINGTON CA 90744	0.10 NE	24
56	RCRAGN	EW SAYBOLT and CO INC CAD010705671/LGN	115 N AVALON BLVD WILMINGTON CA 90744	0.10 NE	24
57	UST	E W SAYBOLT and CO INC TISID-STATE4872/INACTIVE	115 AVALON WILMINGTON CA 90744	0.10 NE	24
58	RCRAGN	PACIFIC MOLASSES CO CAD071902936/SGN	395 WATER ST WILMINGTON CA 90744	0.10 SW	25
59	UST	CITY OF LA HARBOR DEPARTMENT LACTY/NONCRTFD130	395 WATER ST WILMINGTON CA 90744	0.10 SW	25
59	UST	PACIFIC MOLASSES COMPANY TISID-STATE4386/INACTIVE	395 WATER WILMINGTON CA 90744	0.10 SW	25
60	SPILLS	WILMINGTON TOWN LOT 525 G_SLT43495493/NOT REPORTED	202 W. C ST WILMINGTON CA 90744	0.10 NW	26
60	SPILLS	WILMINGTON TOWN LOT 526.1, 526.2 G_SLT43570568/CASE CLOSED	300 MARINE AVE WILMINGTON CA 90744	0.10 NW	27
61	ERNS	GATX 205164/PIPELINE RELATED	BROAD and AVALON STS WILMINGTON CA 90744	0.11 NE	28
63	RCRANLR	CAVANAUGH MACHINE WORKS CAD982329112/NLR	220 EAST B ST WILMINGTON CA 90744	0.12 NE	29
64	UST	WILMINGTON DISTRIBUTION HQ TISID-STATE27212/ACTIVE	315 ISLAND WILMINGTON CA 90744	0.12 NW	30

Environmental FirstSearch
Sites Summary Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

TOTAL: 84 **GEOCODED:** 64 **NON GEOCODED:** 20 **SELECTED:** 0

Page No.	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
65	UST	WILMINGTON SERVICE CENTER LACITY/CERTNO2344	315 N ISLAND AV WILMINGTON CA 90744	0.12 NW	30
65	RCRAGN	WILMINGTON SERVICE CTR CAD983613431/SGN	315 N ISLAND AVE WILMINGTON CA 90744	0.12 NW	30
66	ERNS	EXXON 240343/PIPELINE RELATED	C STREET and NEPTUNE WILMINGTON CA 90744	0.12 NW	31

Environmental FirstSearch
Sites Summary Report

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Page No.	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
68	STATE	UNION OIL CO OF CA LA MARINE TERMI CAL19281189/PROPERTY/SITE REFERR	BERTH 150 PIER A ST (BERTHS WILMINGTON CA 90744	NON GC	
71	SPILLS	WILMINGTON TOWN LOT 168 G_SLT43428426/NOT REPORTED	ISLAND AVE WILMINGTON CA 90744	NON GC	
72	STATE	SOUTH REGION SPAN K-8 1, SITE 15 CAL60000421/ACTIVE	EAST M STREET/NORTH AVALON LOS ANGELES CA 90744	NON GC	
73	SPILLS	WILMINGTON TOWN LOT 080 G_SLT43413411/NOT REPORTED	LAGOON AVE WILMINGTON CA 90744	NON GC	
73	SPILLS	WILMINGTON TOWN LOT 221 G_SLT43438436/NOT REPORTED	ISLAND AVE WILMINGTON CA 90744	NON GC	
74	SPILLS	WILMINGTON TOWN LOT 285 G_SLT43447445/NOT REPORTED	ISLAND AVE WILMINGTON CA 90744	NON GC	
75	OTHER	UNION OIL CO OF CA LA MARINE TERMI CAL19281189/PROPERTY/SITE REFERR	BERTH 150 PIER A ST (BERTHS WILMINGTON CA 90744	NON GC	
76	SPILLS	WILMINGTON TOWN LOT 285 SLC40655G1/NO FURTHER ACTION RE	ISLAND AVENUE WILMINGTON CA 90744	NON GC	
77	ERNS	NRC-789778/PIPELINE	1200 N. ISLAND AVE. WILMINGTON CA	NON GC	
80	ERNS	ZIMM SHIPPING COMPANY 466406	PORT OF LA BERTH 146 370 WE WILMINGTON CA 90744	NON GC	
82	ERNS	WEST BASIN NRC-537398/FIXED	BERTH 149 PIER A STREET WILMINGTON CA	NON GC	
85	ERNS	HARBOR GENERATING STATION NRC-820141/STORAGE TANK	161 N. ISLAND AVE. WILMINGTON CA	NON GC	
88	UST	PORT OF LOS ANGELES TISID-STATE25860/ACTIVE	BERTH 161 PIER A ST WILMINGTON CA 90744	NON GC	
89	ERNS	EXXON/J MARCHESSI 117298/UNKNOWN	N OF M ST BETWEEN AVALON an WILMINGTON CA	NON GC	
89	RCRANLR	BANNING ELEMENTARY SCHOOL CAR000126847/NLR	500 N ISLAND AVE LOS ANGELES CA 90744	NON GC	
90	RCRAGN	PORT OF LOS ANGELES - BERTH 161 ON CAD021863964/LGN	500 PIER A STREET WILMINGTON CA 90744	NON GC	
91	RCRAGN	CONOCOPHILLIPS LAR, MARINE TERMINA CAT000611228/LGN	BERTH 151 PIER A STREET WILMINGTON CA 90744	NON GC	
93	RCRAGN	BANNING ELEMENTARY SCHOOL CAR000126847/LGN	500 N ISLAND AVE LOS ANGELES CA 90744	NON GC	
94	NFRAP	UNION OIL CO OF CA LA REF MARINE T CAT000611228/NFRAP-N	BERTH 150 PIER A ST WILMINGTON CA 90744	NON GC	
95	ERNS	HARBOR GENERATION STATION NRC-705883/FIXED	161 NORTH ISLAND AVE WILMINGTON CA	NON GC	

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

RCRA

SEARCH ID: 3 **DIST/DIR:** 0.00 -- **MAP ID:** 1

NAME: ROEHL DISPOSAL SERVICES
ADDRESS: 131 NORTH MARINE AVENUE
WILLINGTON CA 90744
LOS ANGELES
CONTACT: MANAGER ENVIRONMENTAL

REV: 4/19/01
ID1: CAD980737548
ID2:
STATUS: TSD
PHONE: 7148463231

SITE INFORMATION

CONTACT INFORMATION: MANAGER ENVIRONMENTAL
ENVIRO MANAGER
131 NORTH MARINE AVENUE
WILLINGTON CA 90744

PHONE: 7148463231

UNIVERSE NAME:
DF: LAND DISPOSAL FACILITY
SUBJECT TO CORRECTIVE ACTION
TSDS SUBJECT TO CORRECTIVE ACT
SUBJECT TO CEI
ST: STORAGE AND TREATMENT
INCINERATOR

SIC INFORMATION:

RAATS INFORMATION:

DOCKET NUMBER: RCRA-09-89-0028 **INITIAL DATE:** 4241989
DATE RECEIVED: 10161989 **AMOUNT:** 5000.00
ORDER TYPE: 3008(A) **FACILITY:** PRIVATELY HELD FACILITY
COMMENTS: ALLEGED FAILURE TO RESPOND TO INFORMATION REQUEST PURSUANT TO 3007 OF RCRA

ENFORCEMENT INFORMATION:

AGENCY: STATE **DATE:** 5/23/89
ACTION TYPE: 210 - INITIAL FORMAL 3008(a) COMPLIANCE ORDER

AGENCY: STATE **DATE:** 3/14/90
ACTION TYPE: 120 - WRITTEN INFORMAL

AGENCY: STATE **DATE:** 3/5/91
ACTION TYPE: 120 - WRITTEN INFORMAL

AGENCY: STATE **DATE:** 7/25/89
ACTION TYPE: 210 - INITIAL FORMAL 3008(a) COMPLIANCE ORDER

AGENCY: STATE **DATE:** 6/8/89
ACTION TYPE: 120 - WRITTEN INFORMAL

AGENCY: STATE **DATE:** 3/2/87
ACTION TYPE: 120 - WRITTEN INFORMAL

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

RCRA

SEARCH ID: 3 **DIST/DIR:** 0.00 -- **MAP ID:** 1

NAME: ROEHL DISPOSAL SERVICES
ADDRESS: 131 NORTH MARINE AVENUE
WILLINGTON CA 90744
LOS ANGELES
CONTACT: MANAGER ENVIRONMENTAL

REV: 4/19/01
ID1: CAD980737548
ID2:
STATUS: TSD
PHONE: 7148463231

VIOLATION INFORMATION:

VIOLATION NUMBER:	0001	**AGENCY:**	STATE
DETERMINED:	1/24/91	**CLASS:**	CLASS 2
SCHEDULED:		**RESOLVED:**	
AREA:	DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)		

VIOLATION NUMBER:	0002	**AGENCY:**	STATE
DETERMINED:	1/3/91	**CLASS:**	CLASS 1
SCHEDULED:		**RESOLVED:**	
AREA:	DFR - TSD FINANCIAL RESPONSIBILITY REQUIREMENTS		

VIOLATION NUMBER:	0003	**AGENCY:**	STATE
DETERMINED:	2/28/90	**CLASS:**	CLASS 1
SCHEDULED:		**RESOLVED:**	
AREA:	DFR - TSD FINANCIAL RESPONSIBILITY REQUIREMENTS		

VIOLATION NUMBER:	0004	**AGENCY:**	STATE
DETERMINED:	2/13/90	**CLASS:**	CLASS 2
SCHEDULED:		**RESOLVED:**	
AREA:	DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)		

VIOLATION NUMBER:	0005	**AGENCY:**	STATE
DETERMINED:	1/3/90	**CLASS:**	CLASS 1
SCHEDULED:		**RESOLVED:**	
AREA:	DFR - TSD FINANCIAL RESPONSIBILITY REQUIREMENTS		

VIOLATION NUMBER:	0006	**AGENCY:**	STATE
DETERMINED:	3/9/89	**CLASS:**	CLASS 2
SCHEDULED:		**RESOLVED:**	
AREA:	DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)		

VIOLATION NUMBER:	0007	**AGENCY:**	STATE
DETERMINED:	3/9/89	**CLASS:**	CLASS 2
SCHEDULED:		**RESOLVED:**	
AREA:	DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)		

VIOLATION NUMBER:	0008	**AGENCY:**	STATE
DETERMINED:	3/9/89	**CLASS:**	CLASS 1
SCHEDULED:		**RESOLVED:**	
AREA:	DFR - TSD FINANCIAL RESPONSIBILITY REQUIREMENTS		

VIOLATION NUMBER:	0009	**AGENCY:**	STATE
DETERMINED:	3/3/89	**CLASS:**	CLASS 1
SCHEDULED:		**RESOLVED:**	
AREA:	DFR - TSD FINANCIAL RESPONSIBILITY REQUIREMENTS		

VIOLATION NUMBER:	0010	**AGENCY:**	STATE
DETERMINED:	3/3/89	**CLASS:**	CLASS 1
SCHEDULED:		**RESOLVED:**	5/8/90
AREA:	DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)		

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

RCRA

SEARCH ID: 3 **DIST/DIR:** 0.00 -- **MAP ID:** 1

NAME:	ROEHL DISPOSAL SERVICES	**REV:**	4/19/01
ADDRESS:	131 NORTH MARINE AVENUE	**ID1:**	CAD980737548
	WILLINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	TSD
CONTACT:	MANAGER ENVIRONMENTAL	**PHONE:**	7148463231

VIOLATION NUMBER:	0011	**AGENCY:**	STATE
DETERMINED:	12/29/87	**CLASS:**	CLASS 1
SCHEDULED:		**RESOLVED:**	
AREA:	DCL - TSD CLOSURE/POST CLOSURE REQUIREMENTS		

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

RCRACOR

SEARCH ID: 4 **DIST/DIR:** 0.00 -- **MAP ID:** 1

NAME: ROEHL DISPOSAL SERVICES
ADDRESS: 131 NORTH MARINE AVE
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 6/6/06
ID1: CAD980737548
ID2:
STATUS: CA
PHONE:

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
131 NORTH MARINE AVENUE
WILLINGTON CA 90744

PHONE: 7148463231

UNIVERSE INFORMATION:

NAIC INFORMATION

RAATS INFORMATION:

DOCKET NUMBER: RCRA-09-89-0028 **INITIAL DATE:** 4241989
DATE RECEIVED: 10161989 **AMOUNT:** 5000.00
ORDER TYPE:

ENFORCEMENT INFORMATION:

AGENCY: S - STATE **DATE:** 6/8/1989
TYPE: 120 - WRITTEN INFORMAL

AGENCY: S - STATE **DATE:** 5/23/1989
TYPE: 210 - INITIAL 3008(A) COMPLIANCE ORDER

AGENCY: S - STATE **DATE:** 3/14/1990
TYPE: 120 - WRITTEN INFORMAL

AGENCY: S - STATE **DATE:** 3/5/1991
TYPE: 120 - WRITTEN INFORMAL

AGENCY: S - STATE **DATE:** 3/5/1991
TYPE: 120 - WRITTEN INFORMAL

AGENCY: S - STATE **DATE:** 3/2/1987
TYPE: 120 - WRITTEN INFORMAL

AGENCY: S - STATE **DATE:** 7/25/1989
TYPE: 210 - INITIAL 3008(A) COMPLIANCE ORDER

AGENCY: S - STATE **DATE:** 6/8/1989
TYPE: 120 - WRITTEN INFORMAL

AGENCY: S - STATE **DATE:** 3/14/1990

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

RCRACOR

SEARCH ID: 4 **DIST/DIR:** 0.00 -- **MAP ID:** 1

NAME:	ROEHL DISPOSAL SERVICES	**REV:**	6/6/06
ADDRESS:	131 NORTH MARINE AVE	**ID1:**	CAD980737548
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	CA
CONTACT:		**PHONE:**	

TYPE: 120 - WRITTEN INFORMAL

AGENCY: S - STATE **DATE:** 5/23/1989
TYPE: 210 - INITIAL 3008(A) COMPLIANCE ORDER

AGENCY: S - STATE **DATE:** 3/2/1987
TYPE: 120 - WRITTEN INFORMAL

AGENCY: S - STATE **DATE:** 7/25/1989
TYPE: 210 - INITIAL 3008(A) COMPLIANCE ORDER

VIOLATION INFORMATION:

VIOLATION NUMBER: 0001 **RESPONSIBLE:** S - STATE
DETERMINED: 12/29/1987 **DETERMINED BY:** S - STATE
CITATION: 264.110-120.G
RESOLVED: 4/20/1989
TYPE: TSD-CLOSURE/POST-CLOSURE REQUIREMENTS

VIOLATION NUMBER: 0002 **RESPONSIBLE:** S - STATE
DETERMINED: 3/3/1989 **DETERMINED BY:** S - STATE
CITATION: 264.140-150.H
RESOLVED: 4/12/1990
TYPE: TSD-FINANCIAL RESPONSIBILITY REQUIREMENTS

VIOLATION NUMBER: 0003 **RESPONSIBLE:** S - STATE
DETERMINED: 3/3/1989 **DETERMINED BY:** S - STATE
CITATION: 270
RESOLVED: 5/8/1990
TYPE: TSD-OTHER REQUIREMENTS (OVERSIGHT)

VIOLATION NUMBER: 0004 **RESPONSIBLE:** S - STATE
DETERMINED: 3/9/1989 **DETERMINED BY:** S - STATE
CITATION: 264.70-77.E
RESOLVED: 4/12/1990
TYPE: TSD-OTHER REQUIREMENTS (OVERSIGHT)

VIOLATION NUMBER: 0005 **RESPONSIBLE:** S - STATE
DETERMINED: 3/9/1989 **DETERMINED BY:** S - STATE
CITATION: 270
RESOLVED: 4/12/1990
TYPE: TSD-OTHER REQUIREMENTS (OVERSIGHT)

VIOLATION NUMBER: 0006 **RESPONSIBLE:** S - STATE
DETERMINED: 3/9/1989 **DETERMINED BY:** S - STATE
CITATION: 264.140-150.H
RESOLVED: 4/12/1990
TYPE: TSD-FINANCIAL RESPONSIBILITY REQUIREMENTS

VIOLATION NUMBER: 0007 **RESPONSIBLE:** S - STATE
DETERMINED: 1/3/1990 **DETERMINED BY:** S - STATE
CITATION: 264.140-150.H

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

RCRACOR

SEARCH ID: 4 **DIST/DIR:** 0.00 -- **MAP ID:** 1

NAME: ROEHL DISPOSAL SERVICES
ADDRESS: 131 NORTH MARINE AVE
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 6/6/06
ID1: CAD980737548
ID2:
STATUS: CA
PHONE:

RESOLVED: 1/3/1991
TYPE: TSD-FINANCIAL RESPONSIBILITY REQUIREMENTS

VIOLATION NUMBER: 0008 **RESPONSIBLE:** S - STATE
DETERMINED: 2/13/1990 **DETERMINED BY:** S - STATE
CITATION: 270
RESOLVED: 1/3/1991
TYPE: TSD-OTHER REQUIREMENTS (OVERSIGHT)

VIOLATION NUMBER: 0009 **RESPONSIBLE:** S - STATE
DETERMINED: 2/28/1990 **DETERMINED BY:** S - STATE
CITATION: 264.140-150.H
RESOLVED: 1/3/1991
TYPE: TSD-FINANCIAL RESPONSIBILITY REQUIREMENTS

VIOLATION NUMBER: 0010 **RESPONSIBLE:** S - STATE
DETERMINED: 1/3/1991 **DETERMINED BY:** S - STATE
CITATION: 264.140-150.H
RESOLVED: 1/24/1991
TYPE: TSD-FINANCIAL RESPONSIBILITY REQUIREMENTS

VIOLATION NUMBER: 0011 **RESPONSIBLE:** S - STATE
DETERMINED: 1/24/1991 **DETERMINED BY:** S - STATE
CITATION: 264.70-77.E
RESOLVED: 10/31/1991
TYPE: TSD-OTHER REQUIREMENTS (OVERSIGHT)

CORRECTIVE ACTION INFORMATION

CA EVENT: 10/12/1994 CA075ME - CA PRIORITIZATION-MEDIUM CA PRIORITY

CA EVENT: 10/12/1994 CA225YE - STABILIZATION MEASURES EVALUATION-FACILITY IS AMENABLE TO STABILIZATION

CA EVENT: 10/17/2005 CA150 - RFI WORKPLAN APPROVED

CA EVENT: 3/15/2005 CA100 - RFI IMPOSITION

CA EVENT: 6/1/1990 CA075ME - CA PRIORITIZATION-MEDIUM CA PRIORITY

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

RCRAGN

SEARCH ID: 14 **DIST/DIR:** 0.00 -- **MAP ID:** 1

NAME: ROEHL DISPOSAL SERVICES
ADDRESS: 131 NORTH MARINE AVE
WILLINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 12/9/02
ID1: CAD980737548
ID2:
STATUS: SGN
PHONE:

SITE INFORMATION

UNIVERSE TYPE:

SQG - SMALL QUANTITY GENERATOR: GENERATES 100 - 1000 KG/MONTH OF HAZARDOUS WASTE
PERMPROG - PERMITTING/CLOSURE/POST-CLOSURE PROGRESS
TRANSPORT - TRANSPORTER
CLOSWRKLD - CLOSURE WORKLOAD
SUBJINSP - SUBJECT TO INSPECTION

SIC INFORMATION:

RAATS INFORMATION:

DOCKET NUMBER: RCRA-09-89-0028 **INITIAL DATE:** 4241989
DATE RECEIVED: 10161989 **AMOUNT:** 5000.00
ORDER TYPE: 3008(A) **FACILITY:** PRIVATELY HELD FACILITY
COMMENTS: ALLEGED FAILURE TO RESPOND TO INFORMATION REQUEST PURSUANT TO 3007 OF RCRA

ENFORCEMENT INFORMATION:

AGENCY: S - STATE **DATE:** 08-JUN-89
TYPE: 120 - WRITTEN INFORMAL

AGENCY: S - STATE **DATE:** 14-MAR-90
TYPE: 120 - WRITTEN INFORMAL

AGENCY: S - STATE **DATE:** 05-MAR-91
TYPE: 120 - WRITTEN INFORMAL

AGENCY: S - STATE **DATE:** 02-MAR-87
TYPE: 120 - WRITTEN INFORMAL

AGENCY: S - STATE **DATE:** 25-JUL-89
TYPE: 210 - INITIAL 3008(A) COMPLIANCE ORDER

AGENCY: S - STATE **DATE:** 23-MAY-89
TYPE: 210 - INITIAL 3008(A) COMPLIANCE ORDER

VIOLATION INFORMATION:

VIOLATION NUMBER: 0001 **RESPONSIBLE:** S - STATE
DETERMINED: 29-DEC-87 **DETERMINED BY:** S - STATE
CITATION: 264.110-120.G **RESOLVED:** 20-APR-89
TYPE: DCL - TSD CLOSURE/POST CLOSURE REQUIREMENTS

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

RCRAGN

SEARCH ID: 14 **DIST/DIR:** 0.00 -- **MAP ID:** 1

NAME:	ROEHL DISPOSAL SERVICES	**REV:**	12/9/02
ADDRESS:	131 NORTH MARINE AVE	**ID1:**	CAD980737548
	WILLINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	SGN
CONTACT:		**PHONE:**	

VIOLATION NUMBER:	0002	**RESPONSIBLE:**	S - STATE
DETERMINED:	03-MAR-89	**DETERMINED BY:**	S - STATE
CITATION:	264.140-150.H	**RESOLVED:**	12-APR-90
TYPE:	DFR - TSD FINANCIAL RESPONSIBILITY REQUIREMENTS		

VIOLATION NUMBER:	0003	**RESPONSIBLE:**	S - STATE
DETERMINED:	03-MAR-89	**DETERMINED BY:**	S - STATE
CITATION:	270	**RESOLVED:**	08-MAY-90
TYPE:	DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)		

VIOLATION NUMBER:	0004	**RESPONSIBLE:**	S - STATE
DETERMINED:	09-MAR-89	**DETERMINED BY:**	S - STATE
CITATION:	264.70-77.E	**RESOLVED:**	12-APR-90
TYPE:	DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)		

VIOLATION NUMBER:	0005	**RESPONSIBLE:**	S - STATE
DETERMINED:	09-MAR-89	**DETERMINED BY:**	S - STATE
CITATION:	270	**RESOLVED:**	12-APR-90
TYPE:	DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)		

VIOLATION NUMBER:	0006	**RESPONSIBLE:**	S - STATE
DETERMINED:	09-MAR-89	**DETERMINED BY:**	S - STATE
CITATION:	264.140-150.H	**RESOLVED:**	12-APR-90
TYPE:	DFR - TSD FINANCIAL RESPONSIBILITY REQUIREMENTS		

VIOLATION NUMBER:	0007	**RESPONSIBLE:**	S - STATE
DETERMINED:	03-JAN-90	**DETERMINED BY:**	S - STATE
CITATION:	264.140-150.H	**RESOLVED:**	03-JAN-91
TYPE:	DFR - TSD FINANCIAL RESPONSIBILITY REQUIREMENTS		

VIOLATION NUMBER:	0008	**RESPONSIBLE:**	S - STATE
DETERMINED:	13-FEB-90	**DETERMINED BY:**	S - STATE
CITATION:	270	**RESOLVED:**	03-JAN-91
TYPE:	DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)		

VIOLATION NUMBER:	0009	**RESPONSIBLE:**	S - STATE
DETERMINED:	28-FEB-90	**DETERMINED BY:**	S - STATE
CITATION:	264.140-150.H	**RESOLVED:**	03-JAN-91
TYPE:	DFR - TSD FINANCIAL RESPONSIBILITY REQUIREMENTS		

VIOLATION NUMBER:	0010	**RESPONSIBLE:**	S - STATE
DETERMINED:	03-JAN-91	**DETERMINED BY:**	S - STATE
CITATION:	264.140-150.H	**RESOLVED:**	24-JAN-91
TYPE:	DFR - TSD FINANCIAL RESPONSIBILITY REQUIREMENTS		

VIOLATION NUMBER:	0011	**RESPONSIBLE:**	S - STATE
DETERMINED:	24-JAN-91	**DETERMINED BY:**	S - STATE
CITATION:	264.70-77.E	**RESOLVED:**	31-OCT-91
TYPE:	DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)		

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

OTHER

SEARCH ID: 40 **DIST/DIR:** 0.00 -- **MAP ID:** 2

NAME:	D.W. RUSSELL CO., INC.	**REV:**	07/18/05
ADDRESS:	412 W. HARRY BRIDGES BLVD.	**ID1:**	CAL19990051
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	PROPERTY/SITE REFERRED TO ANOT
CONTACT:		**PHONE:**	

GENERAL SITE INFORMATION

Site Type:	*Evaluation*
Status:	*Refer: 1248 Local Agency*
Status Date:	*2004-02-20 00:00:00*
NPL Site:	*NO*
Funding:	*Not Applicable*
Regulatory Agencies Involved:	*NONE SPECIFIED*
Lead Agency:	*NONE SPECIFIED*
Project Manager:	
Supervisor:	*Referred - Not Assigned*
Branch:	*So Cal - Cypress*
Acres:	
Assessor s Parcel Number:	*NONE SPECIFIED*
Past Uses:	*NONE SPECIFIED*
Potential Contaminants:	*NONE SPECIFIED*
Confirmed Contaminants:	*NONE SPECIFIED*
Potential Media Affected:	*NONE SPECIFIED*
Restricted Use:	*NO*
Site Management Required:	*NONE SPECIFIED*
Special Programs Associated with this Site:	

OTHER SITE NAMES (blank below = not reported by agency)

19990051

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

OTHER

SEARCH ID: 39 **DIST/DIR:** 0.00 -- **MAP ID:** 2

NAME:	D.W. RUSSEL CO., INC.	**REV:**	07/18/05
ADDRESS:	412 W. HARRY BRIDGES BLVD.	**ID1:**	CAL19990048
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	PROPERTY/SITE REFERRED TO ANOT
CONTACT:		**PHONE:**	

GENERAL SITE INFORMATION

Site Type:	*Evaluation*
Status:	*Refer: 1248 Local Agency*
Status Date:	*2004-05-16 00:00:00*
NPL Site:	*NO*
Funding:	*Not Applicable*
Regulatory Agencies Involved:	*NONE SPECIFIED*
Lead Agency:	*NONE SPECIFIED*
Project Manager:	
Supervisor:	*Referred - Not Assigned*
Branch:	*So Cal - Cypress*
Acres:	
Assessor s Parcel Number:	*NONE SPECIFIED*
Past Uses:	*NONE SPECIFIED*
Potential Contaminants:	*NONE SPECIFIED*
Confirmed Contaminants:	*NONE SPECIFIED*
Potential Media Affected:	*NONE SPECIFIED*
Restricted Use:	*NO*
Site Management Required:	*NONE SPECIFIED*
Special Programs Associated with this Site:	

OTHER SITE NAMES (blank below = not reported by agency)

19990048

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

ERNS

SEARCH ID: 25 **DIST/DIR:** 0.00 -- **MAP ID:** 3

NAME: EXXON
ADDRESS: LAGOON and B ST
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 2/28/92
ID1: 257373
ID2:
STATUS: PF
PHONE:

SPILL INFORMATION
DATE OF SPILL: 2/28/1992 **TIME OF SPILL:** 1500

PRODUCT RELEASED (1): CRUDE OIL
QUANTITY (1): 1
UNITS (1): GAL

PRODUCT RELEASED (2): PRODUCED WATER
QUANTITY (2): 2
UNITS (2): BBL

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE:

SPILL INFORMATION
DATE OF SPILL: 2/28/1992 **TIME OF SPILL:** 1500

PRODUCT RELEASED (1): CRUDE OIL
QUANTITY (1): 1
UNITS (1): GAL

PRODUCT RELEASED (2): PRODUCED WATER
QUANTITY (2): 2
UNITS (2): BBL

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE:

CAUSE OF RELEASE
DUMPING: YES **EQUIPMENT FAILURE:** NO
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: RP CLEANUP
RELEASE DETECTION: LINE LEAK

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

ERNS

SEARCH ID: 25 **DIST/DIR:** 0.00 -- **MAP ID:** 3

NAME: EXXON
ADDRESS: LAGOON and B ST
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 2/28/92
ID1: 257373
ID2:
STATUS: PF
PHONE:

MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 257373
TYPE OF DISCHARGER: PRIVATE CITIZEN
NAME OF DISCHARGER: EXXON
ADDRESS: LAGOON and B ST
WILMINGTON CA 0000 -

DUN and BRADSTREET :

CAUSE OF RELEASE

DUMPING:	YES	**EQUIPMENT FAILURE:**	NO
NATURAL PHENOMENON:	NO	**OPERATOR ERROR:**	NO
OTHER CAUSE:	NO	**TRANSP. ACCIDENT:**	NO
UNKNOWN:	NO		

ACTIONS TAKEN: RP CLEANUP
RELEASE DETECTION: LINE LEAK
MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 257373
TYPE OF DISCHARGER: PRIVATE CITIZEN
NAME OF DISCHARGER: EXXON
ADDRESS: LAGOON and B ST
WILMINGTON CA 0000 -

DUN and BRADSTREET :

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

ERNS

SEARCH ID: 32 **DIST/DIR:** 0.00 -- **MAP ID:** 4

NAME:
ADDRESS: 161 NORTH ISLAND AVENUE
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 12/31/07
ID1: NRC-853866
ID2:
STATUS: STORAGE TANK
PHONE:

SITE INFORMATION

THIS INFORMATION WAS OBTAINED FROM THE NATIONAL RESPONSE CENTER

DATE RECEIVED: 11/7/2007 12:53:53 PM **DATE COMPLETE:** 11/7/2007 12:59:25 PM
CALL TAKER: **CALL TYPE:** DRL

RESPONSIBLE PARTY:
PHONE 1:
PHONE 2:
PHONE 3:

RESPONSIBLE COMPANY: LOS ANGELES DEPT OF WATER AND POWER
ORGANIZATION TYPE: PUBLIC UTILITY

ADDRESS:
LOS ANGELES CA 90012

SOURCE: TELEPHONE

INCIDENT INFORMATION

INCIDENT DESCRIPTION: ///THIS IS A DRILL///CALLER STATED THERE WAS A SPILL OF MATERIALS FROM AN ABOVE GROUND STORAGE TANK DUE TO UNKNOWN CAUSES.

INCIDENT TYPE:	STORAGE TANK	**INCIDENT CAUSE:**	UNKNOWN
INCIDENT DATE:	11/7/2007 9:39:00 AM	**INCIDENT DATE DESC:**	OCCURRED
DISTANCE FROM CITY:		**DISTANCE UNITS:**	
DIRECTION FROM CITY:		**LOCATION SECTION:**	
LOCATION TOWNSHIP:		**LOCATION RANGE:**	
AIRCRAFT TYPE:		**AIRCRAFT MODEL:**	
AIRCRAFT ID:		**AIRCRAFT FUEL CAPACITY:**	
AIRCRAFT FUEL CAPACITY UNITS:		**AIRCRAFT FUEL ON BOARD:**	
AIRCRAFT FUEL ON BOARD UNITS:		**AIRCRAFT SPOT NUMBER:**	
AIRCRAFT HANGER:		**AIRCRAFT RUNWAY NUM:**	
ROAD MILE MARKER:		**BUILDING ID:**	
TYPE OF FIXED OBJECT:		**POWER GEN FACILITY:**	U
GENERATING CAPACITY:		**TYPE OF FUEL:**	
NPDES:		**NPDES COMPLIANCE:**	U
PIPELINE TYPE:		**DOT REGULATED:**	U
PIPELINE ABOVE GROUND:	ABOVE	**EXPOSED UNDERWATER:**	N
PIPELINE COVERED:	U	**GRADE CROSSING:**	U
LOCATION SUBDIVISION:		**RAILROAD MILEPOST:**	
TYPE VEHICLE INVOLVED:		**CROSSING DEVICE TYPE:**	
DEVICE OPERATIONAL:	Y		
DOT CROSSING NUMBER:		**BRAKE FAILURE:**	U

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

ERNS

SEARCH ID: 32 **DIST/DIR:** 0.00 -- **MAP ID:** 4

NAME:
ADDRESS: 161 NORTH ISLAND AVENUE
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 12/31/07
ID1: NRC-853866
ID2:
STATUS: STORAGE TANK
PHONE:

TANK ABOVE GROUND:	ABOVE	**TRANSPORTABLE CONTAINER:**	N
TANK REGULATED:	U	**TANK REGULATED BY:**	
TANK ID:		**CAPACITY OF TANK:**	40000
CAPACITY OF TANK UNITS:	BARREL(S)	**ACTUAL AMOUNT:**	
ACTUAL AMOUNT UNITS:		**PLATFORM RIG NAME:**	
PLATFORM LETTER:		**LOCATION AREA ID:**	
LOCATION BLOCK ID:			

DESCRIPTION OF TANK: ABOVE STORAGE TANK

OCSG NUMBER:		**OCSP NUMBER:**	
STATE LEASE NUMBER:		**PIER DOCK NUMBER:**	
BERTH SLIP NUMBER:		**CONTIN RELEASE TYPE:**	
INITIAL CONT RELEASE NUM:		**CONT RELEASE PERMIT:**	
ALLISION:	U	**TYPE OF STRUCTURE:**	
STRUCTURE NAME:		**STRUCT OPERATIONAL:**	U
AIRBAG DEPLOYED:	U	**DATE NORMAL SERVICE:**	
SERVICE DISRUPT TIME:		**SERVICE DISRUPT UNITS:**	
TRANSIT BUS FLAG:		**CR BEGIN DATE:**	
CR END DATE:		**CR CHANGE DATE:**	
FIRE INVOLVED:	N	**FIRE EXTINGUISHED:**	U
ANY EVACUATIONS:	N	**NUMBER EVACUATED:**	
WHO EVACUATED:		**RADIUS OF EVACUATION:**	
ANY INJURIES:	N	**NUMBER INJURED:**	
NUMBER HOSPITALIZED:		**ANY FATALITIES:**	N
NUMBER FATALITIES:		**ANY DAMAGES:**	N
DAMAGE AMOUNT:		**AIR CORRIDOR CLOSED:**	N
AIR CORRIDOR DESC:		**AIR CLOSURE TIME:**	
WATERWAY CLOSED:	N	**WATERWAY DESC:**	
WATERWAY CLOSURE TIME:		**ROAD CLOSED:**	N
ROAD DESC:		**ROAD CLOSURE TIME:**	
CLOSURE DIRECTION:		**MAJOR ARTERY:**	N
TRACK CLOSED:	N	**TRACK DESC:**	
TRACK CLOSURE TIME:		**MEDIA INTEREST:**	NONE
MEDIUM DESC:	LAND	**ADDTL MEDIUM INFO:**	INTO CONTAINMENT
BODY OF WATER:		**TRIBUTARY OF:**	
NEAREST RIVER MILE MARK:		**RELEASE SECURED:**	Y
EST DUR OF RELEASE:		**RELEASE RATE:**	
TRACK CLOSE DIR:		**ST AGENCY ON SCENE:**	NONE
ST AGENCY RPT NUM:	NONE	**OTHER AGENCY NOTIFIED:**	
WEATHER CONDITIONS:	FOGGY	**AIR TEMPERATURE:**	60
WIND SPEED:		**WIND DIRECTION:**	
WATER SUPPLY CONTAM:	U	**SHEEN SIZE:**	
SHEEN COLOR:		**DIR OF SHEEN TRAVEL:**	
SHEEN ODOR DESCRIPTION:		**WAVE CONDITION:**	
CURRENT SPEED:		**CURRENT DIRECTION:**	
WATER TEMPERATURE:			

DESC OF REMEDIAL ACTION: CALLER STATED THEY DEPLOYED A CLEAN UP CREW TO CLEAN UP THE SPILL AND RESTORE THE SITE.

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

ERNS

SEARCH ID: 32 **DIST/DIR:** 0.00 -- **MAP ID:** 4

NAME:
ADDRESS: 161 NORTH ISLAND AVENUE
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 12/31/07
ID1: NRC-853866
ID2:
STATUS: STORAGE TANK
PHONE:

EMPL FATALITY:		**PASS FATALITY:**	
COMMUNITY IMPACT:		**WIND SPEED UNITS:**	
EMPLOYEE INJURIES:		**PASSENGER INJURIES:**	
OCCUPANT FATALITY:		**CURRENT SPEED UNITS:**	
ROAD CLOSURE UNITS:		**TRACK CLOSURE UNITS:**	
SHEEN SIZE UNITS:		**STATE AGENCY NOTIFIED:**	NONE
FED AGENCY NOTIFIED:	NONE	**NEAREST RIVER MILE MARK:**	
SHEEN SIZE LENGTH:		**SHEEN SIZE LENGTH UNITS:**	
SHEEN SIZE WIDTH:		**SHEEN SIZE WIDTH UNITS:**	
OFFSHORE:	N	**DURATION UNIT:**	
RELEASE RATE UNIT:		**RELEASE RATE RATE:**	

ADDITIONAL INFO: CALLER DID NOT HAVE ANY ADDITIONAL INFORMATION.

MATERIAL INFORMATION

CHRIS CODE:	OTH	**CASE NUMBER:**	000000-00-0
UN NUMBER:		**REACHED WATER:**	NO

NAME OF MATERIAL: OTHER OIL(FUEL OIL DISTILLATE)
AMOUNT OF MATERIAL: 2300 GALLON(S)
AMOUNT IN WATER:

OTHER MATERIAL INFORMATION

MOBILE DETAILS INFORMATION

TRAIN INFORMATION

VESSEL INFORMATION

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

RCRAGN

SEARCH ID: 8 **DIST/DIR:** 0.00 -- **MAP ID:** 4

NAME:	HARBOR GENERATING STATION - LADWP	**REV:**	6/6/06
ADDRESS:	161 NORTH ISLAND AVENUE	**ID1:**	CAD000633180
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	LGN
CONTACT:	MARK J SEDLACEK	**PHONE:**	2133670403

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
161 NORTH ISLAND AVE
WILMINGTON CA 90744

PHONE: 2138343444

UNIVERSE INFORMATION:

NAIC INFORMATION

221112 - FOSSIL FUEL ELECTRIC POWER GENERATION
2211 - ELECTRIC POWER GENERATION, TRANSMISSION AND DISTRIBUTION
2211 - ELECTRIC POWER GENERATION, TRANSMISSION AND DISTRIBUTION
221 - UTILITIES
2211 - ELECTRIC POWER GENERATION, TRANSMISSION AND DISTRIBUTION
22133 - STEAM AND AIR-CONDITIONING SUPPLY

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

UST

SEARCH ID: 48 **DIST/DIR:** 0.00 -- **MAP ID:** 4

NAME: HARBOR GENERATING STATION
ADDRESS: 161 ISLAND
LOS ANGELES CA 90744
Los Angeles
CONTACT:

REV: 01/01/94
ID1: TISID-STATE4996
ID2:
STATUS: INACTIVE
PHONE:

UST HISTORICAL DATA

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Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by Track Info Services. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

UST

SEARCH ID: 49 **DIST/DIR:** 0.00 -- **MAP ID:** 4

NAME: HARBOR GENERATING STATION
ADDRESS: 161 N ISLAND AVE
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 05/30/01
ID1: AST11
ID2:
STATUS: AST SWRCB REG.4
PHONE:

CALIFORNIA ABOVEGROUND PETROLEUM STORAGE TANKS INFORMATION LIST
As reported by the responsible agency, there are currently no details associated with this record.

ERNS

SEARCH ID: 31 **DIST/DIR:** 0.00 -- **MAP ID:** 5

NAME: VESSEL FAUST
ADDRESS: 200 A, QUAYSIDE
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV:
ID1: 16572
ID2:
STATUS: UNKNOWN
PHONE:

THERE ARE NO DETAILS AVAILABLE FOR THIS SITE

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

SPILLS

SEARCH ID: 34 **DIST/DIR:** 0.00 -- **MAP ID:** 6

NAME: WILMINGTON TOWN LOT 150
ADDRESS: 133-141 N. MARINA AVE
WILMINGTON CA 90744
CONTACT:

REV: 01/03/07
ID1: G_SLT43539537
ID2:
STATUS: CASE CLOSED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

Please note that some SLIC data previously provided by the State Water Resources Control Board via the Regional Boards is not currently provided by the agency in the new GEOTRACKER format. To ensure that our data is as complete as possible we have retained the original Regional Boards SLIC records as well as loaded all GEOTRACKER SLIC listings. GEOTRACKER records are distinguished by an initial G at the start of the ID.

LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *MANJULIKA CHAKRABARTI*
LEAD AGENCY CASE NUMBER: *0655R4*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded):
RECENT DTW:
STATUS: *Case Closed*

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

SWL

SEARCH ID: 37 **DIST/DIR:** 0.00 -- **MAP ID:** 7

NAME: IT CORPORATION-WILMINGTON
ADDRESS: 233 EAST D STREET
WILMINGTON CA
Los Angeles
CONTACT:

REV: 07/03/00
ID1: WMUD4 190253NUR
ID2:
STATUS:
PHONE:

WMUDS FACILITY INFORMATION (blank = not reported)

Regional ID :
NPDES ID :
Region: *4*
Edit Date:
Last Edit:

Waste Discharger Facility: *No*

Sub Chapter 15 Facility: *No*
Solid Waste Assessment Test Site: *Yes*
Toxic Pits Cleanup Act Facility: *No*
RCRA Facility: *No*
Department of Defense Facility: *No*
Municipal Solid Waste Facility: *No*

Total WMUS at Facility: *1*
Facility Open to the Public: *No*
Facility Type:
SIC 1 and SIC 2: */*

Primary Waste Type:
Secondary Waste Type:
Tons Per Day: *0*
Complexity:

LAND OWNER INFORMATION

Land Owner:
Department:
Contact and Phone: *,*
Land Owner Address: *, , CA*

AGENCY INFORMATION

Agency Name: *IT CORPORATION*
Department:
Agency Contact and Phone: *,*

WASTE MANAGEMENT UNIT INFORMATION (blank = not reported)

WMU ID : *4 190253NUR-01*
WMU Status: *CEASE DISCHARGE*
WMU Size in Acres:
Year WMU Will Reach Capacity:
Close Plan: *0*
Avg Depth to Groundwater: *0*
Primary Liner Present: *0*

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

UST

SEARCH ID: 52 **DIST/DIR:** 0.01 NW **MAP ID:** 8

NAME: METROPOLITAN STEVEDORE COMPANY
ADDRESS: 211 MARINE
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 01/01/94
ID1: TISID-STATE4569
ID2:
STATUS: INACTIVE
PHONE:

UST HISTORICAL DATA

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Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

RCRAGN

SEARCH ID: 11 **DIST/DIR:** 0.01 NW **MAP ID:** 8

NAME:	METROPOLITAN STEVEDORE	**REV:**	6/6/06
ADDRESS:	211 MARINE AVE	**ID1:**	CAD045231990
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	SGN
CONTACT:	ENVIRONMENTAL MANAGER	**PHONE:**	2138306220

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
211 MARINE AVE
WILMINGTON CA 90744

PHONE: 2138306220

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

NFRAP

SEARCH ID: 1 **DIST/DIR:** 0.02 NW **MAP ID:** 9

NAME: NORTH AMERICAN ENVIRONMENTAL
ADDRESS: 217 N. LAGOON AVE.
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 1/23/08
ID1: CAD980665947
ID2: 0904272
STATUS: NFRAP-N
PHONE:

DESCRIPTION:

ACTION/QUALITY	AGENCY/RPS	START/RAA	END	
ISSUE REQUEST LETTERS (104E)	Federal Enforcement		11-03-1992	
ISSUE REQUEST LETTERS (104E)	Federal Enforcement		09-11-1992	
ARCHIVE SITE	EPA In-House		02-22-1989	
ISSUE REQUEST LETTERS (104E)	Federal Enforcement		10-29-1992	
NON-NATIONAL PRIORITIES LIST POTENTIALLY RESPONSIBLE PARTY SEARCH Search Complete, No Viable PRPs	Federal Enforcement Primary		06-23-1992	02-24-1993
ISSUE REQUEST LETTERS (104E)	Federal Enforcement		09-01-1992	
ISSUE REQUEST LETTERS (104E)	Federal Enforcement		12-22-1992	
ISSUE REQUEST LETTERS (104E)	Federal Enforcement		12-10-1992	
Notice Letters Issued	Federal Enforcement		08-17-1992	
COST RECOVERY NEGOTIATIONS	Federal Enforcement Primary	08-06-1993	11-29-1993	
DISCOVERY	EPA Fund-Financed		11-01-1979	
PRELIMINARY ASSESSMENT NFRAP (No Futher Remedial Action Planned	EPA Fund-Financed		02-22-1989	
PRELIMINARY ASSESSMENT Low	State, Fund Financed	06-01-1984	11-01-1984	

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

UST

SEARCH ID: 53 **DIST/DIR:** 0.02 NW **MAP ID:** 9

NAME:	NORTH AMERICAN ENVIRONMENTAL	**REV:**	01/01/94
ADDRESS:	217 LAGOON	**ID1:**	TISID-STATE26638
	WILMINGTON CA	**ID2:**	
	Los Angeles	**STATUS:**	ACTIVE
CONTACT:		**PHONE:**	

UST HISTORICAL DATA

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Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

UST

SEARCH ID: 55 **DIST/DIR:** 0.02 NW **MAP ID:** 9

NAME: PORT OF LA
ADDRESS: 217 N LAGOON
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 12/01/2000
ID1: LACTY/NONCRTFD2003
ID2:
STATUS:
PHONE:

DETAILS NOT AVAILABLE

UST

SEARCH ID: 56 **DIST/DIR:** 0.02 NW **MAP ID:** 9

NAME: PORT OF LA
ADDRESS: 217 N LAGOON
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 03/24/99
ID1: LACTY/NONCRTFD626
ID2:
STATUS:
PHONE:

DETAILS NOT AVAILABLE

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

OTHER

SEARCH ID: 38 **DIST/DIR:** 0.02 NW **MAP ID:** 9

NAME: CALIFORNIA SALVAGE OCEAN DUMPING
ADDRESS: 217 NORTH LAGOON AVENUE
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 07/18/05
ID1: CAL19420001
ID2:
STATUS: PROPERTY/SITE REFERRED TO ANOT
PHONE:

GENERAL SITE INFORMATION

Site Type: *Historical*
Status: *Refer: Other Agency*
Status Date: *1984-03-06 00:00:00*
NPL Site: *NO*
Funding:
Regulatory Agencies Involved: *NONE SPECIFIED*
Lead Agency: *NONE SPECIFIED*
Project Manager:
Supervisor: *Referred - Not Assigned*
Branch: *So Cal - Cypress*
Acres:
Assessor s Parcel Number: *NONE SPECIFIED*
Past Uses: *NONE SPECIFIED*
Potential Contaminants: *HALOGENATED SOLVENTS, Metals - Sludge, OTHER ORGANIC SOLIDS, Sludge - Paint, UNSPECIFIED ACID SOLUTION, UNSPECIFIED OIL CONTAINING WASTE, POLYMERIC RESIN WASTE*
Confirmed Contaminants: *NONE SPECIFIED*
Potential Media Affected: *NONE SPECIFIED*
Restricted Use: *NO*
Site Management Required: *NONE SPECIFIED*
Special Programs Associated with this Site: ** RCRA 3012 - Past Haz Waste Disp Inven Site*

OTHER SITE NAMES (blank below = not reported by agency)

CAD980735914

DELUCA FISH COMPANY

IT CORPORATION

IT YARD

19420001

COMPLETED ACTIVITIES AND DTSC COMMENTS REGARDING THIS SITE (blank below = not reported by agency)

Area Name: ***PROJECT WIDE***
Sub- Area Name:
Document Type: ***Preliminary Assessment Report***
Completion Date: ***1984-03-06***
Comments: *FACILITY DRIVE-BY ASAP. FENCED and COMPLETELY PAVED SUBMIT TO EPA PRELIM ASSESS DONE RCRA 3012*

Area Name: ***PROJECT WIDE***
Sub- Area Name:
Document Type: ***Discovery***
Completion Date: ***1983-09-26***
Comments: *FACILITY IDENTIFIED ID FROM ERRIS*

Area Name: ***PROJECT WIDE***
Sub- Area Name:
Document Type: ***Discovery***

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

OTHER

SEARCH ID: 38 **DIST/DIR:** 0.02 NW **MAP ID:** 9

NAME:	CALIFORNIA SALVAGE OCEAN DUMPING	**REV:**	07/18/05
ADDRESS:	217 NORTH LAGOON AVENUE	**ID1:**	CAL19420001
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	PROPERTY/SITE REFERRED TO ANOT
CONTACT:		**PHONE:**	

Completion Date: ***1981-10-15***
Comments: *FACILITY IDENTIFIED ECKHARDT SURVEY*

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

STATE

SEARCH ID: 33 **DIST/DIR:** 0.02 NW **MAP ID:** 9

NAME: CALIFORNIA SALVAGE OCEAN DUMPING
ADDRESS: 217 NORTH LAGOON AVENUE
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 07/03/00
ID1: CAL19420001
ID2:
STATUS: PROPERTY/SITE REFERRED
PHONE:

OTHER SITE NAMES (blank below = not reported by agency)

OTHER SITE NAMES (blank below = not reported by agency)

OTHER SITE NAMES (blank below = not reported by agency)

OTHER SITE NAMES (blank below = not reported by agency)
DELUCA FISH COMPANY

GENERAL SITE INFORMATION
File Name (if different than site name):

Status: *PROPERTY/SITE REFERRED TO ANOTHER AGENCY (REFOA)*
AWP Site Type: *N/A*
NPL Site:
Fund:
Status Date: *03061984*
Lead:
Staff:
Senior Supervisor:

DTSC Region and RWQCB : *4 / LONG BEACH*
Branch: *SOUTHERN CA. - B*
RWQCB: *LOS ANGELES*
Site Access: *Controlled*
On Cortese List:
Groundwater Contamination:
Haz Ranking Score:
Haz Ranking Score:
Number of Sources Contributing to Contamination at the Site: *0*

OTHER AGENCY ID NUMBERS (blank below = not reported by agency)
ID SOURCE NAME, and VALUE: *EPA IDENTIFICATION NUMBER CAD980735914*

INFORMATION ON SPECIAL PROGRAMS THE SITE IS ASSOCIATED WITH (blank below = not reported by agency)
RCRA 3012

PROJECTED ACTIVITIES (blank below = not reported by agency)

PROJECTED ACTIVITIES (blank below = not reported by agency)

PROJECTED ACTIVITIES (blank below = not reported by agency)
Activity: ***DISCOVERY (DISC)***
Activity Status: *PROPERTY/SITE REFERRED TO ANOTHER AGENCY*
Completion Due Date:
Revised Completion Due Date:
Date Activity Actually Completed: *10151981*
Yards of Solids Removed: *0*

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

STATE

SEARCH ID: 33 **DIST/DIR:** 0.02 NW **MAP ID:** 9

NAME: CALIFORNIA SALVAGE OCEAN DUMPING
ADDRESS: 217 NORTH LAGOON AVENUE
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 07/03/00
ID1: CAL19420001
ID2:
STATUS: PROPERTY/SITE REFERRED
PHONE:

Yards of Solids Treated: *0*
Gallons of Liquid Removed: *0*
Gallons of Liquid Treated: *0*

Activity: ***DISCOVERY (DISC)***
Activity Status: *PROPERTY/SITE REFERRED TO ANOTHER AGENCY*
Completion Due Date:
Revised Completion Due Date:
Date Activity Actually Completed: *09261983*
Yards of Solids Removed: *0*
Yards of Solids Treated: *0*
Gallons of Liquid Removed: *0*
Gallons of Liquid Treated: *0*

Activity: ***(PA)***
Activity Status: *PROPERTY/SITE REFERRED TO ANOTHER AGENCY*
Completion Due Date:
Revised Completion Due Date:
Date Activity Actually Completed: *03061984*
Yards of Solids Removed: *0*
Yards of Solids Treated: *0*
Gallons of Liquid Removed: *0*
Gallons of Liquid Treated: *0*

DTSC COMMENTS REGARDING THIS SITE (blank below = not reported by agency)

DATE	COMMENT
10201980	*FACILITY DRIVE-BY A TRANSFER STATION NOW ON SITE.*
10211980	*FIRE CHIEF, FandG, and RWQCB REC SEARCHED.*
10251980	*RWQCB,CO ENVR HLTH RECORDS SEARCHED.*
12051980	*GROUND PHOTOS SLIDES TAKEN.*
02051981	*CO ENGR REC SEARCH.*
06081981	*FINAL STRATEGY WILL CONTINUE INVESTIGATION*
07271981	*FINAL STRATEGY SITE REFERRED: TO DFG and DEPT COAST GUARD*
10151981	*FACILITY IDENTIFIED ECKHARDT SURVEY*
09261983	*FACILITY IDENTIFIED ID FROM ERRIS*

DATE **COMMENT**

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

STATE

SEARCH ID: 33 **DIST/DIR:** 0.02 NW **MAP ID:** 9

NAME:	CALIFORNIA SALVAGE OCEAN DUMPING	**REV:**	07/03/00
ADDRESS:	217 NORTH LAGOON AVENUE	**ID1:**	CAL19420001
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	PROPERTY/SITE REFERRED
CONTACT:		**PHONE:**	

DATE	COMMENT
03011984	*T/C W/D.BROADBENT,IT CORP,213-378-9933,*
03011984	*1)SOURCE ACT: INDUST/MARINE DISP SERVICE*
03011984	*(IT)HAZ WASTE TREATMENT,TRANSPORT,andTEMP*
03011984	*STORAGE FAC.*
03011984	*INCIDENT: 1983 FIRE DESTROYED MOST BLDGS*
03011984	*NO INFO IS ABOUT CALIFORNIA SALVAGE CO*
03061984	*FACILITY DRIVE-BY ASAP. FENCED and COMPLETELY PAVED*
03061984	*SUBMIT TO EPA*
03061984	*PRELIM ASSESS DONE RCRA 3012*
11041988	*EPA prepared a PA Reassess. recom. NFA under CERCLA because:*
11041988	*lack of analytical data documenting a release; lack of tar-*
11041988	*get population for surface or GW routes.*

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

RCRAGN

SEARCH ID: 12 **DIST/DIR:** 0.02 NW **MAP ID:** 9

NAME: NORTH AMERICAN ENVIRONMENTAL INC
ADDRESS: 217 NORTH LAGOON DR
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 6/6/06
ID1: CAD980665947
ID2:
STATUS: SGN
PHONE:

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
217 NORTH LAGOON DR
WILMINGTON CA 90744

PHONE: 2138308923

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

AGENCY: S - STATE **DATE:** 3/11/1994
TYPE: 210 - INITIAL 3008(A) COMPLIANCE ORDER

AGENCY: S - STATE **DATE:** 7/14/1993
TYPE: 120 - WRITTEN INFORMAL

AGENCY: S - STATE **DATE:** 3/11/1994
TYPE: 210 - INITIAL 3008(A) COMPLIANCE ORDER

AGENCY: S - STATE **DATE:** 7/14/1993
TYPE: 120 - WRITTEN INFORMAL

VIOLATION INFORMATION:

VIOLATION NUMBER: 0001 **RESPONSIBLE:** S - STATE
DETERMINED: 7/14/1993 **DETERMINED BY:** S - STATE
CITATION: 264.140-150.H
RESOLVED: 7/1/1994
TYPE: TSD-FINANCIAL RESPONSIBILITY REQUIREMENTS

VIOLATION NUMBER: 0002 **RESPONSIBLE:** S - STATE
DETERMINED: 7/14/1993 **DETERMINED BY:** S - STATE
CITATION: 264.110-120.G
RESOLVED: 7/1/1994
TYPE: TSD-CLOSURE/POST-CLOSURE REQUIREMENTS

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

UST

SEARCH ID: 57 **DIST/DIR:** 0.02 NW **MAP ID:** 9

NAME: PORT OF LA
ADDRESS: 217 N LAGOON
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 05/01/2000
ID1: LACTY/NONCRTFD1618
ID2:
STATUS:
PHONE:

DETAILS NOT AVAILABLE

UST

SEARCH ID: 50 **DIST/DIR:** 0.02 NE **MAP ID:** 10

NAME: MARINE TANK FARM
ADDRESS: 130 A
LOS ANGELES CA 90744
Los Angeles
CONTACT:

REV: 01/01/94
ID1: TISID-STATE4427
ID2:
STATUS: INACTIVE
PHONE:

UST HISTORICAL DATA

This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names and locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.
The UST information included in FIDS as provided by the Office of Hazardous Data Management was originally collected from the SWEEPS database. The SWEEPS database recorded Underground Storage Tanks and was maintained by the State Water Resources Control Board (SWRCB). That agency no longer maintains the SWEEPS database and last updated it in 1994. The last release of that 1994 database was in 1997.
Oversight of Underground Storage Tanks within California is now conducted by Certified Unified Program Agencies referred to as CUPA s. There are approximately 102 CUPA s and Local Oversight Programs (LOP s) in the State of California. Most are city or county government agencies. As of 1998, all sites or facilities with underground storage tanks were required by Federal mandate to obtain certification by designated UST oversight agencies (in this case, CUPA s) that the UST/s at their location were upgraded or removed in adherence with the 1998 RCRA standards.
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Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

ERNS

SEARCH ID: 28 **DIST/DIR:** 0.03 NW **MAP ID:** 11

NAME: MITCHELL, THOMAS AND SONS
ADDRESS: 222 N LAGOON
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 7/20/95
ID1: 447002
ID2:
STATUS: FIXED FACILITY
PHONE:

SPILL INFORMATION
DATE OF SPILL: 7/20/1995 **TIME OF SPILL:** 1425

PRODUCT RELEASED (1): HYDROCHLORIC ACID
QUANTITY (1): 8700
UNITS (1): GAL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: CONCRETE

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** NO
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: LEAK SECURED/MATERIAL CONTAINED IN DIKE AREA/FD ON SCENE
RELEASE DETECTION: PIPELINE INSIDE FACILITY/LINE BROKE
MISC. NOTES: ONE BLOCK OF PRIVATE CITIZENS WAS EVACUATED

DISCHARGER INFORMATION
DISCHARGER ID: 447002 **DUN and BRADSTREET :**
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: MITCHELL, THOMAS AND SONS
ADDRESS:
WILMINGTON CA

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

LUST

SEARCH ID: 63 **DIST/DIR:** 0.05 NE **MAP ID:** 12

NAME: MOINE/LOCKE PROPERTY
ADDRESS: 127 B ST W
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 04/11/08
ID1: T0603701666
ID2:
STATUS: CASE CLOSED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

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LEAD AGENCY: *REGIONAL BOARD*
REGIONAL BOARD: *04*
LOCAL CASE NUMBER:
RESPONSIBLE PARTY: *BLANK RP*
ADDRESS OF RESPONSIBLE PARTY: *1110 W ANAHEIM ST, WILMINGTON CA 90744*
SITE OPERATOR: *OLD CASE 040590-06*
WATER SYSTEM:

CASE NUMBER: *907440216*
CASE TYPE: *OTHER*
SUBSTANCE LEAKED: *GASOLINE*
SUBSTANCE QUANTITY:
LEAK CAUSE: *UNKNOWN*
LEAK SOURCE: *TANK*
HOW LEAK WAS DISCOVERED: *TANK CLOSURE*
DATE DISCOVERED (blank if not reported): *1989-09-08 00:00:00*
HOW LEAK WAS STOPPED:
STOP DATE (blank if not reported):
STATUS: *CASE CLOSED*
ABATEMENT METHOD (please note that not all code translations have been provided by the reporting agency):
ENFORCEMENT TYPE (please note that not all code translations have been provided by the reporting agency):
DATE OF ENFORCEMENT (blank if not reported):

ENTER DATE (blank if not reported): *1990-04-04 00:00:00*
REVIEW DATE (blank if not reported): *1990-04-05 00:00:00*
DATE OF LEAK CONFIRMATION (blank if not reported):
DATE PRELIMINARY SITE ASSESSMENT PLAN WAS SUBMITTED (blank if not reported):
DATE PRELIMINARY SITE ASSESSMENT PLAN BEGAN (blank if not reported): *1990-03-21 00:00:00*
DATE POLLUTION CHARACTERIZATION PLAN BEGAN (blank if not reported):
DATE REMEDIATION PLAN WAS SUBMITTED (blank if not reported):
DATE REMEDIAL ACTION UNDERWAY (blank if not reported):
DATE POST REMEDIAL ACTION MONITORING BEGAN (blank if not reported):
DATE CLOSURE LETTER ISSUED (SITE CLOSED) (blank if not reported): *1997-01-10 00:00:00*
REPORT DATE (blank if not reported): *1990-03-21 00:00:00*

MTBE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

MTBE DATE(Date of historical maximum MTBE concentration):
MTBE GROUNDWATER CONCENTRATION (parts per billion):
MTBE SOIL CONCENTRATION (parts per million):
MTBE CNTS: *0*
MTBE FUEL: *1*
MTBE TESTED: *SITE NOT TESTED FOR MTBE. INCLUDES UNKNOWN AND NOT ANALYZED*
MTBE CLASS: *

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

RCRAGN

SEARCH ID: 17 **DIST/DIR:** 0.06 NE **MAP ID:** 13

NAME:	UNITED CHECKER CAB	**REV:**	6/6/06
ADDRESS:	117 WEST B ST	**ID1:**	CAD982320731
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	SGN
CONTACT:	ENVIRONMENTAL MANAGER	**PHONE:**	2135496900

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
117 WEST B ST
WILMINGTON CA 90744

PHONE: 2135496900

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

UST

SEARCH ID: 44 **DIST/DIR:** 0.06 SE **MAP ID:** 14

NAME: COLLEGE OF OCEANEERING
ADDRESS: 201 WATER
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 01/01/94
ID1: TISID-STATE28190
ID2:
STATUS: ACTIVE
PHONE:

UST HISTORICAL DATA

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Oversight of Underground Storage Tanks within California is now conducted by Certified Unified Program Agencies referred to as CUPA s. There are approximately 102 CUPA s and Local Oversight Programs (LOP s) in the State of California. Most are city or county government agencies. As of 1998, all sites or facilities with underground storage tanks were required by Federal mandate to obtain certification by designated UST oversight agencies (in this case, CUPA s) that the UST/s at their location were upgraded or removed in adherence with the 1998 RCRA standards.

Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by Track Info Services. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

RCRAGN

SEARCH ID: 9 **DIST/DIR:** 0.06 SW **MAP ID:** 15

NAME:	HARBOR WATER RECYCLE PROJECT - LADWP	**REV:**	6/6/06
ADDRESS:	150 N NEPTUNE STREET	**ID1:**	CAR000088294
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	LGN
CONTACT:	MARK J SEDLACEK	**PHONE:**	2133670403

SITE INFORMATION

CONTACT INFORMATION: MICHAEL HANSON
BOX 51111
LOS ANGELES CA 90051 5700

PHONE: 213-367-0634

UNIVERSE INFORMATION:

NAIC INFORMATION

22131 - WATER SUPPLY AND IRRIGATION SYSTEMS

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

Lead
Arsenic
Ignitable waste

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

ERNS

SEARCH ID: 27 **DIST/DIR:** 0.07 NE **MAP ID:** 16

NAME: LOS ANGELES DEPT OF WATER
ADDRESS: 130 WEST A STREET
WILMINGTON CA
Los Angeles
CONTACT:

REV: 5/11/99
ID1: 621276
ID2:
STATUS: FIXED FACILITY
PHONE:

SPILL INFORMATION
DATE OF SPILL: 5/11/1999 **TIME OF SPILL:** 0001

PRODUCT RELEASED (1): OIL, MISC: LUBRICATING
QUANTITY (1): 500
UNITS (1): BBL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: NO **FIXED FACILITY:** NO
WATER: NO **OTHER:** YES
WATERBODY AFFECTED BY RELEASE: CONCRETE IN PLANT

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** NO
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: RELEASE IS SECURED / ALL MATERIAL CONTAINED ON SITE / CLEANUP CREWS ARE RESPONDING WILL USE VAC TRUCKS
RELEASE DETECTION: PIPELINE RUPTURE CONNECTED TO TANK / CAUSE UNKNOWN / CAPACITY OF TANK UNKNOWN
MISC. NOTES: AREA AFFECTED: CONTAINMENT AREA UNKNOWN ALL ON SITE NO WATER AFFECTED CALLERS RESPONSE PHONE NUMBER IS 562 425 7870

DISCHARGER INFORMATION
DISCHARGER ID: 621276
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: LOS ANGELES DEPT OF WATER
ADDRESS: 1111 NORTH HOPE ST
LOS ANGELES CA 90012

DUN and BRADSTREET :

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

RCRANLR

SEARCH ID: 21 **DIST/DIR:** 0.07 NE **MAP ID:** 16

NAME:	DEPT WATER and POWER	**REV:**	6/6/06
ADDRESS:	130 W A ST	**ID1:**	CAR000087981
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	NLR
CONTACT:	MICHAEL HANSON	**PHONE:**	2133670634

SITE INFORMATION

CONTACT INFORMATION: MICHAEL HANSON
P O BOX 51111
LOS ANGELES CA 900510100

PHONE: 2133670634

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

Tetrachloroethylene
Ignitable waste

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

RCRAGN

SEARCH ID: 5 **DIST/DIR:** 0.07 NE **MAP ID:** 16

NAME:	DEPT WATER and POWER	**REV:**	1/14/02
ADDRESS:	130 W A ST	**ID1:**	CAR000087981
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	SGN
CONTACT:	BARRY ONELL	**PHONE:**	8003425397

SITE INFORMATION

CONTACT INFORMATION: BARRY ONELL
SPVR
130 W A ST
WILMINGTON CA 90744

PHONE: 8003425397

UNIVERSE NAME:

SGN: GENERATES 100 - 1000 KG/MONTH OF HAZARDOUS WASTE

SIC INFORMATION:

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

UST

SEARCH ID: 51 **DIST/DIR:** 0.07 NE **MAP ID:** 16

NAME: MARINE TANK FARM
ADDRESS: 130 W A ST
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 05/30/01
ID1: AST12
ID2:
STATUS: AST SWRCB REG.4
PHONE:

CALIFORNIA ABOVEGROUND PETROLEUM STORAGE TANKS INFORMATION LIST
As reported by the responsible agency, there are currently no details associated with this record.

RCRAGN

SEARCH ID: 16 **DIST/DIR:** 0.07 NE **MAP ID:** 16

NAME: ULTRAMAR INC MARINE TANK FARM
ADDRESS: 130 W A ST
WILMINGTON CA 90744
LOS ANGELES
CONTACT: DAVID BERNSTEIN

REV: 6/6/06
ID1: CAR000095125
ID2:
STATUS: LGN
PHONE: 5624955490

SITE INFORMATION

CONTACT INFORMATION: DAVID BERNSTEIN
2402 E ANAHEIM ST
WILMINGTON CA 90744

PHONE: 5624955490

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

Tank bottoms (leaded) from the petroleum refining industry.
Ignitable waste
Slop oil emulsion solids from the petroleum refining industry.

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

ERNS

SEARCH ID: 29 **DIST/DIR:** 0.07 SW **MAP ID:** 17

NAME: UNOCAL
ADDRESS: NEPTUNE and B STREET
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV:
ID1: 105386
ID2:
STATUS: UNKNOWN
PHONE:

THERE ARE NO DETAILS AVAILABLE FOR THIS SITE

ERNS

SEARCH ID: 30 **DIST/DIR:** 0.07 SW **MAP ID:** 17

NAME: UNOCAL
ADDRESS: B ST AND NEPTUNE ST
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV:
ID1: 105248
ID2:
STATUS: UNKNOWN
PHONE:

THERE ARE NO DETAILS AVAILABLE FOR THIS SITE

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

RCRAGN

SEARCH ID: 10 **DIST/DIR:** 0.08 SW **MAP ID:** 18

NAME:	KEEPING ON TRUCKING	**REV:**	6/6/06
ADDRESS:	607 W B ST	**ID1:**	CAD981971534
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	SGN
CONTACT:	ENVIRONMENTAL MANAGER	**PHONE:**	2138306610

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
607 W B ST
WILMINGTON CA 90744

PHONE: 2138306610

UNIVERSE INFORMATION:

NAIC INFORMATION

48411 - GENERAL FREIGHT TRUCKING, LOCAL

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

LUST

SEARCH ID: 62 **DIST/DIR:** 0.08 SW **MAP ID:** 18

NAME: KEEP ON TRUCKING, INC.
ADDRESS: 607 B ST W
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 04/11/08
ID1: T0603701654
ID2:
STATUS: CASE CLOSED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

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LEAD AGENCY: *REGIONAL BOARD*
REGIONAL BOARD: *04*
LOCAL CASE NUMBER:
RESPONSIBLE PARTY: *BETSY FOLEY*
ADDRESS OF RESPONSIBLE PARTY: *425 S. PALOS VERDES ST.*
SITE OPERATOR:
WATER SYSTEM:

CASE NUMBER: *907440070*
CASE TYPE: *OTHER*
SUBSTANCE LEAKED: *DIESEL*
SUBSTANCE QUANTITY:
LEAK CAUSE: *UNKNOWN*
LEAK SOURCE: *UNKNOWN*
HOW LEAK WAS DISCOVERED:
DATE DISCOVERED (blank if not reported):
HOW LEAK WAS STOPPED:
STOP DATE (blank if not reported):
STATUS: *CASE CLOSED*
ABATEMENT METHOD (please note that not all code translations have been provided by the reporting agency):
ENFORCEMENT TYPE (please note that not all code translations have been provided by the reporting agency): *Closure Letter*
DATE OF ENFORCEMENT (blank if not reported):

ENTER DATE (blank if not reported): *1990-11-07 00:00:00*
REVIEW DATE (blank if not reported):
DATE OF LEAK CONFIRMATION (blank if not reported): *1990-09-13 00:00:00*
DATE PRELIMINARY SITE ASSESSMENT PLAN WAS SUBMITTED (blank if not reported): *1992-02-06 00:00:00*
DATE PRELIMINARY SITE ASSESSMENT PLAN BEGAN (blank if not reported): *1996-12-20 00:00:00*
DATE POLLUTION CHARACTERIZATION PLAN BEGAN (blank if not reported):
DATE REMEDIATION PLAN WAS SUBMITTED (blank if not reported):
DATE REMEDIAL ACTION UNDERWAY (blank if not reported):
DATE POST REMEDIAL ACTION MONITORING BEGAN (blank if not reported):
DATE CLOSURE LETTER ISSUED (SITE CLOSED) (blank if not reported): *2004-10-29 00:00:00*
REPORT DATE (blank if not reported): *1990-09-13 00:00:00*

MTBE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

MTBE DATE(Date of historical maximum MTBE concentration): *1965-01-01 00:00:00*
MTBE GROUNDWATER CONCENTRATION (parts per billion): *57*
MTBE SOIL CONCENTRATION (parts per million):
MTBE CNTS: *1*
MTBE FUEL: *0*
MTBE TESTED: *YES*
MTBE CLASS:

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

UST

SEARCH ID: 43 **DIST/DIR:** 0.08 NE **MAP ID:** 19

NAME: CITY OF LOS ANGELES
ADDRESS: 214 N AVALON BL
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 05/01/2000
ID1: LACTY/NONCRTFD145
ID2:
STATUS:
PHONE:

DETAILS NOT AVAILABLE

UST

SEARCH ID: 41 **DIST/DIR:** 0.09 NE **MAP ID:** 20

NAME: CALIF HARDWOOD PRODUCTS INC
ADDRESS: 218 B
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 01/01/94
ID1: TISID-STATE5277
ID2:
STATUS: INACTIVE
PHONE:

UST HISTORICAL DATA

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Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

RCRANLR

SEARCH ID: 22 **DIST/DIR:** 0.09 NE **MAP ID:** 20

NAME:	KORODY COLYER CORP	**REV:**	6/6/06
ADDRESS:	218 N AVALON BLVD	**ID1:**	CAD981456122
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	NLR
CONTACT:	ANTHONY MEDINA	**PHONE:**	3106399511

SITE INFORMATION

CONTACT INFORMATION: ANTHONY MEDINA
PO BOX 9059
COMPTON CA 902249059

PHONE: 3106399511

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

NFRAP

SEARCH ID: 2 **DIST/DIR:** 0.09 NE **MAP ID:** 21

NAME: ROEHL DISPOSAL SERVICES
ADDRESS: 131 NORTH MARINE AVE
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 1/23/08
ID1: CAD980737548
ID2: 0900177
STATUS: NFRAP-N
PHONE:

DESCRIPTION:

ACTION/QUALITY	AGENCY/RPS	START/RAA	END
ARCHIVE SITE	EPA In-House		01-23-1996
DISCOVERY	EPA Fund-Financed		08-01-1987
PRELIMINARY ASSESSMENT	EPA Fund-Financed		06-01-1990

Deferred to RCRA (Subtitle C)

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

RCRANLR

SEARCH ID: 23 **DIST/DIR:** 0.09 NE **MAP ID:** 21

NAME: SAFETY KLEEN CORP
ADDRESS: 131 N MARINE AVE
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 12/9/02
ID1: CAD981692098
ID2:
STATUS: NLR
PHONE:

SITE INFORMATION

CONTACT INFORMATION: SCOTT DAVIES
ENV MGR
8795 FOLSOM BLVD STE 108
SACRAMENTO CA 95826

PHONE: 9163876063

UNIVERSE TYPE:

SIC INFORMATION:

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

RCRAGN

SEARCH ID: 6 **DIST/DIR:** 0.09 NE **MAP ID:** 21

NAME:	DOCKSIDE MACH and SHIP RPR	**REV:**	6/6/06
ADDRESS:	131 N AVALON BLVD	**ID1:**	CAD981442262
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	SGN
CONTACT:		**PHONE:**	

SITE INFORMATION

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

UST

SEARCH ID: 45 **DIST/DIR:** 0.09 NE **MAP ID:** 21

NAME:	DOCKSIDE MACHINE and BOILER WORK	**REV:**	01/01/94
ADDRESS:	131 AVALON	**ID1:**	TISID-STATE27509
	WILMINGTON CA 90744	**ID2:**	
	Los Angeles	**STATUS:**	ACTIVE
CONTACT:		**PHONE:**	

UST HISTORICAL DATA

This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names and locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.

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Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by Track Info Services. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

UST

SEARCH ID: 46 **DIST/DIR:** 0.09 NE **MAP ID:** 21

NAME: DOCKSIDE MACHINE and BOILER WORK
ADDRESS: 131 N AVALON BL
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 05/01/2000
ID1: LACTY/NONCRTFD144
ID2:
STATUS:
PHONE:

DETAILS NOT AVAILABLE

RCRAGN

SEARCH ID: 15 **DIST/DIR:** 0.09 NW **MAP ID:** 22

NAME: SHIMIZU AUTOMOTIVE
ADDRESS: 402 W C ST
WILMINGTON CA 90744
LOS ANGELES
CONTACT: JOHNY SHIMIZU

REV: 6/6/06
ID1: CAR000086983
ID2:
STATUS: SGN
PHONE: 3108347615

SITE INFORMATION

CONTACT INFORMATION: JOHNY SHIMIZU
402 W C ST
WILMINGTON CA 90744

PHONE: 3108347615

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

Ignitable waste
Tetrachloroethylene

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

LUST

SEARCH ID: 64 **DIST/DIR:** 0.09 NW **MAP ID:** 23

NAME: WILMINGTON IRON WORKS
ADDRESS: 432 C ST W
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 04/11/08
ID1: T0603701665
ID2:
STATUS: CASE CLOSED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

Please note that some data previously provided by the State Water Resources Control Board in the LUSTIS database is not currently being provided by the agency in the most recent edition. Incidents that occurred after the year 2000 may not have much information. Field headers with blank information following after should be interpreted as unreported by the agency.

LEAD AGENCY: *REGIONAL BOARD*
REGIONAL BOARD: *04*
LOCAL CASE NUMBER:
RESPONSIBLE PARTY: *WILMINGTON IRON WORKS*
ADDRESS OF RESPONSIBLE PARTY: *432 WEST C ST., WILMINGTON, CA 90744*
SITE OPERATOR: *OLD CASE 011791-02*
WATER SYSTEM:

CASE NUMBER: *907440207M*
CASE TYPE: *OTHER*
SUBSTANCE LEAKED: *BENZENE*
SUBSTANCE QUANTITY:
LEAK CAUSE: *UNKNOWN*
LEAK SOURCE: *UNKNOWN*
HOW LEAK WAS DISCOVERED:
DATE DISCOVERED (blank if not reported):
HOW LEAK WAS STOPPED:
STOP DATE (blank if not reported):
STATUS: *CASE CLOSED*
ABATEMENT METHOD (please note that not all code translations have been provided by the reporting agency):
ENFORCEMENT TYPE (please note that not all code translations have been provided by the reporting agency):
DATE OF ENFORCEMENT (blank if not reported):

ENTER DATE (blank if not reported): *1991-01-17 00:00:00*
REVIEW DATE (blank if not reported): *1997-12-30 00:00:00*
DATE OF LEAK CONFIRMATION (blank if not reported):
DATE PRELIMINARY SITE ASSESSMENT PLAN WAS SUBMITTED (blank if not reported):
DATE PRELIMINARY SITE ASSESSMENT PLAN BEGAN (blank if not reported): *1989-05-31 00:00:00*
DATE POLLUTION CHARACTERIZATION PLAN BEGAN (blank if not reported):
DATE REMEDIATION PLAN WAS SUBMITTED (blank if not reported):
DATE REMEDIAL ACTION UNDERWAY (blank if not reported):
DATE POST REMEDIAL ACTION MONITORING BEGAN (blank if not reported):
DATE CLOSURE LETTER ISSUED (SITE CLOSED) (blank if not reported): *1997-10-28 00:00:00*
REPORT DATE (blank if not reported): *1990-11-07 00:00:00*

MTBE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

MTBE DATE(Date of historical maximum MTBE concentration): *1965-01-01 00:00:00*
MTBE GROUNDWATER CONCENTRATION (parts per billion): *ND*
MTBE SOIL CONCENTRATION (parts per million):
MTBE CNTS: *1*
MTBE FUEL: *0*
MTBE TESTED: *YES*
MTBE CLASS: *

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

UST

SEARCH ID: 59 **DIST/DIR:** 0.09 NW **MAP ID:** 23

NAME:	WILMINGTON IRON WORKS INC	**REV:**	01/01/94
ADDRESS:	432 C	**ID1:**	TISID-STATE4724
	WILMINGTON CA 90744	**ID2:**	
	Los Angeles	**STATUS:**	INACTIVE
CONTACT:		**PHONE:**	

UST HISTORICAL DATA

This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names and locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.

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Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by Track Info Services. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

RCRAGN

SEARCH ID: 18 **DIST/DIR:** 0.09 NW **MAP ID:** 23

NAME:	WILMINGTON IRON WORKS	**REV:**	6/6/06
ADDRESS:	432 WEST C ST	**ID1:**	CAR000015040
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	SGN
CONTACT:	WILLIAM BRADSHAW	**PHONE:**	3105183213

SITE INFORMATION

CONTACT INFORMATION: WILLIAM BRADSHAW
432 WEST C ST
WILMINGTON CA 90744

PHONE: 3105183213

UNIVERSE INFORMATION:

NAIC INFORMATION

336611 - SHIP BUILDING AND REPAIRING

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

LUST

SEARCH ID: 61 **DIST/DIR:** 0.10 NE **MAP ID:** 24

NAME: E W SAYBOLT and COMPANY INC
ADDRESS: 115 AVALON BLVD
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 04/11/08
ID1: T0603701652
ID2:
STATUS: CASE CLOSED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

Please note that some data previously provided by the State Water Resources Control Board in the LUSTIS database is not currently being provided by the agency in the most recent edition. Incidents that occurred after the year 2000 may not have much information. Field headers with blank information following after should be interpreted as unreported by the agency.

LEAD AGENCY: *REGIONAL BOARD*
REGIONAL BOARD: *04*
LOCAL CASE NUMBER:
RESPONSIBLE PARTY: *BLANK RP*
ADDRESS OF RESPONSIBLE PARTY:
SITE OPERATOR:
WATER SYSTEM:

CASE NUMBER: *907440052*
CASE TYPE: *SOIL ONLY*
SUBSTANCE LEAKED: *GASOLINE*
SUBSTANCE QUANTITY:
LEAK CAUSE: *UNKNOWN*
LEAK SOURCE: *UNKNOWN*
HOW LEAK WAS DISCOVERED:
DATE DISCOVERED (blank if not reported):
HOW LEAK WAS STOPPED:
STOP DATE (blank if not reported):
STATUS: *CASE CLOSED*
ABATEMENT METHOD (please note that not all code translations have been provided by the reporting agency): *EXCAVATE AND DISPOSE-REMOVE CONTAMINATED SOIL AND DISPOSE IN APPROVED SITE*
ENFORCEMENT TYPE (please note that not all code translations have been provided by the reporting agency):
DATE OF ENFORCEMENT (blank if not reported):

ENTER DATE (blank if not reported): *1986-12-31 00:00:00*
REVIEW DATE (blank if not reported): *1988-04-18 00:00:00*
DATE OF LEAK CONFIRMATION (blank if not reported):
DATE PRELIMINARY SITE ASSESSMENT PLAN WAS SUBMITTED (blank if not reported):
DATE PRELIMINARY SITE ASSESSMENT PLAN BEGAN (blank if not reported):
DATE POLLUTION CHARACTERIZATION PLAN BEGAN (blank if not reported): *1996-05-02 00:00:00*
DATE REMEDIATION PLAN WAS SUBMITTED (blank if not reported):
DATE REMEDIAL ACTION UNDERWAY (blank if not reported):
DATE POST REMEDIAL ACTION MONITORING BEGAN (blank if not reported):
DATE CLOSURE LETTER ISSUED (SITE CLOSED) (blank if not reported): *1996-05-02 00:00:00*
REPORT DATE (blank if not reported): *1985-08-26 00:00:00*

MTBE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD LUSTIS DATABASE

MTBE DATE(Date of historical maximum MTBE concentration):
MTBE GROUNDWATER CONCENTRATION (parts per billion):
MTBE SOIL CONCENTRATION (parts per million):
MTBE CNTS: *0*
MTBE FUEL: *1*
MTBE TESTED: *SITE NOT TESTED FOR MTBE. INCLUDES UNKNOWN AND NOT ANALYZED*
MTBE CLASS: ***

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

RCRAGN

SEARCH ID: 7 **DIST/DIR:** 0.10 NE **MAP ID:** 24

NAME:	EW SAYBOLT and CO INC	**REV:**	6/6/06
ADDRESS:	115 N AVALON BLVD	**ID1:**	CAD010705671
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	LGN
CONTACT:	ENVIRONMENTAL MANAGER	**PHONE:**	2135497990

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
PO BOX 1146
WILMINGTON CA 90748

PHONE:

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
115 N AVALON BLVD
WILMINGTON CA 90744

PHONE: 2135497990

UNIVERSE INFORMATION:

NAIC INFORMATION

324199 - ALL OTHER PETROLEUM AND COAL PRODUCTS MANUFACTURING
54138 - TESTING LABORATORIES

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

UST

SEARCH ID: 47 **DIST/DIR:** 0.10 NE **MAP ID:** 24

NAME:	E W SAYBOLT and CO INC	**REV:**	01/01/94
ADDRESS:	115 AVALON	**ID1:**	TISID-STATE4872
	WILMINGTON CA 90744	**ID2:**	
	Los Angeles	**STATUS:**	INACTIVE
CONTACT:		**PHONE:**	

UST HISTORICAL DATA

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Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

RCRAGN

SEARCH ID: 13 **DIST/DIR:** 0.10 SW **MAP ID:** 25

NAME: PACIFIC MOLASSES CO
ADDRESS: 395 WATER ST
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 6/6/06
ID1: CAD071902936
ID2:
STATUS: SGN
PHONE:

SITE INFORMATION

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

UST

SEARCH ID: 42 **DIST/DIR:** 0.10 SW **MAP ID:** 25

NAME: CITY OF LA HARBOR DEPARTMENT
ADDRESS: 395 WATER ST
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 05/01/2000
ID1: LACTY/NONCRTFD1308
ID2:
STATUS:
PHONE:

DETAILS NOT AVAILABLE

UST

SEARCH ID: 54 **DIST/DIR:** 0.10 SW **MAP ID:** 25

NAME: PACIFIC MOLASSES COMPANY
ADDRESS: 395 WATER
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 01/01/94
ID1: TISID-STATE4386
ID2:
STATUS: INACTIVE
PHONE:

UST HISTORICAL DATA

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Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

SPILLS

SEARCH ID: 35 **DIST/DIR:** 0.10 NW **MAP ID:** 26

NAME: WILMINGTON TOWN LOT 525
ADDRESS: 202 W. C ST
WILMINGTON CA 90744
CONTACT:

REV: 01/03/07
ID1: G_SLT43495493
ID2:
STATUS: NOT REPORTED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

Please note that some SLIC data previously provided by the State Water Resources Control Board via the Regional Boards is not currently provided by the agency in the new GEOTRACKER format. To ensure that our data is as complete as possible we have retained the original Regional Boards SLIC records as well as loaded all GEOTRACKER SLIC listings. GEOTRACKER records are distinguished by an initial G at the start of the ID.

LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *MANJULIKA CHAKRABARTI*
LEAD AGENCY CASE NUMBER: *0655L5*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded):
RECENT DTW:
STATUS:

SPILLS

SEARCH ID: 36 **DIST/DIR:** 0.10 NW **MAP ID:** 27

NAME: WILMINGTON TOWN LOT 526.1, 526.2
ADDRESS: 300 MARINE AVE
WILMINGTON CA 90744
CONTACT:

REV: 01/03/07
ID1: G_SLT43570568
ID2:
STATUS: CASE CLOSED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

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LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *MANJULIKA CHAKRABARTI*
LEAD AGENCY CASE NUMBER: *0655U8*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded):
RECENT DTW:
STATUS: *Case Closed*

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

ERNS

SEARCH ID: 26 **DIST/DIR:** 0.11 NE **MAP ID:** 28

NAME: GATX
ADDRESS: BROAD and AVALON STS
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 2/16/91
ID1: 205164
ID2:
STATUS: PIPELINE RELATED
PHONE:

SPILL INFORMATION
DATE OF SPILL: 2/16/1991 **TIME OF SPILL:** 0300

PRODUCT RELEASED (1): CRUDE OIL
QUANTITY (1): 1
UNITS (1): BBL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: NONE

SPILL INFORMATION
DATE OF SPILL: 2/16/1991 **TIME OF SPILL:** 0300

PRODUCT RELEASED (1): CRUDE OIL
QUANTITY (1): 1
UNITS (1): BBL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: NONE

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** YES
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: CLEANUP BY RP
RELEASE DETECTION: OIL OOZING OUT OF GROUND

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

ERNS

SEARCH ID: 26 **DIST/DIR:** 0.11 NE **MAP ID:** 28

NAME: GATX
ADDRESS: BROAD and AVALON STS
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 2/16/91
ID1: 205164
ID2:
STATUS: PIPELINE RELATED
PHONE:

MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 205164
TYPE OF DISCHARGER: PRIVATE CITIZEN
NAME OF DISCHARGER: GATX
ADDRESS: 2000 E. SEPULVEDA BLVD
CARSON CA 90810-

DUN and BRADSTREET :

CAUSE OF RELEASE
DUMPING: NO
NATURAL PHENOMENON: NO
OTHER CAUSE: NO
UNKNOWN: NO
EQUIPMENT FAILURE: YES
OPERATOR ERROR: NO
TRANSP. ACCIDENT: NO

ACTIONS TAKEN: CLEANUP BY RP
RELEASE DETECTION: OIL OOZING OUT OF GROUND
MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 205164
TYPE OF DISCHARGER: PRIVATE CITIZEN
NAME OF DISCHARGER: GATX
ADDRESS: 2000 E. SEPULVEDA BLVD
CARSON CA 90810-

DUN and BRADSTREET :

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

RCRANLR

SEARCH ID: 20 **DIST/DIR:** 0.12 NE **MAP ID:** 29

NAME:	CAVANAUGH MACHINE WORKS	**REV:**	6/6/06
ADDRESS:	220 EAST B ST	**ID1:**	CAD982329112
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	NLR
CONTACT:	JOHN WEBER	**PHONE:**	5624371126

SITE INFORMATION

CONTACT INFORMATION: JOHN WEBER
1540 SANTA FE AVE
LONG BEACH CA 90813

PHONE: 5624371126

UNIVERSE INFORMATION:

NAIC INFORMATION

333319 - OTHER COMMERCIAL AND SERVICE INDUSTRY MACHINERY MANUFACTURING

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

UST

SEARCH ID: 58 **DIST/DIR:** 0.12 NW **MAP ID:** 30

NAME:	WILMINGTON DISTRIBUTION HQ	**REV:**	01/01/94
ADDRESS:	315 ISLAND	**ID1:**	TISID-STATE27212
	WILMINGTON CA 90744	**ID2:**	
	Los Angeles	**STATUS:**	ACTIVE
CONTACT:		**PHONE:**	

UST HISTORICAL DATA

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Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by Track Info Services. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

UST

SEARCH ID: 60 **DIST/DIR:** 0.12 NW **MAP ID:** 30

NAME: WILMINGTON SERVICE CENTER
ADDRESS: 315 N ISLAND AV
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 05/01/2000
ID1: LACITY/CERTNO23440
ID2:
STATUS:
PHONE:

DETAILS NOT AVAILABLE

RCRAGN

SEARCH ID: 19 **DIST/DIR:** 0.12 NW **MAP ID:** 30

NAME: WILMINGTON SERVICE CTR
ADDRESS: 315 N ISLAND AVE
WILMINGTON CA 90744
LOS ANGELES
CONTACT: EDWARD KARAPETIAN

REV: 6/6/06
ID1: CAD983613431
ID2:
STATUS: SGN
PHONE: 2134813250

SITE INFORMATION

CONTACT INFORMATION: EDWARD KARAPETIAN
111 N HOPE ST RM FIRST THOUSAN
LOS ANGELES CA 90012

PHONE: 2134813250

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

ERNS

SEARCH ID: 24 **DIST/DIR:** 0.12 NW **MAP ID:** 31

NAME: EXXON
ADDRESS: C STREET and NEPTUNE
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 11/12/91
ID1: 240343
ID2:
STATUS: PIPELINE RELATED
PHONE:

SPILL INFORMATION
DATE OF SPILL: 11/12/1991 **TIME OF SPILL:** 1600

PRODUCT RELEASED (1): INJECTION WATER
QUANTITY (1): 13
UNITS (1): BBL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: 1/2 BBL INTO STORM DRAIN

SPILL INFORMATION
DATE OF SPILL: 11/12/1991 **TIME OF SPILL:** 1600

PRODUCT RELEASED (1): INJECTION WATER
QUANTITY (1): 13
UNITS (1): BBL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: 1/2 BBL INTO STORM DRAIN

CAUSE OF RELEASE
DUMPING: YES **EQUIPMENT FAILURE:** NO
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: VACUUM TRUCK PICKING UP EXCESS WATER
RELEASE DETECTION: LEAKING LEADER LINE LINE LEAK INTO GUTTER and STREET

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

ERNS

SEARCH ID: 24 **DIST/DIR:** 0.12 NW **MAP ID:** 31

NAME: EXXON
ADDRESS: C STREET and NEPTUNE
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 11/12/91
ID1: 240343
ID2:
STATUS: PIPELINE RELATED
PHONE:

MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 240343
TYPE OF DISCHARGER: PRIVATE CITIZEN
NAME OF DISCHARGER: EXXON
ADDRESS: POB 19649
WILMINGTON CA 90744-

DUN and BRADSTREET :

CAUSE OF RELEASE

DUMPING:	YES	**EQUIPMENT FAILURE:**	NO
NATURAL PHENOMENON:	NO	**OPERATOR ERROR:**	NO
OTHER CAUSE:	NO	**TRANSP. ACCIDENT:**	NO
UNKNOWN:	NO		

ACTIONS TAKEN: VACUUM TRUCK PICKING UP EXCESS WATER
RELEASE DETECTION: LEAKING LEADER LINE LINE LEAK INTO GUTTER and STREET
MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 240343
TYPE OF DISCHARGER: PRIVATE CITIZEN
NAME OF DISCHARGER: EXXON
ADDRESS: POB 19649
WILMINGTON CA 90744-

DUN and BRADSTREET :

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

STATE

SEARCH ID: 77 **DIST/DIR:** NON GC **MAP ID:**

NAME:	UNION OIL CO OF CA LA MARINE TERMINAL	**REV:**	07/03/00
ADDRESS:	BERTH 150 PIER A ST (BERTHS 149,150,151)	**ID1:**	CAL19281189
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	PROPERTY/SITE REFERRED
CONTACT:		**PHONE:**	

OTHER SITE NAMES (blank below = not reported by agency)
UNION OIL CO OF CA LA MARINE TERMINAL

GENERAL SITE INFORMATION
File Name (if different than site name):

Status: *PROPERTY/SITE REFERRED TO ANOTHER AGENCY (REFOA)*
AWP Site Type: *N/A*
NPL Site:
Fund:
Status Date: *03011984*
Lead:
Staff:
Senior Supervisor:

DTSC Region and RWQCB : *4 / LONG BEACH*
Branch: *SOUTHERN CA. - B*
RWQCB:
Site Access:
On Cortese List:
Groundwater Contamination:
Haz Ranking Score:
Haz Ranking Score:
Number of Sources Contributing to Contamination at the Site: *0*

OTHER AGENCY ID NUMBERS (blank below = not reported by agency)
ID SOURCE NAME, and VALUE: *EPA IDENTIFICATION NUMBER CAT000611228*

INFORMATION ON SPECIAL PROGRAMS THE SITE IS ASSOCIATED WITH (blank below = not reported by agency)
RCRA 3012

PROJECTED ACTIVITIES (blank below = not reported by agency)

PROJECTED ACTIVITIES (blank below = not reported by agency)

PROJECTED ACTIVITIES (blank below = not reported by agency)
Activity: ***DISCOVERY (DISC)***
Activity Status: *PROPERTY/SITE REFERRED TO ANOTHER AGENCY*
Completion Due Date:
Revised Completion Due Date:
Date Activity Actually Completed: *10111983*
Yards of Solids Removed: *0*
Yards of Solids Treated: *0*
Gallons of Liquid Removed: *0*
Gallons of Liquid Treated: *0*

Activity: ***(PA)***
Activity Status: *PROPERTY/SITE REFERRED TO ANOTHER AGENCY*

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

STATE

SEARCH ID: 77 **DIST/DIR:** NON GC **MAP ID:**

NAME: UNION OIL CO OF CA LA MARINE TERMINAL
ADDRESS: BERTH 150 PIER A ST (BERTHS 149,150,151)
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 07/03/00
ID1: CAL19281189
ID2:
STATUS: PROPERTY/SITE REFERRED
PHONE:

Completion Due Date:
Revised Completion Due Date:
Date Activity Actually Completed: *03011984*
Yards of Solids Removed: *0*
Yards of Solids Treated: *0*
Gallons of Liquid Removed: *0*
Gallons of Liquid Treated: *0*

Activity: ***(SS)***
Activity Status: *PROPERTY/SITE REFERRED TO ANOTHER AGENCY*
Completion Due Date:
Revised Completion Due Date:
Date Activity Actually Completed: *05011995*
Yards of Solids Removed: *0*
Yards of Solids Treated: *0*
Gallons of Liquid Removed: *0*
Gallons of Liquid Treated: *0*

DTSC COMMENTS REGARDING THIS SITE (blank below = not reported by agency)

DATE	COMMENT
08311971	*VIOLATION DETECTED OIL SPILL 30-40BBLS.*
08311971	*OIL SPILL-2G/M.*
09031971	*INSPECTION(LOCAL) PUB WRK. F-U INSP ON OIL SPILL(3/31/71)*
12241972	*ENFORCEMENT(OTHER) C-U OIL SPILL IN HARBOR AREA. COMPLETED*
12241972	*2/27/72 BY CROSBY and OVERTON(PUB WRK)*
09071975	*VIOLATION DETECTED FUEL OIL SPILL 20-25 BARRELS*
09291975	*VIOLATION DETECTED GASOLINE SPILL-100GAL.*
09301975	*INSPECTION(LOCAL) PUB WRD: F/U INSP ON GASOLINE SPILL (9/*
09301975	*29/75). NO FUR ACT.*
10111983	*FACILITY IDENTIFIED ID FROM ERRIS*
03011984	*T/C W/ E LANGEVIN,213-513-7600,UNION OIL*

DATE **COMMENT**

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

STATE

SEARCH ID: 77 **DIST/DIR:** NON GC **MAP ID:**

NAME:	UNION OIL CO OF CA LA MARINE TERMINAL	**REV:**	07/03/00
ADDRESS:	BERTH 150 PIER A ST (BERTHS 149,150,151)	**ID1:**	CAL19281189
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	PROPERTY/SITE REFERRED
CONTACT:		**PHONE:**	

03011984 *3/28/84 - SOURCE ACT: CLEANING OF SHIP*

DATE	COMMENT
03011984	*BALLAST.*
03011984	*YR OF ACT: 1919 TO PRESENT*
03011984	*SUBMIT TO EPA*
03011984	*VIOLATION DETECTED PUB WRK. VARIOUS SMALL SPILLS DATING*
03011984	*BACK TO 1965.(PUB WRK)*
03011984	*PRELIM ASSESS DONE RCRA 3012*
05011995	*DATABASE VALIDATION PROGRAM CONFIRMS NFA FOR DTSC.*

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

SPILLS

SEARCH ID: 79 **DIST/DIR:** NON GC **MAP ID:**

NAME: WILMINGTON TOWN LOT 168
ADDRESS: ISLAND AVE
WILMINGTON CA 90744
CONTACT:

REV: 01/03/07
ID1: G_SLT43428426
ID2:
STATUS: NOT REPORTED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

Please note that some SLIC data previously provided by the State Water Resources Control Board via the Regional Boards is not currently provided by the agency in the new GEOTRACKER format. To ensure that our data is as complete as possible we have retained the original Regional Boards SLIC records as well as loaded all GEOTRACKER SLIC listings. GEOTRACKER records are distinguished by an initial G at the start of the ID.

LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *MANJULIKA CHAKRABARTI*
LEAD AGENCY CASE NUMBER: *0655D9*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded):
RECENT DTW:
STATUS:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

STATE

SEARCH ID: 76 **DIST/DIR:** NON GC **MAP ID:**

NAME:	SOUTH REGION SPAN K-8 1, SITE 15	**REV:**	08/07/07
ADDRESS:	EAST M STREET/NORTH AVALON BOULEVARD	**ID1:**	CAL60000421
	LOS ANGELES CA 90744	**ID2:**	SCHOOL
	LOS ANGELES	**STATUS:**	ACTIVE
CONTACT:		**PHONE:**	

GENERAL SITE INFORMATION

Site Type:	*School Cleanup*
Status:	*Active*
Status Date:	*2006-08-29*
NPL Site:	*NO*
Funding:	*Responsible Party*
Regulatory Agencies Involved:	*SMBRP*
Lead Agency:	*SMBRP*
Project Manager:	*S. STEVEN HARIRI*
Supervisor:	*Tawfiq Deek*
Branch:	*School Evaluation - Cypress*
Acres:	*6.75*
Assessor s Parcel Number:	*NONE SPECIFIED*
Past Uses:	*RETAIL*
Potential Contaminants:	*Arsenic, Lead, Polynuclear aromatic hydrocarbons (PAHs), TPH-diesel*
Confirmed Contaminants:	*Polynuclear aromatic hydrocarbons (PAHs)-NO,TPH-diesel-NO,Arsenic-NO,Lead-NO*
Potential Media Affected:	*UE*
Restricted Use:	*NO*
Site Management Required:	*NONE SPECIFIED*
Special Programs Associated with this Site:	

OTHER SITE NAMES (blank below = not reported by agency)

OTHER SITE NAMES (blank below = not reported by agency)

60000421

304541-11

FUTURE ACTIVITIES (blank below = not reported by agency)

Area Name:	***PROJECT WIDE***
Sub-Area Name:	
Document Type:	*Removal Action Workplan*
Completion Due Date:	*2008*

COMPLETED ACTIVITIES AND DTSC COMMENTS REGARDING THIS SITE (blank below = not reported by agency)

Area Name:	***PROJECT WIDE***
Sub- Area Name:	
Document Type:	***Preliminary Endangerment Assessment Report***
Completion Date:	***2007-08-03***
Comments:	

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

SPILLS

SEARCH ID: 78 **DIST/DIR:** NON GC **MAP ID:**

NAME: WILMINGTON TOWN LOT 080
ADDRESS: LAGOON AVE
WILMINGTON CA 90744
CONTACT:

REV: 01/03/07
ID1: G_SLT43413411
ID2:
STATUS: NOT REPORTED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

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LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *MANJULIKA CHAKRABARTI*
LEAD AGENCY CASE NUMBER: *0655C3*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded):
RECENT DTW:
STATUS:

SPILLS

SEARCH ID: 80 **DIST/DIR:** NON GC **MAP ID:**

NAME: WILMINGTON TOWN LOT 221
ADDRESS: ISLAND AVE
WILMINGTON CA 90744
CONTACT:

REV: 01/03/07
ID1: G_SLT43438436
ID2:
STATUS: NOT REPORTED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

Please note that some SLIC data previously provided by the State Water Resources Control Board via the Regional Boards is not currently provided by the agency in the new GEOTRACKER format. To ensure that our data is as complete as possible we have retained the original Regional Boards SLIC records as well as loaded all GEOTRACKER SLIC listings. GEOTRACKER records are distinguished by an initial G at the start of the ID.

LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *MANJULIKA CHAKRABARTI*
LEAD AGENCY CASE NUMBER: *0655F1*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded):
RECENT DTW:
STATUS:

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

SPILLS

SEARCH ID: 82 **DIST/DIR:** NON GC **MAP ID:**

NAME: WILMINGTON TOWN LOT 285
ADDRESS: ISLAND AVE
WILMINGTON CA 90744
CONTACT:

REV: 01/03/07
ID1: G_SLT43447445
ID2:
STATUS: NOT REPORTED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

Please note that some SLIC data previously provided by the State Water Resources Control Board via the Regional Boards is not currently provided by the agency in the new GEOTRACKER format. To ensure that our data is as complete as possible we have retained the original Regional Boards SLIC records as well as loaded all GEOTRACKER SLIC listings. GEOTRACKER records are distinguished by an initial G at the start of the ID.

LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *MANJULIKA CHAKRABARTI*
LEAD AGENCY CASE NUMBER: *0655G1*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded):
RECENT DTW:
STATUS:

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

OTHER

SEARCH ID: 83 **DIST/DIR:** NON GC **MAP ID:**

NAME:	UNION OIL CO OF CA LA MARINE TERMINAL	**REV:**	07/18/05
ADDRESS:	BERTH 150 PIER A ST (BERTHS 149,150,151)	**ID1:**	CAL19281189
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	PROPERTY/SITE REFERRED TO ANOT
CONTACT:		**PHONE:**	

GENERAL SITE INFORMATION

Site Type:	*Historical*
Status:	*Refer: Other Agency*
Status Date:	*1984-03-01 00:00:00*
NPL Site:	*NO*
Funding:	
Regulatory Agencies Involved:	*NONE SPECIFIED*
Lead Agency:	*NONE SPECIFIED*
Project Manager:	
Supervisor:	*Referred - Not Assigned*
Branch:	*So Cal - Cypress*
Acres:	
Assessor s Parcel Number:	*NONE SPECIFIED*
Past Uses:	*NONE SPECIFIED*
Potential Contaminants:	** WASTE OIL and MIXED OIL*
Confirmed Contaminants:	*NONE SPECIFIED*
Potential Media Affected:	*NONE SPECIFIED*
Restricted Use:	*NO*
Site Management Required:	*NONE SPECIFIED*
Special Programs Associated with this Site:	** RCRA 3012 - Past Haz Waste Disp Inven Site*

OTHER SITE NAMES (blank below = not reported by agency)

CAT000611228

19281189

COMPLETED ACTIVITIES AND DTSC COMMENTS REGARDING THIS SITE (blank below = not reported by agency)

Area Name:	***PROJECT WIDE***
Sub- Area Name:	
Document Type:	***Site Screening***
Completion Date:	***1995-05-01***
Comments:	*DATABASE VALIDATION PROGRAM CONFIRMS NFA FOR DTSC.*

Area Name:	***PROJECT WIDE***
Sub- Area Name:	
Document Type:	***Preliminary Assessment Report***
Completion Date:	***1984-03-01***
Comments:	*T/C W/ E LANGEVIN,213-513-7600,UNION OIL 3/28/84 - SOURCE ACT: CLEANING OF SHIP BALLAST. YR OF ACT: 1919 TO PRESENT SUBMIT TO EPA VIOLATION DETECTED PUB WRK. VARIOUS SMALL SPILLS DATING BACK TO 1965.(PUB WRK) PRELIM ASSESS DONE RCRA 3012*

Area Name:	***PROJECT WIDE***
Sub- Area Name:	
Document Type:	***Discovery***
Completion Date:	***1983-10-11***
Comments:	*FACILITY IDENTIFIED ID FROM ERRIS*

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

SPILLS

SEARCH ID: 81 **DIST/DIR:** NON GC **MAP ID:**

NAME: WILMINGTON TOWN LOT 285
ADDRESS: ISLAND AVENUE
WILMINGTON CA 90744
CONTACT:

REV: 01/03/02
ID1: SLC40655G1
ID2:
STATUS: NO FURTHER ACTION REQUIRED
PHONE:

Staff: *MC*
Status: *NO FURTHER ACTION REQUIRED*
Substance: *TPH*

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

ERNS

SEARCH ID: 75 **DIST/DIR:** NON GC **MAP ID:**

NAME:
ADDRESS: 1200 N. ISLAND AVE.
WILMINGTON CA
LOS ANGELES
CONTACT:

REV: 12/31/06
ID1: NRC-789778
ID2:
STATUS: PIPELINE
PHONE:

SITE INFORMATION

THIS INFORMATION WAS OBTAINED FROM THE NATIONAL RESPONSE CENTER

DATE RECEIVED: 3/3/2006 12:42:54 PM **DATE COMPLETE:** 3/3/2006 12:53:05 PM
CALL TAKER: **CALL TYPE:** INC

RESPONSIBLE PARTY:
PHONE 1:
PHONE 2:
PHONE 3:

RESPONSIBLE COMPANY: WARREN EandP
ORGANIZATION TYPE: PRIVATE ENTERPRISE

ADDRESS:
LONG BEACH CA 90802

SOURCE: TELEPHONE

INCIDENT INFORMATION

INCIDENT DESCRIPTION: A FLOW LINE ON AN OIL WELL LEAKED CRUDE OIL DUE TO A HOLE IN THE PIPE WHICH CAUSED A RELEASE ONTO THE GROUND AND GUTTER.

INCIDENT TYPE:	PIPELINE	**INCIDENT CAUSE:**	EQUIPMENT FAILURE
INCIDENT DATE:	3/3/2006 9:15:00 AM	**INCIDENT DATE DESC:**	OCCURRED
DISTANCE FROM CITY:		**DISTANCE UNITS:**	
DIRECTION FROM CITY:		**LOCATION SECTION:**	
LOCATION TOWNSHIP:		**LOCATION RANGE:**	
AIRCRAFT TYPE:		**AIRCRAFT MODEL:**	
AIRCRAFT ID:		**AIRCRAFT FUEL CAPACITY:**	
AIRCRAFT FUEL CAPACITY UNITS:		**AIRCRAFT FUEL ON BOARD:**	
AIRCRAFT FUEL ON BOARD UNITS:		**AIRCRAFT SPOT NUMBER:**	
AIRCRAFT HANGER:		**AIRCRAFT RUNWAY NUM:**	
ROAD MILE MARKER:		**BUILDING ID:**	
TYPE OF FIXED OBJECT:		**POWER GEN FACILITY:**	UNKNOWN
GENERATING CAPACITY:		**TYPE OF FUEL:**	
NPDES:		**NPDES COMPLIANCE:**	UNKNOWN
PIPELINE TYPE:	FLOW	**DOT REGULATED:**	UNKNOWN
PIPELINE ABOVE GROUND:	BELOW	**EXPOSED UNDERWATER:**	NO
PIPELINE COVERED:	UNKNOWN	**GRADE CROSSING:**	NO
LOCATION SUBDIVISION:		**RAILROAD MILEPOST:**	
TYPE VEHICLE INVOLVED:		**CROSSING DEVICE TYPE:**	
DEVICE OPERATIONAL:	YES		
DOT CROSSING NUMBER:		**BRAKE FAILURE:**	NO

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

ERNS

SEARCH ID: 75 **DIST/DIR:** NON GC **MAP ID:**

NAME:
ADDRESS: 1200 N. ISLAND AVE.
WILMINGTON CA
LOS ANGELES
CONTACT:

REV: 12/31/06
ID1: NRC-789778
ID2:
STATUS: PIPELINE
PHONE:

TANK ABOVE GROUND:	ABOVE	**TRANSPORTABLE CONTAINER:**	UNKNOWN
TANK REGULATED:	UNKNOWN	**TANK REGULATED BY:**	
TANK ID:		**CAPACITY OF TANK:**	
CAPACITY OF TANK UNITS:		**ACTUAL AMOUNT:**	
ACTUAL AMOUNT UNITS:		**PLATFORM RIG NAME:**	
PLATFORM LETTER:		**LOCATION AREA ID:**	
LOCATION BLOCK ID:			

DESCRIPTION OF TANK:

OCSG NUMBER:		**OCSP NUMBER:**	
STATE LEASE NUMBER:		**PIER DOCK NUMBER:**	
BERTH SLIP NUMBER:		**CONTIN RELEASE TYPE:**	
INITIAL CONT RELEASE NUM:		**CONT RELEASE PERMIT:**	
ALLISION:	NO	**TYPE OF STRUCTURE:**	
STRUCTURE NAME:		**STRUCT OPERATIONAL:**	UNKNOWN
AIRBAG DEPLOYED:		**DATE NORMAL SERVICE:**	
SERVICE DISRUPT TIME:		**SERVICE DISRUPT UNITS:**	
TRANSIT BUS FLAG:		**CR BEGIN DATE:**	
CR END DATE:		**CR CHANGE DATE:**	
FIRE INVOLVED:	NO	**FIRE EXTINGUISHED:**	UNKNOWN
ANY EVACUATIONS:	NO	**NUMBER EVACUATED:**	
WHO EVACUATED:		**RADIUS OF EVACUATION:**	
ANY INJURIES:	NO	**NUMBER INJURED:**	
NUMBER HOSPITALIZED:		**ANY FATALITIES:**	NO
NUMBER FATALITIES:		**ANY DAMAGES:**	NO
DAMAGE AMOUNT:		**AIR CORRIDOR CLOSED:**	NO
AIR CORRIDOR DESC:		**AIR CLOSURE TIME:**	
WATERWAY CLOSED:	NO	**WATERWAY DESC:**	
WATERWAY CLOSURE TIME:		**ROAD CLOSED:**	NO
ROAD DESC:		**ROAD CLOSURE TIME:**	
CLOSURE DIRECTION:		**MAJOR ARTERY:**	NO
TRACK CLOSED:	NO	**TRACK DESC:**	
TRACK CLOSURE TIME:		**MEDIA INTEREST:**	NONE
MEDIUM DESC:	LAND	**ADDTL MEDIUM INFO:**	GROUND/GUTTER
BODY OF WATER:		**TRIBUTARY OF:**	
NEAREST RIVER MILE MARK:		**RELEASE SECURED:**	YES
EST DUR OF RELEASE:		**RELEASE RATE:**	
TRACK CLOSE DIR:		**ST AGENCY ON SCENE:**	
ST AGENCY RPT NUM:	06-1319	**OTHER AGENCY NOTIFIED:**	
WEATHER CONDITIONS:	PARTLY CLOUDY	**AIR TEMPERATURE:**	60
WIND SPEED:		**WIND DIRECTION:**	
WATER SUPPLY CONTAM:	UNKNOWN	**SHEEN SIZE:**	
SHEEN COLOR:		**DIR OF SHEEN TRAVEL:**	
SHEEN ODOR DESCRIPTION:		**WAVE CONDITION:**	
CURRENT SPEED:		**CURRENT DIRECTION:**	
WATER TEMPERATURE:			

DESC OF REMEDIAL ACTION: LEAK WAS CONTAINED,CONTRACTOR HAS BEEN HIRED

EMPL FATALITY: **PASS FATALITY:**

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

ERNS

SEARCH ID: 75 **DIST/DIR:** NON GC **MAP ID:**

NAME:
ADDRESS: 1200 N. ISLAND AVE.
WILMINGTON CA
LOS ANGELES
CONTACT:

REV: 12/31/06
ID1: NRC-789778
ID2:
STATUS: PIPELINE
PHONE:

COMMUNITY IMPACT:	NO	**WIND SPEED UNITS:**	
EMPLOYEE INJURIES:		**PASSENGER INJURIES:**	
OCCUPANT FATALITY:		**CURRENT SPEED UNITS:**	
ROAD CLOSURE UNITS:		**TRACK CLOSURE UNITS:**	
SHEEN SIZE UNITS:		**STATE AGENCY NOTIFIED:**	OES
FED AGENCY NOTIFIED:		**NEAREST RIVER MILE MARK:**	
SHEEN SIZE LENGTH:		**SHEEN SIZE LENGTH UNITS:**	
SHEEN SIZE WIDTH:		**SHEEN SIZE WIDTH UNITS:**	
OFFSHORE:	N	**DURATION UNIT:**	
RELEASE RATE UNIT:		**RELEASE RATE RATE:**	

ADDITIONAL INFO: NONE

MATERIAL INFORMATION

CHRIS CODE:	OIL	**CASE NUMBER:**	000000-00-0
UN NUMBER:		**REACHED WATER:**	UNKNOWN

NAME OF MATERIAL: OIL: CRUDE
AMOUNT OF MATERIAL: 1 BARREL(S)
AMOUNT IN WATER: 0 UNKNOWN AMOUNT

OTHER MATERIAL INFORMATION

MOBILE DETAILS INFORMATION

TRAIN INFORMATION

VESSEL INFORMATION

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

ERNS

SEARCH ID: 74 **DIST/DIR:** NON GC **MAP ID:**

NAME: ZIMM SHIPPING COMPANY
ADDRESS: PORT OF LA BERTH 146 370 WEST WATER ST
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 2/26/91
ID1: 466406
ID2:
STATUS:
PHONE:

SPILL INFORMATION
DATE OF SPILL: 2/26/1991 **TIME OF SPILL:** 2330

PRODUCT RELEASED (1): OIL, FUEL: NO. 6
QUANTITY (1): 0
UNITS (1): UNK

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: YES **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: WEST BASIN OF LA HARBOR

SPILL INFORMATION
DATE OF SPILL: 2/26/1991 **TIME OF SPILL:** 2330

PRODUCT RELEASED (1): OIL, FUEL: NO. 6
QUANTITY (1): 0
UNITS (1): UNK

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: YES **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: WEST BASIN OF LA HARBOR

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** YES
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: CONTRACTOR (CHEMPRO) ON SCENE USING BOOMS TO CONTAIN.
RELEASE DETECTION: M/V ZIMM CALIFORNIA / LEAKING FROM HULL, UNK CAUSE. VSSL IS STBD TO PIER

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

ERNS

SEARCH ID: 74 **DIST/DIR:** NON GC **MAP ID:**

NAME: ZIMM SHIPPING COMPANY
ADDRESS: PORT OF LA BERTH 146 370 WEST WATER ST
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 2/26/91
ID1: 466406
ID2:
STATUS:
PHONE:

MISC. NOTES: SHEEN SIZE UNKNOWN. QUANTITY OF CARGO UNKNOWN. RATE OF DISCHARGE IS DESCRIBED AS A SLOW LEAK. CALLER NOTIFIED BY 11TH DISTRICT CG.

DISCHARGER INFORMATION

DISCHARGER ID: 466406
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: ZIMM SHIPPING COMPANY
ADDRESS: 624 SOUTH GRAND AVENUE SUITE 8
LOS ANGELES CA 90017

DUN and BRADSTREET :

CAUSE OF RELEASE

DUMPING:	NO	**EQUIPMENT FAILURE:**	YES
NATURAL PHENOMENON:	NO	**OPERATOR ERROR:**	NO
OTHER CAUSE:	NO	**TRANSP. ACCIDENT:**	NO
UNKNOWN:	NO		

ACTIONS TAKEN: CONTRACTOR (CHEMPRO) ON SCENE USING BOOMS TO CONTAIN.
RELEASE DETECTION: M/V ZIMM CALIFORNIA / LEAKING FROM HULL, UNK CAUSE. VSSL IS STBD TO PIER
MISC. NOTES: SHEEN SIZE UNKNOWN. QUANTITY OF CARGO UNKNOWN. RATE OF DISCHARGE IS DESCRIBED AS A SLOW LEAK. CALLER NOTIFIED BY 11TH DISTRICT CG.

DISCHARGER INFORMATION

DISCHARGER ID: 466406
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: ZIMM SHIPPING COMPANY
ADDRESS: 624 SOUTH GRAND AVENUE SUITE 8
LOS ANGELES CA 90017

DUN and BRADSTREET :

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

ERNS

SEARCH ID: 73 **DIST/DIR:** NON GC **MAP ID:**

NAME:	WEST BASIN	**REV:**	12/31/00
ADDRESS:	BERTH 149 PIER A STREET	**ID1:**	NRC-537398
	WILMINGTON CA	**ID2:**	
	LOS ANGELES	**STATUS:**	FIXED
CONTACT:	SCOTT ZERGA	**PHONE:**	3109526332

SITE INFORMATION

THIS INFORMATION WAS OBTAINED FROM THE NATIONAL RESPONSE CENTER

DATE RECEIVED:	02-AUG-00	**DATE COMPLETE:**	02-AUG-00
CALL TAKER:	LMJ2870	**CALL TYPE:**	INC

RESPONSIBLE PARTY: SCOTT ZERGA
PHONE 1: 3109526332 PRIMARY
PHONE 2:
PHONE 3:

RESPONSIBLE COMPANY: TOSCO REFINING CO.
ORGANIZATION TYPE: PRIVATE ENTERPRISE

ADDRESS: 1660 WEST ANAHEIM STREET
WILMINGTON CA 90744

INITIALLY REPORTED BY:
PHONE:

INIT REPORTED COMPANY:
ON BEHALF OF: Y
SOURCE: UNAVAILABLE

INCIDENT INFORMATION

INCIDENT DESCRIPTION: THE MATERIAL RELEASED DURING ROUTINE MAINTENANCE ON TANK PIPING WHILE USING A VACcUUM TRUCK.

INCIDENT TYPE:	FIXED	**INCIDENT CAUSE:**	EQUIPMENT FAILURE
INCIDENT DATE:	02-AUG-00	**INCIDENT DATE DESC:**	OCCURRED
DISTANCE FROM CITY:		**DISTANCE UNITS:**	
DIRECTION FROM CITY:		**LOCATION SECTION:**	
LOCATION TOWNSHIP:		**LOCATION RANGE:**	
WMD CHEM FLAG:	F	**RAD FLAG:**	F
BIO FLAG:	F	**OIL FLAG:**	
POTENTIAL_FLAG:		**AMT MATERIAL FLAG:**	
MILITARY ORG FLAG:	N	**LNG FLAG:**	
AIRCRAFT TYPE:		**AIRCRAFT MODEL:**	
AIRCRAFT ID:		**AIRCRAFT FUEL CAPACITY:**	
AIRCRAFT FUEL CAPACITY UNITS:		**AIRCRAFT FUEL ON BOARD:**	
AIRCRAFT FUEL ON BOARD UNITS:		**AIRCRAFT SPOT NUMBER:**	
AIRCRAFT HANGER:		**AIRCRAFT RUNWAY NUM:**	
ROAD MILE MARKER:		**BUILDING ID:**	
TYPE OF FIXED OBJECT:	REFINERY	**POWER GEN FACILITY:**	N
GENERATING CAPACITY:		**TYPE OF FUEL:**	
NPDES:		**NPDES COMPLIANCE:**	U

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

ERNS

SEARCH ID: 73 **DIST/DIR:** NON GC **MAP ID:**

NAME:	WEST BASIN	**REV:**	12/31/00
ADDRESS:	BERTH 149 PIER A STREET	**ID1:**	NRC-537398
	WILMINGTON CA	**ID2:**	
	LOS ANGELES	**STATUS:**	FIXED
CONTACT:	SCOTT ZERGA	**PHONE:**	3109526332

PIPELINE TYPE:		**DOT REGULATED:**	U
PIPELINE ABOVE GROUND:	ABOVE	**EXPOSED UNDERWATER:**	N
PIPELINE COVERED:	U	**RAILROAD HOTLINE:**	
GRADE CROSSING:	N	**LOCATION SUBDIVISION:**	
RAILROAD MILEPOST:		**TYPE VEHICLE INVOLVED:**	
CROSSING DEVICE TYPE:		**DEVICE OPERATIONAL:**	Y
DOT CROSSING NUMBER:		**BRAKE FAILURE:**	N
TANK ABOVE GROUND:	ABOVE	**TRANSPORTABLE CONTAINER:**	U
TANK REGULATED:	U	**TANK REGULATED BY:**	
TANK ID:		**CAPACITY OF TANK:**	
CAPACITY OF TANK UNITS:		**ACTUAL AMOUNT:**	
ACTUAL AMOUNT UNITS:		**PLATFORM RIG NAME:**	
PLATFORM LETTER:		**LOCATION AREA ID:**	
LOCATION BLOCK ID:			
DESCRIPTION OF TANK:			
OCSG NUMBER:		**OCSP NUMBER:**	
STATE LEASE NUMBER:		**PIER DOCK NUMBER:**	
BERTH SLIP NUMBER:		**CONTIN RELEASE TYPE:**	
INITIAL CONT RELEASE NUM:		**CONT RELEASE PERMIT:**	
ALLISION:	N	**TYPE OF STRUCTURE:**	
STRUCTURE NAME:		**STRUCT OPERATIONAL:**	U
AIRBAG DEPLOYED:		**DATE NORMAL SERVICE:**	
SERVICE DISRUPT TIME:		**SERVICE DISRUPT UNITS:**	
TRANSIT BUS FLAG:		**CR BEGIN DATE:**	
CR END DATE:		**CR CHANGE DATE:**	
FIRE INVOLVED:	N	**FIRE EXTINGUISHED:**	U
ANY EVACUATIONS:	N	**NUMBER EVACUATED:**	
WHO EVACUATED:		**RADIUS OF EVACUATION:**	
ANY INJURIES:	N	**NUMBER INJURED:**	
NUMBER HOSPITALIZED:		**ANY FATALITIES:**	N
NUMBER FATALITIES:		**ANY DAMAGES:**	N
DAMAGE AMOUNT:		**AIR CORRIDOR CLOSED:**	N
AIR CORRIDOR DESC:		**AIR CLOSURE TIME:**	
WATERWAY CLOSED:	N	**WATERWAY DESC:**	
WATERWAY CLOSURE TIME:		**ROAD CLOSED:**	N
ROAD DESC:		**ROAD CLOSURE TIME:**	
CLOSURE DIRECTION:		**MAJOR ARTERY:**	N
TRACK CLOSED:	N	**TRACK DESC:**	
TRACK CLOSURE TIME:		**MEDIA INTEREST:**	NONE
MEDIUM DESC:	LAND	**ADDTL MEDIUM INFO:**	
BODY OF WATER:		**TRIBUTARY OF:**	
NEAREST RIVER MILE MARK:		**RELEASE SECURED:**	U
EST DUR OF RELEASE:		**RELEASE RATE:**	
TRACK CLOSE DIR:		**ST AGENCY ON SCENE:**	
ST AGENCY RPT NUM:		**OTHER AGENCY NOTIFIED:**	
WEATHER CONDITIONS:	SUNNY	**AIR TEMPERATURE:**	80
WIND SPEED:		**WIND DIRECTION:**	
WATER SUPPLY CONTAM:	U	**SHEEN SIZE:**	

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

ERNS

SEARCH ID: 73 **DIST/DIR:** NON GC **MAP ID:**

NAME:	WEST BASIN	**REV:**	12/31/00
ADDRESS:	BERTH 149 PIER A STREET	**ID1:**	NRC-537398
	WILMINGTON CA	**ID2:**	
	LOS ANGELES	**STATUS:**	FIXED
CONTACT:	SCOTT ZERGA	**PHONE:**	3109526332

SHEEN COLOR:		**DIR OF SHEEN TRAVEL:**	
SHEEN ODOR DESCRIPTION:		**WAVE CONDITION:**	
CURRENT SPEED:		**CURRENT DIRECTION:**	
WATER TEMPERATURE:			

DESC OF REMEDIAL ACTION: CLEAN UP UNDERWAY

EMPL FATALITY:		**PASS FATALITY:**	
COMMUNITY IMPACT:	N	**WIND SPEED UNITS:**	
EMPLOYEE INJURIES:		**PASSENGER INJURIES:**	
OCCUPANT FATALITY:		**CURRENT SPEED UNITS:**	M
ROAD CLOSURE UNITS:		**TRACK CLOSURE UNITS:**	
SHEEN SIZE UNITS:		**STATE AGENCY NOTIFIED:**	CA EMS, FIRE DEPT.
FED AGENCY NOTIFIED:		**STRUCTURE NAME:**	
TYPE OF STRUCTURE:		**ALLISION:**	
STRUCTURE OPERATIONAL:		**NEAREST RIVER MILE MARK:**	
SHEEN SIZE LENGTH:		**SHEEN SIZE LENGTH UNITS:**	
SHEEN SIZE WIDTH:		**SHEEN SIZE WIDTH UNITS:**	
OFFSHORE:	N	**DURATION UNIT:**	
RELEASE RATE UNIT:		**RELEASE RATE RATE:**	

ADDITIONAL INFO: THE CALLER HAD NO ADDITIONAL INFORMATION.

MATERIAL INFORMATION

CHRIS CODE:	MBE	**CASE NUMBER:**	000000-00-0
UN NUMBER:		**REACHED WATER:**	NO

NAME OF MATERIAL: METHYL TERT-BUTYL ETHER
AMOUNT OF MATERIAL: 0 UNKNOWN AMOUNT
AMOUNT IN WATER:

OTHER MATERIAL INFORMATION

MOBILE DETAILS INFORMATION

TRAIN INFORMATION

VESSEL INFORMATION

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

ERNS

SEARCH ID: 71 **DIST/DIR:** NON GC **MAP ID:**

NAME: HARBOR GENERATING STATION
ADDRESS: 161 N. ISLAND AVE.
WILMINGTON CA
LOS ANGELES
CONTACT:

REV: 12/31/06
ID1: NRC-820141
ID2:
STATUS: STORAGE TANK
PHONE:

SITE INFORMATION

THIS INFORMATION WAS OBTAINED FROM THE NATIONAL RESPONSE CENTER

DATE RECEIVED: 12/6/2006 12:35:47 PM **DATE COMPLETE:** 12/6/2006 12:41:57 PM
CALL TAKER: **CALL TYPE:** DRL

RESPONSIBLE PARTY:
PHONE 1:
PHONE 2:
PHONE 3:

RESPONSIBLE COMPANY: DEPARTMENT OF WATER AND POWER
ORGANIZATION TYPE: PRIVATE ENTERPRISE

ADDRESS:
LOS ANGLES CA 90012

SOURCE: TELEPHONE

INCIDENT INFORMATION

INCIDENT DESCRIPTION: ///DRILL/// 2300 GALLONS OF DISTILLATE FUEL OIL DISCHARGED FROM A STORAGE TANK INTO THE STREET AND TOWARDS A STORM DRAIN DUE TO UNKNOWN CAUSES.

INCIDENT TYPE:	STORAGE TANK	**INCIDENT CAUSE:**	UNKNOWN
INCIDENT DATE:	12/6/2006 9:07:00 AM	**INCIDENT DATE DESC:**	OCCURRED
DISTANCE FROM CITY:		**DISTANCE UNITS:**	
DIRECTION FROM CITY:		**LOCATION SECTION:**	
LOCATION TOWNSHIP:		**LOCATION RANGE:**	
AIRCRAFT TYPE:		**AIRCRAFT MODEL:**	
AIRCRAFT ID:		**AIRCRAFT FUEL CAPACITY:**	
AIRCRAFT FUEL CAPACITY UNITS:		**AIRCRAFT FUEL ON BOARD:**	
AIRCRAFT FUEL ON BOARD UNITS:		**AIRCRAFT SPOT NUMBER:**	
AIRCRAFT HANGER:		**AIRCRAFT RUNWAY NUM:**	
ROAD MILE MARKER:		**BUILDING ID:**	
TYPE OF FIXED OBJECT:		**POWER GEN FACILITY:**	UNKNOWN
GENERATING CAPACITY:		**TYPE OF FUEL:**	
NPDES:		**NPDES COMPLIANCE:**	UNKNOWN
PIPELINE TYPE:		**DOT REGULATED:**	UNKNOWN
PIPELINE ABOVE GROUND:	ABOVE	**EXPOSED UNDERWATER:**	NO
PIPELINE COVERED:	UNKNOWN	**GRADE CROSSING:**	UNKNOWN
LOCATION SUBDIVISION:		**RAILROAD MILEPOST:**	
TYPE VEHICLE INVOLVED:		**CROSSING DEVICE TYPE:**	
DEVICE OPERATIONAL:	YES		
DOT CROSSING NUMBER:		**BRAKE FAILURE:**	UNKNOWN

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

ERNS

SEARCH ID: 71 **DIST/DIR:** NON GC **MAP ID:**

NAME:	HARBOR GENERATING STATION	**REV:**	12/31/06
ADDRESS:	161 N. ISLAND AVE.	**ID1:**	NRC-820141
	WILMINGTON CA	**ID2:**	
	LOS ANGELES	**STATUS:**	STORAGE TANK
CONTACT:		**PHONE:**	

TANK ABOVE GROUND:	ABOVE	**TRANSPORTABLE CONTAINER:**	UNKNOWN
TANK REGULATED:	UNKNOWN	**TANK REGULATED BY:**	
TANK ID:		**CAPACITY OF TANK:**	
CAPACITY OF TANK UNITS:		**ACTUAL AMOUNT:**	
ACTUAL AMOUNT UNITS:		**PLATFORM RIG NAME:**	
PLATFORM LETTER:		**LOCATION AREA ID:**	
LOCATION BLOCK ID:			

DESCRIPTION OF TANK: STORAGE TANK

OCSG NUMBER:		**OCSP NUMBER:**	
STATE LEASE NUMBER:		**PIER DOCK NUMBER:**	
BERTH SLIP NUMBER:		**CONTIN RELEASE TYPE:**	
INITIAL CONT RELEASE NUM:		**CONT RELEASE PERMIT:**	
ALLISION:	UNKNOWN	**TYPE OF STRUCTURE:**	
STRUCTURE NAME:		**STRUCT OPERATIONAL:**	UNKNOWN
AIRBAG DEPLOYED:	UNKNOWN	**DATE NORMAL SERVICE:**	
SERVICE DISRUPT TIME:		**SERVICE DISRUPT UNITS:**	
TRANSIT BUS FLAG:		**CR BEGIN DATE:**	
CR END DATE:		**CR CHANGE DATE:**	

FIRE INVOLVED:	NO	**FIRE EXTINGUISHED:**	UNKNOWN
ANY EVACUATIONS:	NO	**NUMBER EVACUATED:**	
WHO EVACUATED:		**RADIUS OF EVACUATION:**	
ANY INJURIES:	NO	**NUMBER INJURED:**	
NUMBER HOSPITALIZED:		**ANY FATALITIES:**	NO
NUMBER FATALITIES:		**ANY DAMAGES:**	NO
DAMAGE AMOUNT:		**AIR CORRIDOR CLOSED:**	NO
AIR CORRIDOR DESC:		**AIR CLOSURE TIME:**	
WATERWAY CLOSED:	NO	**WATERWAY DESC:**	
WATERWAY CLOSURE TIME:		**ROAD CLOSED:**	NO
ROAD DESC:		**ROAD CLOSURE TIME:**	
CLOSURE DIRECTION:		**MAJOR ARTERY:**	NO

TRACK CLOSED:	NO	**TRACK DESC:**	
TRACK CLOSURE TIME:		**MEDIA INTEREST:**	NONE
MEDIUM DESC:	LAND	**ADDTL MEDIUM INFO:**	INTO THE STREET
BODY OF WATER:		**TRIBUTARY OF:**	
NEAREST RIVER MILE MARK:		**RELEASE SECURED:**	YES
EST DUR OF RELEASE:		**RELEASE RATE:**	
TRACK CLOSE DIR:		**ST AGENCY ON SCENE:**	
ST AGENCY RPT NUM:		**OTHER AGENCY NOTIFIED:**	
WEATHER CONDITIONS:	CLEAR	**AIR TEMPERATURE:**	68
WIND SPEED:		**WIND DIRECTION:**	
WATER SUPPLY CONTAM:	UNKNOWN	**SHEEN SIZE:**	
SHEEN COLOR:		**DIR OF SHEEN TRAVEL:**	
SHEEN ODOR DESCRIPTION:		**WAVE CONDITION:**	
CURRENT SPEED:		**CURRENT DIRECTION:**	
WATER TEMPERATURE:			

DESC OF REMEDIAL ACTION: RESPONSE CREWS ARE RESPONDING,CLEAN UP UNDERWAY

EMPL FATALITY:		**PASS FATALITY:**	

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

ERNS

SEARCH ID: 71 **DIST/DIR:** NON GC **MAP ID:**

NAME:	HARBOR GENERATING STATION	**REV:**	12/31/06
ADDRESS:	161 N. ISLAND AVE.	**ID1:**	NRC-820141
	WILMINGTON CA	**ID2:**	
	LOS ANGELES	**STATUS:**	STORAGE TANK
CONTACT:		**PHONE:**	

COMMUNITY IMPACT:	NO	**WIND SPEED UNITS:**	
EMPLOYEE INJURIES:		**PASSENGER INJURIES:**	
OCCUPANT FATALITY:		**CURRENT SPEED UNITS:**	
ROAD CLOSURE UNITS:		**TRACK CLOSURE UNITS:**	
SHEEN SIZE UNITS:		**STATE AGENCY NOTIFIED:**	NONE
FED AGENCY NOTIFIED:	NONE	**NEAREST RIVER MILE MARK:**	
SHEEN SIZE LENGTH:		**SHEEN SIZE LENGTH UNITS:**	
SHEEN SIZE WIDTH:		**SHEEN SIZE WIDTH UNITS:**	
OFFSHORE:	N	**DURATION UNIT:**	
RELEASE RATE UNIT:		**RELEASE RATE RATE:**	

ADDITIONAL INFO: ///DRILL/// OES,CG, FandG AND REGIONAL QUALITY CONTROL BOARD

MATERIAL INFORMATION

CHRIS CODE:	NCC	**CASE NUMBER:**	000000-00-0
UN NUMBER:		**REACHED WATER:**	NO

NAME OF MATERIAL: DISTILLATE FUEL OIL
AMOUNT OF MATERIAL: 2300 GALLON(S)
AMOUNT IN WATER:

OTHER MATERIAL INFORMATION

MOBILE DETAILS INFORMATION

TRAIN INFORMATION

VESSEL INFORMATION

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

UST

SEARCH ID: 84 **DIST/DIR:** NON GC **MAP ID:**

NAME:	PORT OF LOS ANGELES	**REV:**	01/01/94
ADDRESS:	BERTH 161 PIER A ST	**ID1:**	TISID-STATE25860
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	ACTIVE
CONTACT:		**PHONE:**	

UST HISTORICAL DATA

This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names and locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.

The UST information included in FIDS as provided by the Office of Hazardous Data Management was originally collected from the SWEEPS database. The SWEEPS database recorded Underground Storage Tanks and was maintained by the State Water Resources Control Board (SWRCB). That agency no longer maintains the SWEEPS database and last updated it in 1994. The last release of that 1994 database was in 1997.

Oversight of Underground Storage Tanks within California is now conducted by Certified Unified Program Agencies referred to as CUPA s. There are approximately 102 CUPA s and Local Oversight Programs (LOP s) in the State of California. Most are city or county government agencies. As of 1998, all sites or facilities with underground storage tanks were required by Federal mandate to obtain certification by designated UST oversight agencies (in this case, CUPA s) that the UST/s at their location were upgraded or removed in adherence with the 1998 RCRA standards.

Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by Track Info Services. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

ERNS

SEARCH ID: 70 **DIST/DIR:** NON GC **MAP ID:**

NAME:	EXXON/J MARCHESSI	**REV:**	
ADDRESS:	N OF M ST BETWEEN AVALON and BROAD	**ID1:**	117298
	WILMINGTON CA	**ID2:**	
	Los Angeles	**STATUS:**	UNKNOWN
CONTACT:		**PHONE:**	

THERE ARE NO DETAILS AVAILABLE FOR THIS SITE

RCRANLR

SEARCH ID: 69 **DIST/DIR:** NON GC **MAP ID:**

NAME:	BANNING ELEMENTARY SCHOOL	**REV:**	10/8/02
ADDRESS:	500 N ISLAND AVE	**ID1:**	CAR000126847
	LOS ANGELES CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	NLR
CONTACT:	SOE AUNG	**PHONE:**	2137435086

DETAILS NOT AVAILABLE

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

RCRAGN

SEARCH ID: 68 **DIST/DIR:** NON GC **MAP ID:**

NAME:	PORT OF LOS ANGELES - BERTH 161 ONLY	**REV:**	6/6/06
ADDRESS:	500 PIER A STREET	**ID1:**	CAD021863964
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	LGN
CONTACT:	MANUEL R RAMIREZ	**PHONE:**	3107323782

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
BERTH FIRST HUNDRED SIXTY FIRS
WILMINGTON CA 90744

PHONE: 2135193555

UNIVERSE INFORMATION:

NAIC INFORMATION

23332 - COMMERCIAL AND INSTITUTIONAL BUILDING CONSTRUCTION
48831 - PORT AND HARBOR OPERATIONS
811198 - ALL OTHER AUTOMOTIVE REPAIR AND MAINTENANCE
81149 - OTHER PERSONAL AND HOUSEHOLD GOODS REPAIR AND MAINTENANCE

ENFORCEMENT INFORMATION:

AGENCY:	E - EPA	**DATE:**	5/20/2004
TYPE:	120 - WRITTEN INFORMAL		
AGENCY:	E - EPA	**DATE:**	5/20/2004
TYPE:	120 - WRITTEN INFORMAL		

VIOLATION INFORMATION:

VIOLATION NUMBER:	0001	**RESPONSIBLE:**	E - EPA
DETERMINED:	11/3/2003	**DETERMINED BY:**	E - EPA
CITATION:			
RESOLVED:	5/20/2004		
TYPE:	GENERATOR-GENERAL REQUIREMENTS		

HAZARDOUS WASTE INFORMATION:

Corrosive waste
The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane
Tetrachloroethylene
Ignitable waste
Reactive waste

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

RCRAGN

SEARCH ID: 67 **DIST/DIR:** NON GC **MAP ID:**

NAME:	CONOCOPHILLIPS LAR, MARINE TERMINAL	**REV:**	6/6/06
ADDRESS:	BERTH 151 PIER A STREET	**ID1:**	CAT000611228
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	LGN
CONTACT:	STEPHEN J MALLON	**PHONE:**	3105228038

SITE INFORMATION

CONTACT INFORMATION: BARNEY SWANSON
AVON REFINERY
MARTINEZ CA 945531487

PHONE: 5103703220

CONTACT INFORMATION: STEVE MALLOW
BERTH150 PIER A ST
LOS ANGELES CA 90744

PHONE: 3109526213

UNIVERSE INFORMATION:

NAIC INFORMATION

32411 - PETROLEUM REFINERIES
32419 - OTHER PETROLEUM AND COAL PRODUCTS MANUFACTURING
42271 - PETROLEUM BULK STATIONS AND TERMINALS

ENFORCEMENT INFORMATION:

AGENCY: E - EPA **DATE:** 4/15/1991
TYPE: 210 - INITIAL 3008(A) COMPLIANCE ORDER

AGENCY: E - EPA **DATE:** 2/7/1991
TYPE: 120 - WRITTEN INFORMAL

AGENCY: E - EPA **DATE:** 4/15/1991
TYPE: 210 - INITIAL 3008(A) COMPLIANCE ORDER

AGENCY: E - EPA **DATE:** 2/7/1991
TYPE: 120 - WRITTEN INFORMAL

VIOLATION INFORMATION:

VIOLATION NUMBER: 0001 **RESPONSIBLE:** E - EPA
DETERMINED: 11/8/1990 **DETERMINED BY:** E - EPA
CITATION: 262.50-60
RESOLVED: 4/15/1991
TYPE: GENERATOR-ALL REQUIREMENTS (OVERSIGHT)

VIOLATION NUMBER: 0002 **RESPONSIBLE:** E - EPA

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

RCRAGN

SEARCH ID: 67 **DIST/DIR:** NON GC **MAP ID:**

NAME:	CONOCOPHILLIPS LAR, MARINE TERMINAL	**REV:**	6/6/06
ADDRESS:	BERTH 151 PIER A STREET	**ID1:**	CAT000611228
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	LGN
CONTACT:	STEPHEN J MALLON	**PHONE:**	3105228038

DETERMINED:	11/8/1990	**DETERMINED BY:**	E - EPA
CITATION:	264.110-120.G		
RESOLVED:	4/15/1991		
TYPE:	TSD-CLOSURE/POST-CLOSURE REQUIREMENTS		

VIOLATION NUMBER:	0003	**RESPONSIBLE:**	E - EPA
DETERMINED:	11/8/1990	**DETERMINED BY:**	E - EPA
CITATION:	264.140-150.H		
RESOLVED:	4/15/1991		
TYPE:	TSD-FINANCIAL RESPONSIBILITY REQUIREMENTS		

HAZARDOUS WASTE INFORMATION:

Lead
Cadmium
Petroleum refinery primary oil/water/solids separation sludge - Any sludge generated from the gravitational separation of oil/water/solids during the storage or treatment of process wastewaters and oily cooling wastewaters f
Trichloroethylene
Corrosive waste

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

RCRAGN

SEARCH ID: 66 **DIST/DIR:** NON GC **MAP ID:**

NAME:	BANNING ELEMENTARY SCHOOL	**REV:**	6/6/06
ADDRESS:	500 N ISLAND AVE	**ID1:**	CAR000126847
	LOS ANGELES CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	LGN
CONTACT:	SOE AUNG	**PHONE:**	2137435086

SITE INFORMATION

CONTACT INFORMATION: SOE AUNG
1449 S SAN PEDRO ST
LOS ANGELES CA 90015

PHONE: 2137435086

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

Lead
D000

Environmental FirstSearch
Site Detail Report

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

NFRAP

SEARCH ID: 65 **DIST/DIR:** NON GC **MAP ID:**

NAME: UNION OIL CO OF CA LA REF MARINE TERM
ADDRESS: BERTH 150 PIER A ST
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 1/23/08
ID1: CAT000611228
ID2: 0902628
STATUS: NFRAP-N
PHONE:

DESCRIPTION:

ACTION/QUALITY	AGENCY/RPS	START/RAA	END
ARCHIVE SITE	EPA In-House		02-01-1985
DISCOVERY	EPA Fund-Financed		08-01-1980
PRELIMINARY ASSESSMENT	State, Fund Financed	05-01-1984	02-01-1985

NFRAP (No Futher Remedial Action Planned

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

ERNS

SEARCH ID: 72 **DIST/DIR:** NON GC **MAP ID:**

NAME:	HARBOR GENERATION STATION	**REV:**	12/31/03
ADDRESS:	161 NORTH ISLAND AVE	**ID1:**	NRC-705883
	WILMINGTON CA	**ID2:**	
	LOS ANGELES	**STATUS:**	FIXED
CONTACT:	JOSEFA ESPARRAGO	**PHONE:**	2133670287

SITE INFORMATION

THIS INFORMATION WAS OBTAINED FROM THE NATIONAL RESPONSE CENTER

DATE RECEIVED:	11/20/2003 12:36:31 PM		**DATE COMPLETE:** 11/20/2003 12:45:44 PM
CALL TAKER:	NXR7436	**CALL TYPE:**	DRL

RESPONSIBLE PARTY: JOSEFA ESPARRAGO
PHONE 1: 2133670287 PRIMARY
PHONE 2:
PHONE 3:

RESPONSIBLE COMPANY: LOS ANGELES DEPT OF WATER AND POWER
ORGANIZATION TYPE: LOCAL GOVERNMENT

ADDRESS: 111 NORTH HOPE ST.
LOS ANGELES CA 90012

SOURCE: TELEPHONE

INCIDENT INFORMATION

INCIDENT DESCRIPTION: ////DRILL////CALLER STATED THAT OIL LEAKED FROM A UNIT ON THE MAIN BANK DUE TO UNKNOWN CAUSES.

INCIDENT TYPE:	FIXED	**INCIDENT CAUSE:**	UNKNOWN
INCIDENT DATE:	11/20/2003 9:00:00 AM		**INCIDENT DATE DESC:** OCCURRED
DISTANCE FROM CITY:		**DISTANCE UNITS:**	
DIRECTION FROM CITY:		**LOCATION SECTION:**	
LOCATION TOWNSHIP:		**LOCATION RANGE:**	
AIRCRAFT TYPE:		**AIRCRAFT MODEL:**	
AIRCRAFT ID:		**AIRCRAFT FUEL CAPACITY:**	
AIRCRAFT FUEL CAPACITY UNITS:		**AIRCRAFT FUEL ON BOARD:**	
AIRCRAFT FUEL ON BOARD UNITS:		**AIRCRAFT SPOT NUMBER:**	
AIRCRAFT HANGER:		**AIRCRAFT RUNWAY NUM:**	
ROAD MILE MARKER:		**BUILDING ID:**	
TYPE OF FIXED OBJECT:	OTHER	**POWER GEN FACILITY:**	N
GENERATING CAPACITY:		**TYPE OF FUEL:**	
NPDES:		**NPDES COMPLIANCE:**	U
PIPELINE TYPE:		**DOT REGULATED:**	U
PIPELINE ABOVE GROUND:	ABOVE	**EXPOSED UNDERWATER:**	N
PIPELINE COVERED:	U	**GRADE CROSSING:**	N
LOCATION SUBDIVISION:		**RAILROAD MILEPOST:**	
TYPE VEHICLE INVOLVED:		**CROSSING DEVICE TYPE:**	
DEVICE OPERATIONAL:	Y		
DOT CROSSING NUMBER:		**BRAKE FAILURE:**	N

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

ERNS

SEARCH ID: 72 **DIST/DIR:** NON GC **MAP ID:**

NAME:	HARBOR GENERATION STATION	**REV:**	12/31/03
ADDRESS:	161 NORTH ISLAND AVE	**ID1:**	NRC-705883
	WILMINGTON CA	**ID2:**	
	LOS ANGELES	**STATUS:**	FIXED
CONTACT:	JOSEFA ESPARRAGO	**PHONE:**	2133670287

TANK ABOVE GROUND:	ABOVE	**TRANSPORTABLE CONTAINER:**	U
TANK REGULATED:	U	**TANK REGULATED BY:**	
TANK ID:		**CAPACITY OF TANK:**	
CAPACITY OF TANK UNITS:		**ACTUAL AMOUNT:**	
ACTUAL AMOUNT UNITS:		**PLATFORM RIG NAME:**	
PLATFORM LETTER:		**LOCATION AREA ID:**	
LOCATION BLOCK ID:			

DESCRIPTION OF TANK:

OCSG NUMBER:		**OCSP NUMBER:**	
STATE LEASE NUMBER:		**PIER DOCK NUMBER:**	
BERTH SLIP NUMBER:		**CONTIN RELEASE TYPE:**	
INITIAL CONT RELEASE NUM:		**CONT RELEASE PERMIT:**	
ALLISION:	N	**TYPE OF STRUCTURE:**	
STRUCTURE NAME:		**STRUCT OPERATIONAL:**	U
AIRBAG DEPLOYED:		**DATE NORMAL SERVICE:**	
SERVICE DISRUPT TIME:		**SERVICE DISRUPT UNITS:**	
TRANSIT BUS FLAG:		**CR BEGIN DATE:**	
CR END DATE:		**CR CHANGE DATE:**	
FIRE INVOLVED:	N	**FIRE EXTINGUISHED:**	U
ANY EVACUATIONS:	N	**NUMBER EVACUATED:**	
WHO EVACUATED:		**RADIUS OF EVACUATION:**	
ANY INJURIES:	N	**NUMBER INJURED:**	
NUMBER HOSPITALIZED:		**ANY FATALITIES:**	N
NUMBER FATALITIES:		**ANY DAMAGES:**	N
DAMAGE AMOUNT:		**AIR CORRIDOR CLOSED:**	N
AIR CORRIDOR DESC:		**AIR CLOSURE TIME:**	
WATERWAY CLOSED:	N	**WATERWAY DESC:**	
WATERWAY CLOSURE TIME:		**ROAD CLOSED:**	N
ROAD DESC:		**ROAD CLOSURE TIME:**	
CLOSURE DIRECTION:		**MAJOR ARTERY:**	N
TRACK CLOSED:	N	**TRACK DESC:**	
TRACK CLOSURE TIME:		**MEDIA INTEREST:**	NONE
MEDIUM DESC:	LAND	**ADDTL MEDIUM INFO:**	
BODY OF WATER:		**TRIBUTARY OF:**	
NEAREST RIVER MILE MARK:		**RELEASE SECURED:**	N
EST DUR OF RELEASE:		**RELEASE RATE:**	2
TRACK CLOSE DIR:		**ST AGENCY ON SCENE:**	
ST AGENCY RPT NUM:	03-6020	**OTHER AGENCY NOTIFIED:**	
WEATHER CONDITIONS:	OVERCAST	**AIR TEMPERATURE:**	70
WIND SPEED:		**WIND DIRECTION:**	
WATER SUPPLY CONTAM:	U	**SHEEN SIZE:**	
SHEEN COLOR:		**DIR OF SHEEN TRAVEL:**	
SHEEN ODOR DESCRIPTION:		**WAVE CONDITION:**	
CURRENT SPEED:		**CURRENT DIRECTION:**	
WATER TEMPERATURE:			

DESC OF REMEDIAL ACTION: UNKNOWN

EMPL FATALITY: **PASS FATALITY:**

- Continued on next page -

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

ERNS

SEARCH ID: 72 **DIST/DIR:** NON GC **MAP ID:**

NAME:	HARBOR GENERATION STATION	**REV:**	12/31/03
ADDRESS:	161 NORTH ISLAND AVE	**ID1:**	NRC-705883
	WILMINGTON CA	**ID2:**	
	LOS ANGELES	**STATUS:**	FIXED
CONTACT:	JOSEFA ESPARRAGO	**PHONE:**	2133670287

COMMUNITY IMPACT:	N	**WIND SPEED UNITS:**	
EMPLOYEE INJURIES:		**PASSENGER INJURIES:**	
OCCUPANT FATALITY:		**CURRENT SPEED UNITS:**	
ROAD CLOSURE UNITS:		**TRACK CLOSURE UNITS:**	
SHEEN SIZE UNITS:		**STATE AGENCY NOTIFIED:**	OES
FED AGENCY NOTIFIED:		**NEAREST RIVER MILE MARK:**	
SHEEN SIZE LENGTH:		**SHEEN SIZE LENGTH UNITS:**	
SHEEN SIZE WIDTH:		**SHEEN SIZE WIDTH UNITS:**	
OFFSHORE:	N	**DURATION UNIT:**	
RELEASE RATE UNIT:	GALLON(S)	**RELEASE RATE RATE:**	MINUTE

ADDITIONAL INFO: ////DRILL////CALLER HAD NO FURTHER INFORMATION.

MATERIAL INFORMATION

CHRIS CODE:	OUN	**CASE NUMBER:**	000000-00-0
UN NUMBER:		**REACHED WATER:**	UNKNOWN

NAME OF MATERIAL: UNKNOWN OIL
AMOUNT OF MATERIAL: 0 UNKNOWN AMOUNT
AMOUNT IN WATER: 0 UNKNOWN AMOUNT

OTHER MATERIAL INFORMATION

MOBILE DETAILS INFORMATION

TRAIN INFORMATION

VESSEL INFORMATION

Environmental FirstSearch Descriptions

NPL: ***EPA*** NATIONAL PRIORITY LIST - The National Priorities List is a list of the worst hazardous waste sites that have been identified by Superfund. Sites are only put on the list after they have been scored using the Hazard Ranking System (HRS), and have been subjected to public comment. Any site on the NPL is eligible for cleanup using Superfund Trust money.
A Superfund site is any land in the United States that has been contaminated by hazardous waste and identified by the Environmental Protection Agency (EPA) as a candidate for cleanup because it poses a risk to human health and/or the environment.
FINAL - Currently on the Final NPL
PROPOSED - Proposed for NPL

NPL DELISTED: ***EPA*** NATIONAL PRIORITY LIST Subset - Database of delisted NPL sites. 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.
DELISTED - Deleted from the Final NPL

CERCLIS: ***EPA*** COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM (CERCLIS)- CERCLIS is a database of potential and confirmed hazardous waste sites at which the EPA Superfund program has some involvement. It contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL.
PART OF NPL- Site is part of NPL site
DELETED - Deleted from the Final NPL
FINAL - Currently on the Final NPL
NOT PROPOSED - Not on the NPL
NOT VALID - Not Valid Site or Incident
PROPOSED - Proposed for NPL
REMOVED - Removed from Proposed NPL
SCAN PLAN - Pre-proposal Site
WITHDRAWN - Withdrawn

NFRAP: ***EPA*** COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM ARCHIVED SITES - database of Archive designated CERCLA sites that, to the best of EPA's knowledge, assessment has been completed and has determined no further steps will be taken to list this site on the National Priorities List (NPL). This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.
NFRAP – No Further Remedial Action Plan
P - Site is part of NPL site
D - Deleted from the Final NPL
F - Currently on the Final NPL
N - Not on the NPL
O - Not Valid Site or Incident
P - Proposed for NPL
R - Removed from Proposed NPL
S - Pre-proposal Site
W – Withdrawn

RCRA COR ACT: ***EPA*** RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.
RCRAInfo facilities that have reported violations and subject to corrective actions.

RCRA TSD: ***EPA*** RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM

TREATMENT, STORAGE, and DISPOSAL FACILITIES. - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.
Facilities that treat, store, dispose, or incinerate hazardous waste.

RCRA GEN: ***EPA*** RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM GENERATORS - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.
Facilities that generate or transport hazardous waste or meet other RCRA requirements.
LGN - Large Quantity Generators
SGN - Small Quantity Generators
VGN – Conditionally Exempt Generator.
Included are RAATS (RCRA Administrative Action Tracking System) and CMEL (Compliance Monitoring & Enforcement List) facilities.

RCRA NLR: ***EPA*** RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.
Facilities not currently classified by the EPA but are still included in the RCRAInfo database. Reasons for non classification:
Failure to report in a timely matter.
No longer in business.
No longer in business at the listed address.
No longer generating hazardous waste materials in quantities which require reporting.

Federal IC / EC: ***EPA*** BROWNFIELD MANAGEMENT SYSTEM (BMS) - database designed to assist EPA in collecting, tracking, and updating information, as well as reporting on the major activities and accomplishments of the various Brownfield grant Programs.
FEDERAL ENGINEERING AND INSTITUTIONAL CONTROLS- Superfund sites that have either an engineering or an institutional control. The data includes the control and the media contaminated.

ERNS: ***EPA/NRC*** EMERGENCY RESPONSE NOTIFICATION SYSTEM (ERNS) - Database of incidents reported to the National Response Center. These incidents include chemical spills, accidents involving chemicals (such as fires or explosions), oil spills, transportation accidents that involve oil or chemicals, releases of radioactive materials, sightings of oil sheens on bodies of water, terrorist incidents involving chemicals, incidents where illegally dumped chemicals have been found, and drills intended to prepare responders to handle these kinds of incidents. Data since January 2001 has been received from the National Response System database as the EPA no longer maintains this data.

Tribal Lands: ***DOI/BIA*** INDIAN LANDS OF THE UNITED STATES - Database of areas with boundaries established by treaty, statute, and (or) executive or court order, recognized by the Federal Government as territory in which American Indian tribes have primary governmental authority. The Indian Lands of the United States map layer shows areas of 640 acres or more, administered by the Bureau of Indian Affairs. Included are Federally-administered lands within a reservation which may or may not be considered part of the reservation.

State/Tribal Sites: ***CA EPA*** SMBRPD / CAL SITES- The California Department of Toxic Substances Control (DTSC) has developed an electronic database system with information about sites that are known to be contaminated with hazardous substances as well as information on uncharacterized properties where further studies may reveal problems. The Site Mitigation and Brownfields Reuse Program Database (SMBRPD), also known as CalSites, is used primarily by DTSC's staff as an informational tool to evaluate and track activities at

properties that may have been affected by the release of hazardous substances.
The SMBRPD displays information in six categories. The categories are:
1. CalSites Properties (CS)
2. School Property Evaluation Program Properties (SCH)
3. Voluntary Cleanup Program Properties (VCP)
4. Unconfirmed Properties Needing Further Evaluation (RFE)
Please Note: FirstSearch Reports list the above sites as DB Type (STATE).
5. Unconfirmed Properties Referred to Another Local or State Agency (REF)
6. Properties where a No Further Action Determination has been made (NFA)
Please Note: FirstSearch Reports list the above sites as DB Type (OTHER).
Each Category contains information on properties based upon the type of work taking place at the site. For example, the CalSites database is now one of the six categories within SMPBRD and contains only confirmed sites considered as posing the greatest threat to the public and/or the potential public school sites will be found within the School Property Evaluation Program, and those properties undergoing voluntary investigation and/or cleanup are in the Voluntary Cleanup Program.
CORTESE LIST-Pursuant to Government Code Section 65962.5, the Hazardous Waste and Substances Sites List has been compiled by Cal/EPA, Hazardous Materials Data Management Program. The CAL EPA Dept. of Toxic Substances Control compiles information from subsets of the following databases to make up the CORTESE list:
1. The Dept. of Toxic Substances Control; contaminated or potentially contaminated hazardous waste sites listed in the CAL Sites database. Formerly known as ASPIS are included (CALSITES formerly known as ASPIS).
2. The California State Water Resources Control Board; listing of Leaking Underground Storage Tanks are included (LTANK)
3. The California Integrated Waste Management Board; Sanitary Landfills which have evidence of groundwater contamination or known migration of hazardous materials (formerly WB-LF, now AB 3750).
Note: Track Info Services collects each of the above data sets individually and lists them separately in the following First Search categories in order to provide more current and comprehensive information: CALSITES: SPL, LTANK: LUST, WB-LF: SWL

State Spills 90: ***CA EPA*** SLIC REGIONS 1 - 9- The California Regional Water Quality Control Boards maintain report of sites that have records of spills, leaks, investigation, and cleanups.

State/Tribal SWL: ***CA IWMB/SWRCB/COUNTY*** SWIS SOLID WASTE INFORMATION SYSTEM-The California Integrated Waste Management Board maintains a database on solid waste facilities, operations, and disposal sites throughout the state of California. The types of facilities found in this database include landfills, transfer stations, material recovery facilities, composting sites, transformation facilities, waste tire sites, and closed disposal sites. For more information on individual sites call the number listed in the source field..
Please Note: This database contains poor site location information for many sites in the First Search reports; therefore, it may not be possible to locate or plot some sites in First Search reports.
WMUDS-The State Water Resources Control Board maintained the Waste Management Unit Database System (WMUDS). It is no longer updated. It tracked management units for several regulatory programs related to waste management and its potential impact on groundwater. Two of these programs (SWAT & TPCA) are no longer on-going regulatory programs as described below. Chapter 15 (SC15) is still an on-going regulatory program and information is updated periodically but not to the WMUDS database. The WMUDS System contains information from the following agency databases: Facility, Waste Management Unit (WMU), Waste Discharger System (WDS), SWAT, Chapter 15, TPCA, RCRA, Inspections, Violations, and Enforcement's.
Note: This database contains poor site location information for many sites in the First Search reports; therefore, it may not be possible to locate or plot some sites in First Search reports.
ORANGE COUNTY LANDFILLS LIST- A list maintained by the Orange County Health Department.

State/Tribal LUST: ***CA SWRCB/COUNTY*** LUSTIS- The State Water Resources Control Board maintains a database of sites with confirmed or unconfirmed leaking underground storage tanks. Information for this database is collected from the states regional boards quarterly and integrated with this database.
SAN DIEGO COUNTY LEAKING TANKS- The San Diego County Department of Environmental Health maintains a database of sites with confirmed or unconfirmed leaking underground storage tanks within its HE17/58 database. For more information on a specific file call the HazMat Duty Specialist at phone number listed in the source information field.

State/Tribal UST/AST: ***CA EPA/COUNTY/CITY*** ABOVEGROUND STORAGE TANKS LISTING-The Above Ground Petroleum Storage Act became State Law effective January 1, 1990. In general, the law requires owners or operators of AST's with petroleum products to file a storage statement and pay a fee by July 1, 1990 and every two years thereafter, take specific action to prevent spills, and in certain instances implement a

groundwater monitoring program. This law does not apply to that portion of a tank facility associated with the production oil and regulated by the State Division of Oil and Gas of the Dept. of Conservation.
SWEEPS / FIDS STATE REGISTERED UNDEGROUND STORAGE TANKS- Until 1994 the State Water Resources Control Board maintained a database of registered underground storage tanks statewide referred to as the SWEEPS System. The SWEEPS UST information was integrated with the CAL EPA's Facility Index System database (FIDS) which is a master index of information from numerous California agency environmental databases. That was last updated in 1994. Track Info Services included the UST information from the FIDS database in its First Search reports for historical purposes to help its clients identify where tanks may possibly have existed. For more information on specific sites from individual paper files archived at the State Water Resources Control Board call the number listed with the source information.
INDIAN LANDS UNDERGROUND STORAGE TANKS LIST- A listing of underground storage tanks currently on Indian Lands under federal jurisdiction. California Indian Land USTS are administered by US EPA Region 9.
CUPA DATABASES & SOURCES- Definition of a CUPA: A Certified Unified Program Agency (CUPA) is a local agency that has been certified by the CAL EPA to implement six state environmental programs within the local agency's jurisdiction. These can be a county, city, or JPA (Joint Powers Authority). This program was established under the amendments to the California Health and Safety Code made by SB 1082 in 1994.
A Participating Agency (PA) is a local agency that has been designated by the local CUPA to administer one or more Unified Programs within their jurisdiction on behalf of the CUPA. A Designated Agency (DA) is an agency that has not been certified by the CUPA but is the responsible local agency that would implement the six unified programs until they are certified.
Please Note: Track Info Services, LLC collects and maintains information regarding Underground Storage Tanks from majority of the CUPAS and Participating Agencies in the State of California. These agencies typically do not maintain nor release such information on a uniform or consistent schedule; therefor, currency of the data may vary. Please look at the details on a specific site with a UST record in the First Search Report to determine the actual currency date of the record as provided by the relevant agency. Numerous efforts are made on a regular basis to obtain updated records.

State/Tribal IC: ***CA EPA*** DEED-RESTRICTED SITES LISTING- The California EPA's Department of Toxic Substances Control Board maintains a list of deed-restricted sites, properties where the DTSC has placed limits or requirements on the future use of the property due to varying levels of cleanup possible, practical or necessary at the site.

State/Tribal VCP: ***CA EPA*** SMBRPD / CAL SITES- The California Department of Toxic Substances Control (DTSC) has developed an electronic database system with information about sites that are known to be contaminated with hazardous substances as well as information on uncharacterized properties where further studies may reveal problems. The Site Mitigation and Brownfields Reuse Program Database (SMBRPD), also known as CalSites, is used primarily by DTSC's staff as an informational tool to evaluate and track activities at properties that may have been affected by the release of hazardous substances.
The SMBRPD displays information in six categories. The categories are:
1. CalSites Properties (CS)
2. School Property Evaluation Program Properties (SCH)
3. Voluntary Cleanup Program Properties (VCP)
4. Unconfirmed Properties Needing Further Evaluation (RFE)
5. Unconfirmed Properties Referred to Another Local or State Agency (REF)
6. Properties where a No Further Action Determination has been made (NFA)
Please Note: FirstSearch Reports list the above sites as DB Type VC. Each Category contains information on properties based upon the type of work taking place at the site. The VC category contains only those properties undergoing voluntary investigation and/or cleanup and which are listed in the Voluntary Cleanup Program.

RADON: ***NTIS*** NATIONAL RADON DATABASE - EPA radon data from 1990-1991 national radon project collected for a variety of zip codes across the United States.

State Permits: ***CA COUNTY*** SAN DIEGO COUNTY HE17 PERMITS- The HE17/58 database tracks establishments issued permits and the status of their permits in relation to compliance with federal, state, and local regulations that the County oversees. It tracks if a site is a hazardous waste generator, TSD, gas station, has underground tanks, violations, or unauthorized releases. For more information on a specific file call the HazMat Duty Specialist at the phone number listed in the source information field.
SAN BERNARDINO COUNTY HAZARDOUS MATERIALS PERMITS- Handlers and Generators Permit Information Maintained by the Hazardous Materials Division.

State Other: ***CA EPA/COUNTY*** SMBRPD / CAL SITES- The California Department of Toxic Substances

Control (DTSC) has developed an electronic database system with information about sites that are known to be contaminated with hazardous substances as well as information on uncharacterized properties where further studies may reveal problems. The Site Mitigation and Brownfields Reuse Program Database (SMBRPD), also known as CalSites, is used primarily by DTSC's staff as an informational tool to evaluate and track activities at properties that may have been affected by the release of hazardous substances.
The SMBRPD displays information in six categories. The categories are:
1. CalSites Properties (CS)
2. School Property Evaluation Program Properties (SCH)
3. Voluntary Cleanup Program Properties (VCP)
4. Unconfirmed Properties Needing Further Evaluation (RFE)
Please Note: FirstSearch Reports list the above sites as DB Type (STATE).
5. Unconfirmed Properties Referred to Another Local or State Agency (REF)
6. Properties where a No Further Action Determination has been made (NFA)
Please Note: FirstSearch Reports list the above sites as DB Type (OTHER).
Each Category contains information on properties based upon the type of work taking place at the site. For example, the CalSites database is now one of the six categories within SMPBRD and contains only confirmed sites considered as posing the greatest threat to the public and/or the potential public school sites will be found within the School Property Evaluation Program, and those properties undergoing voluntary investigation and/or cleanup are in the Voluntary Cleanup Program.
LA COUNTY SITE MITIGATION COMPLAINT CONTROL LOG- The County of Los Angeles Public Health Investigation Compliant Control Log.
ORANGE COUNTY INDUSTRIAL SITE CLEANUPS- List maintained by the Orange County Environmental Health Agency.
RIVERSIDE COUNTY WASTE GENERATORS-A list of facilities in Riverside County which generate hazardous waste.
SACRAMENTO COUNTY MASTER HAZMAT LIST-Master list of facilities within Sacramento County with potentially hazardous materials.
SACRAMENTO COUNTY TOXIC SITE CLEANUPS-A list of sites where unauthorized releases of potentially hazardous materials have occurred.

State Other: ***US DOJ*** NATIONAL CLANDESTINE LABORATORY REGISTER - Database of 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 U.S. Department of Justice ("the Department"), and the Department has not verified the entry and does not guarantee its accuracy. All sites that are included in this data set will have an id that starts with NCLR.

Environmental FirstSearch Database Sources

NPL: ***EPA*** Environmental Protection Agency

Updated quarterly

NPL DELISTED: ***EPA*** Environmental Protection Agency

Updated quarterly

CERCLIS: ***EPA*** Environmental Protection Agency

Updated quarterly

NFRAP: ***EPA*** Environmental Protection Agency.

Updated quarterly

RCRA COR ACT: ***EPA*** Environmental Protection Agency.

Updated quarterly

RCRA TSD: ***EPA*** Environmental Protection Agency.

Updated quarterly

RCRA GEN: ***EPA*** Environmental Protection Agency.

Updated quarterly

RCRA NLR: ***EPA*** Environmental Protection Agency

Updated quarterly

Federal IC / EC: ***EPA*** Environmental Protection Agency

Updated quarterly

ERNS: ***EPA/NRC*** Environmental Protection Agency

Updated semi-annually

Tribal Lands: ***DOI/BIA*** United States Department of the Interior

Updated annually

State/Tribal Sites: ***CA EPA*** The CAL EPA, Depart. Of Toxic Substances Control

Phone: (916) 323-3400

Updated quarterly/when available

State Spills 90: ***CA EPA*** The California State Water Resources Control Board

Updated when available

State/Tribal SWL: ***CA IWMB/SWRCB/COUNTY*** The California Integrated Waste Management Board
Phone:(916) 255-2331
The State Water Resources Control Board
Phone:(916) 227-4365
Orange County Health Department

Updated quarterly/when available

State/Tribal LUST: ***CA SWRCB/COUNTY*** The California State Water Resources Control Board
Phone:(916) 227-4416
San Diego County Department of Environmental Health

Updated quarterly/when available

State/Tribal UST/AST: ***CA EPA/COUNTY/CITY*** The State Water Resources Control Board
Phone:(916) 227-4364
CAL EPA Department of Toxic Substances Control
Phone:(916)227-4404
US EPA Region 9 Underground Storage Tank Program
Phone: (415) 972-3372
ALAMEDA COUNTY CUPAS:
* County of Alameda Department of Environmental Health
* Cities of Berkeley, Fremont, Hayward, Livermore / Pleasanton, Newark, Oakland, San Leandro, Union
ALPINE COUNTY CUPA:
* Health Department (Only updated by agency sporadically)
AMADOR COUNTY CUPA:
* County of Amador Environmental Health Department
BUTTE COUNTY CUPA
* County of Butte Environmental Health Division (Only updated by agency biannually)
CALAVERAS COUNTY CUPA:
* County of Calaveras Environmental Health Department
COLUSA COUNTY CUPA:
* Environmental Health Dept.
CONTRA COSTA COUNTY CUPA:
* Hazardous Materials Program
DEL NORTE COUNTY CUPA:
* Department of Health and Social Services
EL DORADO COUNTY CUPAS:
* County of El Dorado Environmental Health - Solid Waste Div (Only updated by agency annually)
* County of El Dorado EMD Tahoe Division (Only updated by agency annually)
FRESNO COUNTY CUPA:
* Haz. Mat and Solid Waste Programs
GLENN COUNTY CUPA:
* Air Pollution Control District
HUMBOLDT COUNTY CUPA:
* Environmental Health Division
IMPERIAL COUNTY CUPA:
* Department of Planning and Building
INYO COUNTY CUPA:
* Environmental Health Department

KERN COUNTY CUPA:
* County of Kern Environmental Health Department
* City of Bakersfield Fire Department
KINGS COUNTY CUPA:
* Environmental Health Services
LAKE COUNTY CUPA:
* Division of Environmental Health
LASSEN COUNTY CUPA:
* Department of Agriculture
LOS ANGELES COUNTY CUPAS:
* County of Los Angeles Fire Department CUPA Data as maintained by the Los Angeles County Department of Public Works
* County of Los Angeles Environmental Programs Division
* Cities of Burbank, El Segundo, Glendale, Long Beach/Signal Hill, Los Angeles,Pasadena, Santa Fe Springs, Santa Monica, Torrance, Vernon
MADERA COUNTY CUPA:
* Environmental Health Department
MARIN COUNTY CUPA:
* County of Marin Office of Waste Management
* City of San Rafael Fire Department
MARIPOSA COUNTY CUPA:
* Health Department
MENDOCINO COUNTY CUPA:
* Environmental Health Department
MERCED COUNTY CUPA:
* Division of Environmental Health
MODOC COUNTY CUPA:
* Department of Agriculture
MONO COUNTY CUPA:
* Health Department
MONTEREY COUNTY CUPA:
* Environmental Health Division
NAPA COUNTY CUPA:
* Hazardous Materials Section
NEVADA COUNTY CUPA:
* Environmental Health Department
ORANGE COUNTY CUPAS:
* County of Orange Environmental Health Department
* Cities of Anaheim, Fullerton, Orange, Santa Ana
* County of Orange Environmental Health Department
PLACER COUNTY CUPAS:
* County of Placer Division of Environmental Health Field Office
* Tahoe City
* City of Roseville Roseville Fire Department
PLUMAS COUNTY CUPA:
* Environmental Health Department
RIVERSIDE COUNTY CUPA:
* Environmental Health Department
SACRAMENTO COUNTY CUPA:
* County Environmental Mgmt Dept, Haz. Mat. Div.
SAN BENITO COUNTY CUPA:
* City of Hollister Environmental Service Department
SAN BERNARDINO COUNTY CUPAS:
* County of San Bernardino Fire Department, Haz. Mat. Div.
* City of Hesperia Hesperia Fire Prevention Department
*City of Victorville Victorville Fire Department
SAN DIEGO COUNTY CUPA:
* The San Diego County Dept. of Environmental Health HE 17/58
SAN FRANCISCO COUNTY CUPA:
* Department of Public Health
SAN JOAQUIN COUNTY CUPA:
* Environmental Health Division

SAN LUIS OBISPO COUNTY CUPAS:
* County of San Luis Obispo Environmental Health Division
* City of San Luis Obispo City Fire Department
SAN MATEO COUNTY CUPA:
* Environmental Health Department
SANTA BARBARA COUNTY CUPA:
* County Fire Dept Protective Services Division
SANTA CLARA COUNTY CUPAS:
* County of Santa Clara Hazardous Materials Compliance Division
* Santa Clara County Central Fire Protection District (Covers Campbell, Cupertino, Los Gatos, & Morgan Hill)
* Cities of Gilroy, Milpitas, Mountain View, Palo Alto, San Jose Fire, Santa Clara, Sunnyvale
SANTA CRUZ COUNTY CUPA:
* Environmental Health Department
SHASTA COUNTY CUPA:
* Environmental Health Department
SIERRA COUNTY CUPA:
* Health Department
SISKIYOU COUNTY CUPA:
* Environmental Health Department
SONOMA COUNTY CUPAS:
* County of Sonoma Department Of Environmental Health
* Cities of Healdsburg / Sebastopol, Petaluma, Santa Rosa
STANISLAUS COUNTY CUPA:
* Department of Environmental Resources Haz. Mat. Division
SUTTER COUNTY CUPA:
* Department of Agriculture
TEHAMA COUNTY CUPA:
* Department of Environmental Health
TRINITY COUNTY CUPA:
* Department of Health
TULARE COUNTY CUPA:
* Environmental Health Department
TUOLUMNE COUNTY CUPA:
* Environmental Health
VENTURA COUNTY CUPAS:
* County of Ventura Environmental Health Division
* Cities of Oxnard, Ventura
YOLO COUNTY CUPA:
* Environmental Health Department
YUBA COUNTY CUPA:

Updated quarterly/annually/when available

State/Tribal IC: ***CA EPA*** The California EPA Department of Toxic Substances Control.

Updated Updated quarterly/annually/when available

State/Tribal VCP: ***CA EPA*** The California EPA Department of Toxic Substances Control.

Updated Updated quarterly/annually/when available

RADON: ***NTIS*** Environmental Protection Agency, National Technical Information Services

Updated periodically

State Permits: ***CA COUNTY*** The San Diego County Depart. Of Environmental Health
Phone:(619) 338-2211
San Bernardino County Fire Department

Updated quarterly/when available

State Other: ***CA EPA/COUNTY*** The CAL EPA, Depart. Of Toxic Substances Control
Phone: (916) 323-3400
The Los Angeles County Hazardous Materials Division
Phone: (323) 890-7806
Orange County Environmental Health Agency
Phone: (714) 834-3536
Riverside County Department of Environmental Health, Hazardous Materials Management Division
Phone:(951) 358-5055
Sacramento County Environmental Management Department

Updated quarterly/when available

State Other: ***US DOJ*** U.S. Department of Justice

Updated when available

Environmental FirstSearch
Street Name Report for Streets within .25 Mile(s) of Target Property

Target Property: HARRY BRIDGES BLVD
WILMINGTON CA 90744

JOB: 207384001

Street Name	Dist/Dir	Street Name	Dist/Dir
Bay View Ave	0.14 SW	NORTH Marine Ave	0.00 --
Broad Ave	0.15 NE	NORTH Neptune Ave	0.06 SW
Canal Ave	0.24 SE	Pier A St	0.07 SE
Canal St	0.13 NE	S Avalon Blvd	0.10 NE
E C St	0.13 NE	S Broad Ave	0.11 NE
E D St	0.22 NE	S Fries Ave	0.00 --
E Harry Bridges Blvd	0.08 NE	S Neptune Ave	0.06 SW
E Water St	0.14 SE	SOUTH Avalon Blvd	0.10 NE
EAST C St	0.13 NE	SOUTH Broad Ave	0.11 NE
EAST D St	0.22 NE	SOUTH Fries Ave	0.00 --
EAST Harry Bridges B	0.08 NE	SOUTH Neptune Ave	0.06 SW
EAST Water St	0.14 SE	W A St	0.00 --
Island Ave	0.00 --	W C St	0.09 NW
Lagoon Ave	0.00 --	W D St	0.20 NW
Lakme Ave	0.23 NE	W Harry Bridges Blvd	0.00 --
McDonald Ave	0.22 SW	W Water St	0.07 S-
N Avalon Blvd	0.08 NE	WEST A St	0.00 --
N Fries Ave	0.00 --	WEST C St	0.09 NW
N Marine Ave	0.00 --	WEST D St	0.20 NW
N Neptune Ave	0.06 SW	WEST Harry Bridges B	0.00 --
Nissan Way	0.24 SE	WEST Water St	0.07 S-
NORTH Avalon Blvd	0.08 NE		
NORTH Fries Ave	0.00 --		

Environmental FirstSearch

1 Mile Radius from Area

Single Map:

HARRY BRIDGES BLVD, WILMINGTON CA 90744

Source: U.S. Census TIGER Files

Area Polygon .....

Identified Site, Multiple Sites, Receptor .....

NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste

Triballand.....

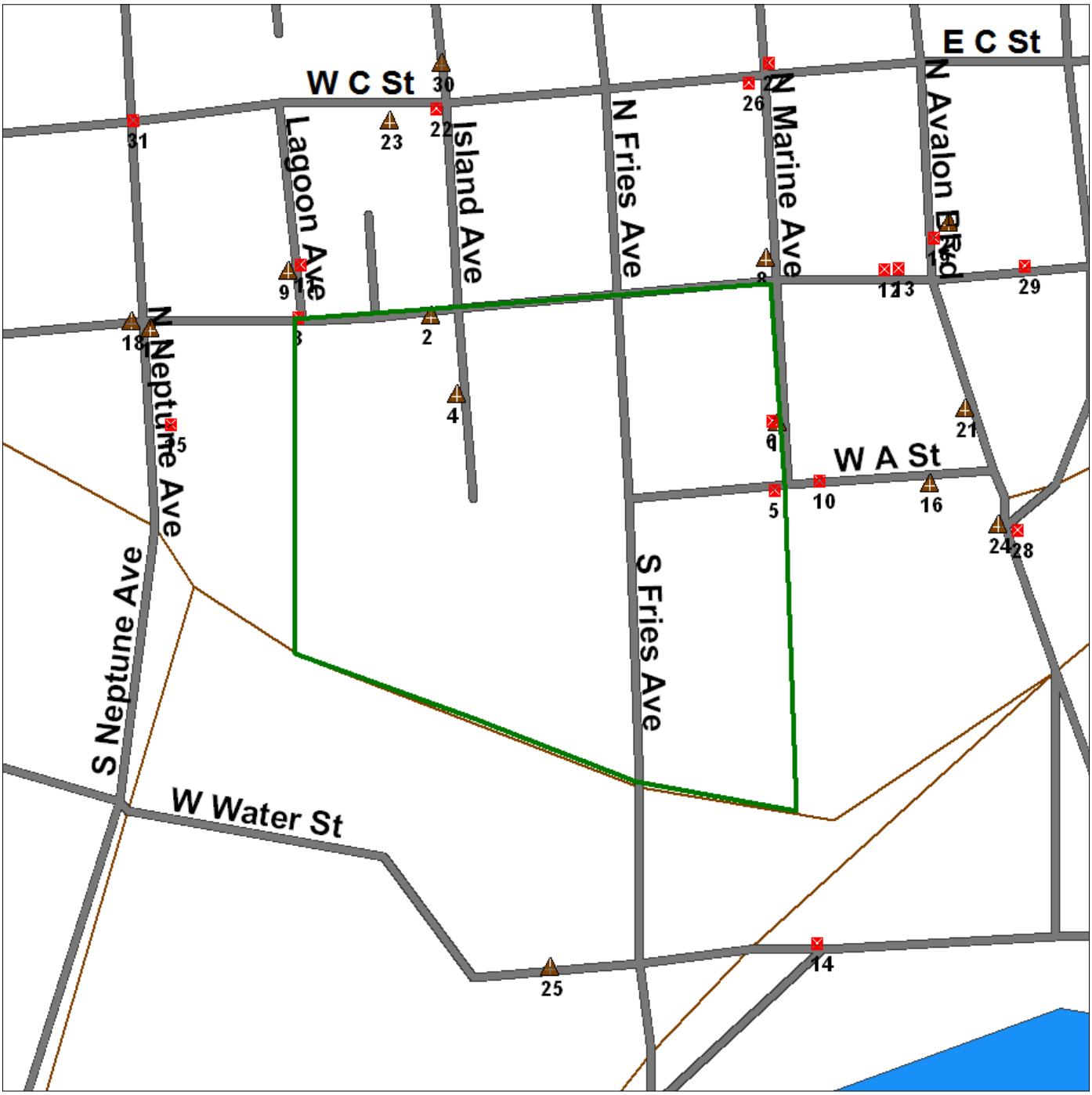
Railroads .....

Environmental FirstSearch

.12 Mile Radius from Area

ASTM-05: Multiple Databases

HARRY BRIDGES BLVD, WILMINGTON CA 90744



Source: U.S. Census TIGER Files

Area Polygon .....

Identified Site, Multiple Sites, Receptor .....

NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste

Triballand.....

Railroads .....

TRACK INFO SERVICES, LLC

Environmental FirstSearch™ Report

Target Property:

ALAMEDA ST

WILMINGTON CA 90744

Job Number: 207374001

PREPARED FOR:

Ninyo and Moore

475 Goddard, Suite 200

Irvine, CA 92618

05-16-08

Tel: (866) 664-9981 *Fax: (818) 249-4227*

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Environmental FirstSearch
Search Summary Report

Target Site: ALAMEDA ST
WILMINGTON CA 90744

FirstSearch Summary

Database	Sel	Updated	Radius	Site	1/8	1/4	1/2	1/2>	ZIP	TOTALS
NPL	Y	04-07-08	0.12	0	0	-	-	-	0	0
NPL Delisted	Y	04-07-08	0.12	0	0	-	-	-	0	0
CERCLIS	Y	04-22-08	0.12	0	0	-	-	-	0	0
NFRAP	Y	04-22-08	0.12	0	1	-	-	-	0	1
RCRA COR ACT	Y	04-01-08	0.12	0	1	-	-	-	0	1
RCRA TSD	Y	04-01-08	0.12	0	1	-	-	-	0	1
RCRA GEN	Y	04-01-08	0.12	0	9	-	-	-	0	9
RCRA NLR	Y	04-01-08	0.12	0	0	-	-	-	0	0
Federal IC / EC	Y	04-01-08	0.12	0	0	-	-	-	1	1
ERNS	Y	12-31-07	0.12	0	1	-	-	-	5	6
Tribal Lands	Y	12-01-05	0.12	0	0	-	-	-	0	0
State/Tribal Sites	Y	08-08-07	0.12	0	1	-	-	-	1	2
State Spills 90	Y	11-06-07	0.12	0	2	-	-	-	10	12
State/Tribal SWL	Y	04-09-08	0.12	2	1	-	-	-	0	3
State/Tribal LUST	Y	04-11-08	0.12	0	0	-	-	-	0	0
State/Tribal UST/AST	Y	01-03-07	0.12	0	17	-	-	-	0	17
State/Tribal EC	Y	NA	0.12	0	0	-	-	-	0	0
State/Tribal IC	Y	04-27-07	0.12	0	0	-	-	-	0	0
State/Tribal VCP	Y	08-15-06	0.12	0	0	-	-	-	0	0
State/Tribal Brownfields	Y	08-08-07	0.12	0	0	-	-	-	0	0
State Permits	Y	03-29-07	0.12	0	0	-	-	-	0	0
State Other	Y	08-08-07	0.12	0	0	-	-	-	0	0
- TOTALS -				2	34	0	0	0	17	53

Notice of Disclaimer

Due to the limitations, constraints, inaccuracies and incompleteness of government information and computer mapping data currently available to TRACK Info Services, certain conventions have been utilized in preparing the locations of all federal, state and local agency sites residing in TRACK Info Services's databases. All EPA NPL and state landfill sites are depicted by a rectangle approximating their location and size. The boundaries of the rectangles represent the eastern and western most longitudes; the northern and southern most latitudes. As such, the mapped areas may exceed the actual areas and do not represent the actual boundaries of these properties. All other sites are depicted by a point representing their approximate address location and make no attempt to represent the actual areas of the associated property. Actual boundaries and locations of individual properties can be found in the files residing at the agency responsible for such information.

Waiver of Liability

Although TRACK Info Services uses its best efforts to research the actual location of each site, TRACK Info Services does not and can not warrant the accuracy of these sites with regard to exact location and size. All authorized users of TRACK Info Services's services proceeding are signifying an understanding of TRACK Info Services's searching and mapping conventions, and agree to waive any and all liability claims associated with search and map results showing incomplete and or inaccurate site locations.

Environmental FirstSearch
Site Information Report

Request Date:	05-16-08	**Search Type:**	AREA
Requestor Name:	Beth Padgett		0.02 sq mile(s)
Standard:	ASTM-05	**Job Number:**	207374001
		Filtered Report	

Target Site: ALAMEDA ST
WILMINGTON CA 90744

Demographics

Sites:	53	**Non-Geocoded:**	17	**Population:**	NA
Radon:	NA				

Site Location

	Degrees (Decimal)	**Degrees (Min/Sec)**		**UTMs**
Longitude:	-118.24039	-118:14:25	**Easting:**	385162.497
Latitude:	33.787718	33:47:16	**Northing:**	3739116.561
			Zone:	11

Comment

Comment:

Additional Requests/Services

Adjacent ZIP Codes: 1 Mile(s)

ZIP Code	City Name	ST	Dist/Dir	Sel
90745	CARSON	CA	0.79 NW	Y
90810	LONG BEACH	CA	0.50 NE	Y
90813	LONG BEACH	CA	0.69 NE	Y

Services:

	Requested?	Date
Sanborns	No	
Aerial Photographs	No	
Historical Topos	No	
City Directories	No	
Title Search/Env Liens	No	
Municipal Reports	No	
Online Topos	No	

Environmental FirstSearch
Sites Summary Report

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

TOTAL: 53 **GEOCODED:** 36 **NON GEOCODED:** 17 **SELECTED:** 0

Page No.	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
1	SWL	ADAVARI TRANSFER STATION SWIS19-AR-1169/TO BE DETERMINED	1733 ROBIDOUX ST WILMINGTON CA 90744	0.00 --	1
2	UST	WESTERN WASTE INDUSTRIES TISID-STATE26088/ACTIVE	1733 ROBIDOUX WILMINGTON CA 90744	0.01 NW	1
3	UST	ADIVARI INCORPORATED LACTY/NONCRTFD911	1733 E ROBIDOUX ST WILMINGTON CA 90744	0.01 NW	1
4	SWL	DAILY DISPOSAL SERVICE WMUD4 190056NUR	1733 EAST RUBIDOUX STREET WILMINGTON CA 90744	0.00 --	1
5	RCRAGN	WESTERN WASTE IND CAD041678137/TRANSPORTER	1733 EAST ROBIDOUX STREET WILMINGTON CA 90744	0.01 NW	1
9	RCRAGN	ADIVARI-INTERCITY CARTAGE CAD070212683/TRANSPORTER	1733 ROUBIDOUX ST WILMINGTON CA 90744	0.01 NW	1
10	UST	ASBURY TRANSPORTATION TISID-STATE28431/ACTIVE	1150 ALAMEDA WILMINGTON CA 90744	0.03 SW	2
11	UST	OLYMPIC TANK FARM TISID-STATE4595/INACTIVE	1220 ALAMEDA WILMINGTON CA 90744	0.04 NW	3
12	RCRAGN	ULTRAMAR INC. OLYMPIC TANK FARM CAR000094888/LGN	1220 NORTH ALAMEDA STREET WILMINGTON CA 90744	0.04 NW	3
13	UST	OLYMPIC TANK FARM AST14/AST SWRCB REG.4	1220 N ALAMEDA ST WILMINGTON CA 90744	0.04 NW	3
13	NFRAP	CHEM STAR CAD044429835/NFRAP-N	1737 E. DENNI ST WILMINGTON CA 90744	0.05 SW	4
14	RCRA	ENSCO WEST INC. CAD044429835/TSD	1737 E DENNI ST WILMINGTON CA 90744	0.05 SW	4
19	STATE	CARRASCO VACUUM TRUCK SERVICE CAL19420032/CERTIFIED	1737 E DENNI ST WILMINGTON CA 90748	0.05 SW	4
20	RCRACOR	CLEAN HARBOR WILMINGTON LLC CAD044429835/CA	1737 E DENNI ST WILMINGTON CA 90744	0.05 SW	4
21	RCRAGN	ENSCO WEST INC. CAD044429835/LGN	1737 E DENNI ST WILMINGTON CA 90744	0.05 SW	4
25	UST	ENSCO WEST, INC TISID-STATE27515/ACTIVE	1737 DENNI WILMINGTON CA 90744	0.05 SW	4
26	ERNS	AMERICHEM 205071/FIXED FACILITY	1737 E. DENNI ST. WILMINGTON CA 90744	0.05 SW	4
27	RCRAGN	SANTRAN,INC. CAD980665863/TRANSPORTER	1737 EAST DENNI ST WILMINGTON CA 90744	0.05 SW	4
28	RCRAGN	ALCO AUTO WRECKING CAD981682859/SGN	1230 ALAMEDA WILMINGTON CA 90744	0.05 NW	5
29	UST	ASBURY SYSTEM INCORPORATED TISID-STATE27517/ACTIVE	1720 DENNI WILMINGTON CA 90745	0.06 SW	6
30	UST	ASBURY SYSTEM INCORPORATED LACTY/NONCRTFD380	1720 E DENNI ST WILMINGTON CA 90745	0.06 SW	6

Environmental FirstSearch
Sites Summary Report

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

TOTAL: 53 **GEOCODED:** 36 **NON GEOCODED:** 17 **SELECTED:** 0

Page No.	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
31	SWL	L and S DISPOSAL SWIS19-AR-5577/ACTIVE	1002 VREELAND AVENUE WILMINGTON CA 90744	0.07 S-	7
32	UST	UNITED LPG TRANSPORTATION TISID-STATE26651/ACTIVE	1620 YOUNG WILMINGTON CA 90744	0.08 SW	8
33	RCRAGN	UNITED LPG TRANSPORTATION CAD982476640/SGN	1620 E YOUNG ST WILMINGTON CA 90744	0.08 SW	8
34	UST	STEINMEYER CORPORATION TISID-STATE27519/ACTIVE	1248 ALAMEDA WILMINGTON CA	0.09 NW	9
35	RCRAGN	HELP YOURSELF AUTO WRECKING CAD118576628/SGN	1261 ALAMEDA ST WILMINGTON CA 90744	0.10 NW	10
36	UST	HELP YOURSELF AUTO WRECKING LACTY/NONCRTFD116	1261 S ALAMEDA ST WILMINGTON CA 90744	0.10 NW	10
36	UST	HELP YOURSELF AUTO WRECKING LACTY/NONCRTFD149	1261 S ALAMEDA ST WILMINGTON CA 90744	0.10 NW	10
37	UST	HELP YOURSELF AUTO WRECKING TISID-STATE27505/ACTIVE	1261 ALAMEDA WILMINGTON CA 90744	0.10 NW	10
38	UST	HELP YOURSELF AUTO WRECKING LACTY/NONCRTFD188	1261 S ALAMEDA ST WILMINGTON CA 90744	0.10 NW	10
38	RCRAGN	ASHBURY SYSTEM CAD001939859/TRANSPORTER	1635 E DENNI ST WILMINGTON CA 90744	0.10 SW	11
39	UST	ASBURY SYSTEM /C LACTY/NONCRTFD379	1634 E DENNI ST WILMINGTON CA 90744	0.10 SW	12
39	UST	ASBURY SYSTEM /C TISID-STATE25592/ACTIVE	1634 DENNI WILMINGTON CA 90744	0.10 SW	12
40	UST	LOPEZ REFINERY EQUIPMENT CO IN TISID-STATE5651/INACTIVE	1840 MAURETANIA WILMINGTON CA 90744	0.12 NW	13
41	SPILLS	ACTA PARCEL PCH-1573 G_SL0603706728/NOT REPORTED	1811 MAURETANIA WILMINGTON CA	0.12 NW	14
41	SPILLS	ACTA PARCEL PCH-1572 G_SL0603732998/CASE CLOSED	1825 MAURETANIA STREET WILMINGTON CA	0.12 NW	15

Environmental FirstSearch
Sites Summary Report

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

TOTAL: 53 **GEOCODED:** 36 **NON GEOCODED:** 17 **SELECTED:** 0

Page No.	DB Type	Site Name/ID/Status	Address	Dist/Dir	Map ID
42	SPILLS	CP TRANSFER YARD G_SL0603775919/CASE OPEN	ALAMEDA STREET WILMINGTON CA 90744	NON GC	
42	SPILLS	ACTA SOUTH - PARCEL SE-370 G_SL0603731360/CASE CLOSED	1601 S ALAMEDA ST. WILMINGTON CA 90744	NON GC	
43	SPILLS	ACTA SOUTH - PARCEL SE-372 G_SL0603715392/CASE CLOSED	ALAMEDA STREET WILMINGTON CA 90744	NON GC	
43	SPILLS	ACTA PARCEL PCH-1554 G_SL0603771890/CASE CLOSED	E. ALAMEDA ST WILMINGTON CA	NON GC	
44	SPILLS	ACTA SOUTH - PARCEL SE-382 G_SL0603701424/CASE CLOSED	NORTHEAST CORNER OF EAST GR WILMINGTON CA 90744	NON GC	
44	SPILLS	ORYX ENERGY CO. SLC40155/NO FURTHER ACTION RE	ALAMEDA STREET WILMINGTON CA 90744	NON GC	
45	SPILLS	ACTA SOUTH - PARCEL SE-374 G_SL0603767958/CASE CLOSED	1601 S ALAMEDA ST WILMINGTON CA 90744	NON GC	
45	SPILLS	ACTA PARCEL PCH-1553 G_SL0603773582/CASE CLOSED	E. ALAMEDA ST. WILMINGTON CA	NON GC	
46	SPILLS	ACTA PARCEL PCH-1552 G_SL0603741121/CASE CLOSED	E. ALAMEDA ST WILMINGTON CA	NON GC	
47	STATE	SOUTH REGION SPAN K-8 1, SITE 15 CAL60000421/ACTIVE	EAST M STREET/NORTH AVALON LOS ANGELES CA 90744	NON GC	
48	FED IC / EC	WILMINGTON INDUSTRIAL PARK 33635649-4/EPA BROWNFIELD	ALAMEDA STREET AND EAST ANA WILMINGTON CA	NON GC	
49	ERNS	IN A PUBLIC ALLEY NRC-837570/FIXED	1507 EAST YOUNG ST. WILMINGTON CA	NON GC	
52	ERNS	EXXON 266082/HIGHWAY RELATED	V ST AND ALAMEDA ST WILMINGTON CA 90744	NON GC	
54	ERNS	ALLEYS BEHIND YOUNG STREET AND T NRC-837616/STORAGE TANK	1507 EAST YOUNG ST. WILMINGTON CA	NON GC	
57	ERNS	A.M. PUMPING 298593/HIGHWAY RELATED	OCEAN BLVD BETWEEN HENRY FO TERMINAL ISLAN CA 90744	NON GC	
59	SPILLS	ORYX ENERGY CO. G_SLT4308987/CASE CLOSED	ALAMEDA ST WILMINGTON CA 90744	NON GC	
60	ERNS	453884/OFFSHORE - SPILL OFF	CORNER OF B STREET AND ALAM WILMINGTON CA	NON GC	

Environmental FirstSearch
Site Detail Report

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

SWL

SEARCH ID: 17 **DIST/DIR:** 0.00 -- **MAP ID:** 1

NAME: ADAVARI TRANSFER STATION
ADDRESS: 1733 ROBIDOUX ST
WILMINGTON (IN LOS A CA 90744
LOS ANGELES
CONTACT:

REV: 01/12/98
ID1: SWIS19-AR-1169
ID2:
STATUS: TO BE DETERMINED
PHONE:

Activity: *Large Volume Transfer/Proc Facility*
Accepted Waste:
Operational Status: *To Be Determined*
Regulatory Status *Revoked*
Closure Date:
Closure Type:
Permitted Throughput with Units: *0*
Permitted Capacity with Units: *0*
Remaining Capacity with Units (landfills only):
Permitted Total Acreage: *0*
Permitted Disposal Acreage:
Last Tire Inspection Count: *0*
Last Tire Inspection Count Date:
Original Tire Inspection Count: *0*
Last Tire Inspection Count Date:
Inspection Frequency: *None*

Environmental FirstSearch
Site Detail Report

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 36 **DIST/DIR:** 0.01 NW **MAP ID:** 1

NAME: WESTERN WASTE INDUSTRIES
ADDRESS: 1733 ROBIDOUX
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 01/01/94
ID1: TISID-STATE26088
ID2:
STATUS: ACTIVE
PHONE:

UST HISTORICAL DATA

This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names and locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.

The UST information included in FIDS as provided by the Office of Hazardous Data Management was originally collected from the SWEEPS database. The SWEEPS database recorded Underground Storage Tanks and was maintained by the State Water Resources Control Board (SWRCB). That agency no longer maintains the SWEEPS database and last updated it in 1994. The last release of that 1994 database was in 1997.

Oversight of Underground Storage Tanks within California is now conducted by Certified Unified Program Agencies referred to as CUPA s. There are approximately 102 CUPA s and Local Oversight Programs (LOP s) in the State of California. Most are city or county government agencies. As of 1998, all sites or facilities with underground storage tanks were required by Federal mandate to obtain certification by designated UST oversight agencies (in this case, CUPA s) that the UST/s at their location were upgraded or removed in adherence with the 1998 RCRA standards.

Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by Track Info Services. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Environmental FirstSearch
Site Detail Report

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 20 **DIST/DIR:** 0.01 NW **MAP ID:** 1

NAME:	ADIVARI INCORPORATED	**REV:**	05/01/2000
ADDRESS:	1733 E ROBIDOUX ST	**ID1:**	LACTY/NONCRTFD911
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	
CONTACT:		**PHONE:**	

DETAILS NOT AVAILABLE

Environmental FirstSearch
Site Detail Report

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

SWL

SEARCH ID: 18 **DIST/DIR:** 0.00 -- **MAP ID:** 1

NAME: DAILY DISPOSAL SERVICE
ADDRESS: 1733 EAST RUBIDOUX STREET
WILMINGTON CA
Los Angeles
CONTACT:

REV: 07/03/00
ID1: WMUD4 190056NUR
ID2:
STATUS:
PHONE:

WMUDS FACILITY INFORMATION (blank = not reported)

Regional ID :
NPDES ID :
Region: *4*
Edit Date:
Last Edit:

Waste Discharger Facility: *No*

Sub Chapter 15 Facility: *No*
Solid Waste Assessment Test Site: *Yes*
Toxic Pits Cleanup Act Facility: *No*
RCRA Facility: *No*
Department of Defense Facility: *No*
Municipal Solid Waste Facility: *No*

Total WMUS at Facility: *1*
Facility Open to the Public: *No*
Facility Type:
SIC 1 and SIC 2: */*

Primary Waste Type:
Secondary Waste Type:
Tons Per Day: *0*
Complexity:

LAND OWNER INFORMATION

Land Owner:
Department:
Contact and Phone: *,*
Land Owner Address: *, , CA*

AGENCY INFORMATION

Agency Name: *DAILY DISPOSAL SERVICE*
Department:
Agency Contact and Phone: *,*

WASTE MANAGEMENT UNIT INFORMATION (blank = not reported)

WMU ID : *4 190056NUR-01*
WMU Status: *CEASE DISCHARGE*
WMU Size in Acres:
Year WMU Will Reach Capacity:
Close Plan: *0*
Avg Depth to Groundwater: *0*
Primary Liner Present: *0*

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 12 **DIST/DIR:** 0.01 NW **MAP ID:** 1

NAME: WESTERN WASTE IND
ADDRESS: 1733 EAST ROBIDOUX STREET
WILMINGTON CA 90744
LOS ANGELES
CONTACT: VICTOR YOUSSEFIAN

REV: 6/6/06
ID1: CAD041678137
ID2:
STATUS: TRANSPORTER
PHONE: 3105131519

SITE INFORMATION

SITE INFORMATION

CONTACT INFORMATION: JOHN MAYS
21061 S WESTERN AVE
TORRANCE CA 90501

PHONE: 3102127093

CONTACT INFORMATION: VICTOR YOUSSEFIAN
P.O. BOX 2880
TORRANCE CA 90509

PHONE: 3105131519

CONTACT INFORMATION: JOHN MAYS
21061 S WESTERN AVE
TORRANCE CA 90501

PHONE: 3102127093

CONTACT INFORMATION: VICTOR YOUSSEFIAN
P.O. BOX 2880
TORRANCE CA 90509

PHONE: 3105131519

UNIVERSE INFORMATION:

UNIVERSE INFORMATION:

UNIVERSE INFORMATION:

UNIVERSE INFORMATION:

NAIC INFORMATION

NAIC INFORMATION

NAIC INFORMATION

- Continued on next page -

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 12 **DIST/DIR:** 0.01 NW **MAP ID:** 1

NAME:	WESTERN WASTE IND	**REV:**	6/6/06
ADDRESS:	1733 EAST ROBIDOUX STREET	**ID1:**	CAD041678137
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	TRANSPORTER
CONTACT:	VICTOR YOUSSEFIAN	**PHONE:**	3105131519

NAIC INFORMATION

4841 - GENERAL FREIGHT TRUCKING
332439 - OTHER METAL CONTAINER MANUFACTURING
332439 - OTHER METAL CONTAINER MANUFACTURING
4841 - GENERAL FREIGHT TRUCKING
562 - WASTE MANAGEMENT AND REMEDIATION SERVICES
562 - WASTE MANAGEMENT AND REMEDIATION SERVICES
326212 - TIRE RETREADING
326212 - TIRE RETREADING

ENFORCEMENT INFORMATION:

ENFORCEMENT INFORMATION:

ENFORCEMENT INFORMATION:

ENFORCEMENT INFORMATION:

AGENCY:	S - STATE	**DATE:**	5/11/1984
TYPE:	510 - CIVIL ACTION FOR COMPLIANCE		
AGENCY:	S - STATE	**DATE:**	11/12/1985
TYPE:	120 - WRITTEN INFORMAL		
AGENCY:	S - STATE	**DATE:**	11/12/1985
TYPE:	120 - WRITTEN INFORMAL		
AGENCY:	S - STATE	**DATE:**	5/11/1984
TYPE:	510 - CIVIL ACTION FOR COMPLIANCE		
AGENCY:	S - STATE	**DATE:**	5/11/1984
TYPE:	510 - CIVIL ACTION FOR COMPLIANCE		
AGENCY:	S - STATE	**DATE:**	11/12/1985
TYPE:	120 - WRITTEN INFORMAL		
AGENCY:	S - STATE	**DATE:**	5/11/1984
TYPE:	510 - CIVIL ACTION FOR COMPLIANCE		
AGENCY:	S - STATE	**DATE:**	11/12/1985
TYPE:	120 - WRITTEN INFORMAL		
AGENCY:	S - STATE	**DATE:**	5/11/1984

- Continued on next page -

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 12 **DIST/DIR:** 0.01 NW **MAP ID:** 1

NAME:	WESTERN WASTE IND	**REV:**	6/6/06
ADDRESS:	1733 EAST ROBIDOUX STREET	**ID1:**	CAD041678137
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	TRANSPORTER
CONTACT:	VICTOR YOUSSEFIAN	**PHONE:**	3105131519

TYPE: 510 - CIVIL ACTION FOR COMPLIANCE

AGENCY: S - STATE **DATE:** 5/11/1984
TYPE: 510 - CIVIL ACTION FOR COMPLIANCE

AGENCY: S - STATE **DATE:** 11/12/1985
TYPE: 120 - WRITTEN INFORMAL

AGENCY: S - STATE **DATE:** 5/11/1984
TYPE: 510 - CIVIL ACTION FOR COMPLIANCE

AGENCY: S - STATE **DATE:** 11/12/1985
TYPE: 120 - WRITTEN INFORMAL

AGENCY: S - STATE **DATE:** 5/11/1984
TYPE: 510 - CIVIL ACTION FOR COMPLIANCE

AGENCY: S - STATE **DATE:** 11/12/1985
TYPE: 120 - WRITTEN INFORMAL

AGENCY: S - STATE **DATE:** 11/12/1985
TYPE: 120 - WRITTEN INFORMAL

VIOLATION INFORMATION:

VIOLATION INFORMATION:

VIOLATION INFORMATION:

VIOLATION INFORMATION:

VIOLATION NUMBER: 0001 **RESPONSIBLE:** S - STATE
DETERMINED: 4/10/1984 **DETERMINED BY:** S - STATE
CITATION: 262.10-12.A
VIOLATION NUMBER: 0001 **RESPONSIBLE:** S - STATE
DETERMINED: 4/10/1984 **DETERMINED BY:** S - STATE
CITATION: 262.10-12.A
RESOLVED: 11/21/1990
TYPE: GENERATOR-ALL REQUIREMENTS (OVERSIGHT)

RESOLVED: 11/21/1990
TYPE: GENERATOR-ALL REQUIREMENTS (OVERSIGHT)

VIOLATION NUMBER: 0002 **RESPONSIBLE:** S - STATE
DETERMINED: 5/11/1984 **DETERMINED BY:** S - STATE
CITATION: 262.10-12.A
VIOLATION NUMBER: 0002 **RESPONSIBLE:** S - STATE
DETERMINED: 5/11/1984 **DETERMINED BY:** S - STATE
CITATION: 262.10-12.A

- Continued on next page -

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 12 **DIST/DIR:** 0.01 NW **MAP ID:** 1

NAME:	WESTERN WASTE IND	**REV:**	6/6/06
ADDRESS:	1733 EAST ROBIDOUX STREET	**ID1:**	CAD041678137
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	TRANSPORTER
CONTACT:	VICTOR YOUSSEFIAN	**PHONE:**	3105131519

RESOLVED: 5/11/1984
TYPE: GENERATOR-ALL REQUIREMENTS (OVERSIGHT)

RESOLVED: 5/11/1984
TYPE: GENERATOR-ALL REQUIREMENTS (OVERSIGHT)

VIOLATION NUMBER:	0003	**RESPONSIBLE:**	S - STATE
DETERMINED:	11/6/1985	**DETERMINED BY:**	S - STATE
CITATION:	262.10-12.A		
VIOLATION NUMBER:	0003	**RESPONSIBLE:**	S - STATE
DETERMINED:	11/6/1985	**DETERMINED BY:**	S - STATE
CITATION:	262.10-12.A		

RESOLVED: 4/21/1986
TYPE: GENERATOR-ALL REQUIREMENTS (OVERSIGHT)

RESOLVED: 4/21/1986
TYPE: GENERATOR-ALL REQUIREMENTS (OVERSIGHT)

VIOLATION NUMBER:	0004	**RESPONSIBLE:**	S - STATE
DETERMINED:	11/16/1985	**DETERMINED BY:**	S - STATE
CITATION:	262.10-12.A		
VIOLATION NUMBER:	0004	**RESPONSIBLE:**	S - STATE
DETERMINED:	11/16/1985	**DETERMINED BY:**	S - STATE
CITATION:	262.10-12.A		

RESOLVED: 11/21/1990
TYPE: GENERATOR-ALL REQUIREMENTS (OVERSIGHT)

RESOLVED: 11/21/1990
TYPE: GENERATOR-ALL REQUIREMENTS (OVERSIGHT)

Environmental FirstSearch
Site Detail Report

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 4 **DIST/DIR:** 0.01 NW **MAP ID:** 1

NAME:	ADIVARI-INTERCITY CARTAGE	**REV:**	6/6/06
ADDRESS:	1733 ROUBIDOUX ST	**ID1:**	CAD070212683
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	TRANSPORTER
CONTACT:	ENVIRONMENTAL MANAGER	**PHONE:**	2138307190

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
1733 ROUBIDOUX ST
WILMINGTON CA 90744

PHONE: 2138307190

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 25 **DIST/DIR:** 0.03 SW **MAP ID:** 2

NAME: ASBURY TRANSPORTATION
ADDRESS: 1150 ALAMEDA
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 01/01/94
ID1: TISID-STATE28431
ID2:
STATUS: ACTIVE
PHONE:

UST HISTORICAL DATA

This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names and locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.

The UST information included in FIDS as provided by the Office of Hazardous Data Management was originally collected from the SWEEPS database. The SWEEPS database recorded Underground Storage Tanks and was maintained by the State Water Resources Control Board (SWRCB). That agency no longer maintains the SWEEPS database and last updated it in 1994. The last release of that 1994 database was in 1997.

Oversight of Underground Storage Tanks within California is now conducted by Certified Unified Program Agencies referred to as CUPA s. There are approximately 102 CUPA s and Local Oversight Programs (LOP s) in the State of California. Most are city or county government agencies. As of 1998, all sites or facilities with underground storage tanks were required by Federal mandate to obtain certification by designated UST oversight agencies (in this case, CUPA s) that the UST/s at their location were upgraded or removed in adherence with the 1998 RCRA standards.

Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by Track Info Services. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Environmental FirstSearch
Site Detail Report

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 32 **DIST/DIR:** 0.04 NW **MAP ID:** 3

NAME: OLYMPIC TANK FARM
ADDRESS: 1220 ALAMEDA
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 01/01/94
ID1: TISID-STATE4595
ID2:
STATUS: INACTIVE
PHONE:

UST HISTORICAL DATA

This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names and locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.

The UST information included in FIDS as provided by the Office of Hazardous Data Management was originally collected from the SWEEPS database. The SWEEPS database recorded Underground Storage Tanks and was maintained by the State Water Resources Control Board (SWRCB). That agency no longer maintains the SWEEPS database and last updated it in 1994. The last release of that 1994 database was in 1997.

Oversight of Underground Storage Tanks within California is now conducted by Certified Unified Program Agencies referred to as CUPA s. There are approximately 102 CUPA s and Local Oversight Programs (LOP s) in the State of California. Most are city or county government agencies. As of 1998, all sites or facilities with underground storage tanks were required by Federal mandate to obtain certification by designated UST oversight agencies (in this case, CUPA s) that the UST/s at their location were upgraded or removed in adherence with the 1998 RCRA standards.

Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by Track Info Services. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Environmental FirstSearch
Site Detail Report

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 10 **DIST/DIR:** 0.04 NW **MAP ID:** 3

NAME:	ULTRAMAR INC. OLYMPIC TANK FARM	**REV:**	6/6/06
ADDRESS:	1220 NORTH ALAMEDA STREET	**ID1:**	CAR000094888
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	LGN
CONTACT:	SHIRIN MANDEGARI	**PHONE:**	3105184000

SITE INFORMATION

CONTACT INFORMATION: DAVID BERNSTEIN
2402 E ANAHEIM ST
WILMINGTON CA 90744

PHONE: 5624955490

UNIVERSE INFORMATION:

NAIC INFORMATION

42472 - PETROLEUM AND PETROLEUM PRODUCTS MERCHANT WHOLESALERS (EXCEPT BULK STATIONS AND TERMINALS)

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

HAZARDOUS WASTE INFORMATION:

Slop oil emulsion solids from the petroleum refining industry.
Tank bottoms (leaded) from the petroleum refining industry.
Lead
Ignitable waste

Environmental FirstSearch
Site Detail Report

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 33 **DIST/DIR:** 0.04 NW **MAP ID:** 3

NAME: OLYMPIC TANK FARM
ADDRESS: 1220 N ALAMEDA ST
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 05/30/01
ID1: AST14
ID2:
STATUS: AST SWRCB REG.4
PHONE:

CALIFORNIA ABOVEGROUND PETROLEUM STORAGE TANKS INFORMATION LIST
As reported by the responsible agency, there are currently no details associated with this record.

NFRAP

SEARCH ID: 1 **DIST/DIR:** 0.05 SW **MAP ID:** 4

NAME: CHEM STAR
ADDRESS: 1737 E. DENNI ST
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 1/23/08
ID1: CAD044429835
ID2: 0900451
STATUS: NFRAP-N
PHONE:

DESCRIPTION:

ACTION/QUALITY	AGENCY/RPS	START/RAA	END
ARCHIVE SITE	EPA In-House		01-23-1996
DISCOVERY	EPA Fund-Financed		08-24-1990
PRELIMINARY ASSESSMENT	EPA Fund-Financed		05-20-1991

Deferred to RCRA (Subtitle C)

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

RCRA

SEARCH ID: 2 **DIST/DIR:** 0.05 SW **MAP ID:** 4

NAME:	ENSCO WEST INC.	**REV:**	6/8/02
ADDRESS:	1737 E DENNI ST	**ID1:**	CAD044429835
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	TSD
CONTACT:	PAUL DEVRIES	**PHONE:**	2138345131

SITE INFORMATION

CONTACT INFORMATION: PAUL DEVRIES
ENVT MGR
PO BOX 1674
WILMINGTON CA 90748

PHONE: 2138345131

UNIVERSE NAME:

SUBJECT TO CORRECTIVE ACTION
INCINERATOR
TSDS SUBJECT TO CORRECTIVE ACT
SUBJECT TO CEI
ST: STORAGE AND TREATMENT
DF: LAND DISPOSAL FACILITY

SIC INFORMATION:

9999 - PUBLIC ADMIN. - NONCLASSIFIABLE ESTABLISHMENT

ENFORCEMENT INFORMATION:

AGENCY:	S - STATE	**DATE:**	27-AUG-97
TYPE:	120 - WRITTEN INFORMAL		
AGENCY:	S - STATE	**DATE:**	10-NOV-92
TYPE:	120 - WRITTEN INFORMAL		
AGENCY:	S - STATE	**DATE:**	05-JUN-90
TYPE:	120 - WRITTEN INFORMAL		
AGENCY:	S - STATE	**DATE:**	04-SEP-90
TYPE:	310 - FINAL 3008(A) COMPLIANCE ORDER		
AGENCY:	S - STATE	**DATE:**	26-AUG-97
TYPE:	120 - WRITTEN INFORMAL		
AGENCY:	S - STATE	**DATE:**	28-MAR-01
TYPE:	120 - WRITTEN INFORMAL		
AGENCY:	S - STATE	**DATE:**	28-MAR-01
TYPE:	120 - WRITTEN INFORMAL		
AGENCY:	S - STATE	**DATE:**	10-MAR-88
TYPE:	120 - WRITTEN INFORMAL		
AGENCY:	S - STATE	**DATE:**	10-MAY-88

- Continued on next page -

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

RCRA

SEARCH ID: 2 **DIST/DIR:** 0.05 SW **MAP ID:** 4

NAME:	ENSCO WEST INC.	**REV:**	6/8/02
ADDRESS:	1737 E DENNI ST	**ID1:**	CAD044429835
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	TSD
CONTACT:	PAUL DEVRIES	**PHONE:**	2138345131

TYPE: 120 - WRITTEN INFORMAL

AGENCY: S - STATE **DATE:** 21-MAY-90
TYPE: 120 - WRITTEN INFORMAL

AGENCY: S - STATE **DATE:** 12-JAN-89
TYPE: 120 - WRITTEN INFORMAL

AGENCY: S - STATE **DATE:** 01-MAR-89
TYPE: 210 - INITIAL 3008(A) COMPLIANCE ORDER

AGENCY: S - STATE **DATE:** 28-JUN-89
TYPE: 120 - WRITTEN INFORMAL

AGENCY: S - STATE **DATE:** 11-JUL-01
TYPE: 120 - WRITTEN INFORMAL

VIOLATION INFORMATION:

VIOLATION NUMBER: 0001 **RESPONSIBLE:** S - STATE
DETERMINED: 07-APR-88 **DETERMINED BY:** S - STATE
CITATION: 270 **RESOLVED:** 07/07/1988
TYPE: DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)

VIOLATION NUMBER: 0002 **RESPONSIBLE:** S - STATE
DETERMINED: 27-APR-88 **DETERMINED BY:** S - STATE
CITATION: 264.140-150.H **RESOLVED:**
TYPE: DFR - TSD FINANCIAL RESPONSIBILITY REQUIREMENTS

VIOLATION NUMBER: 0003 **RESPONSIBLE:** S - STATE
DETERMINED: 27-APR-89 **DETERMINED BY:** S - STATE
CITATION: 270 **RESOLVED:** 09/04/1990
TYPE: DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)

VIOLATION NUMBER: 0006 **RESPONSIBLE:** S - STATE
DETERMINED: 25-APR-90 **DETERMINED BY:** S - STATE
CITATION: 268 ALL **RESOLVED:**
TYPE: DLB - TSD LAND BAN REQUIREMENTS

VIOLATION NUMBER: 0007 **RESPONSIBLE:** S - STATE
DETERMINED: 25-APR-90 **DETERMINED BY:** S - STATE
CITATION: 268.7 **RESOLVED:**
TYPE: GLB - GENERATOR LAND BAN REQUIREMENTS

VIOLATION NUMBER: 0008 **RESPONSIBLE:** S - STATE
DETERMINED: 25-APR-90 **DETERMINED BY:** S - STATE
CITATION: 270 **RESOLVED:**
TYPE: DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)

VIOLATION NUMBER: 0009 **RESPONSIBLE:** S - STATE
DETERMINED: 07-MAY-90 **DETERMINED BY:** S - STATE
CITATION: 264.140-150.H **RESOLVED:** 10/01/1992

- Continued on next page -

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

RCRA

SEARCH ID: 2 **DIST/DIR:** 0.05 SW **MAP ID:** 4

NAME:	ENSCO WEST INC.	**REV:**	6/8/02
ADDRESS:	1737 E DENNI ST	**ID1:**	CAD044429835
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	TSD
CONTACT:	PAUL DEVRIES	**PHONE:**	2138345131

TYPE: DFR - TSD FINANCIAL RESPONSIBILITY REQUIREMENTS

VIOLATION NUMBER: 0010 **RESPONSIBLE:** S - STATE
DETERMINED: 02-OCT-90 **DETERMINED BY:** S - STATE
CITATION: 264.140-150.H **RESOLVED:**
TYPE: DFR - TSD FINANCIAL RESPONSIBILITY REQUIREMENTS

VIOLATION NUMBER: 0011 **RESPONSIBLE:** S - STATE
DETERMINED: 17-JAN-91 **DETERMINED BY:** S - STATE
CITATION: 264.70-77.E **RESOLVED:**
TYPE: DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)

VIOLATION NUMBER: 0012 **RESPONSIBLE:** S - STATE
DETERMINED: 17-JAN-91 **DETERMINED BY:** S - STATE
CITATION: 264.170-177.I **RESOLVED:**
TYPE: DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)

VIOLATION NUMBER: 0013 **RESPONSIBLE:** S - STATE
DETERMINED: 17-JAN-91 **DETERMINED BY:** S - STATE
CITATION: 264.10-18.B **RESOLVED:**
TYPE: DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)

VIOLATION NUMBER: 0014 **RESPONSIBLE:** S - STATE
DETERMINED: 17-JAN-91 **DETERMINED BY:** S - STATE
CITATION: 264.50-56.D **RESOLVED:**
TYPE: DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)

VIOLATION NUMBER: 0015 **RESPONSIBLE:** S - STATE
DETERMINED: 29-MAY-91 **DETERMINED BY:** S - STATE
CITATION: 270 **RESOLVED:**
TYPE: DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)

VIOLATION NUMBER: 0016 **RESPONSIBLE:** S - STATE
DETERMINED: 10-NOV-91 **DETERMINED BY:** S - STATE
CITATION: 264.140-150.H **RESOLVED:**
TYPE: DFR - TSD FINANCIAL RESPONSIBILITY REQUIREMENTS

VIOLATION NUMBER: 0017 **RESPONSIBLE:** S - STATE
DETERMINED: 10-NOV-92 **DETERMINED BY:** S - STATE
CITATION: 270 **RESOLVED:**
TYPE: DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)

VIOLATION NUMBER: 0018 **RESPONSIBLE:** S - STATE
DETERMINED: 10-NOV-92 **DETERMINED BY:** S - STATE
CITATION: 262.40-43.D **RESOLVED:**
TYPE: GER - GENERATOR ALL REQUIREMENTS

VIOLATION NUMBER: 0019 **RESPONSIBLE:** S - STATE
DETERMINED: 10-NOV-92 **DETERMINED BY:** S - STATE
CITATION: 264.170-177.I **RESOLVED:**
TYPE: DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)

VIOLATION NUMBER: 0020 **RESPONSIBLE:** S - STATE

- Continued on next page -

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

RCRA

SEARCH ID: 2 **DIST/DIR:** 0.05 SW **MAP ID:** 4

NAME: ENSCO WEST INC.
ADDRESS: 1737 E DENNI ST
WILMINGTON CA 90744
LOS ANGELES
CONTACT: PAUL DEVRIES

REV: 6/8/02
ID1: CAD044429835
ID2:
STATUS: TSD
PHONE: 2138345131

DETERMINED: 10-NOV-92 **DETERMINED BY:** S - STATE
CITATION: 264.10-18.B **RESOLVED:**
TYPE: DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)

VIOLATION NUMBER: 0021 **RESPONSIBLE:** S - STATE
DETERMINED: 10-NOV-92 **DETERMINED BY:** S - STATE
CITATION: 264.50-56.D **RESOLVED:**
TYPE: DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)

VIOLATION NUMBER: 0022 **RESPONSIBLE:** S - STATE
DETERMINED: 10-NOV-92 **DETERMINED BY:** S - STATE
CITATION: 264.110-120.G **RESOLVED:**
TYPE: DCL - TSD CLOSURE/POST CLOSURE REQUIREMENTS

VIOLATION NUMBER: 0023 **RESPONSIBLE:** S - STATE
DETERMINED: 10-NOV-92 **DETERMINED BY:** S - STATE
CITATION: 264.140-150.H **RESOLVED:**
TYPE: DFR - TSD FINANCIAL RESPONSIBILITY REQUIREMENTS

VIOLATION NUMBER: 0024 **RESPONSIBLE:** S - STATE
DETERMINED: 26-AUG-97 **DETERMINED BY:** S - STATE
CITATION: 264.140-150.H **RESOLVED:**
TYPE: DFR - TSD FINANCIAL RESPONSIBILITY REQUIREMENTS

VIOLATION NUMBER: 0025 **RESPONSIBLE:** S - STATE
DETERMINED: 26-AUG-97 **DETERMINED BY:** S - STATE
CITATION: 270 **RESOLVED:**
TYPE: DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)

VIOLATION NUMBER: 0026 **RESPONSIBLE:** S - STATE
DETERMINED: 21-MAR-01 **DETERMINED BY:** S - STATE
CITATION: 264.140-150.H **RESOLVED:** 04/05/2001
TYPE: DFR - TSD FINANCIAL RESPONSIBILITY REQUIREMENTS

VIOLATION NUMBER: 0027 **RESPONSIBLE:** S - STATE
DETERMINED: 27-MAR-01 **DETERMINED BY:** S - STATE
CITATION: 264.140-150.H **RESOLVED:** 04/05/2001
TYPE: DFR - TSD FINANCIAL RESPONSIBILITY REQUIREMENTS

VIOLATION NUMBER: 0028 **RESPONSIBLE:** S - STATE
DETERMINED: 27-MAR-01 **DETERMINED BY:** S - STATE
CITATION: 264.170-177.I **RESOLVED:** 03/28/2001
TYPE: DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)

VIOLATION NUMBER: 0029 **RESPONSIBLE:** S - STATE
DETERMINED: 27-MAR-01 **DETERMINED BY:** S - STATE
CITATION: 270 **RESOLVED:** 04/05/2001
TYPE: DOT - TSD OTHER REQUIREMENTS (OVERSIGHT LEVEL)

VIOLATION NUMBER: 0030 **RESPONSIBLE:** S - STATE
DETERMINED: 11-JUL-01 **DETERMINED BY:** S - STATE
CITATION: 264.140-150.H **RESOLVED:**
TYPE: DFR - TSD FINANCIAL RESPONSIBILITY REQUIREMENTS

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

RCRA

SEARCH ID: 2 **DIST/DIR:** 0.05 SW **MAP ID:** 4

NAME:	ENSCO WEST INC.	**REV:**	6/8/02
ADDRESS:	1737 E DENNI ST	**ID1:**	CAD044429835
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	TSD
CONTACT:	PAUL DEVRIES	**PHONE:**	2138345131

Environmental FirstSearch
Site Detail Report

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

STATE

SEARCH ID: 14 **DIST/DIR:** 0.05 SW **MAP ID:** 4

NAME: CARRASCO VACUUM TRUCK SERVICE
ADDRESS: 1737 E DENNI ST
WILMINGTON CA 90748
LOS ANGELES
CONTACT:

REV: 07/18/05
ID1: CAL19420032
ID2:
STATUS: CERTIFIED
PHONE:

OTHER SITE NAMES (blank below = not reported by agency)
CARRASCO VACUUM TRUCK SERVICE

GENERAL SITE INFORMATION
File Name (if different than site name):

Status: *CERTIFIED*
AWP Site Type: *RESPONSIBLE PARTY*
NPL Site:
Fund:
Status Date: *05011984*
Lead: *N/A*
Staff:
DTSC Region and RWQCB : *GLENDALE*
Branch: *SO CAL - GLENDALE*
RWQCB:
Site Access:
On Cortese List:
Groundwater Contamination:
Haz Ranking Score:
Haz Ranking Score:
Number of Sources Contributing to Contamination at the Site: *0*

PROJECTED ACTIVITIES (blank below = not reported by agency)
Activity: ***CERTIFICATION***
Activity Status: *CERTIFIED*
Completion Due Date:
Revised Completion Due Date:
Date Activity Actually Completed: *05011984*
Yards of Solids Removed: *0*
Yards of Solids Treated: *0*
Gallons of Liquid Removed: *0*
Gallons of Liquid Treated: *0*

DTSC COMMENTS REGARDING THIS SITE (blank below = not reported by agency)
Comments Date:
: *Our records do not indicate the actual date this site was certified. Our records show 05/1984. We have used 05/01/1984 because this gives us the earliest statute of limitations. 20 cubic yards of contaminated soil removed. This certification was confirmed by a report prepared by the Auditor General. the Auditor General conducted an audit of the Department s records to confirm a list of sites where the Department was involved in the cleanup and the cleanup had been completed. This Auditor General list became the basis for our historical certification information. Many of the sites on this list were handled by our Surveillance and Enforcement Staff. Much of this work was in response to complaints from the public or reports from industry and the response action may have only addressed the immediate problems and not the entire facility.*

Environmental FirstSearch
Site Detail Report

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

RCRACOR

SEARCH ID: 3 **DIST/DIR:** 0.05 SW **MAP ID:** 4

NAME:	CLEAN HARBOR WILMINGTON LLC	**REV:**	4/1/08
ADDRESS:	1737 E DENNI ST	**ID1:**	CAD044429835
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	CA
CONTACT:	JOE CHRISTOPHER	**PHONE:**	310-233-3499

UNIVERSE INFORMATION:

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 7 **DIST/DIR:** 0.05 SW **MAP ID:** 4

NAME: ENSCO WEST INC.
ADDRESS: 1737 E DENNI ST
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 12/9/02
ID1: CAD044429835
ID2:
STATUS: LGN
PHONE:

SITE INFORMATION

CONTACT INFORMATION: PAUL DEVRIES
ENVT MGR
PO BOX 1674
WILMINGTON CA 90748

PHONE: 2138345131

UNIVERSE TYPE:

SUBJCA - SUBJECT TO CORRECTIVE ACTION
PERMWRKLD - PERMIT WORKLOAD
SUBJINSP - SUBJECT TO INSPECTION
LQG - LARGE QUANTITY GENERATORS: GENERATES MORE THAN 1000 KG/MONTH OF HAZARDOUS WASTE
CAWRKLD - CORRECTIVE ACTION WORKLOAD
PERMPROG - PERMITTING/CLOSURE/POST-CLOSURE PROGRESS

SIC INFORMATION:

9999 - PUBLIC ADMIN. - NONCLASSIFIABLE ESTABLISHMENT

ENFORCEMENT INFORMATION:

AGENCY:	S - STATE	**DATE:**	11-JUL-01
TYPE:	120 - WRITTEN INFORMAL		
AGENCY:	S - STATE	**DATE:**	27-AUG-97
TYPE:	120 - WRITTEN INFORMAL		
AGENCY:	S - STATE	**DATE:**	26-AUG-97
TYPE:	120 - WRITTEN INFORMAL		
AGENCY:	S - STATE	**DATE:**	21-MAY-90
TYPE:	120 - WRITTEN INFORMAL		
AGENCY:	S - STATE	**DATE:**	28-MAR-01
TYPE:	120 - WRITTEN INFORMAL		
AGENCY:	S - STATE	**DATE:**	12-JAN-89
TYPE:	120 - WRITTEN INFORMAL		
AGENCY:	S - STATE	**DATE:**	28-JUN-89
TYPE:	120 - WRITTEN INFORMAL		
AGENCY:	S - STATE	**DATE:**	10-MAY-88
TYPE:	120 - WRITTEN INFORMAL		
AGENCY:	S - STATE	**DATE:**	05-JUN-90

- Continued on next page -

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 7 **DIST/DIR:** 0.05 SW **MAP ID:** 4

NAME:	ENSCO WEST INC.	**REV:**	12/9/02
ADDRESS:	1737 E DENNI ST	**ID1:**	CAD044429835
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	LGN
CONTACT:		**PHONE:**	

TYPE: 120 - WRITTEN INFORMAL

AGENCY: S - STATE **DATE:** 04-SEP-90
TYPE: 310 - FINAL 3008(A) COMPLIANCE ORDER

AGENCY: S - STATE **DATE:** 01-MAR-89
TYPE: 210 - INITIAL 3008(A) COMPLIANCE ORDER

AGENCY: S - STATE **DATE:** 10-NOV-92
TYPE: 120 - WRITTEN INFORMAL

AGENCY: S - STATE **DATE:** 10-MAR-88
TYPE: 120 - WRITTEN INFORMAL

AGENCY: S - STATE **DATE:** 06-MAR-02
TYPE: 120 - WRITTEN INFORMAL

VIOLATION INFORMATION:

VIOLATION NUMBER:	0001	**RESPONSIBLE:**	S - STATE
DETERMINED:	07-APR-88	**DETERMINED BY:**	S - STATE
CITATION:	270	**RESOLVED:**	07-JUL-88
VIOLATION NUMBER:	0002	**RESPONSIBLE:**	S - STATE
DETERMINED:	27-APR-88	**DETERMINED BY:**	S - STATE
CITATION:	264.140-150.H	**RESOLVED:**	23-MA
VIOLATION NUMBER:	0003	**RESPONSIBLE:**	S - STATE
DETERMINED:	27-APR-89	**DETERMINED BY:**	S - STATE
CITATION:	270	**RESOLVED:**	04-SEP-90
VIOLATION NUMBER:	0006	**RESPONSIBLE:**	S - STATE
DETERMINED:	25-APR-90	**DETERMINED BY:**	S - STATE
CITATION:	268 ALL	**RESOLVED:**	02-JUN-94
VIOLATION NUMBER:	0007	**RESPONSIBLE:**	S - STATE
DETERMINED:	25-APR-90	**DETERMINED BY:**	S - STATE
CITATION:	268.7	**RESOLVED:**	02-JUN-94
VIOLATION NUMBER:	0008	**RESPONSIBLE:**	S - STATE
DETERMINED:	25-APR-90	**DETERMINED BY:**	S - STATE
CITATION:	270	**RESOLVED:**	02-JUN-94
VIOLATION NUMBER:	0009	**RESPONSIBLE:**	S - STATE
DETERMINED:	07-MAY-90	**DETERMINED BY:**	S - STATE
CITATION:	264.140-150.H	**RESOLVED:**	01-OC
VIOLATION NUMBER:	0010	**RESPONSIBLE:**	S - STATE
DETERMINED:	02-OCT-90	**DETERMINED BY:**	S - STATE
CITATION:	264.140-150.H	**RESOLVED:**	02-JU
VIOLATION NUMBER:	0011	**RESPONSIBLE:**	S - STATE
DETERMINED:	17-JAN-91	**DETERMINED BY:**	S - STATE
CITATION:	264.70-77.E	**RESOLVED:**	02-JUN-
VIOLATION NUMBER:	0012	**RESPONSIBLE:**	S - STATE
DETERMINED:	17-JAN-91	**DETERMINED BY:**	S - STATE

- Continued on next page -

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 7 **DIST/DIR:** 0.05 SW **MAP ID:** 4

NAME: ENSCO WEST INC.
ADDRESS: 1737 E DENNI ST
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 12/9/02
ID1: CAD044429835
ID2:
STATUS: LGN
PHONE:

CITATION:	264.170-177.I	**RESOLVED:**	02-JU
VIOLATION NUMBER:	0013	**RESPONSIBLE:**	S - STATE
DETERMINED:	17-JAN-91	**DETERMINED BY:**	S - STATE
CITATION:	264.10-18.B	**RESOLVED:**	02-JUN-
VIOLATION NUMBER:	0014	**RESPONSIBLE:**	S - STATE
DETERMINED:	17-JAN-91	**DETERMINED BY:**	S - STATE
CITATION:	264.50-56.D	**RESOLVED:**	02-JUN-
VIOLATION NUMBER:	0015	**RESPONSIBLE:**	S - STATE
DETERMINED:	29-MAY-91	**DETERMINED BY:**	S - STATE
CITATION:	270	**RESOLVED:**	02-JUN-94
VIOLATION NUMBER:	0016	**RESPONSIBLE:**	S - STATE
DETERMINED:	10-NOV-91	**DETERMINED BY:**	S - STATE
CITATION:	264.140-150.H	**RESOLVED:**	
VIOLATION NUMBER:	0017	**RESPONSIBLE:**	S - STATE
DETERMINED:	10-NOV-92	**DETERMINED BY:**	S - STATE
CITATION:	270	**RESOLVED:**	02-JUN-94
VIOLATION NUMBER:	0018	**RESPONSIBLE:**	S - STATE
DETERMINED:	10-NOV-92	**DETERMINED BY:**	S - STATE
CITATION:	262.40-43.D	**RESOLVED:**	02-JUN-
VIOLATION NUMBER:	0019	**RESPONSIBLE:**	S - STATE
DETERMINED:	10-NOV-92	**DETERMINED BY:**	S - STATE
CITATION:	264.170-177.I	**RESOLVED:**	02-JU
VIOLATION NUMBER:	0020	**RESPONSIBLE:**	S - STATE
DETERMINED:	10-NOV-92	**DETERMINED BY:**	S - STATE
CITATION:	264.10-18.B	**RESOLVED:**	02-JUN-
VIOLATION NUMBER:	0021	**RESPONSIBLE:**	S - STATE
DETERMINED:	10-NOV-92	**DETERMINED BY:**	S - STATE
CITATION:	264.50-56.D	**RESOLVED:**	02-JUN-
VIOLATION NUMBER:	0022	**RESPONSIBLE:**	S - STATE
DETERMINED:	10-NOV-92	**DETERMINED BY:**	S - STATE
CITATION:	264.110-120.G	**RESOLVED:**	02-JU
VIOLATION NUMBER:	0023	**RESPONSIBLE:**	S - STATE
DETERMINED:	10-NOV-92	**DETERMINED BY:**	S - STATE
CITATION:	264.140-150.H	**RESOLVED:**	02-JU
VIOLATION NUMBER:	0024	**RESPONSIBLE:**	S - STATE
DETERMINED:	26-AUG-97	**DETERMINED BY:**	S - STATE
CITATION:	264.140-150.H	**RESOLVED:**	30-OC
VIOLATION NUMBER:	0025	**RESPONSIBLE:**	S - STATE
DETERMINED:	26-AUG-97	**DETERMINED BY:**	S - STATE
CITATION:	270	**RESOLVED:**	30-OCT-97
VIOLATION NUMBER:	0026	**RESPONSIBLE:**	S - STATE
DETERMINED:	27-AUG-97	**DETERMINED BY:**	S - STATE
CITATION:	262.40-43.D	**RESOLVED:**	30-OCT-
VIOLATION NUMBER:	0027	**RESPONSIBLE:**	S - STATE
DETERMINED:	27-AUG-97	**DETERMINED BY:**	S - STATE
CITATION:	264.70-77.E	**RESOLVED:**	30-OCT-
VIOLATION NUMBER:	0028	**RESPONSIBLE:**	S - STATE
DETERMINED:	21-MAR-01	**DETERMINED BY:**	S - STATE
CITATION:	264.140-150.H	**RESOLVED:**	05-AP

- Continued on next page -

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 7 **DIST/DIR:** 0.05 SW **MAP ID:** 4

NAME:	ENSCO WEST INC.	**REV:**	12/9/02
ADDRESS:	1737 E DENNI ST	**ID1:**	CAD044429835
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	LGN
CONTACT:		**PHONE:**	

VIOLATION NUMBER:	0029	**RESPONSIBLE:**	S - STATE
DETERMINED:	27-MAR-01	**DETERMINED BY:**	S - STATE
CITATION:	264.140-150.H	**RESOLVED:**	05-AP
VIOLATION NUMBER:	0030	**RESPONSIBLE:**	S - STATE
DETERMINED:	27-MAR-01	**DETERMINED BY:**	S - STATE
CITATION:	264.170-177.I	**RESOLVED:**	28-MA
VIOLATION NUMBER:	0031	**RESPONSIBLE:**	S - STATE
DETERMINED:	27-MAR-01	**DETERMINED BY:**	S - STATE
CITATION:	270	**RESOLVED:**	05-APR-01
VIOLATION NUMBER:	0032	**RESPONSIBLE:**	S - STATE
DETERMINED:	11-JUL-01	**DETERMINED BY:**	S - STATE
CITATION:	264.140-150.H	**RESOLVED:**	
VIOLATION NUMBER:	0033	**RESPONSIBLE:**	S - STATE
DETERMINED:	06-MAR-02	**DETERMINED BY:**	S - STATE
CITATION:	270	**RESOLVED:**	06-MAR-02
VIOLATION NUMBER:	0034	**RESPONSIBLE:**	S - STATE
DETERMINED:	14-MAR-02	**DETERMINED BY:**	S - STATE
CITATION:	264.140-150.H	**RESOLVED:**	

Environmental FirstSearch
Site Detail Report

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 26 **DIST/DIR:** 0.05 SW **MAP ID:** 4

NAME: ENSCO WEST, INC
ADDRESS: 1737 DENNI
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 01/01/94
ID1: TISID-STATE27515
ID2:
STATUS: ACTIVE
PHONE:

UST HISTORICAL DATA

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The UST information included in FIDS as provided by the Office of Hazardous Data Management was originally collected from the SWEEPS database. The SWEEPS database recorded Underground Storage Tanks and was maintained by the State Water Resources Control Board (SWRCB). That agency no longer maintains the SWEEPS database and last updated it in 1994. The last release of that 1994 database was in 1997.

Oversight of Underground Storage Tanks within California is now conducted by Certified Unified Program Agencies referred to as CUPA s. There are approximately 102 CUPA s and Local Oversight Programs (LOP s) in the State of California. Most are city or county government agencies. As of 1998, all sites or facilities with underground storage tanks were required by Federal mandate to obtain certification by designated UST oversight agencies (in this case, CUPA s) that the UST/s at their location were upgraded or removed in adherence with the 1998 RCRA standards.

Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by Track Info Services. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 13 **DIST/DIR:** 0.05 SW **MAP ID:** 4

NAME: AMERICHEM
ADDRESS: 1737 E. DENNI ST.
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 11/7/90 0:
ID1: 205071
ID2:
STATUS: FIXED FACILITY
PHONE:

SPILL INFORMATION
DATE OF SPILL: 11/7/1990 **TIME OF SPILL:** 1200

PRODUCT RELEASED (1): WASTE TYPES-GLYCOLS, SLUDGES
QUANTITY (1): 0
UNITS (1): OTH

PRODUCT RELEASED (2): SOLVENTS, METAL SOLUTIONS
QUANTITY (2): 0
UNITS (2): OTH

PRODUCT RELEASED (3): FLAMMABLES, CONTAMINATED SOILS
QUANTITY (3): 0
UNITS (3): OTH

MEDIUM/MEDIA AFFECTED
AIR: YES **GROUNDWATER:** YES
LAND: YES **FIXED FACILITY:** NO
WATER: YES **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: UNKNOWN

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** NO
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: YES **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: DHS-LEAD ENFORCEMENT ACTION, FIELD CIVIL CASE W/ PENALTIES IN HIGH 6 F
RELEASE DETECTION: FUEL BLENDING WASTE / DEWATERING OPERATION.
MISC. NOTES: 1700 55 GAL DRUMS. 50 UG TANKS RANGING 6000-20,000 GAL CAPACITY, 2 SO

DISCHARGER INFORMATION
DISCHARGER ID: 205071 **DUN and BRADSTREET :**
TYPE OF DISCHARGER: PRIVATE CITIZEN
NAME OF DISCHARGER: AMERICHEM
ADDRESS: 1737 E. DENNI ST.
WILMINGTON CA 90744-

Environmental FirstSearch
Site Detail Report

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 9 **DIST/DIR:** 0.05 SW **MAP ID:** 4

NAME:	SANTRAN,INC.	**REV:**	6/6/06
ADDRESS:	1737 EAST DENNI ST	**ID1:**	CAD980665863
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	TRANSPORTER
CONTACT:	ENVIRONMENTAL MANAGER	**PHONE:**	2138355646

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
1737 EAST DENNI ST
WILMINGTON CA 90744

PHONE: 2138355646

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

AGENCY: S - STATE **DATE:** 8/20/1985
TYPE: 120 - WRITTEN INFORMAL

AGENCY: S - STATE **DATE:** 8/20/1985
TYPE: 120 - WRITTEN INFORMAL

VIOLATION INFORMATION:

VIOLATION NUMBER: 0001 **RESPONSIBLE:** S - STATE
DETERMINED: 8/20/1985 **DETERMINED BY:** S - STATE
CITATION: 262.10-12.A
RESOLVED: 6/10/1986
TYPE: GENERATOR-ALL REQUIREMENTS (OVERSIGHT)

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 5 **DIST/DIR:** 0.05 NW **MAP ID:** 5

NAME:	ALCO AUTO WRECKING	**REV:**	6/6/06
ADDRESS:	1230 ALAMEDA	**ID1:**	CAD981682859
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	SGN
CONTACT:	ENVIRONMENTAL MANAGER	**PHONE:**	2138303071

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
1230 ALAMEDA
WILMINGTON CA 90744

PHONE: 2138303071

UNIVERSE INFORMATION:

NAIC INFORMATION

441 - MOTOR VEHICLE AND PARTS DEALERS

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 23 **DIST/DIR:** 0.06 SW **MAP ID:** 6

NAME:	ASBURY SYSTEM INCORPORATED	**REV:**	01/01/94
ADDRESS:	1720 DENNI	**ID1:**	TISID-STATE27517
	WILMINGTON CA 90745	**ID2:**	
	Los Angeles	**STATUS:**	ACTIVE
CONTACT:		**PHONE:**	

UST HISTORICAL DATA

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Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by Track Info Services. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Environmental FirstSearch
Site Detail Report

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 24 **DIST/DIR:** 0.06 SW **MAP ID:** 6

NAME:	ASBURY SYSTEM INCORPORATED	**REV:**	05/01/2000
ADDRESS:	1720 E DENNI ST	**ID1:**	LACTY/NONCRTFD380
	WILMINGTON CA 90745	**ID2:**	
	LOS ANGELES	**STATUS:**	
CONTACT:		**PHONE:**	

DETAILS NOT AVAILABLE

Environmental FirstSearch
Site Detail Report

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

SWL

SEARCH ID: 19 **DIST/DIR:** 0.07 S- **MAP ID:** 7

NAME: L and S DISPOSAL
ADDRESS: 1002 VREELAND AVENUE
WILMINGTON (IN LOS A CA 90744
LOS ANGELES
CONTACT:

REV: 04/09/08
ID1: SWIS19-AR-5577
ID2:
STATUS: ACTIVE
PHONE:

SITE OPERATOR INFORMATION:

Operator: *L and S Disposal*
Operator Address: *1002 Vreeland Avenue Wilmington CA 90744*
Permit Date: *3/30/1998*
Permit Status: *Notification*
Land Use Name: *Industrial*
GIS Source for LAT and LONG: *External*

SITE ACTIVITY INFORMATION:

Activity: *Limited Volume Transfer Operation*
Accepted Waste: *Metals,Mixed municipal*
Operational Status: *Active*
Regulatory Status *Notification*
Program Type
Closure Date:
Closure Type:
Permitted Throughput with Units: *8 Tons*
Permitted Capacity with Units: *1923 Tons/year*
Remaining Capacity with Units (landfills only):
Permitted Total Acreage:
Permitted Disposal Acreage:
Last Tire Inspection Count:
Last Tire Inspection Count Date:
Original Tire Inspection Count:
Last Tire Inspection Count Date:
Inspection Frequency: *Quarterly*

SITE OWNER INFORMATION:

Owner: *L and S Disposal*
Owner Phone: *3108343339*
Owner Address: *1002 Vreeland Avenue*

Environmental FirstSearch
Site Detail Report

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 35 **DIST/DIR:** 0.08 SW **MAP ID:** 8

NAME: UNITED LPG TRANSPORTATION
ADDRESS: 1620 YOUNG
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 01/01/94
ID1: TISID-STATE26651
ID2:
STATUS: ACTIVE
PHONE:

UST HISTORICAL DATA

This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names and locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.

The UST information included in FIDS as provided by the Office of Hazardous Data Management was originally collected from the SWEEPS database. The SWEEPS database recorded Underground Storage Tanks and was maintained by the State Water Resources Control Board (SWRCB). That agency no longer maintains the SWEEPS database and last updated it in 1994. The last release of that 1994 database was in 1997.

Oversight of Underground Storage Tanks within California is now conducted by Certified Unified Program Agencies referred to as CUPA s. There are approximately 102 CUPA s and Local Oversight Programs (LOP s) in the State of California. Most are city or county government agencies. As of 1998, all sites or facilities with underground storage tanks were required by Federal mandate to obtain certification by designated UST oversight agencies (in this case, CUPA s) that the UST/s at their location were upgraded or removed in adherence with the 1998 RCRA standards.

Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by Track Info Services. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 11 **DIST/DIR:** 0.08 SW **MAP ID:** 8

NAME:	UNITED LPG TRANSPORTATION	**REV:**	6/6/06
ADDRESS:	1620 E YOUNG ST	**ID1:**	CAD982476640
	WILMINGTON CA 90744	**ID2:**	
	LOS ANGELES	**STATUS:**	SGN
CONTACT:	ENVIRONMENTAL MANAGER	**PHONE:**	2138305848

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
1620 E YOUNG ST
WILMINGTON CA 90744

PHONE: 2138305848

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Environmental FirstSearch
Site Detail Report

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 34 **DIST/DIR:** 0.09 NW **MAP ID:** 9

NAME:	STEINMEYER CORPORATION	**REV:**	01/01/94
ADDRESS:	1248 ALAMEDA	**ID1:**	TISID-STATE27519
	WILMINGTON CA	**ID2:**	
	Los Angeles	**STATUS:**	ACTIVE
CONTACT:		**PHONE:**	

UST HISTORICAL DATA

This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names and locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.

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Oversight of Underground Storage Tanks within California is now conducted by Certified Unified Program Agencies referred to as CUPA s. There are approximately 102 CUPA s and Local Oversight Programs (LOP s) in the State of California. Most are city or county government agencies. As of 1998, all sites or facilities with underground storage tanks were required by Federal mandate to obtain certification by designated UST oversight agencies (in this case, CUPA s) that the UST/s at their location were upgraded or removed in adherence with the 1998 RCRA standards.

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Environmental FirstSearch
Site Detail Report

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

RCRAGN

SEARCH ID: 8 **DIST/DIR:** 0.10 NW **MAP ID:** 10

NAME: HELP YOURSELF AUTO WRECKING
ADDRESS: 1261 ALAMEDA ST
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 6/6/06
ID1: CAD118576628
ID2:
STATUS: SGN
PHONE:

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
1261 ALAMEDA ST
WILMINGTON CA 90744

PHONE: 7149950982

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 29 **DIST/DIR:** 0.10 NW **MAP ID:** 10

NAME: HELP YOURSELF AUTO WRECKING
ADDRESS: 1261 S ALAMEDA ST
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 03/24/99
ID1: LACTY/NONCRTFD116
ID2:
STATUS:
PHONE:

DETAILS NOT AVAILABLE

UST

SEARCH ID: 30 **DIST/DIR:** 0.10 NW **MAP ID:** 10

NAME: HELP YOURSELF AUTO WRECKING
ADDRESS: 1261 S ALAMEDA ST
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 05/01/2000
ID1: LACTY/NONCRTFD1497
ID2:
STATUS:
PHONE:

DETAILS NOT AVAILABLE

Environmental FirstSearch
Site Detail Report

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 27 **DIST/DIR:** 0.10 NW **MAP ID:** 10

NAME: HELP YOURSELF AUTO WRECKING
ADDRESS: 1261 ALAMEDA
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 01/01/94
ID1: TISID-STATE27505
ID2:
STATUS: ACTIVE
PHONE:

UST HISTORICAL DATA

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Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 28 **DIST/DIR:** 0.10 NW **MAP ID:** 10

NAME: HELP YOURSELF AUTO WRECKING
ADDRESS: 1261 S ALAMEDA ST
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 12/01/2000
ID1: LACTY/NONCRTFD1887
ID2:
STATUS:
PHONE:

DETAILS NOT AVAILABLE

RCRAGN

SEARCH ID: 6 **DIST/DIR:** 0.10 SW **MAP ID:** 11

NAME: ASHBURY SYSTEM
ADDRESS: 1635 E DENNI ST
WILMINGTON CA 90744
LOS ANGELES
CONTACT: ENVIRONMENTAL MANAGER

REV: 6/6/06
ID1: CAD001939859
ID2:
STATUS: TRANSPORTER
PHONE: 2138349680

SITE INFORMATION

CONTACT INFORMATION: ENVIRONMENTAL MANAGER
1635 E DENNI ST
WILMINGTON CA 90744

PHONE: 2138349680

UNIVERSE INFORMATION:

NAIC INFORMATION

ENFORCEMENT INFORMATION:

VIOLATION INFORMATION:

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 22 **DIST/DIR:** 0.10 SW **MAP ID:** 12

NAME: ASBURY SYSTEM /C
ADDRESS: 1634 E DENNI ST
WILMINGTON CA 90744
LOS ANGELES
CONTACT:

REV: 05/01/2000
ID1: LACTY/NONCRTFD379
ID2:
STATUS:
PHONE:

DETAILS NOT AVAILABLE

UST

SEARCH ID: 21 **DIST/DIR:** 0.10 SW **MAP ID:** 12

NAME: ASBURY SYSTEM /C
ADDRESS: 1634 DENNI
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 01/01/94
ID1: TISID-STATE25592
ID2:
STATUS: ACTIVE
PHONE:

UST HISTORICAL DATA

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Environmental FirstSearch
Site Detail Report

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

UST

SEARCH ID: 31 **DIST/DIR:** 0.12 NW **MAP ID:** 13

NAME: LOPEZ REFINERY EQUIPMENT CO IN
ADDRESS: 1840 MAURETANIA
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 01/01/94
ID1: TISID-STATE5651
ID2:
STATUS: INACTIVE
PHONE:

UST HISTORICAL DATA

This site was listed in the FIDS Zip Code List as a UST site. The Office of Hazardous Data Management produced the FIDS list. The FIDS list is an index of names and locations of sites recorded in various California State environmental agency databases. It is sorted by zip code and as an index, details regarding the sites were never included.

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Information from the FIDS/SWEEPS lists were included in this report search to help identify where underground storage tanks may have existed that were not recorded in CUPA databases or lists collected by Track Info Services. This may occur if a tank was removed prior to development of recent CUPA UST lists or never registered with a CUPA.

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

SPILLS

SEARCH ID: 16 **DIST/DIR:** 0.12 NW **MAP ID:** 14

NAME: ACTA PARCEL PCH-1573
ADDRESS: 1811 MAURETANIA
WILMINGTON CA
CONTACT:

REV: 01/03/07
ID1: G_SL0603706728
ID2:
STATUS: NOT REPORTED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

Please note that some SLIC data previously provided by the State Water Resources Control Board via the Regional Boards is not currently provided by the agency in the new GEOTRACKER format. To ensure that our data is as complete as possible we have retained the original Regional Boards SLIC records as well as loaded all GEOTRACKER SLIC listings. GEOTRACKER records are distinguished by an initial G at the start of the ID.

LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *SU HAN*
LEAD AGENCY CASE NUMBER:
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded): *UNK*
RECENT DTW:
STATUS:

SPILLS

SEARCH ID: 15 **DIST/DIR:** 0.12 NW **MAP ID:** 15

NAME: ACTA PARCEL PCH-1572
ADDRESS: 1825 MAURETANIA STREET
WILMINGTON CA
CONTACT:

REV: 01/03/07
ID1: G_SL0603732998
ID2:
STATUS: CASE CLOSED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

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LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *SU HAN*
LEAD AGENCY CASE NUMBER: *0747O7*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded): *UNK*
RECENT DTW:
STATUS: *Case Closed*

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

SPILLS

SEARCH ID: 50 **DIST/DIR:** NON GC **MAP ID:**

NAME: CP TRANSFER YARD
ADDRESS: ALAMEDA STREET
WILMINGTON CA 90744
CONTACT:

REV: 01/03/07
ID1: G_SL0603775919
ID2:
STATUS: CASE OPEN
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

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LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *SU HAN*
LEAD AGENCY CASE NUMBER: *1204*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded): *76*
RECENT DTW:
STATUS: *Case Open*

SPILLS

SEARCH ID: 46 **DIST/DIR:** NON GC **MAP ID:**

NAME: ACTA SOUTH - PARCEL SE-370
ADDRESS: 1601 S ALAMEDA ST.
WILMINGTON CA 90744
CONTACT:

REV: 01/03/07
ID1: G_SL0603731360
ID2:
STATUS: CASE CLOSED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

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LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *SU HAN*
LEAD AGENCY CASE NUMBER: *0747H1*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded):
RECENT DTW:
STATUS: *Case Closed*

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

SPILLS

SEARCH ID: 47 **DIST/DIR:** NON GC **MAP ID:**

NAME: ACTA SOUTH - PARCEL SE-372
ADDRESS: ALAMEDA STREET
WILMINGTON CA 90744
CONTACT:

REV: 01/03/07
ID1: G_SL0603715392
ID2:
STATUS: CASE CLOSED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

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LEAD AGENCY:
LEAD AGENCY CONTACT:
LEAD AGENCY CASE NUMBER:
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded):
RECENT DTW:
STATUS: *Case Closed*

SPILLS

SEARCH ID: 45 **DIST/DIR:** NON GC **MAP ID:**

NAME: ACTA PARCEL PCH-1554
ADDRESS: E. ALAMEDA ST
WILMINGTON CA
CONTACT:

REV: 01/03/07
ID1: G_SL0603771890
ID2:
STATUS: CASE CLOSED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

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LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *SU HAN*
LEAD AGENCY CASE NUMBER: *0747P5*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded): *7439921*
RECENT DTW:
STATUS: *Case Closed*

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

SPILLS

SEARCH ID: 49 **DIST/DIR:** NON GC **MAP ID:**

NAME: ACTA SOUTH - PARCEL SE-382
ADDRESS: NORTHEAST CORNER OF EAST GRAND STREET
WILMINGTON CA 90744
CONTACT:

REV: 01/03/07
ID1: G_SL0603701424
ID2:
STATUS: CASE CLOSED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

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LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *SU HAN*
LEAD AGENCY CASE NUMBER: *0747H6*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded):
RECENT DTW:
STATUS: *Case Closed*

SPILLS

SEARCH ID: 51 **DIST/DIR:** NON GC **MAP ID:**

NAME: ORYX ENERGY CO.
ADDRESS: ALAMEDA STREET
WILMINGTON CA 90744
CONTACT:

REV: 01/03/02
ID1: SLC40155
ID2:
STATUS: NO FURTHER ACTION REQUIRED
PHONE:

Staff:
Status: *NO FURTHER ACTION REQUIRED*
Substance: *TPH*

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

SPILLS

SEARCH ID: 48 **DIST/DIR:** NON GC **MAP ID:**

NAME: ACTA SOUTH - PARCEL SE-374
ADDRESS: 1601 S ALAMEDA ST
WILMINGTON CA 90744
CONTACT:

REV: 01/03/07
ID1: G_SL0603767958
ID2:
STATUS: CASE CLOSED
PHONE:

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LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *SU HAN*
LEAD AGENCY CASE NUMBER: *0747H3*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded):
RECENT DTW:
STATUS: *Case Closed*

SPILLS

SEARCH ID: 44 **DIST/DIR:** NON GC **MAP ID:**

NAME: ACTA PARCEL PCH-1553
ADDRESS: E. ALAMEDA ST.
WILMINGTON CA
CONTACT:

REV: 01/03/07
ID1: G_SL0603773582
ID2:
STATUS: CASE CLOSED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

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LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *SU HAN*
LEAD AGENCY CASE NUMBER: *0747P4*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded): *7439921*
RECENT DTW:
STATUS: *Case Closed*

Environmental FirstSearch
Site Detail Report

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

SPILLS

SEARCH ID: 43 **DIST/DIR:** NON GC **MAP ID:**

NAME: ACTA PARCEL PCH-1552
ADDRESS: E. ALAMEDA ST
WILMINGTON CA
CONTACT:

REV: 01/03/07
ID1: G_SL0603741121
ID2:
STATUS: CASE CLOSED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

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LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *SU HAN*
LEAD AGENCY CASE NUMBER: *0747P3*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded): *7440508*
RECENT DTW:
STATUS: *Case Closed*

Environmental FirstSearch
Site Detail Report

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

STATE

SEARCH ID: 42 **DIST/DIR:** NON GC **MAP ID:**

NAME:	SOUTH REGION SPAN K-8 1, SITE 15	**REV:**	08/07/07
ADDRESS:	EAST M STREET/NORTH AVALON BOULEVARD	**ID1:**	CAL60000421
	LOS ANGELES CA 90744	**ID2:**	SCHOOL
	LOS ANGELES	**STATUS:**	ACTIVE
CONTACT:		**PHONE:**	

GENERAL SITE INFORMATION

Site Type:	*School Cleanup*
Status:	*Active*
Status Date:	*2006-08-29*
NPL Site:	*NO*
Funding:	*Responsible Party*
Regulatory Agencies Involved:	*SMBRP*
Lead Agency:	*SMBRP*
Project Manager:	*S. STEVEN HARIRI*
Supervisor:	*Tawfiq Deek*
Branch:	*School Evaluation - Cypress*
Acres:	*6.75*
Assessor s Parcel Number:	*NONE SPECIFIED*
Past Uses:	*RETAIL*
Potential Contaminants:	*Arsenic, Lead, Polynuclear aromatic hydrocarbons (PAHs), TPH-diesel*
Confirmed Contaminants:	*Polynuclear aromatic hydrocarbons (PAHs)-NO,TPH-diesel-NO,Arsenic-NO,Lead-NO*
Potential Media Affected:	*UE*
Restricted Use:	*NO*
Site Management Required:	*NONE SPECIFIED*
Special Programs Associated with this Site:	

OTHER SITE NAMES (blank below = not reported by agency)

OTHER SITE NAMES (blank below = not reported by agency)

60000421

304541-11

FUTURE ACTIVITIES (blank below = not reported by agency)

Area Name:	***PROJECT WIDE***
Sub-Area Name:	
Document Type:	*Removal Action Workplan*
Completion Due Date:	*2008*

COMPLETED ACTIVITIES AND DTSC COMMENTS REGARDING THIS SITE (blank below = not reported by agency)

Area Name:	***PROJECT WIDE***
Sub- Area Name:	
Document Type:	***Preliminary Endangerment Assessment Report***
Completion Date:	***2007-08-03***
Comments:	

Environmental FirstSearch
Site Detail Report

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

FED IC / EC

SEARCH ID: 53 **DIST/DIR:** NON GC **MAP ID:**

NAME: WILMINGTON INDUSTRIAL PARK
ADDRESS: ALAMEDA STREET AND EAST ANAHEIM STREET
WILMINGTON CA
CONTACT:

REV: 2/8/08
ID1: 33635649-4
ID2: 33635649
STATUS: EPA BROWNFIELD
PHONE:

SITE INFORMATION:

EPA ID:
EPA SITE NAME:
SITE ALIAS:
CONTAMINANTS:
TOTAL ACRES: 0
CERCLA WASTELAN: U
RCRA FACILITY: U
AIR AFFECTED:
GROUNDWATER AFFECTED:
SURFACE WATER AFFECTED:
NUMBER OF PARCELS:
LOCAL PARCEL NUMBER:
ADD DATE:

COMMENTS: PARCEL KEY MEASURE DESCRIPTIONS The Pilot reported a Phase I assessment started with city BRF funds on a ten block area in the Wilmington Industrial Park property totaling over 108 parcels. (AP/SC QR 7, 4/1/00-6/30/00) The draft Phase I assessment report was completed, indicating completion of field work. Following finalization of the report, further Phase II sampling may be needed. (AP/SC QR 8, 7/1/00-9/30/00) The area-wide Phase I assessment was completed and shared with the Wilmington Community Advisory Council. (AP/SC QR 18, 1/1/03-4/30/03) The Phase I report indicated the possible presence of gasoline or other fuel hydrocarbons due to releases from oil production activities onsite and immediately adjacent to the property. (AP/SC QR 20-21, 8/1/03-12/31/03) The Phase II assessment has not begun due to continuous access agreement concerns and negotiations with current property owners. (AP/SC QR 19, 5/1/03-7/31/03) The Pilot reported that a Phase II assessment was completed at this property using unspecified funding. (Work Plan, 1/30/05-9/30/05) Note: EPA Region 9 clarified that the assessment of this property was conducted using non-Pilot funding. (Note from Bobbie Kahan, EPA Region 9, attached to AP/SC QR 24-25, 7/1/04-12/31/04)

COMMENTS: PARCEL ACCOMPLISHMENTS The Brownfields team has developed a strategy to conduct block-by-block Phase I assessments over ten blocks within the tract. The city is coordinating with the Department of Toxic Substances Control (DTSC) for assessment activities. (AP/SC QR 6, 2/1/00-3/31/00) SCS Engineers was selected to conduct the initial Phase I assessment at the Wilmington Industrial Park property with funding from the city BRF. (AP/SC QR 7, 4/1/00-6/30/00) An EDA grant and CDBG money was used to create a report on the best strategies for redevelopment of the entire port area. The Pilot reported that a workgroup was formed to create a Wilmington website, highlighting development oppportunities and sharing relevant information from the study. Construction also began on the Union Ice parcel within the Wilmington property using a BEDI grant. (AP/SC QR 17, 9/1/02-12/31/02) An Economic Adjustment Strategy and Market Study funded by the Economic Development Administration was completed in early 2003. A draft website was also completed for this property to assist in marketing the 50 developable parcels to public and private developers. (AP/SC QR 22, 1/1/04-4/1/04) The Pilot reported that they hosted a rollout and press event in order to promote the website. (AP/SC QR 24-25, 7/1/04-12/31/04)

COMMENTS: PRE/NON-PILOT PARCEL ACCOMPLISHMENTS

COMMENTS: LEVERAGED PARCEL ACCOMPLISHMENTS/RESOURCES

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 40 **DIST/DIR:** NON GC **MAP ID:**

NAME: IN A PUBLIC ALLEY
ADDRESS: 1507 EAST YOUNG ST.
WILMINGTON CA
LOS ANGELES
CONTACT:

REV: 12/31/07
ID1: NRC-837570
ID2:
STATUS: FIXED
PHONE:

SITE INFORMATION

THIS INFORMATION WAS OBTAINED FROM THE NATIONAL RESPONSE CENTER

DATE RECEIVED: 6/5/2007 1:00:24 AM **DATE COMPLETE:** 6/5/2007 1:13:52 AM
CALL TAKER: **CALL TYPE:** INC

RESPONSIBLE PARTY:
PHONE 1:
PHONE 2:
PHONE 3:

RESPONSIBLE COMPANY:
ORGANIZATION TYPE: UNKNOWN

ADDRESS:
XX

SOURCE: TELEPHONE

INCIDENT INFORMATION

INCIDENT DESCRIPTION: CALLER IS REPORTING A MATERIAL RELEASE FROM A 12-OUNCE CLEAR PLASTIC GATORADE CONTAINER THAT CHILDREN WERE APPARENTLY PLAYING WITH IN A PUBLIC ALLEY. CALLER DOES NOT KNOW WHO EXACTLY REPORTED THE INCIDENT BUT THE FIRE DEPT WAS NOTIFIED BY LOCAL POLICE AT

INCIDENT TYPE:	FIXED	**INCIDENT CAUSE:**	OTHER
INCIDENT DATE:	6/5/2007 6:00:00 PM	**INCIDENT DATE DESC:**	OCCURRED
DISTANCE FROM CITY:		**DISTANCE UNITS:**	
DIRECTION FROM CITY:		**LOCATION SECTION:**	
LOCATION TOWNSHIP:		**LOCATION RANGE:**	
AIRCRAFT TYPE:		**AIRCRAFT MODEL:**	
AIRCRAFT ID:		**AIRCRAFT FUEL CAPACITY:**	
AIRCRAFT FUEL CAPACITY UNITS:		**AIRCRAFT FUEL ON BOARD:**	
AIRCRAFT FUEL ON BOARD UNITS:		**AIRCRAFT SPOT NUMBER:**	
AIRCRAFT HANGER:		**AIRCRAFT RUNWAY NUM:**	
ROAD MILE MARKER:		**BUILDING ID:**	
TYPE OF FIXED OBJECT:	OTHER	**POWER GEN FACILITY:**	N
GENERATING CAPACITY:		**TYPE OF FUEL:**	
NPDES:		**NPDES COMPLIANCE:**	U
PIPELINE TYPE:		**DOT REGULATED:**	U
PIPELINE ABOVE GROUND:	ABOVE	**EXPOSED UNDERWATER:**	N
PIPELINE COVERED:	U	**GRADE CROSSING:**	U
LOCATION SUBDIVISION:		**RAILROAD MILEPOST:**	
TYPE VEHICLE INVOLVED:		**CROSSING DEVICE TYPE:**	
DEVICE OPERATIONAL:	Y		

- Continued on next page -

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 40 **DIST/DIR:** NON GC **MAP ID:**

NAME: IN A PUBLIC ALLEY
ADDRESS: 1507 EAST YOUNG ST.
WILMINGTON CA
LOS ANGELES
CONTACT:

REV: 12/31/07
ID1: NRC-837570
ID2:
STATUS: FIXED
PHONE:

DOT CROSSING NUMBER:		**BRAKE FAILURE:**	U
TANK ABOVE GROUND:	ABOVE	**TRANSPORTABLE CONTAINER:**	U
TANK REGULATED:	U	**TANK REGULATED BY:**	
TANK ID:		**CAPACITY OF TANK:**	
CAPACITY OF TANK UNITS:		**ACTUAL AMOUNT:**	
ACTUAL AMOUNT UNITS:		**PLATFORM RIG NAME:**	
PLATFORM LETTER:		**LOCATION AREA ID:**	
LOCATION BLOCK ID:			

DESCRIPTION OF TANK:

OCSG NUMBER:		**OCSP NUMBER:**	
STATE LEASE NUMBER:		**PIER DOCK NUMBER:**	
BERTH SLIP NUMBER:		**CONTIN RELEASE TYPE:**	
INITIAL CONT RELEASE NUM:		**CONT RELEASE PERMIT:**	
ALLISION:	U	**TYPE OF STRUCTURE:**	
STRUCTURE NAME:		**STRUCT OPERATIONAL:**	U
AIRBAG DEPLOYED:	U	**DATE NORMAL SERVICE:**	
SERVICE DISRUPT TIME:		**SERVICE DISRUPT UNITS:**	
TRANSIT BUS FLAG:		**CR BEGIN DATE:**	
CR END DATE:		**CR CHANGE DATE:**	
FIRE INVOLVED:	N	**FIRE EXTINGUISHED:**	U
ANY EVACUATIONS:	N	**NUMBER EVACUATED:**	
WHO EVACUATED:		**RADIUS OF EVACUATION:**	
ANY INJURIES:	U	**NUMBER INJURED:**	
NUMBER HOSPITALIZED:		**ANY FATALITIES:**	N
NUMBER FATALITIES:		**ANY DAMAGES:**	N
DAMAGE AMOUNT:		**AIR CORRIDOR CLOSED:**	N
AIR CORRIDOR DESC:		**AIR CLOSURE TIME:**	
WATERWAY CLOSED:	N	**WATERWAY DESC:**	
WATERWAY CLOSURE TIME:		**ROAD CLOSED:**	Y
ROAD DESC:	YOUNG ST., THE ADJACENT ALLEY, AND L ST.	**ROAD CLOSURE TIME:**	
CLOSURE DIRECTION:		**MAJOR ARTERY:**	N
TRACK CLOSED:	N	**TRACK DESC:**	
TRACK CLOSURE TIME:		**MEDIA INTEREST:**	LOW
MEDIUM DESC:	LAND	**ADDTL MEDIUM INFO:**	SCATTERED UP AND DOWN THE ALLEY WAY (CEMENT)
BODY OF WATER:		**TRIBUTARY OF:**	
NEAREST RIVER MILE MARK:		**RELEASE SECURED:**	U
EST DUR OF RELEASE:		**RELEASE RATE:**	
TRACK CLOSE DIR:		**ST AGENCY ON SCENE:**	FIRE and POLICE DEPT, HEALTH DEPT
ST AGENCY RPT NUM:	1067	**OTHER AGENCY NOTIFIED:**	
WEATHER CONDITIONS:	CLEAR	**AIR TEMPERATURE:**	68
WIND SPEED:		**WIND DIRECTION:**	
WATER SUPPLY CONTAM:	U	**SHEEN SIZE:**	
SHEEN COLOR:		**DIR OF SHEEN TRAVEL:**	
SHEEN ODOR DESCRIPTION:		**WAVE CONDITION:**	
CURRENT SPEED:		**CURRENT DIRECTION:**	
WATER TEMPERATURE:			

- Continued on next page -

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 40 **DIST/DIR:** NON GC **MAP ID:**

NAME:	IN A PUBLIC ALLEY	**REV:**	12/31/07
ADDRESS:	1507 EAST YOUNG ST.	**ID1:**	NRC-837570
	WILMINGTON CA	**ID2:**	
	LOS ANGELES	**STATUS:**	FIXED
CONTACT:		**PHONE:**	

DESC OF REMEDIAL ACTION: CONDUCTING DOOR-TO-DOOR INTERVIEWS TO SEE WHERE THE MERCURY CAME FROM AND IF ANY CHILDREN WERE EXPOSED TO IT. CLEANUP IS UNDERWAY.

EMPL FATALITY:		**PASS FATALITY:**	
COMMUNITY IMPACT:		**WIND SPEED UNITS:**	
EMPLOYEE INJURIES:		**PASSENGER INJURIES:**	
OCCUPANT FATALITY:		**CURRENT SPEED UNITS:**	
ROAD CLOSURE UNITS:		**TRACK CLOSURE UNITS:**	
SHEEN SIZE UNITS:		**STATE AGENCY NOTIFIED:**	FIRE and POLICE DEPT, HEALTH DEPT
FED AGENCY NOTIFIED:	NONE	**NEAREST RIVER MILE MARK:**	
SHEEN SIZE LENGTH:		**SHEEN SIZE LENGTH UNITS:**	
SHEEN SIZE WIDTH:		**SHEEN SIZE WIDTH UNITS:**	
OFFSHORE:	N	**DURATION UNIT:**	
RELEASE RATE UNIT:		**RELEASE RATE RATE:**	

ADDITIONAL INFO: THE ROAD CLOSURE IS STILL ONGOING. LOCAL MEDIA IS ONSCENE. CALLER STATES THERE WAS ABOUT 6-7 OUNCES OF THE MATERIAL LEFT IN THE PLASTIC GATORADE CONTAINER.

MATERIAL INFORMATION

CHRIS CODE:	MCR	**CASE NUMBER:**	007439-97-6
UN NUMBER:		**REACHED WATER:**	NO

NAME OF MATERIAL: MERCURY
AMOUNT OF MATERIAL: 4 OUNCE(S)
AMOUNT IN WATER:

OTHER MATERIAL INFORMATION

MOBILE DETAILS INFORMATION

TRAIN INFORMATION

VESSEL INFORMATION

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 39 **DIST/DIR:** NON GC **MAP ID:**

NAME: EXXON
ADDRESS: V ST AND ALAMEDA ST
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 5/3/92
ID1: 266082
ID2:
STATUS: HIGHWAY RELATED
PHONE:

SPILL INFORMATION
DATE OF SPILL: 5/3/1992 **TIME OF SPILL:** 2030

PRODUCT RELEASED (1): CRUDE OIL
QUANTITY (1): 8
UNITS (1): GAL

PRODUCT RELEASED (2): PRODUCED WATER
QUANTITY (2): 34
UNITS (2): BBL

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE:

SPILL INFORMATION
DATE OF SPILL: 5/3/1992 **TIME OF SPILL:** 2030

PRODUCT RELEASED (1): CRUDE OIL
QUANTITY (1): 8
UNITS (1): GAL

PRODUCT RELEASED (2): PRODUCED WATER
QUANTITY (2): 34
UNITS (2): BBL

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE:

CAUSE OF RELEASE
DUMPING: YES **EQUIPMENT FAILURE:** NO
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: NO WATERWAYS, RP DOING CLEANUP
RELEASE DETECTION: STUFFING BOX LEAK

- Continued on next page -

Environmental FirstSearch
Site Detail Report

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 39 **DIST/DIR:** NON GC **MAP ID:**

NAME: EXXON
ADDRESS: V ST AND ALAMEDA ST
WILMINGTON CA 90744
Los Angeles
CONTACT:

REV: 5/3/92
ID1: 266082
ID2:
STATUS: HIGHWAY RELATED
PHONE:

MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 266082
TYPE OF DISCHARGER: PRIVATE CITIZEN
NAME OF DISCHARGER: EXXON
ADDRESS: PO BOX 1234
WILMINGTON CA 90744-

DUN and BRADSTREET :

CAUSE OF RELEASE

DUMPING:	YES	**EQUIPMENT FAILURE:**	NO
NATURAL PHENOMENON:	NO	**OPERATOR ERROR:**	NO
OTHER CAUSE:	NO	**TRANSP. ACCIDENT:**	NO
UNKNOWN:	NO		

ACTIONS TAKEN: NO WATERWAYS, RP DOING CLEANUP
RELEASE DETECTION: STUFFING BOX LEAK
MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 266082
TYPE OF DISCHARGER: PRIVATE CITIZEN
NAME OF DISCHARGER: EXXON
ADDRESS: PO BOX 1234
WILMINGTON CA 90744-

DUN and BRADSTREET :

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 38 **DIST/DIR:** NON GC **MAP ID:**

NAME: ALLEYS BEHIND YOUNG STREET AND T STREET
ADDRESS: 1507 EAST YOUNG ST.
WILMINGTON CA
LOS ANGELES
CONTACT:

REV: 12/31/07
ID1: NRC-837616
ID2:
STATUS: STORAGE TANK
PHONE:

SITE INFORMATION

THIS INFORMATION WAS OBTAINED FROM THE NATIONAL RESPONSE CENTER

DATE RECEIVED: 6/5/2007 12:48:48 PM **DATE COMPLETE:** 6/5/2007 1:02:14 PM
CALL TAKER: **CALL TYPE:** INC

RESPONSIBLE PARTY:
PHONE 1:
PHONE 2:
PHONE 3:

RESPONSIBLE COMPANY:
ORGANIZATION TYPE: UNKNOWN

ADDRESS:
XX

SOURCE: TELEPHONE

INCIDENT INFORMATION

INCIDENT DESCRIPTION: //////UPDATE TO REPORT 837570///////// CALLER STATED 2 TO 3 POUNDS OF MERCURY WAS SPILLED IN THE ALLEYS BEHIND YOUNG STREET AND T STREET. A FIVE POUND CONTAINER OF MERCURY WAS FOUND IN THE ALLEY. ONE MALE JUVENILE WAS FOUND EXPOSED TO THE MERCURY, HE

INCIDENT TYPE: STORAGE TANK **INCIDENT CAUSE:** UNKNOWN
INCIDENT DATE: 6/4/2007 8:00:00 PM **INCIDENT DATE DESC:** DISCOVERED
DISTANCE FROM CITY: **DISTANCE UNITS:**
DIRECTION FROM CITY: **LOCATION SECTION:**
LOCATION TOWNSHIP: **LOCATION RANGE:**

AIRCRAFT TYPE: **AIRCRAFT MODEL:**
AIRCRAFT ID: **AIRCRAFT FUEL CAPACITY:**
AIRCRAFT FUEL CAPACITY UNITS: **AIRCRAFT FUEL ON BOARD:**
AIRCRAFT FUEL ON BOARD UNITS: **AIRCRAFT SPOT NUMBER:**
AIRCRAFT HANGER: **AIRCRAFT RUNWAY NUM:**
ROAD MILE MARKER: **BUILDING ID:**
TYPE OF FIXED OBJECT: **POWER GEN FACILITY:** U
GENERATING CAPACITY: **TYPE OF FUEL:**
NPDES: **NPDES COMPLIANCE:** U
PIPELINE TYPE: **DOT REGULATED:** U
PIPELINE ABOVE GROUND: ABOVE **EXPOSED UNDERWATER:** N
PIPELINE COVERED: U **GRADE CROSSING:** U
LOCATION SUBDIVISION: **RAILROAD MILEPOST:**
TYPE VEHICLE INVOLVED: **CROSSING DEVICE TYPE:**
DEVICE OPERATIONAL: Y

- Continued on next page -

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 38 **DIST/DIR:** NON GC **MAP ID:**

NAME:	ALLEYS BEHIND YOUNG STREET AND T STREET	**REV:**	12/31/07
ADDRESS:	1507 EAST YOUNG ST.	**ID1:**	NRC-837616
	WILMINGTON CA	**ID2:**	
	LOS ANGELES	**STATUS:**	STORAGE TANK
CONTACT:		**PHONE:**	

DOT CROSSING NUMBER:		**BRAKE FAILURE:**	U
TANK ABOVE GROUND:	ABOVE	**TRANSPORTABLE CONTAINER:**	Y
TANK REGULATED:	U	**TANK REGULATED BY:**	
TANK ID:		**CAPACITY OF TANK:**	5
CAPACITY OF TANK UNITS:	POUND(S)	**ACTUAL AMOUNT:**	0
ACTUAL AMOUNT UNITS:	UNKNOWN AMOUNT		**PLATFORM RIG NAME:**
PLATFORM LETTER:		**LOCATION AREA ID:**	
LOCATION BLOCK ID:			

DESCRIPTION OF TANK: FIVE POUND CONTAINER

OCSG NUMBER:		**OCSP NUMBER:**	
STATE LEASE NUMBER:		**PIER DOCK NUMBER:**	
BERTH SLIP NUMBER:		**CONTIN RELEASE TYPE:**	
INITIAL CONT RELEASE NUM:		**CONT RELEASE PERMIT:**	
ALLISION:	U	**TYPE OF STRUCTURE:**	
STRUCTURE NAME:		**STRUCT OPERATIONAL:**	U
AIRBAG DEPLOYED:	U	**DATE NORMAL SERVICE:**	
SERVICE DISRUPT TIME:		**SERVICE DISRUPT UNITS:**	
TRANSIT BUS FLAG:		**CR BEGIN DATE:**	
CR END DATE:		**CR CHANGE DATE:**	

FIRE INVOLVED:	N	**FIRE EXTINGUISHED:**	U
ANY EVACUATIONS:	N	**NUMBER EVACUATED:**	
WHO EVACUATED:		**RADIUS OF EVACUATION:**	
ANY INJURIES:	Y	**NUMBER INJURED:**	
NUMBER HOSPITALIZED:		**ANY FATALITIES:**	N
NUMBER FATALITIES:		**ANY DAMAGES:**	N
DAMAGE AMOUNT:		**AIR CORRIDOR CLOSED:**	N
AIR CORRIDOR DESC:		**AIR CLOSURE TIME:**	
WATERWAY CLOSED:	N	**WATERWAY DESC:**	
WATERWAY CLOSURE TIME:		**ROAD CLOSED:**	N
ROAD DESC:		**ROAD CLOSURE TIME:**	
CLOSURE DIRECTION:		**MAJOR ARTERY:**	N

TRACK CLOSED:	N	**TRACK DESC:**	
TRACK CLOSURE TIME:		**MEDIA INTEREST:**	NONE
MEDIUM DESC:	LAND	**ADDTL MEDIUM INFO:**	/ ALLEY
BODY OF WATER:		**TRIBUTARY OF:**	
NEAREST RIVER MILE MARK:		**RELEASE SECURED:**	U
EST DUR OF RELEASE:		**RELEASE RATE:**	
TRACK CLOSE DIR:		**ST AGENCY ON SCENE:**	LA COUNTY FIRE HAZMAT
ST AGENCY RPT NUM:	NO REPORT	**OTHER AGENCY NOTIFIED:**	
WEATHER CONDITIONS:	CLEAR	**AIR TEMPERATURE:**	
WIND SPEED:		**WIND DIRECTION:**	
WATER SUPPLY CONTAM:	U	**SHEEN SIZE:**	
SHEEN COLOR:		**DIR OF SHEEN TRAVEL:**	
SHEEN ODOR DESCRIPTION:		**WAVE CONDITION:**	
CURRENT SPEED:		**CURRENT DIRECTION:**	
WATER TEMPERATURE:			

DESC OF REMEDIAL ACTION: CLEANUP IN THE ALLEY IS IN PROGRESS BY CLEAN HARBORS. CONTRACTOR WAS HIRED BY LA CITY BUREAU OF SANITATION.

- Continued on next page -

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 38 **DIST/DIR:** NON GC **MAP ID:**

NAME:	ALLEYS BEHIND YOUNG STREET AND T STREET	**REV:**	12/31/07
ADDRESS:	1507 EAST YOUNG ST.	**ID1:**	NRC-837616
	WILMINGTON CA	**ID2:**	
	LOS ANGELES	**STATUS:**	STORAGE TANK
CONTACT:		**PHONE:**	

EMPL FATALITY:		**PASS FATALITY:**	
COMMUNITY IMPACT:		**WIND SPEED UNITS:**	
EMPLOYEE INJURIES:		**PASSENGER INJURIES:**	
OCCUPANT FATALITY:		**CURRENT SPEED UNITS:**	
ROAD CLOSURE UNITS:		**TRACK CLOSURE UNITS:**	
SHEEN SIZE UNITS:		**STATE AGENCY NOTIFIED:**	LA CITY BUREAU OF SANITATION
FED AGENCY NOTIFIED:	US EPA	**NEAREST RIVER MILE MARK:**	
SHEEN SIZE LENGTH:		**SHEEN SIZE LENGTH UNITS:**	
SHEEN SIZE WIDTH:		**SHEEN SIZE WIDTH UNITS:**	
OFFSHORE:	N	**DURATION UNIT:**	
RELEASE RATE UNIT:		**RELEASE RATE RATE:**	

ADDITIONAL INFO: CALLER HAD NO ADDITIONAL INFORMATION.

MATERIAL INFORMATION

CHRIS CODE:	MCR	**CASE NUMBER:**	007439-97-6
UN NUMBER:		**REACHED WATER:**	NO

NAME OF MATERIAL: MERCURY
AMOUNT OF MATERIAL: 3 POUND(S)
AMOUNT IN WATER:

OTHER MATERIAL INFORMATION

MOBILE DETAILS INFORMATION

TRAIN INFORMATION

VESSEL INFORMATION

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 37 **DIST/DIR:** NON GC **MAP ID:**

NAME: A.M. PUMPING
ADDRESS: OCEAN BLVD BETWEEN HENRY FORD AND NORMAN ST
TERMINAL ISLAND CA 90744
LOS ANGELES
CONTACT:

REV: 12/30/92
ID1: 298593
ID2:
STATUS: HIGHWAY RELATED
PHONE:

SPILL INFORMATION
DATE OF SPILL: 12/30/1992 **TIME OF SPILL:** 1500

PRODUCT RELEASED (1): OIL: DIESEL
QUANTITY (1): 30
UNITS (1): GAL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE:

SPILL INFORMATION
DATE OF SPILL: 12/30/1992 **TIME OF SPILL:** 1500

PRODUCT RELEASED (1): OIL: DIESEL
QUANTITY (1): 30
UNITS (1): GAL

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE:

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** NO
NATURAL PHENOMENON: NO **OPERATOR ERROR:** YES
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: MATERIAL WAS DIKED OFF. CLEAN UP MATERIAL IS EN ROUTE.
RELEASE DETECTION: VACUUM TRUCK/VALVE WAS LEFT OPEN.

- Continued on next page -

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 37 **DIST/DIR:** NON GC **MAP ID:**

NAME: A.M. PUMPING
ADDRESS: OCEAN BLVD BETWEEN HENRY FORD AND NORMAN ST
TERMINAL ISLAND CA 90744
LOS ANGELES
CONTACT:

REV: 12/30/92
ID1: 298593
ID2:
STATUS: HIGHWAY RELATED
PHONE:

MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 298593
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: A.M. PUMPING
ADDRESS: 999 E. G ST
WILMINGTON CA 90744

DUN and BRADSTREET :

CAUSE OF RELEASE

DUMPING:	NO	**EQUIPMENT FAILURE:**	NO
NATURAL PHENOMENON:	NO	**OPERATOR ERROR:**	YES
OTHER CAUSE:	NO	**TRANSP. ACCIDENT:**	NO
UNKNOWN:	NO		

ACTIONS TAKEN: MATERIAL WAS DIKED OFF. CLEAN UP MATERIAL IS EN ROUTE.
RELEASE DETECTION: VACUUM TRUCK/VALVE WAS LEFT OPEN.
MISC. NOTES:

DISCHARGER INFORMATION
DISCHARGER ID: 298593
TYPE OF DISCHARGER: PRIVATE ENTERPRISE
NAME OF DISCHARGER: A.M. PUMPING
ADDRESS: 999 E. G ST
WILMINGTON CA 90744

DUN and BRADSTREET :

Environmental FirstSearch
Site Detail Report

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

SPILLS

SEARCH ID: 52 **DIST/DIR:** NON GC **MAP ID:**

NAME: ORYX ENERGY CO.
ADDRESS: ALAMEDA ST
WILMINGTON CA 90744
CONTACT:

REV: 01/03/07
ID1: G_SLT4308987
ID2:
STATUS: CASE CLOSED
PHONE:

RELEASE DATA FROM THE CALIFORNIA STATE WATER RESOURCES CONTROL BOARD GEOTRACKER SLIC DATABASE

Please note that some SLIC data previously provided by the State Water Resources Control Board via the Regional Boards is not currently provided by the agency in the new GEOTRACKER format. To ensure that our data is as complete as possible we have retained the original Regional Boards SLIC records as well as loaded all GEOTRACKER SLIC listings. GEOTRACKER records are distinguished by an initial G at the start of the ID.

LEAD AGENCY: *LOS ANGELES RWQCB (REGION 4)*
LEAD AGENCY CONTACT: *SLIC - UNASSIGNED*
LEAD AGENCY CASE NUMBER: *0155*
RESPONSIBLE PARTY:
SUBSTANCE RELEASED (please note that not all codes are available and some records may remain encoded):
RECENT DTW:
STATUS: *Case Closed*

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

ERNS

SEARCH ID: 41 **DIST/DIR:** NON GC **MAP ID:**

NAME:
ADDRESS: CORNER OF B STREET AND ALAMEDA ST
WILMINGTON CA
Los Angeles
CONTACT:

REV: 9/12/95
ID1: 453884
ID2:
STATUS: OFFSHORE - SPILL OFF COAST
PHONE:

SPILL INFORMATION
DATE OF SPILL: 9/12/1995 **TIME OF SPILL:** 1015

PRODUCT RELEASED (1): OIL: CRUDE
QUANTITY (1): 0
UNITS (1): UNK

PRODUCT RELEASED (2):
QUANTITY (2):
UNITS (2):

PRODUCT RELEASED (3):
QUANTITY (3):
UNITS (3):

MEDIUM/MEDIA AFFECTED
AIR: NO **GROUNDWATER:** NO
LAND: YES **FIXED FACILITY:** NO
WATER: NO **OTHER:** NO
WATERBODY AFFECTED BY RELEASE: SOIL and CONCRETE

CAUSE OF RELEASE
DUMPING: NO **EQUIPMENT FAILURE:** NO
NATURAL PHENOMENON: NO **OPERATOR ERROR:** NO
OTHER CAUSE: NO **TRANSP. ACCIDENT:** NO
UNKNOWN: NO

ACTIONS TAKEN: NONE
RELEASE DETECTION: UNDERGROUND PIPELINE / BROKE DUE TO UNKNOWN CAUSES
MISC. NOTES: NONE

DISCHARGER INFORMATION
DISCHARGER ID: 453884 **DUN and BRADSTREET :**
TYPE OF DISCHARGER:
NAME OF DISCHARGER:
ADDRESS:

Environmental FirstSearch Descriptions

NPL: ***EPA*** NATIONAL PRIORITY LIST - The National Priorities List is a list of the worst hazardous waste sites that have been identified by Superfund. Sites are only put on the list after they have been scored using the Hazard Ranking System (HRS), and have been subjected to public comment. Any site on the NPL is eligible for cleanup using Superfund Trust money.
A Superfund site is any land in the United States that has been contaminated by hazardous waste and identified by the Environmental Protection Agency (EPA) as a candidate for cleanup because it poses a risk to human health and/or the environment.
FINAL - Currently on the Final NPL
PROPOSED - Proposed for NPL

NPL DELISTED: ***EPA*** NATIONAL PRIORITY LIST Subset - Database of delisted NPL sites. 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.
DELISTED - Deleted from the Final NPL

CERCLIS: ***EPA*** COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM (CERCLIS)- CERCLIS is a database of potential and confirmed hazardous waste sites at which the EPA Superfund program has some involvement. It contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL.
PART OF NPL- Site is part of NPL site
DELETED - Deleted from the Final NPL
FINAL - Currently on the Final NPL
NOT PROPOSED - Not on the NPL
NOT VALID - Not Valid Site or Incident
PROPOSED - Proposed for NPL
REMOVED - Removed from Proposed NPL
SCAN PLAN - Pre-proposal Site
WITHDRAWN - Withdrawn

NFRAP: ***EPA*** COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY INFORMATION SYSTEM ARCHIVED SITES - database of Archive designated CERCLA sites that, to the best of EPA's knowledge, assessment has been completed and has determined no further steps will be taken to list this site on the National Priorities List (NPL). This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.
NFRAP – No Further Remedial Action Plan
P - Site is part of NPL site
D - Deleted from the Final NPL
F - Currently on the Final NPL
N - Not on the NPL
O - Not Valid Site or Incident
P - Proposed for NPL
R - Removed from Proposed NPL
S - Pre-proposal Site
W – Withdrawn

RCRA COR ACT: ***EPA*** RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.
RCRAInfo facilities that have reported violations and subject to corrective actions.

RCRA TSD: ***EPA*** RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM

TREATMENT, STORAGE, and DISPOSAL FACILITIES. - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.
Facilities that treat, store, dispose, or incinerate hazardous waste.

RCRA GEN: ***EPA*** RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM GENERATORS - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.
Facilities that generate or transport hazardous waste or meet other RCRA requirements.
LGN - Large Quantity Generators
SGN - Small Quantity Generators
VGN – Conditionally Exempt Generator.
Included are RAATS (RCRA Administrative Action Tracking System) and CMEL (Compliance Monitoring & Enforcement List) facilities.

RCRA NLR: ***EPA*** RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM SITES - Database of hazardous waste information contained in the Resource Conservation and Recovery Act Information (RCRAInfo), a national program management and inventory system about hazardous waste handlers. In general, all generators, transporters, treaters, storers, and disposers of hazardous waste are required to provide information about their activities to state environmental agencies. These agencies, in turn pass on the information to regional and national EPA offices. This regulation is governed by the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984.
Facilities not currently classified by the EPA but are still included in the RCRAInfo database. Reasons for non classification:
Failure to report in a timely matter.
No longer in business.
No longer in business at the listed address.
No longer generating hazardous waste materials in quantities which require reporting.

Federal IC / EC: ***EPA*** BROWNFIELD MANAGEMENT SYSTEM (BMS) - database designed to assist EPA in collecting, tracking, and updating information, as well as reporting on the major activities and accomplishments of the various Brownfield grant Programs.
FEDERAL ENGINEERING AND INSTITUTIONAL CONTROLS- Superfund sites that have either an engineering or an institutional control. The data includes the control and the media contaminated.

ERNS: ***EPA/NRC*** EMERGENCY RESPONSE NOTIFICATION SYSTEM (ERNS) - Database of incidents reported to the National Response Center. These incidents include chemical spills, accidents involving chemicals (such as fires or explosions), oil spills, transportation accidents that involve oil or chemicals, releases of radioactive materials, sightings of oil sheens on bodies of water, terrorist incidents involving chemicals, incidents where illegally dumped chemicals have been found, and drills intended to prepare responders to handle these kinds of incidents. Data since January 2001 has been received from the National Response System database as the EPA no longer maintains this data.

Tribal Lands: ***DOI/BIA*** INDIAN LANDS OF THE UNITED STATES - Database of areas with boundaries established by treaty, statute, and (or) executive or court order, recognized by the Federal Government as territory in which American Indian tribes have primary governmental authority. The Indian Lands of the United States map layer shows areas of 640 acres or more, administered by the Bureau of Indian Affairs. Included are Federally-administered lands within a reservation which may or may not be considered part of the reservation.

State/Tribal Sites: ***CA EPA*** SMBRPD / CAL SITES- The California Department of Toxic Substances Control (DTSC) has developed an electronic database system with information about sites that are known to be contaminated with hazardous substances as well as information on uncharacterized properties where further studies may reveal problems. The Site Mitigation and Brownfields Reuse Program Database (SMBRPD), also known as CalSites, is used primarily by DTSC's staff as an informational tool to evaluate and track activities at

properties that may have been affected by the release of hazardous substances.
The SMBRPD displays information in six categories. The categories are:
1. CalSites Properties (CS)
2. School Property Evaluation Program Properties (SCH)
3. Voluntary Cleanup Program Properties (VCP)
4. Unconfirmed Properties Needing Further Evaluation (RFE)
Please Note: FirstSearch Reports list the above sites as DB Type (STATE).
5. Unconfirmed Properties Referred to Another Local or State Agency (REF)
6. Properties where a No Further Action Determination has been made (NFA)
Please Note: FirstSearch Reports list the above sites as DB Type (OTHER).
Each Category contains information on properties based upon the type of work taking place at the site. For example, the CalSites database is now one of the six categories within SMPBRD and contains only confirmed sites considered as posing the greatest threat to the public and/or the potential public school sites will be found within the School Property Evaluation Program, and those properties undergoing voluntary investigation and/or cleanup are in the Voluntary Cleanup Program.
CORTESE LIST-Pursuant to Government Code Section 65962.5, the Hazardous Waste and Substances Sites List has been compiled by Cal/EPA, Hazardous Materials Data Management Program. The CAL EPA Dept. of Toxic Substances Control compiles information from subsets of the following databases to make up the CORTESE list:
1. The Dept. of Toxic Substances Control; contaminated or potentially contaminated hazardous waste sites listed in the CAL Sites database. Formerly known as ASPIS are included (CALSITES formerly known as ASPIS).
2. The California State Water Resources Control Board; listing of Leaking Underground Storage Tanks are included (LTANK)
3. The California Integrated Waste Management Board; Sanitary Landfills which have evidence of groundwater contamination or known migration of hazardous materials (formerly WB-LF, now AB 3750).
Note: Track Info Services collects each of the above data sets individually and lists them separately in the following First Search categories in order to provide more current and comprehensive information: CALSITES: SPL, LTANK: LUST, WB-LF: SWL

State Spills 90: ***CA EPA*** SLIC REGIONS 1 - 9- The California Regional Water Quality Control Boards maintain report of sites that have records of spills, leaks, investigation, and cleanups.

State/Tribal SWL: ***CA IWMB/SWRCB/COUNTY*** SWIS SOLID WASTE INFORMATION SYSTEM-The California Integrated Waste Management Board maintains a database on solid waste facilities, operations, and disposal sites throughout the state of California. The types of facilities found in this database include landfills, transfer stations, material recovery facilities, composting sites, transformation facilities, waste tire sites, and closed disposal sites. For more information on individual sites call the number listed in the source field..
Please Note: This database contains poor site location information for many sites in the First Search reports; therefore, it may not be possible to locate or plot some sites in First Search reports.
WMUDS-The State Water Resources Control Board maintained the Waste Management Unit Database System (WMUDS). It is no longer updated. It tracked management units for several regulatory programs related to waste management and its potential impact on groundwater. Two of these programs (SWAT & TPCA) are no longer on-going regulatory programs as described below. Chapter 15 (SC15) is still an on-going regulatory program and information is updated periodically but not to the WMUDS database. The WMUDS System contains information from the following agency databases: Facility, Waste Management Unit (WMU), Waste Discharger System (WDS), SWAT, Chapter 15, TPCA, RCRA, Inspections, Violations, and Enforcement's.
Note: This database contains poor site location information for many sites in the First Search reports; therefore, it may not be possible to locate or plot some sites in First Search reports.
ORANGE COUNTY LANDFILLS LIST- A list maintained by the Orange County Health Department.

State/Tribal LUST: ***CA SWRCB/COUNTY*** LUSTIS- The State Water Resources Control Board maintains a database of sites with confirmed or unconfirmed leaking underground storage tanks. Information for this database is collected from the states regional boards quarterly and integrated with this database.
SAN DIEGO COUNTY LEAKING TANKS- The San Diego County Department of Environmental Health maintains a database of sites with confirmed or unconfirmed leaking underground storage tanks within its HE17/58 database. For more information on a specific file call the HazMat Duty Specialist at phone number listed in the source information field.

State/Tribal UST/AST: ***CA EPA/COUNTY/CITY*** ABOVEGROUND STORAGE TANKS LISTING-The Above Ground Petroleum Storage Act became State Law effective January 1, 1990. In general, the law requires owners or operators of AST's with petroleum products to file a storage statement and pay a fee by July 1, 1990 and every two years thereafter, take specific action to prevent spills, and in certain instances implement a

groundwater monitoring program. This law does not apply to that portion of a tank facility associated with the production oil and regulated by the State Division of Oil and Gas of the Dept. of Conservation.
SWEEPS / FIDS STATE REGISTERED UNDEGROUND STORAGE TANKS- Until 1994 the State Water Resources Control Board maintained a database of registered underground storage tanks statewide referred to as the SWEEPS System. The SWEEPS UST information was integrated with the CAL EPA's Facility Index System database (FIDS) which is a master index of information from numerous California agency environmental databases. That was last updated in 1994. Track Info Services included the UST information from the FIDS database in its First Search reports for historical purposes to help its clients identify where tanks may possibly have existed. For more information on specific sites from individual paper files archived at the State Water Resources Control Board call the number listed with the source information.
INDIAN LANDS UNDERGROUND STORAGE TANKS LIST- A listing of underground storage tanks currently on Indian Lands under federal jurisdiction. California Indian Land USTS are administered by US EPA Region 9.
CUPA DATABASES & SOURCES- Definition of a CUPA: A Certified Unified Program Agency (CUPA) is a local agency that has been certified by the CAL EPA to implement six state environmental programs within the local agency's jurisdiction. These can be a county, city, or JPA (Joint Powers Authority). This program was established under the amendments to the California Health and Safety Code made by SB 1082 in 1994.
A Participating Agency (PA) is a local agency that has been designated by the local CUPA to administer one or more Unified Programs within their jurisdiction on behalf of the CUPA. A Designated Agency (DA) is an agency that has not been certified by the CUPA but is the responsible local agency that would implement the six unified programs until they are certified.
Please Note: Track Info Services, LLC collects and maintains information regarding Underground Storage Tanks from majority of the CUPAS and Participating Agencies in the State of California. These agencies typically do not maintain nor release such information on a uniform or consistent schedule; therefor, currency of the data may vary. Please look at the details on a specific site with a UST record in the First Search Report to determine the actual currency date of the record as provided by the relevant agency. Numerous efforts are made on a regular basis to obtain updated records.

State/Tribal IC: ***CA EPA*** DEED-RESTRICTED SITES LISTING- The California EPA's Department of Toxic Substances Control Board maintains a list of deed-restricted sites, properties where the DTSC has placed limits or requirements on the future use of the property due to varying levels of cleanup possible, practical or necessary at the site.

State/Tribal VCP: ***CA EPA*** SMBRPD / CAL SITES- The California Department of Toxic Substances Control (DTSC) has developed an electronic database system with information about sites that are known to be contaminated with hazardous substances as well as information on uncharacterized properties where further studies may reveal problems. The Site Mitigation and Brownfields Reuse Program Database (SMBRPD), also known as CalSites, is used primarily by DTSC's staff as an informational tool to evaluate and track activities at properties that may have been affected by the release of hazardous substances.
The SMBRPD displays information in six categories. The categories are:
1. CalSites Properties (CS)
2. School Property Evaluation Program Properties (SCH)
3. Voluntary Cleanup Program Properties (VCP)
4. Unconfirmed Properties Needing Further Evaluation (RFE)
5. Unconfirmed Properties Referred to Another Local or State Agency (REF)
6. Properties where a No Further Action Determination has been made (NFA)
Please Note: FirstSearch Reports list the above sites as DB Type VC. Each Category contains information on properties based upon the type of work taking place at the site. The VC category contains only those properties undergoing voluntary investigation and/or cleanup and which are listed in the Voluntary Cleanup Program.

RADON: ***NTIS*** NATIONAL RADON DATABASE - EPA radon data from 1990-1991 national radon project collected for a variety of zip codes across the United States.

State Permits: ***CA COUNTY*** SAN DIEGO COUNTY HE17 PERMITS- The HE17/58 database tracks establishments issued permits and the status of their permits in relation to compliance with federal, state, and local regulations that the County oversees. It tracks if a site is a hazardous waste generator, TSD, gas station, has underground tanks, violations, or unauthorized releases. For more information on a specific file call the HazMat Duty Specialist at the phone number listed in the source information field.
SAN BERNARDINO COUNTY HAZARDOUS MATERIALS PERMITS- Handlers and Generators Permit Information Maintained by the Hazardous Materials Division.

State Other: ***CA EPA/COUNTY*** SMBRPD / CAL SITES- The California Department of Toxic Substances

Control (DTSC) has developed an electronic database system with information about sites that are known to be contaminated with hazardous substances as well as information on uncharacterized properties where further studies may reveal problems. The Site Mitigation and Brownfields Reuse Program Database (SMBRPD), also known as CalSites, is used primarily by DTSC's staff as an informational tool to evaluate and track activities at properties that may have been affected by the release of hazardous substances.
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4. Unconfirmed Properties Needing Further Evaluation (RFE)
Please Note: FirstSearch Reports list the above sites as DB Type (STATE).
5. Unconfirmed Properties Referred to Another Local or State Agency (REF)
6. Properties where a No Further Action Determination has been made (NFA)
Please Note: FirstSearch Reports list the above sites as DB Type (OTHER).
Each Category contains information on properties based upon the type of work taking place at the site. For example, the CalSites database is now one of the six categories within SMPBRD and contains only confirmed sites considered as posing the greatest threat to the public and/or the potential public school sites will be found within the School Property Evaluation Program, and those properties undergoing voluntary investigation and/or cleanup are in the Voluntary Cleanup Program.
LA COUNTY SITE MITIGATION COMPLAINT CONTROL LOG- The County of Los Angeles Public Health Investigation Compliant Control Log.
ORANGE COUNTY INDUSTRIAL SITE CLEANUPS- List maintained by the Orange County Environmental Health Agency.
RIVERSIDE COUNTY WASTE GENERATORS-A list of facilities in Riverside County which generate hazardous waste.
SACRAMENTO COUNTY MASTER HAZMAT LIST-Master list of facilities within Sacramento County with potentially hazardous materials.
SACRAMENTO COUNTY TOXIC SITE CLEANUPS-A list of sites where unauthorized releases of potentially hazardous materials have occurred.

State Other: ***US DOJ*** NATIONAL CLANDESTINE LABORATORY REGISTER - Database of 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 U.S. Department of Justice ("the Department"), and the Department has not verified the entry and does not guarantee its accuracy. All sites that are included in this data set will have an id that starts with NCLR.

Environmental FirstSearch Database Sources

NPL: ***EPA*** Environmental Protection Agency

Updated quarterly

NPL DELISTED: ***EPA*** Environmental Protection Agency

Updated quarterly

CERCLIS: ***EPA*** Environmental Protection Agency

Updated quarterly

NFRAP: ***EPA*** Environmental Protection Agency.

Updated quarterly

RCRA COR ACT: ***EPA*** Environmental Protection Agency.

Updated quarterly

RCRA TSD: ***EPA*** Environmental Protection Agency.

Updated quarterly

RCRA GEN: ***EPA*** Environmental Protection Agency.

Updated quarterly

RCRA NLR: ***EPA*** Environmental Protection Agency

Updated quarterly

Federal IC / EC: ***EPA*** Environmental Protection Agency

Updated quarterly

ERNS: ***EPA/NRC*** Environmental Protection Agency

Updated semi-annually

Tribal Lands: ***DOI/BIA*** United States Department of the Interior

Updated annually

State/Tribal Sites: ***CA EPA*** The CAL EPA, Depart. Of Toxic Substances Control

Phone: (916) 323-3400

Updated quarterly/when available

State Spills 90: ***CA EPA*** The California State Water Resources Control Board

Updated when available

State/Tribal SWL: ***CA IWMB/SWRCB/COUNTY*** The California Integrated Waste Management Board
Phone:(916) 255-2331
The State Water Resources Control Board
Phone:(916) 227-4365
Orange County Health Department

Updated quarterly/when available

State/Tribal LUST: ***CA SWRCB/COUNTY*** The California State Water Resources Control Board
Phone:(916) 227-4416
San Diego County Department of Environmental Health

Updated quarterly/when available

State/Tribal UST/AST: ***CA EPA/COUNTY/CITY*** The State Water Resources Control Board
Phone:(916) 227-4364
CAL EPA Department of Toxic Substances Control
Phone:(916)227-4404
US EPA Region 9 Underground Storage Tank Program
Phone: (415) 972-3372
ALAMEDA COUNTY CUPAS:
* County of Alameda Department of Environmental Health
* Cities of Berkeley, Fremont, Hayward, Livermore / Pleasanton, Newark, Oakland, San Leandro, Union
ALPINE COUNTY CUPA:
* Health Department (Only updated by agency sporadically)
AMADOR COUNTY CUPA:
* County of Amador Environmental Health Department
BUTTE COUNTY CUPA
* County of Butte Environmental Health Division (Only updated by agency biannually)
CALAVERAS COUNTY CUPA:
* County of Calaveras Environmental Health Department
COLUSA COUNTY CUPA:
* Environmental Health Dept.
CONTRA COSTA COUNTY CUPA:
* Hazardous Materials Program
DEL NORTE COUNTY CUPA:
* Department of Health and Social Services
EL DORADO COUNTY CUPAS:
* County of El Dorado Environmental Health - Solid Waste Div (Only updated by agency annually)
* County of El Dorado EMD Tahoe Division (Only updated by agency annually)
FRESNO COUNTY CUPA:
* Haz. Mat and Solid Waste Programs
GLENN COUNTY CUPA:
* Air Pollution Control District
HUMBOLDT COUNTY CUPA:
* Environmental Health Division
IMPERIAL COUNTY CUPA:
* Department of Planning and Building
INYO COUNTY CUPA:
* Environmental Health Department

KERN COUNTY CUPA:
* County of Kern Environmental Health Department
* City of Bakersfield Fire Department
KINGS COUNTY CUPA:
* Environmental Health Services
LAKE COUNTY CUPA:
* Division of Environmental Health
LASSEN COUNTY CUPA:
* Department of Agriculture
LOS ANGELES COUNTY CUPAS:
* County of Los Angeles Fire Department CUPA Data as maintained by the Los Angeles County Department of Public Works
* County of Los Angeles Environmental Programs Division
* Cities of Burbank, El Segundo, Glendale, Long Beach/Signal Hill, Los Angeles,Pasadena, Santa Fe Springs, Santa Monica, Torrance, Vernon
MADERA COUNTY CUPA:
* Environmental Health Department
MARIN COUNTY CUPA:
* County of Marin Office of Waste Management
* City of San Rafael Fire Department
MARIPOSA COUNTY CUPA:
* Health Department
MENDOCINO COUNTY CUPA:
* Environmental Health Department
MERCED COUNTY CUPA:
* Division of Environmental Health
MODOC COUNTY CUPA:
* Department of Agriculture
MONO COUNTY CUPA:
* Health Department
MONTEREY COUNTY CUPA:
* Environmental Health Division
NAPA COUNTY CUPA:
* Hazardous Materials Section
NEVADA COUNTY CUPA:
* Environmental Health Department
ORANGE COUNTY CUPAS:
* County of Orange Environmental Health Department
* Cities of Anaheim, Fullerton, Orange, Santa Ana
* County of Orange Environmental Health Department
PLACER COUNTY CUPAS:
* County of Placer Division of Environmental Health Field Office
* Tahoe City
* City of Roseville Roseville Fire Department
PLUMAS COUNTY CUPA:
* Environmental Health Department
RIVERSIDE COUNTY CUPA:
* Environmental Health Department
SACRAMENTO COUNTY CUPA:
* County Environmental Mgmt Dept, Haz. Mat. Div.
SAN BENITO COUNTY CUPA:
* City of Hollister Environmental Service Department
SAN BERNARDINO COUNTY CUPAS:
* County of San Bernardino Fire Department, Haz. Mat. Div.
* City of Hesperia Hesperia Fire Prevention Department
*City of Victorville Victorville Fire Department
SAN DIEGO COUNTY CUPA:
* The San Diego County Dept. of Environmental Health HE 17/58
SAN FRANCISCO COUNTY CUPA:
* Department of Public Health
SAN JOAQUIN COUNTY CUPA:
* Environmental Health Division

SAN LUIS OBISPO COUNTY CUPAS:
* County of San Luis Obispo Environmental Health Division
* City of San Luis Obispo City Fire Department
SAN MATEO COUNTY CUPA:
* Environmental Health Department
SANTA BARBARA COUNTY CUPA:
* County Fire Dept Protective Services Division
SANTA CLARA COUNTY CUPAS:
* County of Santa Clara Hazardous Materials Compliance Division
* Santa Clara County Central Fire Protection District (Covers Campbell, Cupertino, Los Gatos, & Morgan Hill)
* Cities of Gilroy, Milpitas, Mountain View, Palo Alto, San Jose Fire, Santa Clara, Sunnyvale
SANTA CRUZ COUNTY CUPA:
* Environmental Health Department
SHASTA COUNTY CUPA:
* Environmental Health Department
SIERRA COUNTY CUPA:
* Health Department
SISKIYOU COUNTY CUPA:
* Environmental Health Department
SONOMA COUNTY CUPAS:
* County of Sonoma Department Of Environmental Health
* Cities of Healdsburg / Sebastopol, Petaluma, Santa Rosa
STANISLAUS COUNTY CUPA:
* Department of Environmental Resources Haz. Mat. Division
SUTTER COUNTY CUPA:
* Department of Agriculture
TEHAMA COUNTY CUPA:
* Department of Environmental Health
TRINITY COUNTY CUPA:
* Department of Health
TULARE COUNTY CUPA:
* Environmental Health Department
TUOLUMNE COUNTY CUPA:
* Environmental Health
VENTURA COUNTY CUPAS:
* County of Ventura Environmental Health Division
* Cities of Oxnard, Ventura
YOLO COUNTY CUPA:
* Environmental Health Department
YUBA COUNTY CUPA:

Updated quarterly/annually/when available

State/Tribal IC: ***CA EPA*** The California EPA Department of Toxic Substances Control.

Updated Updated quarterly/annually/when available

State/Tribal VCP: ***CA EPA*** The California EPA Department of Toxic Substances Control.

Updated Updated quarterly/annually/when available

RADON: ***NTIS*** Environmental Protection Agency, National Technical Information Services

Updated periodically

State Permits: ***CA COUNTY*** The San Diego County Depart. Of Environmental Health
Phone:(619) 338-2211
San Bernardino County Fire Department

Updated quarterly/when available

State Other: ***CA EPA/COUNTY*** The CAL EPA, Depart. Of Toxic Substances Control
Phone: (916) 323-3400
The Los Angeles County Hazardous Materials Division
Phone: (323) 890-7806
Orange County Environmental Health Agency
Phone: (714) 834-3536
Riverside County Department of Environmental Health, Hazardous Materials Management Division
Phone:(951) 358-5055
Sacramento County Environmental Management Department

Updated quarterly/when available

State Other: ***US DOJ*** U.S. Department of Justice

Updated when available

Environmental FirstSearch
Street Name Report for Streets within .25 Mile(s) of Target Property

Target Property: ALAMEDA ST
WILMINGTON CA 90744

JOB: 207374001

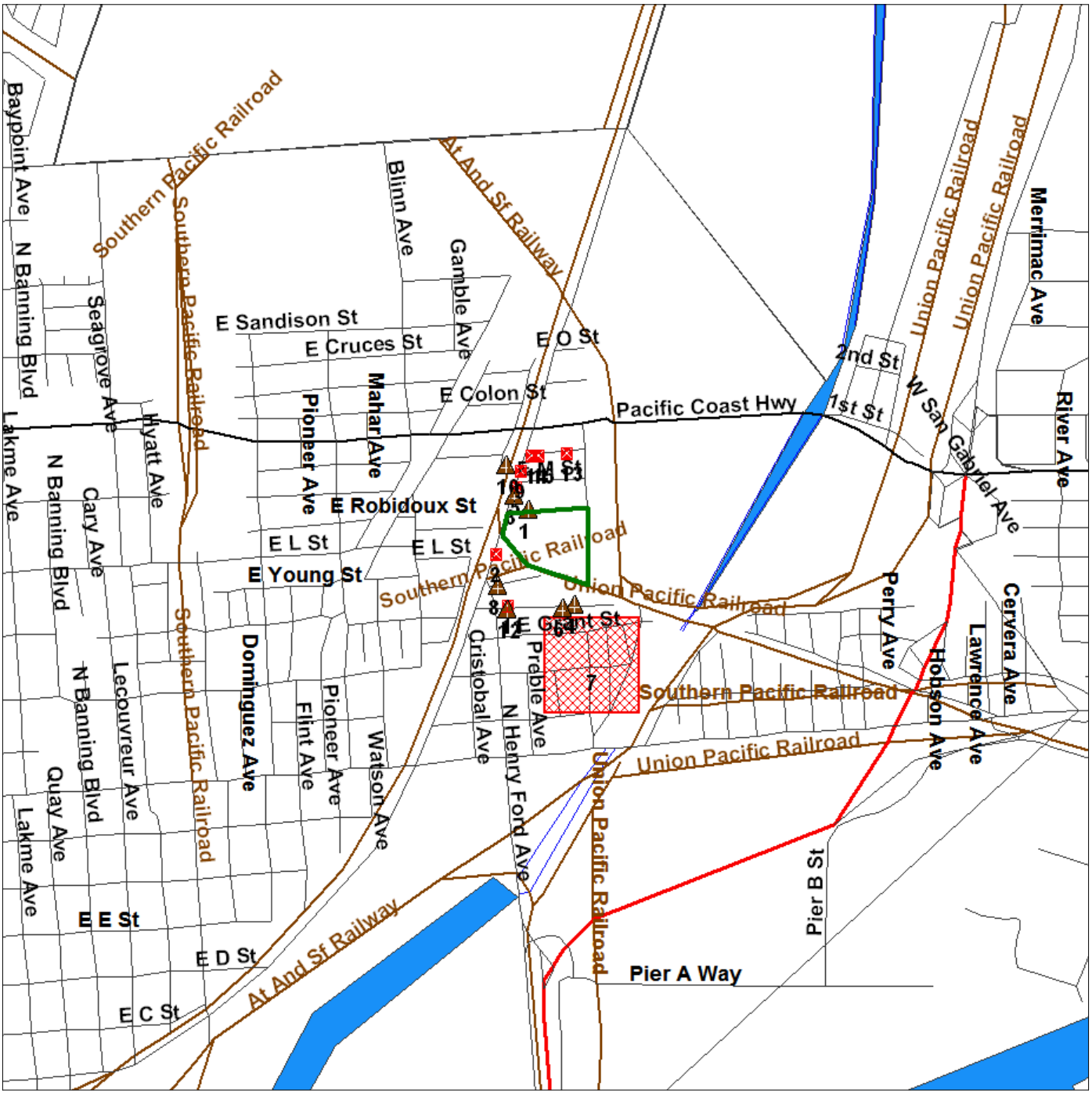
Street Name	Dist/Dir	Street Name	Dist/Dir
Alameda St	0.00 --		
Blinn Ave	0.18 NW		
Coil Ave	0.19 NW		
Cristobal Ave	0.19 SW		
Drumm Ave	0.23 NW		
E Colon St	0.23 NW		
E Denni St	0.04 SE		
E Grant St	0.10 SE		
E L St	0.08 SW		
E M St	0.06 NW		
E Mauretania St	0.12 NW		
E Opp St	0.17 SE		
E Robidoux St	0.00 --		
E Young St	0.01 SW		
EAST Colon St	0.23 NW		
EAST Denni St	0.04 SE		
EAST Grant St	0.10 SE		
EAST L St	0.08 SW		
EAST M St	0.06 NW		
EAST Mauretania St	0.12 NW		
EAST Opp St	0.17 SE		
EAST Robidoux St	0.00 --		
EAST Young St	0.01 SW		
Goodrich Ave	0.00 --		
Leeds Ave	0.11 SE		
Murdock Ave	0.19 SW		
N Henry Ford Ave	0.08 SW		
NORTH Henry Ford Ave	0.08 SW		
Pacific Coast Hwy	0.17 NW		
Preble Ave	0.22 SW		
Southerland Ave	0.12 SE		
Vreeland Ave	0.10 SW		

Environmental FirstSearch

1 Mile Radius from Area

Single Map:

ALAMEDA ST, WILMINGTON CA 90744



Source: U.S. Census TIGER Files

Area Polygon .....

Identified Site, Multiple Sites, Receptor .....

NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste

Triballand.....

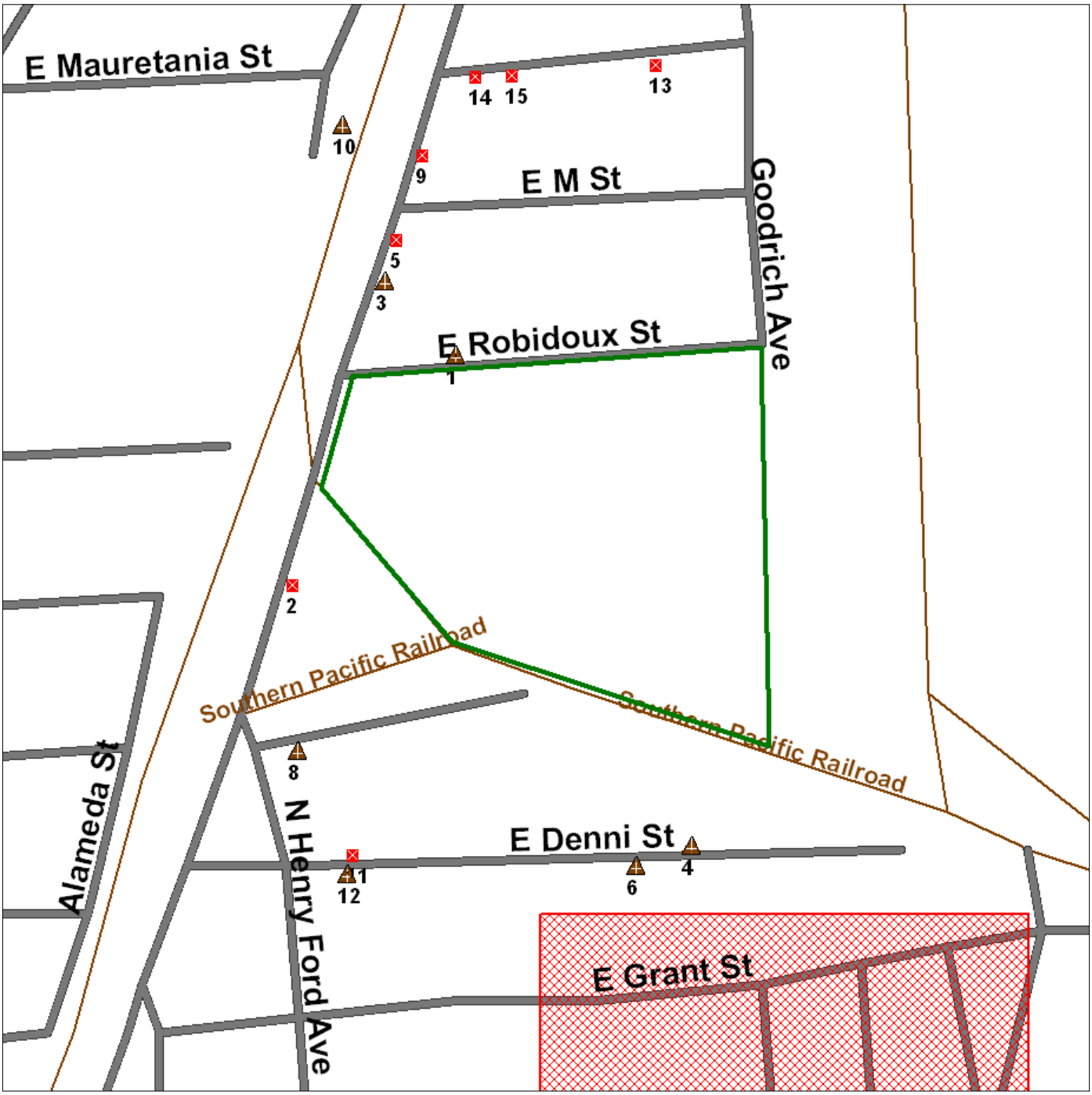
Railroads .....

Environmental FirstSearch

.12 Mile Radius from Area

ASTM-05: Multiple Databases

ALAMEDA ST, WILMINGTON CA 90744



Source: U.S. Census TIGER Files

Area Polygon .....

Identified Site, Multiple Sites, Receptor .....

NPL, DELNPL, Brownfield, Solid Waste Landfill (SWL), Hazardous Waste

Triballand.....

Railroads .....

DRAFT

APPENDIX B

PHOTOGRAPHIC DOCUMENTATION

Photograph No. 1: **Looking southeast along Avalon Boulevard, within Area A.**

Photograph No. 2: **Looking northwest along Avalon Boulevard, within Area A.**

Photograph No. 3: **Looking west along Marine Avenue (at 211 Marine Avenue), within Area A.**

Photograph No. 4: **Looking northwest along North Fries Avenue, within Area A.**

Photograph No. 5: **Looking northeast along Island Avenue, within Area A.**

Photograph No. 6: **Looking east at welding yard along Lagoon Avenue, within Area A.**

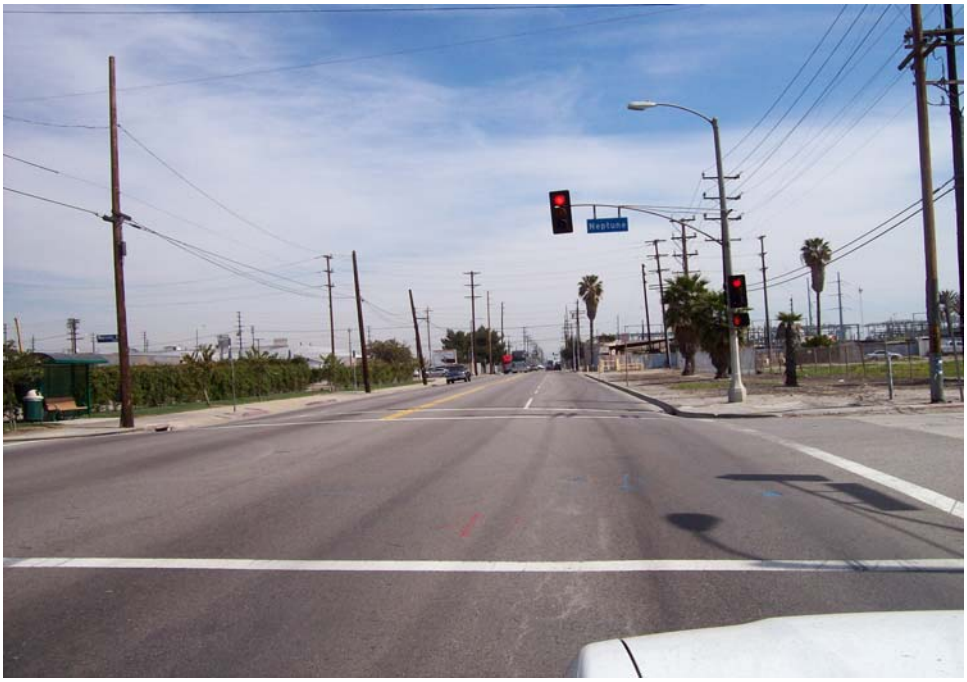
Photograph No. 7: **Looking at southeastern intersection of Harry Bridges Boulevard and Avalon Boulevard at well casings, drums, and soil vapor probes, within Area B.**

Photograph No. 8: **Looking southwest from Avalon Boulevard at the Dockside Machine and Ship Repair facility, within Area B.**

Photograph No. 9: **Looking southeast from A Street at Valero, within Area B.**

Photograph No. 10: **Looking north along Railroad right-of-way within Area B.**

Photograph No. 11: Looking at POLA Water Street shed at Berth 184, within Area B.



Photograph No. 12: Looking east along Harry Bridges Boulevard within Area C.

Photograph No. 13: Looking south at TraPac, within Area C.

Photograph No. 14: Looking south along John S. Gibson Boulevard, within Area C.

Photograph No. 15: Looking northwest along John S. Gibson Avenue, within Area C.

Photograph No. 16: Looking southeast at Unlimited Auto, within Area C.

Photograph No. 17: Looking south along North Front Street, within Area C.

KLEINFELDER
An employee owned company

May 27, 2004
Kleinfelder Project No. 41145/001

Mr. Dat M. Quach
Manager of Site Remediation
Environmental Affairs
Los Angeles Department of Water and Power
111 North Hope Street, Room 1050
Los Angeles, California 90012

Subject: **Phase II Environmental Site Assessment**
Marine Tank Farm
130 West A Street
Wilmington, California

Dear Mr. Quach,

Kleinfelder is pleased to present to the City of Los Angeles Department of Water and Power (LADWP) this report of Phase II Environmental Site Assessment performed at the Marine Tank Farm, located at 130 West A Street, Wilmington, California (Plate 1, Site Location Map).

1.0 SITE DESCRIPTION AND BACKGROUND

The site consists of approximately 15.5 acres of land. The site includes two large fuel storage tanks, in the northeast and southwest portions of the site. One small cutter stock tank is located in the northwest portion of the site, an operations building occupies the northeast section, which extends parallel to West A Street, and a small linear covered parking area occupies the northwest portion of the site at the property boundary (Plate 2, Plot Plan).

The site is currently used by the Valero Co. (Valero) Wilmington Refinery for the storage of fuel. We understand that LADWP is considering utilizing its Marine Tank Farm property for a public park. The purpose of the investigation was to assess the environmental condition of soils in the bermed area around Fuel Oil Tanks Nos. 450.001 and 450.002, and Cutter Stock Tank No. 30.001, and the groundwater beneath the site.

Kleinfelder's field investigation included the collection and analysis of soil, soil vapor, and groundwater samples to assess whether the soil and groundwater at the site has been impacted by fuel storage activities. This report was prepared pursuant to Kleinfelder's January 20, 2004 (Revised February 12, 2004, and May 3, 2004) *Proposal for Phase II Environmental Site Assessment.*

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2.0 SCOPE OF SERVICES

Kleinfelder's scope of services, as stated in our proposal, included the collection and analysis of soil samples at 26 selected locations, and soil vapor and groundwater samples at seven of these locations. The purpose of the investigation was to assess the potential feasibility of utilizing the property as a public park.

Our scope of services included the activities discussed in the following sections.

3.0 FIELD ACTIVITIES

3.1 Project Management/Technical Oversight

Kleinfelder provided project management and technical oversight to the investigation that included the following:

- Environmental engineering and consulting services.
- Project scoping (including scope adjustments as needed).
- Subcontractor management and contract administration (geophysical utility clearance surveyor, and direct-push drilling and sampling subcontractor).
- Underground Service Alert (USA Dig Alert).
- Coordination with Client.

3.2 Health and Safety Training

Prior to the initiation of field activities, Kleinfelder and its subcontractors completed a Valero Site-Specific Health and Safety training meeting. The meeting incorporated general knowledge of chemical characteristics of materials currently or potentially present on the site, and the safety procedures and precautions operating throughout the refinery. Kleinfelder and its subcontractors adhered to the Valero Health and Safety requirements during field activities. Based on the proposed field services, probable environmental conditions, and Valero requirements, we assumed that Level D Protection (gloves, steel-toe rubber boots, hard hat, Nomex® coveralls, hearing protection, and eye protection) would be adequate for performing the described field activities. Site conditions that required modification of the plan beyond Level D protection were not encountered.

3.3 Utility Clearance and Geophysical Survey for Drilling.

Kleinfelder notified USA DigAlert of the proposed work on February 24, 2004 in accordance with State requirements. Ticket No. A1372164 was assigned at that time.

Kleinfelder contracted GeoVision Geophysical Services (GeoVision), a contractor specializing in underground utility locating, to perform utility clearance services at Marine Tank Farm. On February 24, 2004, GeoVision attempted to delineate the surface trace of subsurface utilities. However, due to waterlogged conditions at the site, electromagnetic induction (EM), magnetometry, and ground penetrating radar (GPR) could not provide an accurate survey, therefore the survey was abandoned. GeoVision personnel performed a visual inspection of the site and indicated potential subsurface obstructions.

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3.4 Field Activities

The proposed sampling scope included the collection of soil samples at 26 locations (only 25 soil borings were successfully advanced, due to the proximity of underground utilities at the proposed location of Boring B11), and soil vapor and groundwater samples at seven of these locations (Plate 2, Plot Plan) using the direct-push soil sampling technique. The sampling approach included continuous coring of soil, from the surface to a depth of 10 feet below ground surface (bgs), and collecting soil samples at depths of 1 foot, 5 feet and 10 feet bgs. The scope also included collection of "grab" groundwater samples at seven selected locations, via further advancing borings into groundwater, and the installation of soil vapor probes to enable collection of soil vapor samples.

The Phase II Environmental Site Assessment was performed on March 22 and 23, 2004 with the assistance of Kleinfelder's subcontractor BC^2 Environmental Corp., using truck-mounted Geoprobe® direct-push sampling equipment for 21 of the borings and a hand auger for the remaining four borings.

Soil Sampling

The soil samples were collected at the direct-push sampling locations using a 24-inch long by 1-3/8-inch outside diameter, stainless steel soil sampler equipped with a retractable piston tip. The sampler was lined with four 1-1/8-inch diameter by 6-inch brass sleeves or transparent, 1-1/8-inch diameter by 4-foot long acrylic sample sleeve. The sampler was attached to the leading edge of a steel probe rod and advanced into the boring to the required sampling depth using a combination of hydraulic pressure and vibratory hammer techniques. The tip was subsequently retracted and the sampler was driven another 24 inches to collect the soil sample. The soil samples were retrieved using the Geoprobe® rods.

A portion of the sleeve was cut as necessary to eliminate headspace, and the ends of the sample sleeve were covered with Teflon® sheets and capped with plastic end caps.

A 5-gram Encore® sampler was used to sub-sample each soil sample for volatile organic compound (VOC) analysis. Three Encore® samples (totaling 15 grams of sample) were collected for each sample analysis.

Samples were labeled with a unique soil sample identification number, project number, and date, and placed in an ice-filled chest for delivery to the analytical laboratory in accordance with applicable United States Environmental Protection Agency (US EPA) regulations and utilizing chain-of-custody documentation.

A portion of each collected soil sample was monitored for the presence of total VOCs using a photoionization detector (PID) calibrated with hexane as recommended by the manufacturer.

A Kleinfelder geologist classified the collected soil samples according to the American Society for Testing and Materials (ASTM) classification system, based on the Unified Soils Classification System (USCS). Additional geologic observations were noted as appropriate.

Soil sampling was performed under the technical supervision of a State of California Registered Geologist.

The samples collected from depths of 1 foot and 5 foot bgs from each boring were submitted for analysis. The remaining soil samples collected from a depth of 10 feet bgs were archived (placed on hold) by the laboratory for potential subsequent analysis, within holding times, if warranted by field conditions or results of shallower samples.

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Groundwater Sampling

Kleinfelder collected a "grab" groundwater sample from seven of the environmental sampling locations (Borings B3, B6, B9, B12, B14, B17, and B19). The Geoprobe® Screen Point Groundwater Sampler was utilized for groundwater sampling. The sampler has a 41-inch long stainless steel, wire wound, 0.004-inch slot screen, enclosed in a 4-foot long, 1-1/2 inch outer diameter barrel. An expendable drive point was attached to the end of the sample barrel to displace the soil as the sampler was advanced to the desired groundwater sampling depth using 1-1/4-inch drive rod. The rod was retracted when the desired sampling depth, approximately 5 feet below the depth of first-encountered groundwater, was reached to expose the desired length of screen. The groundwater sample was then brought to the surface using a new length of disposable 3/8-inch outside diameter polyethylene tubing attached to a peristaltic pump. The collected groundwater samples were placed into laboratory-provided and pre-preserved containers, labeled, stored in an ice-chilled cooler, and transported to the analytical laboratory in accordance with applicable US EPA regulations and utilizing chain-of-custody documentation.

Groundwater sampling was performed under the technical supervision of a State of California Registered Geologist.

Soil Vapor Sampling

Soil vapor samples were collected at seven of the sample locations (Borings B3, B6, B9, B12, B14, B17, and B19). The soil borings were backfilled with hydrated #8 bentonite until the desired depth (approximately 5 feet bgs) was reached. Then a 0.25-inch diameter, 6-inch long stainless steel vapor implant screen was attached to a sufficient length of ¼-inch diameter Nylaflow® sample tubing and lowered down the inside of the boring. Approximately 12 inches of #3 sand was poured into the hole to fill the annulus around the probe tip. Then the remaining annular space was filled with hydrated #8 bentonite.

Kleinfelder's subcontractor HydroGeoSpectrum performed a purge concentration test and sampling of vapors from the soil vapor probes. The purge concentration test was performed at 1, 3, and 7 implant screen and tubing purge volumes. HydroGeoSpectrum attached clean tubing to the existing fitting at the top of the soil vapor probe installed at Boring B6. The tubing was connected to a glass sampling bulb fitted with Teflon® stopcocks and a Viton® rubber sampling port (septum). The bulb was connected in turn to a vacuum gauge, flow meter, and portable sampling pump. Initially both stopcocks were closed, and the absence of flow and a slight vacuum was noted to demonstrate that the sampling train on the far end of the bulb was leak-tight. The "downstream" stopcock (on the pump side) was opened and the absence of flow was noted to demonstrate that the sampling bulb itself was leak-tight. The second ("upstream") stopcock was then opened and a flow of 200 milliliters per minute was maintained for the required duration to purge one, three and seven purge volumes. During the purging and sampling, foam containing the VOC isobutane was exposed to the sample train, to enable checking for intrusion of ambient air into the sampling train. Following the collection of the sample, the stopcocks were then closed. The samples were collected in 6-liter laboratory-prepared and evacuated, stainless steel cylinders, commonly referred to as SUMMA canisters. The Summa canisters were labeled, and transported to the analytical laboratory in accordance with applicable US EPA regulations and utilizing chain-of-custody documentation.

Following receipt and review of the purge concentration test results, the seven probes were sampled. To sample soil vapor, HydroGeoSpectrum attached clean tubing to the existing fittings at the top of each soil vapor probe and connected the tubing to a flow meter, which was connected to a Summa canister fitted with a regulator. The regulator, fitted with a valve, was turned to the open position and a flow of 600 milliliters per minute was maintained for

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approximately 10 minutes. During the sampling, foam containing the VOC isobutane was exposed to the sample train, to enable checking for intrusion of ambient air into the sampling train (isobutane was not detected in any of the analyzed samples, indicating that leaks did not occur). Following the collection of the sample, the regulator valve was closed. The canisters were labeled and transported to the analytical laboratory in accordance with applicable US EPA regulations and utilizing chain-of-custody documentation.

Soil vapor probe installation, purging, and sampling were performed under the technical supervision of a State of California Registered Geologist.

Borehole Abandonment

Upon completion of sampling, each direct-push boring was abandoned by backfilling with hydrated bentonite.

Equipment Decontamination

Drilling equipment was decontaminated prior to use by high-pressure hot water washing. Re-used sampling equipment was decontaminated prior to collecting each sample by washing in a non-phosphate detergent (e.g., Liquinox) and tap water wash, using a brush to dislodge encrusted materials, and then double rinsing in distilled or deionized water. The soil sample sleeves consisted of new, disposable transparent acetate and therefore did not require decontamination. Sampling heads and other fittings were decontaminated by thoroughly washing with soapy water and rinsing.

4.0 REQUESTED ANALYSES

Soil Samples

Laboratory tests were performed on soil samples collected at depths of 1 foot bgs and 5 foot bgs from environmental Borings B1 through B26. The soil sample analyses were performed by the LADWP Water Quality and Operations Environmental Laboratory. Soil samples were analyzed as follows:

- 50 soil samples (all 1-foot bgs and 5-foot bgs samples) were analyzed for the California Code of Regulations (CCR) Title 22 Metals including mercury using US EPA Methods 6010B/7471A.
- 50 samples (all 1-foot bgs and 5-foot bgs samples) were analyzed for VOCs using US EPA Method 8260B.
- 50 samples (all 1-foot bgs and 5-foot bgs samples) were analyzed for total extractable petroleum hydrocarbons (TEPH) using modified US EPA Method 8015 (8015M).
- 25 soil samples (one from each boring) were analyzed for semi volatile organic compounds (SVOCs) using US EPA Method 8270C.
- 25 soil samples (one from each boring) were analyzed for polychlorinated biphenyls (PCBs) using US EPA Method 8082A.

Groundwater Samples

The groundwater sample analyses were performed by the LADWP Water Quality and Operations Environmental Laboratory. Groundwater samples were collected from Borings B3, B6, B9, B12, B14, B17, and B19, and analyzed as follows:

- Seven groundwater samples were analyzed for Title 22 Metals including mercury using US EPA Methods 6010B and 7470A.

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- Seven groundwater samples were analyzed for VOCs using US EPA Method 8260B.
- Seven groundwater samples were analyzed for TEPH using US EPA Method 8015M.
- Seven groundwater samples were analyzed for gasoline range organics (GRO) using US EPA Method 8015B.
- Three groundwater samples (B6, B9, and B19) were analyzed for SVOCs using US EPA Method 8270C.
- Three groundwater samples (B6, B9, and B19) were analyzed for PCBs and organochlorine pesticides using US EPA Method 8081A.

Soil Vapor Samples

Soil vapor samples were analyzed by Columbia Analytical Services Inc., located in Simi Valley, California. Samples were analyzed for VOCs using US EPA Method TO-15.

5.0 RESULTS

Field Observations

Soil samples collected from the borings typically consisted of olive brown to reddish gray interbedded sand, sandy clay, silty clay, and clay, to the maximum depth explored (10 feet bgs). Soils collected from borings located adjacent to Fuel Oil Tank No. 450.002 exhibited a mild, sweet odor, while soils collected from borings adjacent to Fuel Oil Tank No. 450.001 and the cutter stock tank had no odor. The maximum PID reading was 22.3 parts per million (ppm), detected at Boring B6 at a depth of 10 feet bgs. Groundwater was encountered in the borings between 8 feet bgs and 14 feet bgs.

Analytical Results

Results are discussed by sample matrix (i.e., soil, groundwater, and soil vapor) below. The complete LADWP Water Quality and Operations Environmental Laboratory and Columbia Analytical Services, Inc. reports are attached.

Soil Samples

Soil samples were analyzed for Title 22 Metals, VOCs, TEPH, SVOCs, and PCBs. Analytical results for the soil samples are summarized in Tables 1 through 3 as follows:

- Table 1 – Results of Title 22 Metal Analysis of Soil Samples. Only the metals that were detected are included in the summary table; the remaining metals were not detected at or above the method detection limits (MDLs) and practical quantitation limits (PQLs) in the analyzed samples.
- Table 2 – Results of TEPH Analysis of Soil Samples.
- Table 3 – Results of SVOC Analysis of Soil Samples. Only SVOCs that were detected are included in the summary table; the remaining target analytes were not detected at or above the MDLs and PQLs in the analyzed samples.

VOCs and PCBs were not detected at or above the MDLs and PQLs in the analyzed soil samples.

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Groundwater Samples

Groundwater samples were analyzed for Title 22 Metals, VOCs, TEPH, GRO, SVOCs, organochlorine pesticides, and PCBs. Analytical results for the groundwater samples are summarized in Tables 4 through 9 as follows:

- Table 4 – Results of Title 22 Metal Analysis of Groundwater Samples. Only the metals that were detected are included in the summary table; the remaining metals were not detected at or above the MDLs and PQLs in the analyzed samples.
- Table 5 – Results of TEPH Analysis of Groundwater Samples.
- Table 6 – Results of GRO Analysis of Groundwater Samples.
- Table 7 – Results of VOC Analysis of Groundwater Samples. Only VOCs that were detected are included in the summary table; the remaining target analytes were not detected at or above the MDLs and PQLs in the analyzed samples.
- Table 8 – Results of SVOC Analysis of Groundwater Samples. Only SVOCs that were detected are included in the summary table; the remaining target analytes were not detected at or above the MDLs and PQLs in the analyzed samples.
- Table 9 – Results of Organochlorine Pesticides Analysis of Groundwater Samples. Only organochlorine pesticides detected are included in the summary table; the remaining target analytes were not detected at or above the MDLs and PQLs in the analyzed samples.

Soil Vapor Samples

Soil vapor samples were analyzed for VOCs. Analytical results for the soil vapor samples are summarized in Table 10, Soil Vapor Results.

6.0 FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

6.1 Findings

Our Phase II Environmental Site Assessment findings are summarized by sample matrix, as follows:

Soil

Detected metals occur naturally in many soils. Their concentrations are compared in Table 1 to selected screening values to assess whether the detected metal concentrations represent a potential environmental concern. The metal screening values include the following:

- State of California Total Threshold Concentration (TTLC) values, which if exceeded would require the material to be disposed of as a hazardous waste if excavated and shipped offsite.
- Ten times the State of California Soluble Threshold Limit Concentration (STLC) values. The STLC is a level that if exceeded would require the material to be disposed of as a hazardous waste if excavated and shipped offsite. Ten times the STLC is an industry-accepted screening level to indicate whether a separate assessment of soluble compounds is warranted.
- US EPA Region 9 Preliminary Remedial Goal (PRG) concentrations for residential and industrial sites. The PRGs are human health risk-based tools for evaluating and cleaning up contaminated sites. They are considered by US EPA to be protective for humans (including sensitive groups) over a lifetime. The residential PRGs are lower and therefore more conservative values than the corresponding values for industrial sites. Generally, at sites

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where contaminant concentrations fall below PRGs, no further action or study is warranted, so long as the exposure assumptions at a site match those taken into account by the PRG calculations. US EPA notes that chemical concentrations exceeding the PRGs do not automatically designate a site as "dirty" or trigger a response action. However, exceeding a PRG suggests that further evaluation of the potential risks that may be posed by site contaminants is appropriate.

Fifteen metals were detected in the analyzed soil samples (Table 1), as follows:

- Antimony was detected in 11 of the 50 soil samples analyzed. Detected concentrations ranged from 1.6 milligrams per kilogram (mg/kg) (a J-flagged value, which indicates an estimated concentration that is above the MDL but below the PQL) in the sample collected from Boring B4 at a depth of 5 feet bgs to 25.3 mg/kg in the sample collected from Boring B1 at a depth of 5 feet bgs. Detected concentrations were below the TTLC value of 500 mg/kg, 10xSTLC value of 15 milligrams per liter (mg/L), the Industrial PRG of 410 mg/kg, and the Residential PRG of 31 mg/kg.
- Arsenic was detected in 48 of the 50 analyzed soil samples. Detected concentrations ranged from 1.7 mg/kg (a J-flagged value) in the samples collected from Borings B1 and B18 at a depth of 1-foot bgs to 81.6 mg/kg in the samples collected from Boring B1 at a depth of 5 feet bgs. Detected concentrations were below the TTLC value of 500 mg/kg, and the non-cancer endpoint Industrial PRG of 260 mg/kg. However, seven samples had concentrations exceeding the arsenic non-cancer endpoint Residential PRG of 22 mg/kg, 48 samples had concentrations exceeding the arsenic cancer endpoint Residential PRG of 0.39 mg/kg, and 48 samples had concentrations exceeding the arsenic cancer endpoint Industrial PRG of 1.6 mg/kg. Two samples had arsenic concentrations that exceeded the 10xSTLC value of 50 mg/kg. Samples collected from Boring B1 at a depth of 5 feet bgs and Boring B8 at a depth of 5 feet bgs had arsenic concentrations of 81.6 mg/kg and 50.4 mg/kg, respectively. STLC analysis was performed on these samples and detected concentrations of 2.259 mg/L for sample B1-5 and 1.908 mg/L for B8-5 were below the arsenic STLC limit.
- Barium was detected in all 50 analyzed soil samples. Detected concentrations ranged from 30.6 mg/kg in the sample collected from Boring B23 at a depth of 5 feet bgs to 189.7 mg/kg in the sample collected from Boring B24 at a depth of 1 foot bgs. Detected concentrations were below the TTLC value of 10,000 mg/kg, 10xSTLC value of 1,000 mg/kg, the Industrial PRG of 67,000 mg/kg, and the Residential PRG of 5,400 mg/kg.
- Beryllium was detected in 29 of the 50 analyzed soil samples. Detected concentrations ranged from 0.3 mg/kg (J-flagged value) in five samples to 0.7 mg/kg (J-flagged value) in the sample collected from Boring B12 at 5 feet bgs. Detected concentrations were below the TTLC value of 75 mg/kg, 10xSTLC value of 7.5 mg/kg, the Industrial PRG of 1,900 mg/kg, and the Residential PRG of 150 mg/kg.
- Cadmium was detected in all 50 analyzed soil samples. Detected concentrations ranged from 0.8 mg/kg (J-flagged value) in the samples collected from Borings B1 at a depth of 1 foot bgs and B23 at a depth of 5 feet bgs to 4.2 mg/kg in the sample collected from Boring B15 at a depth of 1 foot bgs. Detected concentrations were below the TTLC value of 100 mg/kg, 10xSTLC value of 10 mg/kg, the Industrial PRG of 450 mg/kg, and the Residential PRG of 37 mg/kg.
- Total chromium was detected in all 50 analyzed soil samples. Detected concentrations ranged from 7.4 mg/kg in the sample collected from Boring B23 at a depth of 5 feet bgs to 88.1 mg/kg in the sample collected from Boring B16 at a depth of 1 foot bgs. Detected concentrations were below the TTLC value of 500 mg/kg, the Industrial PRG of 450 mg/kg, and the Residential PRG of 210 mg/kg. However, two samples had total chromium concentrations that exceeded the ten times the toxicity characteristic leaching procedure (10xTCLP) value of 50 mg/kg. Samples collected from Boring B16 at a depth of 1 foot bgs

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and Boring B20 at a depth of 1 foot bgs had total chromium concentrations of 88.1 mg/kg and 71.8 mg/kg, respectively. STLC/TCLP analysis was performed on these samples and the detected concentrations of 1.138 mg/L for sample B16-1 and 1.317 mg/L for B20-1 were below the STLC and TCLP limits.

- Cobalt was detected in all 50 analyzed soil samples. Detected concentrations ranged from 3.9 mg/kg in the sample collected from Boring B23 at a depth of 5 feet bgs to 29.9 mg/kg in the sample collected from Boring B15 at a depth of 1 foot bgs. Detected concentrations were below the TTLC value of 8,000 mg/kg, 10xSTLC value of 800 mg/kg, the Industrial PRG of 1,900 mg/kg, and the Residential PRG of 900 mg/kg.
- Copper was detected in all 50 analyzed soil samples. Detected concentrations ranged from 1.6 mg/kg in the sample collected from Boring B23 at a depth of 5 feet bgs to 38.4 mg/kg in the sample collected from Boring B15 at a depth of 1 foot bgs. Detected concentrations were below the TTLC value of 2,500 mg/kg, 10xSTLC value of 250 mg/kg, the Industrial PRG of 41,000 mg/kg, and the Residential PRG of 3,100 mg/kg.
- Lead was detected in all 50 analyzed soil samples. Detected concentrations ranged from 1.8 mg/kg (J-flagged value) in the sample collected from Boring B23 at a depth of 5 feet bgs to 85.4 mg/kg in the sample collected from Boring B23 at a depth of 1 foot bgs. Detected concentrations were below the TTLC value of 1,000 mg/kg, the Industrial PRG of 750 mg/kg, and the Residential PRG of 400 mg/kg. However, one sample had a lead concentration that exceeded the 10xSTLC value of 50 mg/kg. The sample collected from Boring B23 at a depth of 1 foot bgs had a lead concentration of 85.4 mg/kg. STLC analysis was performed on this sample and the detected concentration of 0.847 mg/L was below the STLC limit.
- Molybdenum was detected in 20 of the 50 analyzed soil samples. Detected concentrations ranged from 0.3 mg/kg (J-flagged value) in the sample collected from Boring B19 at a depth of 5 feet bgs to 13.0 mg/kg in the sample collected from Boring B1 at a depth of 5 feet bgs. Detected concentrations were below the TTLC value of 3,500 mg/kg, 10xSTLC value of 3,500 mg/kg, the Industrial PRG of 5,100 mg/kg and the Residential PRG of 390 mg/kg.
- Nickel was detected in all 50 analyzed soil samples. Detected concentrations ranged from 2.2 mg/kg in the sample collected from Boring B23 at a depth of 5 feet bgs to 28.2 mg/kg in the sample collected from Boring B15 at a depth of 1 foot bgs. Detected concentrations were below the TTLC value of 2,000 mg/kg, 10xSTLC value of 200 mg/kg, the Industrial PRG of 20,000 mg/kg, and the Residential PRG of 1,600 mg/kg.
- Selenium was detected in 14 of the 50 analyzed soil samples. Detected concentrations ranged from 0.8 mg/kg (J-flagged value) in the sample collected from Boring B4 at a depth of 1 foot bgs to 39.4 mg/kg in the sample collected from Boring B22 at a depth of 1 foot bgs. Detected concentrations were below the TTLC value of 100 mg/kg, the Industrial PRG of 5,100 mg/kg, and the Residential PRG of 390 mg/kg. However, eight samples had selenium concentrations that exceeded the 10xSTLC value of 10 mg/kg. STLC analysis was performed on these samples and seven of the sample concentrations were below the MDL. One sample, collected from Boring B24 at a depth of 1 foot bgs had a detected STLC concentration of 3.582 mg/L which exceeds the STLC limit of 1 mg/L. The sample was analyzed using the TCLP and the detected of concentration of 0.339 mg/L was below he TCLP limit.
- Vanadium was detected in all 50 analyzed soil samples. Detected concentrations ranged from 9.2 mg/kg in the sample collected from Boring B23 at a depth of 5 feet bgs to 68.8 mg/kg in the sample collected from Boring B15 at a depth of 1 foot bgs. Detected concentrations were below the TTLC value of 2,400 mg/kg, 10xSTLC value of 240 mg/kg, the Industrial PRG of 7,200 mg/kg, and the Residential PRG of 550 mg/kg.

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- Zinc was detected in all 50 analyzed soil samples. Detected concentrations ranged from 11.5 mg/kg in the sample collected from Boring B23 at a depth of 5 feet bgs to 1,052.0 mg/kg in the sample collected from Boring B24 at a depth of 1 foot bgs. Detected concentrations were below the TTLC value of 5,000 mg/kg, 10xSTLC value of 2,500 mg/kg, the Industrial PRG of 100,000 mg/kg, and the Residential PRG of 23,000 mg/kg.
- Mercury was detected in analyzed 39 of the 50 soil samples. Detected concentrations ranged from 0.0209 mg/kg (J-flagged value) in the sample collected from Boring B23 at a depth of 1 foot bgs to 0.228 mg/kg in the sample collected from Boring 14 at a depth of 1 foot bgs. Detected concentrations were below the TTLC value of 20 mg/kg, 10xSTLC value of 2.0 mg/kg, the Industrial PRG of 310 mg/kg, and the Residential PRG of 23 mg/kg.

Analytical results of soil analyses indicated that TEPH was detected in 22 of the analyzed soil samples (Table 2). Detected concentrations of TEPH ranged from 1.0 mg/kg (a J-flagged value) in the sample collected from Boring B26 at a depth of 1 foot bgs to 25.1 mg/kg in the sample collected from Boring B12 at a depth of 5 feet bgs.

Three SVOCs were detected in the analyzed soil samples (Table 3), as follows:

- Bis(2-ethylhexyl)phthalate was detected in 16 of the 25 analyzed soil samples. Detected concentrations ranged from 78 micrograms per kilogram (µg/kg) (J-flagged value) in the soil sample collected from Boring B14 at a depth of 5 feet bgs to 4,667 µg/kg in the soil sample collected from Boring B18 at a depth of 1 foot bgs. Detected concentrations were below the Residential PRG of 35,000 µg/kg and the Industrial PRG of 120,000 µg/kg.
- di-n-Butylphthalate was detected in four of the 25 analyzed soil samples. Detected concentrations ranged from 232 µg/kg (J-flagged value) in the soil sample collected from Boring B25 at a depth of 1 foot bgs to 605 µg/kg in the soil sample collected from Boring B17 at a depth of 1 foot bgs. Detected concentrations were below the Residential PRG of 6,100,000 µg/kg and the Industrial PRG of 62,000,000 µg/kg.
- Pyrene was detected in one of the 25 analyzed soil samples, at a concentration of 128 µg/kg (J-flagged value) in the soil sample collected from Boring B7 at a depth of 1 foot bgs. This concentration is below the Residential PRG of 2,300,000 µg/kg and the Industrial PRG of 29,000,000 µg/kg for pyrene.

Groundwater

California Primary Drinking Water Maximum Contaminant Levels (MCLs) and US EPA Region 9 Tap Water PRGs are presented in Tables 4 through 9 for comparison with the groundwater analytical results. MCLs are enforceable drinking water standards. Primary MCLs address potential health risks, while secondary MCLs address esthetics, such as taste and odor. The Tap Water PRGs are human health risk-based tools that consider ingestion and inhalation exposures to contaminants in water.

Fourteen metals were detected in the seven analyzed groundwater samples collected from Borings B3, B6, B9, B12, B14, B17, and B19 (Table 4), as follows:

- Antimony was detected in four of the seven groundwater samples, at concentrations ranging from 0.025 mg/L (J-flagged value) in the samples collected from Boring B3 and B19 to 0.139 mg/L in the sample collected from Boring B14. The four groundwater samples (B3, B14, B17, and B19) had concentrations of antimony that exceeded both the Tap Water PRG of 0.015 mg/L and the Primary MCL of 0.006 mg/L.
- Arsenic was detected in all seven groundwater samples, at concentrations ranging from 0.382 mg/L in the sample collected from Boring B12 to 1.686 mg/L in the sample collected from Boring B3. Concentrations of arsenic in all seven groundwater samples exceeded the

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Primary MCL of 0.05 mg/L, and six of the samples (with the exception of the sample from Boring B12) had arsenic concentrations that exceeded the Tap Water PRG of 0.45 mg/L.

- Barium was detected in all seven groundwater samples, at concentrations ranging from 0.63 mg/L in the sample collected from Boring B6 to 6.46 mg/L in the sample collected from Boring B17. Five of the groundwater samples (B3, B9, B12, B14, and B17) had barium concentrations that exceeded the Primary MCL of 1 mg/L. Three of these samples (B3, B9, and B17) also had barium concentrations that exceeded the Tap Water PRG of 2.6 mg/L.
- Beryllium was detected in five of the seven groundwater samples, at concentrations ranging from 0.007 mg/L (J-flagged value) in the sample collected from Boring B14 to 0.041 mg/L in the sample collected from Boring B17. The detected concentrations are below the Tap Water PRG of 0.073 mg/L but above the Primary MCL of 0.004 mg/L.
- Cadmium was detected in all seven groundwater samples, at concentrations ranging from 0.017 mg/L (J-flagged value) in the sample collected from Boring B19 to 0.155 mg/L in the sample collected from Boring B17. Concentrations of cadmium in all seven groundwater samples exceeded the Primary MCL of 0.005 mg/L, and six of the samples (that is, except the sample collected from Boring B19) had cadmium concentrations that exceeded the Tap Water PRG of 0.018 mg/L.
- Total chromium was detected in all seven groundwater samples, at concentrations ranging from 0.161 mg/L in the sample collected from Boring B6 to 1.597 mg/L in the sample collected from Boring B17. Concentrations of total chromium in all seven groundwater samples exceeded the Primary MCL of 0.05 mg/L, but all concentrations were below the Tap Water PRG for trivalent chromium of 55 mg/L (there is no total chromium Tap Water PRG)..
- Cobalt was detected in all seven groundwater samples, at concentrations ranging from 0.108 mg/L in the sample collected from Boring B6 to 0.956 mg/L in the sample collected from Boring B17. Two groundwater samples (B3 and B17) had cobalt concentrations that exceeded the Tap Water PRG of 0.73 mg/L. A drinking water MCL is not listed for cobalt.
- Copper was detected in all seven groundwater samples, at concentrations ranging from 0.250 mg/L in the sample collected from Boring B6 to 1.180 mg/L in the sample collected from Boring B17. Two groundwater samples (B3 and B17) had concentrations of copper that exceeded the Secondary MCL of 1.0 mg/L, and the sample from Boring B17 also exceeded the Tap Water PRG of 1.5 mg/L.
- Lead was detected in all seven groundwater samples, at concentrations ranging from 0.066 mg/L (J-flagged value) in the sample collected from Boring B6 to 0.834 mg/L in the sample collected from Boring B17. Concentrations in all seven groundwater samples exceeded the CCR lead Drinking Water Action Limit of 0.015 mg/L. A Tap Water PRG is not listed for lead.
- Molybdenum was detected in five of the seven groundwater samples, at concentrations ranging from 0.004 mg/L (J-flagged value) in the sample collected from Boring B9 to 0.174 mg/L in the sample collected from Boring B14. Detected concentrations were below the Tap Water PRG of 0.18 mg/L. A drinking water MCL is not listed for molybdenum.
- Nickel was detected in all seven groundwater samples, at concentrations ranging from 0.124 mg/L in the sample collected from Boring B6 to 0.862 mg/L in the sample collected from Boring B17. Concentrations in all seven groundwater samples exceeded the Primary MCL of 0.1 mg/L, but only concentrations in the samples collected from Borings B7 and B17 exceeded the Tap Water PRG of 0.73 mg/L.
- Selenium was detected in three of the seven groundwater samples, at concentrations ranging from 0.038 mg/L (J-flagged value) in the sample collected from Boring B17 to 0.241 mg/L in the sample collected from Boring B14. The three detected concentrations exceed the Primary

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MCL of 0.05 mg/L, however only one sample, collected from Boring B14, exceeds the Tap Water PRG of 0.18 mg/L.

- Vanadium was detected in all seven groundwater samples, at concentrations ranging from 0.266 mg/L in the sample collected from Boring B6 to 2.382 mg/L in the sample collected from Boring B17. Concentrations in all seven groundwater samples exceeded the Tap Water PRG of 0.26 mg/L. A drinking water MCL is not listed for vanadium.
- Zinc was detected in all seven groundwater samples, at concentrations ranging from 0.301 mg/L in the sample collected from Boring B6 to 4.620 mg/L in the sample collected from Boring B17. Concentrations in all groundwater samples were below the Tap Water PRG of 11 mg/L and the Secondary MCL of 5.0 mg/L.

Analytical results of groundwater analyses indicated that TEPH was detected in four of the seven samples (Table 5). Detected concentrations of TEPH ranged from 0.09 mg/L (a J-flagged value) in the sample collected from Boring B3 to 58.7 mg/L in the sample collected from Boring B17.

Analytical results of groundwater analyses indicated that GRO was detected in four of the seven samples (Table 6). Detected concentrations of GRO ranged from 0.03 mg/L (a J-flagged value) in the sample collected from Boring B3 to 2.2 mg/L in the sample collected from Boring B17.

Twenty-three VOCs were detected in one or more of the analyzed groundwater samples (Table 7), 11 of which had concentrations exceeding the Tap Water PRG and/or the Primary MCL for the respective VOCs:

- Benzene was detected at a concentration of 1.27 µg/L in the groundwater sample collected from Boring B17. This exceeds both the Tap Water PRG of 0.34 µg/L and the Primary MCL of 1 µg/L.
- Bromodichloromethane was detected at a concentration of 5.63 µg/L in the groundwater sample collected from Boring B12. This exceeds the Tap Water PRG of 0.18 µg/L.
- Chloroform was detected at a concentration of 8.57 µg/L in the groundwater sample collected from Boring B12. This exceeds the Tap Water PRG of 6.2 µg/L.
- Dibromochloromethane was detected at a concentration of 2.35 µg/L in the groundwater sample collected from Boring B12. This exceeds the Tap Water PRG of 0.13 µg/L.
- 1,1-Dichloroethane was detected at a concentration of 44.1 µg/L in the groundwater sample collected from Boring B6. This exceeds the Primary MCL of 5 µg/L.
- cis-1,2-Dichloroethene was detected at a concentration of 761 µg/L in the groundwater sample collected from Boring B6. This exceeds both the Tap Water PRG of 61 µg/L and the Primary MCL of 6 µg/L.
- trans-1,2-Dichloroethene was detected at a concentration of 78.4 µg/L in the groundwater sample collected from Boring B6. This exceeds the Primary MCL of 10 µg/L.
- Ethylbenzene was detected at a concentration of 14.9 µg/L in the groundwater sample collected from Boring B17. This exceeds the Tap Water PRG of 2.9 µg/L.
- Naphthalene was detected at a concentration of 45.7 µg/L in the groundwater sample collected from Boring B17. This exceeds the Tap Water PRG of 6.2 µg/L.
- Trichloroethylene was detected at a concentration of 0.743 µg/L (J-flagged value) in the groundwater sample collected from Boring B6 and at a concentration of 0.262 µg/L (J-flagged value) in the groundwater sample collected from Boring B12. These concentrations exceed the Tap Water PRG of 0.028 µg/L.
- Vinyl chloride (chloroethene) was detected at a concentration of 2.49 µg/L in the groundwater sample collected from Boring B6. This exceeds both the Tap Water PRG of 0.02 µg/L and the Primary MCL of 0.5 µg/L.

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The VOCs methyl ethyl ketone, butylbenzene, tert-butylbenzene, carbon disulfide, 1,1-dichloroethene, isopropylbenzene, p-isopropyltoluene, propylbenzene, toluene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and m & p-xylenes were also detected in one or more samples, but at concentrations below the respective Tap Water PRGs and Primary MCLs (where listed).

Three of the groundwater samples (B6, B9, and B19) were analyzed for SVOCs (Table 8). The groundwater sample collected from Boring B6 had no detectable SVOCs. Five SVOCs were detected in one or both of the other groundwater samples (Table 8), as follows:

- Bis(2-ethylhexyl)phthalate was detected at a concentration of 1 µg/L in the groundwater sample collected from Boring B9. This is below the Tap Water PRG of 4.8 µg/L.
- Five SVOCs were detected in the groundwater sample collected from Boring B19. Bis(2-ethylhexyl)phthalate, diethyl phthalate, fluoranthene, phenol, and pyrene were all detected at concentrations below their respective Tap Water PRGs.

Analytical results indicate that one organochlorine pesticide was detected in one of the three groundwater samples analyzed (Table 9). Beta-hexachlorocyclohexane (beta-BHC) was detected in the groundwater sample collected from Boring B9 at a concentration of 0.03 µg/L. This is below the Tap Water PRG of 0.037 µg/L.

Soil Vapor

For illustrative purposes the San Francisco Regional Water Quality Control Board (SFRWQCB) Residential Environmental Screening Levels (ESLs) are presented in Tables 10 for comparison with the soil vapor analytical results (local agency guidelines for soil vapor do not exist). ESLs are guidelines for risk-based screening of potential environmental concerns at sites with impacted soil and groundwater. Seven soil vapor probes were installed at Borings B3, B6, B9, B12, B14, B17, and B19 (Table 10). Analytical results indicate that 14 VOCs were detected in one or more of the samples collected from the seven probes.

- Chloromethane was detected in three soil vapor samples at concentrations ranging from 5.6 micrograms per cubic meter (µg/m^3) in the sample collected from Boring B17 to 55 µg/m^3 in the sample collected from Boring B19. Detected concentrations are below the Residential ESL of 1,400 µg/m^3 and the Industrial ESL of 4,500 µg/m^3.
- Bromomethane was detected at a concentration of 9.8 µg/m^3 in the soil vapor sample collected from Boring B19. This is below the Residential ESL of 1,000 µg/m^3 and the Industrial ESL of 2,900 µg/m^3.
- Acetone was detected in five soil vapor samples, at concentrations ranging from 19 µg/m^3 in the sample collected from Boring B3 to 99 µg/m^3 in the sample collected from Boring B17. Concentrations are below the Residential ESL of 73,000 µg/m^3 and the Industrial ESL of 200,000 µg/m^3.
- Trichlorofluoromethane was detected in three soil vapor samples, at concentrations ranging from 2.2 µg/m^3 in the sample collected from Boring B12 to 9.7 µg/m^3 in the sample collected from Boring B4. An ESL is not available for trichlorofluoromethane; however, concentrations are below the Ambient Air PRG of 730 µg/m^3.
- Carbon disulfide was detected in two soil vapor samples, at concentrations of 1.5 µg/m^3 in the sample collected from Boring B9 and 8.2 µg/m^3 in the sample collected from Boring B19. An ESL is not available for carbon disulfide; however, concentrations are below the Ambient Air PRG of 730 µg/m^3.
- Trans-1,2-Dichloroethene was detected at a concentration of 110 µg/m^{3}in the soil vapor sample collected from Boring B6. This is below the Residential ESL of 15,000 µg/m^3 and the Industrial ESL of 41,000 µg/m^3.

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- 1,1-Dichloroethane was detected at a concentration of 58 $\mu g/m^3$ in the soil vapor sample collected from Boring B6. This is below the Residential ESL of 1,500 $\mu g/m^3$ and the Industrial ESL of 5,100 $\mu g/m^3$.
- Vinyl acetate was detected in two soil vapor samples at concentrations of 7.2 $\mu g/m^3$ in the sample collected from Boring B9 and 8.9 $\mu g/m^3$ in the soil sample collected from Boring B19. An ESL is not available for vinyl acetate; however, concentrations are below the Ambient Air PRG of 210 $\mu g/m^3$.
- 2-Butanone (methyl ethyl ketone) was detected in six soil vapor samples, at concentrations ranging from 5.5 $\mu g/m^3$ in the sample collected from Boring B3 to 31 $\mu g/m^3$ in the sample collected from Boring B17. Concentrations are below the Residential ESL of 210,000 $\mu g/m^3$ and the Industrial ESL of 580,000 $\mu g/m^3$.
- cis-1,2-Dichloroethene was detected at a concentration of 810 $\mu g/m^3$ in the soil vapor sample collected from Boring B6. This is below the Residential ESL of 7,300 $\mu g/m^3$ and the Industrial ESL of 20,000 $\mu g/m^3$.
- 1,1,1-Trichloroethane was detected in two soil vapor samples, at concentrations of 5.4 $\mu g/m^3$ in the sample collected from Boring B9 and 9.0 $\mu g/m^3$ in the sample collected from Boring B19. Concentrations are below the Residential ESL of 46,000 $\mu g/m^3$ and the Industrial ESL of 130,000 $\mu g/m^3$.
- Trichloroethene (trichloroethylene) was detected in two soil vapor samples, at concentrations of 2.9 $\mu g/m^3$ in the sample collected from Boring B9 and 520 $\mu g/m^3$ in the sample collected from Boring B6. Concentrations are below the Residential ESL of 1,200 $\mu g/m^3$ and the Industrial ESL of 4,100 $\mu g/m^3$.
- Toluene was detected at a concentration of 1.5 $\mu g/m^3$ in the soil vapor sample collected from Boring B12. This is below the Residential ESL of 83,000 $\mu g/m^3$ and the Industrial ESL of 230,000 $\mu g/m^3$.
- Tetrachloroethene was detected in six soil vapor samples, at concentrations ranging from 20 $\mu g/m^3$ in the sample collected from Boring B12 to 79 $\mu g/m^3$ in the sample collected from Boring B14. Concentrations are below the Residential ESL of 410 $\mu g/m^3$ and the Industrial ESL of 1,400 $\mu g/m^3$.

6.2 Conclusions

Soil

The results of soil sample analysis were evaluated with respect to Residential PRGs, Industrial PRGs, and other appropriate regulatory thresholds to assess whether detected contaminants are present at levels that may represent a potential health risk. The following summarizes the results of this assessment:

- Fifteen metals were detected in the 50 analyzed soil samples. With the exception of arsenic, the detected metal concentrations were below their respective Residential and Industrial PRGs. Forty-eight samples had arsenic concentrations that exceed the arsenic cancer endpoint Residential PRG, and therefore exposure to these soils may be a potential concern to human health.
- The 1-foot bgs soil sample from Boring B24 failed the selenium STLC test.
- Three SVOCs were detected in one or more of the 16 of the 25 soil samples analyzed. Concentrations were below the respective Industrial PRGs.
- The maximum concentration of TEPH in the 50 analyzed soil samples was 25.1 mg/kg, a level that in our opinion is not a concern to human health.

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- VOCs were not detected in the 50 analyzed soil samples.
- PCBs were not detected in the 25 analyzed soil samples.

Groundwater

US EPA Region 9 PRGs for Tap Water and California Primary Drinking Water MCLs are presented in Tables 4 through 9 for comparison with the groundwater analytical results.

Fourteen metals were detected in the seven analyzed groundwater sample. Eleven metals were detected at concentrations that exceed their respective PRGs and/or MCLs. The metals of concern are as follows:

- Antimony – the Tap Water PRG and the Primary MCL were exceeded by four of the analyzed groundwater samples.
- Arsenic – the Tap Water PRG was exceeded by six of the groundwater samples and the Primary MCL was exceeded by all seven analyzed groundwater samples.
- Barium – the Tap Water PRG was exceeded by three of the groundwater samples and the Primary MCL was exceeded by five of the analyzed groundwater samples.
- Cadmium – the Tap Water PRG was exceeded by six of the groundwater samples and the Primary MCL was exceeded by all seven of the analyzed groundwater samples.
- Total chromium – the Primary MCL was exceeded by all seven of the analyzed groundwater samples.
- Cobalt – the Tap Water PRG was exceeded by two of the analyzed groundwater samples.
- Copper – the Secondary MCL was exceeded by two of the analyzed groundwater samples, and also exceeded the Tap Water PRG.
- Lead – the CCR lead Drinking Water Action Level was exceeded by all seven of the analyzed groundwater samples.
- Nickel – the Primary MCL was exceeded by all seven of the groundwater samples, and two samples also exceeded the Tap Water PRG.
- Selenium – the Tap Water PRG was exceeded by one of the groundwater samples and the Primary MCL was exceeded by three of the groundwater samples.
- Vanadium – the Tap Water PRG was exceeded by all seven of the groundwater samples.

Twenty-three VOCs were detected in the seven analyzed groundwater samples. Eleven VOCs were detected at concentrations that exceed the respective Tap Water PRGs and/or Primary MCLs. These VOCs are as follows:

- Benzene – the Tap Water PRG and Primary MCL was exceeded by one of the groundwater samples.
- Bromodichloromethane – the Tap Water PRG was exceeded by one of the groundwater samples.
- Chloroform – the Tap Water PRG was exceeded by one of the groundwater samples.
- Dibromochloromethane – the Tap Water PRG was exceeded by one of the groundwater samples.
- 1,1-Dichloroethane – the Primary MCL was exceeded by one of the groundwater samples.
- cis-1,2-Dichloroethene – the Tap Water PRG and Primary MCL were exceeded by one of the groundwater samples.

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- trans-1,2-Dichloroethene – the Primary MCL was exceeded by one of the groundwater samples.
- Ethylbenzene – the Tap Water PRG was exceeded by one of the groundwater samples.
- Naphthalene – the Tap Water PRG was exceeded by one of the groundwater samples.
- Trichloroethylene – the Tap Water PRG was exceeded by two of the groundwater samples.
- Vinyl chloride – the Tap Water PRG and Primary MCL were exceeded by one of the groundwater samples.

Five SVOCs (bis(2-ethylhexyl)phthalate, diethyl phthalate, fluoranthene, phenol, and pyrene) were detected in either one or two of the three analyzed groundwater samples. Concentrations were below the respective Tap Water PRGs and drinking water MCLs.

One organochlorine pesticide (beta-BHC) was detected in one of the three analyzed groundwater samples, at a concentration below the Tap Water PRG.

The maximum concentration of TEPH in the seven groundwater samples analyzed was 58.7 mg/L, a level that in our opinion is not a concern to human health.

The maximum concentration of GRO in the seven groundwater samples analyzed was 2.2 mg/L, a level that in our opinion is not a concern to human health.

Soil vapor

ESLs are human health risk-based tools for evaluating contaminated soils at sites. The analytical results of the soil vapor sample analysis were compared to the Residential and Industrial ESLs. Fourteen VOCs were detected in the seven analyzed soil vapor samples. The detected concentrations were below their respective Residential and Industrial ESLs.

6.2 Summary and Recommendations

The soil sampling analytical results indicate that arsenic in soil may be a concern at the site, with several soil samples having concentrations exceeding the arsenic Residential PRG. This may pose a potential concern if the site is developed as a public park. The arsenic-affected soils appear to be distributed relatively uniformly throughout the site, with only 1-foot and/or 5-foot bgs samples exceeding the PRG; therefore, the elevated arsenic levels may be region wide, and since arsenic naturally occurs in the Los Angeles Basin, the onsite arsenic concentrations may be comparable with those of the surrounding area. However, there is no available sampling data for comparison of the onsite concentrations to those of the surrounding area.

Selenium was detected at a hazardous concentration in one soil sample. Soil at this location may require removal and appropriate offsite disposal, if the site is developed into a park.

Chlorinated solvents were detected in the groundwater sampled from Borings B6 and B12. Concentrations of the chlorinated solvent bromodichloromethane, chloroform, dibromochloromethane, and trichloroethylene detected at Boring B12 exceeded the Tap Water PRGs. The presence of these chlorinated solvents in the groundwater pose a potential health risk because there is potential for release of the contaminants through soil vapor.

Concentrations of 1,1-dichloroethane, cis-1,2-dichloroethene, trans-1,2-dichloroethene, trichloroethylene, and vinyl chloride detected in the groundwater sample collected from Boring B6 exceed the respective drinking water MCLs and/or the Tap Water PRGs. The presence of these chlorinated solvents in the groundwater poses a potential health risk because there is potential for release of the contaminants through soil vapor.

Benzene, ethylbenzene, and naphthalene were detected in the groundwater collected from Boring B17 at concentrations that exceed Tap Water PRGs.

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Metals have been detected at concentrations that exceed both PRGs and MCLs at all seven of the groundwater sampling locations. The onsite metal concentrations may be comparable with those of the surrounding area. However, there is no available sampling data for comparison of the onsite concentrations to those of the surrounding area.

The fuel oil tanks contain Fuel Oil #6, a thick product with a wax-like consistency. The analytical results for the soils adjacent to the tanks indicate that soils have not been impacted by the storage of Fuel Oil #6, therefore it is Kleinfelder's opinion that the VOC impacted groundwater is potentially from an offsite source.

Soils with concentrations of arsenic above the residential PRGs, selenium exceeding the STLC test, and groundwater containing metals and VOCs that exceed Tap Water PRGs and/or MCLs pose potential concerns for human health if the proposed development of the site to a public park proceeds. Kleinfelder recommends that a Health Based Risk Assessment (HBRA) be performed to assess whether remediation of soil and/or groundwater is warranted prior to redevelopment of the site.

7.0 LIMITATIONS

The scope of services on this project was presented in Kleinfelder's May 3, 2004 *Revised Proposal For Phase II Environmental Site Assessment.* The services performed were based on specific requests from LADWP. Kleinfelder's scope of services was limited to items specifically identified in the proposal. Environmental issues not specifically addressed in the proposal and/or this report were beyond the scope of our services and not included in our evaluation.

This environmental investigation report is based on the following:

- Sampling of soil from 25 direct-push soil borings at locations selected by LADWP.
- Sampling of groundwater at seven of the borings as selected by LADWP.
- Sampling of soil vapor at seven of the borings as selected by LADWP.
- Observations made by Kleinfelder field personnel.
- Results of soil and groundwater laboratory analyses performed by the LADWP Water Quality and Operations Environmental Laboratory.
- Results of soil vapor laboratory analyses performed by Columbia Analytical Services, Inc.

The Client is solely responsible for notifying the property owner, all government agencies, and the public at large, of the existence, release, treatment, or disposal of any hazardous materials observed at the Site, either before or during performance of Kleinfelder's services. Kleinfelder assumes no responsibility or liability whatsoever for any claim, loss of property value, damage, or injury which results from pre-existing hazardous materials being encountered or present on the Site, or from the discovery of such hazardous materials in the future.

This report should be used only within a reasonable time from its issuance. Land use, site conditions (both onsite and offsite) or other factors may change over time, and additional work may be required with the passage of time. Any party other than LADWP, who wishes to use this report, shall notify Kleinfelder of such intended use. Based on the intended use of this report, Kleinfelder may require that additional work be performed and that an updated report be issued. Non-compliance with any of these requirements by LADWP, or anyone else, will release Kleinfelder from any liability resulting from the use of this report by any unauthorized party.

The scope of services performed for this project is not intended to be all-inclusive, identify all potential concerns, or to eliminate the possibility of having some degree of environmental problem. It is possible that variations in the soil or groundwater conditions could exist beyond the points explored in this project. Additionally, unpermitted, undocumented, or concealed improvements to the site could exist beyond points explored during the course of the project.

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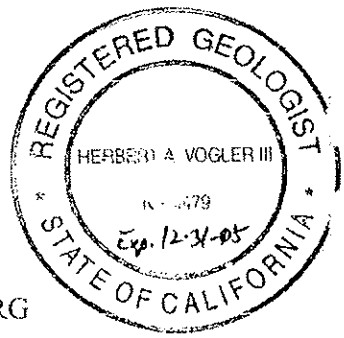
Also, changes in the conditions found could occur at some time in the future due to variations in rainfall, temperature, regional water usage, or other factors. Geologic data are for LADWP's information, and should not be used for geotechnical purposes.

Services performed by Kleinfelder have been performed in a manner consistent with the level and skill ordinarily exercised by members of our profession currently practicing in Southern California. No other representations, expressed or implied, and no warranty or guarantee are included or intended in this report.

8.0 CLOSING REMARKS

We thank you for the opportunity to provide Kleinfelder's professional environmental services and look forward to working with LADWP on other projects. Please do not hesitate to call the undersigned should you have any questions.



Sincerely,

KLEINFELDER, INC.

Carolyn P. Bloomfield

Carolyn (Lyn) P. Bloomfield, Ph.D.
Project Manager

Herbert (Bert) A. Vogler III, RG
Senior Project Manager

Attachments: Tables
Plates
LADWP Environmental Laboratory Analytical Report
Columbia Analytical Services, Inc. Report

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RISK ANALYSIS OF
LADWP MARINE TANK FARM

1. PURPOSE OF ANALYSIS

The purpose of this risk analysis is to calculate the size of the hazard footprints created by the Los Angeles Department of Water and Power (LADWP) Marine Tank Farm located at 130 West A Street in Wilmington, California. The risk analysis has been conducted in accordance with the Port's Risk Management Plan (RMP) (Port of Los Angeles 1983) which is part of the Port's Certified Master Plan. All hazard footprint calculations have been done using the Port's Hazard Footprint Program (HFCP) developed in conjunction with the Risk Management Plan. A hazard footprint is defined by the RMP as a diagram indicating the extent of the area within which a specified level of adverse effect is exceeded against a specified vulnerable resource. The overall policy of the RMP is the minimization or elimination of overlaps of hazard footprints and vulnerable resources.

2. PROJECT DESCRIPTION

Information on the LADWP Marine Tank Farm was obtained from a Phase II Environmental Site Assessment (Kleinfelder 2004) of the tank farm and from Google Maps. Figure 1 shows the location of the facility.

Figure 2 shows the layout of the facility. There are a total of three tanks located within two diked areas. Two 450,000 bbl capacity tanks are located in one diked area and one 30,000 gal capacity tank is located in a separate diked area. The capacities of the storage tanks were estimated based on their diameter as estimated from Google Maps and their identification number as presented in the Phase II Environmental Site Assessment. It is quite common to identify and number storage tanks based on their capacity. Hence, the tanks identified in Figure 2 as Fuel Oil Tank 450.001 and Fuel Tank 450.002 most likely have a capacity of 450,000 bbl. This capacity is consistent with tanks that have a diameter or around 225 ft as estimated from Google Maps. Likewise, CS Tank 30.001 is assumed to have a capacity of 30,000 bbl. It is quit obvious from the Google aerial photos that CS Tank 30.001 is an external floating roof tank. Based on the size of the two large tanks, the product listed as being stored in them (fuel oil), and on the Google aerial photo, it is believed that the tanks have internal floating roofs. Because it has not been verified at this time that the two large tanks have internal floating roofs, an excursion case has been analyzed assuming that the two tanks are fixed roof.

The areas encompassed by the two diked areas have been estimated from Google Maps. The area of the dike surrounding CS Tank 30.001 is estimated to be 22,400 sq ft while the area of the dike surrounding the two large tanks is estimated to be 270,000 sq ft.

Figure 1 Location of LADWP Marine Tank Farm

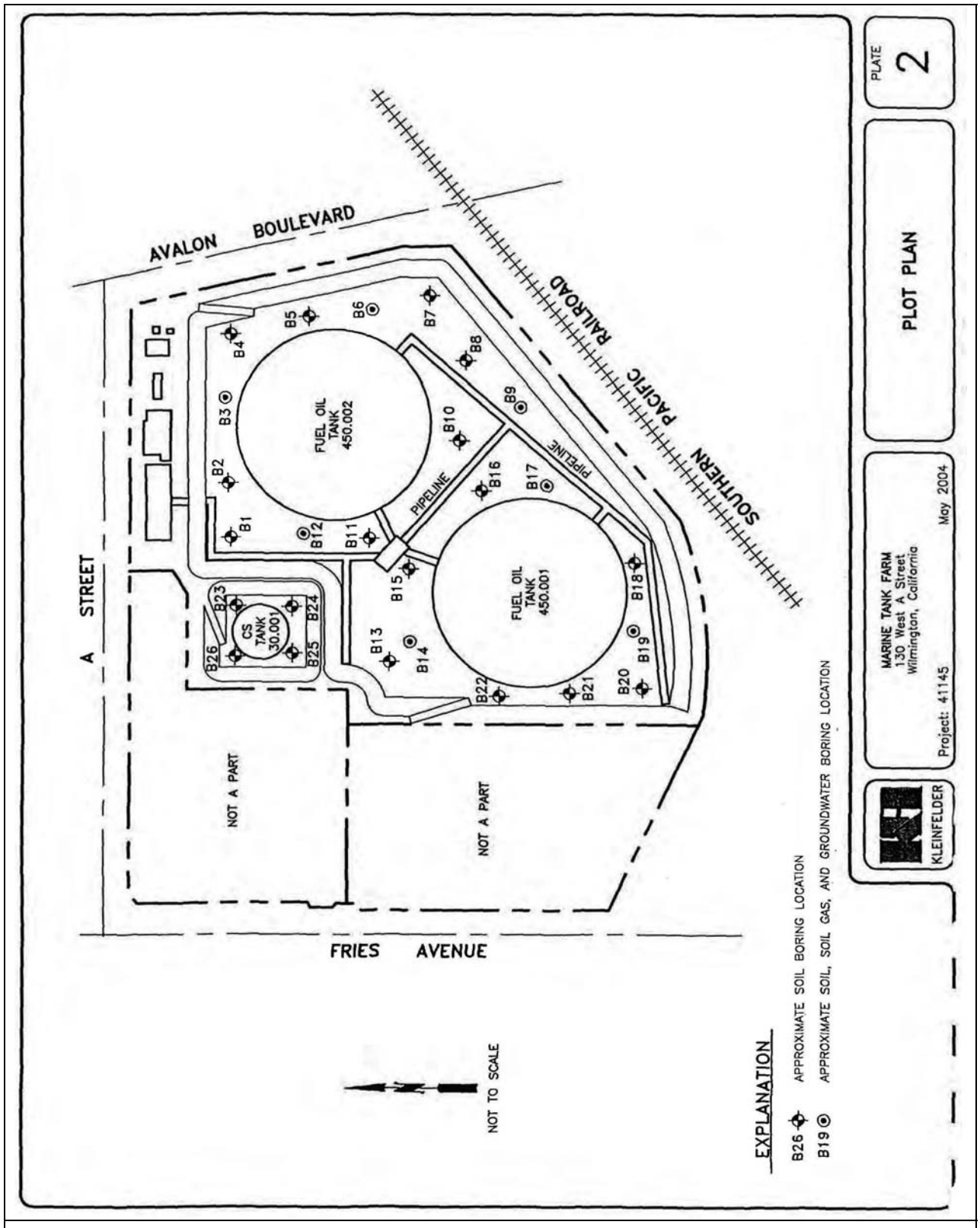

Figure 2 Layout of LADWP Marine Tank Farm

Based on information shown on the Plot Plan presented in the Phase II Environmental Site Assessment (shown as Figure 2), it has been assumed that Tank 30.001 stores cutter stock while the other two tanks store fuel oil. Cutter stock generally refers petroleum products that are added to other petroleum products to lower their viscosities. A review of a number of Material Safety Data Sheets (MSDSs) found that the lowest flash point for cutter stock was 160° F. Fuel oil, listed for the other two tanks, is generally a product similar to diesel oil no. 1 or 2. These products generally have flash points above 100° F. Characteristics of the two products are provided in Table 1. Flammable materials have a flash point below 100° F while combustible products have a flash point between 100° F and 200° F. Flash point is defined as the lowest temperature at which a liquid can form an ignitable mixture in air near the surface of the liquid. The lower the flash point, the easier it is to ignite the material. The National Fire Protection Association (NFPA) rating is broken into three categories, health, flammability, and reactivity, with ratings of from 0 to 4 in each category with 0 being the lowest hazard and 4 the highest. A rating of 0 or 1 is not considered to be a significant hazard. A combustible liquid is given a flammability rating of 2 while a flammable liquid is given a flammability rating of 3. As can be seen by the table, none of the products assumed to be stored at the LADWP tank farm are classified as flammable or are considered to present a health hazard including a toxic vapor hazard. Because it has not been verified at this time that that the only products presently being stored at the facility are fuel oil and cutter and because there is no information on what products may be stored under the current permits, an excursion case has been analyzed assuming that a flammable material is or can be stored at the facility. Gasoline has been assumed as the flammable product in the excursion analysis. The characteristics of gasoline are also provided in Table 1.

Table 1 Description of Hazardous Materials

Name	NFPA Classification Health-Flammability-Reactivity	Flash point (deg F)
Fuel oil	0-2-0	> 100
Cutter stock	0-2-0 or 0-1-0	> 160
Gasoline	1-3-0	< 0
Source: U.S. Coast Guard 2001		

3. HAZARD FOOTPRINT ANALYSIS

The RMP presents methodologies for calculating five types of hazard footprints, radiant heat from a fire, flammable gas from a release without a fire, blast overpressure from an explosion, flying debris from an explosion, and toxic gas from a release. The RMP methodology also determines when each of the hazard footprints must be calculated. According to the RMP, toxic gas hazard footprints are not required for products that NFPA health ratings of less than 2. Since both fuel oil and cutter stock have NFPA ratings of 0, toxic gas hazard footprints are not required to be calculated. Also, since gasoline has an NFPA health rating of 1, no toxic gas cloud is required.

Also according to the RMP, flammable gas cloud hazard footprints are only required for products with NFPA flammability ratings of 3 or 4. Both fuel oil and cutter stock have NFPA flammability ratings of 2 (some cutter stocks have an NFPA flammability rating of 1). Hence, flammable gas cloud hazard footprints are not required to be calculated for the facility. For the excursion case where gasoline is assumed, the calculation of a flammable gas cloud hazard footprint is required.

Each of the hazard footprints is described below.

Radiant Heat – Thermal radiation or radiant heat generated by a fire is the primary cause of damage resulting from a fire. The danger presented to any animate or inanimate object depends on the nature of the object as well as the intensity of the heat flux and the time of exposure. The danger to people is the primary concern. The border of the footprint showing hazard to people from radiant heat is drawn at the farthest distance from the place of the potential fire where a heat flux of 1,600 Btu per hour per square foot will occur. Exposed personnel within this distance will feel extreme pain within 15 to 30 seconds and will suffer second degree burns after 30 seconds. Radiant heat hazard footprints are required for products with flash points less than 140° F and hence, radiant heat hazard footprints are required to be calculated for fuel oil but not for cutter stock. Radiant heat hazard footprints are also required for gasoline.

Blast Overpressure – Blast overpressure is the term used to describe the blast waves generated by an explosion. The overpressure decreases as it travels away from the explosion. Blast overpressure is measured in pounds per square inch (psi). The boundary of a blast overpressure hazard footprint is drawn at the distance where 2.5 psi can be felt. This is the level where eardrums can begin to rupture. Blast overpressure hazard footprints are not required to be calculated for floating roof tanks since the floating roof sits directly on the liquid in the tank thereby minimizing the potential for flammable vapors building up inside the tank. Blast overpressure hazard footprints are required to be calculated for non-floating roof tanks storing products with flash points less than 140° F. Hence, no blast overpressure hazard footprints are required for the base case where all three tanks are assumed to be floating roof including the excursion case where gasoline is stored. For the excursion case where the two large tanks are assumed to be fixed roof, blast overpressure hazard footprints are required for fuel oil and gasoline (excursion case) but not for cutter stock.

Flying Debris – Explosions and the resulting air blast are generally accompanied by flying fragments or debris. These "missiles" have the potential to severely injure or kill people. Flying debris hazard footprints are not required to be calculated for floating roof tanks since the floating roof sits directly on the liquid in the tank thereby minimizing the potential for flammable vapors building up inside the tank. Flying debris hazard footprints are required to be calculated for non-floating roof tanks storing products with flash points less than 140° F. Hence, no flying debris hazard footprints are required for the base case where all three tanks are assumed to be floating roof including the excursion case where gasoline is stored. For the excursion case where the two large tanks are assumed to be fixed roof, flying debris hazard footprints are required for fuel oil and gasoline (excursion case) but not for cutter stock.

Flammable Gas – A gas cloud from a release of a flammable material will move at the speed of the wind and mix with the air as it does so. Such a gas cloud can become ignited when the gas to air mixture is above the lower flammability limit (LFL) of the gas and the cloud encounters an ignition source. The border of the flammable gas cloud hazard footprint is drawn where the gas to air mixture falls below the LFL. Flammable gas cloud hazard footprints are not required for the base case since neither fuel oil nor cutter stock is classified as flammable. The calculation of a flammable gas cloud hazard footprint is required for the excursion case where it is assumed that gasoline can be stored.

The following summarizes the hazard footprints required for the base case and excursions.

- Base case – Assumes all floating roof tanks and storage of only combustible products (e.g., fuel oil and cutter stock)
    - Radiant heat

- Excursion case 1 – Same as base case except that flammable materials (e.g., gasoline) can also be stored
    - Radiant heat
    - Flammable gas cloud

- Excursion case 2 – Assumes two largest tanks do not have floating roofs and only combustible products can be stored
    - Radiant heat
    - Blast overpressure
    - Flying debris

- Excursion case 3 – Same as Excursion case 2 except that flammable materials (e.g., gasoline) can also be stored
    - Radiant heat
    - Flammable gas cloud
    - Blast overpressure
    - Flying debris

The results of the hazard footprint analysis for each of the cases are presented below.

It is noted here that no hazard footprints have been calculated for the diked area containing the cutter stock tank for two reasons. First, because the flash point of cutter stock is greater than 140° F no hazard footprints are required. However, if that tank was used to store a combustible or flammable product, then the calculation of hazard footprints would be required. However, since the size of the cutter stock tank is considerably smaller than the size of the two fuel oil tanks and the area of the diked area containing the cutter stock tank is considerably less than that of the diked area containing the two fuel oil tanks, the hazard footprints for the cutter stock tank and associated diked area would fall well within those of the fuel tanks and associated diked area and therefore would not increase the overall size of the facility hazard footprint.

3.1 Base Case

The Base Case assumes that all the tanks are floating roof and that no flammable products are stored at the facility. Based on the data available at this time, this appears to best reflect the current situation at the facility. The only hazard footprint required for the Base Case is radiant heat from a release or fuel oil from one of the two 450,000 bbl tanks into the diked area followed by a fire. This hazard footprint was calculated to extend to 1,100 ft from the edge of the diked area. The Base Case hazard footprint is plotted on Figure 3.

3.2 Excursion Case 1

Excursion case 1 assumes that the facility currently does or has the right to store flammable petroleum products at the facility. All tanks are still assumed to floating roof. This case adds the potential for a flammable gas cloud hazard footprint. The flammable gas cloud hazard footprint was calculated to extend 160 ft from the edge of the diked area. The radiant heat hazard footprint was calculated to extend 1,280 ft from the edge of the diked area which is slightly greater than the radiant heat hazard footprint for fuel oil. The hazard footprints for Excursion Case 1 are plotted on Figure 4.

3.3 Excursion Case 2

Excursion Case 2 is the same as the Base Case (no flammable products stored) except that the two 450,000 bbl tanks are assumed to be fixed roof. The radiant heat hazard footprint would still be the same (1,100 ft) however the fixed roof tanks require the calculation of blast overpressure and flying debris hazard footprints. These were calculated to be 590 ft and 800 ft respectively. The blast overpressure and flying debris hazard footprints extend from the center of the tanks. The hazard footprints for Excursion Case 2 are plotted on Figure 5.

3.4 Excursion Case 3

Excursion Case 3 is a combination of Excursion Case 1 where flammable products may be stored and Excursion Case 2 where the two 450,000 bbl tanks are assumed to be fixed roof. Hence, the radiant heat hazard footprint (1,280 ft) and flammable gas cloud hazard footprint (160 ft) would be the same as for Excursion Case 1. The blast overpressure and flying debris hazard footprints for the storage of gasoline in a 450,000 bbl fixed roof tank were calculated to be 650 ft and 800 ft respectively. The hazard footprints for Excursion Case 3 are plotted on Figure 6.

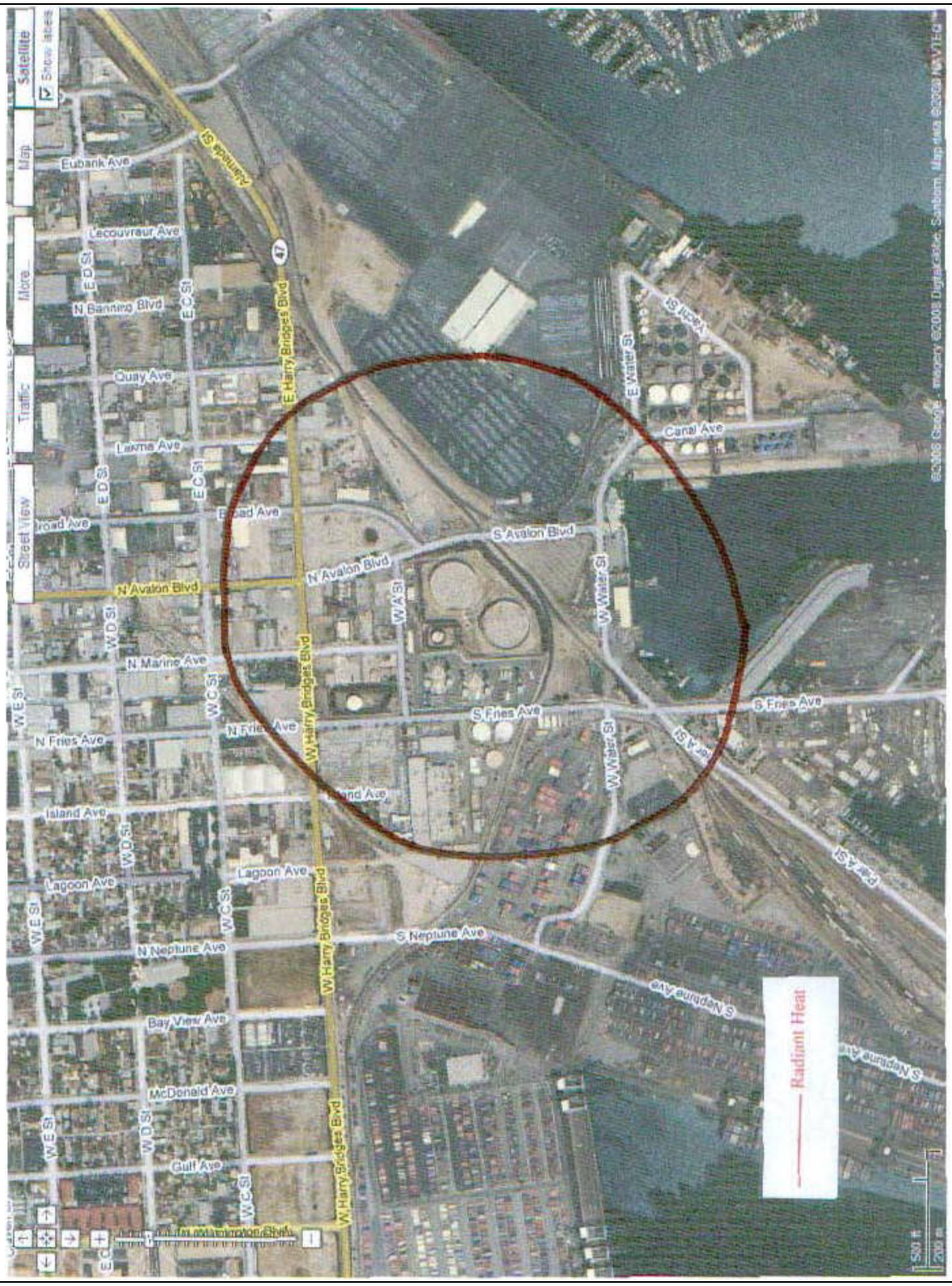

Figure 3 Base Case Hazard Footprint

Figure 4 Excursion Case 1 Hazard Footprints

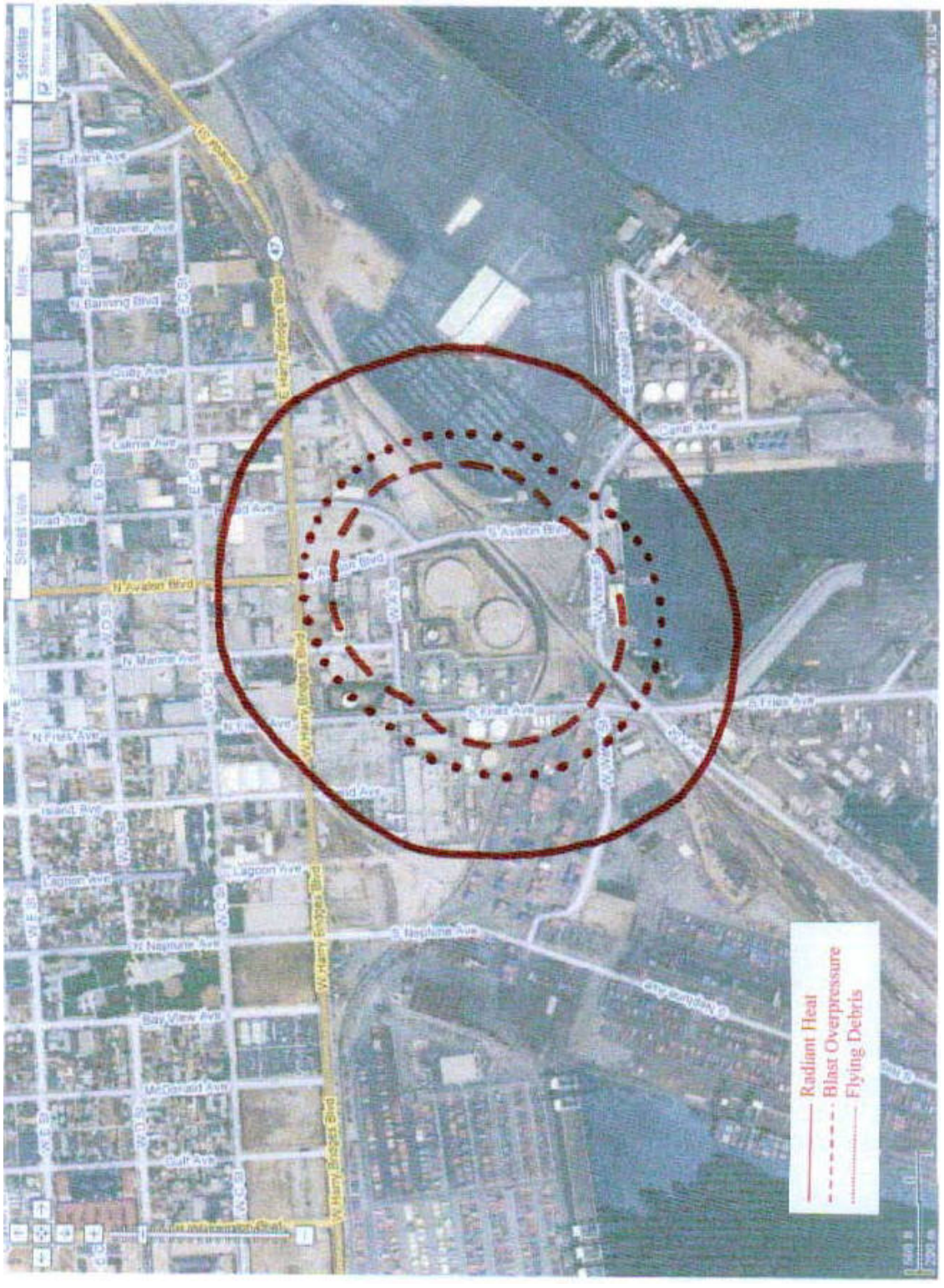

Figure 5 Excursion Case 2 Hazard Footprints

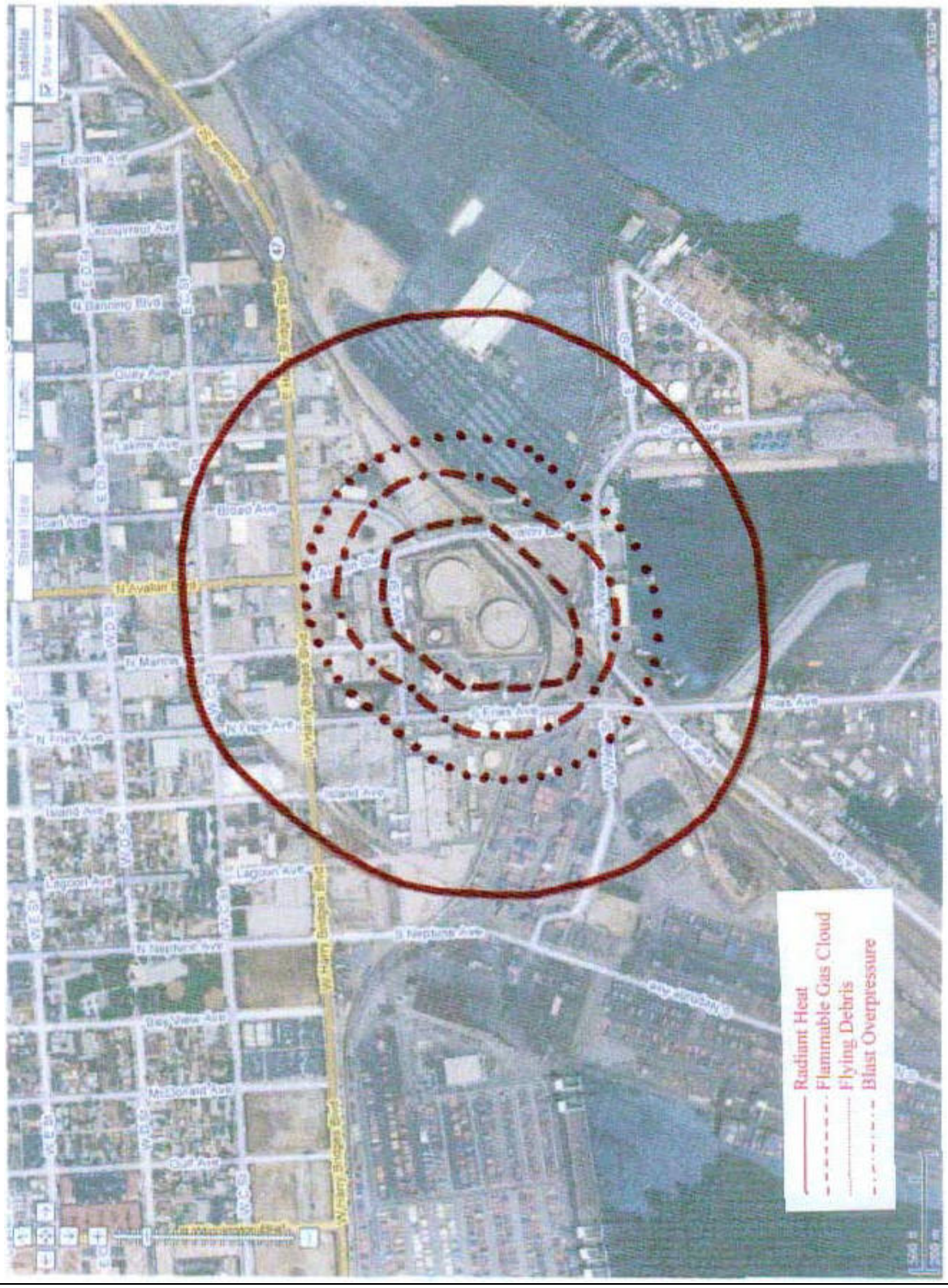

Figure 6 Excursion Case 3 Hazard Footprints

4. SUMMARY

A summary of the hazard footprints for the Base Case and three excursion cases is presented in Table 2. As can be seen by the table, the largest hazard footprint for the Base Case is 1,100 ft. This increases to 1,280 ft if flammable products are stored at the facility (see Excursion Cases 1 and 3). Assuming that the tanks are fixed roof adds in a 800 ft flying debris hazard footprint but does not increase the overall size of the hazard footprint.

Table 2 Summary of Hazard Footprint Analysis

Scenario	Hazard Footprint Distance (ft)			
	Radiant Heat	Flammable Gas	Blast OP	Flying Debris
Base Case	1,100	NR	NR	NR
Excursion 1	1,280	160	NR	NR
Excursion 2	1,100	NR	590	800
Excursion 3	1,280	160	650	800

NR – Hazard footprint not required for this scenario.

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May 21, 2004

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Subject: Noise Analysis Results and Recommendations for Potential Park Sites Near the Harbor Generating Station (HGS).

URS has analyzed the noise levels from the HGS peaker plant using measurements and predictive noise modeling techniques, compared these levels to City of Los Angeles and other relevant noise standards, and has developed recommendations for the three sites currently under consideration as potential park sites. Although the primary emphasis of the study was on the noise from the peaker plant, the project area has high ambient noise levels from a variety of other sources; thus noise levels from other noise generators is also addressed. The following summarizes the project background, regulatory environment, URS' analysis methodology and our noise control recommendations.

Background

The project area is shown in Figure 1. Three properties are under consideration by LADWP and local community advocates for potential use as a park site. They are:

- The Marine Tank Farm site. It is located at 130 West A Street, and currently being leased by Valero Energy Corporation. The site is bounded by A Street to the north, Avalon Boulevard to the east, railroad right-of-way to the south, and the Harbor Generating Station Peaker Plant (recently constructed, on the western portion of the original tank farm) to the west. The site has been in use as a tank farm since the 1970's.
- Several parcels (designated as Parcels 2, 3, 4 and 5 on LADWP Right-of-Way Sketch Number RWE000113). The site is currently accessed via A Street, and is in the northwest quadrant formed by Avalon Boulevard and A Street. The parcels are paved, and are currently utilized by the LADWP for storage and occasional maintenance areas.
- Storage facility ("Stow It! Self Storage") located at 175 South Avalon Blvd., southeast of the HGS peaker plant and the Marine Tank Farm, and separated from these facilities by two sets of freight rail tracks.

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Regulatory Environment

The City of Los Angeles regulates noise in several ways, depending upon the nature of the noise and the type of land use. For residential land uses, the city regulates noise from stationary sources by their Municipal Code (Chapter XI, Noise Regulations). Section 112.04 (b) specifies that machinery, equipment, tools etc. are not to exceed the ambient noise level by more than five (5) decibels. The ambient level may be measured or the Municipal Code's presumed ambient levels may be used. For residential zones, the presumed ambient levels are 50 dBA from 7:00 a.m. to 10:00 p.m. or 40 dBA from 10:00 p.m. to 7:00 a.m. However, the Municipal Code does not specify noise limits for recreational land uses such as parks, and the Municipal Code is not utilized to enforce noise limits at parks (reference: R. Skarin, City of Los Angeles, 3/18/04).

For purposes of siting and planning, the City of Los Angeles' Draft L.A. CEQA Thresholds Guide (Guide) provides guidance on noise/land use compatibility. The Guide uses the Community Noise Equivalent Level (CNEL) descriptor to determine noise/land use compatibility for planning purposes and for determining the significance of noise impacts. The CNEL descriptor uses units of dBA and specifies the hourly, energy-averaged noise level ($L_{eq(H)}$) as their mathematical basis. The CNEL noise metric represents a continuous, 24-hour period and applies a time-weighted factor designed to penalize noise events that occur during the evening and nighttime hours, when relaxation and sleep disturbance is of more concern. Noise occurring during the daytime hours between 7:00 am and 7:00 p.m. receives no penalty. Noise occurring between 7:00 p.m. to 10:00 p.m. is penalized by adding 5 dBA to the measured noise level, while noise occurring from 10:00 p.m. to 7:00 am is penalized by adding 10 dBA to the measured level.

The Guide includes a chart of land uses and noise environment categories. Table 1 shows the criterion noise levels for the category of playgrounds and neighborhood parks.

Table 1: CEQA Guide Noise/Land Use Compatibility

	Community Noise Exposure, CNEL, dBA			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Playgrounds, Neighborhood Parks	50 – 70	-	67 – 75	Above 72

As shown in Table 1, the "Normally Acceptable" range is quite wide (from 50 dBA CNEL, which is considered to be relatively quiet on a subjective level in an urban environment, to 70 dBA CNEL, which would be considered relatively loud by a person of normal sensibility, in any environment). Additionally, note that there is a degree of overlap in noise ranges between the "Normally Acceptable" and "Normally Unacceptable" categories. Therefore, this noise analysis will use the noise threshold of 67 dBA CNEL as the level at or above which a park site would be considered inappropriate without noise reduction measures to bring the noise below these levels. Assuming that peaker plant operations take place from 7 a.m. to 10 p.m., and assuming a

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background noise level (i.e. in the absence of peaker plant activities) of 53 dBA, the hourly L_{eq} noise level from peaker plant operations would need to be 66 dBA L_{eq} or lower to not exceed the 67 dBA CNEL threshold. These assumptions are based upon discussions with HGS personnel, the hours during which the units were operating on February 20, field noise measurements and upon conservative engineering practice.

Ambient Noise Study

URS conducted a noise survey of the project area from Thursday, February 19, 2004 through Friday, February 20, 2004. On February 19, the peaker units were not running. On February 20, four of the five peaker units were started and run. Units 10, 11, 12 and 14 were started between 9:23 and 10:30 a.m. All four units were running during this period until 12:29 p.m., when units 12 and 14 were "tripped" (automatically shut-down for mechanical or other reasons). At 12:45 p.m. Unit 14 was restarted. Unit 10 was taken offline at 2:46 p.m., followed by Unit 14 at 9:47 p.m. and Unit 11 at 10:29 p.m.

During the February 19-20 noise measurements, a total of ten short-term (ST) attended noise measurements and two long-term unattended noise measurements (LT-1 and LT-2) were conducted at a total of five locations in the project area. The noise measurement locations are shown in Figure 1. Noise measurements at the candidate park sites were conducted on both February 19 and February 20 in order to compare the noise levels with and without peaker plant operations. On February 20, noise measurements were also conducted on the HGS peaker property in order to obtain reference level measurements of the units while in operation. These reference measurements were utilized to "calibrate" the noise model used as part of the noise analysis.

Noise measurement site selection at the candidate community park sites was based primarily on highest anticipated noise levels due to the project but also was based on likely exterior areas of frequent human use. Where site conditions allowed, noise measurements were not conducted at the fenceline of the candidate park site but at a reasonable distance from it (i.e., 10 to 40 feet), where people using the park may spend time. The ST measurements varied in duration from 1 to 20 minutes, depending upon the type of noise measurement. Peaker unit reference measurements were 1 to 5 minutes in duration, while candidate park site measurements were generally 20 minutes in duration. For the two LT measurements, continuous 15-minute samples were recorded for 24 hours each.

The instrument used for the ST sound level measurements was a Brüel & Kjær Type 2231 Digital Integrating Sound Level Meter (SLM), with Statistical Analyzer and a Larson Davis Model 824 Sound Level Meter/ Spectrum Analyzer. The instruments used for the LT sound level measurements consisted of Metrosonics db 308 (for LT-1) community noise analyzers (CNAs). The laboratory calibration of the instruments was verified in the field before and after each measurement period using Brüel and Kjær Type 4231, Larson Davis Model Cal 200 and Metrosonics CL 304 reference acoustical calibrators. The accuracy of the acoustical calibrators is maintained through a program established by the manufacturers, and traceable to the National Institute of Standards and Technology (NIST). The sound measurement instruments meet the requirements of the American National Standards Institute (ANSI) and the International

Electrotechnical Commission Publications 804 and 651. Refer to Appendix A for a complete list of the instruments used in the study to measure weather, traffic and position.

For the ST sound level measurements, the SLM was mounted on a tripod so that the microphone was five (5) feet above the ground. The microphone was covered with a windscreen. For the LT sound level measurements, each of the CNAs were locked in a small steel box with the microphone and windscreen protruding at least four inches from the top of the container. The container was attached to a convenient pole such that the microphone was at a nominal height of five feet above the ground. The SLMs were placed more than 15 feet from the nearest acoustically reflective surface (e.g., wall) wherever possible.

For all measurements, field personnel completed a Field Measurement Data Sheet (FMDS). For each ST measurement, the FMDS lists the site location and description, weather conditions, calibration parameters, noise level data, sound sources and traffic counts (if applicable). Photographs were also taken at each location. For the LT measurements, the FMDS includes the same information as for the ST measurements except noise level data and traffic counts. For a LT measurement, the sound sources and weather conditions listed on the FMDS are typically the sources and conditions extant during SLM installation. See Appendix B for the completed FMDS.

Meteorological data was measured in conjunction with the noise measurements. Using the handheld instruments described in Appendix A, field personnel made objective measurements and subjective observations of weather conditions (temperature, relative humidity, wind speed and direction and cloud cover were recorded on data sheets for each location) during the measurement periods at each location.

Table 2 shows the results of the ST field measurements and observations. In the absence of peaker plant operations noise, noise from rail activities and heavy truck activities dominates the noise environment in the area. Other noise sources during the attended ST measurements included distant traffic, and distant aircraft flying overhead. Ambient noise levels during the February 19, 2004 site visit ranged from 57 dBA L_{eq} (ST-2, near the western boundary of the Valero Tank Farm) to 64 dBA L_{eq} (ST-1, at "Parcel 5"). During the February 20 measurements the next day, ambient noise levels ranged from 57 dBA L_{eq} (ST-8, same location as ST-3 [Stow-It Storage Facility]) to 71 dBA L_{eq} (ST-7b, same location as ST-2). Note that brief but very high noise levels from purge valve activation during peaker plant unit startup were measured in this area - as high as 95 dBA $L_{eq\ 1\text{-minute}}$ (ST-7a, same location as ST-2). During the noise measurements with peaker plant operations, the noise from the peaker plant was generally dominant, but to varying degrees. At the Valero Tank Farm site, peaker plant noise was the major audible noise source. At the parcels north of A street, the peaker units were clearly audible but not as prominent as at the Valero Tank Farm area. Similarly, at the Stow-It! storage facility the noise from the peaker units was audible but less prominent as a noise source than at either the Valero Tank Farm area or the parcels north of A Street. This differentiation may be seen by the fact that in Table 2, the measured noise levels for ST-7b, ST-6 and ST-8 are successively lower (71 dBA L_{eq}, 62 dBA L_{eq} and 57 dBA L_{eq}, respectively).

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Table 2: Short-Term Noise Measurement Data

Measurement ID	Measurement Area	Measurement Location	Measurement Period			Noise Sources	Measurement Results, dBA					
			Date	Start Time	Duration (minutes)		L_{eq}	L_{max}	L_{min}	L_{90}	L_{50}	L_{10}
ST-1	Parcel 5	North of A Street, west of Avalon Street. 42 feet north of fenceline, 88 feet west of fenceline.	2/19/2004	10:53	20	Traffic on A and Avalon Streets, back-up alarms, train horns, distant truck traffic.	64.3	83.5	54.5	58.0	61.5	66.5
ST-2	Valero Tank Farm	Atop containment/perimeter road, east of Unit 11, approx. 204' n.e. of Unit 10 stack; at LT-1.	2/19/2004	12:15	20	Rail (Pacific Harbor Line) -- diesel engine, horn; birds.	57.3	71.4	51.7	52.6	54.1	n/a
ST-3	Stow-It Self Storage Facility	Northwest side of facility, adjacent to chain link fence.	2/19/2004	14:10	20	Rail (Pacific Harbor Line) -- diesel engine, horn; people nearby, briefly.	61.0	76.0	53.4	54.5	57.0	65.0
ST-4	HGS	On-site near unit 10; 46' south of longitudinal stack centerline.	2/20/2004	10:45	5	unit 10 (inlet & cooling tower)	77.7	78.9	76.7	77.0	77.7	78.4
ST-5a	HGS	On-site near unit 14; 50' north of longitudinal stack centerline.	2/20/2004	11:05	5	unit 14 cooling tower	76.9	78.7	76.1	76.4	76.8	77.4
ST-5b	HGS	On-site near unit 14; 25' north of cooling tower; 42' east of stack centerline (latitude); 22' south of stack (longitude)	2/20/2004	11:20	3	unit 14 cooling tower	79.5	80.1	71.9	79.3	79.5	79.7
ST-6	Parcel 5	Same location as ST-1.	2/20/2004	11:45	20	Peaker plant units, distant siren, local traffic, rail horn, distant aircraft.	62.4	73.5	56.4	58.5	60.5	65.0
ST-7a	Valero Tank Farm	Same location as ST-2.	2/20/2004	12:46	1	Purge valve actuation during startup from HGS peaker plant units.	94.7	100.6	72.4	72.6	86.3	99.3
ST-7b	Valero Tank Farm	Same location as ST-2.	2/20/2004	12:47	5	HGS	70.9	77.0	68.8	69.1	70.8	73.1
ST-8	Stow-It Self Storage Facility	Same location as ST-3.	2/20/2004	14:12	20	Peaker plant units, nearby rail use, distant aircraft, distant traffic.	56.7	64.8	53.7	55.0	56.5	58.0

Figures 2 and 3 graphically show the results of the LT noise measurements. As shown, the lowest hourly noise level recorded during the long-term noise measurements at LT-1 (near the western boundary of the Valero Tank Farm) was 54 dBA L_{eq}, during the 0500 – 0600 hour on February 20, 2004. The highest hourly noise level at LT-1 was 71 dBA L_{eq}, during the 1100 – 1200 hour on February 20, 2004. The lowest hourly noise level recorded during the long-term noise measurements at LT-2 (at the northwest boundary of the Stow It Storage Facility) was 52 dBA L_{eq}, during the 0500 – 0600 hour on February 20, 2004. The highest hourly noise level at LT-2 was 80 dBA L_{eq}, during the 1100 – 1200 hour on February 20, 2004. The measured (24-hour) CNEL noise levels at LT-1 and LT-2 were 70 dBA CNEL and 77 dBA CNEL, respectively. Note that measured noise levels at LT-2 are markedly higher overall and more variable than at LT-1. This is because the LT-2 noise measurement location was adjacent to the railroad right-of-way, and thus strongly influenced by frequent freight rail operations. The LT-1 noise measurements were also likely influenced by rail noise, but not to the same degree as at LT-2, because LT-1 was farther from the tracks than LT-2.

Noise Modeling

Cadna/A® is a computer software program for prediction and assessment of noise levels in the vicinity of industrial facilities and other noise sources. Cadna/A® was used to model the noise from the peaker plant at the surrounding land uses, particularly at the candidate park sites. The program uses internationally recognized algorithms (ISO 9613-2) for the propagation of sound outdoors to calculate noise levels, and presents the resultant noise levels in an easy to understand, graphically-oriented as well as tabular format. The program allows for three-dimensional input of all pertinent features that affect noise, such as terrain or structures. This powerful acoustic analysis tool provides a highly accurate estimate of existing and predicted future noise levels.

Aerial photographs, site-visit notes and photographs, and information supplied by HGS and Valero personnel were used to generate the model of existing structures. Octave-band noise emission levels (based on reference noise measurements made close to the peaker units) were utilized to accurately estimate noise propagation and attenuation effects. To ensure that the model was providing realistic results, the model was tested and found to be consistent with more distant (far-field) sound level data measured on the same day as the reference measurements.

The noise output from all five peaker units running simultaneously was modeled, with and without the existing Valero-operated tanks to the east of the peakers and the storage structures to the southeast. Additionally, an "ambient acoustical overlay" of approximately 53 dBA (the lowest ambient levels measured during the noise survey) was conservatively added to the model, to reflect the minimum level of activity from trucks, trains, distant auto traffic and aircraft. Figures 4 and 5 present the results of the noise analysis in the form of the predicted noise "contours" – lines representing equal noise levels. Figure 4 depicts the existing condition – i.e., the project area with the tanks and storage structures in place (Scenario 1). Figure 5 depicts the project area with the storage tanks, containment berm and other structures removed, as they would be if the existing tank farm site was selected for conversion to a park site (Scenario 2). Under Scenario 2, the Stow It! storage facility structures have also been removed. The

corresponding results are also shown in tabular format in Table 3 for eleven modeled receptor locations. Some of the modeled receptors coincide with the noise measurement locations (i.e., ST-1/ST-6, etc.). In addition, "modeled-only" receptor locations (labeled "M-1", "M-2", etc.) were analyzed to provide a more comprehensive assessment of the noise conditions at the candidate sites. The locations of the measured and modeled receptors are shown in Figures 4 and 5.

Table 3: Results of Predictive Noise Modeling

Receiver ID & Location Description	Scenario 1: Predicted Noise Levels with Existing Structures in Place (dBA L_{eq})	Scenario 2: Predicted Noise Levels with Existing Structures Removed (dBA L_{eq})	Threshold Noise Level (dBA L_{eq})	Threshold Noise Levels Equaled or Exceeded under Scenario 1 or 2 ? (Yes/No)
ST-1/ST-6 (Parcels north of A Street)	59	60	66	No
M-1 (Parcels north of A Street)	60	60	66	No
M-2 (Parcels north of A Street)	63	63	66	No
ST-2/ST-7/LT-1 (Valero Tank Farm	73	77	66	Yes (both 1 and 2)
M-3 (Valero Tank Farm)	67	68	66	Yes (both 1 and 2)
M-4 (Valero Tank Farm)	63	65	66	No
M-5 (Valero Tank Farm)	70	70	66	Yes (both 1 and 2)
M-6 (Valero Tank Farm)	73	73	66	Yes (both 1 and 2)
ST-3/ST-8 (Stow-It! Self Storage Facility)	57	60	66	No
M-7 (Stow-It! Self Storage Facility)	58	61	66	No
M-8 (Stow-It! Self Storage Facility)	56	59	66	No

As shown in Table 3, the noise levels from the peaker units are predicted to range from 56 dBA L_{eq} at Receiver ST-3/ST-8 (at the existing Stow It! Storage Facility) to 77 dBA L_{eq} at Receiver ST-2/ST-7 (at the existing Valero Tank Farm). Of the candidate park sites, noise levels would be highest on the Valero Tank Farm site, ranging from 77 dBA L_{eq} close to the peaker plant boundary line to 65 dBA L_{eq} near the mid to east side of the property. The relevant noise levels on the tank farm site are those for Scenario 2: that is, with the fuel oil tanks and related structures removed. With the exception of Receiver M-4, the noise levels on the tank farm site exceed the threshold noise criteria level of 66 dBA L_{eq} as discussed in "Regulatory Environment". Thus the tank farm site would not be compatible with City of Los Angeles noise guidelines for playgrounds and neighborhood parks without noise control measures such as construction of noise barriers.

The modeled noise levels at the parcels north of A Street are lower than those at the tank farm site, ranging from 59 dBA L_{eq} at ST-1/ST-6 to 63 dBA L_{eq} at M-2. The noise levels at the parcels north of A Street would not exceed the threshold noise criteria level of 66 dBA L_{eq}.

The modeled noise levels at the existing storage facility site are slightly lower still, ranging from 56 dBA L_{eq} at M-8 to 61 dBA L_{eq} at M-7. The noise levels at the existing storage facility site would not exceed the threshold noise criteria level of 66 dBA L_{eq}.

To summarize, noise modeling of the HGS peaker units indicates that from a noise compatibility standpoint, the most appropriate of the three candidate sites would be the Stow It! storage facility site. The next best site would be the parcels north of A Street, while the site with the most noise from the HGS peaker units would be the site currently occupied by the tank farm (unless noise is reduced by a means of a noise barrier as discussed in the next section).

There is one important caveat that must be noted with regard to the storage facility site, however: while this site is farthest from the HGS peaker units of the three candidate sites and thus would receive the lowest noise levels from them, it is immediately adjacent to the freight rail lines, and is heavily influenced by frequent rail activity. This is borne out in the results of the long-term noise measurements for this area, as shown in Figure 3. Mitigation in the form of a tall soundwall (approximately 20-foot high and approximately 600 feet in length) constructed at the property line between the storage facility site and the rail lines would be required to reduce noise from rail activity to a level of noise compatibility. Further analysis would be required to fine-tune the barrier height and length for rail noise, but a 20-foot height is a reasonable preliminary estimate of required wall height. While such a barrier would provide noise reduction from the peaker units as well as the rail noise, this benefit would be secondary to the noise reduction from the rail noise. The estimated cost for a one-side-absorptive noise barrier 20 feet in height and 600 feet in length, constructed at the boundary line between the site and the rail right-of-way, is approximately $480,000, installed. Please note that the basis cost for such a rail noise barrier is different than that used for the walls recommended in the following section for the peaker plant noise, because of differences in the respective barrier types.

Noise Control Recommendations

Based upon the analysis above, noise control measures from HGS peaker unit noise would not be necessary for the Stow It! storage facility site, or for the parcels north of A Street. HGS peaker unit noise levels would be within City of Los Angeles noise compatibility range for these two sites. A preliminary assessment of measures to reduce noise levels at the existing tank farm site was conducted. Using the Cadna/A® noise model, the effectiveness of a 20-foot-high soundwall was investigated. As shown in Figure 6, the soundwall would be constructed along the eastern property boundary (approximately 760 feet in length) of the HGS peaker plant, with an approximately 130-foot long right-angle "return" along the southern property boundary. Table 4 presents the results of the soundwall analysis for modeled locations on the site of the existing tank farm. The estimated cost for a soundwall constructed at the boundary between the peaker plant and the existing tank farm site (atop the existing berm formed by the containment area), is $325,000, installed.

URS

Table 4: Results of Noise Abatement Analysis

Receiver ID & Location Description	Predicted Noise Levels without Noise Abatement (dBA L_{eq})	Predicted Noise Levels with Noise Abatement[1] dBA L_{eq})	Noise Level Reduction (dBA)	Threshold Noise Levels Equaled or Exceeded with Noise Abatement (Yes/No) ?
ST-2/ST-7/LT-1 (Valero Tank Farm	77	66	11	Yes
M-3 (Valero Tank Farm)	68	66	2	Yes
M-4 (Valero Tank Farm)	65	64	1	No[2]
M-5 (Valero Tank Farm)	70	67	3	Yes
M-6 (Valero Tank Farm)	73	70	3	Yes

1 – Noise abatement in the form of a 6.1 meter (20 foot) high soundwall along the eastern property line boundary of the HGS peaker plant.
2 – M-4 noise levels without abatement did not exceed noise thresholds. M-4 noise levels with abatement shown for informational purposes only.

As Table 4 shows, the soundwall would provide up to 11 decibels of noise attenuation, and would lower noise levels to 64 dBA at M-4. However, even with a 20-foot-high soundwall, threshold noise levels are predicted to be equaled or exceeded at the four of the five modeled receptors at the existing Valero tank farm site. The noise model was used to "build" incrementally higher soundwalls until the predicted noise levels were below the threshold noise criteria of 66 dBA L_{eq}. It was determined that a 32-foot-high wall would be necessary to satisfy the noise level criteria at the tank farm site. While feasible, this relatively massive structure would require extensive foundations and structural engineering. The estimated cost for a 32-foot high wall is $550,000, installed. The resultant noise contours associated with a 32-foot high wall are shown in Figure 7.

It should be noted that the noise analysis assumes no gaps or other types of openings in the sides of the wall; in order for the soundwall to provide effective noise reduction, the wall must be free of gaps, holes, cracks or decorative cutouts.

If you have any questions regarding the above information, please give me a call or e-mail.

Sincerely,

Mike Greene, INCE Bd. Cert.
Senior Project Scientist
URS Corporation

(714) 648-2751
michael_greene@urscorp.com

Attachments

URS

References:

Beranek, Leo L., ed. 1971. "Noise and Vibration Control." McGraw-Hill, Inc. New York, NY.

Harris, Cyril M., ed. 1991. "Handbook of Acoustical Measurements and Noise Control." Third Edition. McGraw-Hill, Inc. New York, NY.

ISO, 1996. "Acoustics – Attenuation of sound during propagation outdoors", International Organization of Standardization (ISO) Standard 9613-2:1996(E).

Los Angeles, City of. 1998. "Draft L.A. CEQA Thresholds Guide". Los Angeles, CA.

Los Angeles, City of. 2003. Los Angeles Municipal Code, Chapter XI Noise Regulation, Section 112.04 (b), as published on World Wide Web (address http://www.amlegal.com).

Skarin, Ronald (City of Los Angeles Code Enforcement). Personal communication. March 18, 2003.

Figures

Project Area and Noise Measurement/Modeling Locations

URS	April 2004	Potential Park Sites Near LADWP Harbor Generating Station Peaker Plant	29870273	Figure 1

Figure 2: Hourly Noise Levels at LT-1 (Existing Marine Tank Farm)
February 19 - 20, 2004

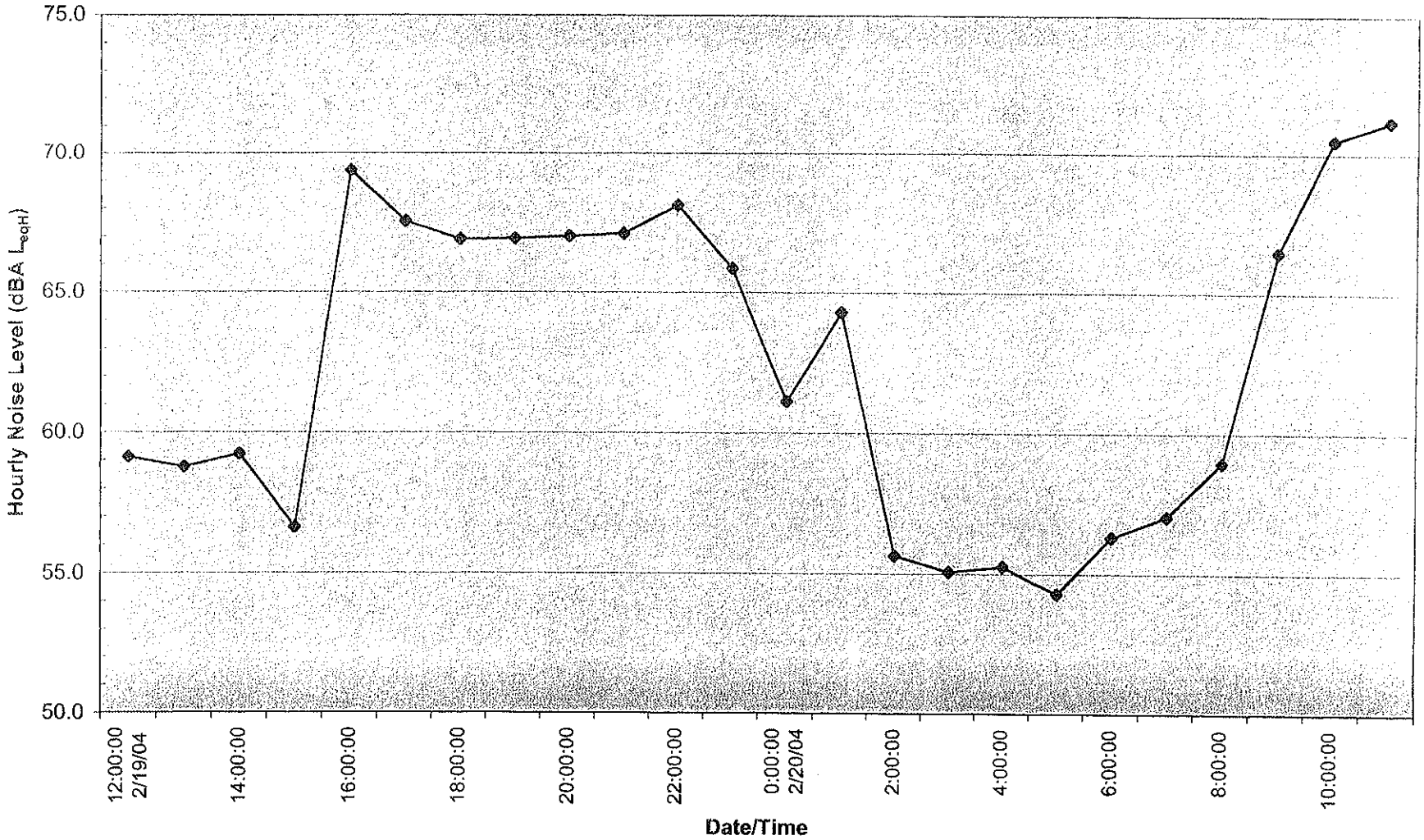
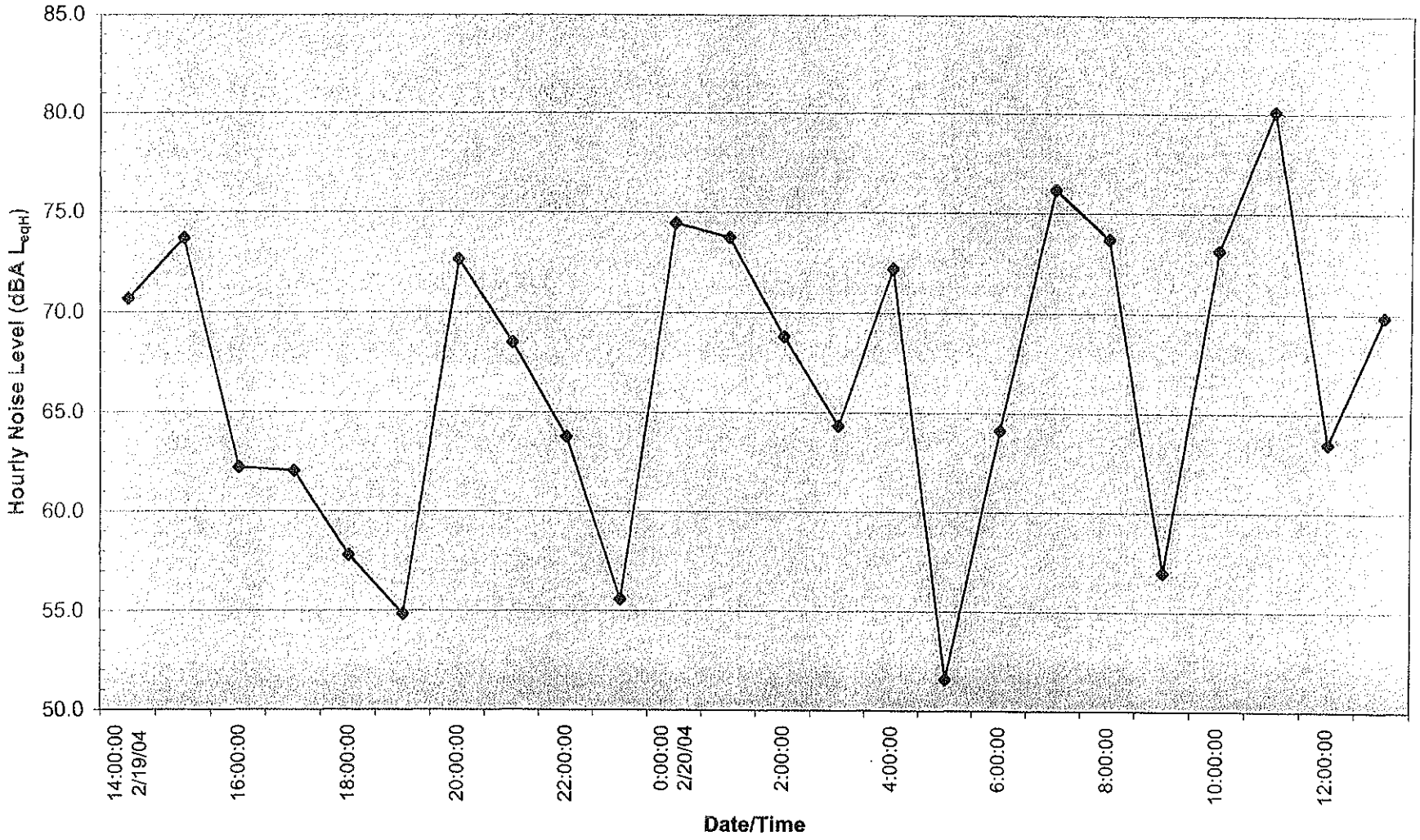
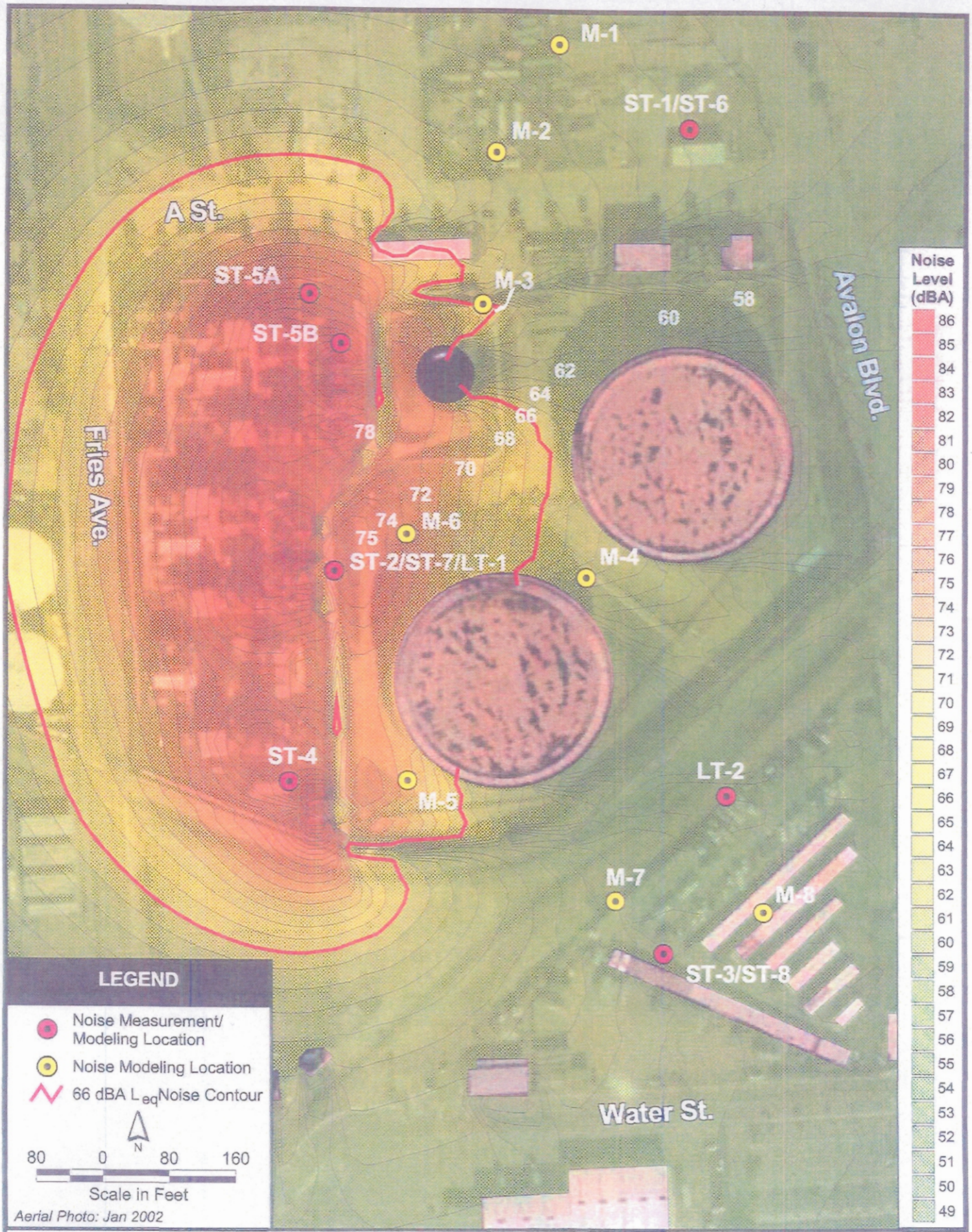


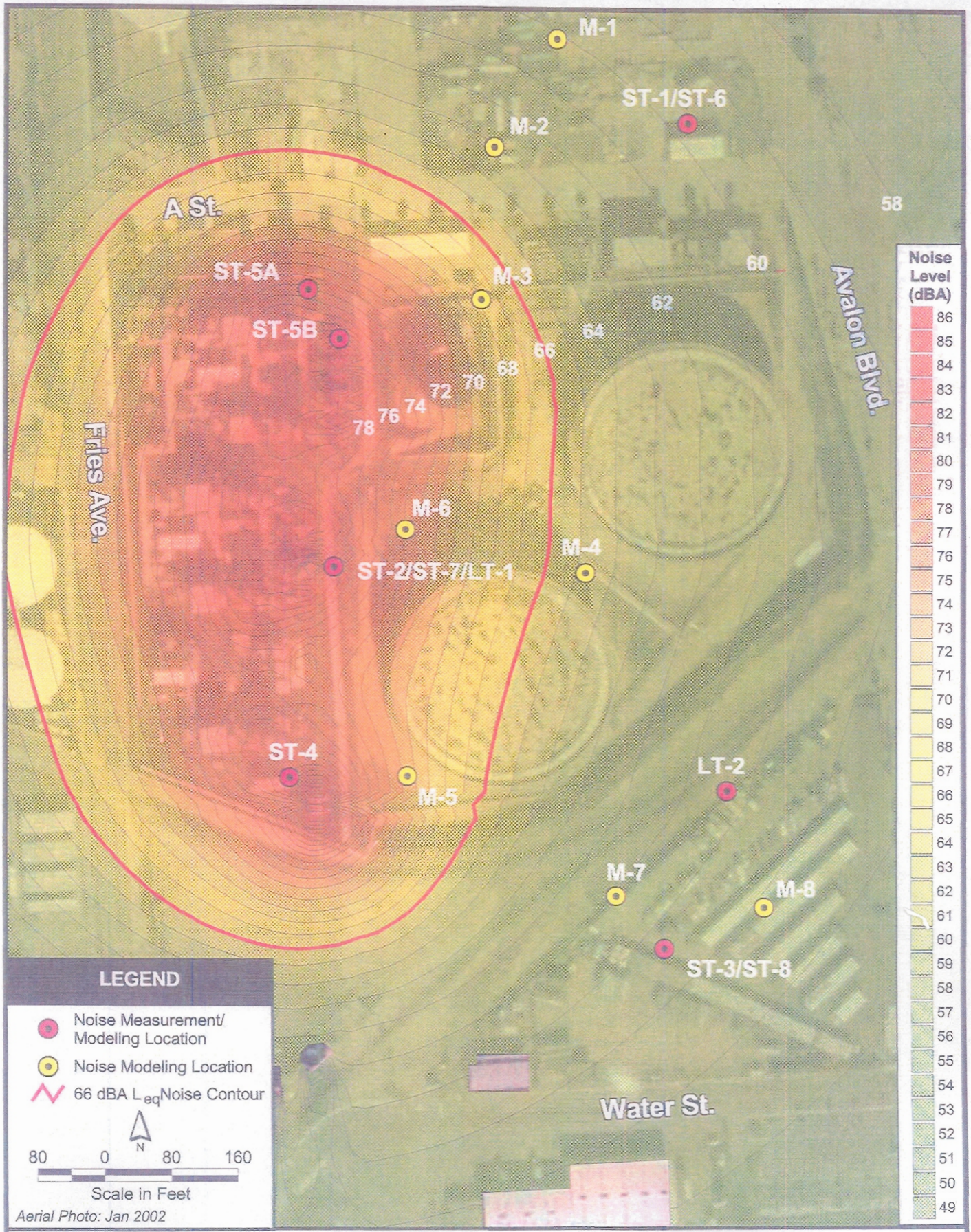
Figure 3: Hourly Noise Levels at LT-2 (Stow-it! Storage Facility)
February 19- 20, 2004





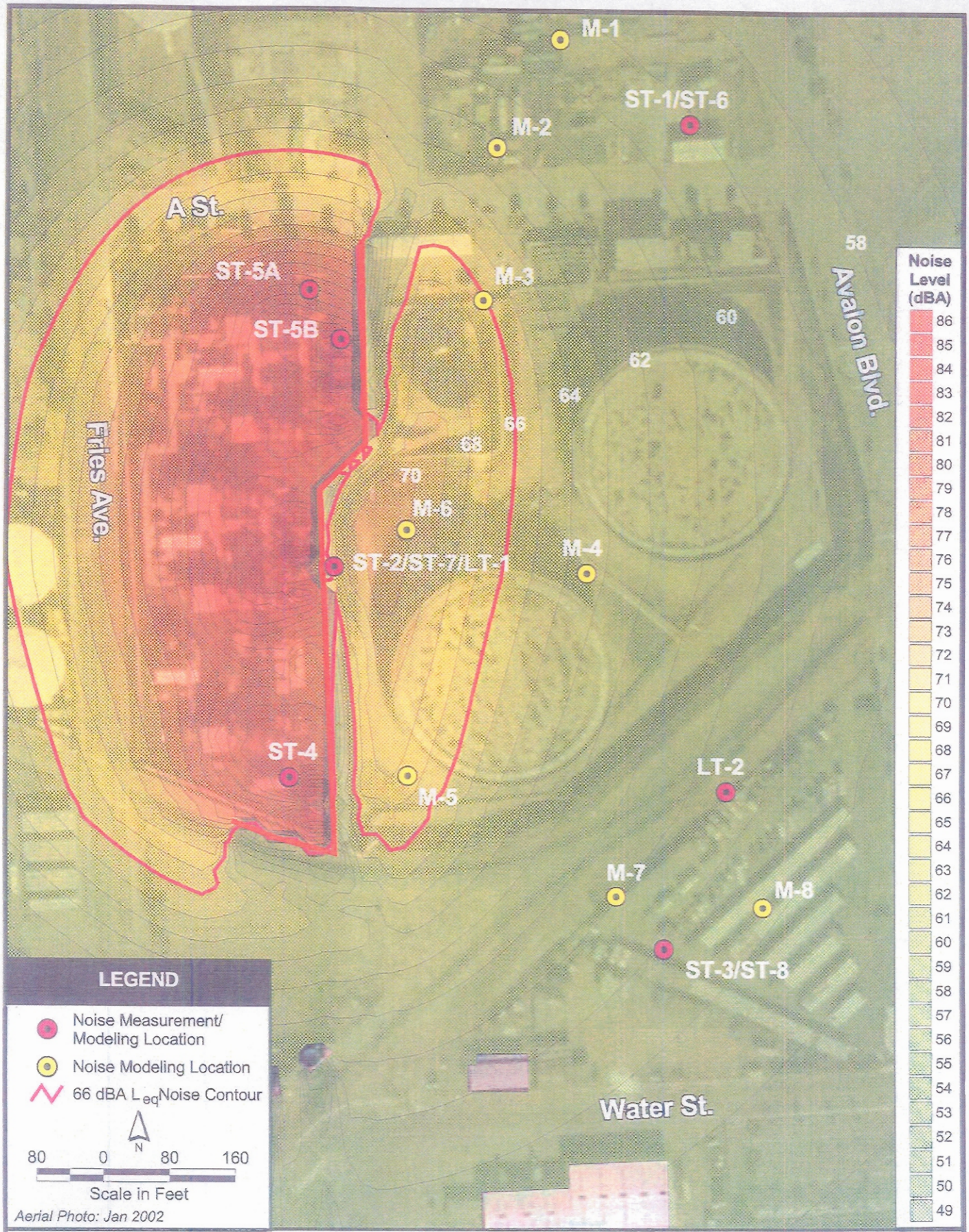
HGS Peaker Plant Noise Contours with Tanks in Place (Existing)

URS	April 2004	Potential Park Sites Near LADWP Harbor Generating Station Peaker Plant	29870273	Figure 4



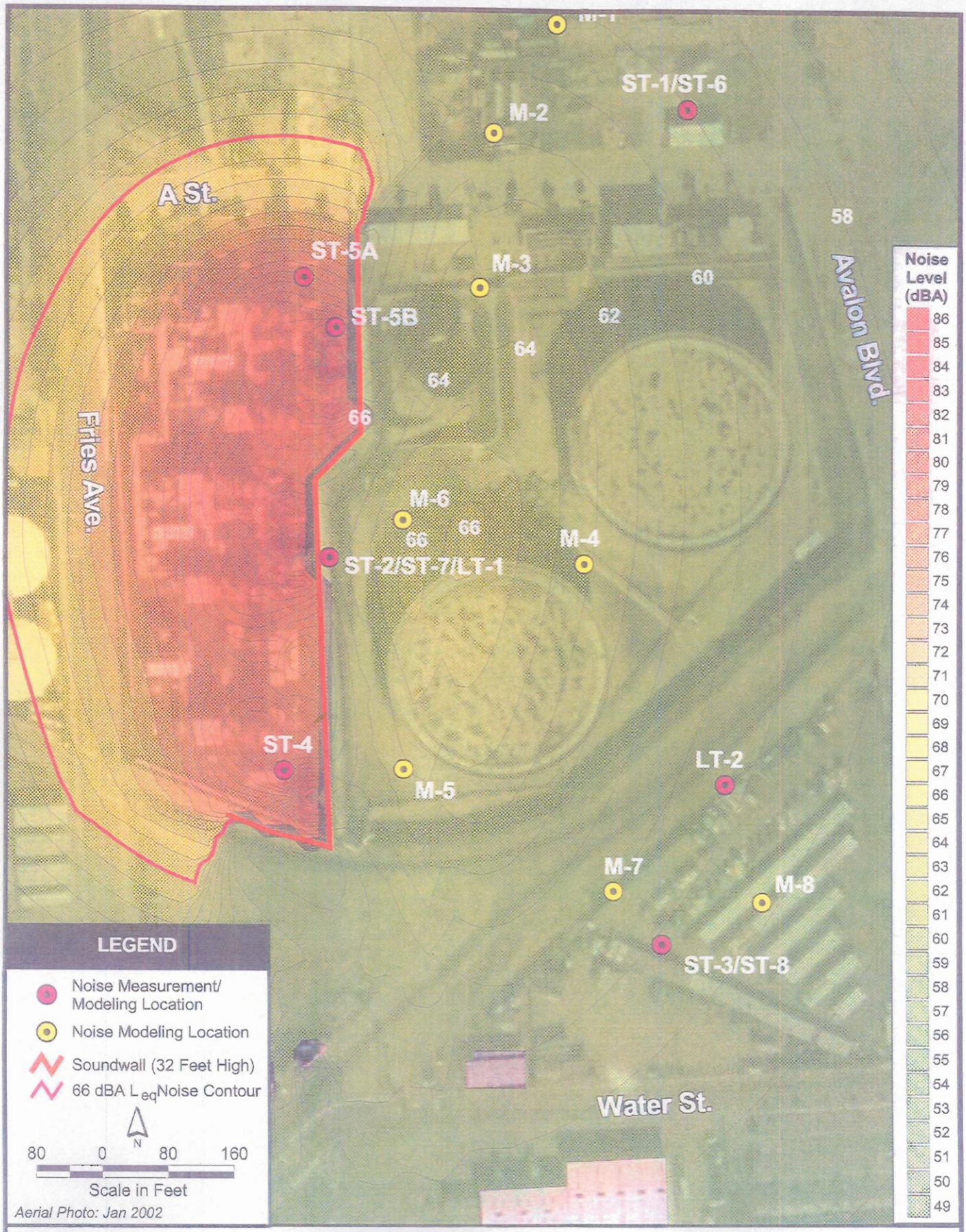
HGS Peaker Plant Noise Contours with Tanks Removed

URS	April 2004	Potential Park Sites Near LADWP Harbor Generating Station Peaker Plant	29870273	Figure 5



HGS Peaker Plant Noise Contours with Noise Abatement (20' High Wall)

URS	April 2004	Potential Park Sites Near LADWP Harbor Generating Station Peaker Plant	29870273	Figure 6



HGS Peaker Plant Noise Contours with Noise Abatement (32' High Wall)

URS	April 2004	Potential Park Sites Near LADWP Harbor Generating Station Peaker Plant	29870273	Figure 7

Appendix A

Equipment List

Brüel & Kjær Type 2231 Sound Level Meter Digital Integrating Type 1, with Statistical Analyzer, Serial Number 1413404

Larson Davis Model 824 Sound Level Meter/Spectrum Analyzer, Serial Number 824A1143.

Brüel and Kjær Type 4231 Reference Transfer Sound Level Calibrator, Serial Number 1850301

Larson Davis Model Cal 200 (94 dBA SPL @ 1000 Hz). Serial Number 2794.

Metrosonics db 308, (Type 2) Community Noise Analyzer, Serial Number 3068

Metrosonics db 308, (Type 2) Community Noise Analyzer, Serial Number 2434

Metrosonics CL 304, Acoustical Calibrator (Secondary), Serial Number 2551

Mannix Model CMM 880 Digital Hygrometer/Thermometer

Sims Digital Anemometer Model DIC

Kestrel Model 3000 Digital Anemometer/Hygrometer/Thermometer

Surveyor tape measures

Appendix B

Field Measurement Data Sheets

FIELD NOISE MEASUREMENT DATA

URS Project: ~~Marine~~ Harbor Generating Station (LA DWP)

SITE IDENTIFICATION: ST-1 **OBSERVER(s):** Greene, M., Czech
START DATE & TIME: 2/19/04 1053 **END DATE & TIME:** 2/19/04 1113
ADDRESS: Parcel 5, "A" & Avalon Sts

ID

TEMP: 65 °F HUMIDITY: 46 % R.H. WIND: CALM LIGHT MODERATE VARIABLE
WINDSPEED 0-5 MPH to DIR: N NE E SE S SW W NW STEADY GUSTY
SKY: OVRCST PARTLY CLOUDY CLEAR SUNNY FOG RAIN Other:

Weather

INSTRUMENT: B&K 2231 **TYPE:** 1 2 **SERIAL #:** 1413404
CALIBRATOR: B&K 4231 **SERIAL #:** 1858301

CALIBRATION CHECK: **PRE-TEST** 93.9 **dBA SPL** **POST-TEST** 93.9 **dBA SPL** **WINDSCREEN** Y

SETTINGS: A-WEIGHTED SLOW FAST FRONTAL RANDOM ANSI OTHER:

1053-1113	L_{eq} 64.3	L_{max} 83.5	L_{min} 54.5	L_{90} 58.0	L_{50} 61.5	L_{10} 66.5	~~[illegible]~~
	L_{eq}	L_{max}	L_{min}	L_{90}	L_{50}	L_{10}	
	L_{eq}	L_{max}	L_{min}	L_{90}	L_{50}	L_{10}	
	L_{eq}	L_{max}	L_{min}	L_{90}	L_{50}	L_{10}	

COMMENTS:

Acoustic Measurements

SOURCE: TRAFFIC AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE: 2 lanes

COUNT DURATION: 20 -MINUTE

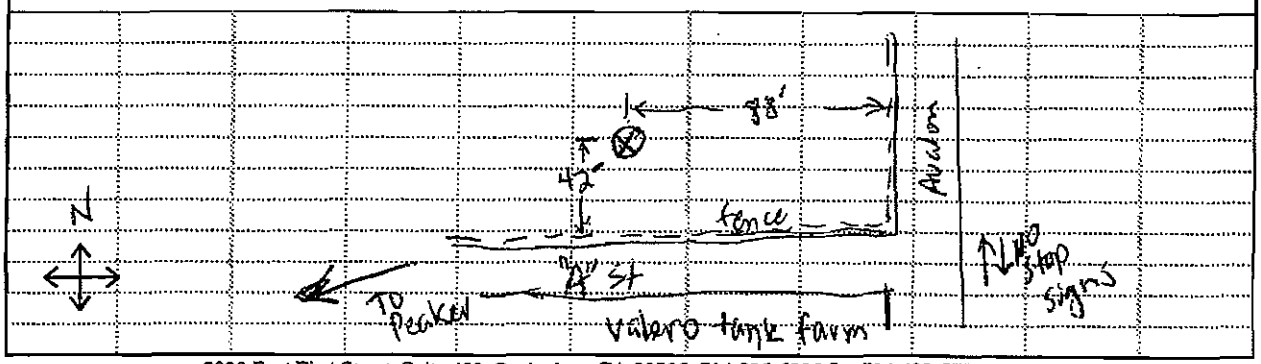
	"A" St. NB / EB / SB / WB	SPEED (mph) NB EB / SB WB	~~#2 COUNT:~~ Avalon NB / EB / SB / WB	SPEED (mph) NB EB / SB WB
AUTOS:	11 ~~IIII~~ /	20-30 /	~~IIII~~ ~~IIII~~ ~~IIII~~ ~~IIII~~ / ~~IIII~~ ~~IIII~~ II	30 /
MED. TRUCKS:	/	/	~~IIII~~ / III	/
HVY TRUCKS:	~~IIII~~ /	/	~~IIII~~ IIII / ~~IIII~~ I	/
BUSES:	/	/	~~[illegible]~~	/
MOTORCYCLES:	/	/	/	/

SPEED ESTIMATED BY: RADAR / DRIVING / OBSERVER

OTHER NOISE SOURCES: distant AIRCRAFT overhead / RUSTLING LEAVES / distant BARKING DOGS / BIRDS
distant CHILDREN PLAYING / distant TRAFFIC / distant LANDSCAPING / distant TRAINS
OTHER: back-up alarms, train horns, truck traffic on E/W St to the north; and on diagonal St connecting w/ Avalon

Source Info and Traffic Counts

TERRAIN: HARD SOFT MIXED FLAT OTHER:
PHOTOS: Yes
OTHER COMMENTS / SKETCH:



Description / sketch

measform4.xls

2020 East First Street, Suite 400, Santa Ana, CA 92705, 714-835-6886 fax 714-433-7701

FIELD NOISE MEASUREMENT DATA

URS Project: HARBOR Marine Generating Station (LA DWP)

ID

SITE IDENTIFICATION: ST-2 OBSERVER(s): Greene M., Czech
START DATE & TIME: 2/19/04 1250 END DATE & TIME: 2/19/04 1240
ADDRESS: Valero Tank Farm at LT-1

Weather

TEMP: 67 °F HUMIDITY: 50 % R.H. WIND: CALM (LIGHT) MODERATE VARIABLE
WINDSPEED 0-5 MPH DIR: N NE E SE S SW W NW STEADY GUSTY
SKY: OVRCST PARTLY CLOUDY CLEAR (SUNNY) FOG RAIN Other:

Acoustic Measurements

INSTRUMENT: LD824 TYPE (1) 2 SERIAL #: 824A1143
CALIBRATOR: CAL200 SERIAL #: 2794
CALIBRATION CHECK: PRE-TEST 94.0 dBA SPL POST-TEST 93.9 dBA SPL WINDSCREEN ✓
SETTINGS: (A-WEIGHTED) (SLOW) FAST FRONTAL RANDOM (ANSI) OTHER: spectral too

REC57

1215-1235	L_{eq} 57.3	L_{max} 71.4	L_{min} 51.7	L_{90} 4 52.6	L_{50} 3 54.1	L_{10} X	2 62.8
	L_{eq}	L_{max}	L_{min}	L_{90}	L_{50}	L_{10}	
	L_{eq}	L_{max}	L_{min}	L_{90}	L_{50}	L_{10}	
	L_{eq}	L_{max}	L_{min}	L_{90}	L_{50}	L_{10}	

COMMENTS:

Source Info and Traffic Counts

SOURCE: TRAFFIC AIRCRAFT (RAIL) (Pacific Harbor Line (diesel, horn)) INDUSTRIAL OTHER:
ROADWAY TYPE:

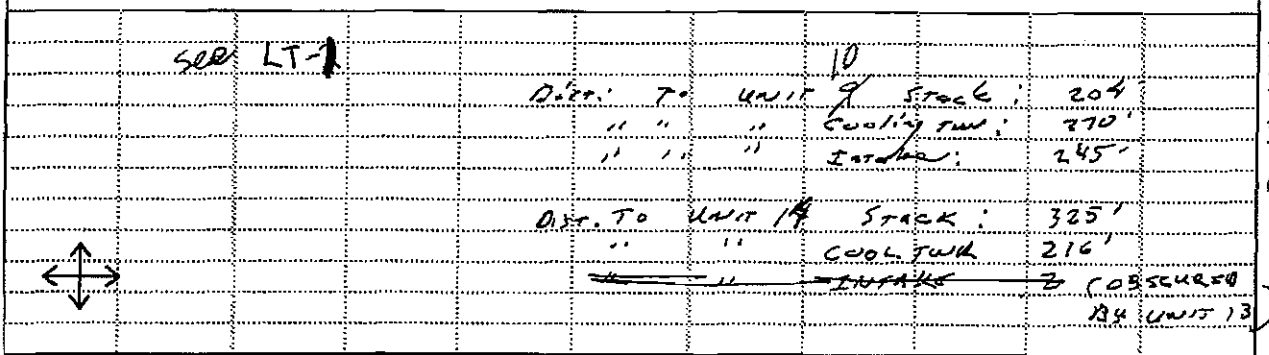
COUNT DURATION: ___-MINUTE	NB / EB / SB / WB	SPEED (mph) NB EB / SB WB	#2 COUNT: NB / EB / SB / WB	SPEED (mph) NB EB / SB WB
AUTOS:	___ / ___	___ / ___	___ / ___	___ / ___
MED. TRUCKS:	___ / ___	___ / ___	___ / ___	___ / ___
HVY TRUCKS:	___ / ___	___ / N/A	___ / ___	___ / ___
BUSES:	___ / ___	___ / ___	___ / ___	___ / ___
MOTORCYCLES:	___ / ___	___ / ___	___ / ___	___ / ___

SPEED ESTIMATED BY: RADAR / DRIVING / OBSERVER

OTHER NOISE SOURCES: distant AIRCRAFT overhead / RUSTLING LEAVES / distant BARKING DOGS / (BIRDS)
distant CHILDREN PLAYING / distant TRAFFIC / distant LANDSCAPING / distant TRAINS
OTHER:

Description / sketch

TERRAIN: (HARD) SOFT MIXED FLAT OTHER:
PHOTOS: yes
OTHER COMMENTS / SKETCH:



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FIELD NOISE MEASUREMENT DATA

URS Project: Harbor Generating Station (LADWP)

SITE IDENTIFICATION: ST-3 **OBSERVER(s):** Greene, M., Czech
START DATE & TIME: 2/19/04 1410 **END DATE & TIME:** 2/19/04 1430
ADDRESS: Show It storage yard, west side of Navy Way

TEMP: 67 °F **HUMIDITY:** 46 % R.H. **WIND:** (CALM) LIGHT MODERATE VARIABLE
WINDSPEED MPH **DIR:** N NE E SE S SW W NW STEADY GUSTY
SKY: (OVRCST) PARTLY (CLOUDY) CLEAR SUNNY FOG RAIN Other:

Weather

INSTRUMENT: B&K 2231 **TYPE:** (1) 2 **SERIAL #:** 1413404
CALIBRATOR: B&K 4231 **SERIAL #:** 1850301
CALIBRATION CHECK: **PRE-TEST** 93.9 dBA SPL **POST-TEST** 93.8 dBA SPL **WINDSCREEN** Y
SETTINGS: (A-WEIGHTED) (SLOW) FAST FRONTAL RANDOM (ANSI) OTHER:

1410-1430 : L_{eq} 41.0, L_{max} 76.0, L_{min} 53.4, L_{90} 54.5, L_{50} 57.0, L_{10} 65.0,
: L_{eq} , L_{max} , L_{min} , L_{90} , L_{50} , L_{10} ,
: L_{eq} , L_{max} , L_{min} , L_{90} , L_{50} , L_{10} ,
: L_{eq} , L_{max} , L_{min} , L_{90} , L_{50} , L_{10} ,

COMMENTS: talking 20 ft away briefly

Acoustic Measurements

SOURCE: TRAFFIC AIRCRAFT (RAIL) INDUSTRIAL **OTHER:** people maintaining their storage
ROADWAY TYPE:

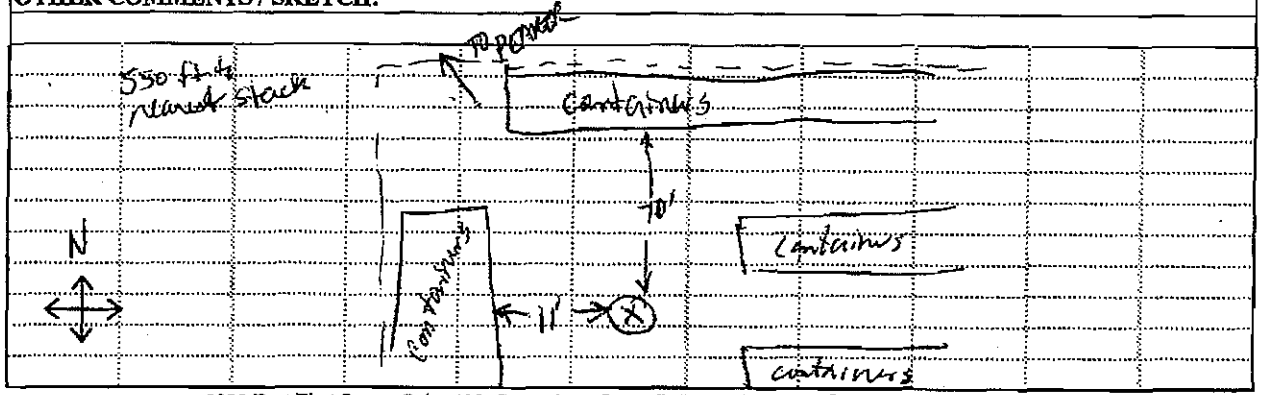
COUNT DURATION: -MINUTE	NB / EB / SB / WB	SPEED (mph) NB EB / SB WB	#2 COUNT: NB / EB / SB / WB	SPEED (mph) NB EB / SB WB
AUTOS:	/	/	/	/
MED. TRUCKS:	/	/	/	/
HVY TRUCKS:	/	/ N/A	/	/
BUSES:	/	/	/	/
MOTORCYCLES:	/	/	/	/

SPEED ESTIMATED BY: RADAR / DRIVING / OBSERVER

OTHER NOISE SOURCES: distant AIRCRAFT overhead / RUSTLING LEAVES / distant BARKING DOGS / BIRDS
distant CHILDREN PLAYING / distant TRAFFIC / distant LANDSCAPING / distant TRAINS
OTHER:

Source Info and Traffic Counts

TERRAIN: (HARD) SOFT MIXED FLAT **OTHER:**
PHOTOS: yes
OTHER COMMENTS / SKETCH:



Description / sketch

measform4.xls

FIELD NOISE MEASUREMENT DATA

URS Project: HARBOR GEN. STATION

SITE IDENTIFICATION: ST-4 **OBSERVER(s):** MG, J. CATCH
START DATE & TIME: 2/20/04 10:45 **END DATE & TIME:** 2/20/04 1100
ADDRESS: HARBOR GEN PEAKER - PLANT, ON-SITE, (ALL 5 RUNNING)

ID

TEMP: 58 °F HUMIDITY: 66 % R.H. WIND: CALM LIGHT ~~MODERATE~~ ~~VARIABLE~~
WINDSPEED 0-5 MPH DIR: N NE E SE S SW W NW STEADY GUSTY
SKY: OVRCST PARTLY CLOUDY CLEAR SUNNY FOG RAIN Other:

Weather

INSTRUMENT: L-D 824 **TYPE:** 1 2 **SERIAL #:** 824A1143
CALIBRATOR: L-D CAL 200 **SERIAL #:** 2794
CALIBRATION CHECK: **PRE-TEST** 94.0 **dBA SPL** **POST-TEST** 94.0 **dBA SPL WINDSCREEN** ✓
SETTINGS: ~~A-WEIGHTED~~ ~~SLOW~~ ~~FAST~~ FRONTAL ~~RANDOM~~ ANSI OTHER:

rec58

10:45-11:00: L_{eq} 77.7, L_{max} 78.9, L_{min} 76.7, L_{90} 77.0, L_{50} 77.7, L_{10} 78.4, Spectral
: L_{eq} , L_{max} , L_{min} , L_{90} , L_{50} , L_{10} ,
: L_{eq} , L_{max} , L_{min} , L_{90} , L_{50} , L_{10} ,
: L_{eq} , L_{max} , L_{min} , L_{90} , L_{50} , L_{10} ,

COMMENTS:

Acoustic Measurements

SOURCE: **TRAFFIC AIRCRAFT RAIL** INDUSTRIAL **OTHER:** UNIT 10 (MAINLY ~~HVAC~~/INLET, ALSO COOLING TOWER
ROADWAY TYPE:

COUNT DURATION: ____-MINUTE	NB / EB / SB / WB	SPEED (mph) NB EB / SB WB	#2 COUNT: NB / EB / SB / WB	SPEED (mph) NB EB / SB WB
AUTOS:	/	/	/	/
MED. TRUCKS:	/	/	/	/
HVY TRUCKS:	/	/ N/A	/	/
BUSES:	/	/	/	/
MOTORCYCLES:	/	/	/	/

SPEED ESTIMATED BY: RADAR / DRIVING / OBSERVER

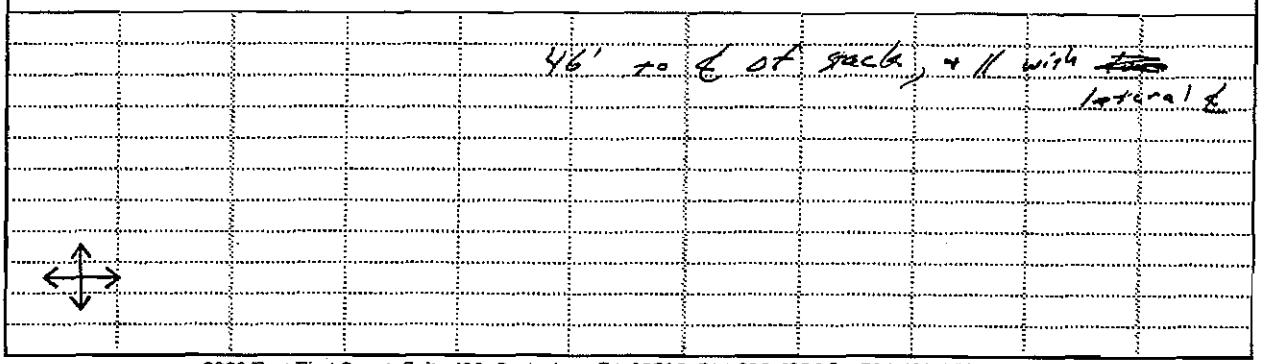
OTHER NOISE SOURCES: distant AIRCRAFT overhead / RUSTLING LEAVES / distant BARKING DOGS / BIRDS
distant CHILDREN PLAYING / distant TRAFFIC / distant LANDSCAPING / distant TRAINS
OTHER:

Source Info and Traffic Counts

TERRAIN: **HARD SOFT MIXED FLAT OTHER:**
PHOTOS: yes
OTHER COMMENTS / SKETCH:

46' to ℄ of stack, + 11 with ~~two~~ lateral ℄

Description / sketch



measform4.xls

2020 East First Street, Suite 400, Santa Ana, CA 92705, 714-835-6886 fax 714-433-7701

FIELD NOISE MEASUREMENT DATA

URS Project: HARBOR Generating Station (LADWP)

ID

SITE IDENTIFICATION: ST-5 OBSERVER(s): MG, J. CZECH
START DATE & TIME: 2/20/04 11:05 END DATE & TIME: 2/20/04 1125
ADDRESS: HARBOR GEN PEAKER PLANT, ON-SITE, ADJ. TO UNIT 14

Weather

TEMP: 58 °F HUMIDITY: 66 % R.H. WIND: CALM LIGHT MODERATE VARIABLE
WINDSPEED 0-5 MPH DIR: N NE E SE S SW W NW STEADY GUSTY
SKY: OVRCST PARTLY CLOUDY CLEAR SUNNY FOG RAIN Other:

Acoustic Measurements

INSTRUMENT: L-D 824 TYPE: 1 2 SERIAL #: 824A 1143
CALIBRATOR: L-D CAL 200 SERIAL #: 2794
CALIBRATION CHECK: PRE-TEST 94.0 dBA SPL POST-TEST 94.0 dBA SPL WINDSCREEN ✓
SETTINGS: A-WEIGHTED SLOW FAST FRONTAL RANDOM ANSI OTHER:

ST-5 A	11:05-11:10:	L_{eq} 76.9	L_{max} 78.7	L_{min} 76.1	L_{90} 76.4	L_{50} 76.8	L_{10} 77.4	SPECTRAL
ST-5 B	11:20-11:25:	L_{eq} 79.5	L_{max} 80.1	L_{min} 71.9	L_{90} 79.3	L_{50} 79.5	L_{10} 79.7	"
	(3 MINS):	L_{eq}	L_{max}	L_{min}	L_{90}	L_{50}	L_{10}	
	:	L_{eq}	L_{max}	L_{min}	L_{90}	L_{50}	L_{10}	

COMMENTS: COOLING TOWER - INTERMITTENT ON/OFF

Source Info and Traffic Counts

SOURCE: TRAFFIC AIRCRAFT RAIL INDUSTRIAL OTHER: UNIT 14
ROADWAY TYPE: A ST.

COUNT DURATION: ____-MINUTE	NB / EB / SB / WB	SPEED (mph) NB EB / SB WB	#2 COUNT: NB / EB / SB / WB	SPEED (mph) NB EB / SB WB
AUTOS:	____ / ____	____ / ____	____ / ____	____ / ____
MED. TRUCKS:	____ / ____	____ / ____	____ / ____	____ / ____
HVY TRUCKS:	____ / ____	____ / N/A	____ / ____	____ / ____
BUSES:	____ / ____	____ / ____	____ / ____	____ / ____
MOTORCYCLES:	____ / ____	____ / ____	____ / ____	____ / ____

SPEED ESTIMATED BY: RADAR / DRIVING / OBSERVER

OTHER NOISE SOURCES: distant AIRCRAFT overhead / RUSTLING LEAVES / distant BARKING DOGS / BIRDS
distant CHILDREN PLAYING / distant TRAFFIC / distant LANDSCAPING / distant TRAINS
OTHER:

TERRAIN: HARD SOFT MIXED FLAT OTHER:
PHOTOS: YES
OTHER COMMENTS / SKETCH:

Description / sketch

ST-5A 50' N. OF LONG ℄ OF STACK, // W/ LAT ℄
ST-5B 25' N. OF COOLING TOWER
42' E. OF STACK ℄ (LAT)
& 22' S. OF STACK ℄ (LONG)
(ST-5A, MOSTLY INLET, ETC.
ST-5B, MORE COOLING-TOWER)

meas form4.xls

FIELD NOISE MEASUREMENT DATA

URS Project: ~~Atlantic~~ Harbor Generating Station (LADWP)

SITE IDENTIFICATION: ST-6 **OBSERVER(s):** Czech, Greene, M.
START DATE & TIME: 2/20/04 1145 **END DATE & TIME:** 2/20/04 1205
ADDRESS: Parcel 5, 'A' St. = ST-1

ID

TEMP: 60 °F HUMIDITY: 59 % R.H. WIND: CALM LIGHT MODERATE VARIABLE
WINDSPEED 0-5 MPH DIR: N NE E SE S SW W NW STEADY GUSTY
SKY: OVRCST PARTLY CLOUDY CLEAR SUNNY FOG RAIN Other: a little sprinkle

Weather

INSTRUMENT: BK 2231 **TYPE:** 1 2 **SERIAL #:** 1413404
CALIBRATOR: BK 4231 **SERIAL #:** 1850301
CALIBRATION CHECK: **PRE-TEST** 93.8 **dBA SPL** **POST-TEST** 93.8 **dBA SPL** **WINDSCREEN** ✓
SETTINGS: A-WEIGHTED SLOW FAST FRONTAL RANDOM ANSI OTHER:

1145-1205 : L_{eq} 62.4, L_{max} 73.5, L_{min} 56.4, L_{90} 58.5, L_{50} 60.5, L_{10} 65.0,
: L_{eq} , L_{max} , L_{min} , L_{90} , L_{50} , L_{10} ,
: L_{eq} , L_{max} , L_{min} , L_{90} , L_{50} , L_{10} ,
: L_{eq} , L_{max} , L_{min} , L_{90} , L_{50} , L_{10} ,

COMMENTS:

Acoustic Measurements

SOURCE: TRAFFIC AIRCRAFT RAIL (horn) INDUSTRIAL OTHER: peakers, siren distant on Harry Bridges
ROADWAY TYPE: ~~[illegible]~~

COUNT DURATION: 20 MINUTE SPEED (mph) ~~#2 COUNT:~~ Avalon SPEED (mph)

	'A' St. NB / EB / SB / WB	NB EB / SB WB	NB / EB / SB / WB	NB EB / SB WB
AUTOS:	~~IIII~~ /	0-30 /	~~IIII~~ / ~~IIII~~	40 /
MED. TRUCKS:	/	/	II /	/
HVY TRUCKS:	I /	/	~~IIII~~ / III	/
BUSES:	/	/	/	/
MOTORCYCLES:	/	/	/	/

SPEED ESTIMATED BY: RADAR / DRIVING / OBSERVER

OTHER NOISE SOURCES: distant AIRCRAFT overhead / RUSTLING LEAVES / distant BARKING DOGS / BIRDS
distant CHILDREN PLAYING / distant TRAFFIC / distant LANDSCAPING / distant TRAINS
OTHER: harbor (horn)

Source Info and Traffic Counts

TERRAIN: HARD SOFT MIXED FLAT OTHER:
PHOTOS: no
OTHER COMMENTS / SKETCH:

See ST-1

Description / sketch

measform4.xls

FIELD NOISE MEASUREMENT DATA

URS Project: ~~Mowiro~~ Harbor Generating Station (LADWP)

SITE IDENTIFICATION: ST-7 **OBSERVER(s):** Czech, Greene, M.
START DATE & TIME: 2/20/04 1230 **END DATE & TIME:** 2/20/04 1300
ADDRESS: @ LT-2

ID

TEMP: ____ °F HUMIDITY: ____ % R.H. WIND: CALM LIGHT MODERATE VARIABLE
WINDSPEED ____ MPH DIR: N NE E SE S SW W NW STEADY GUSTY
SKY: OVRCST PARTLY CLOUDY CLEAR SUNNY FOG RAIN Other: on/off sp. inkle

Weather

INSTRUMENT: LD 824 **TYPE:** 1 2 **SERIAL #:** 824A1143
CALIBRATOR: CAL200 **SERIAL #:** 2794
CALIBRATION CHECK: **PRE-TEST** 93.9 **dBA SPL** **POST-TEST** 93.9 **dBA SPL** **WINDSCREEN** Y
SETTINGS: A-WEIGHTED SLOW FAST FRONTAL RANDOM ANSI OTHER: ____

Acoustic Measurements

sec 61
ST-7a
ST-7b

steamblow	L_{eq} 94.7	L_{max} 100.6	L_{min} 72.4	L_{90} ~~64.1~~ 72.6	L_{50} ~~70.8~~ 86.3	L_{10} ~~75.1~~ 99.3	
1247-1252	L_{eq} 70.9	L_{max} 77.0	L_{min} 68.8	L_{90} 69.1	L_{50} 70.8	L_{10} 73.1	
	L_{eq}	L_{max}	L_{min}	L_{90}	L_{50}	L_{10}	
	L_{eq}	L_{max}	L_{min}	L_{90}	L_{50}	L_{10}	

COMMENTS:

SOURCE: **TRAFFIC AIRCRAFT RAIL INDUSTRIAL OTHER:** ____
ROADWAY TYPE: ____

Source Info and Traffic Counts

COUNT DURATION: ____-MINUTE	NB / EB / SB / WB	SPEED (mph) NB EB / SB WB	#2 COUNT: NB / EB / SB / WB	SPEED (mph) NB EB / SB WB
AUTOS:	/	/	/	/
MED. TRUCKS:	/	/	/	/
HVY TRUCKS:	/	/ N/A	/	/
BUSES:	/	/	/	/
MOTORCYCLES:	/	/	/	/

SPEED ESTIMATED BY: RADAR / DRIVING / OBSERVER

OTHER NOISE SOURCES: distant AIRCRAFT overhead / RUSTLING LEAVES / distant BARKING DOGS / BIRDS
distant CHILDREN PLAYING / distant TRAFFIC / distant LANDSCAPING / distant TRAINS
OTHER: ____

TERRAIN: **HARD SOFT MIXED FLAT OTHER:** ____
PHOTOS: no
OTHER COMMENTS / SKETCH:

See LT-2

Description / sketch

measform4.xls

2020 East First Street, Suite 400, Santa Ana, CA 92705, 714-835-6886 fax 714-433-7701

FIELD NOISE MEASUREMENT DATA

URS Project: HARBOR Maxim Generating Station (LADWP)

ID

SITE IDENTIFICATION: ST-8 OBSERVER(s): Greene, M., Czech
START DATE & TIME: 2/20/04 END DATE & TIME: 2/26/04
ADDRESS: @ ST-3

Weather

TEMP: 64 °F HUMIDITY: 49 % R.H. WIND: CALM (LIGHT) MODERATE VARIABLE
WINDSPEED 0-3 MPH DIR: N NE E SE S SW W NW STEADY GUSTY
SKY: (OVRCST) PARTLY CLOUDY CLEAR SUNNY FOG RAIN Other:

Acoustic Measurements

INSTRUMENT: BK 2231 TYPE: (1) 2 SERIAL #: 413464
CALIBRATOR: BK 4231 SERIAL #: 1850301
CALIBRATION CHECK: PRE-TEST 93.8 dBA SPL POST-TEST 93.9 dBA SPL WINDSCREEN ✓
SETTINGS: ~~A-WEIGHTED~~ (SLOW) FAST FRONTAL (RANDOM) (ANSI) OTHER:

1412-1432 :	L_{eq} 56.7	L_{max} 64.8	L_{min} 53.7	L_{90} 55.0	L_{50} 56.5	L_{10} 58.0	
:	L_{eq}	L_{max}	L_{min}	L_{90}	L_{50}	L_{10}	
:	L_{eq}	L_{max}	L_{min}	L_{90}	L_{50}	L_{10}	
:	L_{eq}	L_{max}	L_{min}	L_{90}	L_{50}	L_{10}	

COMMENTS: no people around storage yard; no milling about;

Source Info and Traffic Counts

SOURCE: TRAFFIC AIRCRAFT RAIL INDUSTRIAL OTHER:
ROADWAY TYPE:

COUNT DURATION: ____-MINUTE	NB / EB / SB / WB	SPEED (mph) NB EB / SB WB	#2 COUNT: NB / EB / SB / WB	SPEED (mph) NB EB / SB WB
AUTOS:	____ / ____	____ / ____	____ / ____	____ / ____
MED. TRUCKS:	____ / ____	____ / ____	____ / ____	____ / ____
HVY TRUCKS:	____ / ____	____ / N/A	____ / ____	____ / ____
BUSES:	____ / ____	____ / ____	____ / ____	____ / ____
MOTORCYCLES:	____ / ____	____ / ____	____ / ____	____ / ____

SPEED ESTIMATED BY: RADAR / DRIVING / OBSERVER

OTHER NOISE SOURCES: distant AIRCRAFT overhead / RUSTLING LEAVES / distant BARKING DOGS / BIRDS
distant CHILDREN PLAYING / distant TRAFFIC / distant LANDSCAPING / distant TRAINS
OTHER:

Description / sketch

TERRAIN: HARD SOFT MIXED FLAT OTHER:
PHOTOS: no
OTHER COMMENTS / SKETCH:

See ST-3

measform4.xls

FIELD NOISE MEASUREMENT DATA

URS Project: HARBOR Marine Generating Station (LADWP)

SITE IDENTIFICATION: LT-1 **OBSERVER(s):** Greene, M. Czech
START DATE & TIME: 2/19/04 1200 **END DATE & TIME:** 2/20/04 ~1300
ADDRESS:
Valero Tank Farm west ~~end~~ of Tank 4051, east of Peaker Plant near fenceline

ID

TEMP: 67 °F HUMIDITY: 50 % R.H. WIND: CALM (LIGHT) MODERATE VARIABLE
WINDSPEED 4-7 MPH DIR: (N) NE E SE S SW W NW STEADY GUSTY
SKY: OVRCST (PARTLY CLOUDY) CLEAR (SUNNY) FOG RAIN Other:

Weather

INSTRUMENT: dB308 **TYPE:** 1 (2) **SERIAL #:** 3068
CALIBRATOR: CL304 **SERIAL #:** 3316
CALIBRATION CHECK: **PRE-TEST** 101.9 dBA SPL **POST-TEST** 101.6 dBA SPL **WINDSCREEN** Y
SETTINGS: (A-WEIGHTED) (SLOW) FAST FRONTAL RANDOM (ANSI) OTHER:

_____: L_{eq} _____, L_{max} _____, L_{min} _____, L_{90} _____, L_{50} _____, L_{10} _____, _____
_____: L_{eq} _____, L_{max} _____, L_{min} _____, L_{90} _____, L_{50} _____, L_{10} _____, _____
_____: L_{eq} _____, L_{max} _____, L_{min} _____, L_{90} _____, L_{50} _____, L_{10} _____, _____
_____: L_{eq} _____, L_{max} _____, L_{min} _____, L_{90} _____, L_{50} _____, L_{10} _____, _____

COMMENTS: exited site @ 1245 on 2/19/04; exited site @ ~1300 on 2/20/04

Acoustic Measurements

SOURCE: **TRAFFIC AIRCRAFT RAIL INDUSTRIAL OTHER:**
ROADWAY TYPE:
COUNT DURATION: _____-MINUTE

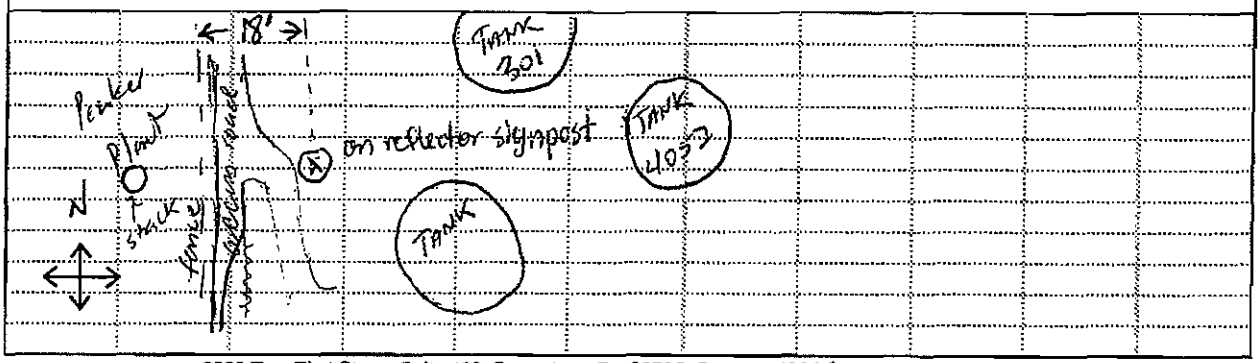
	#1 COUNT: NB / EB / SB / WB	SPEED (mph) NB EB / SB WB	#2 COUNT: NB / EB / SB / WB	SPEED (mph) NB EB / SB WB
AUTOS:	_____ / _____	_____ / _____	_____ / _____	_____ / _____
MED. TRUCKS:	_____ / _____	_____ / N/A	_____ / _____	_____ / _____
HVY TRUCKS:	_____ / _____	_____ /	_____ / _____	_____ / _____
BUSES:	_____ / _____	_____ / _____	_____ / _____	_____ / _____
MOTORCYCLES:	_____ / _____	_____ / _____	_____ / _____	_____ / _____

SPEED ESTIMATED BY: RADAR / DRIVING / OBSERVER

OTHER NOISE SOURCES: distant AIRCRAFT overhead / RUSTLING LEAVES / distant BARKING DOGS / BIRDS
distant CHILDREN PLAYING / distant TRAFFIC / distant LANDSCAPING / distant TRAINS
OTHER:

Source Info and Traffic Counts

TERRAIN: (HARD) SOFT MIXED FLAT OTHER:
PHOTOS: yes
OTHER COMMENTS / SKETCH:



Description / sketch

meaform4.xls

FIELD NOISE MEASUREMENT DATA

URS Project: Harbor Generating Station (LADWP)

SITE IDENTIFICATION: LT-2 **OBSERVER(s):** Greene, M., Atech
START DATE & TIME: 2/19/04 1400 **END DATE & TIME:** 2/20/04 1430
ADDRESS: Stow-It storage yard near fenceline with rail ROW and Tank Farm (Valero)

ID

TEMP: 68 °F HUMIDITY: 43 % R.H. WIND: (CALM) LIGHT MODERATE VARIABLE
WINDSPEED _____ MPH DIR: N NE E SE S SW W NW STEADY GUSTY
SKY: OVRCST PARTLY (CLOUDY) CLEAR SUNNY FOG RAIN Other: _____

Weather

INSTRUMENT: dB308 **TYPE:** 1 (2) **SERIAL #:** 2434
CALIBRATOR: CL304 **SERIAL #:** 3316
CALIBRATION CHECK: **PRE-TEST** 102.0 dBA SPL **POST-TEST** 102.2 dBA SPL **WINDSCREEN** Y
SETTINGS: (A-WEIGHTED) (SLOW) FAST FRONTAL RANDOM (ANSI) OTHER: _____

_____: L_{eq} _____, L_{max} _____, L_{min} _____, L_{90} _____, L_{50} _____, L_{10} _____, _____
_____: L_{eq} _____, L_{max} _____, L_{min} _____, L_{90} _____, L_{50} _____, L_{10} _____, _____
_____: L_{eq} _____, L_{max} _____, L_{min} _____, L_{90} _____, L_{50} _____, L_{10} _____, _____
_____: L_{eq} _____, L_{max} _____, L_{min} _____, L_{90} _____, L_{50} _____, L_{10} _____, _____

COMMENTS: exited site @ ~1430 on 2/20/04

Acoustic Measurements

SOURCE: (TRAFFIC) AIRCRAFT (RAIL) INDUSTRIAL OTHER: Pacific Harbor Line
ROADWAY TYPE: _____
COUNT DURATION: _____-MINUTE

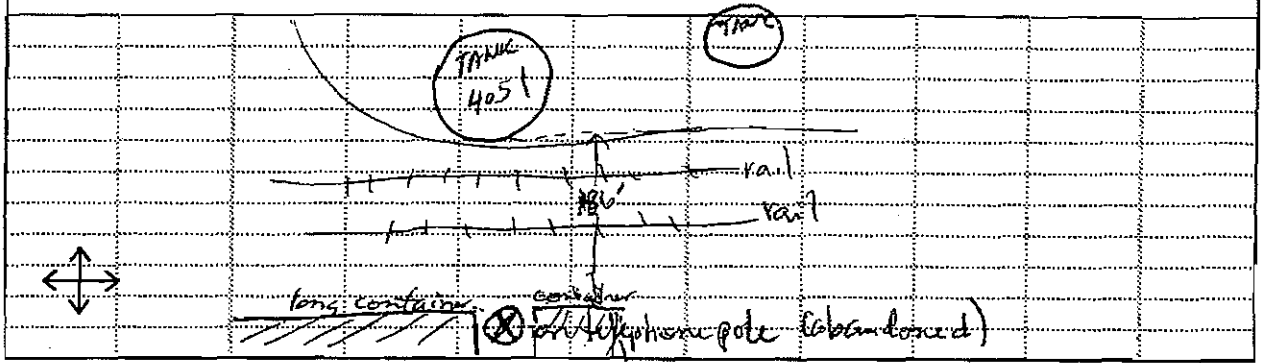
	SPEED (mph) NB / EB / SB / WB	SPEED (mph) NB EB / SB WB	#2 COUNT: NB / EB / SB / WB	SPEED (mph) NB EB / SB WB
AUTOS:	_____ / _____	_____ / _____	_____ / _____	_____ / _____
MED. TRUCKS:	_____ / _____	_____ / _____	_____ / _____	_____ / _____
HVY TRUCKS:	_____ / _____	_____ / N/A	_____ / _____	_____ / _____
BUSES:	_____ / _____	_____ / _____	_____ / _____	_____ / _____
MOTORCYCLES:	_____ / _____	_____ / _____	_____ / _____	_____ / _____

SPEED ESTIMATED BY: RADAR / DRIVING / OBSERVER

OTHER NOISE SOURCES: distant AIRCRAFT overhead / RUSTLING LEAVES / distant BARKING DOGS / BIRDS
distant CHILDREN PLAYING / distant TRAFFIC / distant LANDSCAPING / distant TRAINS
OTHER: _____

Source Info and Traffic Counts

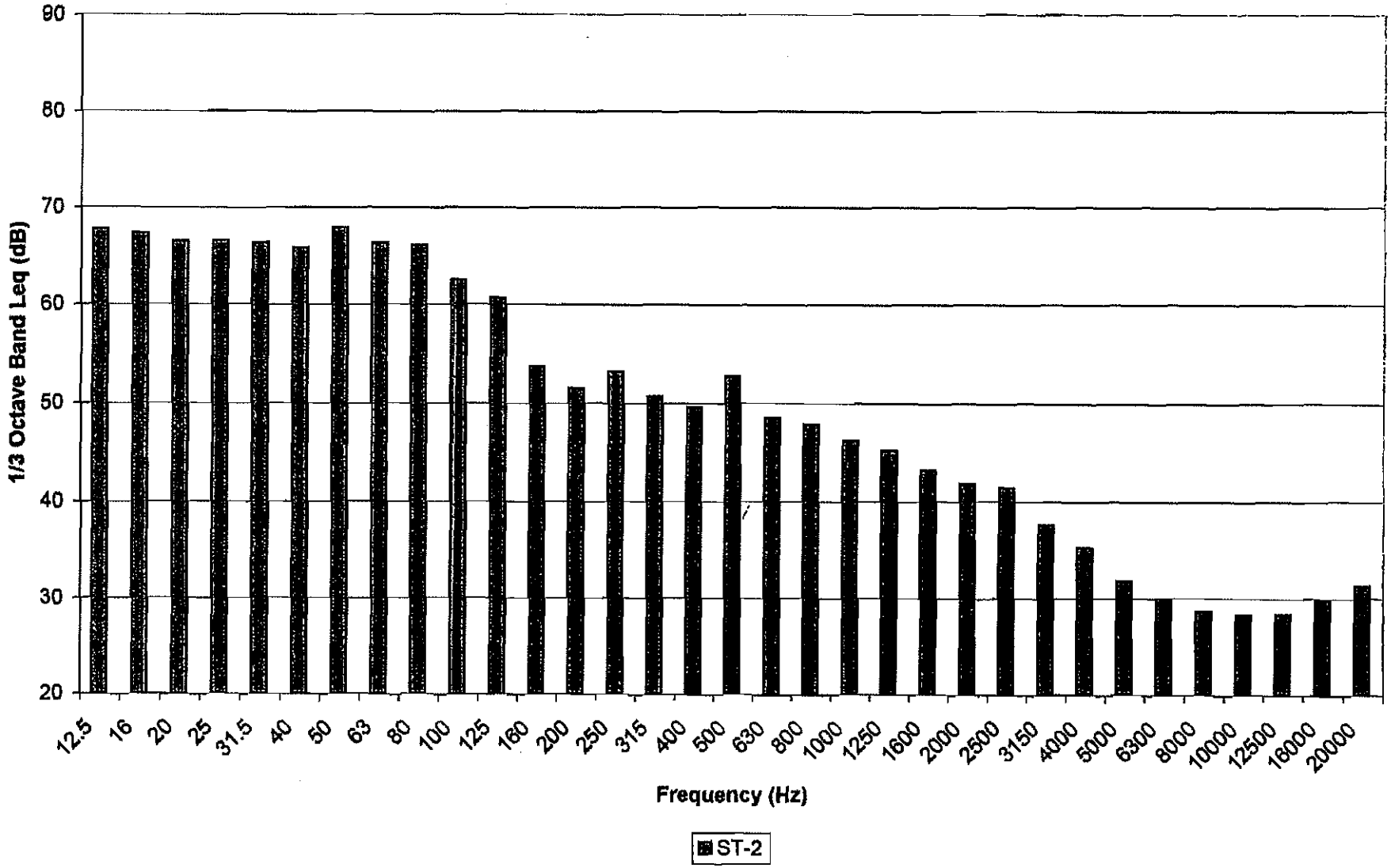
TERRAIN: HARD SOFT (MIXED) FLAT OTHER:
PHOTOS: from site to plant
OTHER COMMENTS / SKETCH:



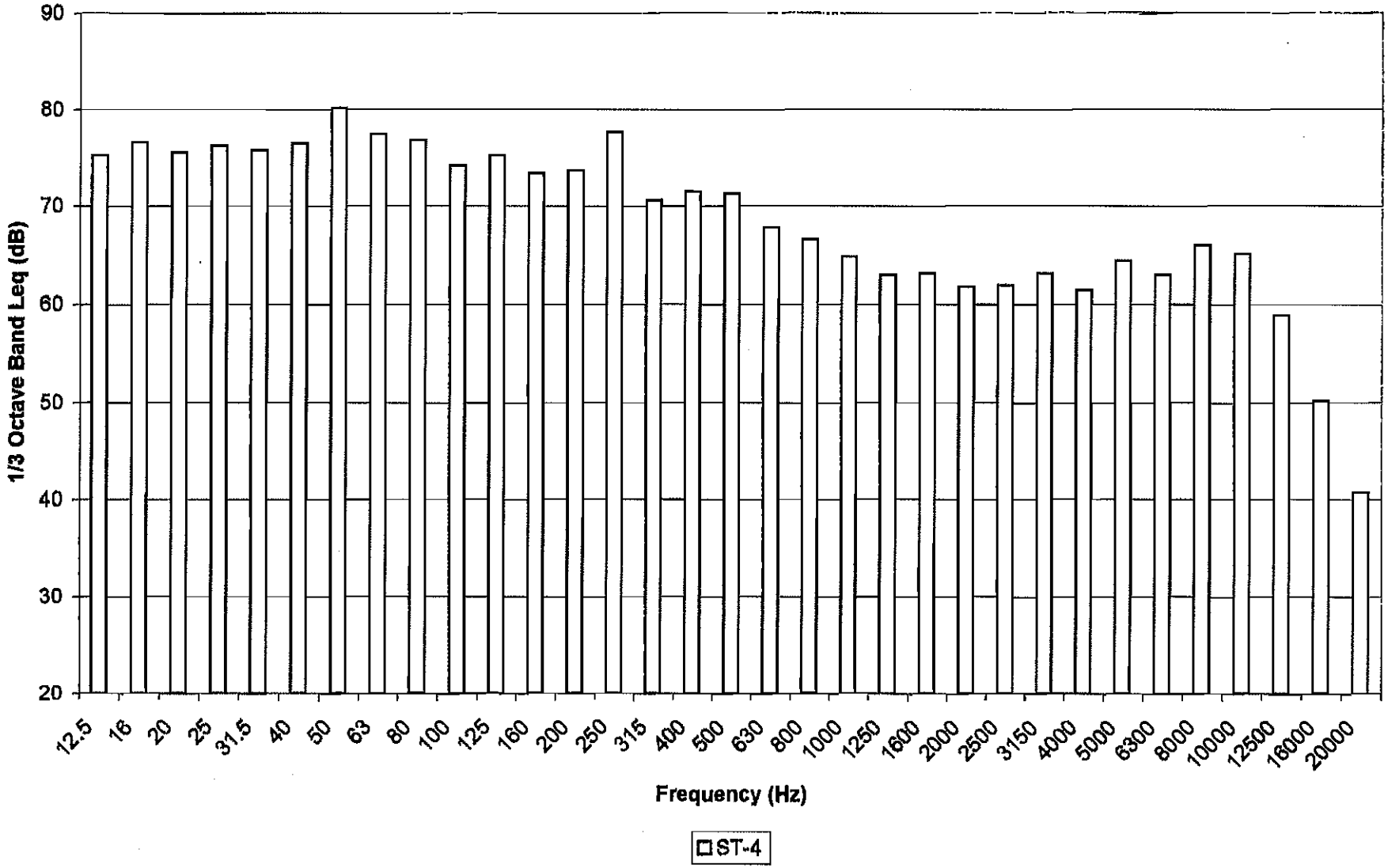
Description / sketch

measform4.xls

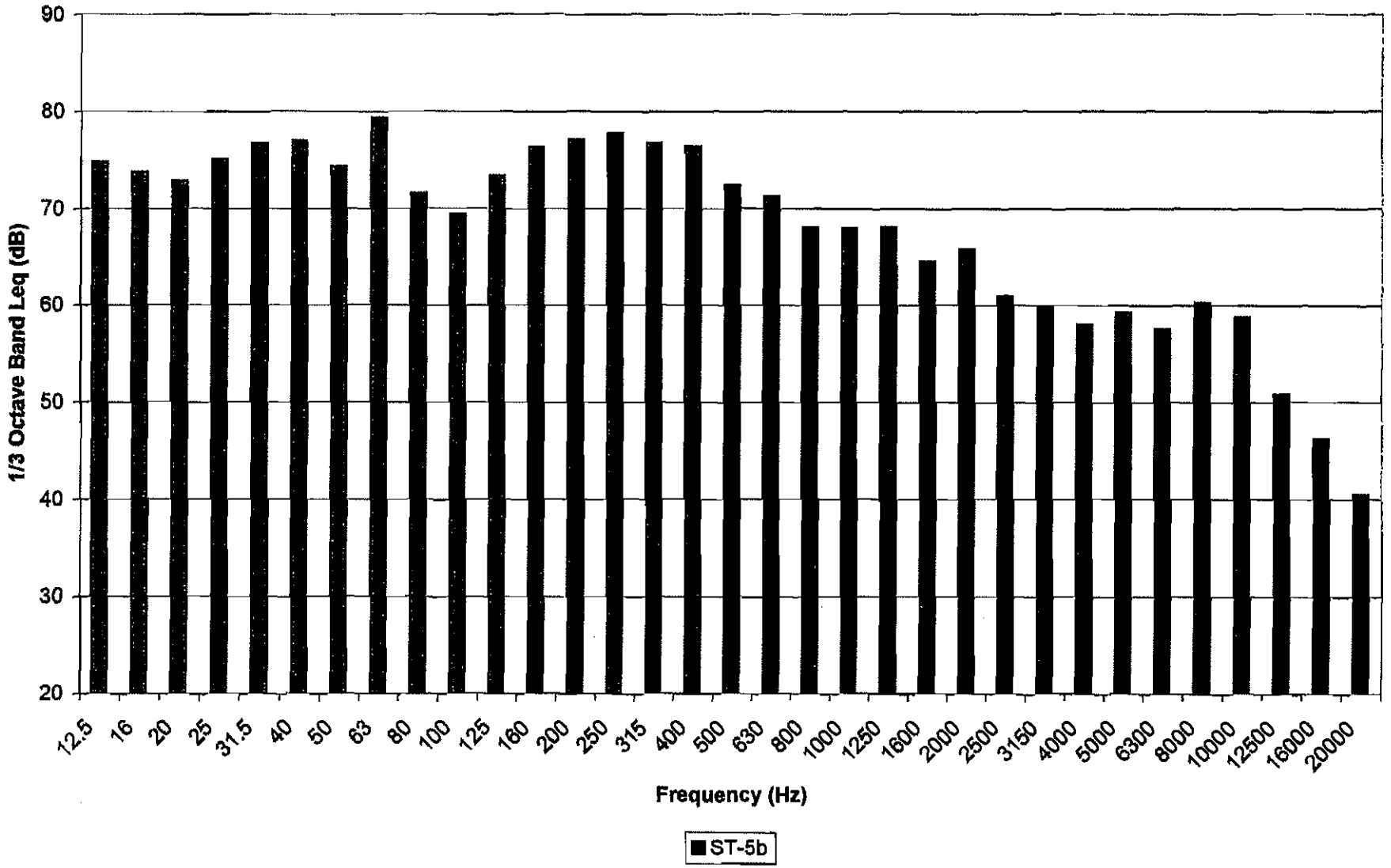
Spectrum for ST-2 (20 minutes)



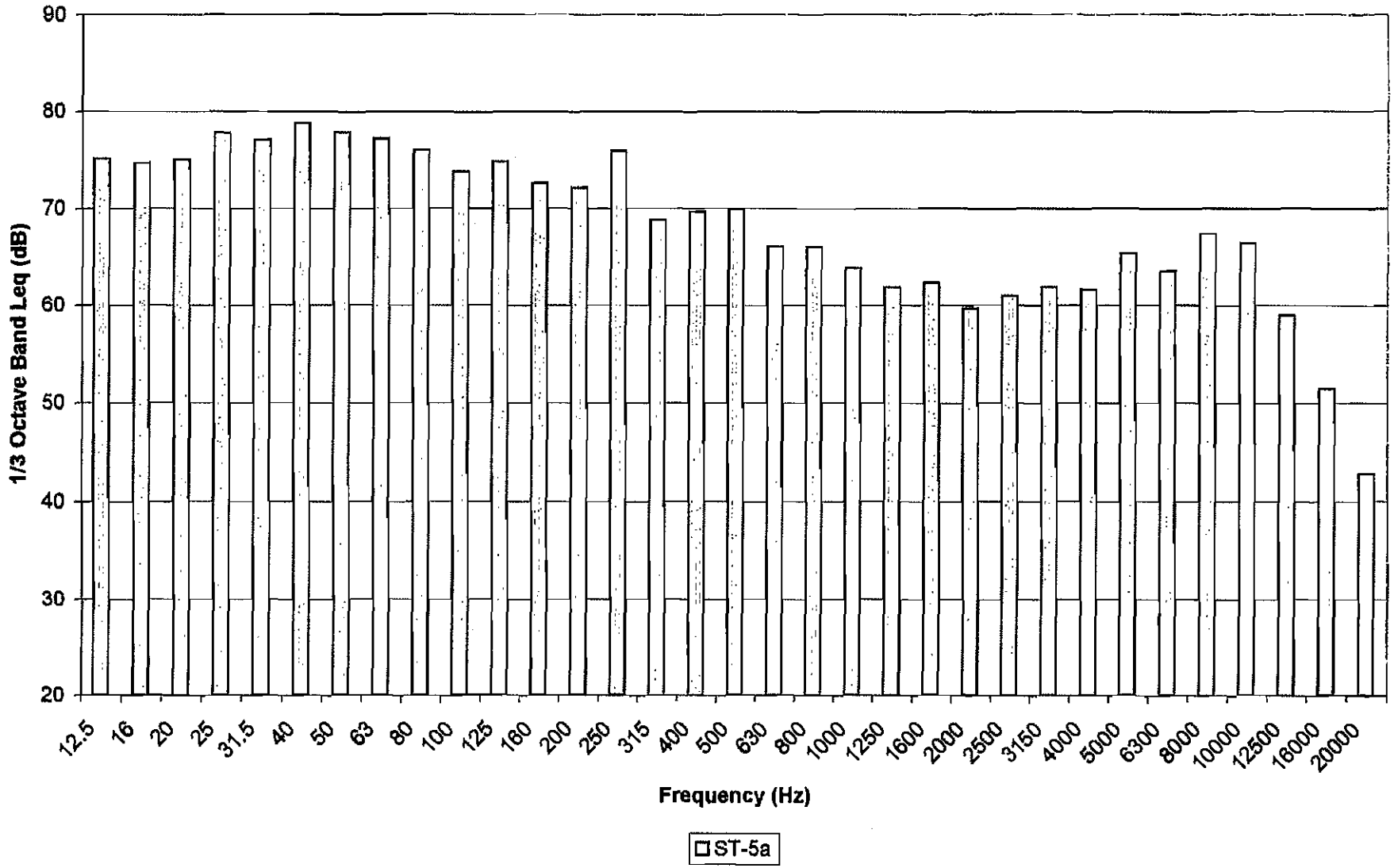
Spectrum for ST-4 (5 minutes; HGS on)



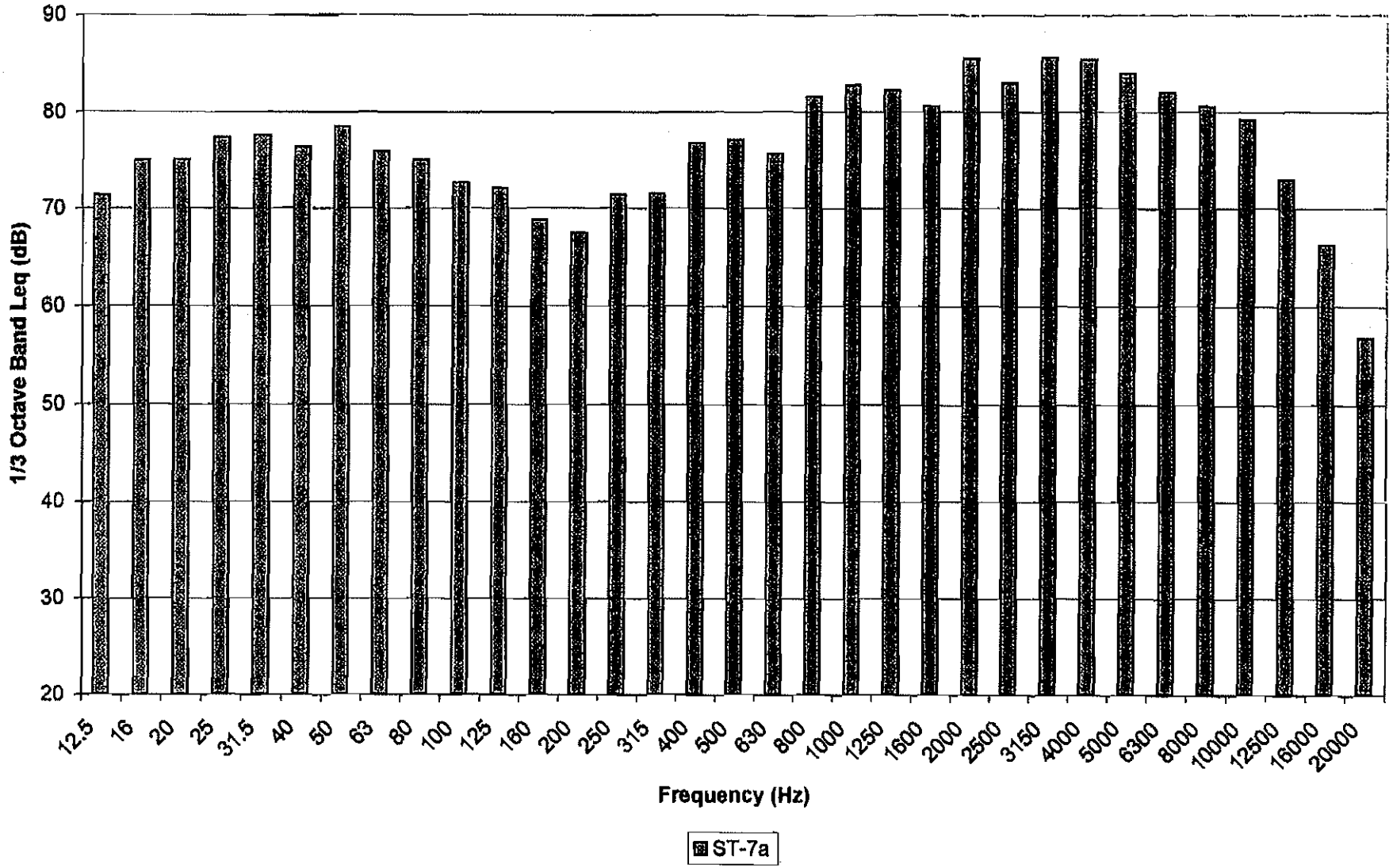
Spectrum for ST-5b (3 minutes; HGS on)



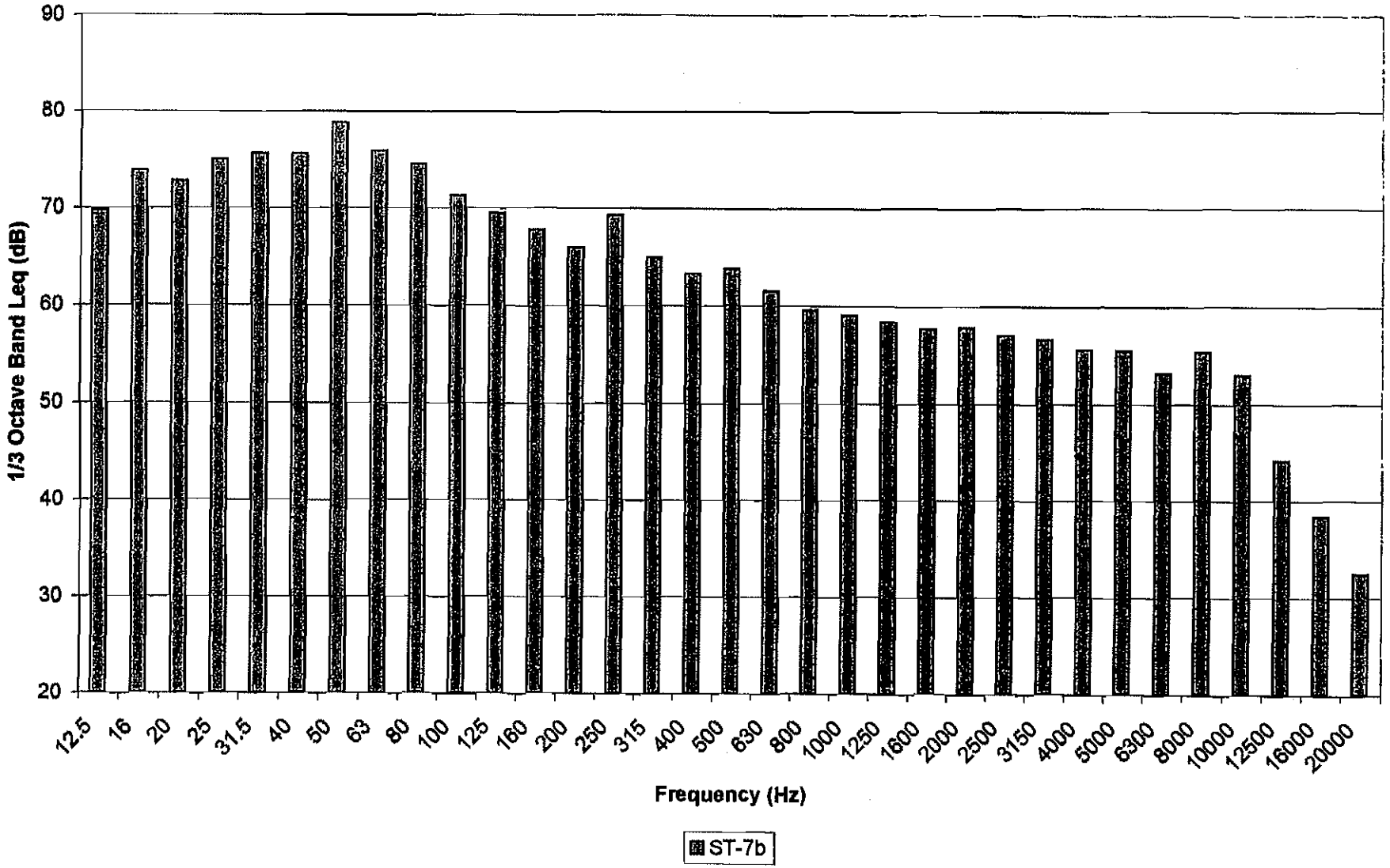
Spectrum for ST-5a (5 minutes; HGS on)



Spectrum for ST-7a (1 minute; HGS on [steamblow])



Spectrum for ST-7b (5 minutes; HGS on)



DRAFT

TRAFFIC STUDY FOR THE WILMINGTON WATERFRONT DEVELOPMENT ENVIRONMENTAL IMPACT STATEMENT/ ENVIRONMENTAL IMPACT REPORT

SEPTEMBER 2008

PREPARED FOR

JONES & STOKES

PREPARED BY

FEHR & PEERS
TRANSPORTATION CONSULTANTS

DRAFT

TRAFFIC STUDY
FOR THE
WILMINGTON WATERFRONT DEVELOPMENT
ENVIRONMENTAL IMPACT STATEMENT/ENVIRONMENTAL IMPACT REPORT

September 2008

Prepared for:

JONES & STOKES

Prepared by:

FEHR & PEERS
201 Santa Monica Boulevard, Suite 500
Santa Monica, California 90401
(310) 458-9916

Ref: LA08-2242

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I. INTRODUCTION

Fehr & Peers conducted a traffic study to evaluate the potential traffic impacts of the proposed Wilmington Waterfront Development (proposed project) within the Port of Los Angeles (Port) in Los Angeles, California. This report identifies the base data and assumptions, explains the methodologies used, and summarizes the findings of the study, which was conducted as part of the environmental impact statement/environmental impact report (EIS/EIR) being prepared for the project. The traffic impact analysis conducted for this report includes analysis of both 2015 and 2020 conditions with the project.

PROJECT DESCRIPTION

The Wilmington Waterfront Development project is located in the southern end of the City of Los Angeles. Figure 1 shows the location of the proposed project. The Wilmington Waterfront Development includes the development of approximately 58 acres of land in the northern portion of the Port of Los Angeles, directly adjacent to the Wilmington community. As can be seen in Figure 1, the project area is generally bounded by Lagoon Avenue in the west and Broad Avenue in the east, C Street in the north and Bannings Landing at the waterfront in the south.

Project Elements

The proposed development would involve a variety of land uses including pedestrian-oriented features and a waterfront promenade, enhancement of the Avalon Boulevard commercial corridor, commercial/industrial retail development, open space, and transportation enhancements and improvements. Following is list of the various elements of the proposed project:

FIGURE 1
STUDY AREA AND ANALYZED INTERSECTIONS

- Development of pedestrian-oriented features, including parks, plazas, sidewalk enhancements, and a pedestrian bridge;

- Development of a waterfront promenade and piers, with commercial retail/restaurant components;

- Development of a 10-acre raised park space on an expansive land bridge over active railroad lines to connect A Street with Wilmington Waterfront;

- Enhancement of the Avalon Boulevard Corridor to support commercial, industrial, and retail development;

- Development of Railroad Green, a passive open space within an existing abandoned railroad right-of-way;

- Improvement of traffic circulation on Avalon Boulevard, Broad Avenue, A Street, and Water Street;

- Removal and remediation of existing LADWP oil tanks; and

- Extension of the California Coastal Trail along John S. Gibson Boulevard and Harry Bridges Boulevard from Swinford Street & Harbor Boulevard to Avalon Boulevard & Harry Bridges Boulevard

The proposed project would include approximately 15 acres of public areas, including plazas, parks, and open space. The major feature of these public areas would be a 10-acre raised park space on an expansive land bridge, which would pass over the active railroad lines along Water Street. This land bridge would also incorporate a pedestrian water bridge, and these two features would connect Avalon Boulevard and the Entry Plaza to the water's edge. The paths in the land bridge and the pedestrian water bridge would provide pedestrian and bicycle access to the waterfront promenade.

PHASED DEVELOPMENT

For the purpose of this traffic study, the proposed project was analyzed in the following two phases of development:

Interim Development by Year 2015	Size
Retail	58,000 sf
Light Industrial	75,000 sf
Open Space (Park)	9.75 acres

Full Build Out by Year 2020	Size
Restaurant	12,000 sf.
Retail	58,000 sf.
Light Industrial	150,000 sf
Open Space (Park)	15.45 acres

Figure 2 shows a conceptual illustration of the full buildout of the project.

Circulation Improvements

Following is a brief description of improvements proposed for Avalon Boulevard, Broad Avenue, A Street and Water Street, which would all be completed by 2015:

- Avalon Boulevard would be straightened to maintain consistency with the street grid pattern along Avalon Boulevard south of Harry Bridges Boulevard. Avalon Boulevard between A Street and Broad Avenue would be vacated and incorporated into land for Avalon Triangle Park and the North Plaza.

- Broad Avenue would be realigned to create a more direct route between the waterfront and Harry Bridges Boulevard. The realignment would establish Broad Avenue, rather than Avalon Boulevard, as the primary vehicular access route to the waterfront.

- Water Street would be relocated to an alignment north of its current location. Currently Pier A Street becomes Water Street as its alignment changes from southwest-northeast to west-east adjacent to the water. The new alignment will maintain the southwest-northeast alignment as Water Street will now connect to Avalon Boulevard approximately 1,000 feet north of the current intersection.

The proposed project would provide a total of approximately 677 parking spaces in a combination of four off-street parking lots and on-street parking.

STUDY SCOPE

The scope of work for this study was developed in conjunction with the Los Angeles Department of Transportation (LADOT). The base assumptions and technical methodologies were discussed as part of the study approach. The study analyzes potential project-generated traffic impacts on the adjacent street system for two peak hours in two future horizon years. The analysis of future

Source: Jones & Stokes, February 2008

FEHR & PEERS
TRANSPORTATION CONSULTANTS

PROJECT SITE PLAN

FIGURE 2

Jul 16, 2008 FPA
\\fpla1\data\Jobs\Active\2200s\2242 – Wilmington Waterfront TS\Graphics\2242_Base.dwg

year traffic forecasts is based on projected conditions in year 2015 and 2020 both without and with the addition of the project traffic. The following traffic scenarios were analyzed for the weekday a.m. peak hour (between 7:00 and 9:00 a.m.) and weekday p.m. peak hour (between 4:00 and 6:00 p.m.).

- Existing Conditions – The analysis of existing Year 2007 traffic conditions provides a basis for the remainder of the study. The existing conditions analysis includes an assessment of streets, traffic volumes, and operating conditions.

- Cumulative Base Conditions – Future traffic conditions are projected without the proposed project in the interim development year 2015 and the full buildout year 2020. The objective of this phase of analysis is to project future traffic growth and operating conditions that could be expected to result from regional ambient growth and known cumulative projects if the proposed project were not developed. The cumulative base traffic forecasts are used to develop California Environmental Quality Act (CEQA) baseline operating conditions that provide the basis for determining significant project impacts under CEQA.

- Cumulative plus Project Conditions – This is an analysis of future traffic conditions with traffic expected from the proposed project added to the cumulative base traffic forecasts. Cumulative plus proposed project conditions were developed for the interim Year 2015 and full buildout Year 2020. The objective of this analysis is to develop the traffic forecasts of the proposed project that are then used to identify potential impacts.

The traffic study focuses on weekday peak hour traffic because it represents the worst overall traffic conditions with the greatest potential for impact. Although the proposed project may generate a slightly higher number of trips on the weekend, the background traffic conditions are generally lower.

As illustrated in Figure 1, 14 intersections were identified, in consultation with LADOT, for weekday morning and afternoon peak hour analysis as part of the scope of work for this project:

No.	Intersection
1	Figueroa Street & I-110 Northbound Ramps/C Street
2	Figueroa Street & Harry Bridges Boulevard
3	Fries Avenue & Anaheim Street
4	Fries Avenue & C Street
5	Fries Avenue & Harry Bridges Boulevard
6	Marine Avenue & C Street
7	Marine Avenue & Harry Bridges Boulevard
8	Avalon Boulevard & Anaheim Street

9 Avalon Boulevard & C Street
10 Avalon Boulevard & Harry Bridges Boulevard
11 Broad Avenue & C Street
12 Broad Avenue & Harry Bridges Boulevard
13 Alameda Street & Anaheim Street
14 John S. Gibson Boulevard & Channel Street

In addition, the study evaluated the potential for neighborhood impacts on the following six local street segments in the vicinity of the project:

No.	Street Segment
1	Mar Vista Avenue north of C Street
2	Hawaiian Avenue north of C Street
3	Gulf Avenue north of C Street
4	McDonald Avenue north of C Street
5	Bay View Avenue north of C Street
6	C Street east of Gulf Avenue

ORGANIZATION OF REPORT

This report is divided into eight chapters, including this introduction. Chapter II describes the existing conditions in the study area including an inventory of the streets, highways, and transit service in the study area, a summary of traffic volumes and an assessment of operating conditions. The methodologies used to develop traffic forecasts for the cumulative base and cumulative plus project and the forecasts themselves are included in Chapter III. Chapter IV presents an assessment of potential intersection traffic impacts generated by the proposed project. Mitigation measures to reduce the identified intersection impacts with development of the proposed project are presented and assessed in Chapter V. The results of the regional transportation system analysis are provided in Chapter VI. Chapter VII provides an analysis of parking proposed for the project. Chapter VIII summarizes the key findings and conclusions of the study. Appendices to this report include details of the technical analysis.

II. EXISTING CONDITIONS

As part of this analysis for the Wilmington Waterfront Project EIR, a comprehensive data collection effort was undertaken to develop a detailed description of existing conditions in the study area. The assessment of conditions relevant to this study includes an inventory of the street and highway systems, traffic volumes on these facilities, and operating conditions at key intersections.

EXISTING HIGHWAY AND STREET SYSTEM

The project site is in the Wilmington community of the City of Los Angeles. Primary regional access to the project area is provided by the Harbor Freeway (I-110) west of the project site. Year 2006 data from the California Department of Transportation (Caltrans) shows that the average daily traffic (ADT) volume on the Harbor Freeway to the north of C Street was approximately 91,000 vehicles per day (vpd) (*2006 Traffic Volumes on California State Highways,* California Department of Transportation, accessed February 2008). Access to the site from I-110 is provided via the ramps at C Street.

Local access to the project site is provided by a well-defined grid of arterial and collector roads. The primary roadway facilities in the project study area are:

- Anaheim Street – Anaheim Street is classified as a Major Class II Highway that runs east-west in the study area. This arterial provides a connection for local and regional travel from Wilmington to other parts of Los Angeles and the South Bay region. Anaheim Street is a major commercial corridor within Wilmington.

- Avalon Boulevard – Avalon Boulevard is classified as a Major Class II Highway that runs north-south in the study area. This arterial provides a connection for local and regional travel from Wilmington to other parts of Los Angeles and the South Bay region. Avalon Boulevard is a major commercial corridor within Wilmington. Avalon Boulevard currently has its terminus at Water Street.

- C Street – C Street is classified as a local street and provides east-west access along the northern edge of the project area as well as access for local traffic to southern Wilmington.

C Street starts at the I-110 Harbor Freeway and continues east until its terminus at Eubank Avenue.

- Figueroa Street – Figueroa Street is classified as a Major Class II Highway that runs north-south in the study area. This arterial provides a connection for local and regional travel from Wilmington to other parts of Los Angeles and the South Bay region. This street begins at John S. Gibson Boulevard/Harry Bridges Boulevard.

- Harry Bridges Boulevard – Harry Bridges Boulevard is classified as a Major Class I Highway within the study area, providing east-west access through the southern portion of the Wilmington community and along the northern edge of the Port of Los Angeles . At the western edge of the study area Harry Bridges Boulevard becomes John S. Gibson Boulevard and on the eastern edge of the study area Harry Bridges Boulevard turns into Alameda Street.

- John S. Gibson Boulevard – John S. Gibson Boulevard Street is classified as a Major Class I Highway providing north-south access through the southwestern portion of the study area. This roadway starts north of Pacific Avenue and turns into Harry Bridges Boulevard at Figueroa Street.

- Wilmington Boulevard – Wilmington Boulevard is classified as a Secondary Highway providing north-south access through the western portion of the community of Wilmington. This roadway starts near the ocean at Harry Bridges Boulevard and continues northward through the Wilmington Waterfront area.

Table 1 provides a description of these streets, summarizing their physical characteristics in the study area. Diagrams of the existing lane configurations at the analyzed intersections are provided in Appendix A.

EXISTING TRANSIT SERVICE

The Wilmington Waterfront Development area is served by two transit agencies, the Los Angeles County Metropolitan Transportation Authority (Metro) and LADOT. The following bus routes provide service in the vicinity:

- Metro 446/447 – These transit lines provide service between Point Fermin Park on Paseo del Mar in the Los Angeles Harbor area and the Patsaouras Transit Plaza at Union Station in downtown Los Angeles. In the study area, these lines travel on Harry Bridges Boulevard and Avalon Boulevard.

- Metro 202 – This transit line provides service between C Street in Wilmington and the Rosa Parks Station where the Metro Blue Line connects with the Metro Green Line near Imperial Highway in Willowbrook. In the study area, this line travels on C Street, D Street, Avalon Boulevard, and Anaheim Street.

TABLE 1
EXISTING SURFACE STREET CHARACTERISTICS

SEGMENT	FROM	TO	LANE		MEDIAN	PARKING RESTRICTIONS		SPEED
			NB/EB	SB/WB	TYPE	NB/EB	SB/WB	LIMIT
Anaheim St	110 Frwy	Figueroa St	2	2	DY	NSAT	NSAT	35
	Figueroa St	Mar Vista Av	2	2	DY	PA	NSAT	35
	Mar Vista Av	Hawaiin Av	2	2	DY	PA	PA	35
	Hawaiin Av	King Av	2	2	DY	PA	NSAT	35
	King Av	Ronan Av	2	2	2LT	NSAT	NSAT	35
	Ronan Av	McDonald Av	2	2	DY	PA	PA	35
	McDonald Av	Bayview Av	2	2	DY	PA	1hr 8A-6P	35
	Bayview Av	Neptune Av	2	2	DY	PA	PA	35
	Neptune Av	Lagoon Av	2	2	DY	PA	PA	30
	Lagoon Av	Island Av	2	2	DY	PA	1hr 8A-6P	30
	Island Av	Fries Av	2	2	2LT	PA	1hr 8A-6P	30
	Fries Av	Marine Av	2	2	DY	1hr 8A-6P(metered)	2hr 8A-6P	30
	Marine Av	Avalon Bl	2	2	DY	1hr 8A-6P	1hr 8A-6P / RZ	35
	Avalon Bl	Broad Av	2	2	DY	1hr 8A-6P / RZ	1hr 8A-6P / PA	35
	Broad Av	Lakme Av	2	2	DY	1hr 8A-6P	PA	35
	Lakme Av	Eubank Av	2	2	DY	PA	PA	35
	Eubank Av	Dominguez Av	2	2	2LT/DY	PA	NSAT / PA	35
	Dominguez Av	Stanford Av	2	2	DY	PA	PA	35
	Stanford Av	Flint Av	2	2	DY	PA	1hr 8A-6P	35
	Flint Av	Pioneer Av	2	2	DY	PA	PA	35
	Pioneer Av	Watson Av	2	2	DY	PA / RZ	PA	35
	Watson Av	Alameda St	2	2	2LT	RZ	PA	35
C St	Lakme Av	Broad Av	1	1	SDY	NP 10P-6A	NP 10P-6A	25
	Broad Av	Lagoon Av	1	1	SDY	PA	PA	25
	Lagoon Av	Bayview Av	1	1	SDY	2hr 8A-6P	2hr 8A-6P	25
	Bayview Av	McDonald Av	1	1	SDY	PA	RZ	25
	McDonald Av	Figueroa St	1	1	SDY	PA	PA	25
John S Gibson Bl	Figueroa St	110 NB Ramps	2	2	2LT / RM	NSAT	NSAT / PA	35 / 40
Harry Bridges Bl	Figueroa St	Lakme Av	2	2	DY	NSAT	NSAT	35
	Lakme Av	Eubank Av	2	2	DY	PA	PA	35
	Eubank Av	Anaheim St	2	2	DY	NSAT	NSAT	40
Water St	(end)	Fries Av (end)	2	2	DY	NSAT	NSAT	25
Water St (contd)	(end - Fries Av)	Avalon Bl	1	1	DY	NSAT	NSAT	25
	Avalon Bl	Canal Av	1	1	DY	NSAT / PA	NSAT / PA	25
	Canal Av	Yacht St	2	2	RM	PA	PA	25
A St	Avalon Bl	Fries Av	1	1	UD	PA	NSAT	25
Figueroa St	I St / 110 NB On-ramp	Anaheim St	2	2	DY	PA	2hr 8A-6P	35
	Anaheim St	Emden St	2	2	DY	2hr 8A-6P	PA	35
	Emden St	E St	2	2	2LT	2hr 8A-6P	2hr 8A-6P	35
	E St	Frigate Av	2	2	2LT	RZ	PA	35
	Frigate Av	C St	2	2	2LT	PA	PA	35
	C St	John S Gibson Bl / Harry Bridges Bl	2	2	DY	NSAT	NSAT	35
Mar Vista Av	E St	Harry Bridges Bl	1	1	SDY	PA	PA	25
Hawaiin Av	E St	Harry Bridges Bl	1	1	SDY	PA	PA	25
King Av	C St	Harry Bridges Bl	1	1	UD	PA	PA	25
Gulf Av	E St	Harry Bridges Bl	1	1	SDY	PA	PA	25
Wilmington Bl	I St	Anaheim St	1	2	2LT	PA	PA	30
	Anaheim St	Harry Bridges Bl	2	2	DY	PA	PA	30
McDonald Av	E St	Harry Bridges Bl	1	1	SDY	PA	PA	25
Bayview Av	E St	Harry Bridges Bl	1	1	SDY	PA	PA	25
Neptune Av	E St	Harry Bridges Bl	2	2	DY	PA	PA	25
Lagoon Av	E St	Harry Bridges Bl	1	1	SDY	PA	PA	25
Island Av	E St	Harry Bridges Bl	1	1	SDY	PA	PA	25
Fries Av	Anaheim St	Harry Bridges Bl	1	1	2LT	PA	PA	35
	Harry Bridges Bl	A St	1	1	2LT	NSAT	NSAT	30
	A St	Water St	2	2	DY	NSAT	NSAT	30
	Water St	La Paloma	2	2	DY	NSAT	NSAT	25
Marine Av	A St	E St	1	1	SDY	PA	PA	25
Avalon Bl	Water St	Harry Bridges Bl	2	2	DY	NSAT	NSAT	30
	Harry Bridges Bl	C St	2	2	DY	PA	PA	30
	C St	F St	2	2	DY	1hr 8A-6P	1hr 8A-6P	30
	F St	I St	2	2	DY	1hr 8A-6P(metered)	1hr 8A-6P(metered)	30
Broad Av	E St	Avalon Bl	1	1	2LT	PA	PA	25
Pier A	Fries Av	Pier A Place	2	2	DY	NSAT	NSAT	25
La Paloma Av	Fries Av	San Clemente Av	1	1	DY	PA	PA	25
San Climente Av	La Paloma Av	Fries Av	1	1	DY	PA	PA	25
Hermosa St	La Paloma Av	San Clemente Av	1	1	UD	PA	PA	25

Notes:

MEDIAN TYPE: DY = Double Yellow Centerline
SDY = Single Dashed Yellow Centerline
2LT = Dual Left Turn Centerline
RM = Raised Median
UD = Undivided Lane

PARKING: PA = Parking Allowed
NSAT = No Stopping Anytime
GZ = Green zone - Passenger loading and unloading
RZ = Red zone - No parking allowed

LANES: # = Number of lanes

- Metro 232 – This transit line provides service between 1st Street in downtown Long Beach and the Mariposa/Nash Metro station via the LAX CityBus Center. In the study area, the line travels on Anaheim Boulevard.

- DASH Wilmington – This transit line, operated by LADOT, circulates within the Wilmington area of Los Angeles providing local and connector service to the regional Metro transit line at the Harbor Freeway Transit Station at Pacific Coast Highway. In the study area, the line circulates along Figueroa Street (north of Anaheim Street), Hawaiian Avenue, Wilmington Avenue, Avalon Boulevard (north of Anaheim Street), C Street, and Anaheim Street. It operates every 15 minutes on weekdays between 7:00 a.m. and 8:27 p.m.

EXISTING TRAFFIC VOLUMES AND LEVELS OF SERVICE

This section presents the existing peak hour turning movement traffic volumes for the analyzed intersections, describes the methodology used to assess the traffic conditions at each intersection, and analyzes the resulting operating conditions at each, indicating volume-to-capacity (V/C) ratios and level of service (LOS).

Existing Traffic Volumes

New classified traffic counts were conducted for the weekday morning peak period (between 7:00 and 10:00 a.m.) and the weekday afternoon peak period (between 4:00 and 7:00 p.m.) in January 2008 (Intersections 1 through 13) and in July 2008 (Intersection 14). Vehicle counts for the study intersections include the classification of passenger cars and large trucks. A Passenger Car Equivalent (PCE) factor of 2.0 was applied to the truck traffic to convert the traffic counts in to PCEs. The existing weekday a.m. and p.m. peak hour traffic volumes at the analyzed intersections are presented in Figure 3. Traffic count data sheets are provided in Appendix B.

Level of Service Methodology

LOS is a qualitative measure used to describe the condition of traffic flow, ranging from excellent "free-flow" conditions at LOS A to overloaded "stop-and-go" conditions at LOS F. LOS D is typically considered to be the minimum acceptable level of service in urban areas.

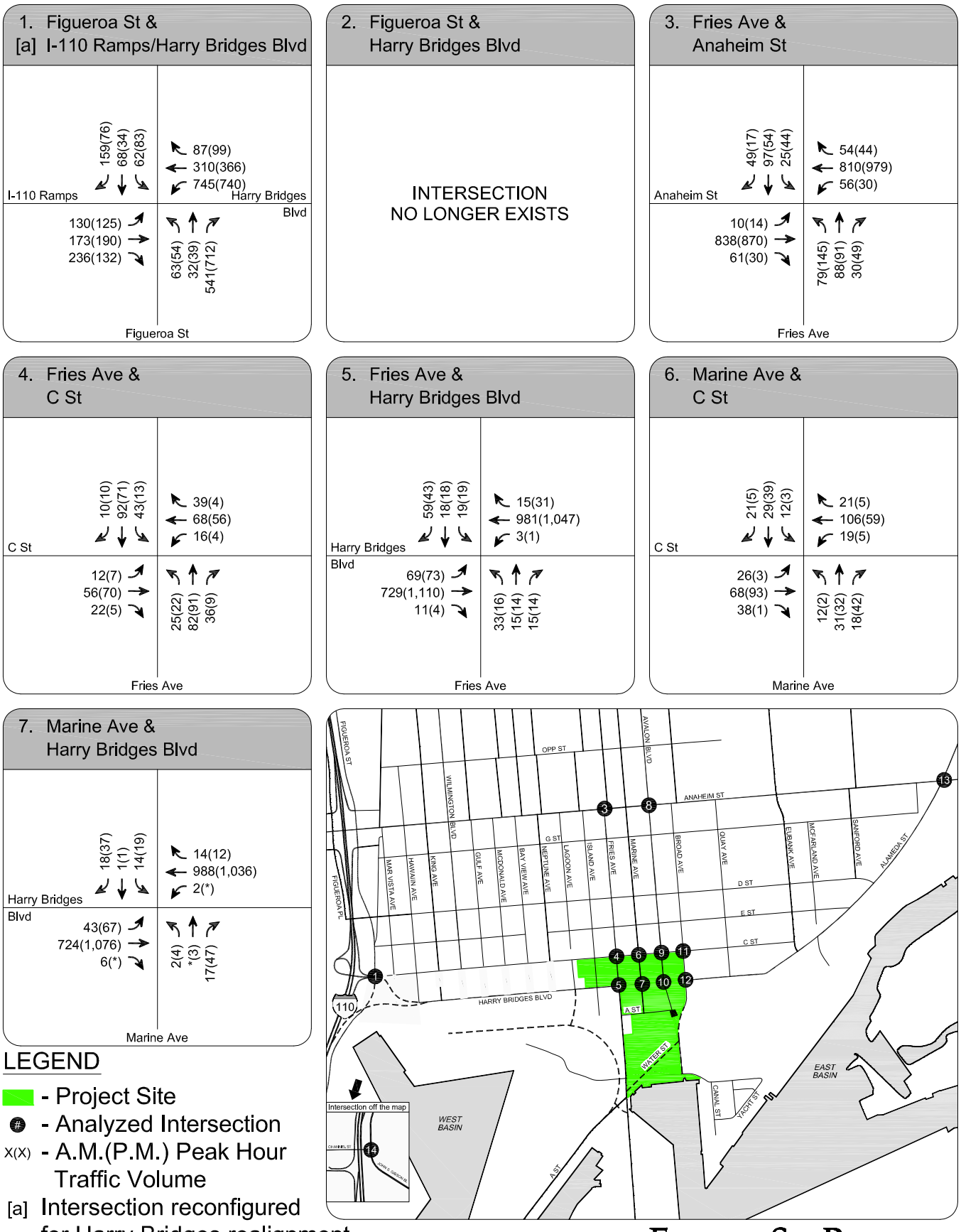

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FIGURE 5
CUMULATIVE BASE YEAR 2015 PEAK HOUR TRAFFIC VOLUMES

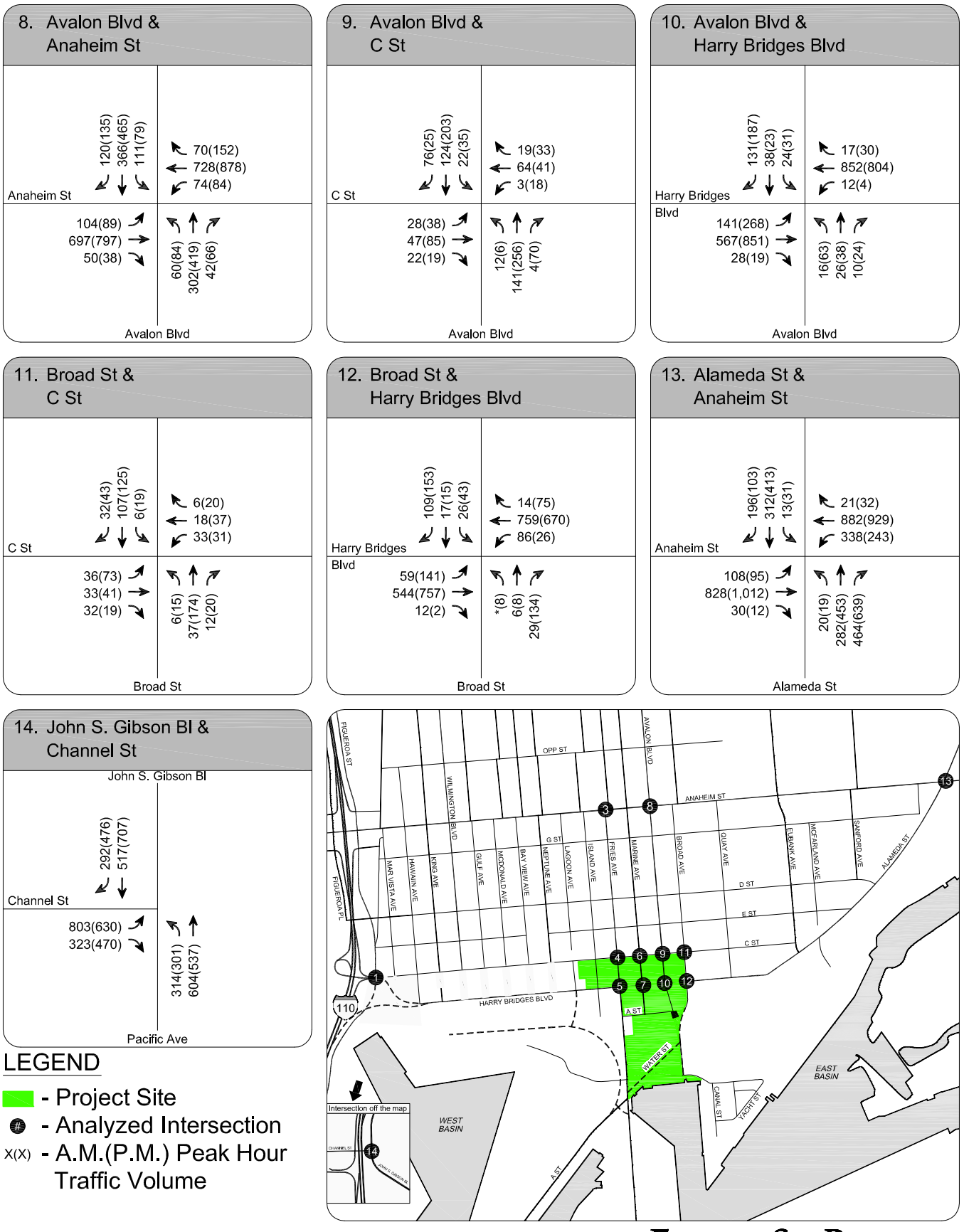

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FIGURE 5 (CONT.)
CUMULATIVE BASE YEAR 2015 PEAK HOUR TRAFFIC VOLUMES

According to the *Traffic Study Policies and Procedures* (LADOT, March 2002), this study is required to use the Critical Movement Analysis (CMA) method of intersection capacity calculation (*Transportation Research Circular No. 212,* Transportation Research Board, 1980) to analyze the LOS at signalized intersections. The CMA methodology determines the V/C ratio of an intersection based on the number of approach lanes, the traffic signal phasing and the traffic volumes. The CalcaDB software package developed by LADOT was used to implement the CMA methodology in this study. The V/C ratio is then used to find the corresponding LOS based on the definitions in Table 2.

Eight of the 14 analyzed intersections are currently controlled by traffic signals. Of those eight, all but the intersection of Figueroa Street & Harry Bridges Boulevard are currently controlled by the City's Automated Traffic Surveillance and Control (ATSAC) system. Of the seven signalized intersections installed with the ATSAC system, only the intersection of John S. Gibson Boulevard and Channel Street is installed with LADOT's Adaptive Traffic Control System (ATCS). In accordance with LADOT procedures, a capacity increase of 7% was applied to reflect the benefits of ATSAC and 10% (0.10 V/C adjustment) was applied to reflect the benefits of both the ATSAC and ATCS control at John S. Gibson Boulevard and Channel Street.

Six study intersections are unsignalized and were analyzed using the stop-controlled methodologies from the *Highway Capacity Manual* (Transportation Research Board, 2000), which determines the average vehicle delay and the LOS using the relationship indicated in Table 3. Two intersections, Marine Avenue & C Street and Marine Avenue & Harry Bridges Boulevard, were analyzed using the "Two-Way Stop" methodology, while the following four intersections were analyzed using the "Four-Way Stop" methodology to determine V/C ratio and corresponding LOS:

- Figueroa Street & C Street
- Fries Avenue & C Street
- Avalon Boulevard & C Street
- Broad Avenue & C Street

Because LADOT's criteria does not address the significant impact thresholds for unsignalized intersections, consultation with LADOT determined that unsignalized intersections could be assessed for impacts by analyzing these locations with a capacity of 1,200 vehicles per hour

TABLE 2
LEVEL OF SERVICE DEFINITIONS FOR SIGNALIZED INTERSECTIONS

Level of Service	Intersection Capacity Utilization	Definition
A	0.000-0.600	EXCELLENT. No Vehicle waits longer than one red light and no approach phase is fully used.
B	0.601-0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	0.701-0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.801-0.900	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	0.901-1.000	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.000	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.

Source: *Transportation Research Circular No. 212, Interim Materials on Highway Capacity* , Transportation Research Board, 1980.

TABLE 3
LEVEL OF SERVICE DEFINITIONS FOR
STOP-CONTROLLED INTERSECTIONS

Level of Service	Average Total Delay (seconds/vehicle)
A	$\leq$ 10.0
B	> 10.0 and $\leq$ 15.0
C	> 15.0 and $\leq$ 25.0
D	> 25.0 and $\leq$ 35.0
E	> 35.0 and $\leq$ 50.0
F	> 50.0

Source: *Highway Capacity Manual,* Transportation Research Board, 2000

(vph) in CalcaDB and then using the significant impact criteria established for signalized intersections to measure the incremental change in V/C ratio.

Existing Peak Hour Levels of Service

The existing weekday and weekend peak hour turning movement volumes presented in Figure 4 were used in conjunction with the LOS methodology described above to determine existing operating conditions at each of the study intersections. LOS calculation worksheets are included in Appendix C.

Table 4 summarizes the existing weekday morning and evening peak hour V/C ratios and corresponding LOS at each of the study intersections. The results of this analysis indicate that all 14 study intersections are currently operating at acceptable LOS (LOS D or better) during the weekday morning evening peak hours.

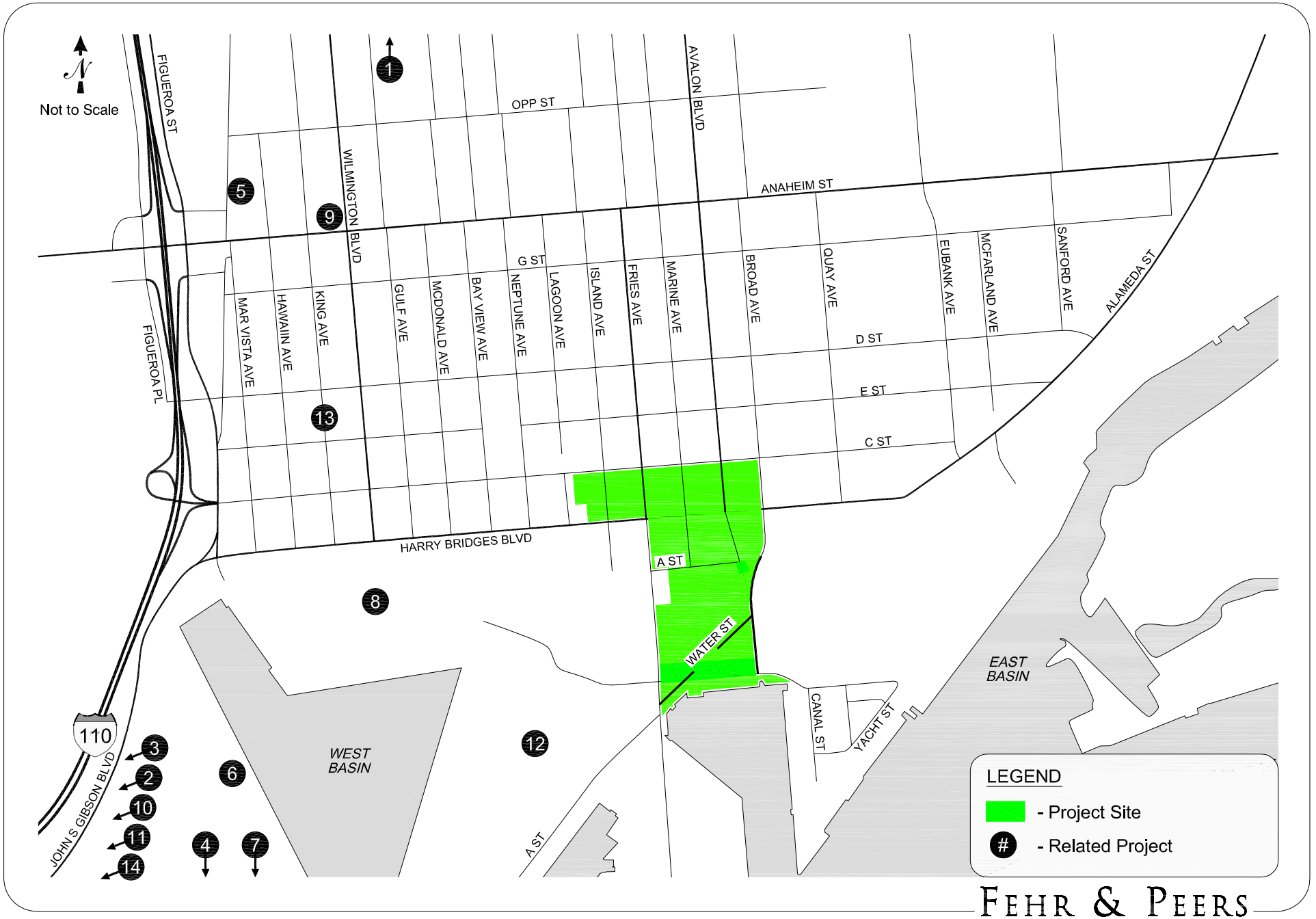

FIGURE 4
LOCATION OF RELATED PEOJECTS

TABLE 4
EXISTING BASE YEAR (2008) INTERSECTION LEVEL OF SERVICE ANALYSIS

	Intersection	Peak Hour	Existing Base Year (Year 2008) V/C or Delay	LOS
1	Figueroa St C St [b]	**AM** **PM**	12.4 11.7	B B
2	Figueroa St Harry Bridges Bl	**AM** **PM**	0.419 0.429	A A
3	N. Fries Av Anaheim St*	**AM** **PM**	0.475 0.473	A A
4	Fries Av C St [b]	**AM** **PM**	8.0 7.6	A A
5	Fries Av Harry Bridges Bl*	**AM** **PM**	0.311 0.283	A A
6	Marine Av C St [a]	**AM** **PM**	10.6 10.0	B A
7	Marine Av Harry Bridges Bl [a]	**AM** **PM**	15.1 18.2	C C
8	Avalon Bl Anaheim St*	**AM** **PM**	0.577 0.752	A C
9	Avalon Bl C St [b]	**AM** **PM**	8.1 9.0	A A
10	Avalon Bl Harry Bridges Bl*	**AM** **PM**	0.252 0.392	A A
11	Broad Av C St [b]	**AM** **PM**	7.8 8.9	A A
12	Broad Av Harry Bridges Bl*	**AM** **PM**	0.227 0.295	A A
13	Alameda St Anaheim St*	**AM** **PM**	0.426 0.502	A A
14	John S. Gibson Bl Channel St**	**AM** **PM**	0.504 0.582	A A

Notes:

* Intersection is currently operating under ATSAC system.

** Intersection is currently operating under ATSAC and ATCS systems.

[a] Intersection is a two-way stop-controlled intersection. Level of service analysis assumes 1,200 vehicles per lane per hour.

[b] Intersection is a four-way stop-controlled intersection. Level of service analysis assumes 1,200 vehicles per lane per hour.

III. FUTURE TRAFFIC PROJECTIONS

Estimates of future traffic conditions both with and without the proposed project were necessary to evaluate the potential impact of the proposed project on the local street system. The cumulative base traffic scenario represents future traffic conditions without the addition of the proposed project, while the cumulative plus project scenario represents future traffic conditions with the development of the proposed project. The development of these future traffic scenarios is described in this chapter.

CUMULATIVE BASE TRAFFIC VOLUMES

The cumulative base traffic projections reflect the changes to existing traffic conditions that can be expected from three primary sources. The first source is the ambient growth in traffic, which reflects increases in traffic because of regional growth and development. The second source is traffic generated by specific development projects located within, or in the vicinity of, the study area. The third source is roadway or intersection capacity enhancements. These factors are described below.

Areawide Traffic Growth

Based on the *Congestion Management Program for Los Angeles County* (Metro, July 22, 2004), (CMP) and following discussions with LADOT, we determined that an ambient growth factor of 0.65% per year should be applied to adjust the existing base year traffic volumes to reflect the effects of regional growth and development for the 2015 interim year and 2020 buildout year. This adjustment was applied to the base Year 2008 traffic volume data to reflect the effect of ambient growth of 4.55% by the Year 2015 and 7.8% by the Year 2020.

Related Project Traffic Generation and Assignment

Cumulative base traffic forecasts include the effects of specific cumulative development projects, also called related projects, expected to be built in the vicinity of the proposed project site prior to the proposed project's Interim Year 2015 and full buildout Year 2020. The list of related projects was based on data from LADOT and from the Community Redevelopment Agency of the City of Los Angeles (CRA/LA), as well as a review of other recent traffic studies conducted for projects in the vicinity. Table 5 lists the 14 cumulative projects identified in the study area for both the interim Year 2015 and full buildout Year 2020. The locations of the related projects are illustrated in Figure 4.

Trip Generation. Trip generation estimates for the related projects were calculated using either data in previous traffic studies or the trip generation rates contained in *Trip Generation, 7th Edition* (Institute of Transportation Engineers [ITE], 2003). Table 5 presents the resulting trip generation estimates. These projections are conservative in that they may not in every case account for either the existing uses to be removed or the possible use of non-motorized travel modes (transit, walking, etc.)

Trip Distribution. The geographic distribution of the traffic generated by the cumulative projects is dependent on several factors. These factors include the type and density of the proposed land uses, the geographic distribution of population from which employees and potential patrons of proposed commercial developments are drawn, the locations of employment and commercial centers to which residents of residential projects would be drawn, and the location of the projects in relation to the surrounding street system. If available, trip distribution from a cumulative project's traffic study was used in this analysis. When trip distribution was not available for a cumulative project, it was estimated based on the factors described above.

Future Baseline Street Improvements

Several key roadway improvements in or near the study area are expected to be completed by 2015. These improvements, which are the result of local or regional capital improvement programs or as mitigation for ongoing or entitled related projects, would result in capacity changes at the specified locations throughout the study area. The related transportation projects include:

TABLE 5
CUMULATIVE DEVELOPMENT PROJECTS TRIP GENERATION ESTIMATES

Proj #	Address	Project Name	Description	Size	Unit	Weekday [a] AM Peak Hour Trips In	AM Peak Hour Trips Out	AM Peak Hour Trips Total	PM Peak Hour Trips In	PM Peak Hour Trips Out	PM Peak Hour Trips Total
1	755 L Street	Warehouse and Distribution Center	Warehouse	135	KSF	72	50	122	9	102	111
2	1427 N Gaffey St at Basin St	-	Single Family Homes	135	DU	25	76	101	86	50	136
3 [b]	1605 N Gaffey St at Capitol Dr	Target	Retail Store	136	KSF	91	58	149	189	205	394
4 [b] [c] [e]	327 & 407 N Harbor Bl at O'Farrel St	-	Condominiums Specialty Retail	94 3	DU KSF	7 1	34 1	41 2	33 3	16 3	49 6
5	931 N Frigate Av	Private School	2007 2008	72 128	Students Students	31 56	25 46	56 102	6 10	6 12	12 22
6	Berths 121-131	Yang Ming Container Terminal	Year 2015 Year 2038	n/a	n/a	252 143	111 109	363 252	206 119	302 181	508 300
7	Berths 100-102	China Shipping Container Terminal	Year 2015 Year 2038	n/a	n/a	262 160	115 145	377 335	214 157	314 241	528 398
8	Berths 136-147	TraPac Container Terminal	Year 2015 Year 2038	n/a	n/a	122 143	85 99	207 242	86 57	124 81	210 138
9	Wilmington Bl and Anaheim St	Bakery/Restaurant	Restaurant	n/a	n/a	149	155	304	114	94	208
10 [f]	5th St and Center St		Port Police Station and Charter School			422	422	844	136	136	272
11[b] [d] [g]	Palos Verdes St and 5th Street	Palos Verdes Urban Village				39	39	78	23	23	46
12	Berths 171-181	Pasha	Marine Terminal	n/a	n/a	143	118	261	93	139	232
13 [e]	Wilmington Bl and E St	Dana Strand Project	Condominiums Apartments Single Family Homes Senior Housing	115 120 76 100	DU DU DU DU	9 12 14 4	42 49 43 4	51 61 57 8	40 48 49 7	20 26 28 4	60 74 77 11
14	Western Av and Front St	San Pedro Waterfront Project		n/a	n/a	646	462	1,108	562	751	1,313
Total 2015 [h]						2,357	1,935	4,292	1,914	2,355	4,269
Total 2020 [h]						2,357	1,935	4,292	1,914	2,355	4,269

Footnotes:
[a] Weekday trip rates are "Weekday" & "Peak Hour Adjacent Street Traffic" rates from *Trip Generation, 7th Edition* (Institute of Transportation Engineers, 2003) unless noted below.
[b] To reflect expected use, retail land uses have been credited with a 25% passby trip reduction.
[d] No weekday AM Peak Hour rate for specialty retail. Rate used is the PM Peak Hour rate multiplied by the proportion of AM to PM Peak Hour rates for Shopping Center land use (ITE LU 820).
[e] No "Saturday, Peak Hour of Generator" rate available for specialty retail. Rate used is rate for Shopping Center land use (ITE LU 820).
[f] Project is currently 55% occupied, so trip generation estimates were reduced accordingly.
[g] LADOT data derived from *Port Police Headquarters, California Maritime Center, and Charter School Draft EIR* (Los Angeles Harbors Department, April 2005).
Currently school has 420 students, so school trip generation rates for that use were reduced accordingly.
[h] Directional distribution not available. A 54% inbound 46% outbound split is assumed.
[i] Future related project traffic projections were developed in a manner to ensure consistency with previously approvied POLA EIRs and traffic studies under preparation for other POLA projects, and also to ensure conservative results.

- **I-110 and C Street Interchange Improvements:** This project would improve the flow of traffic from the I-110 ramps at C Street by consolidating two closely-spaced intersections and facilitating heavy right-turn volumes with free-flowing turn lanes. As part of the improvement, C Street would be terminated in a cul-de-sac east of Figueroa Street and would no longer intersect with Figueroa Street. Harry Bridges Boulevard would be re-aligned to intersect with Figueroa Street across from the existing I-110 ramps. Also part of the improvement would be the construction of a northbound I-110 off-ramp to Harry Bridges Boulevard that would be grade-separated over Figueroa Street/John S. Gibson Boulevard with eastbound Harry Bridges Boulevard east of the consolidated intersection. The existing TraPac Terminal gate aligned with Figueroa Street will be relocated and accessed from the Lagoon Ave Overpass. Appendix D shows traffic shifts were estimated based on the future configuration of this intersection.

- **Lagoon Avenue Grade Separation:** Also known as the South Wilmington Grade Separation, this grade separation would provide access to all the facilities south of Harry Bridges Boulevard, in addition to providing access to the relocated Trapac Terminal Gate. The purpose of this grade separation is to provide vehicular traffic with an alternative route that avoids existing at-grade railroad crossings on Fries Avenue and Broad Avenue. It would consist of an elevated road extending from Lagoon Avenue, passing over the existing railroad tracks, and connecting to Pier A Street and Fries Avenue. Appendix D provides a conceptual drawing for this grade separation. Traffic shifts were made to vehicular traffic to/from Fries Avenue south of Harry Bridges Boulevard. 80% of this traffic was estimated to shift to Lagoon Avenue.

- **Harry Bridges Buffer Area:** This project involves the construction of a buffer area along the north side Harry Bridges Boulevard from Figueroa Street in the west to Lagoon Avenue in the east. The buffer would provide open recreational space between the Wilmington community and the Port. This project would involve the closure of all north-south streets between Figueroa Street and Avalon Boulevard except for King Avenue between Harry Bridges Boulevard and C Street. Existing and projected traffic volumes on these streets are low enough that they can be accommodated by the parallel routes that will remain open (Figueroa Street, King Avenue, Fries Avenue, Marine Avenue, Avalon Boulevard and Broad Avenue).

    - Projected traffic shifts as a result of the buffer area: 40% of the north-south traffic on the streets from Mar Vista Avenue in the west to Gulf Avenue in the east was assumed to shift to Figueroa Street and 60% of the traffic on those streets was shifted to King Avenue. 30% of the north-south traffic on the streets from McDonald Avenue in the west to Island Avenue in the east was assumed to shift to Avalon Boulevard. 50% of this traffic was assumed to shift to Fries Avenue and 20% to Marine Avenue.

- **Equipping all signalized study intersections with the ATSAC/ATCS system:** The current improvement plan would equip all remaining intersections with ATSAC and install the state-of-the-art Adaptive Traffic Control System (ATCS) as an additional feature of the ATSAC system. ATCS is the latest enhancement to the ATSAC and uses a personal computer-based traffic signal control software program that provides fully traffic-adaptive signal control based on real-time traffic conditions. ATCS allows for the automatic adjustment to the traffic signal timing strategy and control pattern in response to current traffic demands by allowing ATCS to control all three critical components of traffic signal

timing simultaneously, namely cycle length, phase split and offset. In the analysis of future operating conditions, a capacity increase of 10% (0.10 V/C adjustment) was applied to reflect the benefits of ATSAC/ATCS control at all signalized study intersections.

Traffic Assignment. Using the estimated trip generation and trip distribution patterns described above, traffic generated by the related projects was assigned to the street network.

Cumulative Base Traffic Projections

Figures 5 and 6 illustrate the cumulative base for the interim Year 2015 and full buildout Year 2020 weekday morning and evening peak hour traffic volumes at the analyzed intersections, respectively. The cumulative base traffic conditions represent an estimate of future conditions without development of the proposed project.

PROJECT TRAFFIC VOLUMES

Development of the traffic generation estimates for the proposed project involved a three-step process including traffic generation, trip distribution, and traffic assignment.

Project Traffic Generation

Trip generation rates and equations from *Trip Generation, 7th Edition* and other sources were used to develop trip generation estimates for the proposed project. The trip generation estimates for each proposed land use are summarized in Table 6 for both the interim Year 2015 and for the full buildout Year 2020. When a land use proposed as part of the project had an associated trip generation rate in *Trip Generation, 7th Edition*, that rate was used. Trip generation rates for undeveloped neighborhood/county park were obtained from *Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region* (San Diego Association of Governments, April 2002) and were used to estimate trips for the proposed park area within the project. In order to provide a conservative estimate of the potential traffic impacts of the proposed project, now adjustments were made to account for possible reductions due to either pass-by trips or internal capture.

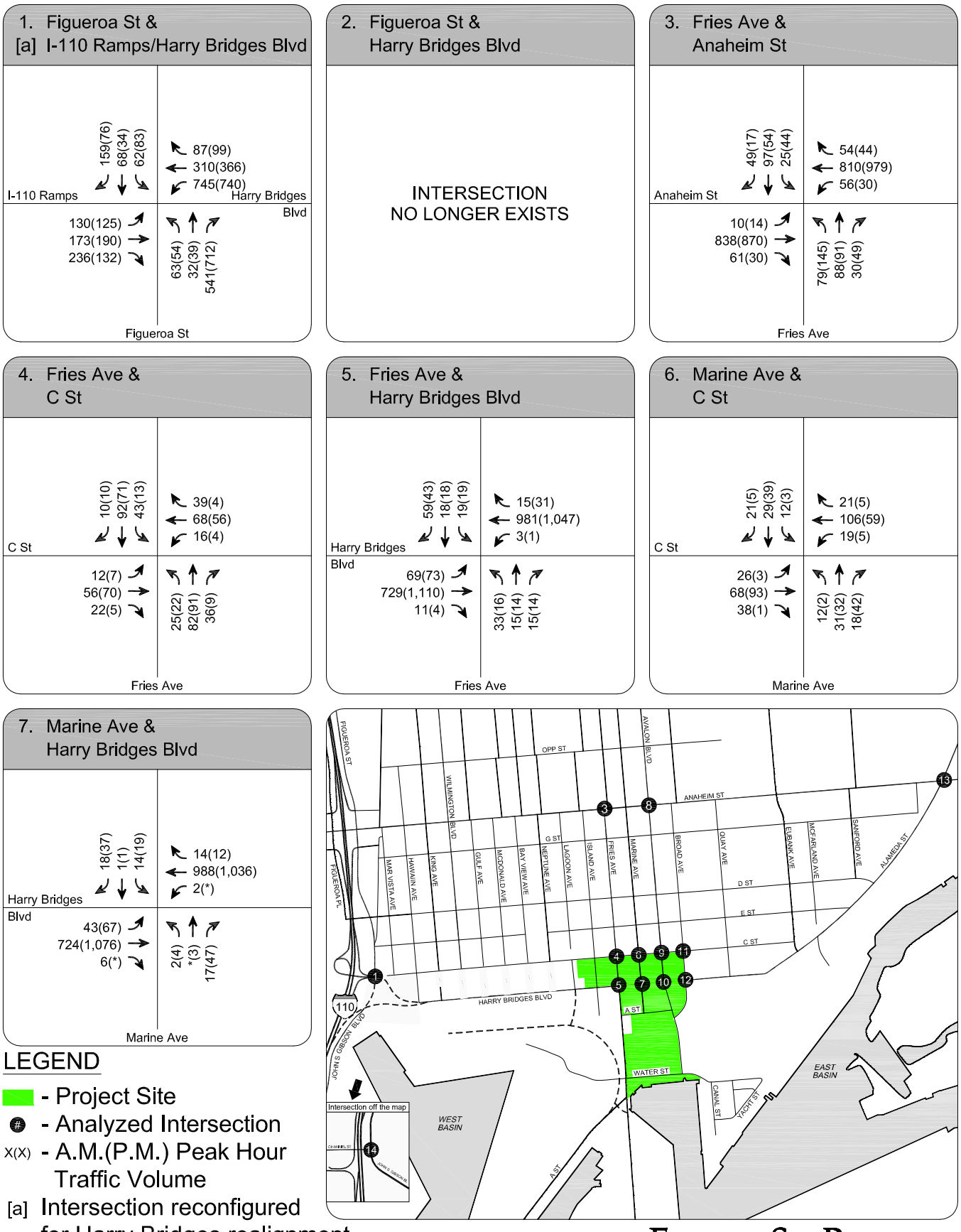

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FIGURE 5

CUMULATIVE BASE YEAR 2015 PEAK HOUR TRAFFIC VOLUMES

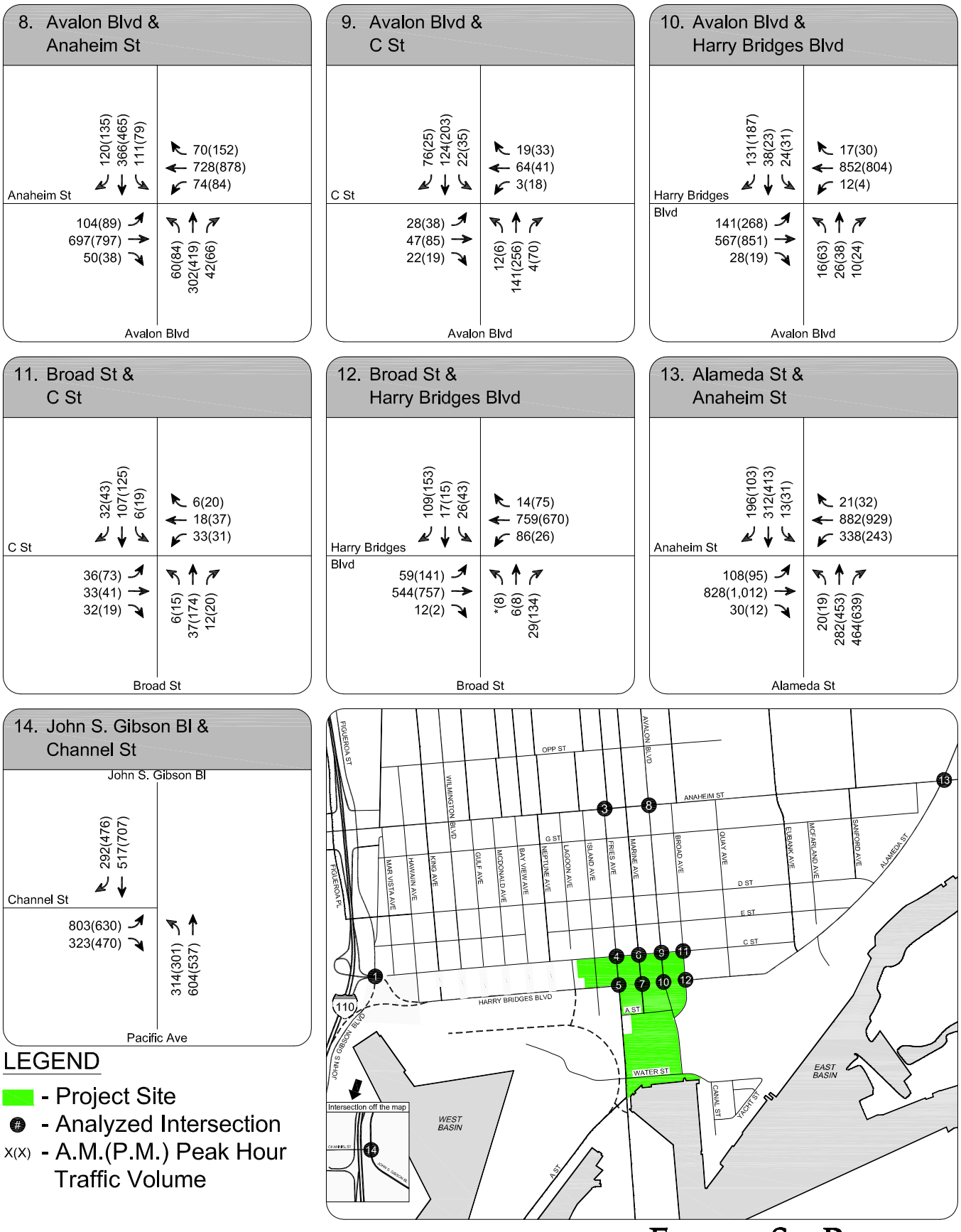

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FIGURE 5 (CONT.)
CUMULATIVE BASE YEAR 2015 PEAK HOUR TRAFFIC VOLUMES

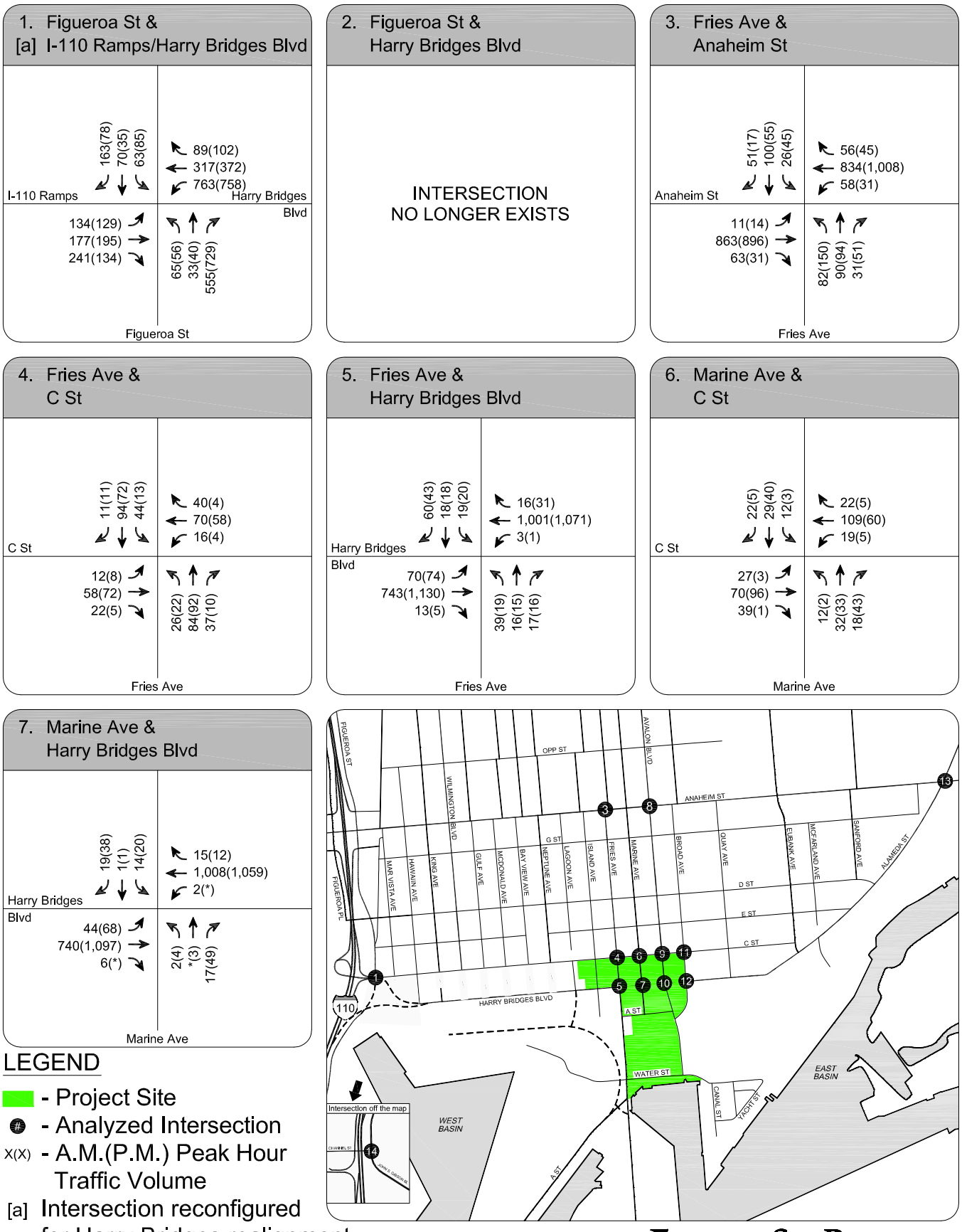

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FIGURE 6
CUMULATIVE BASE YEAR 2020 PEAK HOUR TRAFFIC VOLUMES

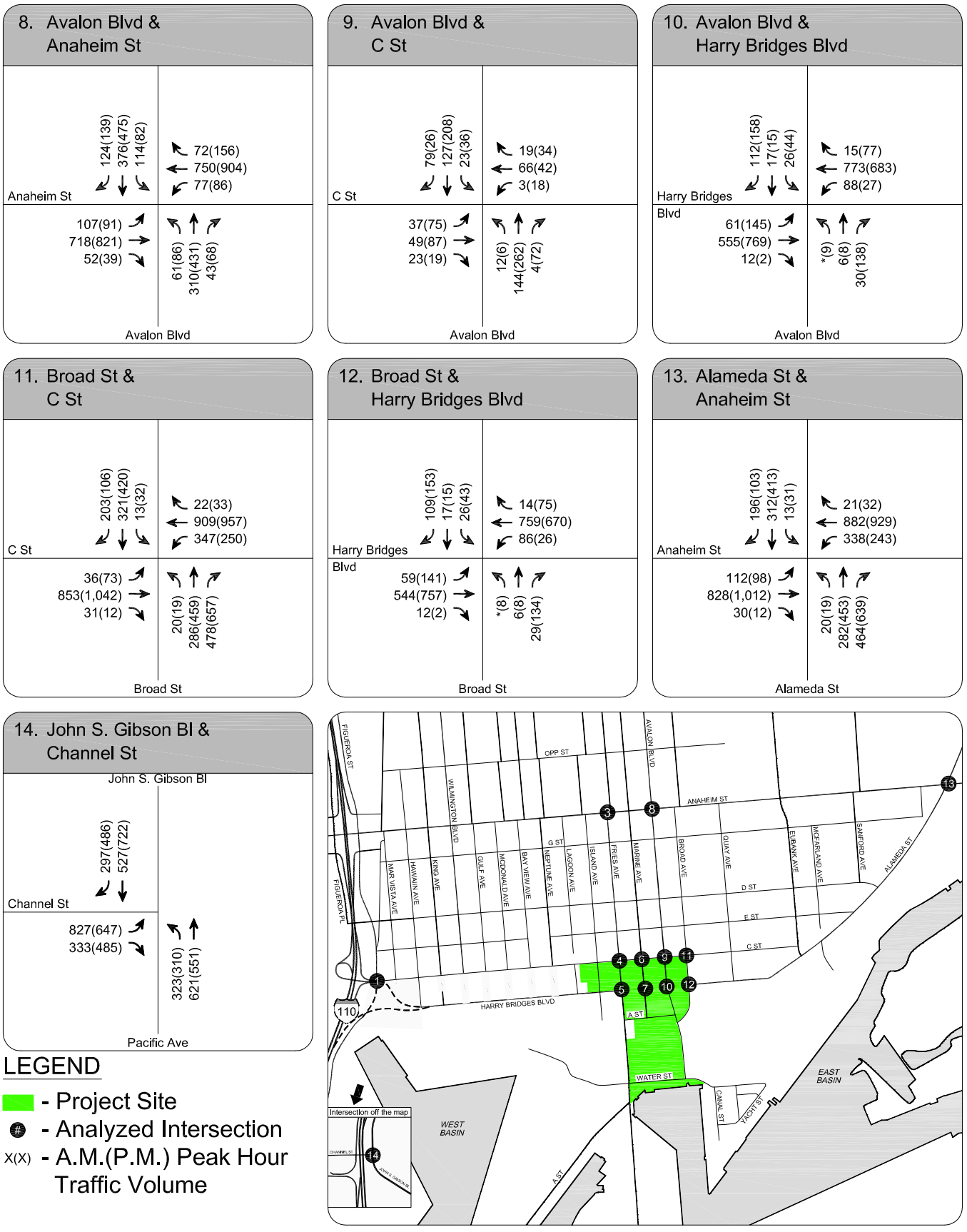

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FIGURE 6 (CONT.)
CUMULATIVE BASE YEAR 2020 PEAK HOUR TRAFFIC VOLUMES

In 2015, as shown in Table 6, the project is projected to generate a total of approximately 3,063 daily weekday trips, including approximately 131 trips during the a.m. peak hour and 296 trips during the p.m. peak hour.

In 2020, as shown in Table 6, using the same methodology as described above, the proposed project is projected to generate approximately 5,140 daily weekday trips, including approximately 339 trips during the a.m. peak hour and 502 trips during the p.m. peak hour.

Project Traffic Distribution

The geographic distribution of trips generated by the proposed project is dependent on characteristics of the street system serving the site, the level of accessibility of routes to and from the proposed project site, the locations of employment and commercial centers to which residents of the project would be drawn, and the geographic distribution of population from which employees and potential patrons of the proposed commercial elements of the project would be drawn. The general distribution pattern used in this study was developed in consultation with LADOT and is illustrated in Figure 8.

Project Traffic Assignment

The trip generation estimates summarized in Table 6 for 2015 and 2020 and the distribution patterns illustrated in Figure 7A, 7B, and 7C were used to assign the project-generated traffic to the local and regional street system. Figures 8 and 9 illustrate the estimated project-generated peak hour traffic volumes at each of the analyzed intersections during a typical weekday a.m. peak hour and weekday p.m. peak hour, respectively.

CUMULATIVE PLUS PROJECT TRAFFIC PROJECTIONS

The proposed project traffic volumes were then added to the cumulative base traffic projections to develop the cumulative plus project traffic forecasts for the interim year 2015 and buildout year 2020. Figure 10 illustrates the resulting projected cumulative plus project peak hour traffic

TABLE 6
TRIP GENERATION RATES AND ESTIMATES

Trip Generation Rates [1]

No.	Land Use	Unit	ITE Code	Daily	AM Peak Hour			PM Peak Hour		
					Total	In	Out	Total	In	Out
1	Sit-Down Restaurant	KSF	932	127.15	11.52	52%	48%	10.92	61%	39%
2	Light Industrial	KSF	110	6.97	0.92	88%	12%	0.98	12%	88%
3	Retail	KSF	820	42.94	1.03	61%	39%	3.75	48%	52%
4	Open Space	Acres	[2]	5.00	0.2	50%	50%	0.40	50%	50%

Horizon Year 2015 Trip Generation Estimates

No.	Land Use	Size	Unit	Daily	AM Peak Hour			PM Peak Hour		
					Total	In	Out	Total	In	Out
3	Retail	58.000	KSF	2,491	60	37	23	218	105	113
2	Light Industrial	75.000	KSF	523	69	61	8	74	9	65
4	Open Space [2]	9.75	Acres	49	2	1	1	4	2	2
Total				3,063	131	99	32	296	116	180

Horizon Year 2020 Trip Generation Estimates

No.	Land Use	Size	Unit	Daily	AM Peak Hour			PM Peak Hour		
					Total	In	Out	Total	In	Out
1	Sit-Down Restaurant	12.000	KSF	1,526	138	72	66	131	80	51
2	Light Industrial	150.000	KSF	1,046	138	121	17	147	18	129
3	Retail	58.000	KSF	2,491	60	37	23	218	105	113
4	Open Space [2]	15.45	Acres	77	3	2	1	6	3	3
Total				5,140	339	232	107	502	206	296

Notes:
KSF = thousands of square feet
[1] - Source: *Trip Generation, 7th Edition* (Institute of Transportation Engineers, 2003), except as noted.
[2] - Trip generation rates for undeveloped neighborhood/county park from *Brief Guide of Vehicular Traffic Genearation Rates for the San Diego Region* (San Diego Association of Governments, April 2002).

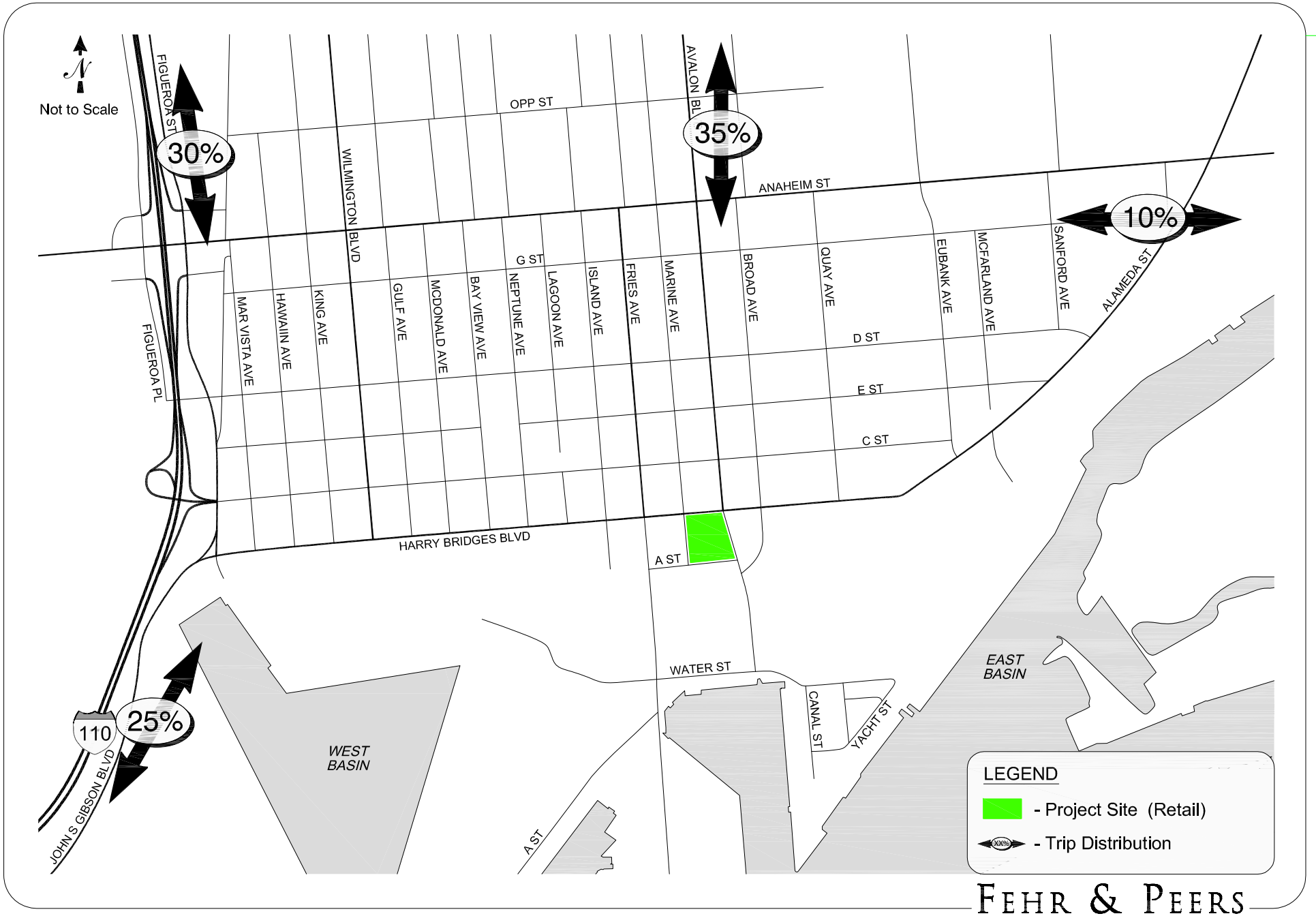

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FIGURE 7A
TRIP DISTRIBUTION - RETAIL

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FIGURE 7B
TRIP DISTRIBUTION - RESTAURANT AND OPEN SPACE

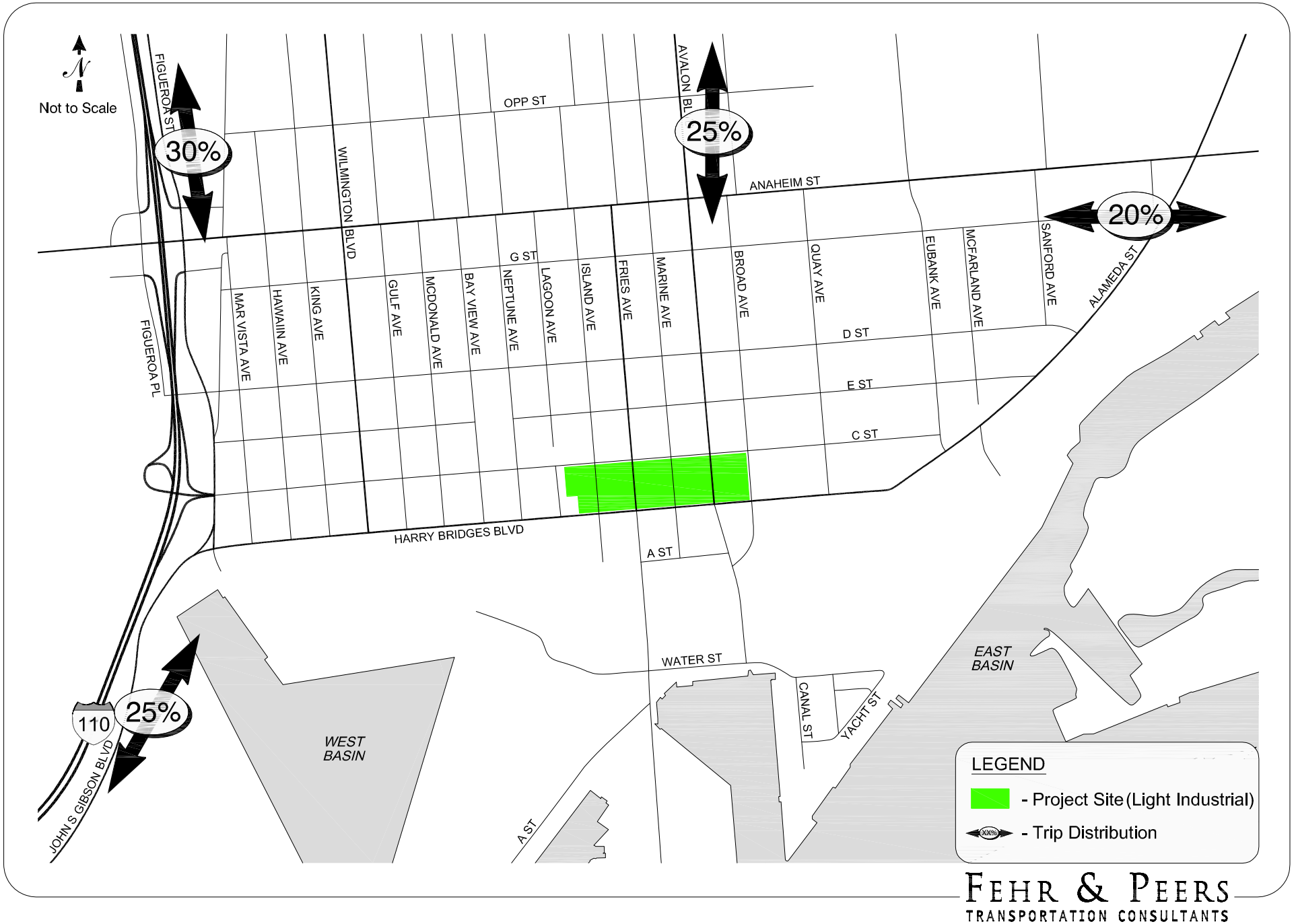

FIGURE 7C
TRIP DISTRIBUTION - LIGHT INDUSTRIAL

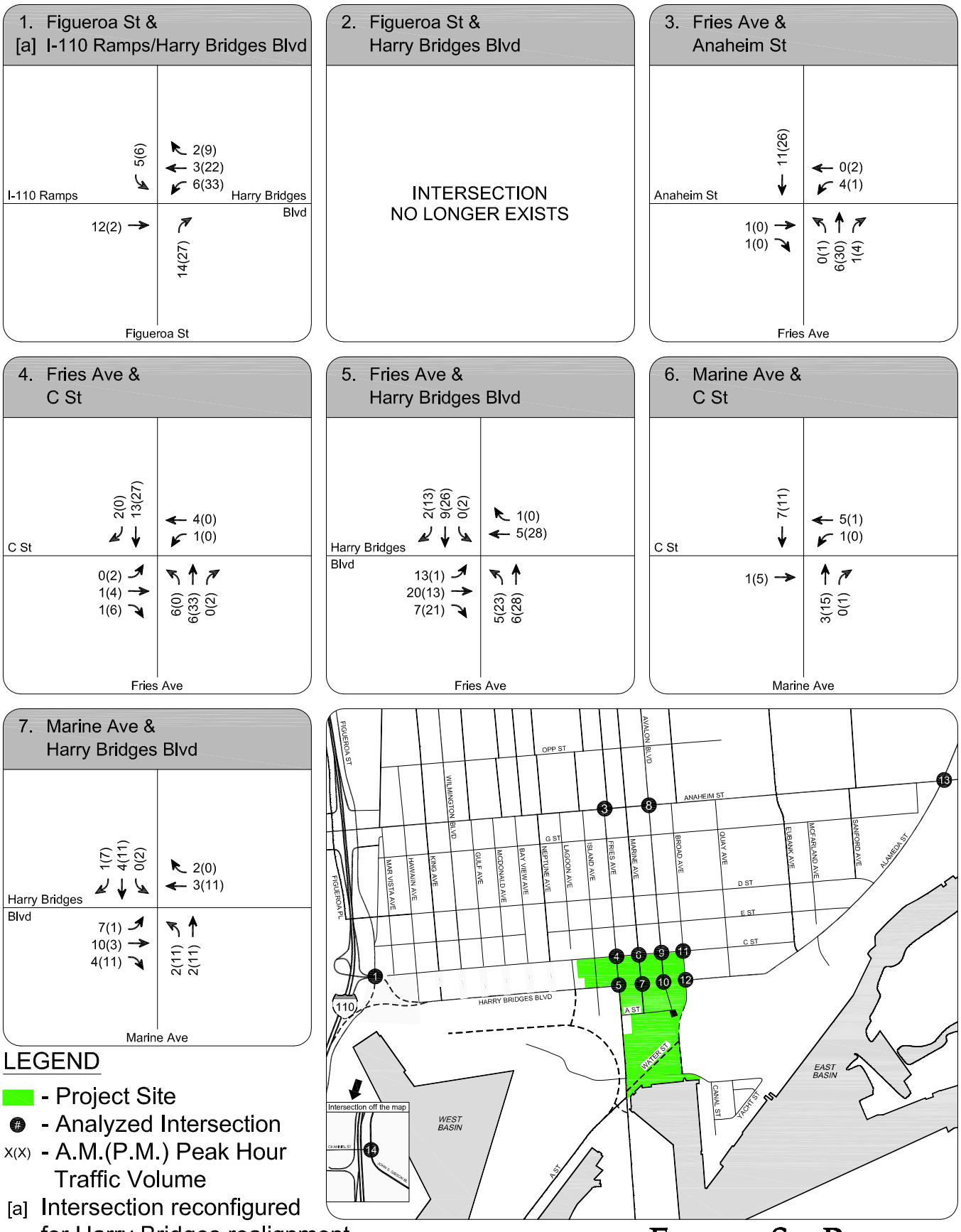

FIGURE 8

YEAR 2015 PROJECT ONLY PEAK HOUR TRAFFIC VOLUMES

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FIGURE 8 (CONT.)
YEAR 2015 PROJECT ONLY PEAK HOUR TRAFFIC VOLUMES

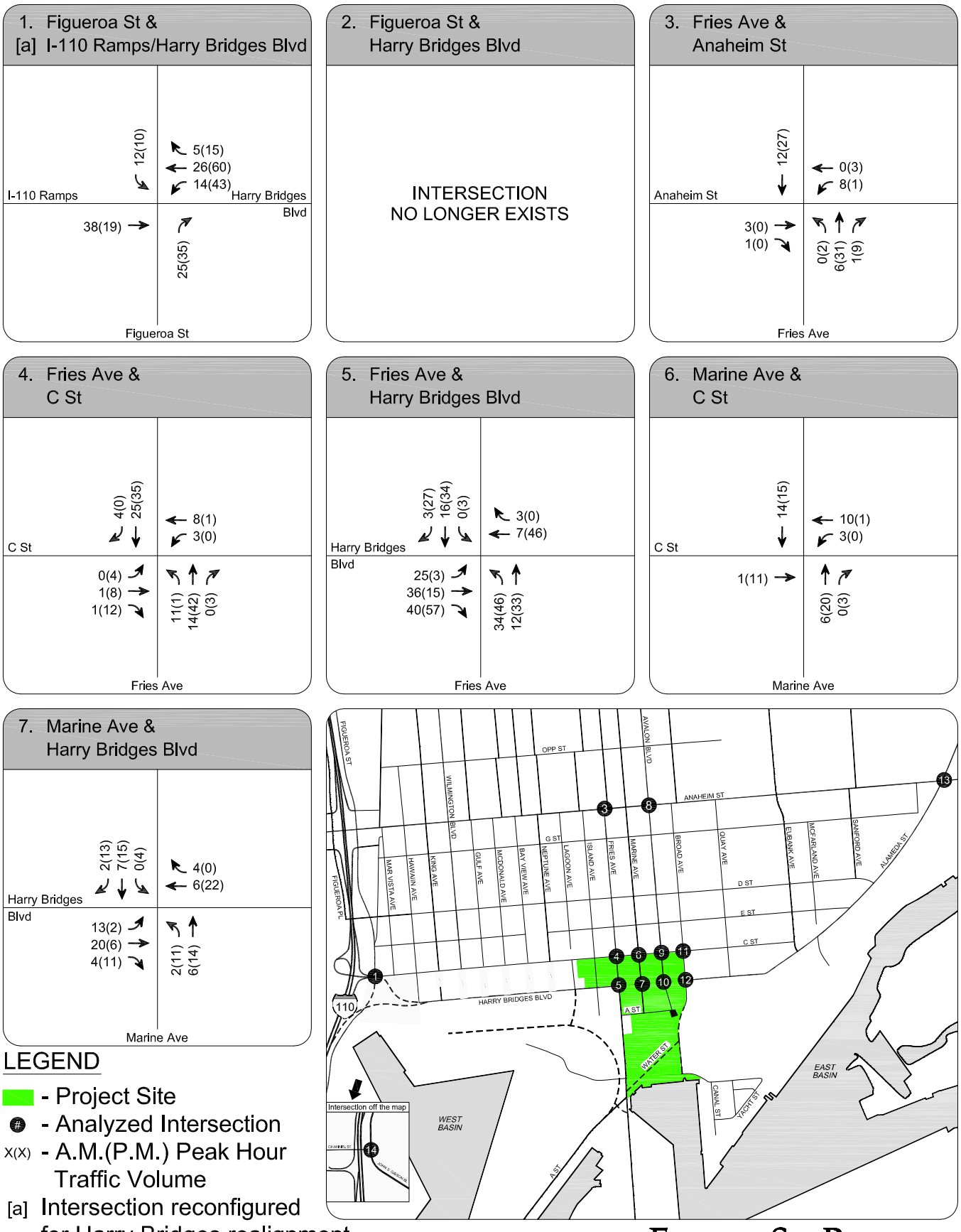

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FIGURE 9
YEAR 2020 PROJECT ONLY PEAK HOUR TRAFFIC VOLUMES

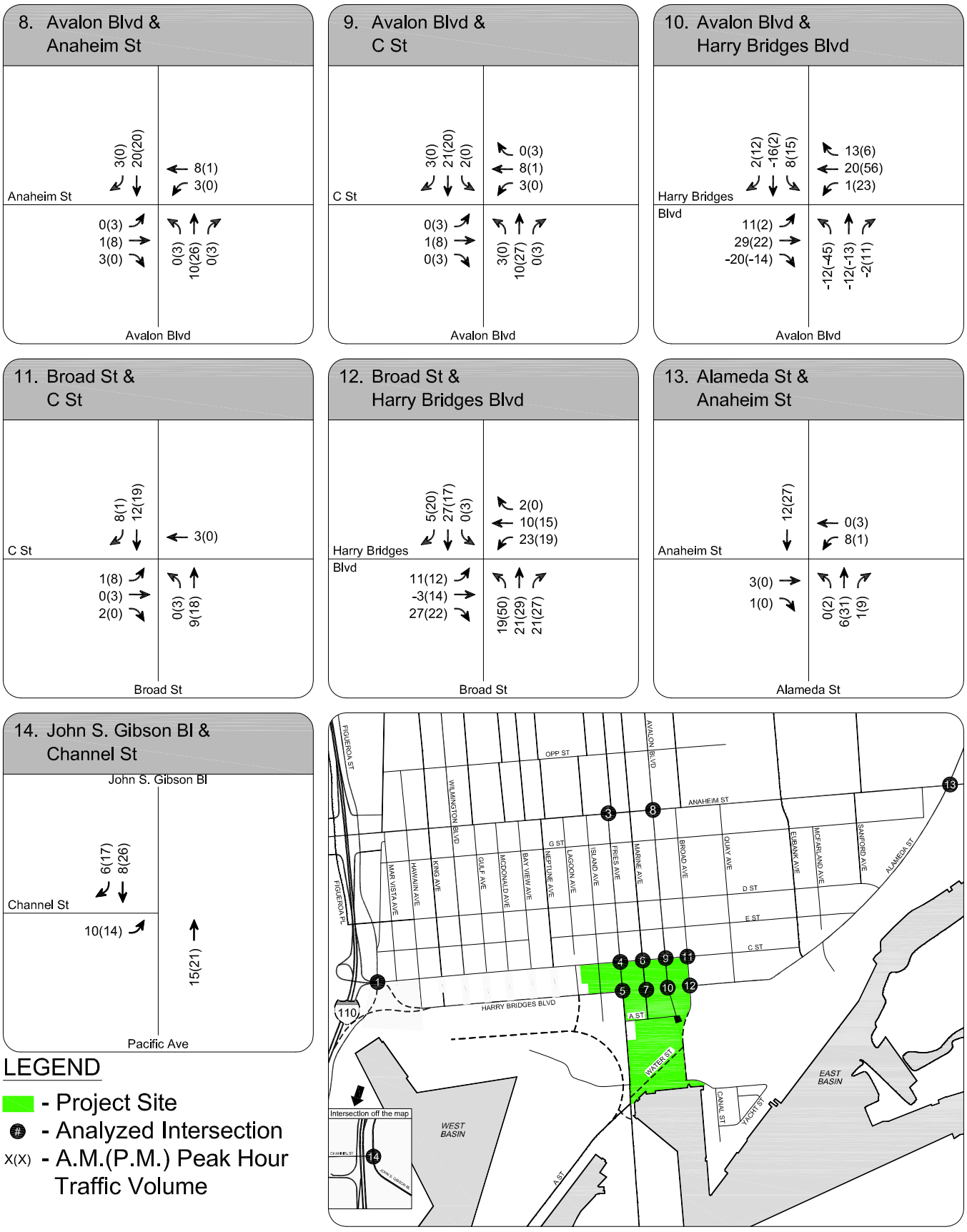

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FIGURE 9 (CONT.)
YEAR 2020 PROJECT ONLY PEAK HOUR TRAFFIC VOLUMES

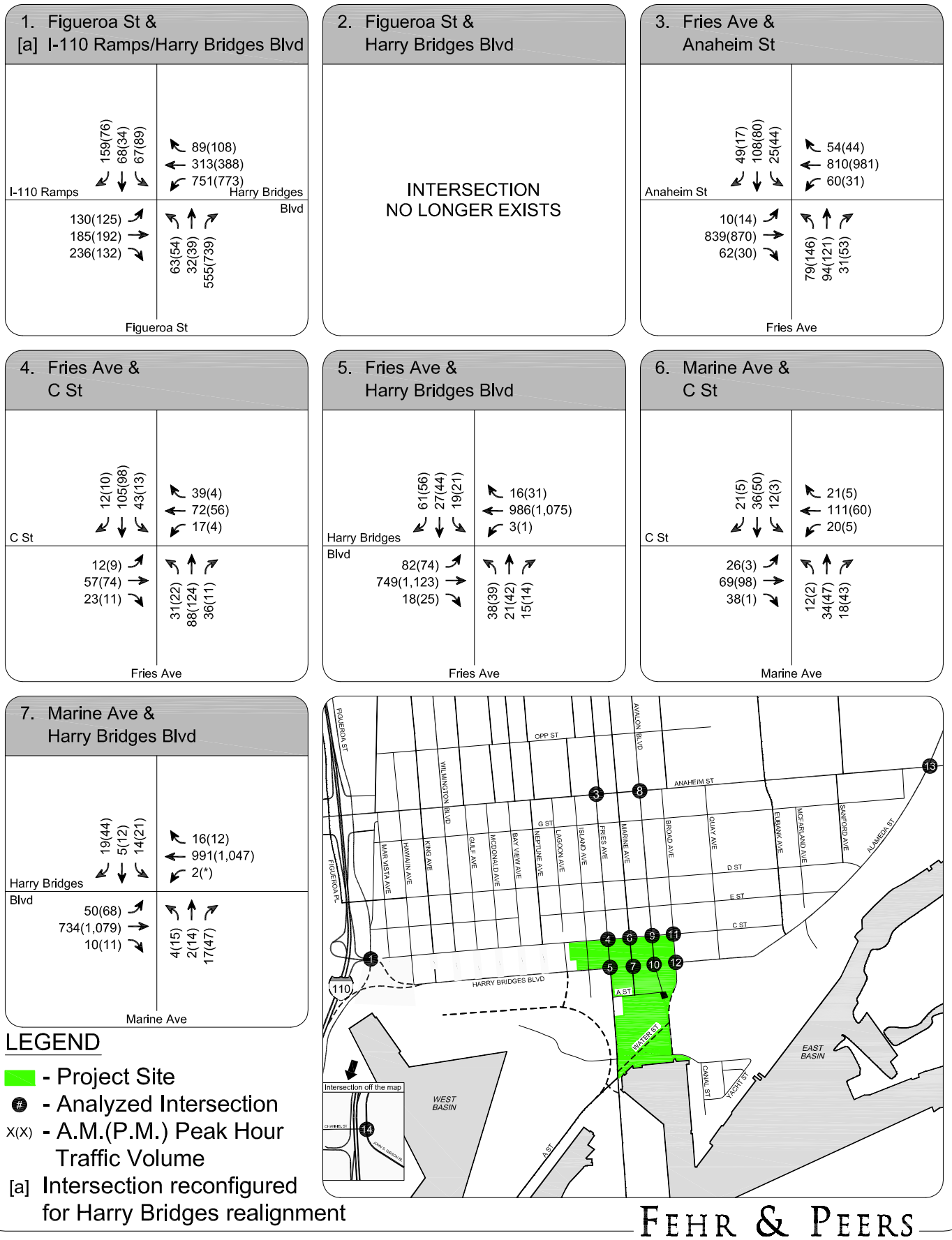

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FIGURE10

CUMULATIVE PLUS PROJECT YEAR 2015 PEAK HOUR TRAFFIC VOLUMES

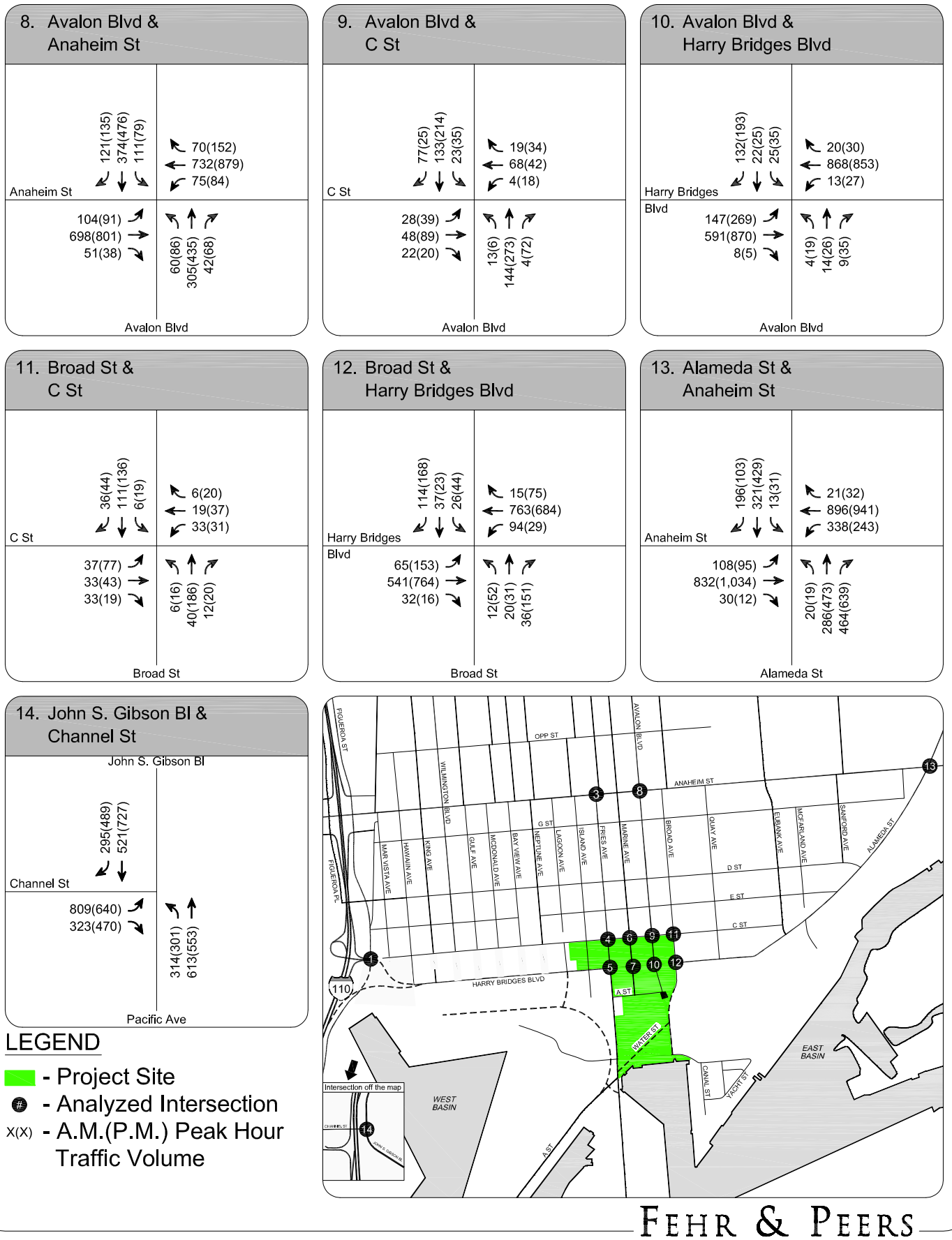

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FIGURE 10 (CONT.)
CUMULATIVE PLUS PROJECT YEAR 2015 PEAK HOUR TRAFFIC VOLUMES

volumes for a typical weekday a.m. peak hour and weekday p.m. peak hour in 2015. Figure 11 illustrates the resulting projected cumulative plus project peak hour traffic volumes for a typical weekday a.m. peak hour and weekday p.m. peak hour in 2020. These volumes represent future traffic conditions following completion of the proposed project for the two analysis years.

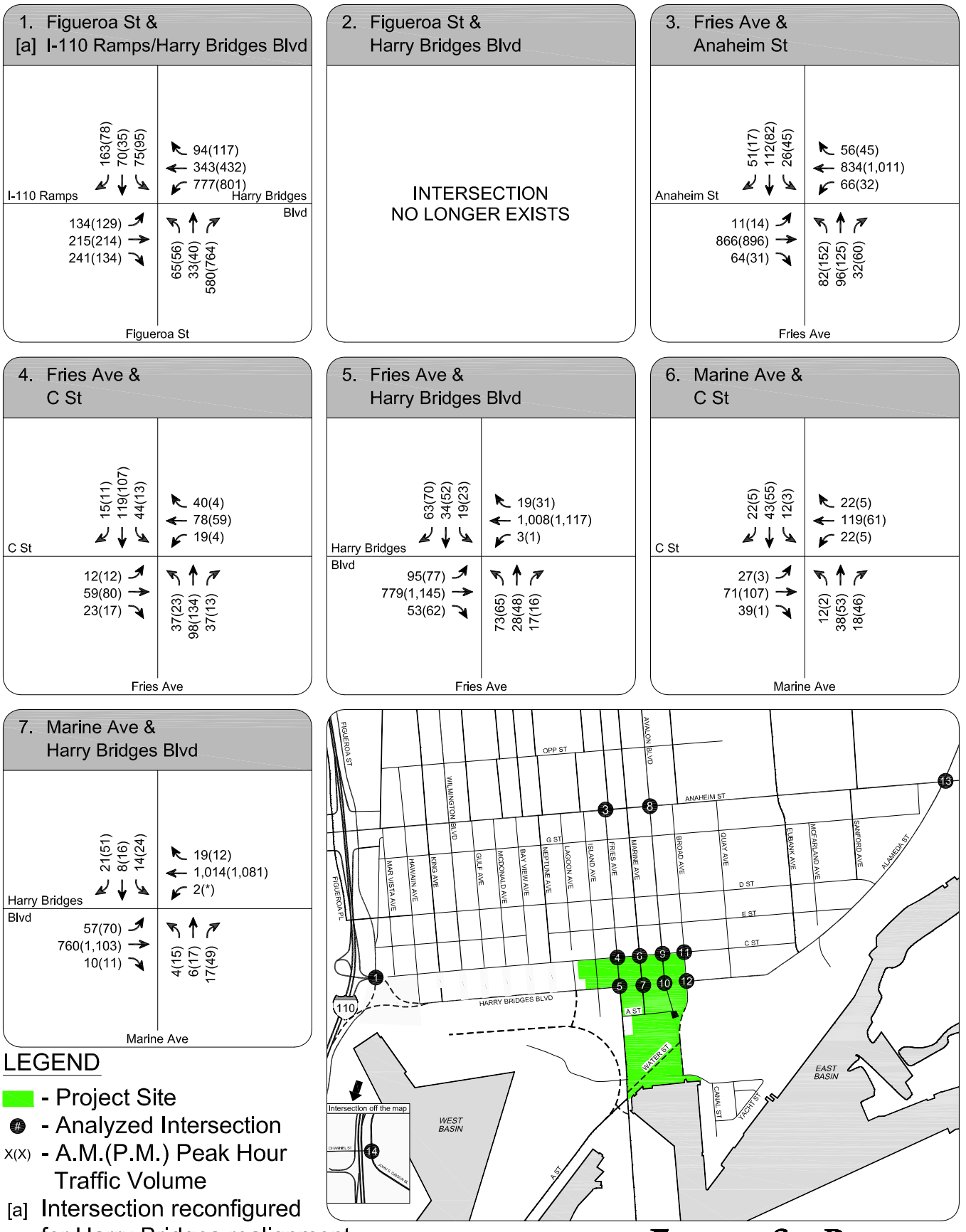

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FIGURE 11

CUMULATIVE PLUS PROJECT YEAR 2020 PEAK HOUR TRAFFIC VOLUMES

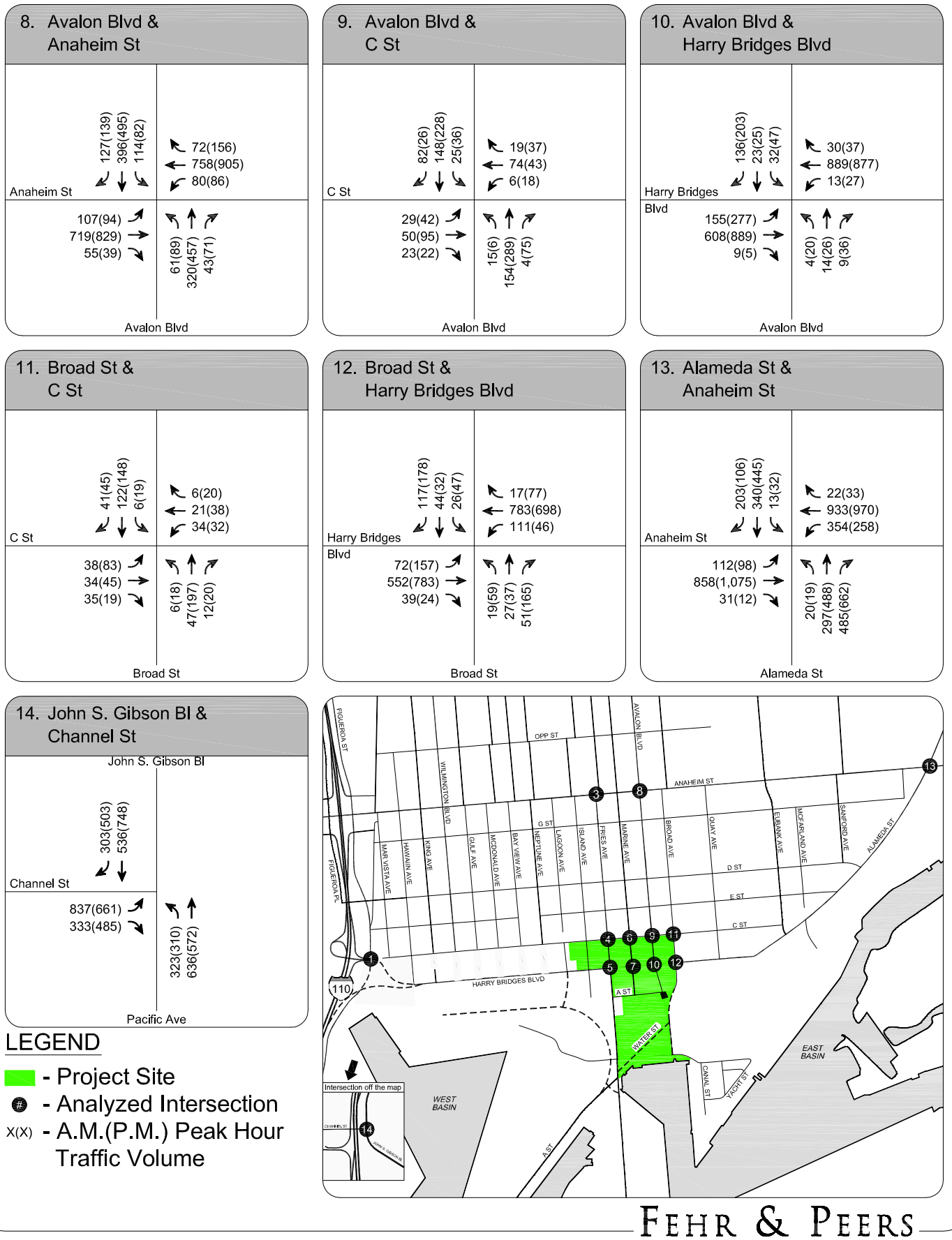

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FIGURE 11 (CONT.)
CUMULATIVE PLUS PROJECT YEAR 2020 PEAK HOUR TRAFFIC VOLUMES

IV. TRAFFIC IMPACT ANALYSIS

This section presents an analysis of the projected future volumes to determine the potential traffic impacts of the proposed project and project alternatives on the operating conditions of the surrounding street system. The traffic impact analysis compares the projected LOS at each study intersection under cumulative plus project conditions to the cumulative base conditions to estimate the incremental increase in the V/C ratio caused by the proposed project. This provides the information needed to assess the potential impact of the project using significance criteria established by LADOT. Detailed LOS calculations for the proposed project for the Years 2015 and 2020 are included in Appendix C.

CRITERIA FOR DETERMINATION OF SIGNIFICANT TRAFFIC IMPACT

All study intersections are in the City of Los Angeles. Significance criteria established by the City of Los Angeles was used to assess the potential for significant project impacts at the study intersections.

The City of Los Angeles has established threshold criteria to determine significant traffic impact of a proposed project in its jurisdiction. Under the LADOT guidelines, an intersection would be significantly impacted with an increase in V/C ratio equal to or greater than 0.04 for intersections operating at LOS C, equal to or greater than 0.02 for intersections operating at LOS D, and equal to or greater than 0.01 for intersections operating at LOS E or F after the addition of project traffic. Intersections operating at LOS A or B after the addition of the project traffic are not considered significantly impacted regardless of the increase in V/C ratio. The following summarizes the impact criteria:

LOS	Final V/C Ratio	Project-related Increase in V/C
C	>0.700 - 0.800	equal to or greater than 0.040
D	> 0.800 - 0.900	equal to or greater than 0.020
E or F	> 0.900	equal to or greater than 0.010

PROPOSED PROJECT TRAFFIC IMPACT ANALYSIS

Cumulative plus Project Traffic Conditions Year 2015

The resulting cumulative plus project peak hour traffic volumes, illustrated in Figure 10, were analyzed to determine the projected future operating conditions with the addition of the proposed project traffic. The results of the cumulative plus project analysis are presented in Table 7. As indicated in the table, all 14 study intersections are projected to operate at LOS D or better during the morning and/or afternoon peak hours.

Project Intersection Impacts Year 2015

To determine whether significant impacts would occur at the study intersections, the cumulative plus project operating conditions were compared to the cumulative base operating conditions. As shown in Table 7, using the City of Los Angeles criteria for determination of significant impacts, in 2015 the proposed project would result in no significant traffic impacts in 2015 during the analyzed peak hours. A decrease in V/C occurs for the intersection of Avalon Boulevard and Harry Bridges Boulevard between the cumulative base conditions and the cumulative plus project conditions. This is attributable to the de-emphasis of Avalon Boulevard and realignment of Broad Ave near the project site. As a result of these modifications it is assumed that some traffic volume to the project site will divert to Broad Avenue.

Cumulative plus Project Traffic Conditions Year 2020

The resulting cumulative plus project peak hour traffic volumes, illustrated in Figure 11, were analyzed to project future operating conditions with the addition of the proposed project traffic. The results of the cumulative plus project analysis are presented in Table 8. As indicated in the table, 13 of the 14 study intersections are projected to operate at LOS D or better during the morning and/or afternoon peak hours. The intersection of Avalon Boulevard & Anaheim Street is projected to operate at LOS E or F during the afternoon peak hour.

TABLE 7
FUTURE (2015) INTERSECTION LEVEL OF SERVICE ANALYSIS

Intersection	Peak Hour	Cumulative Base (Year 2015) V/C or Delay	LOS	Cumulative plus Project (Year 2015) V/C or Delay	LOS	Project Increase in V/C	Significant Project Impact
1 Figueroa St/John S. Gibson Bl	**AM**	0.403	A	0.409	A	0.006	NO
I-110/Harry Bridges Boulevard** [a]	**PM**	0.342	A	0.358	A	0.016	NO
2 Figueroa St	**AM**	Intersection will not exist in the future.		Intersection will not exist in the future.		Intersection will not exist in the future.	
Harry Bridges Bl [a]	**PM**						
3 N. Fries Av	**AM**	0.492	A	0.510	A	0.018	NO
Anaheim St**		0.494	A	0.534	A	0.040	NO
4 Fries Av	**AM**	0.268	A	0.282	A	0.014	NO
C St [c]	**PM**	0.184	A	0.223	A	0.039	NO
5 Fries Av	**AM**	0.355	A	0.406	A	0.051	NO
Harry Bridges Bl**	**PM**	0.469	A	0.524	A	0.055	NO
6 Marine Av	**AM**	0.205	A	0.216	A	0.011	NO
C St [b]	**PM**	0.151	A	0.168	A	0.017	NO
7 Marine Av	**AM**	0.486	A	0.500	A	0.014	NO
Harry Bridges Bl [b]	**PM**	0.677	B	0.705	C	0.028	NO
8 Avalon Bl	**AM**	0.664	B	0.671	B	0.007	NO
Anaheim St**	**PM**	0.878	D	0.894	D	0.016	NO
9 Avalon Bl	**AM**	0.198	A	0.208	A	0.010	NO
C St [c]	**PM**	0.301	A	0.314	A	0.013	NO
10 Avalon Bl	**AM**	0.393	A	0.395	A	0.002	NO
Harry Bridges Bl**	**PM**	0.649	B	0.643	B	-0.006	NO
11 Broad Av	**AM**	0.238	A	0.246	A	0.008	NO
C St [c]	**PM**	0.327	A	0.343	A	0.016	NO
12 Broad Av	**AM**	0.339	A	0.374	A	0.035	NO
Harry Bridges Bl**	**PM**	0.482	A	0.545	A	0.063	NO
13 Alameda St	**AM**	0.515	A	0.518	A	0.003	NO
Anaheim St**	**PM**	0.631	B	0.643	B	0.012	NO
14 John S. Gibson Bl	**AM**	0.612	B	0.616	B	0.004	NO
Channel St**	**PM**	0.689	B	0.696	B	0.007	NO

Notes:

** Intersection is assumed to be operating under ATSAC and ATCS systems in the future. Per LADOT guidelines a 10% capacity credit has been taken at intersections operating with both systems.

[a] Intersections to be reconfigured and combined as per the proposed conceptual plan for Harry Bridges Boulevard realignment.

[b] Intersection is a two-way stop-controlled intersection. Level of service analysis assumes 1,200 vehicles per lane per hour.

[c] Intersection is a four-way stop-controlled intersection. Level of service analysis assumes 1,200 vehicles per lane per hour.

TABLE 8
FUTURE (2020) INTERSECTION LEVEL OF SERVICE ANALYSIS

Intersection	Peak Hour	Cumulative Base (Year 2020) V/C or Delay	LOS	Cumulative plus Project (Year 2020) V/C or Delay	LOS	Project Increase in V/C	Significant Project Impact	Cumulative Plus Project (w/Mitigation) V/C or Delay	LOS	Project Increase in V/C	Significant Project Impact
1 Figueroa St/John S. Gibson Bl	**AM**	0.415	A	0.434	A	0.019	NO				
I-110/Harry Bridges Boulevard** [a]	**PM**	0.354	A	0.382	A	0.028	NO				
2 Figueroa St	**AM**	Intersection will not exist in the future.		Intersection will not exist in the future.		Intersection will not exist in the future.					
Harry Bridges Bl [a]	**PM**										
3 N. Fries Av	**AM**	0.511	A	0.535	A	0.024	NO				
Anaheim St**		0.511	A	0.556	A	0.045	NO				
4 Fries Av	**AM**	0.274	A	0.304	A	0.030	NO				
C St [c]	**PM**	0.188	A	0.247	A	0.059	NO				
5 Fries Av	**AM**	0.372	A	0.483	A	0.111	NO				
Harry Bridges Bl**	**PM**	0.481	A	0.582	A	0.101	NO				
6 Marine Av	**AM**	0.210	A	0.233	A	0.023	NO				
C St [b]	**PM**	0.155	A	0.183	A	0.028	NO				
7 Marine Av	**AM**	0.497	A	0.521	A	0.024	NO				
Harry Bridges Bl [b]	**PM**	0.691	B	0.728	C	0.037	NO				
8 Avalon Bl	**AM**	0.686	B	0.701	C	0.015	NO	0.656	B	-0.045	NO
Anaheim St**	**PM**	0.905	E	0.929	E	0.024	**YES**	0.880	D	-0.049	NO
9 Avalon Bl	**AM**	0.203	A	0.226	A	0.023	NO				
C St [c]	**PM**	0.308	A	0.332	A	0.024	NO				
10 Avalon Bl	**AM**	0.407	A	0.421	A	0.014	NO				
Harry Bridges Bl**	**PM**	0.664	B	0.663	B	-0.001	NO				
11 Broad Av	**AM**	0.244	A	0.263	A	0.019	NO				
C St [c]	**PM**	0.334	A	0.361	A	0.027	NO				
12 Broad Av	**AM**	0.348	A	0.409	A	0.061	NO				
Harry Bridges Bl**	**PM**	0.495	A	0.589	A	0.094	NO				
13 Alameda St	**AM**	0.532	A	0.541	A	0.009	NO				
Anaheim St**	**PM**	0.650	B	0.673	B	0.023	NO				
14 John S. Gibson Bl	**AM**	0.631	B	0.638	B	0.007	NO				
Channel St**	**PM**	0.711	C	0.720	C	0.009	NO				

Notes:

** Intersection is assumed to be operating under ATSAC and ATCS systems in the future. Per LADOT guidelines a 10% capacity credit has been taken at intersections operating with both systems.

[a] Intersections to be reconfigured and combined as per the proposed conceptual plan for Harry Bridges Boulevard realignment.

[b] Intersection is a two-way stop-controlled intersection. Level of service analysis assumes 1,200 vehicles per lane per hour.

[c] Intersection is a four-way stop-controlled intersection. Level of service analysis assumes 1,200 vehicles per lane per hour.

Project Intersection Impacts Year 2020

To determine whether significant impacts would occur at the study intersections, the cumulative plus project operating conditions were compared to the cumulative base operating conditions. As shown in Table 8, using the City of Los Angeles criteria for determination of significant impacts, the proposed project would result in significant traffic impacts at one intersection, Avalon Boulevard & Anaheim Street in 2020. A net decrease in V/C is projected occur for the intersection of Avalon Boulevard and Harry Bridges Boulevard during the evening peak hour when compared with cumulative base conditions. This is attributable to the proposed project improvement and related traffic shifts which involve the de-emphasis of Avalon Boulevard south of Harry Bridges Bouelvard and realignment of Broad Avenue along the eastern boundary of the proposed project to carry most of the traffic from Harry Bridges Boulevard to the Waterfront.

V. INTERSECTION MITIGATION PROGRAM

The traffic impact analysis presented in Chapter IV determined that the proposed project would result in a significant traffic impact at one of the study intersections in year 2020. A potential mitigation measure to address the impact is discussed in this chapter.

INTERSECTION MITIGATION MEASURES

The suggested mitigation focused on reducing to below significant levels the "worst case" project impact projected for year 2020:

Avalon Boulevard & Anaheim Street

The recommended mitigation measure for this intersection is to reconfigure the southbound approach of Avalon Boulevard. The traffic impact at this intersection could be mitigated by adding a right-turn lane in the southbound direction. Currently the southbound approach consists of one through/left-turn lane and one through/right-turn lane. The mitigation would result in one right-turn lane, one through lane, and one through/left-turn lane. This proposed mitigation would require the removal of two metered parking spaces along Avalon Boulevard to allow for the right-turn lane and the restriping of the northbound approach to properly align with the reconfigured southbound approach. A conceptual drawing illustrating the feasibility of this mitigation is provided in Figure 12. This improvement would fully mitigate the identified impact at this location under the future Year 2020 weekday scenario.

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CONCEPTUAL DESIGN - PROPOSED MITIGATION
INTERSECTION OF AVALON BOULEVARD AND ANAHEIM BOULEVARD

Jul 17, 2008
\\fpla1\data\Jobs\Active\2200s\2242 – Wilmington Waterfront TS\Mit Sketch\Mitigation Conceptual.dwg

FIGURE 12

VI. NEIGHBORHOOD STREET SEGMENT ANALYSIS

This chapter presents the results of an analysis conducted to determine the potential for project impacts on local residential streets in neighborhoods near the project site. The analysis was conducted on six street segments to the west of the project, which are illustrated in Figure 1:

1. Mar Vista Avenue between C Street and D Street
2. Hawaiian Avenue between C Street and D Street
3. Gulf Avenue between C Street and D Street
4. McDonald Avenue between C Street and D Street
5. Bay View Avenue between C Street and D Street
6. C Street between Gulf Avenue and McDonald Avenue

The residential street segment analysis compares the projected daily traffic at the six street segments under two cumulative plus project scenarios to the baseline conditions to estimate the incremental change in daily traffic caused by the proposed Project. This provides the information needed to assess the potential impact of the project using significance criteria established by LADOT.

DAILY TRAFFIC PROJECTIONS

Existing Daily Traffic Volumes

24-hour machine counts were conducted on these six street segments in January 2008. Future daily traffic volumes were projected in a manner similar to the peak hour analysis of the study intersections, including both ambient growth through 2015 or 2020, as well as anticipated traffic from related projects.

Future No Project Volumes

The 24-hour machine counts represent the volumes for existing conditions. To arrive at future no project conditions an ambient growth rate of 0.65% per year, for a total of 4.55% and an ambient growth rate of 0.65% per year, for a total of 7.8% for was applied to emulate Year 2015 and Year 2020 respectively to emulate future conditions.

Traffic generated by related projects expected to be built within the vicinity of the proposed project was also added to the analyzed streets segments which includes the effect on traffic resulting traffic shifts from the construction of the proposed Buffer project along Harry Bridges Boulevard. The buffer project would result in the closure of Mar Vista Avenue, Hawaiian Avenue, Gulf Avenue, Mc Donald Avenue and Bay View Avenue south of C Street. Also, C Street is proposed to be constructed with a cul-de-sac just east of Figueroa Street.

Future With Project Volumes

Daily traffic from the neighborhood is expected to utilize some of the analyzed street segments to access the project site, particularly the retail and the restaurant uses. The projected number of trips accessing the project site through analyzed street segments was added to the Future No Project traffic projection to estimate Future with Project traffic volumes for the analyzed street segments.

NEIGHBORHOOD STREET IMPACTS

Under the City of Los Angeles guidelines, a project impact on a local residential street would be considered significant if the projected increase in daily traffic volumes is as follows:

Projected Average Daily Traffic with Project (Final ADT)	Project-Related Increase in ADT
0 to 999	16% or more of final ADT
1,000 or more	12% or more of final ADT
2,000 or more	10% or more of final ADT
3,000 or more	8% or more of final ADT

Daily traffic volumes for both the existing and projected future conditions for the proposed project are summarized in Table 9. As shown in the table, application of the appropriate significance criteria for neighborhood traffic impacts indicates that the proposed project would not result in a significant traffic impact at any of the neighborhood for both Year 2015 and Year 2020 scenarios.

TABLE 9
STREET SEGMENT IMPACT ANALYSIS: WILMINGTON WATERFRONT

Street Segments	Weekday Two-Way Daily Volumes					Impact Analysis		
	Existing (2008)	Ambient Growth	Future No Project (2015) [1]	Project Only [2]	Future with Project (2015)	% of Final ADT	Physical Mitigation Criteria	Impacts
1. Mar Vista Ave n/o C St	322	4.6%	215	13	228	5.7%	16.0%	NO
2. Hawaiian Ave n/o C St	512	4.6%	323	13	336	3.9%	16.0%	NO
3. Gulf Ave n/o C St	299	4.6%	255	13	268	4.9%	16.0%	NO
4. McDonald Ave n/o C St	227	4.6%	180	13	193	6.7%	16.0%	NO
5. Bay View Ave n/o C St	487	4.6%	392	13	405	3.2%	16.0%	NO
6. C St e/o Gulf Ave	1,103	4.6%	1,365	50	1,415	3.5%	12.0%	NO

Street Segments	Weekday Two-Way Daily Volumes					Impact Analysis		
	Existing (2008)	Ambient Growth	Future No Project (2020) [1]	Project Only [2]	Future with Project (2020)	% of Final ADT	Physical Mitigation Criteria	Impacts
1. Mar Vista Ave n/o C St	322	7.8%	225	21	246	8.5%	16.0%	NO
2. Hawaiian Ave n/o C St	512	7.8%	340	21	361	5.8%	16.0%	NO
3. Gulf Ave n/o C St	299	7.8%	264	21	285	7.4%	16.0%	NO
4. McDonald Ave n/o C St	227	7.8%	188	21	209	10.0%	16.0%	NO
5. Bay View Ave n/o C St	487	7.8%	408	12	420	2.9%	16.0%	NO
6. C St e/o Gulf Ave	1,103	7.8%	1,401	81	1,482	5.5%	12.0%	NO

VII. CONGESTION MANAGEMENT PROGRAM ANALYSIS

This chapter presents an analysis of potential impacts on the regional transportation system in terms of vehicular and transit service impacts. This analysis was conducted in accordance with the procedures outlined in the Congestion Management Program for Los Angeles County (CMP) (Metro, July 22, 2004). The CMP requires that, when an EIR is prepared for a project, traffic and transit impact analyses be conducted for select regional facilities based on the quantity of project traffic expected to use those facilities.

REGIONAL TRAFFIC IMPACT ANALYSIS

The CMP guidelines require that the first issue to be addressed is the determination of the geographic scope of the study area. The criteria for determining the study area for CMP arterial monitoring intersections and for freeway monitoring locations are:

- All CMP arterial monitoring intersections where the proposed project will add 50 or more trips during either the a.m. or p.m. peak hours of adjacent street traffic.
- All CMP mainline freeway monitoring locations where the proposed project will add 150 or more trips, in either direction, during either the a.m. or p.m. peak hours.

The CMP traffic impact analysis guidelines establish that a significant project impact occurs when the following threshold is exceeded:

- The proposed project increases traffic demand on a CMP facility by 2% of capacity (V/C 0.02), causing LOS F (V/C > 1.00)
- If the facility is already at LOS F, a significant impact occurs when the proposed project increases traffic demand on a CMP facility by 2% of capacity (V/C 0.02)

Arterial Monitoring Station Analysis

The CMP arterial monitoring stations nearest to the project study area are located approximately two miles north of the project site:

- Figueroa Street and Pacific Coast Highway – The proposed project is expected to add approximately 15 or fewer weekday peak hour trips in 2015 and 2020 at this intersection.
- Alameda Street and Pacific Coast Highway – The proposed project is expected to add approximately 30 or fewer weekday peak hour trips in 2015 and 2020 at this intersection.

Since this project would add fewer than 50 vehicle trips through these arterial monitoring stations, no further analysis of CMP arterial intersections is required and CMP arterial intersection impacts are considered to be less than significant.

Freeway Mainline Monitoring Station Analysis

This section presents an analysis of potential project impacts on the regional transportation system. This analysis was conducted in accordance with the transportation impact analysis procedures outlined in the CMP. The nearest CMP mainline freeway monitoring location nearest to the project site is: I-110 south of C Street. According to the incremental project trip generation estimates developed in Chapter III and the project only traffic volumes illustrated in Figures 9 and 10, the proposed project is not expected to add sufficient new traffic to exceed the freeway analysis criteria at these locations.

Since incremental project-related traffic in any direction during either peak hour is projected to be less than the minimum criteria of 150 vph, no further CMP freeway analysis is required and CMP freeway impacts are considered to be less than significant.

REGIONAL TRANSIT IMPACT ANALYSIS

Potential increases in transit person trips generated by the proposed project were estimated as follows. Section B.8.4 of the CMP provides a methodology for estimating the number of transit trips expected to result from a proposed project based on the projected number of vehicle trips.

This CMP methodology assumes an average vehicle ridership (AVR) factor 1.4 in order to estimate the number of person trips to and from the project and then provides guidance regarding the percentage of person trips assigned to public transit based on the type of land use and the proximity to transit service.

The nearest designated CMP transit corridor is the Harbor Freeway Corridor. Since the project site is outside the one quarter-mile boundary from these services, the CMP guidelines estimate that approximately 3.5% of the project person trips may use public transit to travel to and from the site.

As discussed in Chapter III and shown in Table 6, the proposed project is expected to generate a net increase of approximately 131 vehicle trips during the morning peak hour and 296 vehicle trips during the afternoon peak hour in the interim Year 2015. The proposed project is expected to generate a net increase of approximately 339 trips during the morning peak hour and 502 trips during the afternoon peak hour upon full buildout in Year 2020. Apply the AVR factor 1.4 to the number of vehicles results in the following:

- 184 and 415 person trips in the morning and the afternoon peak hour, respectively, during the interim Year 2015. Assuming the 3.5% transit mode split suggested in the CMP results in approximately seven person trips in the morning and 15 person trips during the afternoon peak hour that the proposed project could potentially add to the transit lines providing service in the vicinity of the project during the interim Year 2015.

- 475 and 703 person trips in the morning and the afternoon peak hour, respectively, upon full buildout Year 2020. Assuming the 3.5% transit mode split suggested in the CMP results in approximately 17 person trips in the morning and 25 person trips during the afternoon peak hour that the proposed project could potentially add to the transit lines providing service in the vicinity of the project upon full buildout Year 2020.

As discussed in Chapter II, there are four bus lines that provide service in the vicinity of the project site, two that provide service on the periphery (Metro 446/447 and Metro 202). Based on the existing operating schedules for these transit lines, we estimated that a total of 11 buses in the a.m. peak hour and 11 buses in the p.m. peak hour serve the vicinity of the project. This results in the following conclusion:

- The project could add on average, approximately one person trip per bus in the morning peak hour and two person trips per bus in the afternoon peak hour during the interim Year 2015.

- The project could add on average, approximately two person trips per bus in the morning peak hour and three person trips in the evening peak hour upon full buildout in Year 2020.

Considering the three people per bus represent the equivalent to slightly less than 8% of the capacity of a typical 40-passenger bus. At this level of activity, project-related impacts to the regional transit system would be considered less than significant in both the interim Year 2015 and the full project buildout of the proposed project in Year 2020.

VIII. PARKING

A parking analysis was conducted for the proposed project. Figure 13 presents the location and an approximate estimate of the proposed parking supply for the project. As shown in the figure, both on-street and lot parking would be provided. All streets in the project area have on-street parking, except for Harry Bridges Boulevard, where on-street parking is prohibited, and Water Street, where parking is provided on the south side only. The four parking lots (areas 4, 6, 8 and 12) and the on-street parking would provide a total of 681 spaces, 506 off-street parking spaces and 175 on-street parking spaces.

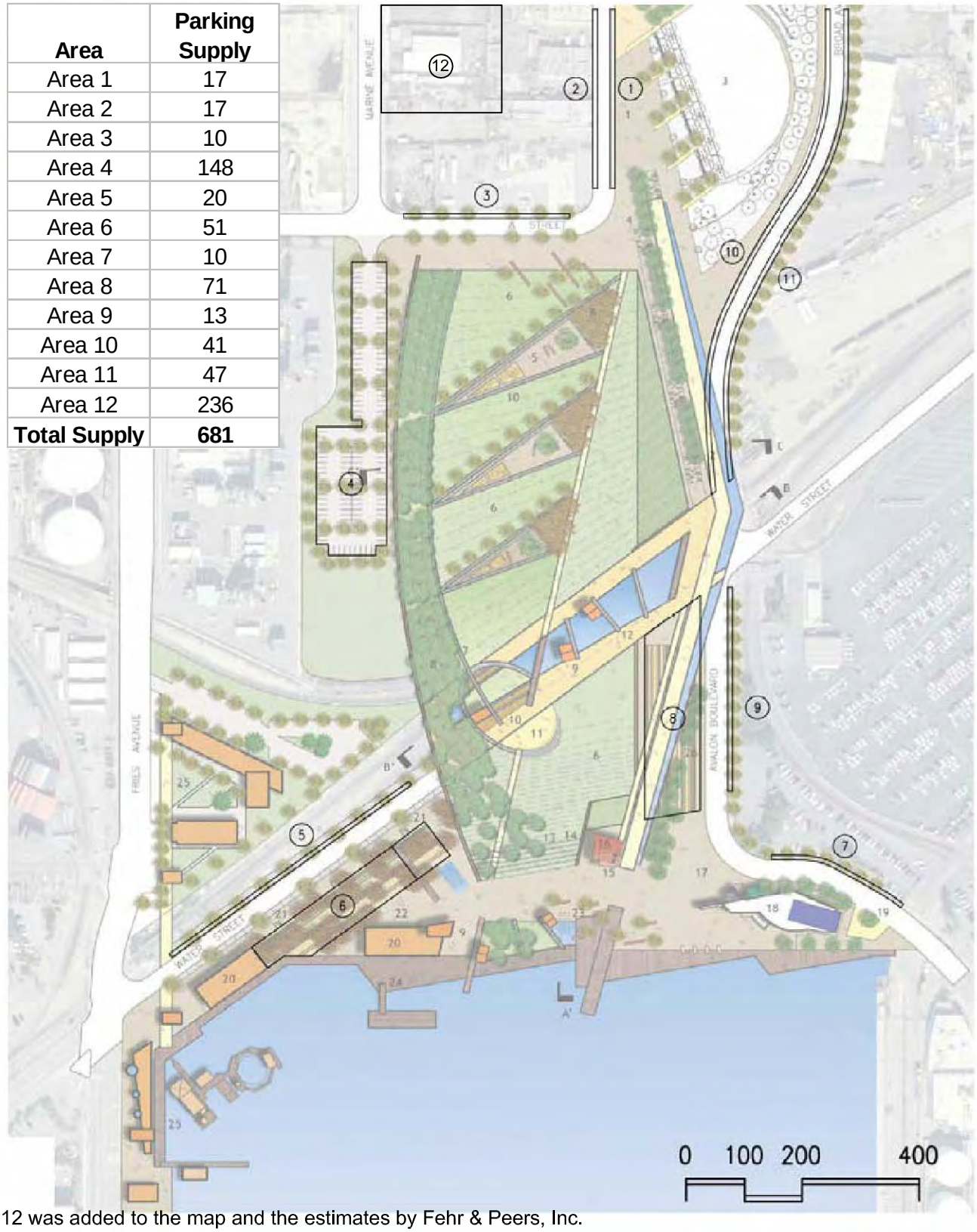
CODE REQUIREMENT

The proposed project is located in the Harbor Enterprise Zone. Enterprise Zones assist businesses located in the zones to lower their operating costs by providing them with state hiring credits, sales and use tax credits, and expense and interest deductions. The City of Los Angeles offers local incentives such as DWP rate discounts, site fee waivers, sewer facility hookup payment plans, Work Opportunity Tax Credits, and reduced parking rates. The Harbor Enterprise Zone is valid through March 3, 2009.

According to the parking code requirements per the Harbor Enterprise Zone, commercial office, business, retail, restaurant, bar and related uses, trade schools, or research and development buildings need to provide two parking spaces for every 1000 sf of floor area.

Table 10 presents the parking requirements for the project at full buildout (Year 2020). Parking requirements for the proposed project were calculated using both the City of Los Angeles Zoning Code and the Harbor Enterprise Zone parking code. As can be seen in the table, a total of 440 parking spaces would be required per the Harbor Enterprise Zone parking requirement rates and a total of 652 off-street parking spaces would be required per Section 12.21 of the Los Angeles Zoning Code.

Area	Parking Supply
Area 1	17
Area 2	17
Area 3	10
Area 4	148
Area 5	20
Area 6	51
Area 7	10
Area 8	71
Area 9	13
Area 10	41
Area 11	47
Area 12	236
Total Supply	**681**



Area 12 was added to the map and the estimates by Fehr & Peers, Inc.

Map Source: Sasaki Associates, Inc.

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Jul 17, 2008 FPA
C:\Program Files\Autodesk Map 3D 2007\Drawing1.dwg

PROPOSED PARKING SUPPLY

FIGURE 13

TABLE 10
WILMINGTON WATERFRONT DEVELOPMENT (FULL BUILDOUT)
PARKING CODE REQUIREMENTS

Land-Use	Size	Units/ Sq.Ft.	City of Los Angeles Rate	Parking Spaces Required	Harbor Enterprise Zone Rate	Parking Spaces Required
Retail	58,000	sf	4 space /1000 sf [1]	232	2 space /1000 sf [4]	116
Restaurant	12,000	sf	1 space/100 sf for establishments larger than 1000 sf [2]	120	2 space /1000 sf [4]	24
Light Industrial	150,000	sf	1 space/500 sf [1]	300	2 space/1000 sf [3]	300
Park	15	acres	-	-	-	-
Total Parking Required				**652**		**440**

Note:

Source of parking requirement rates: Section 12.21, General Provisions, Los Angeles Zoning Code

[1] - 'General Retail Stores' land use category

[2] - 'General Restaurants and Bars' land use category

[3] - 'Commercial and Industrial Buildings' land use category

[4] - Enterprise Zones, listed in 12.21A4(x)(3), not in DPD - commercial office, business, retail, restaurant, bar and related uses, trade schools, or research and development building need only provide 2 parking spaces for every 1000 sq. ft. of floor ar

The project would meet the off-street parking requirements per the Harbor Enterprise Zone code. If the Harbor Enterprise Zone were not renewed after March 3, 2009, the proposed project parking supply would be subject to the provisions of the Los Angeles Zoning Code and an additional 146 off-street parking spaces (beyond the 506 currently proposed) would be required.

IX. SUMMARY AND CONCLUSIONS

This study was undertaken to analyze the potential for traffic impacts resulting from the proposed Wilmington Waterfront Project. The key findings and conclusions of the study are summarized below:

- The proposed project is to be located in a 58-acre area in the southern end of the City of Los Angeles, in the community of Wilmington. The project would develop a variety of uses including pedestrian-oriented features and a waterfront promenade, enhancement of the Avalon Boulevard commercial corridor, commercial/industrial retail development, open space, and transportation enhancements and improvements.

- Detailed intersection capacity and operation analyses were conducted at 14 intersections in the vicinity of the project site for weekday a.m. and p.m. peak hours (between 7:00 to 9:00 a.m. and 4:00 to 6:00 p.m.) All 14 of the study intersections are currently operating at acceptable LOS (LOS D or better).

- Future traffic conditions in the study area were projected for the years 2015 and 2020. In 2015 the cumulative base analyses indicated that all 14 of the study intersections are projected to operate at acceptable LOS (LOS D or better) during the analyzed peak hours without development of the proposed project. In 2020 the cumulative base analyses indicated that 13 of the study intersections are projected to operate at acceptable LOS (LOS D or better) during the analyzed peak hours without development of the proposed project. The intersection of Avalon Boulevard & Anaheim Street is projected to operate at LOS E in the p.m. peak hour.

- In 2015 the proposed project is expected to generate 131 weekday a.m. peak hour trips and 296 weekday p.m. peak hour trips. The 2015 cumulative with project analyses indicated that all 14 of the study intersections are projected to operate at acceptable LOS (LOS D or better) during the analyzed peak hours with the development of the proposed project. In 2020 the proposed project is expected to generate 339 weekday a.m. peak hour trips and 502 weekday p.m. peak hour trips. The 2020 cumulative with project analyses indicated that 13 of the study intersections are projected to operate at acceptable LOS (LOS D or better) during the analyzed peak hours with the development of the proposed project. The intersection of Avalon Boulevard & Anaheim Street is projected to operate at LOS E in the p.m. peak hour.

- Based on City of Los Angeles significance criteria, the proposed project would result in a significant impact at Avalon Boulevard & Anaheim Street.

- A mitigation measure was developed for the significantly impacted intersection. A physical mitigation is proposed for the intersection of Avalon Boulevard & Anaheim Street that would mitigate the traffic impact below the level of significance.

- No significant CMP intersection, freeway or transit impacts are anticipated to result from the proposed project.

- A total of 681 parking spaces, including 506 off-street spaces in four parking lots and 175 on-street parking spaces, are proposed for the project. The project would meet the parking requirements per the Harbor Enterprise Zone (440 parking spaces) but would need to provide an additional 146 parking spaces to meet the Los Angeles Zoning Code if the Harbor Enterprise Zone is not renewed beyond March 3, 2009.

REFERENCES

2006 Traffic Volumes on California State Highways, California Department of Transportation, http://www.dot.ca.gov/hq/traffops/saferesr/trafdata/index.htm, accessed February 2008.

Berth 136–147 Terminal Environmental Impact Statement/Environmental Impact Report, Appendix E- Transportation, Science Applications International Corporation, 2007.

Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, San Diego Association of Governments, April 2002.

Congestion Management Program for Los Angeles County, Los Angeles County Metropolitan Transportation Authority, July 2004.

Highway Capacity Manual, Transportation Research Board, 2000.

Los Angeles Municipal Code, Section 12.21.A.4, City of Los Angeles, http://www.amlegal.com/los_angeles_ca/, accessed February 2008.

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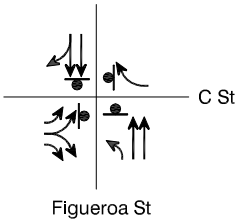
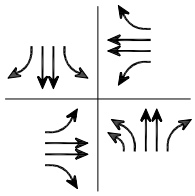
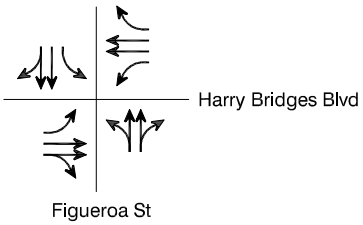
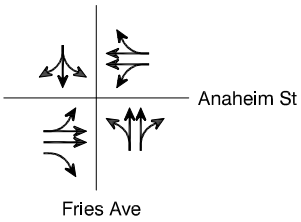
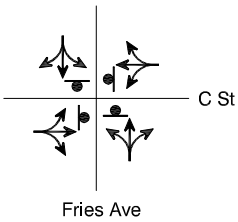
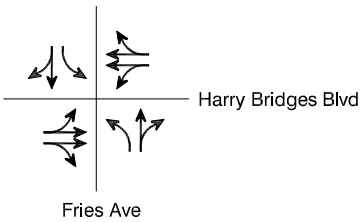
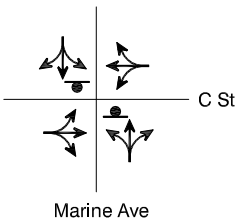
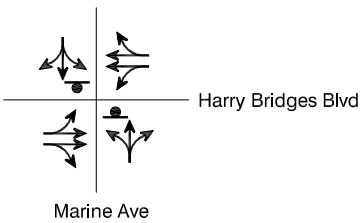
Trip Generation, 7th Edition, Institute of Transportation Engineers, 2003.

APPENDIX A

INTERSECTION LANE CONFIGURATIONS

INTERSECTION LANE CONFIGURATIONS

	EXISTING CONDITIONS	FUTURE CONDITIONS
1. Figueroa St & C St		
2. Figueroa St & Harry Bridges Blvd		Intersection Does Not Exist in Future Conditions
3. Fries Ave & Anaheim St		Same As Existing Conditions
4. Fries Ave & C St		Same As Existing Conditions
5. Fries Ave & Harry Bridges Blvd		Same As Existing Conditions
6. Marine Ave & C St		Same As Existing Conditions
7. Marine Ave & Harry Bridges Blvd		Same As Existing Conditions

LEGEND

Stop Controlled

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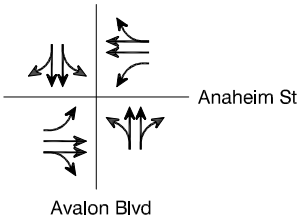
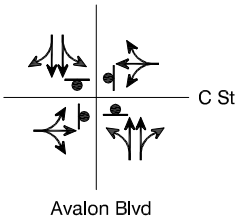
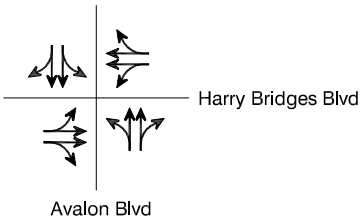
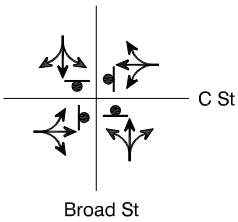
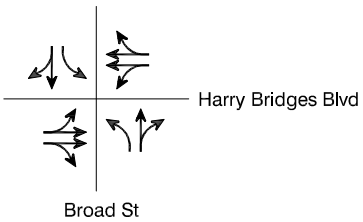
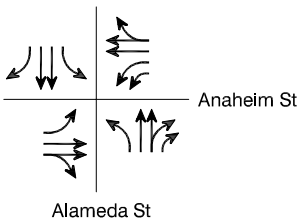
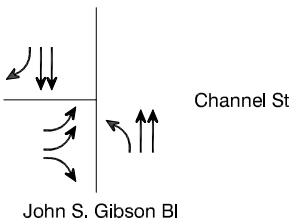
INTERSECTION LANE CONFIGURATIONS

	EXISTING CONDITIONS	FUTURE CONDITIONS
8. Avalon Blvd & Anaheim St		Same As Existing Conditions
9. Avalon Blvd & C St		Same As Existing Conditions
10. Avalon Blvd & Harry Bridges Blvd		Same As Existing Conditions
11. Broad St & C St		Same As Existing Conditions
12. Broad St & Harry Bridges Blvd		Same As Existing Conditions
13. Alameda St & Anaheim St		Same As Existing Conditions
14. John S. Gibson Bl & Channel Street		Same As Existing Conditions

LEGEND

Stop Controlled

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APPENDIX B

TRAFFIC COUNTS

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: WILMINGTON WATERFRONT PROJECT
DATE: WEDNESDAY JANUARY 24, 2008
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S FIGUEROA STREET
E/W C STREET

	1 SBRT			2 SBTH			3 SBLT			4 WBRT			5 WBTH			6 WBLT		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
700-715	14	0	14	5	2	7	0	0	0	5	0	5	1	0	1	0	0	0
715-730	28	0	28	3	3	6	0	0	0	5	2	7	3	0	3	0	0	0
730-745	37	10	47	28	7	35	0	0	0	7	0	7	0	0	0	0	0	0
745-800	26	4	30	23	6	29	0	0	0	9	0	9	2	0	2	0	0	0
800-815	22	2	24	16	3	19	0	0	0	8	1	9	1	0	1	0	0	0
815-830	13	3	16	18	2	20	0	0	0	6	1	7	3	0	3	0	0	0
830-845	11	2	13	9	1	10	0	0	0	2	0	2	0	0	0	0	0	0
845-900	14	3	17	21	2	23	0	0	0	10	0	10	1	0	1	0	0	0
900-915	12	2	14	13	0	13	0	0	0	5	0	5	0	0	0	0	0	0
915-930	5	0	5	3	2	5	0	0	0	4	0	4	0	0	0	0	0	0
930-945	5	3	8	12	10	22	0	0	0	3	0	3	0	0	0	0	0	0
945-1000	15	1	16	11	1	12	0	0	0	3	0	3	0	0	0	0	0	0
HOUR TOTALS																		
700-800	105	14	119	59	18	77	0	0	0	26	2	28	6	0	6	0	0	0
715-815	113	16	129	70	19	89	0	0	0	29	3	32	6	0	6	0	0	0
730-830	98	19	117	85	18	103	0	0	0	30	2	32	6	0	6	0	0	0
745-845	72	11	83	66	12	78	0	0	0	25	2	27	6	0	6	0	0	0
800-900	60	10	70	64	8	72	0	0	0	26	2	28	5	0	5	0	0	0
815-815	50	10	60	61	5	66	0	0	0	23	1	24	4	0	4	0	0	0
830-930	42	7	49	46	5	51	0	0	0	21	0	21	1	0	1	0	0	0
845-945	36	8	44	49	14	63	0	0	0	22	0	22	1	0	1	0	0	0
900-1000	37	6	43	39	13	52	0	0	0	15	0	15	0	0	0	0	0	0

PEAK HOUR
715-815
940

	7 NBRT			8 NBTH			9 NBLT			10 EBRT			11 EBTH			12 EBLT			ALL MOVEMENTS TOTALS		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
700-715	0	0	0	9	2	11	27	13	40	52	13	65	0	0	0	12	1	13	125	31	156
715-730	0	0	0	23	3	26	35	22	57	42	14	56	0	0	0	21	1	22	160	45	205
730-745	0	0	0	19	2	21	29	21	50	39	24	63	0	0	0	30	1	31	189	65	254
745-800	0	0	0	25	4	29	23	25	48	57	19	76	0	0	0	31	2	33	196	60	256
800-815	0	0	0	17	1	18	26	19	45	55	24	79	0	0	0	28	2	30	173	52	225
815-830	0	0	0	11	1	12	13	25	38	40	15	55	0	0	0	19	0	19	123	47	170
830-845	0	0	0	11	2	13	24	34	58	26	35	61	0	0	0	14	2	16	97	76	173
845-900	0	0	0	15	0	15	11	34	45	28	25	53	0	0	0	13	1	14	113	65	178
900-915	0	0	0	9	3	12	12	38	50	31	35	66	0	0	0	17	1	18	99	79	178
915-930	0	0	0	13	2	15	14	29	43	29	35	64	0	0	0	14	4	18	82	72	154
930-945	0	0	0	17	5	22	16	40	56	36	37	73	0	0	0	18	0	18	107	95	202
945-1000	0	0	0	14	3	17	16	44	60	29	28	57	0	0	0	14	3	17	102	80	182
HOUR TOTALS																					
700-800	0	0	0	76	11	87	114	81	195	190	70	260	0	0	0	94	5	99	670	201	871
715-815	0	0	0	84	10	94	113	87	200	193	81	274	0	0	0	110	6	116	718	222	940
730-830	0	0	0	72	8	80	91	90	181	191	82	273	0	0	0	108	5	113	681	224	905
745-845	0	0	0	64	8	72	86	103	189	178	93	271	0	0	0	92	6	98	589	235	824
800-900	0	0	0	54	4	58	74	112	186	149	99	248	0	0	0	74	5	79	506	240	746
815-815	0	0	0	46	6	52	60	131	191	125	110	235	0	0	0	63	4	67	432	267	699
830-930	0	0	0	48	7	55	61	135	196	114	130	244	0	0	0	58	8	66	391	292	683
845-945	0	0	0	54	10	64	53	141	194	124	132	256	0	0	0	62	6	68	401	311	712
900-1000	0	0	0	53	13	66	58	151	209	125	135	260	0	0	0	63	8	71	390	326	716

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: WILMINGTON WATERFRONT PROJECT
DATE: WEDNESDAY JANUARY 24, 2008
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S FIGUEROA STREET
E/W JOHN GIBSON/HARRY BRIDGES BLVD

	1 SBRT			2 SBTH			3 SBLT			4 WBRT			5 WBTH			6 WBLT		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
700-715	7	1	8	5	7	12	44	9	53	28	14	42	116	15	131	6	2	8
715-730	15	1	16	2	5	7	37	13	50	48	19	67	118	9	127	5	9	14
730-745	15	4	19	7	17	24	40	5	45	22	22	44	140	6	146	2	13	15
745-800	24	0	24	4	17	21	52	9	61	25	30	55	129	14	143	6	10	16
800-815	22	1	23	1	14	15	40	9	49	29	19	48	91	13	104	1	12	13
815-830	19	1	20	1	10	11	43	8	51	16	30	46	85	12	97	1	12	13
830-845	14	3	17	0	18	18	35	13	48	25	40	65	80	20	100	2	13	15
845-900	11	0	11	0	19	19	28	8	36	13	31	44	88	11	99	0	14	14
900-915	16	0	16	3	22	25	29	22	51	10	38	48	32	8	40	0	12	12
915-930	4	1	5	1	23	24	31	2	33	14	29	43	79	14	93	0	11	11
930-945	7	0	7	1	30	31	30	13	43	15	48	63	56	7	63	0	14	14
945-1000	13	1	14	0	19	19	22	9	31	22	45	67	47	9	56	0	9	9
HOUR TOTALS																		
700-800	61	6	67	18	46	64	173	36	209	123	85	208	503	44	547	19	34	53
715-815	76	6	82	14	53	67	169	36	205	124	90	214	478	42	520	14	44	58
730-830	80	6	86	13	58	71	175	31	206	92	101	193	445	45	490	10	47	57
745-845	79	5	84	6	59	65	170	39	209	95	119	214	385	59	444	10	47	57
800-900	66	5	71	2	61	63	146	38	184	83	120	203	344	56	400	4	51	55
815-815	60	4	64	4	69	73	135	51	186	64	139	203	285	51	336	3	51	54
830-930	45	4	49	4	82	86	123	45	168	62	138	200	279	53	332	2	50	52
845-945	38	1	39	5	94	99	118	45	163	52	146	198	255	40	295	0	51	51
900-1000	40	2	42	5	94	99	112	46	158	61	160	221	214	38	252	0	46	46

PEAK HOUR
715-815
1661

	7 NBRT			8 NBTH			9 NBLT			10 EBRT			11 EBTH			12 EBLT			ALL MOVEMENTS TOTALS		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
700-715	1	0	1	0	0	0	1	0	1	4	0	4	52	3	55	5	0	5	269	51	320
715-730	0	0	0	2	0	2	0	0	0	6	0	6	85	2	87	22	2	24	340	60	400
730-745	0	0	0	0	0	0	0	0	0	5	0	5	91	4	95	19	1	20	341	72	413
745-800	0	0	0	0	0	0	0	0	0	2	0	2	125	5	130	21	0	21	388	85	473
800-815	0	0	0	0	0	0	0	0	0	1	1	2	103	4	107	14	0	14	302	73	375
815-830	0	0	0	2	0	2	0	0	0	0	1	1	86	4	90	12	0	12	265	78	343
830-845	0	1	1	0	1	1	0	0	0	0	2	2	59	10	69	9	2	11	224	123	347
845-900	0	0	0	1	0	1	0	1	1	0	2	2	73	11	84	8	0	8	222	97	319
900-915	1	0	1	0	1	1	0	0	0	0	4	4	61	10	71	10	0	10	162	117	279
915-930	1	0	1	0	0	0	0	0	0	2	2	4	73	5	78	14	0	14	219	87	306
930-945	0	1	1	1	0	1	0	0	0	3	0	3	89	9	98	16	1	17	218	123	341
945-1000	1	1	2	0	1	1	1	0	1	0	2	2	75	12	87	7	1	8	188	109	297
HOUR TOTALS																					
700-800	1	0	1	2	0	2	1	0	1	17	0	17	353	14	367	67	3	70	1338	268	1606
715-815	0	0	0	2	0	2	0	0	0	14	1	15	404	15	419	76	3	79	1371	290	1661
730-830	0	0	0	2	0	2	0	0	0	8	2	10	405	17	422	66	1	67	1296	308	1604
745-845	0	1	1	2	1	3	0	0	0	3	4	7	373	23	396	56	2	58	1179	359	1538
800-900	0	1	1	3	1	4	0	1	1	1	6	7	321	29	350	43	2	45	1013	371	1384
815-815	1	1	2	3	2	5	0	1	1	0	9	9	279	35	314	39	2	41	873	415	1288
830-930	2	1	3	1	2	3	0	1	1	2	10	12	266	36	302	41	2	43	827	424	1251
845-945	2	1	3	2	1	3	0	1	1	5	8	13	296	35	331	48	1	49	821	424	1245
900-1000	3	2	5	1	2	3	1	0	1	5	8	13	298	36	334	47	2	49	787	436	1223

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: WILMINGTON WATERFRONT PROJECT
DATE: WEDNESDAY JANUARY 24, 2008
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S FRIES AVENUE
E/W ANAHEIM STREET

	1 SBRT			2 SBTH			3 SBLT			4 WBRT			5 WBTH			6 WBLT		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
700-715	3	0	3	6	0	6	4	0	4	0	1	1	146	2	148	10	0	10
715-730	9	0	9	20	0	20	5	0	5	4	4	8	173	3	176	8	0	8
730-745	20	1	21	18	0	18	7	1	8	8	4	12	204	3	207	16	0	16
745-800	11	0	11	28	1	29	2	0	2	6	2	8	187	4	191	20	0	20
800-815	5	0	5	20	0	20	5	0	5	8	1	9	150	6	156	8	1	9
815-830	2	0	2	10	0	10	3	0	3	5	2	7	158	3	161	8	1	9
830-845	2	0	2	7	0	7	3	0	3	2	2	4	138	4	142	5	1	6
845-900	3	0	3	7	0	7	8	0	8	6	1	7	122	4	126	11	0	11
900-915	3	0	3	4	0	4	2	0	2	5	2	7	134	6	140	11	0	11
915-930	1	0	1	6	0	6	0	0	0	2	1	3	150	4	154	19	0	19
930-945	1	0	1	1	0	1	1	0	1	4	2	6	164	6	170	27	0	27
945-1000	0	0	0	1	0	1	1	0	1	1	1	2	103	4	107	13	0	13
HOUR TOTALS																		
700-800	43	1	44	72	1	73	18	1	19	18	11	29	710	12	722	54	0	54
715-815	45	1	46	86	1	87	19	1	20	26	11	37	714	16	730	52	1	53
730-830	38	1	39	76	1	77	17	1	18	27	9	36	699	16	715	52	2	54
745-845	20	0	20	65	1	66	13	0	13	21	7	28	633	17	650	41	3	44
800-900	12	0	12	44	0	44	19	0	19	21	6	27	568	17	585	32	3	35
815-815	10	0	10	28	0	28	16	0	16	18	7	25	552	17	569	35	2	37
830-930	9	0	9	24	0	24	13	0	13	15	6	21	544	18	562	46	1	47
845-945	8	0	8	18	0	18	11	0	11	17	6	23	570	20	590	68	0	68
900-1000	5	0	5	12	0	12	4	0	4	12	6	18	551	20	571	70	0	70

PEAK HOUR
715-815
1973

	7 NBRT			8 NBTH			9 NBLT			10 EBRT			11 EBTH			12 EBLT			ALL MOVEMENTS TOTALS		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
700-715	5	0	5	8	0	8	23	1	24	11	2	13	99	2	101	3	0	3	318	8	326
715-730	6	0	6	17	0	17	23	0	23	20	0	20	158	3	161	1	0	1	444	10	454
730-745	7	0	7	16	0	16	18	0	18	16	0	16	195	7	202	3	0	3	528	16	544
745-800	8	0	8	28	0	28	19	0	19	9	0	9	204	2	206	3	0	3	525	9	534
800-815	8	0	8	16	0	16	14	1	15	13	0	13	179	3	182	3	0	3	429	12	441
815-830	11	0	11	14	0	14	19	0	19	4	0	4	200	4	204	2	0	2	436	10	446
830-845	7	0	7	7	0	7	6	0	6	7	0	7	167	1	168	0	0	0	351	8	359
845-900	4	0	4	8	0	8	7	0	7	4	0	4	134	3	137	1	0	1	315	8	323
900-915	8	0	8	6	0	6	18	0	18	11	1	12	156	5	161	1	0	1	359	14	373
915-930	16	1	17	7	0	7	25	1	26	9	0	9	136	8	144	0	1	1	371	16	387
930-945	3	0	3	4	0	4	19	0	19	12	0	12	116	2	118	1	0	1	353	10	363
945-1000	6	0	6	5	0	5	11	0	11	13	0	13	129	1	130	2	0	2	285	6	291
HOUR TOTALS																					
700-800	26	0	26	69	0	69	83	1	84	56	2	58	656	14	670	10	0	10	1815	43	1858
715-815	29	0	29	77	0	77	74	1	75	58	0	58	736	15	751	10	0	10	1926	47	1973
730-830	34	0	34	74	0	74	70	1	71	42	0	42	778	16	794	11	0	11	1918	47	1965
745-845	34	0	34	65	0	65	58	1	59	33	0	33	750	10	760	8	0	8	1741	39	1780
800-900	30	0	30	45	0	45	46	1	47	28	0	28	680	11	691	6	0	6	1531	38	1569
815-815	30	0	30	35	0	35	50	0	50	26	1	27	657	13	670	4	0	4	1461	40	1501
830-930	35	1	36	28	0	28	56	1	57	31	1	32	593	17	610	2	1	3	1396	46	1442
845-945	31	1	32	25	0	25	69	1	70	36	1	37	542	18	560	3	1	4	1398	48	1446
900-1000	33	1	34	22	0	22	73	1	74	45	1	46	537	16	553	4	1	5	1368	46	1414

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: WILMINGTON WATERFRONT PROJECT
DATE: WEDNESDAY JANUARY 24, 2008
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S FRIES AVENUE
E/W C STREET

	1 SBRT			2 SBTH			3 SBLT			4 WBRT			5 WBTH			6 WBLT		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
700-715	0	0	0	11	1	12	1	0	1	2	0	2	10	0	10	1	0	1
715-730	3	0	3	8	0	8	0	0	0	2	0	2	13	0	13	0	0	0
730-745	1	0	1	16	4	20	1	0	1	1	0	1	7	0	7	0	0	0
745-800	0	0	0	7	0	7	0	0	0	0	0	0	6	0	6	3	0	3
800-815	2	0	2	8	1	9	2	0	2	1	0	1	10	0	10	1	0	1
815-830	2	0	2	4	0	4	2	0	2	1	0	1	7	0	7	1	0	1
830-845	1	0	1	5	0	5	1	0	1	1	0	1	10	0	10	0	0	0
845-900	9	0	9	5	0	5	8	0	8	4	0	4	15	0	15	4	0	4
900-915	2	0	2	7	0	7	5	0	5	2	0	2	12	1	13	3	0	3
915-930	4	0	4	8	1	9	9	0	9	9	0	9	18	0	18	4	1	5
930-945	3	0	3	12	2	14	15	0	15	15	0	15	11	0	11	4	0	4
945-1000	1	0	1	11	1	12	12	0	12	11	0	11	22	0	22	2	0	2
HOUR TOTALS																		
700-800	4	0	4	42	5	47	2	0	2	5	0	5	36	0	36	4	0	4
715-815	6	0	6	39	5	44	3	0	3	4	0	4	36	0	36	4	0	4
730-830	5	0	5	35	5	40	5	0	5	3	0	3	30	0	30	5	0	5
745-845	5	0	5	24	1	25	5	0	5	3	0	3	33	0	33	5	0	5
800-900	14	0	14	22	1	23	13	0	13	7	0	7	42	0	42	6	0	6
815-815	14	0	14	21	0	21	16	0	16	8	0	8	44	1	45	8	0	8
830-930	16	0	16	25	1	26	23	0	23	16	0	16	55	1	56	11	1	12
845-945	18	0	18	32	3	35	37	0	37	30	0	30	56	1	57	15	1	16
900-1000	10	0	10	38	4	42	41	0	41	37	0	37	63	1	64	13	1	14

PEAK HOUR
900-1000
399

	7 NBRT			8 NBTH			9 NBLT			10 EBRT			11 EBTH			12 EBLT			ALL MOVEMENTS TOTALS		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
700-715	1	0	1	3	1	4	0	0	0	0	0	0	3	0	3	0	0	0	32	2	34
715-730	1	0	1	10	0	10	0	0	0	2	0	2	4	0	4	1	0	1	44	0	44
730-745	4	0	4	12	3	15	0	0	0	2	2	4	9	0	9	0	0	0	53	9	62
745-800	0	0	0	6	1	7	2	0	2	1	0	1	6	0	6	3	0	3	34	1	35
800-815	1	0	1	7	2	9	1	0	1	1	1	2	6	0	6	5	0	5	45	4	49
815-830	3	0	3	11	0	11	1	0	1	1	0	1	3	1	4	3	0	3	39	1	40
830-845	3	0	3	6	3	9	0	0	0	0	0	0	9	0	9	2	0	2	38	3	41
845-900	1	0	1	9	1	10	0	1	1	3	0	3	16	0	16	2	0	2	76	2	78
900-915	3	0	3	8	2	10	4	0	4	3	0	3	9	0	9	3	0	3	61	3	64
915-930	8	0	8	6	1	7	2	0	2	4	0	4	7	0	7	2	0	2	81	3	84
930-945	14	0	14	14	4	18	10	0	10	5	0	5	13	0	13	4	0	4	120	6	126
945-1000	9	0	9	6	3	9	7	0	7	5	0	5	23	1	24	11	0	11	120	5	125
HOUR TOTALS																					
700-800	6	0	6	31	5	36	2	0	2	5	2	7	22	0	22	4	0	4	163	12	175
715-815	6	0	6	35	6	41	3	0	3	6	3	9	25	0	25	9	0	9	176	14	190
730-830	8	0	8	36	6	42	4	0	4	5	3	8	24	1	25	11	0	11	171	15	186
745-845	7	0	7	30	6	36	4	0	4	3	1	4	24	1	25	13	0	13	156	9	165
800-900	8	0	8	33	6	39	2	1	3	5	1	6	34	1	35	12	0	12	198	10	208
815-815	10	0	10	34	6	40	5	1	6	7	0	7	37	1	38	10	0	10	214	9	223
830-930	15	0	15	29	7	36	6	1	7	10	0	10	41	0	41	9	0	9	256	11	267
845-945	26	0	26	37	8	45	16	1	17	15	0	15	45	0	45	11	0	11	338	14	352
900-1000	34	0	34	34	10	44	23	0	23	17	0	17	52	1	53	20	0	20	382	17	399

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: WILMINGTON WATERFRONT PROJECT
DATE: WEDNESDAY JANUARY 24, 2008
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S FRIES AVENUE
E/W HARRY BRIDGES BOULEVARD

	1 SBRT			2 SBTH			3 SBLT			4 WBRT			5 WBTH			6 WBLT		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
700-715	3	0	3	0	0	0	0	0	0	0	0	0	93	8	101	2	0	2
715-730	9	0	9	3	1	4	1	3	4	5	0	5	109	26	135	3	1	4
730-745	18	0	18	3	1	4	1	0	1	1	0	1	82	25	107	0	0	0
745-800	5	1	6	7	0	7	0	0	0	6	0	6	86	28	114	4	0	4
800-815	6	0	6	6	2	8	2	1	3	2	0	2	95	29	124	2	1	3
815-830	5	0	5	0	0	0	0	0	0	0	0	0	65	47	112	2	0	2
830-845	5	0	5	2	0	2	0	0	0	0	0	0	70	37	107	3	0	3
845-900	3	0	3	1	0	1	0	0	0	1	0	1	65	30	95	1	0	1
900-915	8	0	8	4	0	4	1	0	1	1	0	1	61	24	85	0	0	0
915-930	9	2	11	5	0	5	1	0	1	1	0	1	54	32	86	1	0	1
930-945	13	1	14	6	1	7	0	0	0	1	0	1	48	0	48	0	0	0
945-1000	11	0	11	4	0	4	2	1	3	5	0	5	58	62	120	2	0	2
HOUR TOTALS																		
700-800	35	1	36	13	2	15	2	3	5	12	0	12	370	87	457	9	1	10
715-815	38	1	39	19	4	23	4	4	8	14	0	14	372	108	480	9	2	11
730-830	34	1	35	16	3	19	3	1	4	9	0	9	328	129	457	8	1	9
745-845	21	1	22	15	2	17	2	1	3	8	0	8	316	141	457	11	1	12
800-900	19	0	19	9	2	11	2	1	3	3	0	3	295	143	438	8	1	9
815-815	21	0	21	7	0	7	1	0	1	2	0	2	261	138	399	6	0	6
830-930	25	2	27	12	0	12	2	0	2	3	0	3	250	123	373	5	0	5
845-945	33	3	36	16	1	17	2	0	2	4	0	4	228	86	314	2	0	2
900-1000	41	3	44	19	1	20	4	1	5	8	0	8	221	118	339	3	0	3

PEAK HOUR
715-815
1209

	7 NBRT			8 NBTH			9 NBLT			10 EBRT			11 EBTH			12 EBLT			ALL MOVEMENTS TOTALS		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
700-715	1	3	4	2	1	3	10	21	31	11	1	12	68	9	77	2	1	3	192	44	236
715-730	2	5	7	1	0	1	12	29	41	13	2	15	72	15	87	1	0	1	231	82	313
730-745	4	2	6	5	0	5	9	12	21	10	3	13	85	3	88	5	1	6	223	47	270
745-800	4	10	14	1	1	2	9	19	28	15	2	17	112	7	119	8	1	9	257	69	326
800-815	4	10	14	1	4	5	4	12	16	11	1	12	91	9	100	7	0	7	231	69	300
815-830	1	6	7	4	2	6	12	23	35	12	1	13	90	12	102	8	1	9	199	92	291
830-845	3	9	12	2	1	3	11	17	28	7	4	11	57	17	74	8	0	8	168	85	253
845-900	4	10	14	2	0	2	3	45	48	15	3	18	61	13	74	8	0	8	164	101	265
900-915	5	4	9	1	0	1	6	15	21	2	2	4	61	13	74	11	3	14	161	61	222
915-930	1	22	23	5	2	7	7	28	35	9	4	13	55	19	74	13	1	14	161	110	271
930-945	2	7	9	7	1	8	5	52	57	21	4	25	60	23	83	24	4	28	187	93	280
945-1000	3	8	11	4	2	6	5	31	36	8	3	11	36	9	45	15	0	15	153	116	269
HOUR TOTALS																					
700-800	11	20	31	9	2	11	40	81	121	49	8	57	337	34	371	16	3	19	903	242	1145
715-815	14	27	41	8	5	13	34	72	106	49	8	57	360	34	394	21	2	23	942	267	1209
730-830	13	28	41	11	7	18	34	66	100	48	7	55	378	31	409	28	3	31	910	277	1187
745-845	12	35	47	8	8	16	36	71	107	45	8	53	350	45	395	31	2	33	855	315	1170
800-900	12	35	47	9	7	16	30	97	127	45	9	54	299	51	350	31	1	32	762	347	1109
815-815	13	29	42	9	3	12	32	100	132	36	10	46	269	55	324	35	4	39	692	339	1031
830-930	13	45	58	10	3	13	27	105	132	33	13	46	234	62	296	40	4	44	654	357	1011
845-945	12	43	55	15	3	18	21	140	161	47	13	60	237	68	305	56	8	64	673	365	1038
900-1000	11	41	52	17	5	22	23	126	149	40	13	53	212	64	276	63	8	71	662	380	1042

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: WILMINGTON WATERFRONT PROJECT
DATE: WEDNESDAY JANUARY 24, 2008
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S MARINE AVENUE
E/W C STREET

	1 SBRT			2 SBTH			3 SBLT			4 WBRT			5 WBTH			6 WBLT		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
700-715	0	0	0	3	0	3	0	0	0	2	0	2	6	0	6	0	0	0
715-730	1	0	1	2	0	2	1	0	1	3	0	3	15	0	15	1	0	1
730-745	0	1	1	2	0	2	2	0	2	2	0	2	9	0	9	1	0	1
745-800	1	0	1	3	0	3	0	0	0	0	0	0	14	0	14	1	0	1
800-815	3	0	3	1	0	1	3	0	3	1	0	1	10	0	10	1	0	1
815-830	0	0	0	1	0	1	1	0	1	0	0	0	8	0	8	0	0	0
830-845	2	0	2	2	0	2	2	0	2	0	0	0	9	0	9	1	0	1
845-900	0	0	0	3	0	3	0	0	0	2	0	2	18	0	18	3	0	3
900-915	1	0	1	5	0	5	2	0	2	1	0	1	22	0	22	1	0	1
915-930	4	1	5	4	0	4	4	0	4	4	0	4	23	1	24	3	0	3
930-945	5	0	5	5	0	5	2	0	2	8	0	8	29	0	29	7	1	8
945-1000	6	1	7	3	0	3	3	0	3	7	0	7	25	0	25	5	0	5
HOUR TOTALS																		
700-800	2	1	3	10	0	10	3	0	3	7	0	7	44	0	44	3	0	3
715-815	5	1	6	8	0	8	6	0	6	6	0	6	48	0	48	4	0	4
730-830	4	1	5	7	0	7	6	0	6	3	0	3	41	0	41	3	0	3
745-845	6	0	6	7	0	7	6	0	6	1	0	1	41	0	41	3	0	3
800-900	5	0	5	7	0	7	6	0	6	3	0	3	45	0	45	5	0	5
815-815	3	0	3	11	0	11	5	0	5	3	0	3	57	0	57	5	0	5
830-930	7	1	8	14	0	14	8	0	8	7	0	7	72	1	73	8	0	8
845-945	10	1	11	17	0	17	8	0	8	15	0	15	92	1	93	14	1	15
900-1000	16	2	18	17	0	17	11	0	11	20	0	20	99	1	100	16	1	17

PEAK HOUR
900-1000
359

	7 NBRT			8 NBTH			9 NBLT			10 EBRT			11 EBTH			12 EBLT			ALL MOVEMENTS TOTALS		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
700-715	0	0	0	3	0	3	0	0	0	0	0	0	1	1	2	0	0	0	15	1	16
715-730	0	0	0	4	0	4	0	0	0	1	0	1	6	0	6	0	0	0	34	0	34
730-745	2	0	2	3	0	3	0	0	0	0	0	0	11	0	11	1	0	1	33	1	34
745-800	5	0	5	6	0	6	0	0	0	0	0	0	8	0	8	0	0	0	38	0	38
800-815	5	0	5	6	0	6	0	0	0	0	0	0	6	0	6	2	0	2	38	0	38
815-830	3	0	3	6	1	7	1	0	1	0	1	1	13	0	13	0	0	0	33	2	35
830-845	3	0	3	1	0	1	0	0	0	0	0	0	7	0	7	0	0	0	27	0	27
845-900	5	0	5	2	0	2	0	0	0	1	0	1	13	0	13	0	0	0	47	0	47
900-915	3	0	3	3	1	4	3	0	3	2	0	2	11	0	11	1	0	1	55	1	56
915-930	8	0	8	3	0	3	3	0	3	10	0	10	14	0	14	8	0	8	88	2	90
930-945	3	0	3	11	0	11	3	0	3	16	0	16	20	0	20	6	0	6	115	1	116
945-1000	3	0	3	5	0	5	2	0	2	8	0	8	18	1	19	10	0	10	95	2	97
HOUR TOTALS																					
700-800	7	0	7	16	0	16	0	0	0	1	0	1	26	1	27	1	0	1	120	2	122
715-815	12	0	12	19	0	19	0	0	0	1	0	1	31	0	31	3	0	3	143	1	144
730-830	15	0	15	21	1	22	1	0	1	0	1	1	38	0	38	3	0	3	142	3	145
745-845	16	0	16	19	1	20	1	0	1	0	1	1	34	0	34	2	0	2	136	2	138
800-900	16	0	16	15	1	16	1	0	1	1	1	2	39	0	39	2	0	2	145	2	147
815-815	14	0	14	12	2	14	4	0	4	3	1	4	44	0	44	1	0	1	162	3	165
830-930	19	0	19	9	1	10	6	0	6	13	0	13	45	0	45	9	0	9	217	3	220
845-945	19	0	19	19	1	20	9	0	9	29	0	29	58	0	58	15	0	15	305	4	309
900-1000	17	0	17	22	1	23	11	0	11	36	0	36	63	1	64	25	0	25	353	6	359

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: WILMINGTON WATERFRONT PROJECT
DATE: WEDNESDAY JANUARY 24, 2008
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S MARINE AVENUE
E/W HARRY BRIDGES BOULEVARD

	1 SBRT			2 SBTH			3 SBLT			4 WBRT			5 WBTH			6 WBLT		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
700-715	2	0	2	0	0	0	1	0	1	2	0	2	94	6	100	1	1	2
715-730	2	0	2	1	0	1	1	0	1	1	0	1	111	19	130	1	0	1
730-745	1	0	1	0	0	0	1	0	1	3	0	3	94	34	128	0	0	0
745-800	3	0	3	0	0	0	0	0	0	3	0	3	86	28	114	0	0	0
800-815	1	0	1	0	0	0	1	0	1	1	0	1	97	32	129	1	0	1
815-830	1	0	1	0	0	0	0	0	0	1	0	1	57	37	94	0	0	0
830-845	3	0	3	0	0	0	1	0	1	0	0	0	73	30	103	0	0	0
845-900	6	0	6	0	0	0	0	0	0	1	0	1	50	44	94	0	0	0
900-915	5	0	5	3	0	3	0	1	1	0	0	0	49	28	77	0	0	0
915-930	7	0	7	5	0	5	1	0	1	2	0	2	59	31	90	0	0	0
930-945	11	0	11	8	0	8	2	1	3	1	0	1	46	28	74	0	0	0
945-1000	11	0	11	11	0	11	2	0	2	1	0	1	59	24	83	0	0	0
HOUR TOTALS																		
700-800	8	0	8	1	0	1	3	0	3	9	0	9	385	87	472	2	1	3
715-815	7	0	7	1	0	1	3	0	3	8	0	8	388	113	501	2	0	2
730-830	6	0	6	0	0	0	2	0	2	8	0	8	334	131	465	1	0	1
745-845	8	0	8	0	0	0	2	0	2	5	0	5	313	127	440	1	0	1
800-900	11	0	11	0	0	0	2	0	2	3	0	3	277	143	420	1	0	1
815-815	15	0	15	3	0	3	1	1	2	2	0	2	229	139	368	0	0	0
830-930	21	0	21	8	0	8	2	1	3	3	0	3	231	133	364	0	0	0
845-945	29	0	29	16	0	16	3	2	5	4	0	4	204	131	335	0	0	0
900-1000	34	0	34	27	0	27	5	2	7	4	0	4	213	111	324	0	0	0

PEAK HOUR
715-815
1002

	7 NBRT			8 NBTH			9 NBLT			10 EBRT			11 EBTH			12 EBLT			ALL MOVEMENTS TOTALS		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
700-715	0	1	1	0	0	0	0	0	0	1	0	1	58	13	71	4	0	4	163	21	184
715-730	0	2	2	0	0	0	0	1	1	1	0	1	65	19	84	5	1	6	188	42	230
730-745	0	1	1	0	0	0	0	0	0	1	0	1	80	11	91	4	0	4	184	46	230
745-800	0	1	1	0	0	0	0	0	0	2	1	3	115	14	129	10	0	10	219	44	263
800-815	0	4	4	0	0	0	0	0	0	0	0	0	106	22	128	14	0	14	221	58	279
815-830	0	1	1	0	0	0	3	0	3	0	0	0	46	15	61	6	0	6	114	53	167
830-845	0	0	0	0	0	0	0	0	0	1	1	2	95	29	124	3	0	3	176	60	236
845-900	2	6	8	0	0	0	2	0	2	2	0	2	40	23	63	7	0	7	110	73	183
900-915	3	2	5	1	0	1	0	0	0	0	0	0	39	17	56	9	0	9	109	48	157
915-930	2	8	10	0	0	0	0	0	0	0	0	0	42	33	75	7	0	7	125	72	197
930-945	2	3	5	0	0	0	1	0	1	0	0	0	58	27	85	15	1	16	144	60	204
945-1000	2	1	3	0	1	1	0	0	0	0	1	1	44	22	66	12	0	12	142	49	191
HOUR TOTALS																					
700-800	0	5	5	0	0	0	0	1	1	5	1	6	318	57	375	23	1	24	754	153	907
715-815	0	8	8	0	0	0	0	1	1	4	1	5	366	66	432	33	1	34	812	190	1002
730-830	0	7	7	0	0	0	3	0	3	3	1	4	347	62	409	34	0	34	738	201	939
745-845	0	6	6	0	0	0	3	0	3	3	2	5	362	80	442	33	0	33	730	215	945
800-900	2	11	13	0	0	0	5	0	5	3	1	4	287	89	376	30	0	30	621	244	865
815-815	5	9	14	1	0	1	5	0	5	3	1	4	220	84	304	25	0	25	509	234	743
830-930	7	16	23	1	0	1	2	0	2	3	1	4	216	102	318	26	0	26	520	253	773
845-945	9	19	28	1	0	1	3	0	3	2	0	2	179	100	279	38	1	39	488	253	741
900-1000	9	14	23	1	1	2	1	0	1	0	1	1	183	99	282	43	1	44	520	229	749

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: WILMINGTON WATERFRONT PROJECT
DATE: WEDNESDAY JANUARY 24, 2008
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S AVALON BOUELVARD
E/W ANAHEIM STREET

	1 SBRT			2 SBTH			3 SBLT			4 WBRT			5 WBTH			6 WBLT		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
700-715	16	4	20	58	1	59	18	1	19	7	1	8	139	4	143	11	1	12
715-730	21	2	23	51	1	52	23	0	23	15	2	17	143	2	145	13	2	15
730-745	38	3	41	80	2	82	32	1	33	12	1	13	181	4	185	12	2	14
745-800	20	1	21	78	4	82	28	1	29	15	0	15	166	6	172	18	1	19
800-815	18	2	20	71	4	75	17	1	18	19	0	19	144	4	148	18	0	18
815-830	21	2	23	60	0	60	22	2	24	18	0	18	120	3	123	32	1	33
830-845	24	3	27	64	2	66	12	1	13	17	1	18	111	5	116	18	0	18
845-900	26	3	29	46	4	50	13	0	13	19	0	19	109	2	111	22	0	22
900-915	27	1	28	55	2	57	12	1	13	11	0	11	127	6	133	16	1	17
915-930	19	2	21	57	6	63	10	0	10	26	1	27	126	6	132	38	0	38
930-945	29	2	31	66	2	68	18	2	20	21	1	22	132	3	135	16	0	16
945-1000	16	1	17	71	1	72	10	1	11	15	1	16	107	5	112	25	1	26
HOUR TOTALS																		
700-800	95	10	105	267	8	275	101	3	104	49	4	53	629	16	645	54	6	60
715-815	97	8	105	280	11	291	100	3	103	61	3	64	634	16	650	61	5	66
730-830	97	8	105	289	10	299	99	5	104	64	1	65	611	17	628	80	4	84
745-845	83	8	91	273	10	283	79	5	84	69	1	70	541	18	559	86	2	88
800-900	89	10	99	241	10	251	64	4	68	73	1	74	484	14	498	90	1	91
815-815	98	9	107	225	8	233	59	4	63	65	1	66	467	16	483	88	2	90
830-930	96	9	105	222	14	236	47	2	49	73	2	75	473	19	492	94	1	95
845-945	101	8	109	224	14	238	53	3	56	77	2	79	494	17	511	92	1	93
900-1000	91	6	97	249	11	260	50	4	54	73	3	76	492	20	512	95	2	97

PEAK HOUR
715-815
2378

	7 NBRT			8 NBTH			9 NBLT			10 EBRT			11 EBTH			12 EBLT			ALL MOVEMENTS TOTALS		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
700-715	11	0	11	42	0	42	14	0	14	5	0	5	122	0	122	18	2	20	461	14	475
715-730	11	0	11	75	0	75	23	0	23	7	1	8	125	1	126	20	1	21	527	12	539
730-745	7	0	7	76	1	77	16	0	16	10	0	10	160	4	164	23	1	24	647	19	666
745-800	10	1	11	43	0	43	10	0	10	14	0	14	161	3	164	21	1	22	584	18	602
800-815	10	0	10	47	2	49	8	0	8	15	0	15	167	3	170	19	2	21	553	18	571
815-830	4	0	4	45	3	48	8	0	8	11	1	12	157	2	159	22	0	22	520	14	534
830-845	10	0	10	28	4	32	8	1	9	7	0	7	134	1	135	26	1	27	459	19	478
845-900	12	0	12	57	3	60	8	0	8	11	0	11	108	3	111	21	0	21	452	15	467
900-915	9	1	10	38	2	40	10	1	11	11	0	11	115	3	118	18	0	18	449	18	467
915-930	6	2	8	42	2	44	11	0	11	10	0	10	118	5	123	25	2	27	488	26	514
930-945	11	0	11	43	2	45	12	1	13	5	1	6	99	2	101	23	0	23	475	16	491
945-1000	8	0	8	36	2	38	10	0	10	8	0	8	124	3	127	23	0	23	453	15	468
HOUR TOTALS																					
700-800	39	1	40	236	1	237	63	0	63	36	1	37	568	8	576	82	5	87	2219	63	2282
715-815	38	1	39	241	3	244	57	0	57	46	1	47	613	11	624	83	5	88	2311	67	2378
730-830	31	1	32	211	6	217	42	0	42	50	1	51	645	12	657	85	4	89	2304	69	2373
745-845	34	1	35	163	9	172	34	1	35	47	1	48	619	9	628	88	4	92	2116	69	2185
800-900	36	0	36	177	12	189	32	1	33	44	1	45	566	9	575	88	3	91	1984	66	2050
815-815	35	1	36	168	12	180	34	2	36	40	1	41	514	9	523	87	1	88	1880	66	1946
830-930	37	3	40	165	11	176	37	2	39	39	0	39	475	12	487	90	3	93	1848	78	1926
845-945	38	3	41	180	9	189	41	2	43	37	1	38	440	13	453	87	2	89	1864	75	1939
900-1000	34	3	37	159	8	167	43	2	45	34	1	35	456	13	469	89	2	91	1865	75	1940

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: WILMINGTON WATERFRONT PROJECT
DATE: WEDNESDAY JANUARY 24, 2008
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S AVALON BOULEVARD
E/W C STREET

	1 SBRT			2 SBTH			3 SBLT			4 WBRT			5 WBTH			6 WBLT		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
700-715	7	0	7	36	1	37	5	0	5	8	0	8	11	0	11	11	0	11
715-730	5	0	5	32	0	32	3	0	3	7	0	7	6	0	6	7	0	7
730-745	5	0	5	41	2	43	7	0	7	6	0	6	7	0	7	4	0	4
745-800	7	0	7	30	2	32	6	0	6	2	0	2	8	0	8	1	0	1
800-815	7	0	7	35	0	35	7	0	7	4	0	4	6	0	6	1	0	1
815-830	3	0	3	23	1	24	7	0	7	4	0	4	5	0	5	0	0	0
830-845	1	0	1	18	2	20	3	0	3	1	1	2	7	0	7	2	0	2
845-900	3	0	3	13	1	14	2	0	2	4	0	4	10	0	10	0	0	0
900-915	13	0	13	22	1	23	8	1	9	6	0	6	14	0	14	0	0	0
915-930	22	0	22	18	2	20	5	0	5	7	0	7	11	0	11	3	0	3
930-945	14	1	15	13	1	14	4	0	4	5	0	5	24	0	24	0	0	0
945-1000	20	1	21	10	0	10	2	0	2	0	0	0	12	0	12	0	0	0
HOUR TOTALS																		
700-800	24	0	24	139	5	144	21	0	21	23	0	23	32	0	32	23	0	23
715-815	24	0	24	138	4	142	23	0	23	19	0	19	27	0	27	13	0	13
730-830	22	0	22	129	5	134	27	0	27	16	0	16	26	0	26	6	0	6
745-845	18	0	18	106	5	111	23	0	23	11	1	12	26	0	26	4	0	4
800-900	14	0	14	89	4	93	19	0	19	13	1	14	28	0	28	3	0	3
815-815	20	0	20	76	5	81	20	1	21	15	1	16	36	0	36	2	0	2
830-930	39	0	39	71	6	77	18	1	19	18	1	19	42	0	42	5	0	5
845-945	52	1	53	66	5	71	19	1	20	22	0	22	59	0	59	3	0	3
900-1000	69	2	71	63	4	67	19	1	20	18	0	18	61	0	61	3	0	3

PEAK HOUR
900-1000
438

	7 NBRT			8 NBTH			9 NBLT			10 EBRT			11 EBTH			12 EBLT			ALL MOVEMENTS TOTALS		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
700-715	2	0	2	26	0	26	1	0	1	0	0	0	3	1	4	3	0	3	113	2	115
715-730	1	0	1	16	1	17	0	0	0	0	0	0	1	0	1	3	0	3	81	1	82
730-745	1	0	1	21	1	22	1	0	1	3	0	3	6	0	6	5	0	5	107	3	110
745-800	3	0	3	24	0	24	2	0	2	0	0	0	6	0	6	5	0	5	94	2	96
800-815	3	0	3	27	0	27	3	0	3	1	0	1	10	0	10	4	0	4	108	0	108
815-830	2	0	2	23	2	25	0	0	0	2	0	2	12	2	14	4	0	4	85	5	90
830-845	3	0	3	26	0	26	0	0	0	0	0	0	6	0	6	2	0	2	69	3	72
845-900	1	0	1	29	1	30	0	0	0	1	0	1	10	0	10	2	0	2	75	2	77
900-915	0	0	0	21	2	23	1	0	1	2	0	2	14	0	14	10	0	10	111	4	115
915-930	2	0	2	25	0	25	4	0	4	5	0	5	12	0	12	4	0	4	118	2	120
930-945	2	0	2	24	0	24	4	0	4	7	0	7	10	0	10	8	0	8	115	2	117
945-1000	0	0	0	19	0	19	2	0	2	7	0	7	7	1	8	5	0	5	84	2	86
HOUR TOTALS																					
700-800	7	0	7	87	2	89	4	0	4	3	0	3	16	1	17	16	0	16	395	8	403
715-815	8	0	8	88	2	90	6	0	6	4	0	4	23	0	23	17	0	17	390	6	396
730-830	9	0	9	95	3	98	6	0	6	6	0	6	34	2	36	18	0	18	394	10	404
745-845	11	0	11	100	2	102	5	0	5	3	0	3	34	2	36	15	0	15	356	10	366
800-900	9	0	9	105	3	108	3	0	3	4	0	4	38	2	40	12	0	12	337	10	347
815-815	6	0	6	99	5	104	1	0	1	5	0	5	42	2	44	18	0	18	340	14	354
830-930	6	0	6	101	3	104	5	0	5	8	0	8	42	0	42	18	0	18	373	11	384
845-945	5	0	5	99	3	102	9	0	9	15	0	15	46	0	46	24	0	24	419	10	429
900-1000	4	0	4	89	2	91	11	0	11	21	0	21	43	1	44	27	0	27	428	10	438

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: WILMINGTON WATERFRONT PROJECT
DATE: WEDNESDAY JANUARY 24, 2008
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S AVALON BOULEVARD
E/W HARRY BRIDGES BOULEVARD

	1 SBRT			2 SBTH			3 SBLT			4 WBRT			5 WBTH			6 WBLT		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
700-715	27	1	28	7	0	7	1	0	1	3	0	3	53	19	72	3	1	4
715-730	39	1	40	7	0	7	3	0	3	5	0	5	69	12	81	0	0	0
730-745	32	1	33	7	0	7	1	0	1	3	0	3	98	24	122	1	1	2
745-800	21	1	22	10	0	10	6	1	7	1	0	1	66	24	90	3	0	3
800-815	14	2	16	4	0	4	2	0	2	4	0	4	48	33	81	2	1	3
815-830	19	0	19	6	0	6	4	0	4	4	0	4	60	37	97	1	0	1
830-845	18	2	20	2	0	2	3	0	3	8	0	8	42	25	67	2	0	2
845-900	17	0	17	7	0	7	1	0	1	3	0	3	50	32	82	1	0	1
900-915	21	0	21	4	0	4	2	0	2	5	0	5	32	26	58	4	1	5
915-930	16	2	18	3	0	3	2	1	3	0	0	0	35	29	64	1	2	3
930-945	9	0	9	3	0	3	0	0	0	2	0	2	41	24	65	4	2	6
945-1000	18	1	19	5	0	5	1	0	1	3	0	3	37	26	63	2	2	4
HOUR TOTALS																		
700-800	119	4	123	31	0	31	11	1	12	12	0	12	286	79	365	7	2	9
715-815	106	5	111	28	0	28	12	1	13	13	0	13	281	93	374	6	2	8
730-830	86	4	90	27	0	27	13	1	14	12	0	12	272	118	390	7	2	9
745-845	72	5	77	22	0	22	15	1	16	17	0	17	216	119	335	8	1	9
800-900	68	4	72	19	0	19	10	0	10	19	0	19	200	127	327	6	1	7
815-815	75	2	77	19	0	19	10	0	10	20	0	20	184	120	304	8	1	9
830-930	72	4	76	16	0	16	8	1	9	16	0	16	159	112	271	8	3	11
845-945	63	2	65	17	0	17	5	1	6	10	0	10	158	111	269	10	5	15
900-1000	64	3	67	15	0	15	5	1	6	10	0	10	145	105	250	11	7	18

PEAK HOUR
730-830
1010

	7 NBRT			8 NBTH			9 NBLT			10 EBRT			11 EBTH			12 EBLT			ALL MOVEMENTS TOTALS		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
700-715	5	0	5	0	0	0	0	0	0	7	0	7	35	11	46	17	1	18	158	33	191
715-730	1	0	1	4	0	4	1	0	1	6	2	8	45	14	59	8	0	8	188	29	217
730-745	1	0	1	5	0	5	1	1	2	8	1	9	56	16	72	25	1	26	238	45	283
745-800	1	2	3	2	0	2	1	1	2	7	0	7	78	11	89	28	0	28	224	40	264
800-815	1	1	2	7	0	7	7	0	7	1	2	3	58	17	75	21	0	21	169	56	225
815-830	1	0	1	4	0	4	2	0	2	5	0	5	44	25	69	25	1	26	175	63	238
830-845	5	1	6	4	1	5	5	3	8	8	0	8	45	29	74	18	0	18	160	61	221
845-900	2	0	2	2	0	2	5	2	7	7	0	7	39	21	60	22	1	23	156	56	212
900-915	1	4	5	1	0	1	3	0	3	5	2	7	31	26	57	20	0	20	129	59	188
915-930	3	0	3	6	0	6	8	0	8	3	0	3	31	26	57	14	1	15	122	61	183
930-945	3	2	5	1	0	1	1	3	4	2	1	3	26	24	50	8	0	8	100	56	156
945-1000	4	0	4	7	0	7	2	1	3	3	1	4	26	29	55	18	1	19	126	61	187
HOUR TOTALS																					
700-800	8	2	10	11	0	11	3	2	5	28	3	31	214	52	266	78	2	80	808	147	955
715-815	4	3	7	18	0	18	10	2	12	22	5	27	237	58	295	82	1	83	819	170	989
730-830	4	3	7	18	0	18	11	2	13	21	3	24	236	69	305	99	2	101	806	204	1010
745-845	8	4	12	17	1	18	15	4	19	21	2	23	225	82	307	92	1	93	728	220	948
800-900	9	2	11	17	1	18	19	5	24	21	2	23	186	92	278	86	2	88	660	236	896
815-815	9	5	14	11	1	12	15	5	20	25	2	27	159	101	260	85	2	87	620	239	859
830-930	11	5	16	13	1	14	21	5	26	23	2	25	146	102	248	74	2	76	567	237	804
845-945	9	6	15	10	0	10	17	5	22	17	3	20	127	97	224	64	2	66	507	232	739
900-1000	11	6	17	15	0	15	14	4	18	13	4	17	114	105	219	60	2	62	477	237	714

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: WILMINGTON WATERFRONT PROJECT
DATE: WEDNESDAY JANUARY 24, 2008
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S BROAD AVENUE
E/W C STREET

	1 SBRT			2 SBTH			3 SBLT			4 WBRT			5 WBTH			6 WBLT		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
700-715	9	0	9	29	0	29	2	0	2	1	0	1	4	0	4	9	0	9
715-730	12	0	12	31	0	31	4	0	4	3	0	3	7	0	7	13	0	13
730-745	6	0	6	25	0	25	0	0	0	1	0	1	3	0	3	8	0	8
745-800	4	0	4	17	0	17	0	0	0	1	0	1	3	0	3	2	0	2
800-815	3	0	3	10	0	10	1	0	1	0	0	0	4	0	4	2	0	2
815-830	4	0	4	13	0	13	1	0	1	0	0	0	5	0	5	0	1	1
830-845	8	0	8	20	0	20	2	0	2	0	0	0	5	1	6	0	1	1
845-900	7	0	7	20	0	20	0	0	0	0	1	1	2	0	2	0	0	0
900-915	9	0	9	9	1	10	0	0	0	0	0	0	5	0	5	1	0	1
915-930	7	0	7	12	2	14	2	0	2	0	0	0	2	0	2	0	0	0
930-945	20	0	20	12	0	12	1	0	1	2	0	2	7	0	7	1	0	1
945-1000	5	0	5	11	1	12	0	0	0	1	0	1	5	0	5	0	0	0
HOUR TOTALS																		
700-800	31	0	31	102	0	102	6	0	6	6	0	6	17	0	17	32	0	32
715-815	25	0	25	83	0	83	5	0	5	5	0	5	17	0	17	25	0	25
730-830	17	0	17	65	0	65	2	0	2	2	0	2	15	0	15	12	1	13
745-845	19	0	19	60	0	60	4	0	4	1	0	1	17	1	18	4	2	6
800-900	22	0	22	63	0	63	4	0	4	0	1	1	16	1	17	2	2	4
815-815	28	0	28	62	1	63	3	0	3	0	1	1	17	1	18	1	2	3
830-930	31	0	31	61	3	64	4	0	4	0	1	1	14	1	15	1	1	2
845-945	43	0	43	53	3	56	3	0	3	2	1	3	16	0	16	2	0	2
900-1000	41	0	41	44	4	48	3	0	3	3	0	3	19	0	19	2	0	2

PEAK HOUR
700-800
340

	7 NBRT			8 NBTH			9 NBLT			10 EBRT			11 EBTH			12 EBLT			ALL MOVEMENTS TOTALS		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
700-715	1	0	1	9	1	10	1	0	1	8	0	8	7	0	7	12	0	12	92	1	93
715-730	2	0	2	8	0	8	2	0	2	11	0	11	11	0	11	9	0	9	113	0	113
730-745	2	0	2	9	1	10	2	0	2	6	0	6	7	1	8	10	0	10	79	2	81
745-800	6	0	6	5	0	5	1	0	1	6	0	6	5	0	5	3	0	3	53	0	53
800-815	1	0	1	13	0	13	1	0	1	3	0	3	9	0	9	5	0	5	52	0	52
815-830	0	1	1	6	1	7	0	0	0	1	0	1	14	1	15	4	0	4	48	4	52
830-845	1	0	1	9	0	9	2	0	2	5	0	5	12	1	13	2	0	2	66	3	69
845-900	1	0	1	3	0	3	2	0	2	6	0	6	5	0	5	2	0	2	48	1	49
900-915	1	0	1	8	2	10	6	0	6	2	0	2	4	0	4	3	0	3	48	3	51
915-930	5	0	5	1	0	1	2	0	2	8	0	8	7	1	8	2	0	2	48	3	51
930-945	3	0	3	8	0	8	2	0	2	5	0	5	10	0	10	4	0	4	75	0	75
945-1000	1	0	1	6	1	7	2	0	2	4	0	4	8	1	9	1	0	1	44	3	47
HOUR TOTALS																					
700-800	11	0	11	31	2	33	6	0	6	31	0	31	30	1	31	34	0	34	337	3	340
715-815	11	0	11	35	1	36	6	0	6	26	0	26	32	1	33	27	0	27	297	2	299
730-830	9	1	10	33	2	35	4	0	4	16	0	16	35	2	37	22	0	22	232	6	238
745-845	8	1	9	33	1	34	4	0	4	15	0	15	40	2	42	14	0	14	219	7	226
800-900	3	1	4	31	1	32	5	0	5	15	0	15	40	2	42	13	0	13	214	8	222
815-815	3	1	4	26	3	29	10	0	10	14	0	14	35	2	37	11	0	11	210	11	221
830-930	8	0	8	21	2	23	12	0	12	21	0	21	28	2	30	9	0	9	210	10	220
845-945	10	0	10	20	2	22	12	0	12	21	0	21	26	1	27	11	0	11	219	7	226
900-1000	10	0	10	23	3	26	12	0	12	19	0	19	29	2	31	10	0	10	215	9	224

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: WILMINGTON WATERFRONT PROJECT
DATE: WEDNESDAY JANUARY 24, 2008
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S BROAD AVENUE
E/W HARRY BRIDGES BOULEVARD

	1 SBRT			2 SBTH			3 SBLT			4 WBRT			5 WBTH			6 WBLT		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
700-715	23	0	23	2	0	2	11	0	11	3	0	3	35	18	53	5	1	6
715-730	33	0	33	1	0	1	11	0	11	1	0	1	41	14	55	10	2	12
730-745	40	0	40	1	0	1	13	0	13	3	0	3	63	23	86	12	1	13
745-800	18	0	18	5	0	5	0	0	0	2	0	2	60	27	87	19	3	22
800-815	9	0	9	0	0	0	0	0	0	2	0	2	35	28	63	16	2	18
815-830	25	1	26	0	0	0	1	0	1	1	0	1	38	33	71	9	7	16
830-845	14	1	15	0	0	0	3	0	3	2	2	4	42	27	69	7	5	12
845-900	18	0	18	1	0	1	3	0	3	2	0	2	49	39	88	7	2	9
900-915	9	0	9	0	0	0	0	1	1	1	0	1	28	25	53	6	3	9
915-930	16	1	17	1	0	1	1	2	3	2	1	3	24	30	54	5	2	7
930-945	15	0	15	0	0	0	1	0	1	3	0	3	24	22	46	4	6	10
945-1000	30	1	31	1	0	1	1	0	1	1	1	2	30	30	60	8	0	8
HOUR TOTALS																		
700-800	114	0	114	9	0	9	35	0	35	9	0	9	199	82	281	46	7	53
715-815	100	0	100	7	0	7	24	0	24	8	0	8	199	92	291	57	8	65
730-830	92	1	93	6	0	6	14	0	14	8	0	8	196	111	307	56	13	69
745-845	66	2	68	5	0	5	4	0	4	7	2	9	175	115	290	51	17	68
800-900	66	2	68	1	0	1	7	0	7	7	2	9	164	127	291	39	16	55
815-815	66	2	68	1	0	1	7	1	8	6	2	8	157	124	281	29	17	46
830-930	57	2	59	2	0	2	7	3	10	7	3	10	143	121	264	25	12	37
845-945	58	1	59	2	0	2	5	3	8	8	1	9	125	116	241	22	13	35
900-1000	70	2	72	2	0	2	3	3	6	7	2	9	106	107	213	23	11	34

PEAK HOUR
730-830
855

	7 NBRT			8 NBTH			9 NBLT			10 EBRT			11 EBTH			12 EBLT			ALL MOVEMENTS TOTALS		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
700-715	10	4	14	1	1	2	0	0	0	0	0	0	39	10	49	3	0	3	132	34	166
715-730	6	2	8	0	0	0	4	0	4	0	0	0	33	13	46	9	0	9	149	31	180
730-745	0	2	2	0	0	0	0	0	0	0	1	1	54	18	72	11	0	11	197	45	242
745-800	1	2	3	0	0	0	0	0	0	2	2	4	71	14	85	18	1	19	196	49	245
800-815	5	3	8	0	0	0	0	0	0	0	1	1	50	15	65	11	0	11	128	49	177
815-830	2	3	5	0	0	0	0	0	0	1	0	1	41	21	62	7	1	8	125	66	191
830-845	0	5	5	0	0	0	0	0	0	0	0	0	41	30	71	9	0	9	118	70	188
845-900	0	8	8	0	0	0	0	0	0	0	0	0	39	25	64	6	0	6	125	74	199
900-915	2	4	6	1	1	2	0	0	0	0	0	0	28	30	58	7	1	8	82	65	147
915-930	3	10	13	2	0	2	0	0	0	0	0	0	22	25	47	8	0	8	84	71	155
930-945	3	3	6	0	0	0	0	0	0	0	0	0	21	30	51	8	0	8	79	61	140
945-1000	4	4	8	0	0	0	0	0	0	0	0	0	29	29	58	9	0	9	113	65	178
HOUR TOTALS																					
700-800	17	10	27	1	1	2	4	0	4	2	3	5	197	55	252	41	1	42	674	159	833
715-815	12	9	21	0	0	0	4	0	4	2	4	6	208	60	268	49	1	50	670	174	844
730-830	8	10	18	0	0	0	0	0	0	3	4	7	216	68	284	47	2	49	646	209	855
745-845	8	13	21	0	0	0	0	0	0	3	3	6	203	80	283	45	2	47	567	234	801
800-900	7	19	26	0	0	0	0	0	0	1	1	2	171	91	262	33	1	34	496	259	755
815-815	4	20	24	1	1	2	0	0	0	1	0	1	149	106	255	29	2	31	450	275	725
830-930	5	27	32	3	1	4	0	0	0	0	0	0	130	110	240	30	1	31	409	280	689
845-945	8	25	33	3	1	4	0	0	0	0	0	0	110	110	220	29	1	30	370	271	641
900-1000	12	21	33	3	1	4	0	0	0	0	0	0	100	114	214	32	1	33	358	262	620

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: WILMINGTON WATERFRONT PROJECT
DATE: WEDNESDAY JANUARY 24, 2008
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S ALAMEDA STREET
E/W ANAHEIM STREET

	1 SBRT			2 SBTH			3 SBLT			4 WBRT			5 WBTH			6 WBLT		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
700-715	18	2	20	32	6	38	0	0	0	0	0	0	151	5	156	51	12	63
715-730	28	3	31	28	13	41	0	1	1	1	1	2	158	11	169	49	12	61
730-745	39	2	41	30	15	45	1	0	1	3	1	4	181	17	198	40	12	52
745-800	33	5	38	27	15	42	0	0	0	2	1	3	194	9	203	68	10	78
800-815	43	1	44	38	20	58	0	1	1	3	0	3	176	19	195	44	8	52
815-830	41	7	48	18	26	44	3	3	6	4	2	6	152	11	163	38	13	51
830-845	27	4	31	13	26	39	1	3	4	3	3	6	137	10	147	27	16	43
845-900	31	5	36	22	31	53	2	1	3	4	3	7	127	22	149	39	15	54
900-915	22	7	29	21	18	39	1	2	3	2	2	4	162	23	185	29	12	41
915-930	26	9	35	16	20	36	2	2	4	3	3	6	154	32	186	26	19	45
930-945	24	5	29	11	23	34	1	1	2	3	3	6	135	15	150	33	21	54
945-1000	24	5	29	21	16	37	2	1	3	6	5	11	107	18	125	22	11	33
HOUR TOTALS																		
700-800	118	12	130	117	49	166	1	1	2	6	3	9	684	42	726	208	46	254
715-815	143	11	154	123	63	186	1	2	3	9	3	12	709	56	765	201	42	243
730-830	156	15	171	113	76	189	4	4	8	12	4	16	703	56	759	190	43	233
745-845	144	17	161	96	87	183	4	7	11	12	6	18	659	49	708	177	47	224
800-900	142	17	159	91	103	194	6	8	14	14	8	22	592	62	654	148	52	200
815-815	121	23	144	74	101	175	7	9	16	13	10	23	578	66	644	133	56	189
830-930	106	25	131	72	95	167	6	8	14	12	11	23	580	87	667	121	62	183
845-945	103	26	129	70	92	162	6	6	12	12	11	23	578	92	670	127	67	194
900-1000	96	26	122	69	77	146	6	6	12	14	13	27	558	88	646	110	63	173

PEAK HOUR
715-815
2574

	7 NBRT			8 NBTH			9 NBLT			10 EBRT			11 EBTH			12 EBLT			ALL MOVEMENTS TOTALS		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
700-715	61	17	78	11	5	16	6	0	6	1	1	2	122	17	139	11	2	13	464	67	531
715-730	76	14	90	15	10	25	2	0	2	2	1	3	115	23	138	7	4	11	481	93	574
730-745	58	29	87	14	7	21	4	1	5	12	2	14	175	23	198	13	9	22	570	118	688
745-800	57	34	91	12	13	25	7	0	7	6	0	6	146	31	177	15	5	20	567	123	690
800-815	38	35	73	12	15	27	4	0	4	5	0	5	120	26	146	9	5	14	492	130	622
815-830	33	21	54	9	14	23	0	1	1	0	1	1	113	26	139	7	8	15	418	133	551
830-845	31	37	68	8	8	16	1	1	2	0	2	2	132	34	166	8	7	15	388	151	539
845-900	24	23	47	13	17	30	1	0	1	3	0	3	115	25	140	7	7	14	388	149	537
900-915	23	18	41	1	16	17	2	2	4	1	0	1	90	27	117	9	0	9	363	127	490
915-930	23	36	59	5	12	17	2	0	2	1	5	6	122	37	159	13	5	18	393	180	573
930-945	22	21	43	11	17	28	1	3	4	0	1	1	113	22	135	18	7	25	372	139	511
945-1000	13	22	35	6	6	12	2	0	2	2	1	3	98	26	124	8	4	12	311	115	426
HOUR TOTALS																					
700-800	252	94	346	52	35	87	19	1	20	21	4	25	558	94	652	46	20	66	2082	401	2483
715-815	229	112	341	53	45	98	17	1	18	25	3	28	556	103	659	44	23	67	2110	464	2574
730-830	186	119	305	47	49	96	15	2	17	23	3	26	554	106	660	44	27	71	2047	504	2551
745-845	159	127	286	41	50	91	12	2	14	11	3	14	511	117	628	39	25	64	1865	537	2402
800-900	126	116	242	42	54	96	6	2	8	8	3	11	480	111	591	31	27	58	1686	563	2249
815-815	111	99	210	31	55	86	4	4	8	4	3	7	450	112	562	31	22	53	1557	560	2117
830-930	101	114	215	27	53	80	6	3	9	5	7	12	459	123	582	37	19	56	1532	607	2139
845-945	92	98	190	30	62	92	6	5	11	5	6	11	440	111	551	47	19	66	1516	595	2111
900-1000	81	97	178	23	51	74	7	5	12	4	7	11	423	112	535	48	16	64	1439	561	2000

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: WILMINGTON WATERFRONT PROJECT
DATE: THURSDAY JULY 10, 2008
PERIOD: 7:00 AM TO 10:00 AM
INTERSECTION: N/S JOHN S. GIBSON BLVD/PACIFIC AVENUE
E/W CHANNEL STREET

	1 SBRT			2 SBTH			3 SBLT			4 WBRT			5 WBTH			6 WBLT		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
700-715	37	0	37	51	3	54	0	0	0	0	0	0	0	0	0	0	0	0
715-730	36	1	37	67	7	74	0	0	0	0	0	0	0	0	0	0	0	0
730-745	39	3	42	70	3	73	0	0	0	0	0	0	0	0	0	0	0	0
745-800	45	1	46	94	6	100	0	0	0	0	0	0	0	0	0	0	0	0
800-815	30	2	32	59	5	64	0	0	0	0	0	0	0	0	0	0	0	0
815-830	27	2	29	59	7	66	0	0	0	0	0	0	0	0	0	0	0	0
830-845	33	1	34	53	8	61	0	0	0	0	0	0	0	0	0	0	0	0
845-900	34	0	34	56	2	58	0	0	0	0	0	0	0	0	0	0	0	0
900-915	25	5	30	38	12	50	0	0	0	0	0	0	0	0	0	0	0	0
915-930	22	4	26	55	3	58	0	0	0	0	0	0	0	0	0	0	0	0
930-945	30	3	33	55	3	58	0	0	0	0	0	0	0	0	0	0	0	0
945-1000	33	6	39	57	6	63	0	0	0	0	0	0	0	0	0	0	0	0
HOUR TOTALS																		
700-800	157	5	162	282	19	301	0	0	0	0	0	0	0	0	0	0	0	0
715-815	150	7	157	290	21	311	0	0	0	0	0	0	0	0	0	0	0	0
730-830	141	8	149	282	21	303	0	0	0	0	0	0	0	0	0	0	0	0
745-845	135	6	141	265	26	291	0	0	0	0	0	0	0	0	0	0	0	0
800-900	124	5	129	227	22	249	0	0	0	0	0	0	0	0	0	0	0	0
815-815	119	8	127	206	29	235	0	0	0	0	0	0	0	0	0	0	0	0
830-930	114	10	124	202	25	227	0	0	0	0	0	0	0	0	0	0	0	0
845-945	111	12	123	204	20	224	0	0	0	0	0	0	0	0	0	0	0	0
900-1000	110	18	128	205	24	229	0	0	0	0	0	0	0	0	0	0	0	0

PEAK HOUR
700-800
2342

	7 NBRT			8 NBTH			9 NBLT			10 EBRT			11 EBTH			12 EBLT			ALL MOVEMENTS TOTALS		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
700-715	0	0	0	100	2	102	65	1	66	57	1	58	0	0	0	180	4	184	490	11	501
715-730	0	0	0	120	4	124	70	0	70	60	2	62	0	0	0	185	4	189	538	18	556
730-745	0	0	0	152	5	157	91	0	91	90	1	91	0	0	0	204	4	208	646	16	662
745-800	0	0	0	142	1	143	73	1	74	83	2	85	0	0	0	171	4	175	608	15	623
800-815	0	0	0	101	3	104	65	0	65	69	2	71	0	0	0	153	10	163	477	22	499
815-830	0	0	0	99	3	102	72	1	73	48	3	51	0	0	0	185	11	196	490	27	517
830-845	0	0	0	79	3	82	58	0	58	62	2	64	0	0	0	124	6	130	409	20	429
845-900	0	0	0	78	4	82	65	0	65	57	2	59	0	0	0	118	6	124	408	14	422
900-915	0	0	0	65	4	69	57	0	57	53	5	58	0	0	0	137	8	145	375	34	409
915-930	0	0	0	68	4	72	52	0	52	59	2	61	0	0	0	121	9	130	377	22	399
930-945	0	0	0	74	2	76	40	0	40	69	2	71	0	0	0	100	7	107	368	17	385
945-1000	0	0	0	93	3	96	62	0	62	69	2	71	0	0	0	94	6	100	408	23	431
HOUR TOTALS																					
700-800	0	0	0	514	12	526	299	2	301	290	6	296	0	0	0	740	16	756	2282	60	2342
715-815	0	0	0	515	13	528	299	1	300	302	7	309	0	0	0	713	22	735	2269	71	2340
730-830	0	0	0	494	12	506	301	2	303	290	8	298	0	0	0	713	29	742	2221	80	2301
745-845	0	0	0	421	10	431	268	2	270	262	9	271	0	0	0	633	31	664	1984	84	2068
800-900	0	0	0	357	13	370	260	1	261	236	9	245	0	0	0	580	33	613	1784	83	1867
815-815	0	0	0	321	14	335	252	1	253	220	12	232	0	0	0	564	31	595	1682	95	1777
830-930	0	0	0	290	15	305	232	0	232	231	11	242	0	0	0	500	29	529	1569	90	1659
845-945	0	0	0	285	14	299	214	0	214	238	11	249	0	0	0	476	30	506	1528	87	1615
900-1000	0	0	0	300	13	313	211	0	211	250	11	261	0	0	0	452	30	482	1528	96	1624

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FERH AND PEERS
PROJECT: WILMINGTON WATERFRONT PROJECT
DATE: WEDNESDAY JANUARY 24, 2008
PERIOD: 4:00 PM TO 7:00 PM
INTERSECTION: N/S FIGUEROA STREET
E/W C STREET

	1 SBRT			2 SBTH			3 SBLT			4 WBRT			5 WBTH			6 WBLT		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
400-415	22	2	24	24	1	25	0	0	0	4	0	4	2	0	2	0	0	0
415-430	14	1	15	25	2	27	0	0	0	2	0	2	2	0	2	0	0	0
430-445	13	1	14	25	1	26	0	0	0	7	0	7	2	0	2	0	0	0
445-500	12	0	12	25	1	26	0	0	0	7	0	7	4	0	4	0	0	0
500-515	18	2	20	32	1	33	0	0	0	3	0	3	2	0	2	0	0	0
515-530	11	2	13	23	2	25	0	0	0	3	0	3	1	0	1	0	0	0
530-545	12	0	12	21	0	21	0	0	0	5	0	5	2	0	2	0	0	0
545-600	6	0	6	25	1	26	0	0	0	2	1	3	1	0	1	0	0	0
600-615	10	1	11	20	0	20	0	0	0	1	0	1	2	0	2	0	0	0
615-630	7	0	7	11	0	11	0	0	0	1	0	1	1	0	1	0	0	0
630-645	4	0	4	15	0	15	0	0	0	2	0	2	1	0	1	0	0	0
645-700	10	0	10	11	0	11	0	0	0	1	0	1	0	0	0	0	0	0
HOUR TOTALS																		
400-500	61	4	65	99	5	104	0	0	0	20	0	20	10	0	10	0	0	0
415-515	57	4	61	107	5	112	0	0	0	19	0	19	10	0	10	0	0	0
430-530	54	5	59	105	5	110	0	0	0	20	0	20	9	0	9	0	0	0
445-545	53	4	57	101	4	105	0	0	0	18	0	18	9	0	9	0	0	0
500-600	47	4	51	101	4	105	0	0	0	13	1	14	6	0	6	0	0	0
515-615	39	3	42	89	3	92	0	0	0	11	1	12	6	0	6	0	0	0
530-630	35	1	36	77	1	78	0	0	0	9	1	10	6	0	6	0	0	0
545-645	27	1	28	71	1	72	0	0	0	6	1	7	5	0	5	0	0	0
600-700	31	1	32	57	0	57	0	0	0	5	0	5	4	0	4	0	0	0

PEAK HOUR
400-500
966

	7 NBRT			8 NBTH			9 NBLT			10 EBRT			11 EBTH			12 EBLT			ALL MOVEMENTS TOTALS		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
400-415	0	0	0	34	4	38	34	10	44	62	24	86	0	0	0	32	0	32	214	41	255
415-430	0	0	0	33	2	35	63	14	77	78	16	94	0	0	0	30	1	31	247	36	283
430-445	0	0	0	28	1	29	57	10	67	64	17	81	0	0	0	27	0	27	223	30	253
445-500	0	0	0	18	0	18	41	6	47	35	4	39	0	0	0	22	0	22	164	11	175
500-515	0	0	0	26	1	27	48	10	58	21	15	36	0	0	0	18	1	19	168	30	198
515-530	0	0	0	19	1	20	53	5	58	14	9	23	0	0	0	26	1	27	150	20	170
530-545	0	0	0	19	1	20	26	7	33	24	10	34	0	0	0	16	0	16	125	18	143
545-600	0	0	0	10	0	10	33	10	43	15	5	20	0	0	0	15	2	17	107	19	126
600-615	0	0	0	16	1	17	28	8	36	15	7	22	0	0	0	17	0	17	109	17	126
615-630	0	0	0	9	0	9	19	7	26	10	12	22	0	0	0	19	0	19	77	19	96
630-645	0	0	0	2	1	3	20	14	34	21	10	31	0	0	0	13	0	13	78	25	103
645-700	0	0	0	7	2	9	21	15	36	18	6	24	0	0	0	17	0	17	85	23	108
HOUR TOTALS																					
400-500	0	0	0	113	7	120	195	40	235	239	61	300	0	0	0	111	1	112	848	118	966
415-515	0	0	0	105	4	109	209	40	249	198	52	250	0	0	0	97	2	99	802	107	909
430-530	0	0	0	91	3	94	199	31	230	134	45	179	0	0	0	93	2	95	705	91	796
445-545	0	0	0	82	3	85	168	28	196	94	38	132	0	0	0	82	2	84	607	79	686
500-600	0	0	0	74	3	77	160	32	192	74	39	113	0	0	0	75	4	79	550	87	637
515-615	0	0	0	64	3	67	140	30	170	68	31	99	0	0	0	74	3	77	491	74	565
530-630	0	0	0	54	2	56	106	32	138	64	34	98	0	0	0	67	2	69	418	73	491
545-645	0	0	0	37	2	39	100	39	139	61	34	95	0	0	0	64	2	66	371	80	451
600-700	0	0	0	34	4	38	88	44	132	64	35	99	0	0	0	66	0	66	349	84	433

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FERH AND PEERS
PROJECT: WILMINGTON WATERFRONT PROJECT
DATE: WEDNESDAY JANUARY 24, 2008
PERIOD: 4:00 PM TO 7:00 PM
INTERSECTION: N/S FIGUEROA STREET
E/W C STREET

	1 SBRT			2 SBTH			3 SBLT			4 WBRT			5 WBTH			6 WBLT		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
400-415	18	2	20	1	11	12	36	5	41	32	10	42	106	9	115	0	16	16
415-430	23	0	23	1	8	9	56	9	65	55	11	66	124	5	129	0	11	11
430-445	26	1	27	5	9	14	56	6	62	44	10	54	111	7	118	1	12	13
445-500	18	0	18	4	6	10	41	7	48	52	12	64	170	8	178	4	11	15
500-515	34	0	34	3	7	10	23	7	30	40	7	47	161	2	163	7	6	13
515-530	24	1	25	0	7	7	12	5	17	37	6	43	139	3	142	1	9	10
530-545	18	0	18	7	4	11	9	4	13	26	8	34	117	11	128	2	9	11
545-600	26	0	26	3	3	6	9	2	11	26	11	37	90	7	97	1	9	10
600-615	17	0	17	0	5	5	17	3	20	21	7	28	66	10	76	1	13	14
615-630	16	2	18	1	11	12	4	4	8	10	6	16	55	10	65	0	10	10
630-645	16	0	16	0	1	1	18	3	21	17	14	31	54	11	65	0	9	9
645-700	6	0	6	1	4	5	16	1	17	16	17	33	43	6	49	0	9	9
HOUR TOTALS																		
400-500	85	3	88	11	34	45	189	27	216	183	43	226	511	29	540	5	50	55
415-515	101	1	102	13	30	43	176	29	205	191	40	231	566	22	588	12	40	52
430-530	102	2	104	12	29	41	132	25	157	173	35	208	581	20	601	13	38	51
445-545	94	1	95	14	24	38	85	23	108	155	33	188	587	24	611	14	35	49
500-600	102	1	103	13	21	34	53	18	71	129	32	161	507	23	530	11	33	44
515-615	85	1	86	10	19	29	47	14	61	110	32	142	412	31	443	5	40	45
530-630	77	2	79	11	23	34	39	13	52	83	32	115	328	38	366	4	41	45
545-645	75	2	77	4	20	24	48	12	60	74	38	112	265	38	303	2	41	43
600-700	55	2	57	2	21	23	55	11	66	64	44	108	218	37	255	1	41	42

PEAK HOUR
415-515
1801

	7 NBRT			8 NBTH			9 NBLT			10 EBRT			11 EBTH			12 EBLT			ALL MOVEMENTS TOTALS		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
400-415	1	0	1	0	0	0	1	0	1	0	3	3	114	12	126	23	2	25	332	70	402
415-430	0	0	0	5	0	5	0	0	0	1	1	2	117	3	120	18	1	19	400	49	449
430-445	0	1	1	8	0	8	2	0	2	1	0	1	99	20	119	17	0	17	370	66	436
445-500	9	0	9	9	0	9	8	0	8	2	2	4	118	5	123	13	0	13	448	51	499
500-515	3	1	4	3	5	8	1	0	1	4	0	4	84	1	85	18	0	18	381	36	417
515-530	4	1	5	4	0	4	1	0	1	2	1	3	72	4	76	17	0	17	313	37	350
530-545	3	0	3	2	0	2	2	0	2	5	1	6	60	1	61	19	0	19	270	38	308
545-600	1	0	1	3	0	3	1	0	1	3	0	3	57	5	62	13	0	13	233	37	270
600-615	0	0	0	1	1	2	1	0	1	1	0	1	44	13	57	9	0	9	178	52	230
615-630	1	0	1	2	0	2	0	0	0	0	1	1	38	6	44	6	0	6	133	50	183
630-645	0	0	0	0	0	0	1	0	1	0	2	2	42	7	49	2	1	3	150	48	198
645-700	7	0	7	5	0	5	7	0	7	3	1	4	26	15	41	9	0	9	139	53	192
HOUR TOTALS																					
400-500	10	1	11	22	0	22	11	0	11	4	6	10	448	40	488	71	3	74	1550	236	1786
415-515	12	2	14	25	5	30	11	0	11	8	3	11	418	29	447	66	1	67	1599	202	1801
430-530	16	3	19	24	5	29	12	0	12	9	3	12	373	30	403	65	0	65	1512	190	1702
445-545	19	2	21	18	5	23	12	0	12	13	4	17	334	11	345	67	0	67	1412	162	1574
500-600	11	2	13	12	5	17	5	0	5	14	2	16	273	11	284	67	0	67	1197	148	1345
515-615	8	1	9	10	1	11	5	0	5	11	2	13	233	23	256	58	0	58	994	164	1158
530-630	5	0	5	8	1	9	4	0	4	9	2	11	199	25	224	47	0	47	814	177	991
545-645	2	0	2	6	1	7	3	0	3	4	3	7	181	31	212	30	1	31	694	187	881
600-700	8	0	8	8	1	9	9	0	9	4	4	8	150	41	191	26	1	27	600	203	803

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: WILMINGTON WATERFRONT PROJECT
DATE: WEDNESDAY JANUARY 24, 2008
PERIOD: 4:00 PM TO 7:00 PM
INTERSECTION: N/S FRIES AVENUE
E/W ANAHEIM STREET

	1 SBRT			2 SBTH			3 SBLT			4 WBRT			5 WBTH			6 WBLT		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
400-415	1	1	2	5	2	7	7	0	7	7	1	8	204	2	206	8	0	8
415-430	2	0	2	2	0	2	7	0	7	3	1	4	213	2	215	6	0	6
430-445	9	0	9	22	0	22	8	0	8	8	0	8	237	5	242	5	0	5
445-500	2	0	2	7	1	8	15	0	15	14	3	17	215	4	219	10	0	10
500-515	1	0	1	6	0	6	4	0	4	6	2	8	181	2	183	3	0	3
515-530	0	0	0	0	1	1	2	0	2	9	0	9	215	3	218	12	0	12
530-545	1	0	1	1	0	1	0	0	0	9	0	9	225	1	226	5	0	5
545-600	1	0	1	0	0	0	0	0	0	5	0	5	160	2	162	1	0	1
600-615	0	0	0	0	0	0	1	0	1	18	0	18	140	3	143	2	0	2
615-630	1	0	1	1	0	1	6	0	6	5	0	5	136	3	139	9	0	9
630-645	3	0	3	0	0	0	1	0	1	5	0	5	143	1	144	3	0	3
645-700	0	0	0	0	0	0	0	0	0	4	0	4	110	3	113	9	0	9
HOUR TOTALS																		
400-500	14	1	15	36	3	39	37	0	37	32	5	37	869	13	882	29	0	29
415-515	14	0	14	37	1	38	34	0	34	31	6	37	846	13	859	24	0	24
430-530	12	0	12	35	2	37	29	0	29	37	5	42	848	14	862	30	0	30
445-545	4	0	4	14	2	16	21	0	21	38	5	43	836	10	846	30	0	30
500-600	3	0	3	7	1	8	6	0	6	29	2	31	781	8	789	21	0	21
515-615	2	0	2	1	1	2	3	0	3	41	0	41	740	9	749	20	0	20
530-630	3	0	3	2	0	2	7	0	7	37	0	37	661	9	670	17	0	17
545-645	5	0	5	1	0	1	8	0	8	33	0	33	579	9	588	15	0	15
600-700	4	0	4	1	0	1	8	0	8	32	0	32	529	10	539	23	0	23

PEAK HOUR
400-500
2132

	7 NBRT			8 NBTH			9 NBLT			10 EBRT			11 EBTH			12 EBLT			ALL MOVEMENTS TOTALS		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
400-415	11	0	11	21	0	21	30	0	30	8	0	8	205	2	207	5	1	6	512	9	521
415-430	15	0	15	25	0	25	36	2	38	5	0	5	210	2	212	2	0	2	526	7	533
430-445	8	0	8	17	0	17	32	0	32	9	0	9	155	8	163	1	0	1	511	13	524
445-500	13	0	13	23	0	23	37	0	37	7	0	7	196	4	200	3	0	3	542	12	554
500-515	15	0	15	19	0	19	26	1	27	5	0	5	142	2	144	3	0	3	411	7	418
515-530	11	0	11	12	0	12	14	0	14	5	3	8	168	1	169	0	0	0	448	8	456
530-545	13	1	14	8	0	8	11	0	11	3	0	3	156	5	161	2	0	2	434	7	441
545-600	8	1	9	6	0	6	6	0	6	2	0	2	124	5	129	1	0	1	314	8	322
600-615	4	0	4	8	0	8	8	0	8	2	0	2	94	2	96	2	0	2	279	5	284
615-630	12	0	12	8	0	8	16	0	16	4	0	4	102	2	104	2	0	2	302	5	307
630-645	7	0	7	6	0	6	19	0	19	8	0	8	122	3	125	1	0	1	318	4	322
645-700	6	0	6	10	0	10	11	0	11	8	0	8	102	2	104	2	0	2	262	5	267
HOUR TOTALS																					
400-500	47	0	47	86	0	86	135	2	137	29	0	29	766	16	782	11	1	12	2091	41	2132
415-515	51	0	51	84	0	84	131	3	134	26	0	26	703	16	719	9	0	9	1990	39	2029
430-530	47	0	47	71	0	71	109	1	110	26	3	29	661	15	676	7	0	7	1912	40	1952
445-545	52	1	53	62	0	62	88	1	89	20	3	23	662	12	674	8	0	8	1835	34	1869
500-600	47	2	49	45	0	45	57	1	58	15	3	18	590	13	603	6	0	6	1607	30	1637
515-615	36	2	38	34	0	34	39	0	39	12	3	15	542	13	555	5	0	5	1475	28	1503
530-630	37	2	39	30	0	30	41	0	41	11	0	11	476	14	490	7	0	7	1329	25	1354
545-645	31	1	32	28	0	28	49	0	49	16	0	16	442	12	454	6	0	6	1213	22	1235
600-700	29	0	29	32	0	32	54	0	54	22	0	22	420	9	429	7	0	7	1161	19	1180

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: WILMINGTON WATERFRONT PROJECT
DATE: WEDNESDAY JANUARY 24, 2008
PERIOD: 4:00 PM TO 7:00 PM
INTERSECTION: N/S FRIES AVENUE
E/W C STREET

	1 SBRT			2 SBTH			3 SBLT			4 WBRT			5 WBTH			6 WBLT		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
400-415	1	0	1	7	0	7	5	0	5	2	0	2	11	0	11	1	0	1
415-430	2	0	2	7	2	9	1	0	1	1	0	1	14	0	14	0	0	0
430-445	3	0	3	3	0	3	5	0	5	0	0	0	13	0	13	2	0	2
445-500	4	0	4	7	0	7	1	0	1	1	0	1	16	0	16	1	0	1
500-515	1	0	1	9	0	9	4	0	4	4	0	4	17	0	17	1	0	1
515-530	1	0	1	4	0	4	1	0	1	5	0	5	14	0	14	4	0	4
530-545	0	0	0	3	0	3	1	0	1	1	0	1	11	0	11	0	0	0
545-600	0	0	0	1	0	1	0	0	0	1	0	1	7	0	7	0	0	0
600-615	1	0	1	3	0	3	2	0	2	3	0	3	7	0	7	1	0	1
615-630	0	0	0	1	0	1	2	0	2	0	0	0	5	0	5	2	0	2
630-645	2	0	2	2	0	2	5	0	5	5	0	5	5	0	5	1	0	1
645-700	3	0	3	8	0	8	9	0	9	14	0	14	5	0	5	3	0	3
HOUR TOTALS																		
400-500	10	0	10	24	2	26	12	0	12	4	0	4	54	0	54	4	0	4
415-515	10	0	10	26	2	28	11	0	11	6	0	6	60	0	60	4	0	4
430-530	9	0	9	23	0	23	11	0	11	10	0	10	60	0	60	8	0	8
445-545	6	0	6	23	0	23	7	0	7	11	0	11	58	0	58	6	0	6
500-600	2	0	2	17	0	17	6	0	6	11	0	11	49	0	49	5	0	5
515-615	2	0	2	11	0	11	4	0	4	10	0	10	39	0	39	5	0	5
530-630	1	0	1	8	0	8	5	0	5	5	0	5	30	0	30	3	0	3
545-645	3	0	3	7	0	7	9	0	9	9	0	9	24	0	24	4	0	4
600-700	6	0	6	14	0	14	18	0	18	22	0	22	22	0	22	7	0	7

PEAK HOUR
400-500
263

	7 NBRT			8 NBTH			9 NBLT			10 EBRT			11 EBTH			12 EBLT			ALL MOVEMENTS TOTALS		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
400-415	3	0	3	14	0	14	3	2	5	0	0	0	25	0	25	1	0	1	73	2	75
415-430	1	1	2	18	0	18	1	1	2	1	0	1	14	0	14	2	0	2	62	4	66
430-445	2	0	2	13	0	13	0	2	2	0	0	0	17	0	17	1	0	1	59	2	61
445-500	1	0	1	11	0	11	3	0	3	2	0	2	11	0	11	3	0	3	61	0	61
500-515	0	0	0	7	1	8	0	0	0	1	0	1	5	0	5	0	0	0	49	1	50
515-530	0	0	0	1	0	1	0	0	0	0	0	0	2	0	2	2	0	2	34	0	34
530-545	0	0	0	5	0	5	0	0	0	1	0	1	3	0	3	0	0	0	25	0	25
545-600	0	0	0	6	1	7	0	0	0	0	0	0	3	1	4	3	0	3	21	2	23
600-615	0	1	1	2	0	2	1	1	2	1	0	1	1	1	2	1	0	1	23	3	26
615-630	0	0	0	5	1	6	0	0	0	1	0	1	10	1	11	2	0	2	28	2	30
630-645	1	0	1	2	0	2	0	0	0	2	0	2	3	0	3	0	0	0	28	0	28
645-700	6	0	6	4	0	4	2	0	2	1	0	1	6	0	6	1	0	1	62	0	62
HOUR TOTALS																					
400-500	7	1	8	56	0	56	7	5	12	3	0	3	67	0	67	7	0	7	255	8	263
415-515	4	1	5	49	1	50	4	3	7	4	0	4	47	0	47	6	0	6	231	7	238
430-530	3	0	3	32	1	33	3	2	5	3	0	3	35	0	35	6	0	6	203	3	206
445-545	1	0	1	24	1	25	3	0	3	4	0	4	21	0	21	5	0	5	169	1	170
500-600	0	0	0	19	2	21	0	0	0	2	0	2	13	1	14	5	0	5	129	3	132
515-615	0	1	1	14	1	15	1	1	2	2	0	2	9	2	11	6	0	6	103	5	108
530-630	0	1	1	18	2	20	1	1	2	3	0	3	17	3	20	6	0	6	97	7	104
545-645	1	1	2	15	2	17	1	1	2	4	0	4	17	3	20	6	0	6	100	7	107
600-700	7	1	8	13	1	14	3	1	4	5	0	5	20	2	22	4	0	4	141	5	146

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: WILMINGTON WATERFRONT PROJECT
DATE: WEDNESDAY JANUARY 24, 2008
PERIOD: 4:00 PM TO 7:00 PM
INTERSECTION: N/S FRIES AVENUE
E/W HARRY BRIDGES BOULEVARD

	1 SBRT			2 SBTH			3 SBLT			4 WBRT			5 WBTH			6 WBLT		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
400-415	2	0	2	2	0	2	2	0	2	0	1	1	104	26	130	0	1	1
415-430	4	1	5	1	1	2	1	0	1	0	1	1	139	20	159	0	0	0
430-445	1	0	1	4	0	4	3	0	3	7	3	10	148	27	175	2	0	2
445-500	7	0	7	2	0	2	1	0	1	0	0	0	167	15	182	0	0	0
500-515	6	0	6	2	0	2	3	0	3	2	0	2	141	17	158	0	1	1
515-530	5	0	5	0	0	0	1	0	1	0	0	0	141	16	157	0	0	0
530-545	4	0	4	0	0	0	1	0	1	0	0	0	112	16	128	1	0	1
545-600	3	0	3	0	0	0	1	0	1	0	1	1	85	22	107	4	0	4
600-615	3	0	3	0	0	0	3	0	3	2	0	2	64	23	87	0	0	0
615-630	4	0	4	1	0	1	2	0	2	0	1	1	61	21	82	2	0	2
630-645	2	0	2	1	0	1	4	0	4	1	0	1	38	14	52	0	0	0
645-700	3	0	3	0	0	0	2	0	2	0	0	0	33	14	47	0	0	0
HOUR TOTALS																		
400-500	14	1	15	9	1	10	7	0	7	7	5	12	558	88	646	2	1	3
415-515	18	1	19	9	1	10	8	0	8	9	4	13	595	79	674	2	1	3
430-530	19	0	19	8	0	8	8	0	8	9	3	12	597	75	672	2	1	3
445-545	22	0	22	4	0	4	6	0	6	2	0	2	561	64	625	1	1	2
500-600	18	0	18	2	0	2	6	0	6	2	1	3	479	71	550	5	1	6
515-615	15	0	15	0	0	0	6	0	6	2	1	3	402	77	479	5	0	5
530-630	14	0	14	1	0	1	7	0	7	2	2	4	322	82	404	7	0	7
545-645	12	0	12	2	0	2	10	0	10	3	2	5	248	80	328	6	0	6
600-700	12	0	12	2	0	2	11	0	11	3	1	4	196	72	268	2	0	2

PEAK HOUR
400-500
1459

	7 NBRT			8 NBTH			9 NBLT			10 EBRT			11 EBTH			12 EBLT			ALL MOVEMENTS TOTALS		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
400-415	4	3	7	9	0	9	5	8	13	4	1	5	133	2	135	9	0	9	274	42	316
415-430	9	12	21	12	0	12	9	10	19	9	0	9	137	28	165	6	0	6	327	73	400
430-445	5	7	12	6	0	6	7	6	13	5	2	7	137	23	160	9	0	9	334	68	402
445-500	4	2	6	4	0	4	15	1	16	3	0	3	107	5	112	8	0	8	318	23	341
500-515	3	1	4	3	0	3	8	0	8	1	0	1	90	7	97	1	1	2	260	27	287
515-530	2	2	4	0	0	0	5	1	6	3	0	3	80	5	85	2	0	2	239	24	263
530-545	1	5	6	1	0	1	6	6	12	4	0	4	69	14	83	5	0	5	204	41	245
545-600	5	2	7	2	0	2	12	7	19	3	0	3	40	5	45	1	0	1	156	37	193
600-615	4	14	18	1	1	2	9	9	18	3	0	3	54	10	64	3	0	3	146	57	203
615-630	0	5	5	0	0	0	3	12	15	1	0	1	27	8	35	2	0	2	103	47	150
630-645	1	5	6	0	0	0	1	11	12	2	0	2	28	12	40	5	0	5	83	42	125
645-700	4	19	23	1	0	1	1	10	11	6	0	6	25	9	34	7	1	8	82	53	135
HOUR TOTALS																					
400-500	22	24	46	31	0	31	36	25	61	21	3	24	514	58	572	32	0	32	1253	206	1459
415-515	21	22	43	25	0	25	39	17	56	18	2	20	471	63	534	24	1	25	1239	191	1430
430-530	14	12	26	13	0	13	35	8	43	12	2	14	414	40	454	20	1	21	1151	142	1293
445-545	10	10	20	8	0	8	34	8	42	11	0	11	346	31	377	16	1	17	1021	115	1136
500-600	11	10	21	6	0	6	31	14	45	11	0	11	279	31	310	9	1	10	859	129	988
515-615	12	23	35	4	1	5	32	23	55	13	0	13	243	34	277	11	0	11	745	159	904
530-630	10	26	36	4	1	5	30	34	64	11	0	11	190	37	227	11	0	11	609	182	791
545-645	10	26	36	3	1	4	25	39	64	9	0	9	149	35	184	11	0	11	488	183	671
600-700	9	43	52	2	1	3	14	42	56	12	0	12	134	39	173	17	1	18	414	199	613

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: WILMINGTON WATERFRONT PROJECT
DATE: WEDNESDAY JANUARY 24, 2008
PERIOD: 4:00 PM TO 7:00 PM
INTERSECTION: N/S MARINE AVENUE
E/W C STREET

	1 SBRT			2 SBTH			3 SBLT			4 WBRT			5 WBTH			6 WBLT		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
400-415	1	0	1	4	1	5	0	0	0	0	0	0	14	0	14	0	0	0
415-430	3	0	3	6	0	6	1	0	1	2	0	2	10	0	10	4	0	4
430-445	0	0	0	2	2	4	1	0	1	3	0	3	15	0	15	0	0	0
445-500	1	0	1	10	0	10	1	0	1	0	0	0	17	0	17	1	0	1
500-515	1	0	1	6	0	6	1	0	1	0	0	0	24	0	24	0	0	0
515-530	1	0	1	3	0	3	2	0	2	0	0	0	19	0	19	0	0	0
530-545	0	1	1	3	0	3	0	0	0	2	0	2	11	0	11	1	0	1
545-600	1	0	1	4	0	4	0	0	0	0	0	0	7	0	7	0	0	0
600-615	1	0	1	2	0	2	1	0	1	0	0	0	8	0	8	0	0	0
615-630	1	0	1	3	0	3	1	0	1	0	0	0	7	0	7	0	0	0
630-645	2	0	2	1	0	1	0	0	0	2	0	2	12	0	12	0	0	0
645-700	4	0	4	3	0	3	1	0	1	0	0	0	14	0	14	0	0	0
HOUR TOTALS																		
400-500	5	0	5	22	3	25	3	0	3	5	0	5	56	0	56	5	0	5
415-515	5	0	5	24	2	26	4	0	4	5	0	5	66	0	66	5	0	5
430-530	3	0	3	21	2	23	5	0	5	3	0	3	75	0	75	1	0	1
445-545	3	1	4	22	0	22	4	0	4	2	0	2	71	0	71	2	0	2
500-600	3	1	4	16	0	16	3	0	3	2	0	2	61	0	61	1	0	1
515-615	3	1	4	12	0	12	3	0	3	2	0	2	45	0	45	1	0	1
530-630	3	1	4	12	0	12	2	0	2	2	0	2	33	0	33	1	0	1
545-645	5	0	5	10	0	10	2	0	2	2	0	2	34	0	34	0	0	0
600-700	8	0	8	9	0	9	3	0	3	2	0	2	41	0	41	0	0	0

PEAK HOUR
400-500
252

	7 NBRT			8 NBTH			9 NBLT			10 EBRT			11 EBTH			12 EBLT			ALL MOVEMENTS TOTALS		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
400-415	16	0	16	5	1	6	1	0	1	0	0	0	29	0	29	1	0	1	71	2	73
415-430	5	1	6	4	1	5	0	0	0	1	0	1	20	0	20	0	0	0	56	2	58
430-445	13	0	13	3	0	3	0	0	0	0	0	0	26	1	27	0	0	0	63	3	66
445-500	4	0	4	6	0	6	1	0	1	0	0	0	12	0	12	2	0	2	55	0	55
500-515	3	1	4	6	0	6	0	0	0	0	0	0	7	0	7	0	0	0	48	1	49
515-530	1	0	1	5	0	5	0	0	0	1	0	1	3	0	3	0	0	0	35	0	35
530-545	0	0	0	3	0	3	0	0	0	0	0	0	4	0	4	1	0	1	25	1	26
545-600	2	0	2	5	0	5	1	0	1	0	0	0	2	0	2	1	0	1	23	0	23
600-615	0	0	0	1	0	1	1	0	1	1	1	2	1	0	1	1	0	1	17	1	18
615-630	1	0	1	1	0	1	1	0	1	0	0	0	7	0	7	1	0	1	23	0	23
630-645	0	0	0	5	1	6	0	0	0	6	0	6	1	0	1	2	0	2	31	1	32
645-700	0	0	0	1	0	1	1	0	1	6	0	6	6	0	6	4	0	4	40	0	40
HOUR TOTALS																					
400-500	38	1	39	18	2	20	2	0	2	1	0	1	87	1	88	3	0	3	245	7	252
415-515	25	2	27	19	1	20	1	0	1	1	0	1	65	1	66	2	0	2	222	6	228
430-530	21	1	22	20	0	20	1	0	1	1	0	1	48	1	49	2	0	2	201	4	205
445-545	8	1	9	20	0	20	1	0	1	1	0	1	26	0	26	3	0	3	163	2	165
500-600	6	1	7	19	0	19	1	0	1	1	0	1	16	0	16	2	0	2	131	2	133
515-615	3	0	3	14	0	14	2	0	2	2	1	3	10	0	10	3	0	3	100	2	102
530-630	3	0	3	10	0	10	3	0	3	1	1	2	14	0	14	4	0	4	88	2	90
545-645	3	0	3	12	1	13	3	0	3	7	1	8	11	0	11	5	0	5	94	2	96
600-700	1	0	1	8	1	9	3	0	3	13	1	14	15	0	15	8	0	8	111	2	113

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: WILMINGTON WATERFRONT PROJECT
DATE: WEDNESDAY JANUARY 24, 2008
PERIOD: 4:00 PM TO 7:00 PM
INTERSECTION: N/S MARINE AVENUE
E/W HARRY BRIDGES BOULEVARD

	1 SBRT			2 SBTH			3 SBLT			4 WBRT			5 WBTH			6 WBLT		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
400-415	2	0	2	0	0	0	0	0	0	0	0	0	96	29	125	0	0	0
415-430	9	0	9	0	0	0	4	0	4	0	0	0	121	22	143	0	0	0
430-445	6	2	8	0	0	0	2	0	2	0	1	1	143	26	169	0	0	0
445-500	5	0	5	1	0	1	3	0	3	1	0	1	180	14	194	0	0	0
500-515	4	0	4	0	0	0	1	0	1	0	0	0	112	15	127	0	0	0
515-530	1	0	1	0	0	0	0	0	0	0	0	0	140	17	157	0	1	1
530-545	4	0	4	0	0	0	2	0	2	0	0	0	116	17	133	0	0	0
545-600	3	0	3	0	0	0	4	0	4	0	1	1	88	23	111	0	0	0
600-615	4	0	4	0	0	0	1	1	2	0	0	0	61	20	81	0	0	0
615-630	5	0	5	0	0	0	0	0	0	0	0	0	48	18	66	0	0	0
630-645	2	0	2	0	0	0	3	0	3	0	1	1	53	16	69	0	0	0
645-700	4	0	4	0	0	0	2	0	2	0	0	0	38	17	55	0	1	1
HOUR TOTALS																		
400-500	22	2	24	1	0	1	9	0	9	1	1	2	540	91	631	0	0	0
415-515	24	2	26	1	0	1	10	0	10	1	1	2	556	77	633	0	0	0
430-530	16	2	18	1	0	1	6	0	6	1	1	2	575	72	647	0	1	1
445-545	14	0	14	1	0	1	6	0	6	1	0	1	548	63	611	0	1	1
500-600	12	0	12	0	0	0	7	0	7	0	1	1	456	72	528	0	1	1
515-615	12	0	12	0	0	0	7	1	8	0	1	1	405	77	482	0	1	1
530-630	16	0	16	0	0	0	7	1	8	0	1	1	313	78	391	0	0	0
545-645	14	0	14	0	0	0	8	1	9	0	2	2	250	77	327	0	0	0
600-700	15	0	15	0	0	0	6	1	7	0	1	1	200	71	271	0	1	1

PEAK HOUR
400-500
1325

	7 NBRT			8 NBTH			9 NBLT			10 EBRT			11 EBTH			12 EBLT			ALL MOVEMENTS TOTALS		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
400-415	2	2	4	0	0	0	0	0	0	0	0	0	115	20	135	19	1	20	234	52	286
415-430	3	7	10	0	0	0	1	0	1	0	0	0	136	24	160	10	0	10	284	53	337
430-445	2	5	7	3	0	3	2	0	2	0	0	0	106	24	130	12	0	12	276	58	334
445-500	0	5	5	0	0	0	1	0	1	0	0	0	132	14	146	12	0	12	335	33	368
500-515	0	0	0	0	0	0	1	0	1	0	0	0	98	8	106	8	0	8	224	23	247
515-530	4	1	5	0	0	0	0	0	0	0	0	0	82	8	90	5	0	5	232	27	259
530-545	0	0	0	0	0	0	0	0	0	0	0	0	59	11	70	6	0	6	187	28	215
545-600	2	4	6	0	0	0	1	0	1	0	0	0	46	12	58	10	0	10	154	40	194
600-615	1	5	6	0	0	0	0	0	0	0	1	1	43	17	60	5	0	5	115	44	159
615-630	0	6	6	0	0	0	1	0	1	0	0	0	32	26	58	2	0	2	88	50	138
630-645	2	4	6	1	0	1	0	2	2	0	0	0	24	15	39	3	0	3	88	38	126
645-700	1	3	4	0	0	0	0	0	0	0	0	0	38	21	59	1	0	1	84	42	126
HOUR TOTALS																					
400-500	7	19	26	3	0	3	4	0	4	0	0	0	489	82	571	53	1	54	1129	196	1325
415-515	5	17	22	3	0	3	5	0	5	0	0	0	472	70	542	42	0	42	1119	167	1286
430-530	6	11	17	3	0	3	4	0	4	0	0	0	418	54	472	37	0	37	1067	141	1208
445-545	4	6	10	0	0	0	2	0	2	0	0	0	371	41	412	31	0	31	978	111	1089
500-600	6	5	11	0	0	0	2	0	2	0	0	0	285	39	324	29	0	29	797	118	915
515-615	7	10	17	0	0	0	1	0	1	0	1	1	230	48	278	26	0	26	688	139	827
530-630	3	15	18	0	0	0	2	0	2	0	1	1	180	66	246	23	0	23	544	162	706
545-645	5	19	24	1	0	1	2	2	4	0	1	1	145	70	215	20	0	20	445	172	617
600-700	4	18	22	1	0	1	1	2	3	0	1	1	137	79	216	11	0	11	375	174	549

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: WILMINGTON WATERFRONT PROJECT
DATE: WEDNESDAY JANUARY 24, 2008
PERIOD: 4:00 PM TO 7:00 PM
INTERSECTION: N/S AVALON BOUELVARD
E/W ANAHEIM STREET

	1 SBRT			2 SBTH			3 SBLT			4 WBRT			5 WBTH			6 WBLT		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
400-415	25	1	26	90	4	94	27	0	27	25	1	26	203	2	205	11	0	11
415-430	18	1	19	73	2	75	8	0	8	29	2	31	173	6	179	16	1	17
430-445	34	1	35	110	2	112	24	0	24	39	2	41	202	5	207	12	2	14
445-500	28	1	29	95	1	96	16	0	16	28	1	29	188	1	189	19	0	19
500-515	32	2	34	99	3	102	26	1	27	35	2	37	209	4	213	27	0	27
515-530	28	0	28	78	1	79	17	0	17	29	2	31	152	0	152	14	0	14
530-545	22	0	22	56	0	56	19	0	19	19	1	20	115	2	117	11	0	11
545-600	46	1	47	76	0	76	25	0	25	32	0	32	129	1	130	20	1	21
600-615	25	2	27	55	1	56	15	0	15	29	1	30	107	3	110	17	0	17
615-630	25	0	25	50	3	53	9	0	9	25	1	26	109	1	110	9	0	9
630-645	20	1	21	33	0	33	7	0	7	18	0	18	110	1	111	12	0	12
645-700	19	1	20	49	3	52	12	0	12	21	0	21	116	2	118	21	0	21
HOUR TOTALS																		
400-500	105	4	109	368	9	377	75	0	75	121	6	127	766	14	780	58	3	61
415-515	112	5	117	377	8	385	74	1	75	131	7	138	772	16	788	74	3	77
430-530	122	4	126	382	7	389	83	1	84	131	7	138	751	10	761	72	2	74
445-545	110	3	113	328	5	333	78	1	79	111	6	117	664	7	671	71	0	71
500-600	128	3	131	309	4	313	87	1	88	115	5	120	605	7	612	72	1	73
515-615	121	3	124	265	2	267	76	0	76	109	4	113	503	6	509	62	1	63
530-630	118	3	121	237	4	241	68	0	68	105	3	108	460	7	467	57	1	58
545-645	116	4	120	214	4	218	56	0	56	104	2	106	455	6	461	58	1	59
600-700	89	4	93	187	7	194	43	0	43	93	2	95	442	7	449	59	0	59

PEAK HOUR
415-515
2890

	7 NBRT			8 NBTH			9 NBLT			10 EBRT			11 EBTH			12 EBLT			ALL MOVEMENTS TOTALS		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
400-415	13	0	13	103	0	103	25	1	26	14	0	14	173	3	176	24	0	24	733	12	745
415-430	16	0	16	82	0	82	19	1	20	12	0	12	192	2	194	20	0	20	658	15	673
430-445	17	0	17	78	1	79	18	0	18	9	0	9	171	5	176	18	0	18	732	18	750
445-500	17	0	17	83	1	84	15	0	15	7	0	7	191	3	194	20	1	21	707	9	716
500-515	13	0	13	93	0	93	26	0	26	8	0	8	148	2	150	21	0	21	737	14	751
515-530	17	0	17	80	0	80	31	0	31	9	0	9	141	7	148	17	0	17	613	10	623
530-545	8	0	8	58	0	58	21	0	21	3	0	3	127	1	128	30	0	30	489	4	493
545-600	10	0	10	53	0	53	14	0	14	10	0	10	114	3	117	21	1	22	550	7	557
600-615	10	0	10	37	1	38	11	0	11	10	0	10	100	2	102	18	0	18	434	10	444
615-630	15	0	15	30	0	30	17	0	17	8	0	8	85	3	88	11	0	11	393	8	401
630-645	4	0	4	43	0	43	11	0	11	7	0	7	86	2	88	19	0	19	370	4	374
645-700	9	0	9	29	0	29	15	0	15	9	0	9	79	3	82	18	0	18	397	9	406
HOUR TOTALS																					
400-500	63	0	63	346	2	348	77	2	79	42	0	42	727	13	740	82	1	83	2830	54	2884
415-515	63	0	63	336	2	338	78	1	79	36	0	36	702	12	714	79	1	80	2834	56	2890
430-530	64	0	64	334	2	336	90	0	90	33	0	33	651	17	668	76	1	77	2789	51	2840
445-545	55	0	55	314	1	315	93	0	93	27	0	27	607	13	620	88	1	89	2546	37	2583
500-600	48	0	48	284	0	284	92	0	92	30	0	30	530	13	543	89	1	90	2389	35	2424
515-615	45	0	45	228	1	229	77	0	77	32	0	32	482	13	495	86	1	87	2086	31	2117
530-630	43	0	43	178	1	179	63	0	63	31	0	31	426	9	435	80	1	81	1866	29	1895
545-645	39	0	39	163	1	164	53	0	53	35	0	35	385	10	395	69	1	70	1747	29	1776
600-700	38	0	38	139	1	140	54	0	54	34	0	34	350	10	360	66	0	66	1594	31	1625

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: WILMINGTON WATERFRONT PROJECT
DATE: WEDNESDAY JANUARY 24, 2008
PERIOD: 4:00 PM TO 7:00 PM
INTERSECTION: N/S AVALON BOULEVARD
E/W C STREET

	1 SBRT			2 SBTH			3 SBLT			4 WBRT			5 WBTH			6 WBLT		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
400-415	5	0	5	30	0	30	9	0	9	5	0	5	9	0	9	1	0	1
415-430	7	0	7	44	1	45	8	0	8	8	0	8	9	0	9	8	0	8
430-445	8	0	8	24	2	26	8	0	8	10	0	10	11	0	11	1	0	1
445-500	4	0	4	42	1	43	8	0	8	9	0	9	10	0	10	7	0	7
500-515	4	0	4	37	0	37	4	0	4	16	0	16	19	0	19	10	0	10
515-530	2	0	2	42	0	42	1	0	1	8	0	8	17	0	17	13	0	13
530-545	4	0	4	28	1	29	3	0	3	5	0	5	9	0	9	6	0	6
545-600	2	0	2	19	0	19	5	0	5	3	0	3	5	0	5	0	0	0
600-615	4	0	4	19	2	21	1	0	1	8	0	8	3	0	3	1	0	1
615-630	3	0	3	11	1	12	2	0	2	1	0	1	5	0	5	1	0	1
630-645	8	0	8	13	3	16	0	0	0	1	0	1	3	0	3	1	0	1
645-700	8	0	8	27	1	28	1	0	1	3	0	3	5	0	5	1	0	1
HOUR TOTALS																		
400-500	24	0	24	140	4	144	33	0	33	32	0	32	39	0	39	17	0	17
415-515	23	0	23	147	4	151	28	0	28	43	0	43	49	0	49	26	0	26
430-530	18	0	18	145	3	148	21	0	21	43	0	43	57	0	57	31	0	31
445-545	14	0	14	149	2	151	16	0	16	38	0	38	55	0	55	36	0	36
500-600	12	0	12	126	1	127	13	0	13	32	0	32	50	0	50	29	0	29
515-615	12	0	12	108	3	111	10	0	10	24	0	24	34	0	34	20	0	20
530-630	13	0	13	77	4	81	11	0	11	17	0	17	22	0	22	8	0	8
545-645	17	0	17	62	6	68	8	0	8	13	0	13	16	0	16	3	0	3
600-700	23	0	23	70	7	77	4	0	4	13	0	13	16	0	16	4	0	4

PEAK HOUR
400-500
677

	7 NBRT			8 NBTH			9 NBLT			10 EBRT			11 EBTH			12 EBLT			ALL MOVEMENTS TOTALS		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
400-415	18	0	18	45	0	45	0	0	0	6	0	6	31	0	31	10	0	10	169	0	169
415-430	21	0	21	49	0	49	0	0	0	6	1	7	13	0	13	5	0	5	178	2	180
430-445	17	0	17	50	0	50	2	0	2	3	0	3	24	0	24	14	0	14	172	2	174
445-500	11	0	11	36	2	38	2	1	3	1	0	1	13	0	13	7	0	7	150	4	154
500-515	4	0	4	28	0	28	0	0	0	4	1	5	2	0	2	8	0	8	136	1	137
515-530	2	0	2	25	1	26	0	0	0	6	0	6	4	0	4	1	0	1	121	1	122
530-545	0	0	0	30	1	31	1	1	2	2	1	3	1	0	1	1	0	1	90	4	94
545-600	0	0	0	21	0	21	3	0	3	1	0	1	4	0	4	2	0	2	65	0	65
600-615	2	0	2	20	0	20	0	0	0	0	0	0	2	0	2	1	0	1	61	2	63
615-630	0	0	0	10	2	12	2	0	2	1	0	1	3	0	3	3	0	3	42	3	45
630-645	1	0	1	8	0	8	1	0	1	2	0	2	2	0	2	0	0	0	40	3	43
645-700	2	0	2	9	1	10	1	0	1	2	0	2	2	0	2	1	0	1	62	2	64
HOUR TOTALS																					
400-500	67	0	67	180	2	182	4	1	5	16	1	17	81	0	81	36	0	36	669	8	677
415-515	53	0	53	163	2	165	4	1	5	14	2	16	52	0	52	34	0	34	636	9	645
430-530	34	0	34	139	3	142	4	1	5	14	1	15	43	0	43	30	0	30	579	8	587
445-545	17	0	17	119	4	123	3	2	5	13	2	15	20	0	20	17	0	17	497	10	507
500-600	6	0	6	104	2	106	4	1	5	13	2	15	11	0	11	12	0	12	412	6	418
515-615	4	0	4	96	2	98	4	1	5	9	1	10	11	0	11	5	0	5	337	7	344
530-630	2	0	2	81	3	84	6	1	7	4	1	5	10	0	10	7	0	7	258	9	267
545-645	3	0	3	59	2	61	6	0	6	4	0	4	11	0	11	6	0	6	208	8	216
600-700	5	0	5	47	3	50	4	0	4	5	0	5	9	0	9	5	0	5	205	10	215

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: WILMINGTON WATERFRONT PROJECT
DATE: WEDNESDAY JANUARY 24, 2008
PERIOD: 4:00 PM TO 7:00 PM
INTERSECTION: N/S AVALON BOULEVARD
E/W HARRY BRIDGES BOULEVARD

	1 SBRT			2 SBTH			3 SBLT			4 WBRT			5 WBTH			6 WBLT		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
400-415	26	1	27	1	0	1	5	0	5	5	0	5	69	23	92	1	0	1
415-430	41	1	42	2	0	2	5	0	5	2	0	2	80	19	99	1	0	1
430-445	28	1	29	3	0	3	6	0	6	8	0	8	95	20	115	0	0	0
445-500	42	2	44	5	0	5	7	0	7	8	0	8	114	22	136	2	0	2
500-515	58	0	58	3	0	3	5	0	5	2	0	2	87	18	105	1	0	1
515-530	40	2	42	3	0	3	6	0	6	2	0	2	99	20	119	1	0	1
530-545	29	1	30	1	0	1	6	0	6	4	0	4	75	17	92	1	0	1
545-600	20	0	20	0	0	0	2	0	2	0	0	0	41	16	57	0	0	0
600-615	22	3	25	0	0	0	1	1	2	0	0	0	49	18	67	0	0	0
615-630	18	0	18	1	0	1	1	0	1	1	0	1	32	20	52	0	0	0
630-645	18	2	20	0	0	0	0	0	0	1	0	1	20	23	43	0	0	0
645-700	17	1	18	0	0	0	4	0	4	2	0	2	34	8	42	0	0	0
HOUR TOTALS																		
400-500	137	5	142	11	0	11	23	0	23	23	0	23	358	84	442	4	0	4
415-515	169	4	173	13	0	13	23	0	23	20	0	20	376	79	455	4	0	4
430-530	168	5	173	14	0	14	24	0	24	20	0	20	395	80	475	4	0	4
445-545	169	5	174	12	0	12	24	0	24	16	0	16	375	77	452	5	0	5
500-600	147	3	150	7	0	7	19	0	19	8	0	8	302	71	373	3	0	3
515-615	111	6	117	4	0	4	15	1	16	6	0	6	264	71	335	2	0	2
530-630	89	4	93	2	0	2	10	1	11	5	0	5	197	71	268	1	0	1
545-645	78	5	83	1	0	1	4	1	5	2	0	2	142	77	219	0	0	0
600-700	75	6	81	1	0	1	6	1	7	4	0	4	135	69	204	0	0	0

PEAK HOUR
415-515
1364

	7 NBRT			8 NBTH			9 NBLT			10 EBRT			11 EBTH			12 EBLT			ALL MOVEMENTS TOTALS		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
400-415	2	1	3	4	0	4	9	1	10	2	1	3	63	26	89	52	0	52	239	53	292
415-430	0	6	6	9	0	9	3	1	4	1	0	1	66	27	93	60	1	61	270	55	325
430-445	2	1	3	12	0	12	38	0	38	5	2	7	85	25	110	52	1	53	334	50	384
445-500	1	1	2	7	0	7	6	0	6	2	1	3	75	18	93	37	1	38	306	45	351
500-515	2	0	2	6	0	6	7	1	8	1	1	2	67	13	80	32	0	32	271	33	304
515-530	5	0	5	1	0	1	5	0	5	2	0	2	45	7	52	26	3	29	235	32	267
530-545	1	0	1	0	0	0	4	0	4	0	0	0	50	8	58	19	0	19	190	26	216
545-600	0	3	3	0	0	0	6	0	6	0	0	0	37	14	51	16	0	16	122	33	155
600-615	0	0	0	0	0	0	1	0	1	2	0	2	34	17	51	15	1	16	124	40	164
615-630	0	1	1	0	0	0	0	0	0	2	0	2	26	29	55	14	1	15	95	51	146
630-645	0	0	0	0	0	0	1	0	1	0	0	0	18	24	42	10	0	10	68	49	117
645-700	0	0	0	0	0	0	2	0	2	0	0	0	20	25	45	9	1	10	88	35	123
HOUR TOTALS																					
400-500	5	9	14	32	0	32	56	2	58	10	4	14	289	96	385	201	3	204	1149	203	1352
415-515	5	8	13	34	0	34	54	2	56	9	4	13	293	83	376	181	3	184	1181	183	1364
430-530	10	2	12	26	0	26	56	1	57	10	4	14	272	63	335	147	5	152	1146	160	1306
445-545	9	1	10	14	0	14	22	1	23	5	2	7	237	46	283	114	4	118	1002	136	1138
500-600	8	3	11	7	0	7	22	1	23	3	1	4	199	42	241	93	3	96	818	124	942
515-615	6	3	9	1	0	1	16	0	16	4	0	4	166	46	212	76	4	80	671	131	802
530-630	1	4	5	0	0	0	11	0	11	4	0	4	147	68	215	64	2	66	531	150	681
545-645	0	4	4	0	0	0	8	0	8	4	0	4	115	84	199	55	2	57	409	173	582
600-700	0	1	1	0	0	0	4	0	4	4	0	4	98	95	193	48	3	51	375	175	550

WILTEC

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INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: WILMINGTON WATERFRONT PROJECT
DATE: WEDNESDAY JANUARY 24, 2008
PERIOD: 4:00 PM TO 7:00 PM
INTERSECTION: N/S BROAD AVENUE
E/W C STREET

	1 SBRT			2 SBTH			3 SBLT			4 WBRT			5 WBTH			6 WBLT		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
400-415	12	0	12	18	0	18	7	0	7	7	0	7	20	0	20	5	0	5
415-430	8	0	8	34	2	36	3	0	3	5	0	5	3	0	3	4	0	4
430-445	10	0	10	25	1	26	4	0	4	4	0	4	3	0	3	8	0	8
445-500	11	0	11	35	1	36	4	0	4	3	0	3	9	0	9	13	0	13
500-515	13	0	13	53	0	53	4	0	4	0	0	0	10	0	10	6	0	6
515-530	13	0	13	45	1	46	3	0	3	0	0	0	13	0	13	5	0	5
530-545	9	0	9	41	0	41	1	0	1	1	0	1	11	0	11	1	0	1
545-600	11	0	11	23	1	24	1	0	1	0	0	0	7	0	7	0	0	0
600-615	2	0	2	14	0	14	0	0	0	1	0	1	5	0	5	0	1	1
615-630	2	0	2	10	2	12	1	0	1	0	1	1	3	0	3	1	0	1
630-645	3	0	3	10	1	11	1	0	1	2	0	2	1	0	1	1	0	1
645-700	5	0	5	9	1	10	0	0	0	0	0	0	0	0	0	0	0	0
HOUR TOTALS																		
400-500	41	0	41	112	4	116	18	0	18	19	0	19	35	0	35	30	0	30
415-515	42	0	42	147	4	151	15	0	15	12	0	12	25	0	25	31	0	31
430-530	47	0	47	158	3	161	15	0	15	7	0	7	35	0	35	32	0	32
445-545	46	0	46	174	2	176	12	0	12	4	0	4	43	0	43	25	0	25
500-600	46	0	46	162	2	164	9	0	9	1	0	1	41	0	41	12	0	12
515-615	35	0	35	123	2	125	5	0	5	2	0	2	36	0	36	6	1	7
530-630	24	0	24	88	3	91	3	0	3	2	1	3	26	0	26	2	1	3
545-645	18	0	18	57	4	61	3	0	3	3	1	4	16	0	16	2	1	3
600-700	12	0	12	43	4	47	2	0	2	3	1	4	9	0	9	2	1	3

PEAK HOUR
400-500
584

	7 NBRT			8 NBTH			9 NBLT			10 EBRT			11 EBTH			12 EBLT			ALL MOVEMENTS TOTALS		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
400-415	8	0	8	46	0	46	3	0	3	4	0	4	12	0	12	29	0	29	171	0	171
415-430	3	1	4	31	0	31	3	0	3	9	0	9	7	0	7	10	0	10	120	3	123
430-445	4	0	4	50	0	50	4	0	4	2	0	2	11	0	11	18	0	18	143	1	144
445-500	2	0	2	39	0	39	4	0	4	3	0	3	9	0	9	13	0	13	145	1	146
500-515	0	0	0	14	0	14	2	0	2	10	0	10	4	0	4	7	0	7	123	0	123
515-530	1	0	1	6	0	6	0	0	0	6	0	6	4	0	4	3	0	3	99	1	100
530-545	0	0	0	10	0	10	0	0	0	3	0	3	2	0	2	3	0	3	82	0	82
545-600	0	0	0	6	2	8	0	0	0	2	0	2	4	0	4	2	0	2	56	3	59
600-615	0	0	0	5	0	5	2	0	2	0	0	0	3	0	3	3	0	3	35	1	36
615-630	0	1	1	3	0	3	0	0	0	0	0	0	3	0	3	2	0	2	25	4	29
630-645	0	0	0	3	0	3	0	0	0	1	0	1	0	0	0	0	0	0	22	1	23
645-700	0	0	0	0	0	0	0	0	0	2	0	2	2	0	2	1	0	1	19	1	20
HOUR TOTALS																					
400-500	17	1	18	166	0	166	14	0	14	18	0	18	39	0	39	70	0	70	579	5	584
415-515	9	1	10	134	0	134	13	0	13	24	0	24	31	0	31	48	0	48	531	5	536
430-530	7	0	7	109	0	109	10	0	10	21	0	21	28	0	28	41	0	41	510	3	513
445-545	3	0	3	69	0	69	6	0	6	22	0	22	19	0	19	26	0	26	449	2	451
500-600	1	0	1	36	2	38	2	0	2	21	0	21	14	0	14	15	0	15	360	4	364
515-615	1	0	1	27	2	29	2	0	2	11	0	11	13	0	13	11	0	11	272	5	277
530-630	0	1	1	24	2	26	2	0	2	5	0	5	12	0	12	10	0	10	198	8	206
545-645	0	1	1	17	2	19	2	0	2	3	0	3	10	0	10	7	0	7	138	9	147
600-700	0	1	1	11	0	11	2	0	2	3	0	3	8	0	8	6	0	6	101	7	108

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: WILMINGTON WATERFRONT PROJECT
DATE: WEDNESDAY JANUARY 24, 2008
PERIOD: 4:00 PM TO 7:00 PM
INTERSECTION: N/S BROAD AVENUE
E/W HARRY BRIDGES BOULEVARD

	1 SBRT			2 SBTH			3 SBLT			4 WBRT			5 WBTH			6 WBLT		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
400-415	27	0	27	0	0	0	5	0	5	27	0	27	69	23	92	2	2	4
415-430	33	0	33	0	0	0	17	0	17	18	0	18	53	18	71	4	2	6
430-445	42	2	44	1	0	1	5	0	5	16	0	16	75	20	95	4	2	6
445-500	28	1	29	1	1	2	4	0	4	5	0	5	46	17	63	3	0	3
500-515	30	0	30	1	1	2	3	0	3	2	0	2	39	14	53	0	0	0
515-530	35	0	35	2	0	2	12	0	12	0	0	0	54	14	68	1	0	1
530-545	43	0	43	3	0	3	20	1	21	1	1	2	51	28	79	2	4	6
545-600	28	0	28	0	0	0	12	0	12	2	0	2	29	14	43	0	0	0
600-615	12	0	12	1	0	1	3	1	4	2	0	2	32	19	51	2	1	3
615-630	9	0	9	2	0	2	3	0	3	1	0	1	16	24	40	0	0	0
630-645	7	1	8	0	0	0	3	0	3	1	0	1	18	14	32	2	1	3
645-700	9	0	9	0	2	2	2	1	3	0	0	0	5	10	15	1	1	2
HOUR TOTALS																		
400-500	130	3	133	2	1	3	31	0	31	66	0	66	243	78	321	13	6	19
415-515	133	3	136	3	2	5	29	0	29	41	0	41	213	69	282	11	4	15
430-530	135	3	138	5	2	7	24	0	24	23	0	23	214	65	279	8	2	10
445-545	136	1	137	7	2	9	39	1	40	8	1	9	190	73	263	6	4	10
500-600	136	0	136	6	1	7	47	1	48	5	1	6	173	70	243	3	4	7
515-615	118	0	118	6	0	6	47	2	49	5	1	6	166	75	241	5	5	10
530-630	92	0	92	6	0	6	38	2	40	6	1	7	128	85	213	4	5	9
545-645	56	1	57	3	0	3	21	1	22	6	0	6	95	71	166	4	2	6
600-700	37	1	38	3	2	5	11	2	13	4	0	4	71	67	138	5	3	8

PEAK HOUR
400-500
1113

	7 NBRT			8 NBTH			9 NBLT			10 EBRT			11 EBTH			12 EBLT			ALL MOVEMENTS TOTALS		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
400-415	23	3	26	0	0	0	0	2	2	0	0	0	40	40	80	0	0	0	193	70	263
415-430	22	2	24	0	0	0	0	0	0	0	0	0	44	27	71	71	0	71	262	49	311
430-445	37	7	44	2	0	2	4	0	4	0	1	1	58	30	88	42	0	42	286	62	348
445-500	20	1	21	0	0	0	0	0	0	0	0	0	43	6	49	14	1	15	164	27	191
500-515	8	1	9	0	0	0	0	0	0	0	0	0	50	6	56	13	0	13	146	22	168
515-530	4	0	4	0	0	0	1	0	1	0	0	0	45	10	55	10	1	11	164	25	189
530-545	6	6	12	2	0	2	0	1	1	2	1	3	51	10	61	8	0	8	189	52	241
545-600	10	4	14	0	0	0	1	0	1	0	0	0	38	15	53	0	0	0	120	33	153
600-615	7	3	10	1	0	1	0	0	0	0	0	0	30	21	51	4	0	4	94	45	139
615-630	2	0	2	0	0	0	0	0	0	0	0	0	27	27	54	4	1	5	64	52	116
630-645	0	0	0	0	0	0	0	0	0	0	0	0	17	24	41	0	0	0	48	40	88
645-700	1	4	5	0	0	0	0	0	0	1	0	1	20	25	45	1	0	1	40	43	83
HOUR TOTALS																					
400-500	102	13	115	2	0	2	4	2	6	0	1	1	185	103	288	127	1	128	905	208	1113
415-515	87	11	98	2	0	2	4	0	4	0	1	1	195	69	264	140	1	141	858	160	1018
430-530	69	9	78	2	0	2	5	0	5	0	1	1	196	52	248	79	2	81	760	136	896
445-545	38	8	46	2	0	2	1	1	2	2	1	3	189	32	221	45	2	47	663	126	789
500-600	28	11	39	2	0	2	2	1	3	2	1	3	184	41	225	31	1	32	619	132	751
515-615	27	13	40	3	0	3	2	1	3	2	1	3	164	56	220	22	1	23	567	155	722
530-630	25	13	38	3	0	3	1	1	2	2	1	3	146	73	219	16	1	17	467	182	649
545-645	19	7	26	1	0	1	1	0	1	0	0	0	112	87	199	8	1	9	326	170	496
600-700	10	7	17	1	0	1	0	0	0	1	0	1	94	97	191	9	1	10	246	180	426

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: WILMINGTON WATERFRONT PROJECT
DATE: WEDNESDAY JANUARY 24, 2008
PERIOD: 4:00 PM TO 7:00 PM
INTERSECTION: N/S ALAMEDA STREET
E/W ANAHEIM STREET

	1 SBRT			2 SBTH			3 SBLT			4 WBRT			5 WBTH			6 WBLT		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
400-415	16	2	18	13	17	30	1	0	1	0	0	0	104	19	123	2	18	20
415-430	5	0	5	1	8	9	1	1	2	5	0	5	167	24	191	9	26	35
430-445	11	3	14	40	19	59	3	3	6	1	3	4	162	30	192	11	17	28
445-500	31	5	36	35	17	52	3	3	6	3	3	6	180	26	206	22	17	39
500-515	20	5	25	19	10	29	3	3	6	6	2	8	164	13	177	21	10	31
515-530	21	4	25	24	14	38	2	2	4	1	2	3	102	11	113	5	6	11
530-545	19	4	23	20	8	28	2	1	3	6	2	8	126	21	147	14	14	28
545-600	11	2	13	8	4	12	0	0	0	2	2	4	140	6	146	15	8	23
600-615	10	3	13	9	9	18	3	2	5	3	2	5	108	9	117	4	6	10
615-630	7	3	10	11	6	17	1	0	1	4	1	5	96	13	109	13	4	17
630-645	8	4	12	5	6	11	1	1	2	1	1	2	90	14	104	12	6	18
645-700	8	2	10	3	3	6	0	0	0	0	2	2	88	17	105	5	7	12
HOUR TOTALS																		
400-500	63	10	73	89	61	150	8	7	15	9	6	15	613	99	712	44	78	122
415-515	67	13	80	95	54	149	10	10	20	15	8	23	673	93	766	63	70	133
430-530	83	17	100	118	60	178	11	11	22	11	10	21	608	80	688	59	50	109
445-545	91	18	109	98	49	147	10	9	19	16	9	25	572	71	643	62	47	109
500-600	71	15	86	71	36	107	7	6	13	15	8	23	532	51	583	55	38	93
515-615	61	13	74	61	35	96	7	5	12	12	8	20	476	47	523	38	34	72
530-630	47	12	59	48	27	75	6	3	9	15	7	22	470	49	519	46	32	78
545-645	36	12	48	33	25	58	5	3	8	10	6	16	434	42	476	44	24	68
600-700	33	12	45	28	24	52	5	3	8	8	6	14	382	53	435	34	23	57

PEAK HOUR
415-515
2802

	7 NBRT			8 NBTH			9 NBLT			10 EBRT			11 EBTH			12 EBLT			ALL MOVEMENTS TOTALS		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
400-415	43	16	59	17	12	29	0	1	1	0	0	0	189	15	204	19	5	24	404	105	509
415-430	118	20	138	24	8	32	4	3	7	0	0	0	197	15	212	22	2	24	553	107	660
430-445	107	19	126	35	16	51	1	1	2	0	1	1	212	12	224	15	0	15	598	124	722
445-500	96	18	114	26	9	35	0	1	1	1	2	3	195	11	206	10	2	12	602	114	716
500-515	111	10	121	29	2	31	3	0	3	2	1	3	225	15	240	27	3	30	630	74	704
515-530	56	14	70	16	3	19	1	0	1	1	0	1	184	8	192	13	3	16	426	67	493
530-545	56	15	71	15	9	24	2	0	2	1	0	1	232	13	245	16	1	17	509	88	597
545-600	21	21	42	10	11	21	1	0	1	0	1	1	121	11	132	13	2	15	342	68	410
600-615	27	29	56	6	8	14	2	0	2	1	1	2	83	10	93	9	2	11	265	81	346
615-630	31	20	51	7	15	22	0	0	0	2	1	3	94	8	102	4	1	5	270	72	342
630-645	21	27	48	1	5	6	1	0	1	1	0	1	79	5	84	4	0	4	224	69	293
645-700	12	23	35	12	6	18	0	0	0	1	0	1	78	11	89	8	1	9	215	72	287
HOUR TOTALS																					
400-500	364	73	437	102	45	147	5	6	11	1	3	4	793	53	846	66	9	75	2157	450	2607
415-515	432	67	499	114	35	149	8	5	13	3	4	7	829	53	882	74	7	81	2383	419	2802
430-530	370	61	431	106	30	136	5	2	7	4	4	8	816	46	862	65	8	73	2256	379	2635
445-545	319	57	376	86	23	109	6	1	7	5	3	8	836	47	883	66	9	75	2167	343	2510
500-600	244	60	304	70	25	95	7	0	7	4	2	6	762	47	809	69	9	78	1907	297	2204
515-615	160	79	239	47	31	78	6	0	6	3	2	5	620	42	662	51	8	59	1542	304	1846
530-630	135	85	220	38	43	81	5	0	5	4	3	7	530	42	572	42	6	48	1386	309	1695
545-645	100	97	197	24	39	63	4	0	4	4	3	7	377	34	411	30	5	35	1101	290	1391
600-700	91	99	190	26	34	60	3	0	3	5	2	7	334	34	368	25	4	29	974	294	1268

WILTEC

Phone: (626) 564-1944 Fax: (626) 564-0969

INTERSECTION TURNING MOVEMENT COUNT SUMMARY

CLIENT: FEHR AND PEERS
PROJECT: WILMINGTON WATERFRONT PROJECT
DATE: THURSDAY JULY 10, 2008
PERIOD: 4:00 PM TO 7:00 PM
INTERSECTION: N/S JOHN S. GIBSON BLVD/PACIFIC AVENUE
E/W CHANNEL STREET

	1 SBRT			2 SBTH			3 SBLT			4 WBRT			5 WBTH			6 WBLT		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
400-415	32	5	37	60	4	64	0	0	0	0	0	0	0	0	0	0	0	0
415-430	44	0	44	61	5	66	0	0	0	0	0	0	0	0	0	0	0	0
430-445	52	2	54	84	3	87	0	0	0	0	0	0	0	0	0	0	0	0
445-500	39	2	41	55	5	60	0	0	0	0	0	0	0	0	0	0	0	0
500-515	53	1	54	84	3	87	0	0	0	0	0	0	0	0	0	0	0	0
515-530	65	3	68	89	5	94	0	0	0	0	0	0	0	0	0	0	0	0
530-545	52	2	54	96	4	100	0	0	0	0	0	0	0	0	0	0	0	0
545-600	83	2	85	109	4	113	0	0	0	0	0	0	0	0	0	0	0	0
600-615	89	1	90	125	9	134	0	0	0	0	0	0	0	0	0	0	0	0
615-630	82	0	82	92	6	98	0	0	0	0	0	0	0	0	0	0	0	0
630-645	58	0	58	94	6	100	0	0	0	0	0	0	0	0	0	0	0	0
645-700	42	1	43	100	4	104	0	0	0	0	0	0	0	0	0	0	0	0
HOUR TOTALS																		
400-500	167	9	176	260	17	277	0	0	0	0	0	0	0	0	0	0	0	0
415-515	188	5	193	284	16	300	0	0	0	0	0	0	0	0	0	0	0	0
430-530	209	8	217	312	16	328	0	0	0	0	0	0	0	0	0	0	0	0
445-545	209	8	217	324	17	341	0	0	0	0	0	0	0	0	0	0	0	0
500-600	253	8	261	378	16	394	0	0	0	0	0	0	0	0	0	0	0	0
515-615	289	8	297	419	22	441	0	0	0	0	0	0	0	0	0	0	0	0
530-630	306	5	311	422	23	445	0	0	0	0	0	0	0	0	0	0	0	0
545-645	312	3	315	420	25	445	0	0	0	0	0	0	0	0	0	0	0	0
600-700	271	2	273	411	25	436	0	0	0	0	0	0	0	0	0	0	0	0

PEAK HOUR
530-630
2426

	7 NBRT			8 NBTH			9 NBLT			10 EBRT			11 EBTH			12 EBLT			ALL MOVEMENTS TOTALS		
15-MIN COUNTS	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL	CARS	TRUCKS	TOTAL
400-415	0	0	0	102	2	104	55	0	55	98	2	100	0	0	0	110	4	114	457	17	474
415-430	0	0	0	124	6	130	67	0	67	99	1	100	0	0	0	106	8	114	501	20	521
430-445	0	0	0	131	4	135	80	0	80	109	1	110	0	0	0	112	7	119	568	17	585
445-500	0	0	0	111	5	116	68	0	68	102	2	104	0	0	0	117	13	130	492	27	519
500-515	0	0	0	122	5	127	62	2	64	98	0	98	0	0	0	132	2	134	551	13	564
515-530	0	0	0	111	1	112	69	0	69	97	2	99	0	0	0	124	5	129	555	16	571
530-545	0	0	0	122	1	123	74	0	74	92	0	92	0	0	0	128	7	135	564	14	578
545-600	0	0	0	92	1	93	67	0	67	110	2	112	0	0	0	135	6	141	596	15	611
600-615	0	0	0	110	1	111	68	1	69	113	1	114	0	0	0	128	3	131	633	16	649
615-630	0	0	0	92	0	92	75	1	76	123	3	126	0	0	0	110	4	114	574	14	588
630-645	0	0	0	92	6	98	74	1	75	120	1	121	0	0	0	107	5	112	545	19	564
645-700	0	0	0	82	0	82	72	0	72	100	0	100	0	0	0	113	2	115	509	7	516
HOUR TOTALS																					
400-500	0	0	0	468	17	485	270	0	270	408	6	414	0	0	0	445	32	477	2018	81	2099
415-515	0	0	0	488	20	508	277	2	279	408	4	412	0	0	0	467	30	497	2112	77	2189
430-530	0	0	0	475	15	490	279	2	281	406	5	411	0	0	0	485	27	512	2166	73	2239
445-545	0	0	0	466	12	478	273	2	275	389	4	393	0	0	0	501	27	528	2162	70	2232
500-600	0	0	0	447	8	455	272	2	274	397	4	401	0	0	0	519	20	539	2266	58	2324
515-615	0	0	0	435	4	439	278	1	279	412	5	417	0	0	0	515	21	536	2348	61	2409
530-630	0	0	0	416	3	419	284	2	286	438	6	444	0	0	0	501	20	521	2367	59	2426
545-645	0	0	0	386	8	394	284	3	287	466	7	473	0	0	0	480	18	498	2348	64	2412
600-700	0	0	0	376	7	383	289	3	292	456	5	461	0	0	0	458	14	472	2261	56	2317

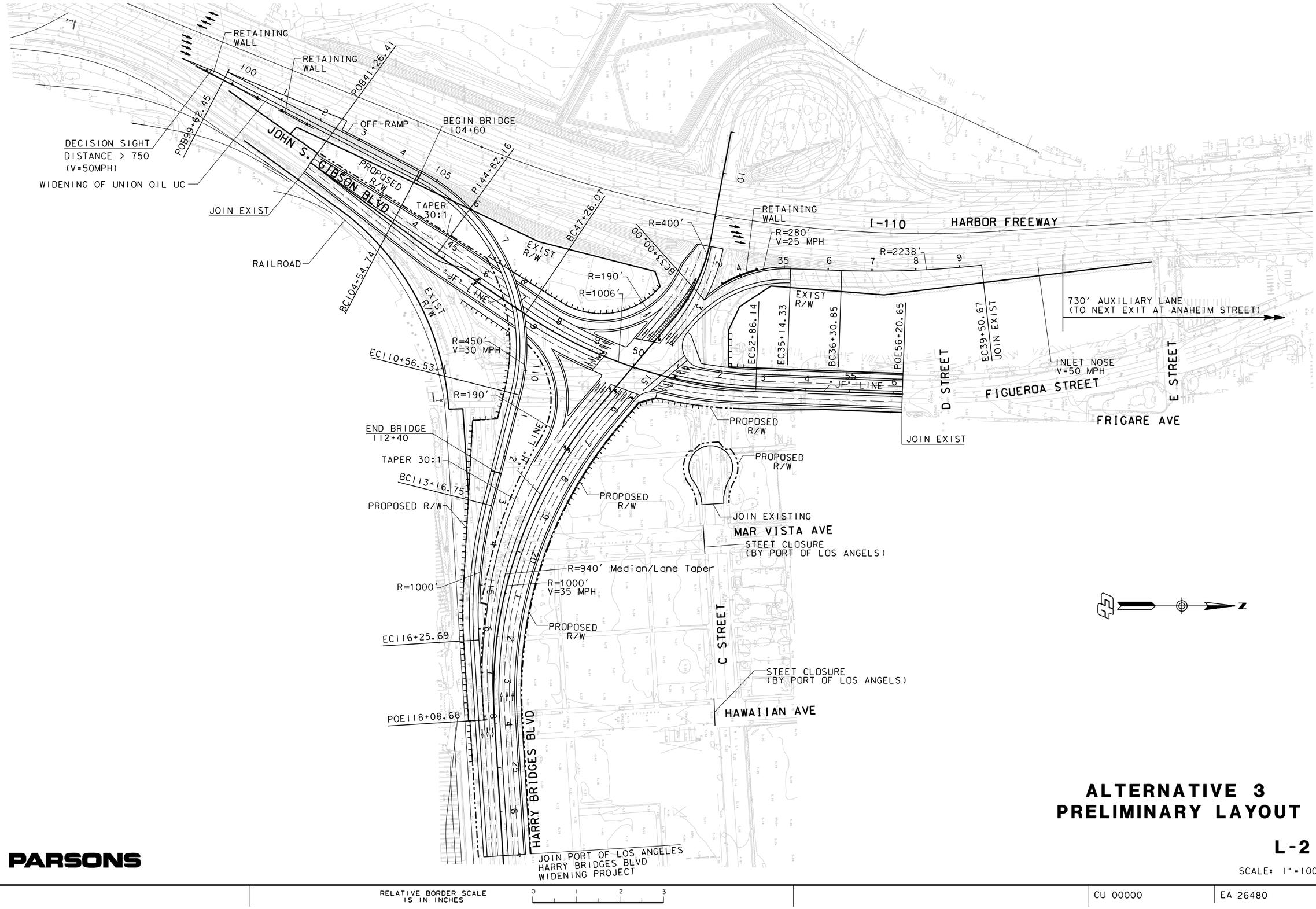
APPENDIX C

LEVEL OF SERVICE WORKSHEETS

(under separate cover)

APPENDIX D

CONCEPTUAL DRAWING OF
LAGOON AVENUE GRADE SEPARATION



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

PROJECT ENGINEER

CALCULATED/ DESIGNED BY

CHECKED BY

DATE	REVISED BY	DATE REVISED

$FREQUEST

PARSONS

ALTERNATIVE 3
PRELIMINARY LAYOUT

L-2

SCALE: 1"=100'

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

CU 00000 | EA 26480

LAST REVISION 00-00-00

DATE PLOTTED => 1/29/2007
TIME PLOTTED => 9:36:34 AM

DGN FILE => S:\Road&Highway\Projects\645954.POLA\CADD\CStreet\SHT\C_Street_Layout_Alt3.dgn
USERNAME => USER=p0018488

HARRY BRIDGES BLVD.

NEPTUNE AVENUE

LAGOON AVENUE

FRIES AVENUE

A STREET

DWP

TRAPAC

CITY OF LA PORT OF LA

-96" DWP RGE (8-379)

2-96" DWP INTAKE (8-379)(11504)

WATER STREET

WATER STREET

PIER A ST.

POLA CONSTRUCTION AND MAINTENANCE FACILITY

MATCH LINE - STATION 59+00

PC = 43+74.36

PT = 47+16.28

PC = 59+28.06

PT = 62+28.84

R=450'

PC = 45+00

PT = 49+50

PC = 31+50

PT = 28+00

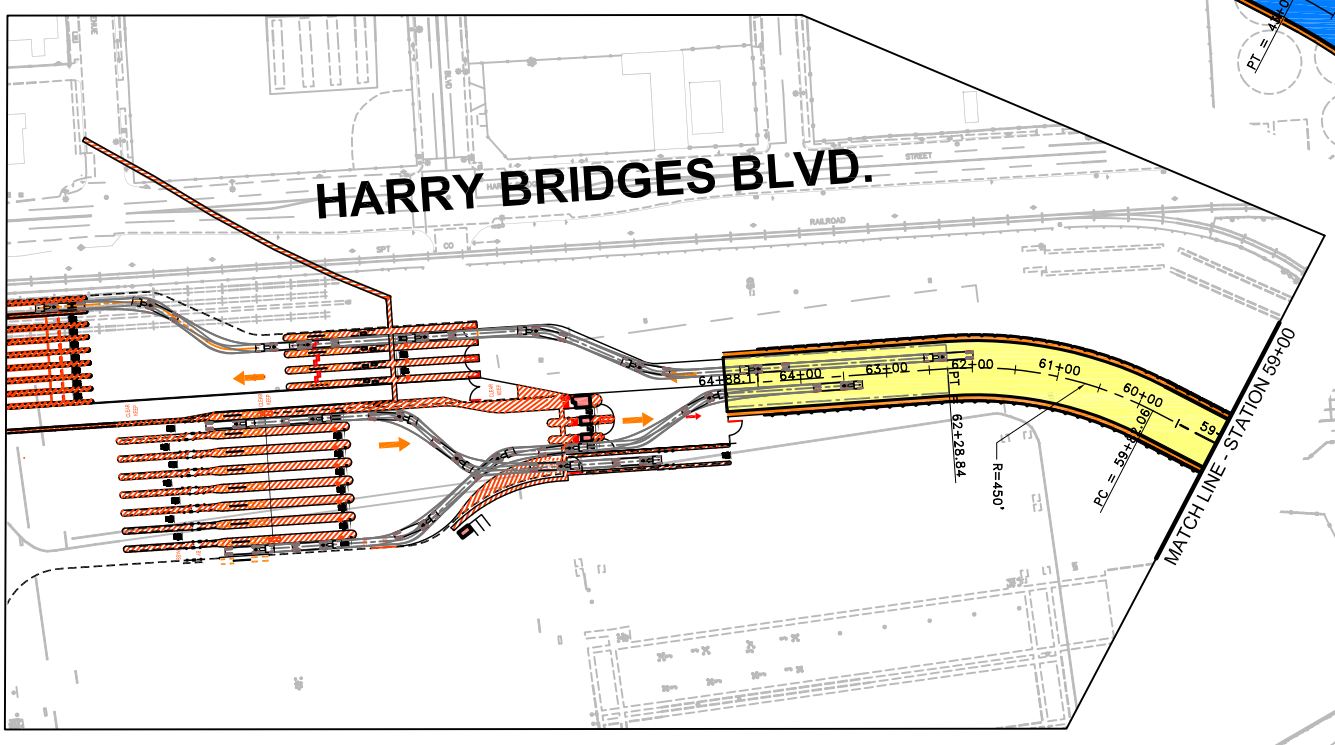
PC = 25+87.14

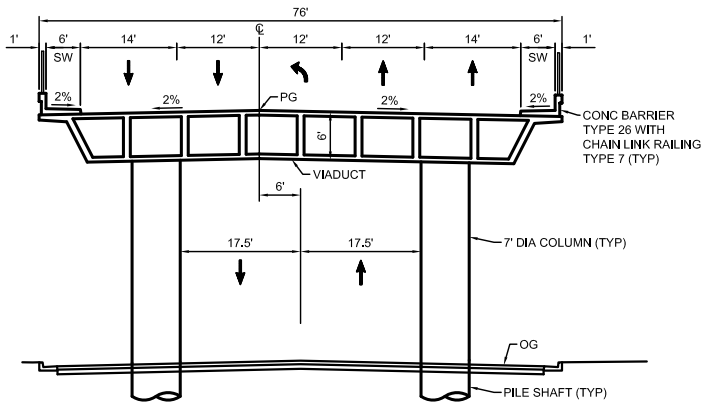
PT = 26+50

PC = 24+50

PT = 22+50

PC = 22+00





TYPICAL BRIDGE SECTION

N

0 80 160

SCALE,FEET

LEGEND

ROADWAY

SLOPE AREA

ELEVATED STRUCTURE

NEW SIDEWALK

URS
915 WILSHIRE BOULEVARD
SUITE 700
LOS ANGELES, CA 90017
TEL: (213) 996-2200
FAX: (213) 996-2290
URS PROJECT NO. 29403050

PLAN

WILMINGTON GRADE SEPARATION – CONCEPTUAL STUDY

LAGOON AVE TO PIER A STREET – SITE PLAN

THE PORT OF LOS ANGELES
ENGINEERING DIVISION P.O. BOX 151 SAN PEDRO, CA. 90733-0151

DRAWING NUMBER
1–

J:\acad\Exhibits\01_Lagoon Ave to Pier A St\Lagoon Avenue to Pier A Street.dwg Jun 07, 2008 11:04am_michael_de_leon

Enhanced Monthly Water Quality Monitoring
Thursday, January 17, 2008

Parameter	MDL	RL	Units	Screening Criteria		LA 30	LA 32B	LA 33	LA 35	LA 39	LA 41	LA 44	LA 46
General Chemistry													
Carbon, Dissolved Organic	0.1	0.2	mg/L			0.5	0.7	0.9	0.7	0.8	0.7	0.6	0.7
Carbon, Total Organic	0.1	0.2	mg/L			0.8	0.8	0.7	0.9	0.8	0.7	0.7	0.8
Oil and Grease	1	5	mg/L			1.1	ND	ND	ND	ND	ND	ND	ND
Domoic Acid	0.01		ug/L			ND	ND	ND	ND	ND	ND	ND	ND
Ammonia	0.03	0.03	mg/L			0.07	0.07	0.07	0.07	0.08	0.06	0.06	0.07
Nitrate	0.01	0.05	mg/L			0.02	0.02	0.02	0.03	0.02	0.01	0.03	0.02
Nitrite	0.01	0.05	mg/L			0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
MBAS	0.005	0.01	mg/L			0.017	0.015	0.019	0.015	0.015	0.015	0.014	0.015
Total Dissolved Solids	0.1	5	mg/L			34750	32950	34700	31200	32800	34600	33750	33750
Hardness as CaCO3	1	5	mg/L			5022	5137.7	4888.5	4930.8	4982.3	5014.9	4903.3	4866.5
Total Phosphorus	0.02	0.05	mg/L			ND	ND	ND	0.04	ND	ND	ND	ND
Total Suspended Solids	0.5	5	mg/L			6.7	7.7	8.7	3.3	1.3	2.7	3	7
Turbidity	1	2	NTU			2.3	4.6	2.2	1.9	2.3	1.6	1.3	1.5
PCBs and Pesticides				CMC	CCC								
Aroclor 1016	10	20	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1221	10	20	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1232	10	20	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1242	10	20	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	10	20	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1254	10	20	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1260	10	20	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB018	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB028	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB031	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB033	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB037	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB044	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB049	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB052	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB066	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB070	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB074	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB077	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB081	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB087	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB095	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB097	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB099	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB101	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND

Enhanced Monthly Water Quality Monitoring
Thursday, January 17, 2008

Parameter	MDL	RL	Units	Screening Criteria		LA 30	LA 32B	LA 33	LA 35	LA 39	LA 41	LA 44	LA 46
PCB105	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB110	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB114	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB118	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB119	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB123	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB126	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB128	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB138	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB141	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB149	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB151	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB153	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB156	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB157	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB158	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB167	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB168+132	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB169	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB170	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB174	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB177	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB180	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB183	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB187	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB189	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB194	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB195	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB200	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB201	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB206	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB209	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
2,4'-DDD	100	200	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
2,4'-DDE	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
2,4'-DDT	100	200	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDD	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDE	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDT	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Aldrin	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
BHC-alpha	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
BHC-beta	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND

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Parameter	MDL	RL	Units	Screening Criteria		LA 30	LA 32B	LA 33	LA 35	LA 39	LA 41	LA 44	LA 46
BHC-delta	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
BHC-gamma	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Chlordane-alpha	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Chlordane-gamma	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
cis-Nonachlor	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
DCPA (Dacthal)	5	10	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Dicofol	50	100	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan Sulfate	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan-I	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan-II	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Endrin	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Endrin Aldehyde	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Endrin Ketone	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor Epoxide	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Methoxychlor	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Mirex	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Oxychlordane	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
PCB008	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Perthane	5	10	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Toxaphene	10	50	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
trans-Nonachlor	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Bolstar (Sulprofos)	2	4	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Chlorpyrifos	1	2	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Demeton	1	2	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Diazinon	2	4	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Dichlorvos	3	6	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Dimethoate	3	6	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Disulfoton	1	2	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Ethoprop (Ethoprofos)	1	2	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Fenchlorphos (Ronnel)	2	4	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Fensulfothion	1	2	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Fenthion	2	4	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Malathion	3	6	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Merphos	1	2	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Methyl Parathion	1	2	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Mevinphos (Phosdrin)	8	16	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Phorate	6	12	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Tetrachlorvinphos (Stirofos)	2	4	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Tokuthion	3	6	ng/L			ND	ND	ND	ND	ND	ND	ND	ND

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Parameter	MDL	RL	Units	Screening Criteria		LA 30	LA 32B	LA 33	LA 35	LA 39	LA 41	LA 44	LA 46
Trichloronate	1	2	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Total PCB/Pesticides						ND	ND	ND	ND	ND	ND	ND	ND
PAHs													
1-Methylnaphthalene	1	5	ng/L			1.2	ND	2	ND	3.8	5.8	3.9	2.7
1-Methylphenanthrene	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
2,3,5-Trimethylnaphthalene	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dimethylnaphthalene	50	100	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	1	5	ng/L			1.9	2.9	3.3	ND	4.3	4.2	4.5	2.8
Acenaphthene	**1**	**5**	**ng/L**			**16.9**	**29.6**	**18.5**	**12.5**	**47**	**15.8**	**38.2**	**35.9**
Acenaphthylene	1	5	ng/L			ND	4.5	2.5	ND	5.9	ND	4	2.4
Anthracene	1	5	ng/L			ND	13.9	6.9	ND	13.1	ND	14.7	7
Benz[a]anthracene	1	5	ng/L			ND	18.4	ND	ND	8	ND	6.4	ND
Benzo[a]pyrene	1	5	ng/L			ND	25.2	ND	ND	ND	ND	5.2	3.1
Benzo[b]fluoranthene	1	5	ng/L			5.3	18.5	6.9	ND	10.4	7.2	7.4	11.5
Benzo[e]pyrene	1	5	ng/L			ND	20.7	7.2	6.4	9.9	ND	5.5	5
Benzo[g,h,i]perylene	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Benzo[k]fluoranthene	1	5	ng/L			ND	7	ND	ND	ND	ND	5.2	2.4
Biphenyl	1	5	ng/L			ND	1.1	2.2	2.7	2.3	ND	4.7	4.8
Chrysene	1	5	ng/L			ND	32.8	8.7	5.1	12.4	ND	9.1	7.9
Dibenz[a,h]anthracene	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Dibenzothiophene	1	5	ng/L			ND	ND	ND	ND	6.3	ND	1.9	1.9
Fluoranthene	1	5	ng/L			31.2	68.3	39.9	25.5	78.4	35.3	61.9	64.7
Fluorene	1	5	ng/L			2.4	13.2	8	ND	13.1	5	11.1	7.7
Indeno[1,2,3-c,d]pyrene	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	1	5	ng/L			ND	6.8	6.1	3.3	10.8	7.2	12.3	3.8
Perylene	1	5	ng/L			ND	5.3	ND	ND	ND	ND	2.2	ND
Phenanthrene	1	5	ng/L			10.4	20.1	16	7.1	28.6	ND	17.9	19
Pyrene	1	5	ng/L			6.7	25.1	12.5	11.5	22.4	13.6	24.1	24.3
Total PAHs						**76**	**313.4**	**140.7**	**74.1**	**276.7**	**94.1**	**240.2**	**206.9**
Phenols													
2,4,6-Trichlorophenol	50	100	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dichlorophenol	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrophenol	1	5	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	100	200	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
2-Methyl-4,6-dinitrophenol	100	200	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
2-Nitrophenol	50	100	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
4-Chloro-3-methylphenol	100	200	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
4-Nitrophenol	100	200	ng/L			ND	ND	ND	ND	ND	ND	ND	ND

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Parameter	MDL	RL	Units	Screening Criteria		LA 30	LA 32B	LA 33	LA 35	LA 39	LA 41	LA 44	LA 46
Pentachlorophenol	50	100	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Phenol	100	200	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Total Phenols						ND	ND	ND	ND	ND	ND	ND	ND
Pyrethroids													
Allethrin by NCI	0.5	2	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Bifenthrin by NCI	0.5	2	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Cyfluthrin by NCI	0.5	2	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Cypermethrin by NCI	0.5	2	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Danitol by NCI	0.5	2	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Deltamethrin by NCI	0.5	2	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Esfenvalerate by NCI	0.5	2	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Fenvalerate by NCI	0.5	2	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Fluvalinate by NCI	0.5	2	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
L-Cyhalothrin by NCI	0.5	2	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Permethrin by NCI	5	25	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Piperonyl Butoxide	5	20	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Prallethrin by NCI	0.5	2	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Total Pyrethroids						ND	ND	ND	ND	ND	ND	ND	ND
Phthalates													
bis(2-Ethylhexyl) Phthalate	**100**	**125**	**ng/L**			**137732**	**2610.5**	**60945**	**9472**	**937.4**	**8313.8**	**15750**	**54013**
Butylbenzyl Phthalate	25	50	ng/L			ND	54.8	54.4	50.3	44.7	61.7	73.2	ND
Diethyl Phthalate	100	125	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Dimethyl Phthalate	50	75	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Di-n-butyl Phthalate	75	100	ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Di-n-octyl Phthalate	10	20	ng/L			38.3	ND	149.2	ND	ND	ND	ND	20.9
Total Phthalates						**137770**	**2665.3**	**61148**	**9522.3**	**982.1**	**8375.5**	**15823**	**54034**
TKN	0.46	0.50	mg/L			0.70	0.98	0.98	0.84	0.84	ND	ND	0.70
TPH as Diesel		1	ug/L			ND	ND	ND	ND	ND	ND	ND	ND
TPH as Gasoline		1	ug/L			ND	ND	ND	ND	ND	ND	ND	ND
Butyltins													
Tetrabutyltin	1		ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Tributyltin	1		ng/L	0.42	0.0074	ND	ND	ND	ND	ND	ND	ND	ND
Dibutyltin	1		ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Monobutyltin	1		ng/L			ND	ND	ND	ND	ND	ND	ND	ND
Dissolved Metals				CMC	CCC								

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Parameter	MDL	RL	Units	Screening Criteria		LA 30	LA 32B	LA 33	LA 35	LA 39	LA 41	LA 44	LA 46
Aluminum (Al)	3	6	ug/L			ND	ND	ND	ND	ND	ND	3	ND
Antimony (Sb)	0.01	0.015	ug/L			0.17	0.16	0.14	0.05	0.26	0.17	0.18	0.16
Arsenic (As)	0.01	0.015	ug/L			1.3	1.32	1.38	1.78	1.8	1.27	1.21	1.33
Beryllium (Be)	0.005	0.01	ug/L			ND	ND	ND	ND	ND	ND	ND	ND
Cadmium (Cd)	0.005	0.01	ug/L	40	8.8	0.032	0.034	0.034	0.025	0.036	0.034	0.032	0.03
Chromium (Cr)	0.025	0.05	ug/L	1100	50	0.156	0.158	0.165	0.174	0.167	0.143	0.133	0.147
Cobalt (Co)	0.005	0.01	ug/L			0.023	0.043	0.046	0.04	0.041	0.047	0.03	0.032
Copper (Cu)	**0.01**	**0.02**	**ug/L**	**4.8**	**3.1**	**0.82**	**0.8**	**0.96**	**0.74**	**1.21**	**1.09**	**1.3**	**1.39**
Iron (Fe)	0.5	1	ug/L			ND	ND	ND	ND	0.5	0.7	ND	ND
Lead (Pb)	**0.005**	**0.01**	**ug/L**	**210**	**8.1**	**0.114**	**0.036**	**0.244**	**0.311**	**0.043**	**0.123**	**0.286**	**0.412**
Manganese (Mn)	**0.01**	**0.02**	**ug/L**			**2.66**	**3.47**	**2.77**	**3.58**	**3.62**	**3.39**	**4.61**	**4.74**
Mercury (Hg)	0.01	0.02	ug/L	1.8	0.94	ND	ND	0.01	ND	ND	ND	ND	ND
Molybdenum (Mo)	0.005	0.01	ug/L			9.269	9.307	9.259	ND	9.098	8.883	8.904	9.167
Nickel (Ni)	0.005	0.01	ug/L	74	8.2	0.355	0.432	0.466	0.344	0.554	0.36	0.361	0.422
Selenium (Se)	0.01	0.015	ug/L	290	71	0.02	0.03	0.02	ND	0.02	0.02	0.02	0.01
Silver (Ag)	0.02	0.04	ug/L	1.9		ND	ND	ND	ND	ND	ND	ND	ND
Thallium (Tl)	0.005	0.01	ug/L			0.012	0.013	0.013	0.012	0.012	0.013	0.013	0.013
Tin (Sn)	0.005	0.01	ug/L			ND	ND	ND	ND	0.009	ND	ND	ND
Titanium (Ti)	0.035	0.07	ug/L			0.056	ND	ND	ND	0.043	0.061	ND	0.091
Vanadium (V)	0.02	0.04	ug/L			1.81	1.88	1.92	2.06	2.02	1.82	1.75	1.81
Zinc (Zn)	0.005	0.01	ug/L	90	81	2.916	2.794	2.549	2.262	5.99	3.967	6.7	6.49
Total Metals													
Aluminum (Al)	3	6	ug/L			123	246	157	77	62	53	57	44
Antimony (Sb)	0.01	0.015	ug/L			0.14	0.11	0.12	0.11	0.2	0.21	0.16	0.17
Arsenic (As)	0.01	0.015	ug/L	69	36	1.42	1.53	1.42	1.43	1.54	1.41	1.36	1.36
Beryllium (Be)	0.005	0.01	ug/L			ND	0.006	ND	ND	ND	ND	ND	ND
Cadmium (Cd)	0.005	0.01	ug/L			0.034	0.036	0.037	0.032	0.037	0.039	0.038	0.034
Chromium (Cr)	0.025	0.05	ug/L			0.489	0.754	0.631	0.387	0.362	0.33	0.353	0.401
Cobalt (Co)	0.005	0.01	ug/L			0.086	0.168	0.115	0.08	0.077	0.081	0.061	0.078
Copper (Cu)	**0.01**	**0.02**	**ug/L**			**1.64**	**1.72**	**2.01**	**1.3**	**2.14**	**1.93**	**2.21**	**2.29**
Iron (Fe)	0.5	1	ug/L			161	258.5	164.6	74.5	71.5	80.7	75.1	59.9
Lead (Pb)	**0.005**	**0.01**	**ug/L**			**0.616**	**0.581**	**1.163**	**0.96**	**4.846**	**0.586**	**1.031**	**1.256**
Manganese (Mn)	**0.01**	**0.02**	**ug/L**			**6.53**	**10.89**	**7.45**	**5.9**	**5.24**	**5.78**	**7.15**	**6.24**
Mercury (Hg)	0.01	0.02	ug/L			ND	ND	ND	ND	ND	ND	ND	ND
Molybdenum (Mo)	0.005	0.01	ug/L			9.117	8.738	8.898	9.015	9.312	9.8	9.834	9.723
Nickel (Ni)	0.005	0.01	ug/L			0.525	0.684	0.925	0.48	0.638	0.478	0.495	0.558
Selenium (Se)	0.01	0.015	ug/L			0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02
Silver (Ag)	0.02	0.04	ug/L			ND	ND	ND	ND	ND	ND	ND	ND
Thallium (Tl)	0.005	0.01	ug/L			0.015	0.015	0.014	0.013	0.013	0.013	0.013	0.013
Tin (Sn)	0.005	0.01	ug/L			0.018	0.024	0.026	0.014	0.027	0.026	0.013	0.016

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Parameter	MDL	RL	Units	Screening Criteria		LA 30	LA 32B	LA 33	LA 35	LA 39	LA 41	LA 44	LA 46
Titanium (Ti)	0.035	0.07	ug/L			9.111	16.731	10.231	6.499	4.86	4.504	4.845	3.248
Vanadium (V)	0.02	0.04	ug/L			2.33	2.9	2.5	2.24	2.27	2.14	2.11	2.05
Zinc (Zn)	0.005	0.01	ug/L			3.751	4.767	4.856	4.069	8.893	5.591	7.233	7.383
Bacteria													
Total Coliform / MTF 20	20		MPN/100mL			20	40	20	ND	ND	40	ND	ND
Fecal Coliform / MTF 20	20		MPN/100mL			ND	40	ND	ND	ND	20	ND	ND
Enterococci / MF 10	10		CFU/100mL			ND	10	ND	ND	10	10	10	30

MDL = method detection limit
RL = reporting limit
ND = not detected
NS = There is no analysis for these samples
* = no analysis was performed

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Parameter	MDL	RL	Units	Screening Criteria		LA 47	Equip Blank 1	Equip Blank 2
General Chemistry								
Carbon, Dissolved Organic	0.1	0.2	mg/L			0.6	ND	0.7
Carbon, Total Organic	0.1	0.2	mg/L			1	1.4	0.7
Oil and Grease	1	5	mg/L			ND	ND	ND
Domoic Acid	0.01		ug/L			ND	ND	ND
Ammonia	0.03	0.03	mg/L			0.07	0.27	0.27
Nitrate	0.01	0.05	mg/L			0.02	0.02	ND
Nitrite	0.01	0.05	mg/L			0.01	ND	ND
MBAS	0.005	0.01	mg/L			0.013	0.013	ND
Total Dissolved Solids	0.1	5	mg/L			34050	180	46
Hardness as CaCO3	1	5	mg/L			4713.1	12.3	1.3
Total Phosphorus	0.02	0.05	mg/L			ND	ND	ND
Total Suspended Solids	0.5	5	mg/L			5	ND	ND
Turbidity	1	2	NTU			2.6	ND	ND
PCBs and Pesticides				CMC	CCC			
Aroclor 1016	10	20	ng/L			ND	ND	ND
Aroclor 1221	10	20	ng/L			ND	ND	ND
Aroclor 1232	10	20	ng/L			ND	ND	ND
Aroclor 1242	10	20	ng/L			ND	ND	ND
Aroclor 1248	10	20	ng/L			ND	ND	ND
Aroclor 1254	10	20	ng/L			ND	ND	ND
Aroclor 1260	10	20	ng/L			ND	ND	ND
PCB018	1	5	ng/L			ND	ND	ND
PCB028	1	5	ng/L			ND	ND	ND
PCB031	1	5	ng/L			ND	ND	ND
PCB033	1	5	ng/L			ND	ND	ND
PCB037	1	5	ng/L			ND	ND	ND
PCB044	1	5	ng/L			ND	ND	ND
PCB049	1	5	ng/L			ND	ND	ND
PCB052	1	5	ng/L			ND	ND	ND
PCB066	1	5	ng/L			ND	ND	ND
PCB070	1	5	ng/L			ND	ND	ND
PCB074	1	5	ng/L			ND	ND	ND
PCB077	1	5	ng/L			ND	ND	ND
PCB081	1	5	ng/L			ND	ND	ND
PCB087	1	5	ng/L			ND	ND	ND
PCB095	1	5	ng/L			ND	ND	ND
PCB097	1	5	ng/L			ND	ND	ND
PCB099	1	5	ng/L			ND	ND	ND
PCB101	1	5	ng/L			ND	ND	ND

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Parameter	MDL	RL	Units	Screening Criteria		LA 47	Equip Blank 1	Equip Blank 2
PCB105	1	5	ng/L			ND	ND	ND
PCB110	1	5	ng/L			ND	ND	ND
PCB114	1	5	ng/L			ND	ND	ND
PCB118	1	5	ng/L			ND	ND	ND
PCB119	1	5	ng/L			ND	ND	ND
PCB123	1	5	ng/L			ND	ND	ND
PCB126	1	5	ng/L			ND	ND	ND
PCB128	1	5	ng/L			ND	ND	ND
PCB138	1	5	ng/L			ND	ND	ND
PCB141	1	5	ng/L			ND	ND	ND
PCB149	1	5	ng/L			ND	ND	ND
PCB151	1	5	ng/L			ND	ND	ND
PCB153	1	5	ng/L			ND	ND	ND
PCB156	1	5	ng/L			ND	ND	ND
PCB157	1	5	ng/L			ND	ND	ND
PCB158	1	5	ng/L			ND	ND	ND
PCB167	1	5	ng/L			ND	ND	ND
PCB168+132	1	5	ng/L			ND	ND	ND
PCB169	1	5	ng/L			ND	ND	ND
PCB170	1	5	ng/L			ND	ND	ND
PCB174	1	5	ng/L			ND	ND	ND
PCB177	1	5	ng/L			ND	ND	ND
PCB180	1	5	ng/L			ND	ND	ND
PCB183	1	5	ng/L			ND	ND	ND
PCB187	1	5	ng/L			ND	ND	ND
PCB189	1	5	ng/L			ND	ND	ND
PCB194	1	5	ng/L			ND	ND	ND
PCB195	1	5	ng/L			ND	ND	ND
PCB200	1	5	ng/L			ND	ND	ND
PCB201	1	5	ng/L			ND	ND	ND
PCB206	1	5	ng/L			ND	ND	ND
PCB209	1	5	ng/L			ND	ND	ND
2,4'-DDD	100	200	ng/L			ND	ND	ND
2,4'-DDE	1	5	ng/L			ND	ND	ND
2,4'-DDT	100	200	ng/L			ND	ND	ND
4,4'-DDD	1	5	ng/L			ND	ND	ND
4,4'-DDE	1	5	ng/L			ND	ND	ND
4,4'-DDT	1	5	ng/L			ND	ND	ND
Aldrin	1	5	ng/L			ND	ND	ND
BHC-alpha	1	5	ng/L			ND	ND	ND
BHC-beta	1	5	ng/L			ND	ND	ND

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Parameter	MDL	RL	Units	Screening Criteria		LA 47	Equip Blank 1	Equip Blank 2
BHC-delta	1	5	ng/L			ND	ND	ND
BHC-gamma	1	5	ng/L			ND	ND	ND
Chlordane-alpha	1	5	ng/L			ND	ND	ND
Chlordane-gamma	1	5	ng/L			ND	ND	ND
cis-Nonachlor	1	5	ng/L			ND	ND	ND
DCPA (Dacthal)	5	10	ng/L			ND	ND	ND
Dicofol	50	100	ng/L			ND	ND	ND
Dieldrin	1	5	ng/L			ND	ND	ND
Endosulfan Sulfate	1	5	ng/L			ND	ND	ND
Endosulfan-I	1	5	ng/L			ND	ND	ND
Endosulfan-II	1	5	ng/L			ND	ND	ND
Endrin	1	5	ng/L			ND	ND	ND
Endrin Aldehyde	1	5	ng/L			ND	ND	ND
Endrin Ketone	1	5	ng/L			ND	ND	ND
Heptachlor	1	5	ng/L			ND	ND	ND
Heptachlor Epoxide	1	5	ng/L			ND	ND	ND
Methoxychlor	1	5	ng/L			ND	ND	ND
Mirex	1	5	ng/L			ND	ND	ND
Oxychlordane	1	5	ng/L			ND	ND	ND
PCB008	1	5	ng/L			ND	ND	ND
Perthane	5	10	ng/L			ND	ND	ND
Toxaphene	10	50	ng/L			ND	ND	ND
trans-Nonachlor	1	5	ng/L			ND	ND	ND
Bolstar (Sulprofos)	2	4	ng/L			ND	ND	ND
Chlorpyrifos	1	2	ng/L			ND	ND	ND
Demeton	1	2	ng/L			ND	ND	ND
Diazinon	2	4	ng/L			ND	ND	ND
Dichlorvos	3	6	ng/L			ND	ND	ND
Dimethoate	3	6	ng/L			ND	ND	ND
Disulfoton	1	2	ng/L			ND	ND	ND
Ethoprop (Ethoprofos)	1	2	ng/L			ND	ND	ND
Fenchlorphos (Ronnel)	2	4	ng/L			ND	ND	ND
Fensulfothion	1	2	ng/L			ND	ND	ND
Fenthion	2	4	ng/L			ND	ND	ND
Malathion	3	6	ng/L			ND	ND	ND
Merphos	1	2	ng/L			ND	ND	ND
Methyl Parathion	1	2	ng/L			ND	ND	ND
Mevinphos (Phosdrin)	8	16	ng/L			ND	ND	ND
Phorate	6	12	ng/L			ND	ND	ND
Tetrachlorvinphos (Stirofos)	2	4	ng/L			ND	ND	ND
Tokuthion	3	6	ng/L			ND	ND	ND

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Parameter	MDL	RL	Units	Screening Criteria		LA 47	Equip Blank 1	Equip Blank 2
Trichloronate	1	2	ng/L			ND	ND	ND
Total PCB/Pesticides						ND	ND	ND
PAHs								
1-Methylnaphthalene	1	5	ng/L			ND	13.9	3.5
1-Methylphenanthrene	1	5	ng/L			ND	ND	ND
2,3,5-Trimethylnaphthalene	1	5	ng/L			ND	ND	ND
2,6-Dimethylnaphthalene	50	100	ng/L			ND	ND	ND
2-Methylnaphthalene	1	5	ng/L			3.9	12.1	7.8
Acenaphthene	**1**	**5**	**ng/L**			**17**	ND	ND
Acenaphthylene	1	5	ng/L			ND	ND	1.1
Anthracene	1	5	ng/L			ND	ND	ND
Benz[a]anthracene	1	5	ng/L			ND	ND	ND
Benzo[a]pyrene	1	5	ng/L			ND	ND	ND
Benzo[b]fluoranthene	1	5	ng/L			6.8	ND	ND
Benzo[e]pyrene	1	5	ng/L			4.5	ND	ND
Benzo[g,h,i]perylene	1	5	ng/L			ND	ND	ND
Benzo[k]fluoranthene	1	5	ng/L			2.2	ND	ND
Biphenyl	1	5	ng/L			4.9	7.3	28.7
Chrysene	1	5	ng/L			ND	ND	ND
Dibenz[a,h]anthracene	1	5	ng/L			ND	ND	ND
Dibenzothiophene	1	5	ng/L			1.9	ND	3.5
Fluoranthene	1	5	ng/L			33.7	5.7	3.7
Fluorene	1	5	ng/L			5.1	9.8	7.5
Indeno[1,2,3-c,d]pyrene	1	5	ng/L			ND	ND	ND
Naphthalene	1	5	ng/L			4.7	22.8	21.8
Perylene	1	5	ng/L			ND	ND	ND
Phenanthrene	1	5	ng/L			12.7	82.5	55.8
Pyrene	1	5	ng/L			11.7	4.3	ND
Total PAHs						**109.1**	**158.4**	**133.4**
Phenols								
2,4,6-Trichlorophenol	50	100	ng/L			ND	ND	ND
2,4-Dichlorophenol	1	5	ng/L			ND	ND	ND
2,4-Dimethylphenol	1	5	ng/L			ND	ND	ND
2,4-Dinitrophenol	1	5	ng/L			ND	ND	ND
2-Chlorophenol	100	200	ng/L			ND	ND	ND
2-Methyl-4,6-dinitrophenol	100	200	ng/L			ND	ND	ND
2-Nitrophenol	50	100	ng/L			ND	ND	ND
4-Chloro-3-methylphenol	100	200	ng/L			ND	ND	ND
4-Nitrophenol	100	200	ng/L			ND	ND	ND

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Parameter	MDL	RL	Units	Screening Criteria		LA 47	Equip Blank 1	Equip Blank 2
Pentachlorophenol	50	100	ng/L			ND	ND	ND
Phenol	100	200	ng/L			ND	148	ND
Total Phenols						ND	148	ND
Pyrethroids								
Allethrin by NCI	0.5	2	ng/L			ND	ND	ND
Bifenthrin by NCI	0.5	2	ng/L			ND	ND	ND
Cyfluthrin by NCI	0.5	2	ng/L			ND	ND	ND
Cypermethrin by NCI	0.5	2	ng/L			ND	ND	ND
Danitol by NCI	0.5	2	ng/L			ND	ND	ND
Deltamethrin by NCI	0.5	2	ng/L			ND	ND	ND
Esfenvalerate by NCI	0.5	2	ng/L			ND	ND	ND
Fenvalerate by NCI	0.5	2	ng/L			ND	ND	ND
Fluvalinate by NCI	0.5	2	ng/L			ND	ND	ND
L-Cyhalothrin by NCI	0.5	2	ng/L			ND	ND	ND
Permethrin by NCI	5	25	ng/L			ND	ND	ND
Piperonyl Butoxide	5	20	ng/L			ND	ND	ND
Prallethrin by NCI	0.5	2	ng/L			ND	ND	ND
Total Pyrethroids						ND	ND	ND
Phthalates								
bis(2-Ethylhexyl) Phthalate	**100**	**125**	**ng/L**			**46900**	**8155.8**	**12308.5**
Butylbenzyl Phthalate	25	50	ng/L			ND	1509	4390.4
Diethyl Phthalate	100	125	ng/L			ND	301.9	260.1
Dimethyl Phthalate	50	75	ng/L			ND	ND	ND
Di-n-butyl Phthalate	75	100	ng/L			ND	805.5	1421.9
Di-n-octyl Phthalate	10	20	ng/L			ND	50.3	19.1
Total Phthalates						**46900**	**10822.5**	**18400**
TKN	0.46	0.50	mg/L			0.70	0.70	0.56
TPH as Diesel		1	ug/L			ND	ND	ND
TPH as Gasoline		1	ug/L			ND	ND	ND
Butyltins								
Tetrabutyltin	1		ng/L			ND	ND	ND
Tributyltin	1		ng/L	0.42	0.0074	ND	ND	ND
Dibutyltin	1		ng/L			ND	77.7	ND
Monobutyltin	1		ng/L			ND	ND	ND
Dissolved Metals				CMC	CCC			

Enhanced Monthly Water Quality Monitoring
Thursday, January 17, 2008

Parameter	MDL	RL	Units	Screening Criteria		LA 47	Equip Blank 1	Equip Blank 2
Aluminum (Al)	3	6	ug/L			3	ND	ND
Antimony (Sb)	0.01	0.015	ug/L			0.19	0.06	0.03
Arsenic (As)	0.01	0.015	ug/L			1.24	ND	ND
Beryllium (Be)	0.005	0.01	ug/L			ND	ND	ND
Cadmium (Cd)	0.005	0.01	ug/L	40	8.8	0.035	0.02	0.029
Chromium (Cr)	0.025	0.05	ug/L	1100	50	0.141	ND	ND
Cobalt (Co)	0.005	0.01	ug/L			0.032	ND	ND
Copper (Cu)	**0.01**	**0.02**	**ug/L**	**4.8**	**3.1**	**1.02**	**1.08**	**0.99**
Iron (Fe)	0.5	1	ug/L			ND	ND	ND
Lead (Pb)	**0.005**	**0.01**	**ug/L**	**210**	**8.1**	**0.064**	**0.281**	**0.044**
Manganese (Mn)	**0.01**	**0.02**	**ug/L**			**3.23**	**0.09**	**0.4**
Mercury (Hg)	0.01	0.02	ug/L	1.8	0.94	ND	0.01	ND
Molybdenum (Mo)	0.005	0.01	ug/L			8.974	0.046	0.026
Nickel (Ni)	0.005	0.01	ug/L	74	8.2	0.364	0.262	0.394
Selenium (Se)	0.01	0.015	ug/L	290	71	0.03	ND	ND
Silver (Ag)	0.02	0.04	ug/L	1.9		ND	ND	ND
Thallium (Tl)	0.005	0.01	ug/L			0.013	ND	ND
Tin (Sn)	0.005	0.01	ug/L			ND	0.005	0.046
Titanium (Ti)	0.035	0.07	ug/L			0.09	ND	ND
Vanadium (V)	0.02	0.04	ug/L			1.81	ND	ND
Zinc (Zn)	0.005	0.01	ug/L	90	81	4.286	7.07	4.96
Total Metals								
Aluminum (Al)	3	6	ug/L			66	6	8
Antimony (Sb)	0.01	0.015	ug/L			0.14	0.02	0.08
Arsenic (As)	0.01	0.015	ug/L	69	36	1.36	ND	ND
Beryllium (Be)	0.005	0.01	ug/L			ND	ND	ND
Cadmium (Cd)	0.005	0.01	ug/L			0.039	0.019	0.024
Chromium (Cr)	0.025	0.05	ug/L			0.337	0.138	ND
Cobalt (Co)	0.005	0.01	ug/L			0.06	ND	ND
Copper (Cu)	**0.01**	**0.02**	**ug/L**			**1.76**	**1.17**	**1.41**
Iron (Fe)	0.5	1	ug/L			74	6.2	5.1
Lead (Pb)	**0.005**	**0.01**	**ug/L**			**0.333**	**0.36**	**0.141**
Manganese (Mn)	**0.01**	**0.02**	**ug/L**			**5.69**	**0.13**	**0.43**
Mercury (Hg)	0.01	0.02	ug/L			ND	ND	ND
Molybdenum (Mo)	0.005	0.01	ug/L			9.701	0.046	0.012
Nickel (Ni)	0.005	0.01	ug/L			0.47	0.39	2.329
Selenium (Se)	0.01	0.015	ug/L			0.03	ND	ND
Silver (Ag)	0.02	0.04	ug/L			ND	ND	ND
Thallium (Tl)	0.005	0.01	ug/L			0.013	ND	ND
Tin (Sn)	0.005	0.01	ug/L			0.015	0.069	0.026

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Parameter	MDL	RL	Units	Screening Criteria		LA 47	Equip Blank 1	Equip Blank 2
Titanium (Ti)	0.035	0.07	ug/L			4.539	0.167	0.079
Vanadium (V)	0.02	0.04	ug/L			2.12	0.02	ND
Zinc (Zn)	0.005	0.01	ug/L			5.706	8.813	5.81
Bacteria								
Total Coliform / MTF 20	20		MPN/100mL			20	ND	ND
Fecal Coliform / MTF 20	20		MPN/100mL			20	ND	ND
Enterococci / MF 10	10		CFU/100mL			ND	ND	ND

MDL = method detection limit
RL = reporting limit
ND = not detected
NS = There is no analysis for these samples
* = no analysis was performed

Average of Result	StationID								
ParameterName	LA-30	LA-32B	LA-33	LA-35	LA-39	LA-41	LA-44	LA-46	LA-47
BOD Bottom	0.8	0.8	0.9	0.7	1.3	0.8	0.6	0.6	0.9
BOD Surface	0.9	0.9	1.1	0.9	1.8	1.0	0.9	0.8	0.9
DO Bottom	6.7	6.7	6.7	6.6	6.7	6.5	6.5	6.5	6.6
DO Surface	6.4	6.5	6.6	6.5	6.6	6.5	6.4	6.3	6.4
Temperature, Bottom	16.8	16.1	16.0	16.1	16.0	16.9	16.8	16.9	16.9
Temperature, Surface	16.4	16.2	16.0	16.2	16.0	16.9	16.8	16.9	16.9
Transparency, Surface	8.4	7.1	7.5	9.0	9.2	9.2	9.7	10.5	9.1
(blank)									
Grand Total	8.1	7.8	7.9	8.0	8.2	8.4	8.4	8.5	8.4

Port of Los Angeles - Inner Harbor Water Quality Data

StationID	Date	Result	Units	ParameterName	min	max	avg	N of samples	Period
LA-30	10-Mar-05	0	mg/l	BOD Bottom					
LA-30	7-Feb-07	0.00	mg/l	BOD Bottom					
LA-30	24-Oct-07	0.00	mg/l	BOD Bottom					
LA-30	21-Dec-00	0.1	mg/L	BOD Bottom					
LA-30	17-Jan-02	0.1	mg/L	BOD Bottom					
LA-30	19-Dec-02	0.1	mg/L	BOD Bottom					
LA-30	13-Mar-03	0.1	mg/L	BOD Bottom					
LA-30	19-Jun-03	0.1	mg/L	BOD Bottom					
LA-30	25-Jan-07	0.1	mg/l	BOD Bottom					
LA-30	25-Jan-07	0.10	mg/l	BOD Bottom					
LA-30	25-Feb-00	0.2	mg/L	BOD Bottom					
LA-30	25-Jan-01	0.2	mg/L	BOD Bottom					
LA-30	13-Sep-01	0.2	mg/L	BOD Bottom					
LA-30	21-Feb-02	0.2	mg/L	BOD Bottom					
LA-30	9-Dec-02	0.2	mg/L	BOD Bottom					
LA-30	27-Apr-05	0.2	mg/l	BOD Bottom					
LA-30	17-Jan-08	0.20	mg/l	BOD Bottom					
LA-30	1-May-00	0.3	mg/L	BOD Bottom					
LA-30	3-Oct-00	0.3	mg/L	BOD Bottom					
LA-30	23-Aug-01	0.3	mg/L	BOD Bottom					
LA-30	16-Jan-03	0.3	mg/L	BOD Bottom					
LA-30	19-Feb-03	0.3	mg/L	BOD Bottom					
LA-30	9-Oct-03	0.3	mg/L	BOD Bottom					
LA-30	21-Jan-04	0.3	mg/L	BOD Bottom					
LA-30	13-Oct-04	0.3	mg/l	BOD Bottom					
LA-30	10-Nov-04	0.3	mg/l	BOD Bottom					
LA-30	20-Jan-05	0.3	mg/l	BOD Bottom					
LA-30	15-Nov-06	0.3	mg/l	BOD Bottom					
LA-30	15-Mar-07	0.30	mg/l	BOD Bottom					
LA-30	14-Feb-08	0.30	mg/l	BOD Bottom					
LA-30	30-Aug-00	0.4	mg/L	BOD Bottom					
LA-30	11-Jan-01	0.4	mg/L	BOD Bottom					
LA-30	13-Dec-01	0.4	mg/L	BOD Bottom					
LA-30	14-Mar-02	0.4	mg/L	BOD Bottom					
LA-30	17-Aug-06	0.4	mg/l	BOD Bottom					

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LA-30	19-Dec-07	0.40	mg/l	BOD Bottom
LA-30	17-Apr-08	0.40	mg/l	BOD Bottom
LA-30	15-Sep-00	0.5	mg/L	BOD Bottom
LA-30	18-Jul-01	0.5	mg/L	BOD Bottom
LA-30	29-Aug-02	0.5	mg/L	BOD Bottom
LA-30	10-Feb-05	0.5	mg/l	BOD Bottom
LA-30	8-Dec-05	0.5	mg/l	BOD Bottom
LA-30	12-Jan-06	0.5	mg/l	BOD Bottom
LA-30	15-Nov-07	0.50	mg/l	BOD Bottom
LA-30	10-Jan-00	0.6	mg/L	BOD Bottom
LA-30	14-May-03	0.6	mg/L	BOD Bottom
LA-30	25-Feb-04	0.6	mg/L	BOD Bottom
LA-30	15-Sep-04	0.6	mg/l	BOD Bottom
LA-30	21-Sep-06	0.6	mg/l	BOD Bottom
LA-30	15-Feb-01	0.7	mg/L	BOD Bottom
LA-30	27-Mar-01	0.7	mg/L	BOD Bottom
LA-30	18-Aug-04	0.7	mg/l	BOD Bottom
LA-30	16-Feb-06	0.7	mg/l	BOD Bottom
LA-30	29-Nov-00	0.8	mg/L	BOD Bottom
LA-30	6-Jul-01	0.8	mg/L	BOD Bottom
LA-30	10-Mar-02	0.8	mg/L	BOD Bottom
LA-30	4-Oct-02	0.8	mg/L	BOD Bottom
LA-30	13-Nov-02	0.8	mg/L	BOD Bottom
LA-30	7-Aug-03	0.8	mg/L	BOD Bottom
LA-30	17-Mar-04	0.8	mg/L	BOD Bottom
LA-30	13-Apr-06	0.8	mg/l	BOD Bottom
LA-30	12-Apr-07	0.80	mg/l	BOD Bottom
LA-30	20-Mar-08	0.90	mg/l	BOD Bottom
LA-30	31-Jul-02	0.9	mg/L	BOD Bottom
LA-30	19-Nov-03	0.9	mg/L	BOD Bottom
LA-30	14-Apr-04	0.9	mg/L	BOD Bottom
LA-30	12-May-05	0.9	mg/l	BOD Bottom
LA-30	16-Nov-05	0.9	mg/l	BOD Bottom
LA-30	11-May-06	0.9	mg/l	BOD Bottom
LA-30	15-Jun-06	0.9	mg/l	BOD Bottom
LA-30	13-Apr-00	1	mg/L	BOD Bottom
LA-30	19-Apr-01	1	mg/L	BOD Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-30	16-May-02	1	mg/L	BOD Bottom					
LA-30	16-May-07	1.00	mg/l	BOD Bottom					
LA-30	9-Aug-07	1.00	mg/l	BOD Bottom					
LA-30	15-Sep-05	1.2	mg/l	BOD Bottom					
LA-30	18-Jul-07	1.20	mg/l	BOD Bottom					
LA-30	15-May-08	1.30	mg/l	BOD Bottom					
LA-30	20-Jun-02	1.3	mg/L	BOD Bottom					
LA-30	10-Jul-03	1.3	mg/L	BOD Bottom					
LA-30	16-Jun-04	1.3	mg/L	BOD Bottom					
LA-30	13-Oct-05	1.3	mg/l	BOD Bottom					
LA-30	21-Jul-04	1.4	mg/l	BOD Bottom					
LA-30	13-Jul-00	1.5	mg/L	BOD Bottom					
LA-30	4-Dec-03	1.5	mg/L	BOD Bottom					
LA-30	12-May-04	1.6	mg/L	BOD Bottom					
LA-30	9-Jun-05	1.6	mg/l	BOD Bottom					
LA-30	16-Jun-00	1.8	mg/L	BOD Bottom					
LA-30	5-Nov-01	1.8	mg/L	BOD Bottom					
LA-30	7-Jul-05	1.8	mg/l	BOD Bottom					
LA-30	12-Jun-08	2.00	mg/l	BOD Bottom	1.2	2	1.49375	16	2007-2008
LA-30	5-Dec-00	2.4	mg/L	BOD Bottom					
LA-30	10-Sep-03	2.4	mg/L	BOD Bottom					
LA-30	20-Jul-06	2.4	mg/l	BOD Bottom					
LA-30	11-Aug-05	3.8	mg/l	BOD Bottom					
LA-30	10-Dec-01	6.4	mg/L	BOD Bottom					
LA-32B	21-Sep-06	0	mg/l	BOD Bottom					
LA-32B	15-Mar-07	0.00	mg/l	BOD Bottom					
LA-32B	24-Oct-07	0.00	mg/l	BOD Bottom					
LA-32B	25-Feb-00	0.1	mg/L	BOD Bottom					
LA-32B	3-Oct-00	0.1	mg/L	BOD Bottom					
LA-32B	11-Jan-01	0.1	mg/L	BOD Bottom					
LA-32B	25-Jan-01	0.1	mg/L	BOD Bottom					
LA-32B	21-Feb-02	0.1	mg/L	BOD Bottom					
LA-32B	18-Feb-04	0.1	mg/L	BOD Bottom					
LA-32B	17-Jan-02	0.2	mg/L	BOD Bottom					
LA-32B	15-Sep-04	0.2	mg/l	BOD Bottom					
LA-32B	20-Jan-05	0.2	mg/l	BOD Bottom					
LA-32B	15-May-08	0.20	mg/l	BOD Bottom					

Port of Los Angeles - Inner Harbor Water Quality Data

LA-32B	1-May-00	0.3	mg/L	BOD Bottom
LA-32B	27-Mar-01	0.3	mg/L	BOD Bottom
LA-32B	13-Dec-01	0.3	mg/L	BOD Bottom
LA-32B	12-May-05	0.3	mg/l	BOD Bottom
LA-32B	25-Jan-07	0.3	mg/l	BOD Bottom
LA-32B	25-Jan-07	0.30	mg/l	BOD Bottom
LA-32B	17-Jan-08	0.30	mg/l	BOD Bottom
LA-32B	13-Mar-03	0.4	mg/L	BOD Bottom
LA-32B	10-Sep-03	0.4	mg/L	BOD Bottom
LA-32B	10-Nov-04	0.4	mg/l	BOD Bottom
LA-32B	22-Dec-04	0.4	mg/l	BOD Bottom
LA-32B	13-Oct-05	0.4	mg/l	BOD Bottom
LA-32B	30-Aug-00	0.5	mg/L	BOD Bottom
LA-32B	29-Nov-00	0.5	mg/L	BOD Bottom
LA-32B	23-Aug-01	0.5	mg/L	BOD Bottom
LA-32B	29-Aug-02	0.5	mg/L	BOD Bottom
LA-32B	10-Jul-03	0.5	mg/L	BOD Bottom
LA-32B	7-Aug-03	0.5	mg/L	BOD Bottom
LA-32B	4-Dec-03	0.5	mg/L	BOD Bottom
LA-32B	12-Jan-06	0.5	mg/l	BOD Bottom
LA-32B	16-Feb-06	0.5	mg/l	BOD Bottom
LA-32B	13-Apr-06	0.5	mg/l	BOD Bottom
LA-32B	12-Apr-07	0.50	mg/l	BOD Bottom
LA-32B	20-Mar-08	0.50	mg/l	BOD Bottom
LA-32B	15-Feb-01	0.6	mg/L	BOD Bottom
LA-32B	14-Apr-04	0.6	mg/L	BOD Bottom
LA-32B	27-Apr-05	0.6	mg/l	BOD Bottom
LA-32B	7-Jul-05	0.6	mg/l	BOD Bottom
LA-32B	8-Dec-05	0.6	mg/l	BOD Bottom
LA-32B	15-Nov-06	0.6	mg/l	BOD Bottom
LA-32B	15-Nov-07	0.60	mg/l	BOD Bottom
LA-32B	19-Dec-07	0.60	mg/l	BOD Bottom
LA-32B	17-Apr-08	0.60	mg/l	BOD Bottom
LA-32B	7-Feb-07	0.70	mg/l	BOD Bottom
LA-32B	16-May-02	0.7	mg/L	BOD Bottom
LA-32B	4-Oct-02	0.7	mg/L	BOD Bottom
LA-32B	10-Feb-05	0.7	mg/l	BOD Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-32B	10-Mar-05	0.7	mg/l	BOD Bottom
LA-32B	9-Jun-05	0.7	mg/l	BOD Bottom
LA-32B	15-Sep-00	0.8	mg/L	BOD Bottom
LA-32B	5-Dec-00	0.8	mg/L	BOD Bottom
LA-32B	20-Jun-02	0.8	mg/L	BOD Bottom
LA-32B	9-Oct-03	0.8	mg/L	BOD Bottom
LA-32B	21-Jan-04	0.8	mg/L	BOD Bottom
LA-32B	12-May-04	0.8	mg/L	BOD Bottom
LA-32B	17-Aug-06	0.8	mg/l	BOD Bottom
LA-32B	18-Jul-07	0.90	mg/l	BOD Bottom
LA-32B	14-Feb-08	0.90	mg/l	BOD Bottom
LA-32B	16-Nov-05	0.9	mg/l	BOD Bottom
LA-32B	6-Jul-01	1	mg/L	BOD Bottom
LA-32B	18-Jul-01	1	mg/L	BOD Bottom
LA-32B	9-Dec-02	1	mg/L	BOD Bottom
LA-32B	15-Sep-05	1	mg/l	BOD Bottom
LA-32B	16-May-07	1.00	mg/l	BOD Bottom
LA-32B	13-Apr-00	1.1	mg/L	BOD Bottom
LA-32B	10-Mar-02	1.1	mg/L	BOD Bottom
LA-32B	15-Jun-06	1.1	mg/l	BOD Bottom
LA-32B	17-Mar-04	1.2	mg/L	BOD Bottom
LA-32B	21-Jul-04	1.2	mg/l	BOD Bottom
LA-32B	9-Aug-07	1.20	mg/l	BOD Bottom
LA-32B	10-Jan-00	1.3	mg/L	BOD Bottom
LA-32B	5-Nov-01	1.3	mg/L	BOD Bottom
LA-32B	19-Nov-03	1.3	mg/L	BOD Bottom
LA-32B	18-Aug-04	1.3	mg/l	BOD Bottom
LA-32B	10-Dec-01	1.4	mg/L	BOD Bottom
LA-32B	11-May-06	1.4	mg/l	BOD Bottom
LA-32B	20-Jul-06	1.4	mg/l	BOD Bottom
LA-32B	13-Jul-00	1.5	mg/L	BOD Bottom
LA-32B	13-Nov-02	1.5	mg/L	BOD Bottom
LA-32B	16-Jun-04	1.5	mg/L	BOD Bottom
LA-32B	19-Apr-01	1.8	mg/L	BOD Bottom
LA-32B	19-Feb-03	2	mg/L	BOD Bottom
LA-32B	11-Aug-05	2	mg/l	BOD Bottom
LA-32B	16-Jun-00	2.1	mg/L	BOD Bottom

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LA-32B	12-Jun-08	2.90	mg/l	BOD Bottom	1.2	2.9	1.61875	16	2007-2008
LA-33	20-Mar-08	-0.10	mg/l	BOD Bottom					
LA-33	24-Oct-07	0.00	mg/l	BOD Bottom					
LA-33	13-Dec-01	0.1	mg/L	BOD Bottom					
LA-33	18-Feb-04	0.1	mg/L	BOD Bottom					
LA-33	13-Oct-04	0.1	mg/l	BOD Bottom					
LA-33	7-Jul-05	0.1	mg/l	BOD Bottom					
LA-33	16-Nov-05	0.1	mg/l	BOD Bottom					
LA-33	15-Mar-07	0.10	mg/l	BOD Bottom					
LA-33	14-Feb-08	0.10	mg/l	BOD Bottom					
LA-33	13-Sep-01	0.2	mg/L	BOD Bottom					
LA-33	12-Jan-06	0.2	mg/l	BOD Bottom					
LA-33	15-Nov-06	0.2	mg/l	BOD Bottom					
LA-33	18-Jul-07	0.20	mg/l	BOD Bottom					
LA-33	10-Jan-00	0.3	mg/L	BOD Bottom					
LA-33	19-Apr-01	0.3	mg/L	BOD Bottom					
LA-33	4-Oct-02	0.3	mg/L	BOD Bottom					
LA-33	4-Sep-03	0.3	mg/L	BOD Bottom					
LA-33	9-Oct-03	0.3	mg/L	BOD Bottom					
LA-33	10-Feb-05	0.3	mg/l	BOD Bottom					
LA-33	10-Dec-01	0.4	mg/L	BOD Bottom					
LA-33	21-Feb-02	0.4	mg/L	BOD Bottom					
LA-33	10-Sep-03	0.4	mg/L	BOD Bottom					
LA-33	21-Jan-04	0.4	mg/L	BOD Bottom					
LA-33	14-Apr-04	0.4	mg/L	BOD Bottom					
LA-33	10-Nov-04	0.4	mg/l	BOD Bottom					
LA-33	25-Jan-07	0.4	mg/l	BOD Bottom					
LA-33	25-Jan-07	0.40	mg/l	BOD Bottom					
LA-33	25-Feb-00	0.5	mg/L	BOD Bottom					
LA-33	30-Aug-00	0.5	mg/L	BOD Bottom					
LA-33	3-Oct-00	0.5	mg/L	BOD Bottom					
LA-33	11-Jan-01	0.5	mg/L	BOD Bottom					
LA-33	23-Aug-01	0.5	mg/L	BOD Bottom					
LA-33	21-Sep-06	0.5	mg/l	BOD Bottom					
LA-33	7-Feb-07	0.50	mg/l	BOD Bottom					
LA-33	17-Jan-08	0.50	mg/l	BOD Bottom					
LA-33	13-Apr-00	0.6	mg/L	BOD Bottom					

Port of Los Angeles - Inner Harbor Water Quality Data

LA-33	27-Mar-01	0.6	mg/L	BOD Bottom
LA-33	14-Mar-02	0.6	mg/L	BOD Bottom
LA-33	31-Jul-02	0.6	mg/L	BOD Bottom
LA-33	15-Sep-04	0.6	mg/l	BOD Bottom
LA-33	10-Mar-05	0.6	mg/l	BOD Bottom
LA-33	15-Sep-05	0.6	mg/l	BOD Bottom
LA-33	8-Dec-05	0.6	mg/l	BOD Bottom
LA-33	12-Apr-07	0.60	mg/l	BOD Bottom
LA-33	15-May-08	0.60	mg/l	BOD Bottom
LA-33	15-Nov-07	0.70	mg/l	BOD Bottom
LA-33	19-Dec-07	0.70	mg/l	BOD Bottom
LA-33	5-Nov-01	0.7	mg/L	BOD Bottom
LA-33	14-May-03	0.7	mg/L	BOD Bottom
LA-33	12-May-05	0.7	mg/l	BOD Bottom
LA-33	15-Jun-06	0.7	mg/l	BOD Bottom
LA-33	13-Jul-00	0.8	mg/L	BOD Bottom
LA-33	25-Jan-01	0.8	mg/L	BOD Bottom
LA-33	15-Feb-01	0.8	mg/L	BOD Bottom
LA-33	18-Jul-01	0.8	mg/L	BOD Bottom
LA-33	20-Jun-02	0.8	mg/L	BOD Bottom
LA-33	9-Dec-02	0.8	mg/L	BOD Bottom
LA-33	13-Mar-03	0.8	mg/L	BOD Bottom
LA-33	4-Dec-03	0.8	mg/L	BOD Bottom
LA-33	17-Aug-06	0.8	mg/l	BOD Bottom
LA-33	17-Apr-08	0.80	mg/l	BOD Bottom
LA-33	16-May-02	0.9	mg/L	BOD Bottom
LA-33	19-Jun-03	0.9	mg/L	BOD Bottom
LA-33	9-Jun-05	0.9	mg/l	BOD Bottom
LA-33	9-Aug-07	1.00	mg/l	BOD Bottom
LA-33	10-Mar-02	1.1	mg/L	BOD Bottom
LA-33	11-Aug-05	1.1	mg/l	BOD Bottom
LA-33	7-Aug-03	1.2	mg/L	BOD Bottom
LA-33	19-Nov-03	1.2	mg/L	BOD Bottom
LA-33	17-Mar-04	1.2	mg/L	BOD Bottom
LA-33	12-May-04	1.2	mg/L	BOD Bottom
LA-33	27-Apr-05	1.3	mg/l	BOD Bottom
LA-33	13-Oct-05	1.3	mg/l	BOD Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-33	11-May-06	1.3	mg/l	BOD Bottom
LA-33	16-May-07	1.40	mg/l	BOD Bottom
LA-33	6-Jul-01	1.4	mg/L	BOD Bottom
LA-33	16-Jun-04	1.4	mg/L	BOD Bottom
LA-33	20-Jan-05	1.4	mg/l	BOD Bottom
LA-33	20-Jul-06	1.4	mg/l	BOD Bottom
LA-33	5-Dec-00	1.5	mg/L	BOD Bottom
LA-33	29-Aug-02	1.5	mg/L	BOD Bottom
LA-33	10-Jul-03	1.6	mg/L	BOD Bottom
LA-33	13-Apr-06	1.6	mg/l	BOD Bottom
LA-33	19-Dec-02	1.7	mg/L	BOD Bottom
LA-33	29-Nov-00	1.9	mg/L	BOD Bottom
LA-33	16-Jan-03	1.9	mg/L	BOD Bottom
LA-33	19-Feb-03	1.9	mg/L	BOD Bottom
LA-33	18-Aug-04	1.9	mg/l	BOD Bottom
LA-33	16-Feb-06	2	mg/l	BOD Bottom
LA-33	16-Jun-00	2.1	mg/L	BOD Bottom
LA-33	13-Nov-02	2.1	mg/L	BOD Bottom
LA-33	21-Jul-04	2.2	mg/l	BOD Bottom
LA-33	22-Dec-04	2.2	mg/l	BOD Bottom
LA-33	12-Jun-08	2.20	mg/l	BOD Bottom
LA-33	15-Sep-00	2.3	mg/L	BOD Bottom
LA-33	1-May-00	3.2	mg/L	BOD Bottom
LA-35	25-Feb-00	0.1	mg/L	BOD Bottom
LA-35	21-Dec-00	0.1	mg/L	BOD Bottom
LA-35	23-Aug-01	0.1	mg/L	BOD Bottom
LA-35	14-May-03	0.1	mg/L	BOD Bottom
LA-35	19-Nov-03	0.1	mg/L	BOD Bottom
LA-35	10-Mar-05	0.1	mg/l	BOD Bottom
LA-35	21-Feb-02	0.2	mg/L	BOD Bottom
LA-35	19-Jun-03	0.2	mg/L	BOD Bottom
LA-35	10-Sep-03	0.2	mg/L	BOD Bottom
LA-35	21-Jan-04	0.2	mg/L	BOD Bottom
LA-35	13-Oct-04	0.2	mg/l	BOD Bottom
LA-35	21-Sep-06	0.2	mg/l	BOD Bottom
LA-35	3-Oct-00	0.3	mg/L	BOD Bottom
LA-35	19-Apr-01	0.3	mg/L	BOD Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-35	13-Dec-01	0.3	mg/L	BOD Bottom
LA-35	14-Mar-02	0.3	mg/L	BOD Bottom
LA-35	19-Feb-03	0.3	mg/L	BOD Bottom
LA-35	13-Mar-03	0.3	mg/L	BOD Bottom
LA-35	7-Aug-03	0.3	mg/L	BOD Bottom
LA-35	10-Nov-04	0.3	mg/l	BOD Bottom
LA-35	22-Dec-04	0.3	mg/l	BOD Bottom
LA-35	12-Jan-06	0.3	mg/l	BOD Bottom
LA-35	15-Nov-06	0.3	mg/l	BOD Bottom
LA-35	25-Jan-07	0.3	mg/l	BOD Bottom
LA-35	25-Jan-07	0.30	mg/l	BOD Bottom
LA-35	18-Jul-01	0.4	mg/L	BOD Bottom
LA-35	13-Sep-01	0.4	mg/L	BOD Bottom
LA-35	16-May-02	0.4	mg/L	BOD Bottom
LA-35	4-Oct-02	0.4	mg/L	BOD Bottom
LA-35	4-Sep-03	0.4	mg/L	BOD Bottom
LA-35	4-Dec-03	0.4	mg/L	BOD Bottom
LA-35	12-May-04	0.4	mg/L	BOD Bottom
LA-35	7-Jul-05	0.4	mg/l	BOD Bottom
LA-35	7-Feb-07	0.40	mg/l	BOD Bottom
LA-35	15-Mar-07	0.40	mg/l	BOD Bottom
LA-35	17-Jan-08	0.40	mg/l	BOD Bottom
LA-35	14-Feb-08	0.40	mg/l	BOD Bottom
LA-35	15-May-08	0.40	mg/l	BOD Bottom
LA-35	9-Oct-03	0.5	mg/L	BOD Bottom
LA-35	17-Mar-04	0.5	mg/L	BOD Bottom
LA-35	10-Feb-05	0.5	mg/l	BOD Bottom
LA-35	12-Apr-07	0.50	mg/l	BOD Bottom
LA-35	20-Mar-08	0.50	mg/l	BOD Bottom
LA-35	30-Aug-00	0.6	mg/L	BOD Bottom
LA-35	31-Jul-02	0.6	mg/L	BOD Bottom
LA-35	15-Sep-04	0.6	mg/l	BOD Bottom
LA-35	12-May-05	0.6	mg/l	BOD Bottom
LA-35	15-Sep-05	0.6	mg/l	BOD Bottom
LA-35	16-Feb-06	0.6	mg/l	BOD Bottom
LA-35	24-Oct-07	0.60	mg/l	BOD Bottom
LA-35	15-Nov-07	0.70	mg/l	BOD Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-35	27-Mar-01	0.7	mg/L	BOD Bottom
LA-35	18-Feb-04	0.7	mg/L	BOD Bottom
LA-35	8-Dec-05	0.7	mg/l	BOD Bottom
LA-35	13-Apr-06	0.7	mg/l	BOD Bottom
LA-35	15-Jun-06	0.7	mg/l	BOD Bottom
LA-35	17-Aug-06	0.7	mg/l	BOD Bottom
LA-35	15-Feb-01	0.8	mg/L	BOD Bottom
LA-35	29-Aug-02	0.8	mg/L	BOD Bottom
LA-35	18-Jul-07	0.90	mg/l	BOD Bottom
LA-35	17-Apr-08	0.90	mg/l	BOD Bottom
LA-35	29-Nov-00	0.9	mg/L	BOD Bottom
LA-35	5-Nov-01	0.9	mg/L	BOD Bottom
LA-35	16-Nov-05	0.9	mg/l	BOD Bottom
LA-35	13-Apr-00	1	mg/L	BOD Bottom
LA-35	19-Dec-02	1	mg/L	BOD Bottom
LA-35	14-Apr-04	1	mg/L	BOD Bottom
LA-35	21-Jul-04	1	mg/l	BOD Bottom
LA-35	5-Dec-00	1.1	mg/L	BOD Bottom
LA-35	10-Dec-01	1.1	mg/L	BOD Bottom
LA-35	9-Dec-02	1.1	mg/L	BOD Bottom
LA-35	16-Jan-03	1.1	mg/L	BOD Bottom
LA-35	16-Jun-04	1.1	mg/L	BOD Bottom
LA-35	18-Aug-04	1.1	mg/l	BOD Bottom
LA-35	13-Oct-05	1.1	mg/l	BOD Bottom
LA-35	9-Aug-07	1.10	mg/l	BOD Bottom
LA-35	10-Jan-00	1.2	mg/L	BOD Bottom
LA-35	20-Jun-02	1.2	mg/L	BOD Bottom
LA-35	9-Jun-05	1.2	mg/l	BOD Bottom
LA-35	11-May-06	1.2	mg/l	BOD Bottom
LA-35	19-Dec-07	1.20	mg/l	BOD Bottom
LA-35	1-May-00	1.3	mg/L	BOD Bottom
LA-35	25-Jan-01	1.4	mg/L	BOD Bottom
LA-35	20-Jan-05	1.4	mg/l	BOD Bottom
LA-35	11-Aug-05	1.4	mg/l	BOD Bottom
LA-35	20-Jul-06	1.4	mg/l	BOD Bottom
LA-35	10-Mar-02	1.5	mg/L	BOD Bottom
LA-35	16-May-07	1.50	mg/l	BOD Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-35	10-Jul-03	1.9	mg/L	BOD Bottom
LA-35	12-Jun-08	2.00	mg/l	BOD Bottom
LA-35	11-Jan-01	4	mg/L	BOD Bottom
LA-39	10-Mar-05	0	mg/l	BOD Bottom
LA-39	16-Feb-06	0	mg/l	BOD Bottom
LA-39	19-Jun-03	0.1	mg/L	BOD Bottom
LA-39	3-Oct-00	0.2	mg/L	BOD Bottom
LA-39	21-Dec-00	0.2	mg/L	BOD Bottom
LA-39	18-Feb-04	0.2	mg/L	BOD Bottom
LA-39	13-Apr-06	0.2	mg/l	BOD Bottom
LA-39	25-Jan-01	0.3	mg/L	BOD Bottom
LA-39	13-Dec-01	0.3	mg/L	BOD Bottom
LA-39	4-Sep-03	0.3	mg/L	BOD Bottom
LA-39	14-Feb-08	0.30	mg/l	BOD Bottom
LA-39	25-Jan-07	0.4	mg/l	BOD Bottom
LA-39	25-Jan-07	0.40	mg/l	BOD Bottom
LA-39	4-Dec-03	0.5	mg/L	BOD Bottom
LA-39	7-Jul-05	0.5	mg/l	BOD Bottom
LA-39	12-Jan-06	0.5	mg/l	BOD Bottom
LA-39	21-Sep-06	0.5	mg/l	BOD Bottom
LA-39	19-Dec-07	0.50	mg/l	BOD Bottom
LA-39	25-Feb-00	0.6	mg/L	BOD Bottom
LA-39	17-Jan-02	0.6	mg/L	BOD Bottom
LA-39	10-Sep-03	0.6	mg/L	BOD Bottom
LA-39	21-Jan-04	0.6	mg/L	BOD Bottom
LA-39	10-Nov-04	0.6	mg/l	BOD Bottom
LA-39	22-Dec-04	0.6	mg/l	BOD Bottom
LA-39	10-Feb-05	0.6	mg/l	BOD Bottom
LA-39	24-Oct-07	0.60	mg/l	BOD Bottom
LA-39	17-Jan-08	0.60	mg/l	BOD Bottom
LA-39	7-Feb-07	0.70	mg/l	BOD Bottom
LA-39	20-Mar-08	0.70	mg/l	BOD Bottom
LA-39	15-May-08	0.70	mg/l	BOD Bottom
LA-39	4-Oct-02	0.7	mg/L	BOD Bottom
LA-39	9-Oct-03	0.7	mg/L	BOD Bottom
LA-39	12-May-05	0.7	mg/l	BOD Bottom
LA-39	10-Jan-00	0.8	mg/L	BOD Bottom

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LA-39	6-Jul-01	0.8	mg/L	BOD Bottom
LA-39	19-Feb-03	0.8	mg/L	BOD Bottom
LA-39	16-Jun-04	0.8	mg/L	BOD Bottom
LA-39	17-Aug-06	0.8	mg/l	BOD Bottom
LA-39	15-Nov-07	0.90	mg/l	BOD Bottom
LA-39	23-Aug-01	0.9	mg/L	BOD Bottom
LA-39	13-Sep-01	0.9	mg/L	BOD Bottom
LA-39	14-Mar-02	0.9	mg/L	BOD Bottom
LA-39	20-Jun-02	0.9	mg/L	BOD Bottom
LA-39	29-Aug-02	0.9	mg/L	BOD Bottom
LA-39	13-Mar-03	0.9	mg/L	BOD Bottom
LA-39	15-Sep-04	0.9	mg/l	BOD Bottom
LA-39	30-Aug-00	1	mg/L	BOD Bottom
LA-39	10-Dec-01	1	mg/L	BOD Bottom
LA-39	21-Feb-02	1	mg/L	BOD Bottom
LA-39	14-May-03	1	mg/L	BOD Bottom
LA-39	7-Aug-03	1	mg/L	BOD Bottom
LA-39	19-Nov-03	1	mg/L	BOD Bottom
LA-39	15-Nov-06	1	mg/l	BOD Bottom
LA-39	15-Feb-01	1.1	mg/L	BOD Bottom
LA-39	19-Apr-01	1.1	mg/L	BOD Bottom
LA-39	5-Nov-01	1.1	mg/L	BOD Bottom
LA-39	16-Nov-05	1.1	mg/l	BOD Bottom
LA-39	27-Mar-01	1.2	mg/L	BOD Bottom
LA-39	16-May-02	1.2	mg/L	BOD Bottom
LA-39	31-Jul-02	1.2	mg/L	BOD Bottom
LA-39	16-Jan-03	1.2	mg/L	BOD Bottom
LA-39	14-Apr-04	1.2	mg/L	BOD Bottom
LA-39	18-Jul-07	1.30	mg/l	BOD Bottom
LA-39	9-Aug-07	1.30	mg/l	BOD Bottom
LA-39	1-May-00	1.3	mg/L	BOD Bottom
LA-39	9-Jun-05	1.3	mg/l	BOD Bottom
LA-39	15-Sep-05	1.3	mg/l	BOD Bottom
LA-39	9-Dec-02	1.4	mg/L	BOD Bottom
LA-39	11-May-06	1.5	mg/l	BOD Bottom
LA-39	18-Jul-01	1.6	mg/L	BOD Bottom
LA-39	20-Jan-05	1.6	mg/l	BOD Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-39	19-Dec-02	1.7	mg/L	BOD Bottom
LA-39	10-Jul-03	1.7	mg/L	BOD Bottom
LA-39	20-Jul-06	1.7	mg/l	BOD Bottom
LA-39	12-Apr-07	1.80	mg/l	BOD Bottom
LA-39	13-Jul-00	1.8	mg/L	BOD Bottom
LA-39	21-Jul-04	2	mg/l	BOD Bottom
LA-39	16-May-07	2.10	mg/l	BOD Bottom
LA-39	17-Apr-08	2.10	mg/l	BOD Bottom
LA-39	17-Mar-04	2.1	mg/L	BOD Bottom
LA-39	18-Aug-04	2.2	mg/l	BOD Bottom
LA-39	12-May-04	2.3	mg/L	BOD Bottom
LA-39	11-Aug-05	2.3	mg/l	BOD Bottom
LA-39	15-Sep-00	2.5	mg/L	BOD Bottom
LA-39	13-Nov-02	2.5	mg/L	BOD Bottom
LA-39	27-Apr-05	2.5	mg/l	BOD Bottom
LA-39	8-Dec-05	2.5	mg/l	BOD Bottom
LA-39	13-Oct-05	2.6	mg/l	BOD Bottom
LA-39	15-Jun-06	2.6	mg/l	BOD Bottom
LA-39	5-Dec-00	2.7	mg/L	BOD Bottom
LA-39	12-Jun-08	2.80	mg/l	BOD Bottom
LA-39	13-Apr-00	2.8	mg/L	BOD Bottom
LA-39	16-Jun-00	2.8	mg/L	BOD Bottom
LA-39	29-Nov-00	3.3	mg/L	BOD Bottom
LA-39	10-Mar-02	3.7	mg/L	BOD Bottom
LA-39	15-Mar-07	5.00	mg/l	BOD Bottom
LA-39	11-Jan-01	5.4	mg/L	BOD Bottom
LA-41	25-Jan-07	0.00	mg/l	BOD Bottom
LA-41	25-Jan-07	0	mg/l	BOD Bottom
LA-41	7-Feb-07	0.00	mg/l	BOD Bottom
LA-41	15-Mar-07	0.00	mg/l	BOD Bottom
LA-41	16-May-07	0.00	mg/l	BOD Bottom
LA-41	14-Feb-08	0.00	mg/l	BOD Bottom
LA-41	11-Jan-01	0.1	mg/L	BOD Bottom
LA-41	4-Oct-02	0.1	mg/L	BOD Bottom
LA-41	16-Feb-06	0.1	mg/l	BOD Bottom
LA-41	10-Jan-00	0.2	mg/L	BOD Bottom
LA-41	25-Feb-00	0.2	mg/L	BOD Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-41	30-Aug-00	0.2	mg/L	BOD Bottom
LA-41	3-Oct-00	0.2	mg/L	BOD Bottom
LA-41	15-Feb-01	0.2	mg/L	BOD Bottom
LA-41	27-Mar-01	0.2	mg/L	BOD Bottom
LA-41	10-Dec-01	0.2	mg/L	BOD Bottom
LA-41	17-Jan-02	0.2	mg/L	BOD Bottom
LA-41	13-Mar-03	0.2	mg/L	BOD Bottom
LA-41	4-Dec-03	0.2	mg/L	BOD Bottom
LA-41	20-Jan-05	0.2	mg/l	BOD Bottom
LA-41	21-Sep-06	0.2	mg/l	BOD Bottom
LA-41	25-Jan-01	0.3	mg/L	BOD Bottom
LA-41	6-Jul-01	0.3	mg/L	BOD Bottom
LA-41	13-Sep-01	0.3	mg/L	BOD Bottom
LA-41	29-Aug-02	0.3	mg/L	BOD Bottom
LA-41	9-Dec-02	0.3	mg/L	BOD Bottom
LA-41	19-Dec-02	0.3	mg/L	BOD Bottom
LA-41	7-Aug-03	0.3	mg/L	BOD Bottom
LA-41	4-Sep-03	0.3	mg/L	BOD Bottom
LA-41	9-Oct-03	0.3	mg/L	BOD Bottom
LA-41	19-Nov-03	0.3	mg/L	BOD Bottom
LA-41	21-Jan-04	0.3	mg/L	BOD Bottom
LA-41	10-Nov-04	0.3	mg/l	BOD Bottom
LA-41	12-Jan-06	0.3	mg/l	BOD Bottom
LA-41	24-Oct-07	0.30	mg/l	BOD Bottom
LA-41	1-May-00	0.4	mg/L	BOD Bottom
LA-41	5-Dec-00	0.4	mg/L	BOD Bottom
LA-41	21-Feb-02	0.4	mg/L	BOD Bottom
LA-41	22-Dec-04	0.4	mg/l	BOD Bottom
LA-41	10-Feb-05	0.4	mg/l	BOD Bottom
LA-41	10-Mar-05	0.4	mg/l	BOD Bottom
LA-41	16-Nov-05	0.4	mg/l	BOD Bottom
LA-41	15-Nov-06	0.4	mg/l	BOD Bottom
LA-41	18-Jul-01	0.5	mg/L	BOD Bottom
LA-41	13-Dec-01	0.5	mg/L	BOD Bottom
LA-41	15-Sep-04	0.5	mg/l	BOD Bottom
LA-41	13-Jul-00	0.6	mg/L	BOD Bottom
LA-41	23-Aug-01	0.6	mg/L	BOD Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-41	10-Jul-03	0.6	mg/L	BOD Bottom
LA-41	17-Mar-04	0.6	mg/L	BOD Bottom
LA-41	13-Apr-06	0.6	mg/l	BOD Bottom
LA-41	12-Apr-07	0.60	mg/l	BOD Bottom
LA-41	9-Aug-07	0.60	mg/l	BOD Bottom
LA-41	29-Nov-00	0.7	mg/L	BOD Bottom
LA-41	16-May-02	0.7	mg/L	BOD Bottom
LA-41	13-Nov-02	0.7	mg/L	BOD Bottom
LA-41	14-May-03	0.7	mg/L	BOD Bottom
LA-41	8-Dec-05	0.7	mg/l	BOD Bottom
LA-41	17-Aug-06	0.7	mg/l	BOD Bottom
LA-41	31-Jul-02	0.8	mg/L	BOD Bottom
LA-41	18-Aug-04	0.8	mg/l	BOD Bottom
LA-41	17-Apr-08	0.90	mg/l	BOD Bottom
LA-41	14-Mar-02	0.9	mg/L	BOD Bottom
LA-41	13-Apr-00	1	mg/L	BOD Bottom
LA-41	14-Apr-04	1	mg/L	BOD Bottom
LA-41	15-May-08	1.00	mg/l	BOD Bottom
LA-41	12-Jun-08	1.00	mg/l	BOD Bottom
LA-41	16-Jun-04	1.1	mg/L	BOD Bottom
LA-41	20-Jul-06	1.1	mg/l	BOD Bottom
LA-41	18-Jul-07	1.10	mg/l	BOD Bottom
LA-41	19-Dec-07	1.10	mg/l	BOD Bottom
LA-41	15-Jun-06	1.2	mg/l	BOD Bottom
LA-41	5-Nov-01	1.3	mg/L	BOD Bottom
LA-41	20-Jun-02	1.4	mg/L	BOD Bottom
LA-41	12-May-04	1.4	mg/L	BOD Bottom
LA-41	15-Sep-00	1.5	mg/L	BOD Bottom
LA-41	15-Sep-00	1.5	mg/L	BOD Bottom
LA-41	15-Sep-05	1.5	mg/l	BOD Bottom
LA-41	10-Sep-03	1.9	mg/L	BOD Bottom
LA-41	11-May-06	1.9	mg/l	BOD Bottom
LA-41	16-Jan-03	2	mg/L	BOD Bottom
LA-41	21-Jul-04	2.1	mg/l	BOD Bottom
LA-41	12-May-05	2.2	mg/l	BOD Bottom
LA-41	11-Aug-05	2.4	mg/l	BOD Bottom
LA-41	13-Oct-05	2.4	mg/l	BOD Bottom

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LA-41	9-Jun-05	2.5	mg/l	BOD Bottom
LA-41	16-Jun-00	3.6	mg/L	BOD Bottom
LA-41	7-Jul-05	3.8	mg/l	BOD Bottom
LA-41	10-Mar-02	5	mg/L	BOD Bottom
LA-41	15-Nov-07		mg/l	BOD Bottom
LA-41	17-Jan-08		mg/l	BOD Bottom
LA-41	20-Mar-08		mg/l	BOD Bottom
LA-44	10-Mar-05	0	mg/l	BOD Bottom
LA-44	27-Apr-05	0	mg/l	BOD Bottom
LA-44	7-Feb-07	0.00	mg/l	BOD Bottom
LA-44	16-May-07	0.00	mg/l	BOD Bottom
LA-44	25-Feb-00	0.1	mg/L	BOD Bottom
LA-44	3-Oct-00	0.1	mg/L	BOD Bottom
LA-44	25-Jan-01	0.1	mg/L	BOD Bottom
LA-44	13-Dec-01	0.1	mg/L	BOD Bottom
LA-44	16-May-02	0.1	mg/L	BOD Bottom
LA-44	31-Jul-02	0.1	mg/L	BOD Bottom
LA-44	4-Oct-02	0.1	mg/L	BOD Bottom
LA-44	13-Mar-03	0.1	mg/L	BOD Bottom
LA-44	4-Dec-03	0.1	mg/L	BOD Bottom
LA-44	22-Dec-04	0.1	mg/l	BOD Bottom
LA-44	9-Aug-07	0.10	mg/l	BOD Bottom
LA-44	21-Feb-02	0.2	mg/L	BOD Bottom
LA-44	4-Sep-03	0.2	mg/L	BOD Bottom
LA-44	10-Sep-03	0.2	mg/L	BOD Bottom
LA-44	25-Feb-04	0.2	mg/L	BOD Bottom
LA-44	20-Jan-05	0.2	mg/l	BOD Bottom
LA-44	12-Jan-06	0.2	mg/l	BOD Bottom
LA-44	25-Jan-07	0.2	mg/l	BOD Bottom
LA-44	25-Jan-07	0.20	mg/l	BOD Bottom
LA-44	1-May-00	0.3	mg/L	BOD Bottom
LA-44	21-Dec-00	0.3	mg/L	BOD Bottom
LA-44	15-Feb-01	0.3	mg/L	BOD Bottom
LA-44	23-Aug-01	0.3	mg/L	BOD Bottom
LA-44	17-Jan-02	0.3	mg/L	BOD Bottom
LA-44	19-Feb-03	0.3	mg/L	BOD Bottom
LA-44	14-May-03	0.3	mg/L	BOD Bottom

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LA-44	13-Apr-06	0.3	mg/l	BOD Bottom
LA-44	30-Aug-00	0.4	mg/L	BOD Bottom
LA-44	29-Aug-02	0.4	mg/L	BOD Bottom
LA-44	9-Dec-02	0.4	mg/L	BOD Bottom
LA-44	7-Aug-03	0.4	mg/L	BOD Bottom
LA-44	10-Nov-04	0.4	mg/l	BOD Bottom
LA-44	16-Nov-05	0.4	mg/l	BOD Bottom
LA-44	15-Mar-07	0.40	mg/l	BOD Bottom
LA-44	15-Nov-07	0.40	mg/l	BOD Bottom
LA-44	17-Jan-08	0.40	mg/l	BOD Bottom
LA-44	14-Feb-08	0.40	mg/l	BOD Bottom
LA-44	13-Sep-01	0.5	mg/L	BOD Bottom
LA-44	10-Dec-01	0.5	mg/L	BOD Bottom
LA-44	14-Mar-02	0.5	mg/L	BOD Bottom
LA-44	19-Jun-03	0.5	mg/L	BOD Bottom
LA-44	19-Nov-03	0.5	mg/L	BOD Bottom
LA-44	16-Jun-04	0.5	mg/L	BOD Bottom
LA-44	10-Feb-05	0.5	mg/l	BOD Bottom
LA-44	12-Apr-07	0.50	mg/l	BOD Bottom
LA-44	20-Mar-08	0.50	mg/l	BOD Bottom
LA-44	5-Dec-00	0.6	mg/L	BOD Bottom
LA-44	15-Sep-04	0.6	mg/l	BOD Bottom
LA-44	12-May-05	0.6	mg/l	BOD Bottom
LA-44	8-Dec-05	0.6	mg/l	BOD Bottom
LA-44	21-Sep-06	0.6	mg/l	BOD Bottom
LA-44	15-Nov-06	0.6	mg/l	BOD Bottom
LA-44	24-Oct-07	0.60	mg/l	BOD Bottom
LA-44	10-Jan-00	0.7	mg/L	BOD Bottom
LA-44	18-Jul-01	0.7	mg/L	BOD Bottom
LA-44	9-Oct-03	0.7	mg/L	BOD Bottom
LA-44	21-Jan-04	0.7	mg/L	BOD Bottom
LA-44	17-Mar-04	0.7	mg/L	BOD Bottom
LA-44	27-Mar-01	0.8	mg/L	BOD Bottom
LA-44	19-Apr-01	0.8	mg/L	BOD Bottom
LA-44	18-Jul-07	0.80	mg/l	BOD Bottom
LA-44	17-Apr-08	0.80	mg/l	BOD Bottom
LA-44	19-Dec-07	0.90	mg/l	BOD Bottom

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LA-44	20-Jun-02	0.9	mg/L	BOD Bottom
LA-44	17-Aug-06	1	mg/l	BOD Bottom
LA-44	10-Mar-02	1.1	mg/L	BOD Bottom
LA-44	14-Apr-04	1.1	mg/L	BOD Bottom
LA-44	12-May-04	1.1	mg/L	BOD Bottom
LA-44	16-Feb-06	1.1	mg/l	BOD Bottom
LA-44	15-Jun-06	1.1	mg/l	BOD Bottom
LA-44	12-Jun-08	1.10	mg/l	BOD Bottom
LA-44	13-Nov-02	1.2	mg/L	BOD Bottom
LA-44	15-May-08	1.20	mg/l	BOD Bottom
LA-44	6-Jul-01	1.3	mg/L	BOD Bottom
LA-44	5-Nov-01	1.3	mg/L	BOD Bottom
LA-44	18-Aug-04	1.3	mg/l	BOD Bottom
LA-44	11-Aug-05	1.3	mg/l	BOD Bottom
LA-44	16-Jan-03	1.4	mg/L	BOD Bottom
LA-44	21-Jul-04	1.4	mg/l	BOD Bottom
LA-44	13-Jul-00	1.5	mg/L	BOD Bottom
LA-44	7-Jul-05	1.5	mg/l	BOD Bottom
LA-44	9-Jun-05	1.7	mg/l	BOD Bottom
LA-44	13-Oct-05	1.7	mg/l	BOD Bottom
LA-44	15-Sep-05	1.8	mg/l	BOD Bottom
LA-44	11-May-06	1.8	mg/l	BOD Bottom
LA-44	10-Jul-03	2.2	mg/L	BOD Bottom
LA-44	16-Jun-00	2.3	mg/L	BOD Bottom
LA-46	17-Jan-08	-0.10	mg/l	BOD Bottom
LA-46	22-Dec-04	0	mg/l	BOD Bottom
LA-46	15-Mar-07	0.00	mg/l	BOD Bottom
LA-46	11-Jan-01	0.1	mg/L	BOD Bottom
LA-46	6-Jul-01	0.1	mg/L	BOD Bottom
LA-46	23-Aug-01	0.1	mg/L	BOD Bottom
LA-46	16-May-02	0.1	mg/L	BOD Bottom
LA-46	4-Oct-02	0.1	mg/L	BOD Bottom
LA-46	9-Oct-03	0.1	mg/L	BOD Bottom
LA-46	10-Feb-05	0.1	mg/l	BOD Bottom
LA-46	10-Mar-05	0.1	mg/l	BOD Bottom
LA-46	27-Apr-05	0.1	mg/l	BOD Bottom
LA-46	15-Nov-07	0.10	mg/l	BOD Bottom

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LA-46	3-Oct-00	0.2	mg/L	BOD Bottom
LA-46	13-Sep-01	0.2	mg/L	BOD Bottom
LA-46	10-Dec-01	0.2	mg/L	BOD Bottom
LA-46	9-Dec-02	0.2	mg/L	BOD Bottom
LA-46	10-Nov-04	0.2	mg/l	BOD Bottom
LA-46	7-Feb-07	0.20	mg/l	BOD Bottom
LA-46	25-Feb-00	0.3	mg/L	BOD Bottom
LA-46	1-May-00	0.3	mg/L	BOD Bottom
LA-46	29-Nov-00	0.3	mg/L	BOD Bottom
LA-46	25-Jan-01	0.3	mg/L	BOD Bottom
LA-46	21-Feb-02	0.3	mg/L	BOD Bottom
LA-46	13-Mar-03	0.3	mg/L	BOD Bottom
LA-46	10-Sep-03	0.3	mg/L	BOD Bottom
LA-46	25-Feb-04	0.3	mg/L	BOD Bottom
LA-46	17-Mar-04	0.3	mg/L	BOD Bottom
LA-46	16-Feb-06	0.3	mg/l	BOD Bottom
LA-46	17-Aug-06	0.3	mg/l	BOD Bottom
LA-46	21-Sep-06	0.3	mg/l	BOD Bottom
LA-46	25-Jan-07	0.3	mg/l	BOD Bottom
LA-46	25-Jan-07	0.30	mg/l	BOD Bottom
LA-46	24-Oct-07	0.30	mg/l	BOD Bottom
LA-46	10-Jan-00	0.4	mg/L	BOD Bottom
LA-46	15-Feb-01	0.4	mg/L	BOD Bottom
LA-46	27-Mar-01	0.4	mg/L	BOD Bottom
LA-46	15-Sep-04	0.4	mg/l	BOD Bottom
LA-46	20-Jan-05	0.4	mg/l	BOD Bottom
LA-46	12-Jan-06	0.4	mg/l	BOD Bottom
LA-46	15-Nov-06	0.4	mg/l	BOD Bottom
LA-46	19-Dec-07	0.40	mg/l	BOD Bottom
LA-46	14-Feb-08	0.40	mg/l	BOD Bottom
LA-46	13-Apr-00	0.5	mg/L	BOD Bottom
LA-46	13-Dec-01	0.5	mg/L	BOD Bottom
LA-46	19-Nov-03	0.5	mg/L	BOD Bottom
LA-46	12-May-04	0.5	mg/L	BOD Bottom
LA-46	16-Nov-05	0.5	mg/l	BOD Bottom
LA-46	16-May-07	0.50	mg/l	BOD Bottom
LA-46	9-Aug-07	0.50	mg/l	BOD Bottom

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LA-46	18-Jul-01	0.6	mg/L	BOD Bottom
LA-46	10-Mar-02	0.6	mg/L	BOD Bottom
LA-46	19-Jun-03	0.6	mg/L	BOD Bottom
LA-46	4-Dec-03	0.6	mg/L	BOD Bottom
LA-46	21-Jan-04	0.6	mg/L	BOD Bottom
LA-46	12-Apr-07	0.60	mg/l	BOD Bottom
LA-46	17-Apr-08	0.60	mg/l	BOD Bottom
LA-46	14-Mar-02	0.7	mg/L	BOD Bottom
LA-46	19-Feb-03	0.7	mg/L	BOD Bottom
LA-46	4-Sep-03	0.7	mg/L	BOD Bottom
LA-46	13-Apr-06	0.7	mg/l	BOD Bottom
LA-46	11-May-06	0.7	mg/l	BOD Bottom
LA-46	19-Dec-02	0.8	mg/L	BOD Bottom
LA-46	7-Aug-03	0.8	mg/L	BOD Bottom
LA-46	12-May-05	0.8	mg/l	BOD Bottom
LA-46	20-Mar-08	0.90	mg/l	BOD Bottom
LA-46	13-Nov-02	0.9	mg/L	BOD Bottom
LA-46	13-Jul-00	1	mg/L	BOD Bottom
LA-46	5-Dec-00	1	mg/L	BOD Bottom
LA-46	29-Aug-02	1	mg/L	BOD Bottom
LA-46	14-Apr-04	1	mg/L	BOD Bottom
LA-46	21-Jul-04	1	mg/l	BOD Bottom
LA-46	11-Aug-05	1	mg/l	BOD Bottom
LA-46	15-Jun-06	1	mg/l	BOD Bottom
LA-46	31-Jul-02	1.1	mg/L	BOD Bottom
LA-46	8-Dec-05	1.1	mg/l	BOD Bottom
LA-46	18-Jul-07	1.10	mg/l	BOD Bottom
LA-46	15-May-08	1.10	mg/l	BOD Bottom
LA-46	12-Jun-08	1.10	mg/l	BOD Bottom
LA-46	16-Jun-04	1.2	mg/L	BOD Bottom
LA-46	18-Aug-04	1.2	mg/l	BOD Bottom
LA-46	13-Oct-05	1.3	mg/l	BOD Bottom
LA-46	16-Jan-03	1.5	mg/L	BOD Bottom
LA-46	9-Jun-05	1.5	mg/l	BOD Bottom
LA-46	7-Jul-05	1.5	mg/l	BOD Bottom
LA-46	20-Jun-02	1.6	mg/L	BOD Bottom
LA-46	20-Jul-06	1.7	mg/l	BOD Bottom

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LA-46	15-Sep-05	1.8	mg/l	BOD Bottom
LA-46	16-Jun-00	2	mg/L	BOD Bottom
LA-46	10-Jul-03	2.1	mg/L	BOD Bottom
LA-47	7-Feb-07	0.00	mg/l	BOD Bottom
LA-47	10-Jan-00	0.1	mg/L	BOD Bottom
LA-47	21-Feb-02	0.1	mg/L	BOD Bottom
LA-47	14-Mar-02	0.1	mg/L	BOD Bottom
LA-47	25-Jan-07	0.1	mg/l	BOD Bottom
LA-47	25-Jan-07	0.10	mg/l	BOD Bottom
LA-47	1-May-00	0.2	mg/L	BOD Bottom
LA-47	15-Sep-00	0.2	mg/L	BOD Bottom
LA-47	11-Jan-01	0.2	mg/L	BOD Bottom
LA-47	17-Jan-02	0.2	mg/L	BOD Bottom
LA-47	14-May-03	0.2	mg/L	BOD Bottom
LA-47	19-Jun-03	0.2	mg/L	BOD Bottom
LA-47	4-Dec-03	0.2	mg/L	BOD Bottom
LA-47	24-Oct-07	0.20	mg/l	BOD Bottom
LA-47	13-Dec-01	0.3	mg/L	BOD Bottom
LA-47	4-Oct-02	0.3	mg/L	BOD Bottom
LA-47	25-Feb-04	0.3	mg/L	BOD Bottom
LA-47	19-Dec-07	0.30	mg/l	BOD Bottom
LA-47	17-Apr-08	0.30	mg/l	BOD Bottom
LA-47	13-Apr-00	0.4	mg/L	BOD Bottom
LA-47	25-Jan-01	0.4	mg/L	BOD Bottom
LA-47	13-Mar-03	0.4	mg/L	BOD Bottom
LA-47	13-Oct-04	0.4	mg/l	BOD Bottom
LA-47	8-Dec-05	0.4	mg/l	BOD Bottom
LA-47	12-Apr-07	0.40	mg/l	BOD Bottom
LA-47	15-Nov-07	0.40	mg/l	BOD Bottom
LA-47	29-Nov-00	0.5	mg/L	BOD Bottom
LA-47	10-Nov-04	0.5	mg/l	BOD Bottom
LA-47	20-Jan-05	0.5	mg/l	BOD Bottom
LA-47	10-Feb-05	0.5	mg/l	BOD Bottom
LA-47	16-Feb-06	0.5	mg/l	BOD Bottom
LA-47	15-Mar-07	0.50	mg/l	BOD Bottom
LA-47	17-Jan-08	0.50	mg/l	BOD Bottom
LA-47	30-Aug-00	0.6	mg/L	BOD Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-47	10-Dec-01	0.6	mg/L	BOD Bottom
LA-47	16-May-02	0.6	mg/L	BOD Bottom
LA-47	31-Jul-02	0.6	mg/L	BOD Bottom
LA-47	9-Dec-02	0.6	mg/L	BOD Bottom
LA-47	7-Aug-03	0.6	mg/L	BOD Bottom
LA-47	15-Sep-04	0.6	mg/l	BOD Bottom
LA-47	27-Apr-05	0.6	mg/l	BOD Bottom
LA-47	21-Sep-06	0.6	mg/l	BOD Bottom
LA-47	16-May-07	0.60	mg/l	BOD Bottom
LA-47	14-Feb-08	0.60	mg/l	BOD Bottom
LA-47	9-Aug-07	0.70	mg/l	BOD Bottom
LA-47	20-Mar-08	0.70	mg/l	BOD Bottom
LA-47	5-Dec-00	0.7	mg/L	BOD Bottom
LA-47	15-Feb-01	0.7	mg/L	BOD Bottom
LA-47	27-Mar-01	0.7	mg/L	BOD Bottom
LA-47	19-Feb-03	0.7	mg/L	BOD Bottom
LA-47	9-Oct-03	0.7	mg/L	BOD Bottom
LA-47	21-Jan-04	0.7	mg/L	BOD Bottom
LA-47	17-Mar-04	0.7	mg/L	BOD Bottom
LA-47	16-Nov-05	0.7	mg/l	BOD Bottom
LA-47	12-Jan-06	0.7	mg/l	BOD Bottom
LA-47	15-Jun-06	0.7	mg/l	BOD Bottom
LA-47	19-Apr-01	0.8	mg/L	BOD Bottom
LA-47	18-Jul-01	0.8	mg/L	BOD Bottom
LA-47	13-Apr-06	0.8	mg/l	BOD Bottom
LA-47	23-Aug-01	0.9	mg/L	BOD Bottom
LA-47	10-Mar-02	0.9	mg/L	BOD Bottom
LA-47	10-Mar-05	0.9	mg/l	BOD Bottom
LA-47	19-Nov-03	1	mg/L	BOD Bottom
LA-47	12-May-05	1	mg/l	BOD Bottom
LA-47	29-Aug-02	1.1	mg/L	BOD Bottom
LA-47	15-Nov-06	1.1	mg/l	BOD Bottom
LA-47	18-Jul-07	1.10	mg/l	BOD Bottom
LA-47	5-Nov-01	1.2	mg/L	BOD Bottom
LA-47	10-Sep-03	1.2	mg/L	BOD Bottom
LA-47	17-Aug-06	1.2	mg/l	BOD Bottom
LA-47	6-Jul-01	1.3	mg/L	BOD Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-47	12-Jun-08	1.40	mg/l	BOD Bottom
LA-47	16-Jun-04	1.4	mg/L	BOD Bottom
LA-47	13-Jul-00	1.5	mg/L	BOD Bottom
LA-47	20-Jun-02	1.5	mg/L	BOD Bottom
LA-47	18-Aug-04	1.5	mg/l	BOD Bottom
LA-47	15-May-08	1.50	mg/l	BOD Bottom
LA-47	10-Jul-03	1.6	mg/L	BOD Bottom
LA-47	20-Jul-06	1.6	mg/l	BOD Bottom
LA-47	12-May-04	1.7	mg/L	BOD Bottom
LA-47	13-Nov-02	2	mg/L	BOD Bottom
LA-47	21-Jul-04	2	mg/l	BOD Bottom
LA-47	7-Jul-05	2.1	mg/l	BOD Bottom
LA-47	15-Sep-05	2.1	mg/l	BOD Bottom
LA-47	14-Apr-04	2.2	mg/L	BOD Bottom
LA-47	13-Oct-05	2.6	mg/l	BOD Bottom
LA-47	9-Jun-05	3	mg/l	BOD Bottom
LA-47	11-Aug-05	3.1	mg/l	BOD Bottom
LA-47	11-May-06	3.2	mg/l	BOD Bottom
LA-47	16-Jun-00	3.6	mg/L	BOD Bottom
LA-47	16-Jan-03	4	mg/L	BOD Bottom
LA-30	10-Mar-05	0	mg/l	BOD Surface
LA-30	25-Jan-07	0.00	mg/l	BOD Surface
LA-30	25-Jan-07	0	mg/l	BOD Surface
LA-30	1-May-00	0.1	mg/L	BOD Surface
LA-30	9-Dec-02	0.1	mg/L	BOD Surface
LA-30	19-Jun-03	0.1	mg/L	BOD Surface
LA-30	7-Aug-03	0.1	mg/L	BOD Surface
LA-30	23-Aug-01	0.2	mg/L	BOD Surface
LA-30	10-Dec-01	0.2	mg/L	BOD Surface
LA-30	13-Dec-01	0.2	mg/L	BOD Surface
LA-30	10-Mar-02	0.2	mg/L	BOD Surface
LA-30	19-Dec-02	0.2	mg/L	BOD Surface
LA-30	21-Jan-04	0.2	mg/L	BOD Surface
LA-30	10-Nov-04	0.2	mg/l	BOD Surface
LA-30	20-Jan-05	0.2	mg/l	BOD Surface
LA-30	10-Feb-05	0.2	mg/l	BOD Surface
LA-30	15-Mar-07	0.20	mg/l	BOD Surface

Port of Los Angeles - Inner Harbor Water Quality Data

LA-30	10-Jan-00	0.3	mg/L	BOD Surface
LA-30	13-Sep-01	0.3	mg/L	BOD Surface
LA-30	14-Mar-02	0.3	mg/L	BOD Surface
LA-30	29-Aug-02	0.3	mg/L	BOD Surface
LA-30	11-Jan-01	0.4	mg/L	BOD Surface
LA-30	15-Feb-01	0.4	mg/L	BOD Surface
LA-30	9-Oct-03	0.4	mg/L	BOD Surface
LA-30	17-Mar-04	0.4	mg/L	BOD Surface
LA-30	22-Dec-04	0.4	mg/l	BOD Surface
LA-30	24-Oct-07	0.40	mg/l	BOD Surface
LA-30	29-Nov-00	0.5	mg/L	BOD Surface
LA-30	17-Jan-02	0.5	mg/L	BOD Surface
LA-30	21-Feb-02	0.5	mg/L	BOD Surface
LA-30	16-May-02	0.5	mg/L	BOD Surface
LA-30	13-Mar-03	0.5	mg/L	BOD Surface
LA-30	16-Nov-05	0.5	mg/l	BOD Surface
LA-30	8-Dec-05	0.5	mg/l	BOD Surface
LA-30	12-Jan-06	0.5	mg/l	BOD Surface
LA-30	15-Nov-06	0.5	mg/l	BOD Surface
LA-30	14-Feb-08	0.50	mg/l	BOD Surface
LA-30	25-Feb-00	0.6	mg/L	BOD Surface
LA-30	25-Jan-01	0.6	mg/L	BOD Surface
LA-30	27-Mar-01	0.6	mg/L	BOD Surface
LA-30	6-Jul-01	0.6	mg/L	BOD Surface
LA-30	13-Nov-02	0.6	mg/L	BOD Surface
LA-30	4-Sep-03	0.6	mg/L	BOD Surface
LA-30	12-Apr-07	0.60	mg/l	BOD Surface
LA-30	17-Apr-08	0.60	mg/l	BOD Surface
LA-30	7-Feb-07	0.70	mg/l	BOD Surface
LA-30	20-Mar-08	0.70	mg/l	BOD Surface
LA-30	13-Apr-00	0.7	mg/L	BOD Surface
LA-30	15-Sep-00	0.7	mg/L	BOD Surface
LA-30	19-Apr-01	0.7	mg/L	BOD Surface
LA-30	5-Dec-00	0.8	mg/L	BOD Surface
LA-30	5-Nov-01	0.8	mg/L	BOD Surface
LA-30	14-May-03	0.8	mg/L	BOD Surface
LA-30	19-Nov-03	0.8	mg/L	BOD Surface

Port of Los Angeles - Inner Harbor Water Quality Data

LA-30	12-May-05	0.8	mg/l	BOD Surface					
LA-30	13-Apr-06	0.8	mg/l	BOD Surface					
LA-30	18-Jul-07	0.80	mg/l	BOD Surface					
LA-30	19-Feb-03	0.9	mg/L	BOD Surface					
LA-30	14-Apr-04	0.9	mg/L	BOD Surface					
LA-30	18-Aug-04	0.9	mg/l	BOD Surface					
LA-30	13-Oct-05	0.9	mg/l	BOD Surface					
LA-30	16-Feb-06	0.9	mg/l	BOD Surface					
LA-30	20-Jun-02	1	mg/L	BOD Surface					
LA-30	9-Aug-07	1.00	mg/l	BOD Surface					
LA-30	15-Nov-07	1.00	mg/l	BOD Surface					
LA-30	13-Jul-00	1.1	mg/L	BOD Surface					
LA-30	30-Aug-00	1.1	mg/L	BOD Surface					
LA-30	31-Jul-02	1.1	mg/L	BOD Surface					
LA-30	15-Sep-04	1.1	mg/l	BOD Surface					
LA-30	27-Apr-05	1.1	mg/l	BOD Surface					
LA-30	7-Jul-05	1.1	mg/l	BOD Surface					
LA-30	15-Jun-06	1.1	mg/l	BOD Surface					
LA-30	17-Aug-06	1.1	mg/l	BOD Surface					
LA-30	16-May-07	1.10	mg/l	BOD Surface					
LA-30	19-Dec-07	1.10	mg/l	BOD Surface					
LA-30	4-Oct-02	1.2	mg/L	BOD Surface					
LA-30	25-Feb-04	1.2	mg/L	BOD Surface					
LA-30	11-Aug-05	1.3	mg/l	BOD Surface					
LA-30	15-Sep-05	1.4	mg/l	BOD Surface					
LA-30	4-Dec-03	1.5	mg/L	BOD Surface					
LA-30	12-May-04	1.5	mg/L	BOD Surface					
LA-30	17-Jan-08	1.50	mg/l	BOD Surface					
LA-30	18-Jul-01	1.6	mg/L	BOD Surface					
LA-30	11-May-06	1.7	mg/l	BOD Surface					
LA-30	21-Sep-06	1.7	mg/l	BOD Surface					
LA-30	15-May-08	1.70	mg/l	BOD Surface					
LA-30	9-Jun-05	1.8	mg/l	BOD Surface					
LA-30	12-Jun-08	2.10	mg/l	BOD Surface	1.1	2.1	1.46875	16	2007-2008
LA-30	21-Jul-04	2.1	mg/l	BOD Surface					
LA-30	16-Jan-03	2.6	mg/L	BOD Surface					
LA-30	16-Jun-04	3.2	mg/L	BOD Surface					

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LA-30	10-Jul-03	3.3	mg/L	BOD Surface
LA-30	10-Sep-03	3.8	mg/L	BOD Surface
LA-30	20-Jul-06	6.3	mg/l	BOD Surface
LA-32B	29-Nov-00	0.1	mg/L	BOD Surface
LA-32B	10-Sep-03	0.1	mg/L	BOD Surface
LA-32B	22-Dec-04	0.1	mg/l	BOD Surface
LA-32B	27-Apr-05	0.1	mg/l	BOD Surface
LA-32B	25-Jan-07	0.1	mg/l	BOD Surface
LA-32B	25-Jan-07	0.10	mg/l	BOD Surface
LA-32B	13-Sep-01	0.2	mg/L	BOD Surface
LA-32B	9-Dec-02	0.2	mg/L	BOD Surface
LA-32B	18-Feb-04	0.2	mg/L	BOD Surface
LA-32B	7-Jul-05	0.2	mg/l	BOD Surface
LA-32B	11-Aug-05	0.2	mg/l	BOD Surface
LA-32B	12-Jan-06	0.2	mg/l	BOD Surface
LA-32B	17-Jan-08	0.20	mg/l	BOD Surface
LA-32B	17-Apr-08	0.20	mg/l	BOD Surface
LA-32B	11-Jan-01	0.3	mg/L	BOD Surface
LA-32B	13-Mar-03	0.3	mg/L	BOD Surface
LA-32B	9-Oct-03	0.3	mg/L	BOD Surface
LA-32B	8-Dec-05	0.3	mg/l	BOD Surface
LA-32B	29-Aug-02	0.4	mg/L	BOD Surface
LA-32B	10-Feb-05	0.4	mg/l	BOD Surface
LA-32B	15-Mar-07	0.40	mg/l	BOD Surface
LA-32B	3-Oct-00	0.5	mg/L	BOD Surface
LA-32B	27-Mar-01	0.5	mg/L	BOD Surface
LA-32B	6-Jul-01	0.5	mg/L	BOD Surface
LA-32B	21-Feb-02	0.5	mg/L	BOD Surface
LA-32B	16-May-02	0.5	mg/L	BOD Surface
LA-32B	20-Jan-05	0.5	mg/l	BOD Surface
LA-32B	15-Nov-06	0.5	mg/l	BOD Surface
LA-32B	24-Oct-07	0.50	mg/l	BOD Surface
LA-32B	19-Apr-01	0.6	mg/L	BOD Surface
LA-32B	18-Jul-01	0.6	mg/L	BOD Surface
LA-32B	19-Nov-03	0.6	mg/L	BOD Surface
LA-32B	21-Jan-04	0.6	mg/L	BOD Surface
LA-32B	10-Mar-05	0.6	mg/l	BOD Surface

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LA-32B	16-Nov-05	0.6	mg/l	BOD Surface
LA-32B	16-Feb-06	0.6	mg/l	BOD Surface
LA-32B	13-Apr-06	0.6	mg/l	BOD Surface
LA-32B	20-Jul-06	0.6	mg/l	BOD Surface
LA-32B	21-Sep-06	0.6	mg/l	BOD Surface
LA-32B	14-Feb-08	0.70	mg/l	BOD Surface
LA-32B	25-Jan-01	0.7	mg/L	BOD Surface
LA-32B	13-Dec-01	0.7	mg/L	BOD Surface
LA-32B	10-Mar-02	0.7	mg/L	BOD Surface
LA-32B	7-Aug-03	0.7	mg/L	BOD Surface
LA-32B	17-Mar-04	0.7	mg/L	BOD Surface
LA-32B	10-Jan-00	0.8	mg/L	BOD Surface
LA-32B	1-May-00	0.8	mg/L	BOD Surface
LA-32B	10-Dec-01	0.8	mg/L	BOD Surface
LA-32B	4-Oct-02	0.8	mg/L	BOD Surface
LA-32B	15-May-08	0.90	mg/l	BOD Surface
LA-32B	15-Sep-00	0.9	mg/L	BOD Surface
LA-32B	10-Nov-04	0.9	mg/l	BOD Surface
LA-32B	5-Dec-00	1	mg/L	BOD Surface
LA-32B	15-Feb-01	1	mg/L	BOD Surface
LA-32B	23-Aug-01	1	mg/L	BOD Surface
LA-32B	18-Aug-04	1	mg/l	BOD Surface
LA-32B	13-Oct-05	1	mg/l	BOD Surface
LA-32B	12-Apr-07	1.00	mg/l	BOD Surface
LA-32B	18-Jul-07	1.00	mg/l	BOD Surface
LA-32B	30-Aug-00	1.1	mg/L	BOD Surface
LA-32B	21-Dec-00	1.1	mg/L	BOD Surface
LA-32B	19-Feb-03	1.1	mg/L	BOD Surface
LA-32B	4-Dec-03	1.1	mg/L	BOD Surface
LA-32B	17-Aug-06	1.1	mg/l	BOD Surface
LA-32B	25-Feb-00	1.2	mg/L	BOD Surface
LA-32B	9-Jun-05	1.2	mg/l	BOD Surface
LA-32B	16-May-07	1.20	mg/l	BOD Surface
LA-32B	19-Dec-07	1.20	mg/l	BOD Surface
LA-32B	7-Feb-07	1.30	mg/l	BOD Surface
LA-32B	20-Jun-02	1.3	mg/L	BOD Surface
LA-32B	9-Aug-07	1.40	mg/l	BOD Surface

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LA-32B	15-Nov-07	1.40	mg/l	BOD Surface					
LA-32B	13-Apr-00	1.4	mg/L	BOD Surface					
LA-32B	15-Sep-05	1.4	mg/l	BOD Surface					
LA-32B	15-Jun-06	1.4	mg/l	BOD Surface					
LA-32B	10-Jul-03	1.5	mg/L	BOD Surface					
LA-32B	14-Apr-04	1.5	mg/L	BOD Surface					
LA-32B	5-Nov-01	1.6	mg/L	BOD Surface					
LA-32B	11-May-06	1.6	mg/l	BOD Surface					
LA-32B	16-Jun-04	1.8	mg/L	BOD Surface					
LA-32B	16-Jun-00	1.9	mg/L	BOD Surface					
LA-32B	13-Jul-00	1.9	mg/L	BOD Surface					
LA-32B	12-May-04	2	mg/L	BOD Surface					
LA-32B	15-Sep-04	2.1	mg/l	BOD Surface					
LA-32B	20-Mar-08	2.20	mg/l	BOD Surface					
LA-32B	12-Jun-08	2.40	mg/l	BOD Surface	1.4	2.4	1.71875	16	2007-2008
LA-32B	21-Jul-04	3.8	mg/l	BOD Surface					
LA-32B	13-Nov-02	5.3	mg/L	BOD Surface					
LA-33	7-Jul-05	0	mg/l	BOD Surface					
LA-33	15-Mar-07	0.00	mg/l	BOD Surface					
LA-33	13-Dec-01	0.1	mg/L	BOD Surface					
LA-33	17-Jan-02	0.1	mg/L	BOD Surface					
LA-33	9-Oct-03	0.1	mg/L	BOD Surface					
LA-33	30-Aug-00	0.2	mg/L	BOD Surface					
LA-33	13-Sep-01	0.2	mg/L	BOD Surface					
LA-33	20-Jun-02	0.2	mg/L	BOD Surface					
LA-33	7-Aug-03	0.2	mg/L	BOD Surface					
LA-33	21-Dec-00	0.3	mg/L	BOD Surface					
LA-33	14-Mar-02	0.3	mg/L	BOD Surface					
LA-33	19-Dec-02	0.3	mg/L	BOD Surface					
LA-33	19-Jun-03	0.3	mg/L	BOD Surface					
LA-33	12-Jan-06	0.3	mg/l	BOD Surface					
LA-33	25-Jan-07	0.3	mg/l	BOD Surface					
LA-33	25-Jan-07	0.30	mg/l	BOD Surface					
LA-33	12-Apr-07	0.30	mg/l	BOD Surface					
LA-33	19-Apr-01	0.4	mg/L	BOD Surface					
LA-33	16-May-02	0.4	mg/L	BOD Surface					
LA-33	8-Dec-05	0.4	mg/l	BOD Surface					

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LA-33	17-Jan-08	0.40	mg/l	BOD Surface
LA-33	14-Feb-08	0.40	mg/l	BOD Surface
LA-33	13-Nov-02	0.5	mg/L	BOD Surface
LA-33	9-Dec-02	0.5	mg/L	BOD Surface
LA-33	14-May-03	0.5	mg/L	BOD Surface
LA-33	4-Sep-03	0.5	mg/L	BOD Surface
LA-33	19-Nov-03	0.5	mg/L	BOD Surface
LA-33	21-Jan-04	0.5	mg/L	BOD Surface
LA-33	18-Feb-04	0.5	mg/L	BOD Surface
LA-33	10-Feb-05	0.5	mg/l	BOD Surface
LA-33	15-Sep-05	0.5	mg/l	BOD Surface
LA-33	21-Sep-06	0.5	mg/l	BOD Surface
LA-33	18-Jul-07	0.50	mg/l	BOD Surface
LA-33	12-May-05	0.6	mg/l	BOD Surface
LA-33	13-Oct-05	0.6	mg/l	BOD Surface
LA-33	15-Nov-06	0.6	mg/l	BOD Surface
LA-33	15-May-08	0.60	mg/l	BOD Surface
LA-33	24-Oct-07	0.70	mg/l	BOD Surface
LA-33	10-Jan-00	0.7	mg/L	BOD Surface
LA-33	23-Aug-01	0.7	mg/L	BOD Surface
LA-33	13-Mar-03	0.7	mg/L	BOD Surface
LA-33	17-Mar-04	0.7	mg/L	BOD Surface
LA-33	16-Nov-05	0.7	mg/l	BOD Surface
LA-33	13-Apr-06	0.7	mg/l	BOD Surface
LA-33	15-Feb-01	0.8	mg/L	BOD Surface
LA-33	10-Dec-01	0.8	mg/L	BOD Surface
LA-33	10-Mar-02	0.8	mg/L	BOD Surface
LA-33	12-May-04	0.8	mg/L	BOD Surface
LA-33	27-Apr-05	0.8	mg/l	BOD Surface
LA-33	15-Jun-06	0.8	mg/l	BOD Surface
LA-33	7-Feb-07	0.90	mg/l	BOD Surface
LA-33	9-Aug-07	0.90	mg/l	BOD Surface
LA-33	19-Dec-07	0.90	mg/l	BOD Surface
LA-33	13-Oct-04	0.9	mg/l	BOD Surface
LA-33	20-Jul-06	0.9	mg/l	BOD Surface
LA-33	29-Nov-00	1	mg/L	BOD Surface
LA-33	5-Nov-01	1	mg/L	BOD Surface

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LA-33	4-Dec-03	1	mg/L	BOD Surface
LA-33	11-Aug-05	1	mg/l	BOD Surface
LA-33	18-Jul-01	1.1	mg/L	BOD Surface
LA-33	29-Aug-02	1.1	mg/L	BOD Surface
LA-33	16-Jan-03	1.1	mg/L	BOD Surface
LA-33	10-Nov-04	1.1	mg/l	BOD Surface
LA-33	17-Aug-06	1.1	mg/l	BOD Surface
LA-33	15-Nov-07	1.30	mg/l	BOD Surface
LA-33	13-Jul-00	1.3	mg/L	BOD Surface
LA-33	25-Jan-01	1.3	mg/L	BOD Surface
LA-33	14-Apr-04	1.3	mg/L	BOD Surface
LA-33	11-May-06	1.3	mg/l	BOD Surface
LA-33	17-Apr-08	1.40	mg/l	BOD Surface
LA-33	6-Jul-01	1.4	mg/L	BOD Surface
LA-33	20-Jan-05	1.4	mg/l	BOD Surface
LA-33	5-Dec-00	1.5	mg/L	BOD Surface
LA-33	9-Jun-05	1.5	mg/l	BOD Surface
LA-33	3-Oct-00	1.7	mg/L	BOD Surface
LA-33	4-Oct-02	1.7	mg/L	BOD Surface
LA-33	10-Jul-03	1.7	mg/L	BOD Surface
LA-33	18-Aug-04	1.7	mg/l	BOD Surface
LA-33	22-Dec-04	1.8	mg/l	BOD Surface
LA-33	31-Jul-02	1.9	mg/L	BOD Surface
LA-33	19-Feb-03	1.9	mg/L	BOD Surface
LA-33	10-Mar-05	1.9	mg/l	BOD Surface
LA-33	20-Mar-08	2.00	mg/l	BOD Surface
LA-33	16-May-07	2.10	mg/l	BOD Surface
LA-33	16-Feb-06	2.1	mg/l	BOD Surface
LA-33	21-Feb-02	2.7	mg/L	BOD Surface
LA-33	16-Jun-04	2.7	mg/L	BOD Surface
LA-33	15-Sep-04	2.7	mg/l	BOD Surface
LA-33	12-Jun-08	2.80	mg/l	BOD Surface
LA-33	1-May-00	2.8	mg/L	BOD Surface
LA-33	21-Jul-04	2.9	mg/l	BOD Surface
LA-33	11-Jan-01	3.2	mg/L	BOD Surface
LA-33	25-Feb-00	3.5	mg/L	BOD Surface
LA-33	15-Sep-00	4.4	mg/L	BOD Surface

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LA-35	24-Oct-07	0.00	mg/l	BOD Surface
LA-35	13-Dec-01	0.1	mg/L	BOD Surface
LA-35	7-Jul-05	0.1	mg/l	BOD Surface
LA-35	25-Jan-07	0.1	mg/l	BOD Surface
LA-35	25-Jan-07	0.10	mg/l	BOD Surface
LA-35	15-Mar-07	0.10	mg/l	BOD Surface
LA-35	13-Sep-01	0.2	mg/L	BOD Surface
LA-35	10-Dec-01	0.2	mg/L	BOD Surface
LA-35	10-Mar-02	0.2	mg/L	BOD Surface
LA-35	20-Jan-05	0.2	mg/l	BOD Surface
LA-35	27-Apr-05	0.2	mg/l	BOD Surface
LA-35	19-Jun-03	0.3	mg/L	BOD Surface
LA-35	21-Jan-04	0.3	mg/L	BOD Surface
LA-35	29-Nov-00	0.4	mg/L	BOD Surface
LA-35	19-Apr-01	0.4	mg/L	BOD Surface
LA-35	9-Dec-02	0.4	mg/L	BOD Surface
LA-35	13-Mar-03	0.4	mg/L	BOD Surface
LA-35	13-Oct-04	0.4	mg/l	BOD Surface
LA-35	22-Dec-04	0.4	mg/l	BOD Surface
LA-35	16-Nov-05	0.4	mg/l	BOD Surface
LA-35	8-Dec-05	0.4	mg/l	BOD Surface
LA-35	17-Jan-08	0.40	mg/l	BOD Surface
LA-35	13-Jul-00	0.5	mg/L	BOD Surface
LA-35	3-Oct-00	0.5	mg/L	BOD Surface
LA-35	27-Mar-01	0.5	mg/L	BOD Surface
LA-35	29-Aug-02	0.5	mg/L	BOD Surface
LA-35	4-Sep-03	0.5	mg/L	BOD Surface
LA-35	10-Sep-03	0.5	mg/L	BOD Surface
LA-35	17-Mar-04	0.5	mg/L	BOD Surface
LA-35	10-Feb-05	0.5	mg/l	BOD Surface
LA-35	10-Mar-05	0.5	mg/l	BOD Surface
LA-35	12-Jan-06	0.5	mg/l	BOD Surface
LA-35	13-Apr-06	0.5	mg/l	BOD Surface
LA-35	21-Sep-06	0.5	mg/l	BOD Surface
LA-35	12-Apr-07	0.50	mg/l	BOD Surface
LA-35	17-Jan-02	0.6	mg/L	BOD Surface
LA-35	19-Feb-03	0.6	mg/L	BOD Surface

Port of Los Angeles - Inner Harbor Water Quality Data

LA-35	9-Oct-03	0.6	mg/L	BOD Surface
LA-35	19-Nov-03	0.6	mg/L	BOD Surface
LA-35	10-Nov-04	0.6	mg/l	BOD Surface
LA-35	12-May-05	0.6	mg/l	BOD Surface
LA-35	15-Nov-06	0.6	mg/l	BOD Surface
LA-35	14-Feb-08	0.60	mg/l	BOD Surface
LA-35	15-May-08	0.60	mg/l	BOD Surface
LA-35	13-Apr-00	0.7	mg/L	BOD Surface
LA-35	23-Aug-01	0.7	mg/L	BOD Surface
LA-35	20-Jun-02	0.7	mg/L	BOD Surface
LA-35	14-May-03	0.7	mg/L	BOD Surface
LA-35	15-Sep-05	0.7	mg/l	BOD Surface
LA-35	13-Oct-05	0.7	mg/l	BOD Surface
LA-35	20-Jul-06	0.7	mg/l	BOD Surface
LA-35	18-Jul-01	0.8	mg/L	BOD Surface
LA-35	5-Nov-01	0.8	mg/L	BOD Surface
LA-35	7-Aug-03	0.8	mg/L	BOD Surface
LA-35	4-Dec-03	0.8	mg/L	BOD Surface
LA-35	18-Feb-04	0.8	mg/L	BOD Surface
LA-35	7-Feb-07	0.80	mg/l	BOD Surface
LA-35	17-Apr-08	0.80	mg/l	BOD Surface
LA-35	18-Jul-07	0.90	mg/l	BOD Surface
LA-35	30-Aug-00	0.9	mg/L	BOD Surface
LA-35	15-Sep-00	0.9	mg/L	BOD Surface
LA-35	11-Jan-01	0.9	mg/L	BOD Surface
LA-35	15-Feb-01	0.9	mg/L	BOD Surface
LA-35	21-Feb-02	0.9	mg/L	BOD Surface
LA-35	14-Mar-02	0.9	mg/L	BOD Surface
LA-35	11-May-06	0.9	mg/l	BOD Surface
LA-35	19-Dec-02	1	mg/L	BOD Surface
LA-35	16-Jan-03	1	mg/L	BOD Surface
LA-35	16-Feb-06	1	mg/l	BOD Surface
LA-35	16-May-07	1.00	mg/l	BOD Surface
LA-35	9-Aug-07	1.00	mg/l	BOD Surface
LA-35	15-Nov-07	1.00	mg/l	BOD Surface
LA-35	25-Feb-00	1.1	mg/L	BOD Surface
LA-35	21-Dec-00	1.1	mg/L	BOD Surface

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LA-35	12-May-04	1.1	mg/L	BOD Surface
LA-35	11-Aug-05	1.1	mg/l	BOD Surface
LA-35	15-Jun-06	1.1	mg/l	BOD Surface
LA-35	17-Aug-06	1.1	mg/l	BOD Surface
LA-35	19-Dec-07	1.10	mg/l	BOD Surface
LA-35	25-Jan-01	1.2	mg/L	BOD Surface
LA-35	14-Apr-04	1.2	mg/L	BOD Surface
LA-35	9-Jun-05	1.3	mg/l	BOD Surface
LA-35	5-Dec-00	1.4	mg/L	BOD Surface
LA-35	31-Jul-02	1.4	mg/L	BOD Surface
LA-35	16-May-02	1.5	mg/L	BOD Surface
LA-35	4-Oct-02	1.6	mg/L	BOD Surface
LA-35	21-Jul-04	1.6	mg/l	BOD Surface
LA-35	1-May-00	1.8	mg/L	BOD Surface
LA-35	16-Jun-04	1.8	mg/L	BOD Surface
LA-35	20-Mar-08	2.10	mg/l	BOD Surface
LA-35	18-Aug-04	2.1	mg/l	BOD Surface
LA-35	12-Jun-08	2.30	mg/l	BOD Surface
LA-35	6-Jul-01	2.3	mg/L	BOD Surface
LA-35	10-Jul-03	2.3	mg/L	BOD Surface
LA-35	15-Sep-04	2.3	mg/l	BOD Surface
LA-35	16-Jun-00	3	mg/L	BOD Surface
LA-35	10-Jan-00	5.2	mg/L	BOD Surface
LA-39	11-Jan-01	0.1	mg/L	BOD Surface
LA-39	17-Jan-02	0.1	mg/L	BOD Surface
LA-39	15-Sep-05	0.1	mg/l	BOD Surface
LA-39	27-Mar-01	0.2	mg/L	BOD Surface
LA-39	13-Dec-01	0.2	mg/L	BOD Surface
LA-39	15-Mar-07	0.20	mg/l	BOD Surface
LA-39	19-Nov-03	0.3	mg/L	BOD Surface
LA-39	13-Sep-01	0.4	mg/L	BOD Surface
LA-39	20-Jun-02	0.4	mg/L	BOD Surface
LA-39	19-Jun-03	0.4	mg/L	BOD Surface
LA-39	14-Apr-04	0.4	mg/L	BOD Surface
LA-39	16-Feb-06	0.4	mg/l	BOD Surface
LA-39	25-Jan-07	0.4	mg/l	BOD Surface
LA-39	25-Jan-07	0.40	mg/l	BOD Surface

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LA-39	13-Apr-00	0.5	mg/L	BOD Surface
LA-39	25-Jan-01	0.5	mg/L	BOD Surface
LA-39	9-Dec-02	0.5	mg/L	BOD Surface
LA-39	8-Dec-05	0.5	mg/l	BOD Surface
LA-39	14-Feb-08	0.50	mg/l	BOD Surface
LA-39	21-Feb-02	0.6	mg/L	BOD Surface
LA-39	19-Feb-03	0.6	mg/L	BOD Surface
LA-39	7-Feb-07	0.60	mg/l	BOD Surface
LA-39	6-Jul-01	0.7	mg/L	BOD Surface
LA-39	4-Oct-02	0.7	mg/L	BOD Surface
LA-39	12-Jan-06	0.7	mg/l	BOD Surface
LA-39	21-Jan-04	0.8	mg/L	BOD Surface
LA-39	15-Jun-06	0.8	mg/l	BOD Surface
LA-39	13-Mar-03	0.9	mg/L	BOD Surface
LA-39	10-Dec-01	1	mg/L	BOD Surface
LA-39	10-Sep-03	1	mg/L	BOD Surface
LA-39	12-May-05	1	mg/l	BOD Surface
LA-39	17-Apr-08	1.00	mg/l	BOD Surface
LA-39	17-Aug-06	1.1	mg/l	BOD Surface
LA-39	12-Apr-07	1.10	mg/l	BOD Surface
LA-39	15-May-08	1.10	mg/l	BOD Surface
LA-39	16-May-02	1.2	mg/L	BOD Surface
LA-39	13-Nov-02	1.2	mg/L	BOD Surface
LA-39	14-May-03	1.2	mg/L	BOD Surface
LA-39	15-Nov-06	1.2	mg/l	BOD Surface
LA-39	24-Oct-07	1.20	mg/l	BOD Surface
LA-39	17-Jan-08	1.30	mg/l	BOD Surface
LA-39	19-Apr-01	1.3	mg/L	BOD Surface
LA-39	29-Aug-02	1.3	mg/L	BOD Surface
LA-39	10-Mar-05	1.3	mg/l	BOD Surface
LA-39	9-Jun-05	1.3	mg/l	BOD Surface
LA-39	29-Nov-00	1.4	mg/L	BOD Surface
LA-39	5-Nov-01	1.4	mg/L	BOD Surface
LA-39	4-Sep-03	1.4	mg/L	BOD Surface
LA-39	13-Oct-05	1.4	mg/l	BOD Surface
LA-39	18-Feb-04	1.5	mg/L	BOD Surface
LA-39	18-Jul-01	1.6	mg/L	BOD Surface

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LA-39	19-Dec-02	1.6	mg/L	BOD Surface
LA-39	11-May-06	1.6	mg/l	BOD Surface
LA-39	9-Aug-07	1.60	mg/l	BOD Surface
LA-39	19-Dec-07	1.60	mg/l	BOD Surface
LA-39	17-Mar-04	1.7	mg/L	BOD Surface
LA-39	20-Mar-08	1.70	mg/l	BOD Surface
LA-39	18-Jul-07	1.80	mg/l	BOD Surface
LA-39	20-Jan-05	1.8	mg/l	BOD Surface
LA-39	4-Dec-03	1.9	mg/L	BOD Surface
LA-39	13-Oct-04	1.9	mg/l	BOD Surface
LA-39	22-Dec-04	1.9	mg/l	BOD Surface
LA-39	16-Nov-05	1.9	mg/l	BOD Surface
LA-39	3-Oct-00	2	mg/L	BOD Surface
LA-39	10-Jul-03	2	mg/L	BOD Surface
LA-39	16-May-07	2.00	mg/l	BOD Surface
LA-39	15-Nov-07	2.00	mg/l	BOD Surface
LA-39	31-Jul-02	2.1	mg/L	BOD Surface
LA-39	10-Feb-05	2.1	mg/l	BOD Surface
LA-39	11-Aug-05	2.1	mg/l	BOD Surface
LA-39	12-May-04	2.2	mg/L	BOD Surface
LA-39	13-Apr-06	2.2	mg/l	BOD Surface
LA-39	1-May-00	2.3	mg/L	BOD Surface
LA-39	23-Aug-01	2.5	mg/L	BOD Surface
LA-39	20-Jul-06	2.5	mg/l	BOD Surface
LA-39	10-Jan-00	2.6	mg/L	BOD Surface
LA-39	13-Jul-00	2.7	mg/L	BOD Surface
LA-39	15-Feb-01	2.7	mg/L	BOD Surface
LA-39	21-Sep-06	2.7	mg/l	BOD Surface
LA-39	16-Jun-00	2.8	mg/L	BOD Surface
LA-39	30-Aug-00	2.9	mg/L	BOD Surface
LA-39	18-Aug-04	3.3	mg/l	BOD Surface
LA-39	15-Sep-00	3.6	mg/L	BOD Surface
LA-39	25-Feb-00	3.9	mg/L	BOD Surface
LA-39	5-Dec-00	3.9	mg/L	BOD Surface
LA-39	7-Jul-05	3.9	mg/l	BOD Surface
LA-39	21-Jul-04	4.3	mg/l	BOD Surface
LA-39	16-Jun-04	4.7	mg/L	BOD Surface

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LA-39	27-Apr-05	5	mg/l	BOD Surface
LA-39	16-Jan-03	5.2	mg/L	BOD Surface
LA-39	9-Oct-03	5.3	mg/L	BOD Surface
LA-39	15-Sep-04	5.8	mg/l	BOD Surface
LA-39	10-Nov-04	6.1	mg/l	BOD Surface
LA-39	7-Aug-03	7.3	mg/L	BOD Surface
LA-39	12-Jun-08	7.70	mg/l	BOD Surface
LA-41	20-Jan-05	0	mg/l	BOD Surface
LA-41	16-May-07	0.00	mg/l	BOD Surface
LA-41	15-Sep-00	0.1	mg/L	BOD Surface
LA-41	15-Sep-00	0.1	mg/L	BOD Surface
LA-41	13-Dec-01	0.1	mg/L	BOD Surface
LA-41	4-Sep-03	0.1	mg/L	BOD Surface
LA-41	10-Mar-05	0.1	mg/l	BOD Surface
LA-41	15-Mar-07	0.10	mg/l	BOD Surface
LA-41	15-Nov-07	0.10	mg/l	BOD Surface
LA-41	1-May-00	0.2	mg/L	BOD Surface
LA-41	29-Nov-00	0.2	mg/L	BOD Surface
LA-41	11-Jan-01	0.2	mg/L	BOD Surface
LA-41	18-Jul-01	0.2	mg/L	BOD Surface
LA-41	13-Sep-01	0.2	mg/L	BOD Surface
LA-41	4-Oct-02	0.2	mg/L	BOD Surface
LA-41	13-Oct-04	0.2	mg/l	BOD Surface
LA-41	10-Nov-04	0.2	mg/l	BOD Surface
LA-41	16-Feb-06	0.2	mg/l	BOD Surface
LA-41	25-Jan-07	0.2	mg/l	BOD Surface
LA-41	25-Jan-07	0.20	mg/l	BOD Surface
LA-41	6-Jul-01	0.3	mg/L	BOD Surface
LA-41	19-Dec-02	0.3	mg/L	BOD Surface
LA-41	22-Dec-04	0.3	mg/l	BOD Surface
LA-41	16-Nov-05	0.3	mg/l	BOD Surface
LA-41	12-Jan-06	0.3	mg/l	BOD Surface
LA-41	15-Jun-06	0.3	mg/l	BOD Surface
LA-41	12-Apr-07	0.30	mg/l	BOD Surface
LA-41	10-Feb-05	0.4	mg/l	BOD Surface
LA-41	8-Dec-05	0.4	mg/l	BOD Surface
LA-41	7-Feb-07	0.40	mg/l	BOD Surface

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LA-41	18-Jul-07	0.40	mg/l	BOD Surface
LA-41	25-Jan-01	0.5	mg/L	BOD Surface
LA-41	27-Mar-01	0.5	mg/L	BOD Surface
LA-41	14-Mar-02	0.5	mg/L	BOD Surface
LA-41	31-Jul-02	0.5	mg/L	BOD Surface
LA-41	15-Nov-06	0.5	mg/l	BOD Surface
LA-41	15-Feb-01	0.6	mg/L	BOD Surface
LA-41	23-Aug-01	0.6	mg/L	BOD Surface
LA-41	21-Feb-02	0.6	mg/L	BOD Surface
LA-41	16-May-02	0.6	mg/L	BOD Surface
LA-41	13-Mar-03	0.6	mg/L	BOD Surface
LA-41	7-Aug-03	0.6	mg/L	BOD Surface
LA-41	4-Dec-03	0.6	mg/L	BOD Surface
LA-41	17-Mar-04	0.6	mg/L	BOD Surface
LA-41	15-Sep-04	0.6	mg/l	BOD Surface
LA-41	21-Sep-06	0.6	mg/l	BOD Surface
LA-41	9-Aug-07	0.70	mg/l	BOD Surface
LA-41	30-Aug-00	0.7	mg/L	BOD Surface
LA-41	9-Oct-03	0.7	mg/L	BOD Surface
LA-41	13-Apr-00	0.8	mg/L	BOD Surface
LA-41	5-Nov-01	0.8	mg/L	BOD Surface
LA-41	12-May-05	0.8	mg/l	BOD Surface
LA-41	13-Oct-05	0.8	mg/l	BOD Surface
LA-41	13-Apr-06	0.8	mg/l	BOD Surface
LA-41	17-Aug-06	0.8	mg/l	BOD Surface
LA-41	15-May-08	0.80	mg/l	BOD Surface
LA-41	17-Apr-08	0.90	mg/l	BOD Surface
LA-41	29-Aug-02	0.9	mg/L	BOD Surface
LA-41	25-Feb-04	0.9	mg/L	BOD Surface
LA-41	20-Jun-02	1	mg/L	BOD Surface
LA-41	13-Nov-02	1	mg/L	BOD Surface
LA-41	14-May-03	1.1	mg/L	BOD Surface
LA-41	15-Sep-05	1.1	mg/l	BOD Surface
LA-41	11-May-06	1.1	mg/l	BOD Surface
LA-41	20-Mar-08	1.10	mg/l	BOD Surface
LA-41	18-Aug-04	1.2	mg/l	BOD Surface
LA-41	14-Feb-08	1.20	mg/l	BOD Surface

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LA-41	13-Jul-00	1.3	mg/L	BOD Surface
LA-41	19-Apr-01	1.3	mg/L	BOD Surface
LA-41	21-Jan-04	1.3	mg/L	BOD Surface
LA-41	14-Apr-04	1.3	mg/L	BOD Surface
LA-41	25-Feb-00	1.4	mg/L	BOD Surface
LA-41	19-Feb-03	1.4	mg/L	BOD Surface
LA-41	10-Jul-03	1.6	mg/L	BOD Surface
LA-41	9-Jun-05	1.6	mg/l	BOD Surface
LA-41	7-Jul-05	1.6	mg/l	BOD Surface
LA-41	16-Jun-00	1.8	mg/L	BOD Surface
LA-41	12-Jun-08	1.90	mg/l	BOD Surface
LA-41	19-Nov-03	1.9	mg/L	BOD Surface
LA-41	5-Dec-00	2.2	mg/L	BOD Surface
LA-41	11-Aug-05	2.2	mg/l	BOD Surface
LA-41	24-Oct-07	2.20	mg/l	BOD Surface
LA-41	20-Jul-06	2.4	mg/l	BOD Surface
LA-41	12-May-04	2.9	mg/L	BOD Surface
LA-41	21-Jul-04	3.3	mg/l	BOD Surface
LA-41	19-Jun-03	3.9	mg/L	BOD Surface
LA-41	19-Dec-07	4.50	mg/l	BOD Surface
LA-41	16-Jun-04	4.6	mg/L	BOD Surface
LA-41	10-Sep-03	6.7	mg/L	BOD Surface
LA-41	17-Jan-08		mg/l	BOD Surface
LA-44	15-Mar-07	0.00	mg/l	BOD Surface
LA-44	24-Oct-07	0.00	mg/l	BOD Surface
LA-44	15-Sep-00	0.1	mg/L	BOD Surface
LA-44	19-Feb-03	0.1	mg/L	BOD Surface
LA-44	25-Jan-07	0.1	mg/l	BOD Surface
LA-44	25-Jan-07	0.10	mg/l	BOD Surface
LA-44	7-Feb-07	0.10	mg/l	BOD Surface
LA-44	12-Apr-07	0.10	mg/l	BOD Surface
LA-44	25-Feb-00	0.2	mg/L	BOD Surface
LA-44	11-Jan-01	0.2	mg/L	BOD Surface
LA-44	5-Nov-01	0.2	mg/L	BOD Surface
LA-44	17-Jan-02	0.2	mg/L	BOD Surface
LA-44	13-Oct-04	0.2	mg/l	BOD Surface
LA-44	13-Dec-01	0.3	mg/L	BOD Surface

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LA-44	9-Dec-02	0.3 mg/L	BOD Surface
LA-44	9-Oct-03	0.3 mg/L	BOD Surface
LA-44	25-Feb-04	0.3 mg/L	BOD Surface
LA-44	20-Jan-05	0.3 mg/l	BOD Surface
LA-44	10-Feb-05	0.3 mg/l	BOD Surface
LA-44	8-Dec-05	0.3 mg/l	BOD Surface
LA-44	12-Jan-06	0.3 mg/l	BOD Surface
LA-44	13-Apr-06	0.3 mg/l	BOD Surface
LA-44	10-Jan-00	0.4 mg/L	BOD Surface
LA-44	13-Sep-01	0.4 mg/L	BOD Surface
LA-44	14-Mar-02	0.4 mg/L	BOD Surface
LA-44	22-Dec-04	0.4 mg/l	BOD Surface
LA-44	16-Nov-05	0.4 mg/l	BOD Surface
LA-44	9-Aug-07	0.40 mg/l	BOD Surface
LA-44	15-Nov-07	0.40 mg/l	BOD Surface
LA-44	20-Mar-08	0.40 mg/l	BOD Surface
LA-44	30-Aug-00	0.5 mg/L	BOD Surface
LA-44	15-Feb-01	0.5 mg/L	BOD Surface
LA-44	18-Jul-01	0.5 mg/L	BOD Surface
LA-44	19-Dec-02	0.5 mg/L	BOD Surface
LA-44	4-Dec-03	0.5 mg/L	BOD Surface
LA-44	10-Nov-04	0.5 mg/l	BOD Surface
LA-44	16-Feb-06	0.5 mg/l	BOD Surface
LA-44	21-Sep-06	0.5 mg/l	BOD Surface
LA-44	15-Nov-06	0.5 mg/l	BOD Surface
LA-44	16-May-07	0.50 mg/l	BOD Surface
LA-44	14-Feb-08	0.50 mg/l	BOD Surface
LA-44	19-Apr-01	0.6 mg/L	BOD Surface
LA-44	23-Aug-01	0.6 mg/L	BOD Surface
LA-44	16-Jan-03	0.6 mg/L	BOD Surface
LA-44	14-May-03	0.6 mg/L	BOD Surface
LA-44	7-Aug-03	0.6 mg/L	BOD Surface
LA-44	17-Apr-08	0.60 mg/l	BOD Surface
LA-44	17-Jan-08	0.70 mg/l	BOD Surface
LA-44	13-Nov-02	0.7 mg/L	BOD Surface
LA-44	4-Sep-03	0.7 mg/L	BOD Surface
LA-44	17-Mar-04	0.7 mg/L	BOD Surface

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LA-44	10-Sep-03	0.8	mg/L	BOD Surface
LA-44	19-Nov-03	0.8	mg/L	BOD Surface
LA-44	13-Oct-05	0.8	mg/l	BOD Surface
LA-44	18-Jul-07	0.80	mg/l	BOD Surface
LA-44	15-May-08	0.90	mg/l	BOD Surface
LA-44	29-Nov-00	0.9	mg/L	BOD Surface
LA-44	5-Dec-00	0.9	mg/L	BOD Surface
LA-44	27-Mar-01	0.9	mg/L	BOD Surface
LA-44	6-Jul-01	0.9	mg/L	BOD Surface
LA-44	18-Aug-04	0.9	mg/l	BOD Surface
LA-44	17-Aug-06	0.9	mg/l	BOD Surface
LA-44	20-Jun-02	1	mg/L	BOD Surface
LA-44	15-Sep-04	1	mg/l	BOD Surface
LA-44	27-Apr-05	1	mg/l	BOD Surface
LA-44	11-Aug-05	1	mg/l	BOD Surface
LA-44	15-Jun-06	1	mg/l	BOD Surface
LA-44	12-Jun-08	1.00	mg/l	BOD Surface
LA-44	13-Jul-00	1.3	mg/L	BOD Surface
LA-44	29-Aug-02	1.3	mg/L	BOD Surface
LA-44	10-Mar-05	1.3	mg/l	BOD Surface
LA-44	20-Jul-06	1.3	mg/l	BOD Surface
LA-44	16-May-02	1.4	mg/L	BOD Surface
LA-44	4-Oct-02	1.4	mg/L	BOD Surface
LA-44	21-Jan-04	1.4	mg/L	BOD Surface
LA-44	7-Jul-05	1.4	mg/l	BOD Surface
LA-44	15-Sep-05	1.4	mg/l	BOD Surface
LA-44	31-Jul-02	1.6	mg/L	BOD Surface
LA-44	14-Apr-04	1.7	mg/L	BOD Surface
LA-44	12-May-05	1.7	mg/l	BOD Surface
LA-44	19-Jun-03	1.8	mg/L	BOD Surface
LA-44	12-May-04	2.1	mg/L	BOD Surface
LA-44	21-Jul-04	2.1	mg/l	BOD Surface
LA-44	9-Jun-05	2.1	mg/l	BOD Surface
LA-44	11-May-06	2.3	mg/l	BOD Surface
LA-44	1-May-00	2.4	mg/L	BOD Surface
LA-44	16-Jun-04	2.4	mg/L	BOD Surface
LA-44	19-Dec-07	3.00	mg/l	BOD Surface

Port of Los Angeles - Inner Harbor Water Quality Data

LA-44	16-Jun-00	3.5	mg/L	BOD Surface
LA-44	10-Jul-03	3.5	mg/L	BOD Surface
LA-46	20-Jan-05	0	mg/l	BOD Surface
LA-46	10-Jan-00	0.1	mg/L	BOD Surface
LA-46	10-Mar-02	0.1	mg/L	BOD Surface
LA-46	19-Feb-03	0.1	mg/L	BOD Surface
LA-46	25-Feb-04	0.1	mg/L	BOD Surface
LA-46	22-Dec-04	0.1	mg/l	BOD Surface
LA-46	25-Jan-07	0.1	mg/l	BOD Surface
LA-46	25-Jan-07	0.10	mg/l	BOD Surface
LA-46	15-Mar-07	0.10	mg/l	BOD Surface
LA-46	12-Apr-07	0.10	mg/l	BOD Surface
LA-46	14-Feb-08	0.10	mg/l	BOD Surface
LA-46	29-Nov-00	0.2	mg/L	BOD Surface
LA-46	19-Apr-01	0.2	mg/L	BOD Surface
LA-46	17-Jan-02	0.2	mg/L	BOD Surface
LA-46	4-Oct-02	0.2	mg/L	BOD Surface
LA-46	19-Dec-02	0.2	mg/L	BOD Surface
LA-46	17-Mar-04	0.2	mg/L	BOD Surface
LA-46	10-Mar-05	0.2	mg/l	BOD Surface
LA-46	16-Feb-06	0.2	mg/l	BOD Surface
LA-46	11-Jan-01	0.3	mg/L	BOD Surface
LA-46	18-Jul-01	0.3	mg/L	BOD Surface
LA-46	13-Oct-04	0.3	mg/l	BOD Surface
LA-46	10-Feb-05	0.3	mg/l	BOD Surface
LA-46	8-Dec-05	0.3	mg/l	BOD Surface
LA-46	17-Jan-08	0.30	mg/l	BOD Surface
LA-46	3-Oct-00	0.4	mg/L	BOD Surface
LA-46	10-Nov-04	0.4	mg/l	BOD Surface
LA-46	16-Nov-05	0.4	mg/l	BOD Surface
LA-46	13-Apr-06	0.4	mg/l	BOD Surface
LA-46	7-Feb-07	0.40	mg/l	BOD Surface
LA-46	17-Apr-08	0.40	mg/l	BOD Surface
LA-46	12-Jun-08	0.40	mg/l	BOD Surface
LA-46	23-Aug-01	0.5	mg/L	BOD Surface
LA-46	5-Nov-01	0.5	mg/L	BOD Surface
LA-46	13-Dec-01	0.5	mg/L	BOD Surface

Port of Los Angeles - Inner Harbor Water Quality Data

LA-46	14-Mar-02	0.5	mg/L	BOD Surface
LA-46	13-Nov-02	0.5	mg/L	BOD Surface
LA-46	10-Sep-03	0.5	mg/L	BOD Surface
LA-46	4-Dec-03	0.5	mg/L	BOD Surface
LA-46	21-Jan-04	0.5	mg/L	BOD Surface
LA-46	12-Jan-06	0.5	mg/l	BOD Surface
LA-46	21-Sep-06	0.5	mg/l	BOD Surface
LA-46	15-Nov-06	0.5	mg/l	BOD Surface
LA-46	25-Feb-00	0.6	mg/L	BOD Surface
LA-46	1-May-00	0.6	mg/L	BOD Surface
LA-46	29-Aug-02	0.6	mg/L	BOD Surface
LA-46	4-Sep-03	0.6	mg/L	BOD Surface
LA-46	9-Oct-03	0.6	mg/L	BOD Surface
LA-46	14-Apr-04	0.6	mg/L	BOD Surface
LA-46	12-May-05	0.6	mg/l	BOD Surface
LA-46	9-Aug-07	0.60	mg/l	BOD Surface
LA-46	15-Nov-07	0.60	mg/l	BOD Surface
LA-46	20-Mar-08	0.60	mg/l	BOD Surface
LA-46	24-Oct-07	0.70	mg/l	BOD Surface
LA-46	27-Mar-01	0.7	mg/L	BOD Surface
LA-46	14-May-03	0.7	mg/L	BOD Surface
LA-46	11-Aug-05	0.7	mg/l	BOD Surface
LA-46	17-Aug-06	0.7	mg/l	BOD Surface
LA-46	6-Jul-01	0.8	mg/L	BOD Surface
LA-46	18-Jul-07	0.80	mg/l	BOD Surface
LA-46	30-Aug-00	0.9	mg/L	BOD Surface
LA-46	15-Feb-01	0.9	mg/L	BOD Surface
LA-46	13-Oct-05	0.9	mg/l	BOD Surface
LA-46	15-Sep-00	1	mg/L	BOD Surface
LA-46	20-Jul-06	1	mg/l	BOD Surface
LA-46	16-May-07	1.00	mg/l	BOD Surface
LA-46	13-Jul-00	1.1	mg/L	BOD Surface
LA-46	16-Jun-00	1.2	mg/L	BOD Surface
LA-46	20-Jun-02	1.2	mg/L	BOD Surface
LA-46	15-Jun-06	1.2	mg/l	BOD Surface
LA-46	19-Dec-07	1.20	mg/l	BOD Surface
LA-46	11-May-06	1.3	mg/l	BOD Surface

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LA-46	19-Jun-03	1.4	mg/L	BOD Surface
LA-46	16-Jun-04	1.4	mg/L	BOD Surface
LA-46	15-Sep-04	1.4	mg/l	BOD Surface
LA-46	5-Dec-00	1.5	mg/L	BOD Surface
LA-46	12-May-04	1.5	mg/L	BOD Surface
LA-46	18-Aug-04	1.5	mg/l	BOD Surface
LA-46	9-Jun-05	1.5	mg/l	BOD Surface
LA-46	7-Jul-05	1.6	mg/l	BOD Surface
LA-46	15-Sep-05	1.6	mg/l	BOD Surface
LA-46	19-Nov-03	1.7	mg/L	BOD Surface
LA-46	15-May-08	1.90	mg/l	BOD Surface
LA-46	31-Jul-02	2.1	mg/L	BOD Surface
LA-46	21-Jul-04	2.2	mg/l	BOD Surface
LA-46	10-Jul-03	3.2	mg/L	BOD Surface
LA-46	16-Jan-03	5.2	mg/L	BOD Surface
LA-47	20-Mar-08	-0.10	mg/l	BOD Surface
LA-47	22-Dec-04	0	mg/l	BOD Surface
LA-47	24-Oct-07	0.00	mg/l	BOD Surface
LA-47	13-Dec-01	0.1	mg/L	BOD Surface
LA-47	17-Jan-02	0.1	mg/L	BOD Surface
LA-47	10-Feb-05	0.1	mg/l	BOD Surface
LA-47	11-Jan-01	0.2	mg/L	BOD Surface
LA-47	16-Nov-05	0.2	mg/l	BOD Surface
LA-47	16-Feb-06	0.2	mg/l	BOD Surface
LA-47	7-Feb-07	0.20	mg/l	BOD Surface
LA-47	23-Aug-01	0.3	mg/L	BOD Surface
LA-47	21-Feb-02	0.3	mg/L	BOD Surface
LA-47	14-Mar-02	0.3	mg/L	BOD Surface
LA-47	15-Mar-07	0.30	mg/l	BOD Surface
LA-47	18-Jul-07	0.30	mg/l	BOD Surface
LA-47	14-Feb-08	0.30	mg/l	BOD Surface
LA-47	17-Apr-08	0.30	mg/l	BOD Surface
LA-47	21-Dec-00	0.4	mg/L	BOD Surface
LA-47	18-Jul-01	0.4	mg/L	BOD Surface
LA-47	19-Dec-02	0.4	mg/L	BOD Surface
LA-47	10-Nov-04	0.4	mg/l	BOD Surface
LA-47	20-Jan-05	0.4	mg/l	BOD Surface

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LA-47	8-Dec-05	0.4	mg/l	BOD Surface
LA-47	25-Jan-07	0.4	mg/l	BOD Surface
LA-47	25-Jan-07	0.40	mg/l	BOD Surface
LA-47	17-Jan-08	0.40	mg/l	BOD Surface
LA-47	13-Mar-03	0.5	mg/L	BOD Surface
LA-47	4-Sep-03	0.5	mg/L	BOD Surface
LA-47	13-Oct-04	0.5	mg/l	BOD Surface
LA-47	12-Jan-06	0.5	mg/l	BOD Surface
LA-47	10-Jan-00	0.6	mg/L	BOD Surface
LA-47	1-May-00	0.6	mg/L	BOD Surface
LA-47	4-Oct-02	0.6	mg/L	BOD Surface
LA-47	21-Sep-06	0.6	mg/l	BOD Surface
LA-47	16-May-07	0.60	mg/l	BOD Surface
LA-47	9-Aug-07	0.60	mg/l	BOD Surface
LA-47	12-Apr-07	0.70	mg/l	BOD Surface
LA-47	3-Oct-00	0.7	mg/L	BOD Surface
LA-47	19-Apr-01	0.7	mg/L	BOD Surface
LA-47	31-Jul-02	0.7	mg/L	BOD Surface
LA-47	19-Feb-03	0.7	mg/L	BOD Surface
LA-47	9-Oct-03	0.7	mg/L	BOD Surface
LA-47	25-Feb-04	0.7	mg/L	BOD Surface
LA-47	17-Mar-04	0.7	mg/L	BOD Surface
LA-47	16-May-02	0.8	mg/L	BOD Surface
LA-47	9-Dec-02	0.8	mg/L	BOD Surface
LA-47	19-Jun-03	0.8	mg/L	BOD Surface
LA-47	21-Jan-04	0.8	mg/L	BOD Surface
LA-47	14-Apr-04	0.8	mg/L	BOD Surface
LA-47	30-Aug-00	0.9	mg/L	BOD Surface
LA-47	15-Feb-01	0.9	mg/L	BOD Surface
LA-47	19-Nov-03	0.9	mg/L	BOD Surface
LA-47	4-Dec-03	0.9	mg/L	BOD Surface
LA-47	16-Jun-04	0.9	mg/L	BOD Surface
LA-47	12-May-05	0.9	mg/l	BOD Surface
LA-47	15-Nov-06	0.9	mg/l	BOD Surface
LA-47	27-Mar-01	1	mg/L	BOD Surface
LA-47	13-Nov-02	1	mg/L	BOD Surface
LA-47	27-Apr-05	1	mg/l	BOD Surface

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LA-47	13-Apr-06	1	mg/l	BOD Surface
LA-47	5-Nov-01	1.1	mg/L	BOD Surface
LA-47	10-Mar-02	1.1	mg/L	BOD Surface
LA-47	29-Aug-02	1.1	mg/L	BOD Surface
LA-47	14-May-03	1.1	mg/L	BOD Surface
LA-47	9-Jun-05	1.1	mg/l	BOD Surface
LA-47	15-Jun-06	1.2	mg/l	BOD Surface
LA-47	25-Feb-00	1.3	mg/L	BOD Surface
LA-47	13-Jul-00	1.3	mg/L	BOD Surface
LA-47	16-Jan-03	1.3	mg/L	BOD Surface
LA-47	11-May-06	1.3	mg/l	BOD Surface
LA-47	15-Sep-05	1.4	mg/l	BOD Surface
LA-47	5-Dec-00	1.5	mg/L	BOD Surface
LA-47	20-Jun-02	1.5	mg/L	BOD Surface
LA-47	15-Sep-04	1.5	mg/l	BOD Surface
LA-47	17-Aug-06	1.5	mg/l	BOD Surface
LA-47	6-Jul-01	1.6	mg/L	BOD Surface
LA-47	18-Aug-04	1.6	mg/l	BOD Surface
LA-47	13-Oct-05	1.7	mg/l	BOD Surface
LA-47	15-Nov-07	1.80	mg/l	BOD Surface
LA-47	12-Jun-08	1.80	mg/l	BOD Surface
LA-47	19-Dec-07	1.90	mg/l	BOD Surface
LA-47	15-May-08	1.90	mg/l	BOD Surface
LA-47	12-May-04	2.1	mg/L	BOD Surface
LA-47	20-Jul-06	2.1	mg/l	BOD Surface
LA-47	7-Jul-05	2.2	mg/l	BOD Surface
LA-47	10-Jul-03	2.4	mg/L	BOD Surface
LA-47	21-Jul-04	2.4	mg/l	BOD Surface
LA-47	11-Aug-05	2.4	mg/l	BOD Surface
LA-47	10-Sep-03	2.5	mg/L	BOD Surface
LA-47	16-Jun-00	3.2	mg/L	BOD Surface
LA-30	10-Jan-00	5.5	mg/L	DO Bottom
LA-30	23-Aug-01	5.5	mg/L	DO Bottom
LA-30	13-Nov-02	5.5	mg/L	DO Bottom
LA-30	4-Sep-03	5.5	mg/L	DO Bottom
LA-30	9-Oct-03	5.5	mg/L	DO Bottom
LA-30	19-Dec-02	5.6	mg/L	DO Bottom

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LA-30	13-Oct-05	5.6	mg/l	DO Bottom
LA-30	19-Jun-03	5.7	mg/L	DO Bottom
LA-30	14-May-03	5.8	mg/L	DO Bottom
LA-30	13-Sep-01	5.9	mg/L	DO Bottom
LA-30	16-Nov-05	5.9	mg/l	DO Bottom
LA-30	14-Feb-08	5.90	mg/l	DO Bottom
LA-30	11-Jan-01	6	mg/L	DO Bottom
LA-30	9-Dec-02	6	mg/L	DO Bottom
LA-30	19-Nov-03	6	mg/L	DO Bottom
LA-30	17-Apr-08	6.00	mg/l	DO Bottom
LA-30	24-Oct-07	6.10	mg/l	DO Bottom
LA-30	5-Dec-00	6.1	mg/L	DO Bottom
LA-30	13-Apr-06	6.1	mg/l	DO Bottom
LA-30	18-Jul-01	6.2	mg/L	DO Bottom
LA-30	10-Mar-02	6.3	mg/L	DO Bottom
LA-30	15-May-08	6.30	mg/l	DO Bottom
LA-30	13-Dec-01	6.4	mg/L	DO Bottom
LA-30	8-Dec-05	6.4	mg/l	DO Bottom
LA-30	11-May-06	6.4	mg/l	DO Bottom
LA-30	15-Jun-06	6.4	mg/l	DO Bottom
LA-30	15-Mar-07	6.40	mg/l	DO Bottom
LA-30	30-Aug-00	6.5	mg/L	DO Bottom
LA-30	25-Jan-01	6.5	mg/L	DO Bottom
LA-30	10-Dec-01	6.5	mg/L	DO Bottom
LA-30	16-Jan-03	6.5	mg/L	DO Bottom
LA-30	16-Jun-04	6.5	mg/L	DO Bottom
LA-30	13-Oct-04	6.5	mg/l	DO Bottom
LA-30	12-Jan-06	6.5	mg/l	DO Bottom
LA-30	20-Mar-08	6.50	mg/l	DO Bottom
LA-30	16-May-07	6.60	mg/l	DO Bottom
LA-30	17-Jan-02	6.6	mg/L	DO Bottom
LA-30	19-Feb-03	6.6	mg/L	DO Bottom
LA-30	22-Dec-04	6.6	mg/l	DO Bottom
LA-30	15-Nov-06	6.6	mg/l	DO Bottom
LA-30	17-Jan-08	6.70	mg/l	DO Bottom
LA-30	21-Feb-02	6.7	mg/L	DO Bottom
LA-30	16-May-02	6.7	mg/L	DO Bottom

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LA-30	13-Mar-03	6.7	mg/L	DO Bottom
LA-30	7-Aug-03	6.7	mg/L	DO Bottom
LA-30	10-Nov-04	6.7	mg/l	DO Bottom
LA-30	10-Mar-05	6.7	mg/l	DO Bottom
LA-30	25-Feb-00	6.8	mg/L	DO Bottom
LA-30	3-Oct-00	6.8	mg/L	DO Bottom
LA-30	29-Nov-00	6.8	mg/L	DO Bottom
LA-30	19-Apr-01	6.8	mg/L	DO Bottom
LA-30	21-Jan-04	6.8	mg/L	DO Bottom
LA-30	12-Apr-07	6.80	mg/l	DO Bottom
LA-30	17-Mar-04	6.9	mg/L	DO Bottom
LA-30	15-Sep-04	6.9	mg/l	DO Bottom
LA-30	20-Jan-05	6.9	mg/l	DO Bottom
LA-30	12-May-05	6.9	mg/l	DO Bottom
LA-30	15-Sep-05	6.9	mg/l	DO Bottom
LA-30	21-Sep-06	6.9	mg/l	DO Bottom
LA-30	13-Jul-00	7	mg/L	DO Bottom
LA-30	15-Sep-00	7	mg/L	DO Bottom
LA-30	29-Aug-02	7	mg/L	DO Bottom
LA-30	18-Aug-04	7	mg/l	DO Bottom
LA-30	27-Apr-05	7	mg/l	DO Bottom
LA-30	16-Feb-06	7	mg/l	DO Bottom
LA-30	25-Jan-07	7.00	mg/l	DO Bottom
LA-30	25-Jan-07	7	mg/l	DO Bottom
LA-30	7-Feb-07	7.00	mg/l	DO Bottom
LA-30	9-Aug-07	7.00	mg/l	DO Bottom
LA-30	15-Nov-07	7.00	mg/l	DO Bottom
LA-30	19-Dec-07	7.00	mg/l	DO Bottom
LA-30	18-Jul-07	7.10	mg/l	DO Bottom
LA-30	13-Apr-00	7.1	mg/L	DO Bottom
LA-30	1-May-00	7.1	mg/L	DO Bottom
LA-30	15-Feb-01	7.1	mg/L	DO Bottom
LA-30	14-Mar-02	7.1	mg/L	DO Bottom
LA-30	25-Feb-04	7.1	mg/L	DO Bottom
LA-30	31-Jul-02	7.2	mg/L	DO Bottom
LA-30	14-Apr-04	7.2	mg/L	DO Bottom
LA-30	10-Feb-05	7.2	mg/l	DO Bottom

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LA-30	9-Jun-05	7.2 mg/l	DO Bottom					
LA-30	17-Aug-06	7.2 mg/l	DO Bottom					
LA-30	27-Mar-01	7.3 mg/L	DO Bottom					
LA-30	6-Jul-01	7.3 mg/L	DO Bottom					
LA-30	10-Sep-03	7.3 mg/L	DO Bottom					
LA-30	4-Dec-03	7.3 mg/L	DO Bottom					
LA-30	12-May-04	7.3 mg/L	DO Bottom					
LA-30	11-Aug-05	7.3 mg/l	DO Bottom					
LA-30	20-Jun-02	7.4 mg/L	DO Bottom					
LA-30	21-Jul-04	7.4 mg/l	DO Bottom					
LA-30	10-Jul-03	7.5 mg/L	DO Bottom					
LA-30	20-Jul-06	7.5 mg/l	DO Bottom					
LA-30	4-Oct-02	7.6 mg/L	DO Bottom					
LA-30	7-Jul-05	7.6 mg/l	DO Bottom					
LA-30	16-Jun-00	7.7 mg/L	DO Bottom					
LA-30	21-Dec-00	7.7 mg/L	DO Bottom					
LA-30	5-Nov-01	7.9 mg/L	DO Bottom					
LA-30	12-Jun-08	8.20 mg/l	DO Bottom	7.3	8.2	7.51875	16	2007-2008
LA-32B	7-Aug-03	4.3 mg/L	DO Bottom					
LA-32B	10-Jan-00	4.8 mg/L	DO Bottom					
LA-32B	19-Jun-03	5.6 mg/L	DO Bottom					
LA-32B	11-Jan-01	5.7 mg/L	DO Bottom					
LA-32B	13-Nov-02	5.7 mg/L	DO Bottom					
LA-32B	9-Oct-03	5.7 mg/L	DO Bottom					
LA-32B	19-Nov-03	5.7 mg/L	DO Bottom					
LA-32B	12-May-05	5.7 mg/l	DO Bottom					
LA-32B	13-Oct-04	5.8 mg/l	DO Bottom					
LA-32B	17-Apr-08	5.80 mg/l	DO Bottom					
LA-32B	9-Dec-02	5.9 mg/L	DO Bottom					
LA-32B	16-Nov-05	5.9 mg/l	DO Bottom					
LA-32B	13-Apr-06	6 mg/l	DO Bottom					
LA-32B	20-Mar-08	6.00 mg/l	DO Bottom					
LA-32B	15-May-08	6.00 mg/l	DO Bottom					
LA-32B	10-Dec-01	6.1 mg/L	DO Bottom					
LA-32B	10-Sep-03	6.1 mg/L	DO Bottom					
LA-32B	4-Dec-03	6.1 mg/L	DO Bottom					
LA-32B	8-Dec-05	6.1 mg/l	DO Bottom					

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LA-32B	15-Jun-06	6.1	mg/l	DO Bottom
LA-32B	30-Aug-00	6.2	mg/L	DO Bottom
LA-32B	23-Aug-01	6.2	mg/L	DO Bottom
LA-32B	13-Oct-05	6.2	mg/l	DO Bottom
LA-32B	5-Dec-00	6.3	mg/L	DO Bottom
LA-32B	25-Jan-01	6.3	mg/L	DO Bottom
LA-32B	13-Sep-01	6.3	mg/L	DO Bottom
LA-32B	21-Jan-04	6.3	mg/L	DO Bottom
LA-32B	15-Mar-07	6.30	mg/l	DO Bottom
LA-32B	14-Feb-08	6.30	mg/l	DO Bottom
LA-32B	18-Feb-04	6.4	mg/L	DO Bottom
LA-32B	21-Sep-06	6.4	mg/l	DO Bottom
LA-32B	19-Feb-03	6.5	mg/L	DO Bottom
LA-32B	12-Apr-07	6.60	mg/l	DO Bottom
LA-32B	15-Nov-07	6.60	mg/l	DO Bottom
LA-32B	17-Jan-08	6.60	mg/l	DO Bottom
LA-32B	25-Feb-00	6.6	mg/L	DO Bottom
LA-32B	29-Nov-00	6.6	mg/L	DO Bottom
LA-32B	17-Jan-02	6.6	mg/L	DO Bottom
LA-32B	21-Feb-02	6.6	mg/L	DO Bottom
LA-32B	12-Jan-06	6.6	mg/l	DO Bottom
LA-32B	3-Oct-00	6.7	mg/L	DO Bottom
LA-32B	27-Mar-01	6.7	mg/L	DO Bottom
LA-32B	10-Mar-02	6.7	mg/L	DO Bottom
LA-32B	13-Mar-03	6.7	mg/L	DO Bottom
LA-32B	17-Mar-04	6.7	mg/L	DO Bottom
LA-32B	16-Jun-04	6.7	mg/L	DO Bottom
LA-32B	20-Jan-05	6.7	mg/l	DO Bottom
LA-32B	18-Jul-01	6.8	mg/L	DO Bottom
LA-32B	13-Dec-01	6.8	mg/L	DO Bottom
LA-32B	10-Jul-03	6.8	mg/L	DO Bottom
LA-32B	14-Apr-04	6.8	mg/L	DO Bottom
LA-32B	15-Sep-04	6.8	mg/l	DO Bottom
LA-32B	22-Dec-04	6.8	mg/l	DO Bottom
LA-32B	9-Jun-05	6.8	mg/l	DO Bottom
LA-32B	15-Nov-06	6.8	mg/l	DO Bottom
LA-32B	24-Oct-07	6.80	mg/l	DO Bottom

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LA-32B	19-Dec-07	6.80	mg/l	DO Bottom					
LA-32B	15-Sep-00	6.9	mg/L	DO Bottom					
LA-32B	15-Feb-01	6.9	mg/L	DO Bottom					
LA-32B	10-Nov-04	6.9	mg/l	DO Bottom					
LA-32B	11-May-06	6.9	mg/l	DO Bottom					
LA-32B	17-Aug-06	6.9	mg/l	DO Bottom					
LA-32B	16-May-07	6.90	mg/l	DO Bottom					
LA-32B	5-Nov-01	7	mg/L	DO Bottom					
LA-32B	16-May-02	7	mg/L	DO Bottom					
LA-32B	12-May-04	7	mg/L	DO Bottom					
LA-32B	11-Aug-05	7	mg/l	DO Bottom					
LA-32B	16-Feb-06	7	mg/l	DO Bottom					
LA-32B	25-Jan-07	7.00	mg/l	DO Bottom					
LA-32B	25-Jan-07	7	mg/l	DO Bottom					
LA-32B	18-Jul-07	7.00	mg/l	DO Bottom					
LA-32B	9-Aug-07	7.10	mg/l	DO Bottom					
LA-32B	10-Feb-05	7.1	mg/l	DO Bottom					
LA-32B	10-Mar-05	7.1	mg/l	DO Bottom					
LA-32B	7-Feb-07	7.20	mg/l	DO Bottom					
LA-32B	1-May-00	7.2	mg/L	DO Bottom					
LA-32B	13-Jul-00	7.2	mg/L	DO Bottom					
LA-32B	29-Aug-02	7.2	mg/L	DO Bottom					
LA-32B	18-Aug-04	7.2	mg/l	DO Bottom					
LA-32B	21-Jul-04	7.3	mg/l	DO Bottom					
LA-32B	13-Apr-00	7.4	mg/L	DO Bottom					
LA-32B	20-Jul-06	7.4	mg/l	DO Bottom					
LA-32B	21-Dec-00	7.5	mg/L	DO Bottom					
LA-32B	27-Apr-05	7.5	mg/l	DO Bottom					
LA-32B	6-Jul-01	7.6	mg/L	DO Bottom					
LA-32B	20-Jun-02	7.6	mg/L	DO Bottom					
LA-32B	19-Apr-01	7.7	mg/L	DO Bottom					
LA-32B	4-Oct-02	7.8	mg/L	DO Bottom					
LA-32B	15-Sep-05	7.9	mg/l	DO Bottom					
LA-32B	16-Jun-00	8	mg/L	DO Bottom					
LA-32B	7-Jul-05	8	mg/l	DO Bottom					
LA-32B	12-Jun-08	8.70	mg/l	DO Bottom	7.2	8.7	7.625	16	2007-2008
LA-33	19-Jun-03	5.4	mg/L	DO Bottom					

Port of Los Angeles - Inner Harbor Water Quality Data

LA-33	4-Sep-03	5.5	mg/L	DO Bottom
LA-33	9-Oct-03	5.5	mg/L	DO Bottom
LA-33	23-Aug-01	5.8	mg/L	DO Bottom
LA-33	13-Nov-02	5.8	mg/L	DO Bottom
LA-33	19-Nov-03	5.8	mg/L	DO Bottom
LA-33	16-Nov-05	5.8	mg/l	DO Bottom
LA-33	24-Oct-07	5.80	mg/l	DO Bottom
LA-33	9-Dec-02	5.9	mg/L	DO Bottom
LA-33	13-Oct-05	5.9	mg/l	DO Bottom
LA-33	14-May-03	6	mg/L	DO Bottom
LA-33	20-Mar-08	6.00	mg/l	DO Bottom
LA-33	17-Apr-08	6.00	mg/l	DO Bottom
LA-33	14-Feb-08	6.10	mg/l	DO Bottom
LA-33	4-Dec-03	6.1	mg/L	DO Bottom
LA-33	13-Oct-04	6.1	mg/l	DO Bottom
LA-33	13-Apr-06	6.1	mg/l	DO Bottom
LA-33	18-Jul-07	6.20	mg/l	DO Bottom
LA-33	15-May-08	6.20	mg/l	DO Bottom
LA-33	13-Sep-01	6.2	mg/L	DO Bottom
LA-33	12-Jan-06	6.2	mg/l	DO Bottom
LA-33	30-Aug-00	6.3	mg/L	DO Bottom
LA-33	11-Jan-01	6.3	mg/L	DO Bottom
LA-33	19-Apr-01	6.3	mg/L	DO Bottom
LA-33	10-Dec-01	6.3	mg/L	DO Bottom
LA-33	17-Jan-02	6.3	mg/L	DO Bottom
LA-33	8-Dec-05	6.3	mg/l	DO Bottom
LA-33	10-Jan-00	6.4	mg/L	DO Bottom
LA-33	13-Jul-00	6.4	mg/L	DO Bottom
LA-33	5-Dec-00	6.4	mg/L	DO Bottom
LA-33	18-Jul-01	6.4	mg/L	DO Bottom
LA-33	19-Dec-02	6.4	mg/L	DO Bottom
LA-33	12-May-05	6.4	mg/l	DO Bottom
LA-33	11-May-06	6.4	mg/l	DO Bottom
LA-33	15-Jun-06	6.4	mg/l	DO Bottom
LA-33	21-Jan-04	6.5	mg/L	DO Bottom
LA-33	15-Nov-06	6.5	mg/l	DO Bottom
LA-33	12-Apr-07	6.60	mg/l	DO Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-33	13-Dec-01	6.6	mg/L	DO Bottom
LA-33	7-Aug-03	6.6	mg/L	DO Bottom
LA-33	18-Feb-04	6.6	mg/L	DO Bottom
LA-33	16-Jun-04	6.6	mg/L	DO Bottom
LA-33	15-Sep-05	6.6	mg/l	DO Bottom
LA-33	5-Nov-01	6.7	mg/L	DO Bottom
LA-33	10-Mar-02	6.7	mg/L	DO Bottom
LA-33	16-Jan-03	6.7	mg/L	DO Bottom
LA-33	19-Feb-03	6.7	mg/L	DO Bottom
LA-33	10-Sep-03	6.7	mg/L	DO Bottom
LA-33	22-Dec-04	6.7	mg/l	DO Bottom
LA-33	15-Sep-00	6.8	mg/L	DO Bottom
LA-33	29-Nov-00	6.8	mg/L	DO Bottom
LA-33	21-Feb-02	6.8	mg/L	DO Bottom
LA-33	12-May-04	6.8	mg/L	DO Bottom
LA-33	10-Nov-04	6.8	mg/l	DO Bottom
LA-33	20-Jan-05	6.8	mg/l	DO Bottom
LA-33	9-Jun-05	6.8	mg/l	DO Bottom
LA-33	21-Sep-06	6.8	mg/l	DO Bottom
LA-33	15-Nov-07	6.80	mg/l	DO Bottom
LA-33	17-Jan-08	6.80	mg/l	DO Bottom
LA-33	25-Feb-00	6.9	mg/L	DO Bottom
LA-33	15-Feb-01	6.9	mg/L	DO Bottom
LA-33	27-Mar-01	6.9	mg/L	DO Bottom
LA-33	14-Mar-02	6.9	mg/L	DO Bottom
LA-33	15-Sep-04	6.9	mg/l	DO Bottom
LA-33	16-Feb-06	6.9	mg/l	DO Bottom
LA-33	15-Mar-07	6.90	mg/l	DO Bottom
LA-33	16-May-07	6.90	mg/l	DO Bottom
LA-33	13-Apr-00	7	mg/L	DO Bottom
LA-33	3-Oct-00	7	mg/L	DO Bottom
LA-33	17-Mar-04	7	mg/L	DO Bottom
LA-33	9-Aug-07	7.00	mg/l	DO Bottom
LA-33	19-Dec-07	7.00	mg/l	DO Bottom
LA-33	25-Jan-07	7.10	mg/l	DO Bottom
LA-33	7-Feb-07	7.10	mg/l	DO Bottom
LA-33	31-Jul-02	7.1	mg/L	DO Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-33	13-Mar-03	7.1 mg/L	DO Bottom
LA-33	14-Apr-04	7.1 mg/L	DO Bottom
LA-33	27-Apr-05	7.1 mg/l	DO Bottom
LA-33	20-Jul-06	7.1 mg/l	DO Bottom
LA-33	25-Jan-07	7.1 mg/l	DO Bottom
LA-33	25-Jan-01	7.2 mg/L	DO Bottom
LA-33	6-Jul-01	7.2 mg/L	DO Bottom
LA-33	16-May-02	7.2 mg/L	DO Bottom
LA-33	21-Jul-04	7.2 mg/l	DO Bottom
LA-33	18-Aug-04	7.2 mg/l	DO Bottom
LA-33	10-Feb-05	7.2 mg/l	DO Bottom
LA-33	21-Dec-00	7.3 mg/L	DO Bottom
LA-33	29-Aug-02	7.3 mg/L	DO Bottom
LA-33	4-Oct-02	7.3 mg/L	DO Bottom
LA-33	7-Jul-05	7.3 mg/l	DO Bottom
LA-33	1-May-00	7.4 mg/L	DO Bottom
LA-33	17-Aug-06	7.4 mg/l	DO Bottom
LA-33	11-Aug-05	7.5 mg/l	DO Bottom
LA-33	10-Mar-05	7.6 mg/l	DO Bottom
LA-33	10-Jul-03	7.7 mg/L	DO Bottom
LA-33	20-Jun-02	7.8 mg/L	DO Bottom
LA-33	16-Jun-00	8.2 mg/L	DO Bottom
LA-33	12-Jun-08	8.40 mg/l	DO Bottom
LA-35	10-Jan-00	4.9 mg/L	DO Bottom
LA-35	16-Jun-00	5.1 mg/L	DO Bottom
LA-35	19-Nov-03	5.1 mg/L	DO Bottom
LA-35	15-Sep-00	5.3 mg/L	DO Bottom
LA-35	6-Jul-01	5.3 mg/L	DO Bottom
LA-35	27-Mar-01	5.5 mg/L	DO Bottom
LA-35	19-Jun-03	5.5 mg/L	DO Bottom
LA-35	4-Sep-03	5.5 mg/L	DO Bottom
LA-35	27-Apr-05	5.5 mg/l	DO Bottom
LA-35	14-May-03	5.6 mg/L	DO Bottom
LA-35	9-Oct-03	5.6 mg/L	DO Bottom
LA-35	23-Aug-01	5.7 mg/L	DO Bottom
LA-35	13-Jul-00	5.8 mg/L	DO Bottom
LA-35	19-Dec-02	5.9 mg/L	DO Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-35	4-Dec-03	5.9	mg/L	DO Bottom
LA-35	16-Nov-05	5.9	mg/l	DO Bottom
LA-35	13-Apr-06	5.9	mg/l	DO Bottom
LA-35	14-Feb-08	5.90	mg/l	DO Bottom
LA-35	17-Apr-08	6.00	mg/l	DO Bottom
LA-35	15-May-08	6.00	mg/l	DO Bottom
LA-35	13-Sep-01	6.1	mg/L	DO Bottom
LA-35	15-Sep-05	6.1	mg/l	DO Bottom
LA-35	13-Oct-05	6.1	mg/l	DO Bottom
LA-35	21-Jan-04	6.2	mg/L	DO Bottom
LA-35	5-Dec-00	6.3	mg/L	DO Bottom
LA-35	19-Apr-01	6.3	mg/L	DO Bottom
LA-35	10-Dec-01	6.3	mg/L	DO Bottom
LA-35	9-Dec-02	6.3	mg/L	DO Bottom
LA-35	19-Feb-03	6.3	mg/L	DO Bottom
LA-35	12-May-05	6.3	mg/l	DO Bottom
LA-35	8-Dec-05	6.3	mg/l	DO Bottom
LA-35	12-Jan-06	6.3	mg/l	DO Bottom
LA-35	11-May-06	6.3	mg/l	DO Bottom
LA-35	18-Jul-01	6.4	mg/L	DO Bottom
LA-35	17-Jan-02	6.4	mg/L	DO Bottom
LA-35	16-Jan-03	6.4	mg/L	DO Bottom
LA-35	13-Oct-04	6.4	mg/l	DO Bottom
LA-35	3-Oct-00	6.5	mg/L	DO Bottom
LA-35	12-Apr-07	6.50	mg/l	DO Bottom
LA-35	24-Oct-07	6.60	mg/l	DO Bottom
LA-35	25-Feb-00	6.6	mg/L	DO Bottom
LA-35	30-Aug-00	6.6	mg/L	DO Bottom
LA-35	13-Dec-01	6.6	mg/L	DO Bottom
LA-35	12-May-04	6.6	mg/L	DO Bottom
LA-35	15-Jun-06	6.6	mg/l	DO Bottom
LA-35	15-Mar-07	6.70	mg/l	DO Bottom
LA-35	15-Nov-07	6.70	mg/l	DO Bottom
LA-35	29-Nov-00	6.7	mg/L	DO Bottom
LA-35	21-Feb-02	6.7	mg/L	DO Bottom
LA-35	13-Mar-03	6.7	mg/L	DO Bottom
LA-35	17-Mar-04	6.7	mg/L	DO Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-35	10-Nov-04	6.7	mg/l	DO Bottom
LA-35	20-Jan-05	6.7	mg/l	DO Bottom
LA-35	15-Nov-06	6.7	mg/l	DO Bottom
LA-35	11-Jan-01	6.8	mg/L	DO Bottom
LA-35	10-Mar-02	6.8	mg/L	DO Bottom
LA-35	7-Aug-03	6.8	mg/L	DO Bottom
LA-35	16-Jun-04	6.8	mg/L	DO Bottom
LA-35	15-Sep-04	6.8	mg/l	DO Bottom
LA-35	22-Dec-04	6.8	mg/l	DO Bottom
LA-35	18-Jul-07	6.80	mg/l	DO Bottom
LA-35	17-Jan-08	6.80	mg/l	DO Bottom
LA-35	20-Mar-08	6.80	mg/l	DO Bottom
LA-35	14-Mar-02	6.9	mg/L	DO Bottom
LA-35	10-Sep-03	6.9	mg/L	DO Bottom
LA-35	13-Apr-00	7	mg/L	DO Bottom
LA-35	25-Jan-01	7	mg/L	DO Bottom
LA-35	15-Feb-01	7	mg/L	DO Bottom
LA-35	5-Nov-01	7	mg/L	DO Bottom
LA-35	16-May-02	7	mg/L	DO Bottom
LA-35	18-Feb-04	7	mg/L	DO Bottom
LA-35	21-Jul-04	7	mg/l	DO Bottom
LA-35	10-Feb-05	7	mg/l	DO Bottom
LA-35	16-Feb-06	7	mg/l	DO Bottom
LA-35	21-Sep-06	7	mg/l	DO Bottom
LA-35	25-Jan-07	7.00	mg/l	DO Bottom
LA-35	25-Jan-07	7	mg/l	DO Bottom
LA-35	19-Dec-07	7.00	mg/l	DO Bottom
LA-35	31-Jul-02	7.1	mg/L	DO Bottom
LA-35	29-Aug-02	7.1	mg/L	DO Bottom
LA-35	9-Aug-07	7.20	mg/l	DO Bottom
LA-35	10-Jul-03	7.2	mg/L	DO Bottom
LA-35	18-Aug-04	7.2	mg/l	DO Bottom
LA-35	14-Apr-04	7.3	mg/L	DO Bottom
LA-35	20-Jul-06	7.3	mg/l	DO Bottom
LA-35	17-Aug-06	7.3	mg/l	DO Bottom
LA-35	7-Feb-07	7.30	mg/l	DO Bottom
LA-35	20-Jun-02	7.4	mg/L	DO Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-35	4-Oct-02	7.4	mg/L	DO Bottom
LA-35	9-Jun-05	7.4	mg/l	DO Bottom
LA-35	10-Mar-05	7.5	mg/l	DO Bottom
LA-35	7-Jul-05	7.5	mg/l	DO Bottom
LA-35	11-Aug-05	7.5	mg/l	DO Bottom
LA-35	1-May-00	7.6	mg/L	DO Bottom
LA-35	21-Dec-00	7.6	mg/L	DO Bottom
LA-35	12-Jun-08	8.20	mg/l	DO Bottom
LA-35	16-May-07	8.70	mg/l	DO Bottom
LA-39	13-Oct-04	3.8	mg/l	DO Bottom
LA-39	4-Sep-03	5.5	mg/L	DO Bottom
LA-39	17-Apr-08	5.60	mg/l	DO Bottom
LA-39	9-Oct-03	5.6	mg/L	DO Bottom
LA-39	4-Dec-03	5.6	mg/L	DO Bottom
LA-39	19-Dec-02	5.7	mg/L	DO Bottom
LA-39	13-Oct-05	5.7	mg/l	DO Bottom
LA-39	23-Aug-01	5.8	mg/L	DO Bottom
LA-39	19-Nov-03	5.8	mg/L	DO Bottom
LA-39	12-Jan-06	5.8	mg/l	DO Bottom
LA-39	19-Jun-03	5.9	mg/L	DO Bottom
LA-39	13-Apr-06	5.9	mg/l	DO Bottom
LA-39	10-Jan-00	6	mg/L	DO Bottom
LA-39	18-Jul-01	6	mg/L	DO Bottom
LA-39	13-Nov-02	6	mg/L	DO Bottom
LA-39	20-Jul-06	6	mg/l	DO Bottom
LA-39	15-May-08	6.10	mg/l	DO Bottom
LA-39	14-May-03	6.1	mg/L	DO Bottom
LA-39	11-Jan-01	6.2	mg/L	DO Bottom
LA-39	13-Sep-01	6.2	mg/L	DO Bottom
LA-39	10-Mar-05	6.2	mg/l	DO Bottom
LA-39	16-Nov-05	6.2	mg/l	DO Bottom
LA-39	8-Dec-05	6.3	mg/l	DO Bottom
LA-39	17-Jan-02	6.4	mg/L	DO Bottom
LA-39	15-Jun-06	6.4	mg/l	DO Bottom
LA-39	15-Nov-06	6.4	mg/l	DO Bottom
LA-39	15-Mar-07	6.40	mg/l	DO Bottom
LA-39	12-Apr-07	6.40	mg/l	DO Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-39	30-Aug-00	6.5	mg/L	DO Bottom
LA-39	16-Feb-06	6.5	mg/l	DO Bottom
LA-39	13-Dec-01	6.6	mg/L	DO Bottom
LA-39	9-Dec-02	6.6	mg/L	DO Bottom
LA-39	17-Mar-04	6.6	mg/L	DO Bottom
LA-39	25-Jan-07	6.70	mg/l	DO Bottom
LA-39	24-Oct-07	6.70	mg/l	DO Bottom
LA-39	15-Nov-07	6.70	mg/l	DO Bottom
LA-39	14-Feb-08	6.70	mg/l	DO Bottom
LA-39	20-Mar-08	6.70	mg/l	DO Bottom
LA-39	29-Nov-00	6.7	mg/L	DO Bottom
LA-39	5-Dec-00	6.7	mg/L	DO Bottom
LA-39	10-Dec-01	6.7	mg/L	DO Bottom
LA-39	21-Feb-02	6.7	mg/L	DO Bottom
LA-39	18-Feb-04	6.7	mg/L	DO Bottom
LA-39	16-Jun-04	6.7	mg/L	DO Bottom
LA-39	12-May-05	6.7	mg/l	DO Bottom
LA-39	15-Sep-05	6.7	mg/l	DO Bottom
LA-39	11-May-06	6.7	mg/l	DO Bottom
LA-39	21-Sep-06	6.7	mg/l	DO Bottom
LA-39	25-Jan-07	6.7	mg/l	DO Bottom
LA-39	25-Feb-00	6.8	mg/L	DO Bottom
LA-39	13-Jul-00	6.8	mg/L	DO Bottom
LA-39	3-Oct-00	6.8	mg/L	DO Bottom
LA-39	25-Jan-01	6.8	mg/L	DO Bottom
LA-39	6-Jul-01	6.8	mg/L	DO Bottom
LA-39	19-Feb-03	6.8	mg/L	DO Bottom
LA-39	13-Mar-03	6.8	mg/L	DO Bottom
LA-39	10-Nov-04	6.8	mg/l	DO Bottom
LA-39	22-Dec-04	6.8	mg/l	DO Bottom
LA-39	15-Sep-00	6.9	mg/L	DO Bottom
LA-39	19-Apr-01	6.9	mg/L	DO Bottom
LA-39	14-Mar-02	6.9	mg/L	DO Bottom
LA-39	31-Jul-02	6.9	mg/L	DO Bottom
LA-39	21-Jan-04	6.9	mg/L	DO Bottom
LA-39	14-Apr-04	6.9	mg/L	DO Bottom
LA-39	15-Sep-04	6.9	mg/l	DO Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-39	20-Jan-05	6.9	mg/l	DO Bottom
LA-39	9-Jun-05	6.9	mg/l	DO Bottom
LA-39	19-Dec-07	6.90	mg/l	DO Bottom
LA-39	17-Jan-08	6.90	mg/l	DO Bottom
LA-39	10-Mar-02	7	mg/L	DO Bottom
LA-39	12-May-04	7	mg/L	DO Bottom
LA-39	18-Jul-07	7.00	mg/l	DO Bottom
LA-39	9-Aug-07	7.00	mg/l	DO Bottom
LA-39	7-Feb-07	7.10	mg/l	DO Bottom
LA-39	16-May-02	7.1	mg/L	DO Bottom
LA-39	29-Aug-02	7.1	mg/L	DO Bottom
LA-39	11-Aug-05	7.1	mg/l	DO Bottom
LA-39	17-Aug-06	7.1	mg/l	DO Bottom
LA-39	13-Apr-00	7.2	mg/L	DO Bottom
LA-39	21-Dec-00	7.2	mg/L	DO Bottom
LA-39	15-Feb-01	7.2	mg/L	DO Bottom
LA-39	20-Jun-02	7.2	mg/L	DO Bottom
LA-39	10-Jul-03	7.2	mg/L	DO Bottom
LA-39	7-Aug-03	7.2	mg/L	DO Bottom
LA-39	10-Sep-03	7.2	mg/L	DO Bottom
LA-39	10-Feb-05	7.2	mg/l	DO Bottom
LA-39	7-Jul-05	7.2	mg/l	DO Bottom
LA-39	1-May-00	7.3	mg/L	DO Bottom
LA-39	18-Aug-04	7.3	mg/l	DO Bottom
LA-39	16-May-07	7.40	mg/l	DO Bottom
LA-39	27-Mar-01	7.5	mg/L	DO Bottom
LA-39	5-Nov-01	7.5	mg/L	DO Bottom
LA-39	16-Jan-03	7.5	mg/L	DO Bottom
LA-39	21-Jul-04	7.6	mg/l	DO Bottom
LA-39	27-Apr-05	7.6	mg/l	DO Bottom
LA-39	4-Oct-02	7.7	mg/L	DO Bottom
LA-39	16-Jun-00	8.2	mg/L	DO Bottom
LA-39	12-Jun-08	8.30	mg/l	DO Bottom
LA-41	16-Jan-03	4	mg/L	DO Bottom
LA-41	9-Oct-03	5	mg/L	DO Bottom
LA-41	17-Jan-08	5.30	mg/l	DO Bottom
LA-41	19-Nov-03	5.5	mg/L	DO Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-41	16-May-07	5.50	mg/l	DO Bottom
LA-41	19-Jun-03	5.6	mg/L	DO Bottom
LA-41	20-Mar-08	5.70	mg/l	DO Bottom
LA-41	16-Nov-05	5.7	mg/l	DO Bottom
LA-41	23-Aug-01	5.8	mg/L	DO Bottom
LA-41	13-Nov-02	5.8	mg/L	DO Bottom
LA-41	14-May-03	5.8	mg/L	DO Bottom
LA-41	13-Apr-06	5.8	mg/l	DO Bottom
LA-41	13-Sep-01	5.9	mg/L	DO Bottom
LA-41	4-Sep-03	5.9	mg/L	DO Bottom
LA-41	4-Dec-03	5.9	mg/L	DO Bottom
LA-41	15-Nov-07	5.90	mg/l	DO Bottom
LA-41	18-Jul-01	6	mg/L	DO Bottom
LA-41	14-Mar-02	6	mg/L	DO Bottom
LA-41	19-Dec-02	6	mg/L	DO Bottom
LA-41	13-Oct-05	6	mg/l	DO Bottom
LA-41	14-Feb-08	6.00	mg/l	DO Bottom
LA-41	10-Jan-00	6.1	mg/L	DO Bottom
LA-41	21-Jan-04	6.1	mg/L	DO Bottom
LA-41	13-Oct-04	6.1	mg/l	DO Bottom
LA-41	17-Apr-08	6.20	mg/l	DO Bottom
LA-41	15-May-08	6.20	mg/l	DO Bottom
LA-41	25-Feb-00	6.2	mg/L	DO Bottom
LA-41	30-Aug-00	6.2	mg/L	DO Bottom
LA-41	5-Dec-00	6.2	mg/L	DO Bottom
LA-41	11-Jan-01	6.2	mg/L	DO Bottom
LA-41	19-Feb-03	6.2	mg/L	DO Bottom
LA-41	16-Jun-04	6.2	mg/L	DO Bottom
LA-41	15-Jun-06	6.2	mg/l	DO Bottom
LA-41	13-Jul-00	6.3	mg/L	DO Bottom
LA-41	19-Apr-01	6.3	mg/L	DO Bottom
LA-41	10-Dec-01	6.3	mg/L	DO Bottom
LA-41	10-Jul-03	6.3	mg/L	DO Bottom
LA-41	8-Dec-05	6.3	mg/l	DO Bottom
LA-41	12-Jan-06	6.3	mg/l	DO Bottom
LA-41	15-Mar-07	6.30	mg/l	DO Bottom
LA-41	16-May-02	6.4	mg/L	DO Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-41	16-Feb-06	6.4	mg/l	DO Bottom
LA-41	11-May-06	6.4	mg/l	DO Bottom
LA-41	21-Sep-06	6.4	mg/l	DO Bottom
LA-41	24-Oct-07	6.40	mg/l	DO Bottom
LA-41	27-Mar-01	6.5	mg/L	DO Bottom
LA-41	17-Jan-02	6.5	mg/L	DO Bottom
LA-41	9-Dec-02	6.5	mg/L	DO Bottom
LA-41	13-Mar-03	6.5	mg/L	DO Bottom
LA-41	10-Sep-03	6.5	mg/L	DO Bottom
LA-41	25-Feb-04	6.5	mg/L	DO Bottom
LA-41	15-Sep-04	6.5	mg/l	DO Bottom
LA-41	10-Nov-04	6.5	mg/l	DO Bottom
LA-41	20-Jan-05	6.5	mg/l	DO Bottom
LA-41	7-Feb-07	6.50	mg/l	DO Bottom
LA-41	12-Apr-07	6.50	mg/l	DO Bottom
LA-41	19-Dec-07	6.60	mg/l	DO Bottom
LA-41	3-Oct-00	6.6	mg/L	DO Bottom
LA-41	29-Nov-00	6.6	mg/L	DO Bottom
LA-41	17-Mar-04	6.6	mg/L	DO Bottom
LA-41	12-May-05	6.6	mg/l	DO Bottom
LA-41	25-Jan-07	6.70	mg/l	DO Bottom
LA-41	9-Aug-07	6.70	mg/l	DO Bottom
LA-41	21-Feb-02	6.7	mg/L	DO Bottom
LA-41	10-Mar-02	6.7	mg/L	DO Bottom
LA-41	4-Oct-02	6.7	mg/L	DO Bottom
LA-41	15-Nov-06	6.7	mg/l	DO Bottom
LA-41	25-Jan-07	6.7	mg/l	DO Bottom
LA-41	25-Jan-01	6.8	mg/L	DO Bottom
LA-41	15-Feb-01	6.8	mg/L	DO Bottom
LA-41	6-Jul-01	6.8	mg/L	DO Bottom
LA-41	13-Dec-01	6.8	mg/L	DO Bottom
LA-41	1-May-00	6.9	mg/L	DO Bottom
LA-41	29-Aug-02	6.9	mg/L	DO Bottom
LA-41	7-Aug-03	6.9	mg/L	DO Bottom
LA-41	22-Dec-04	6.9	mg/l	DO Bottom
LA-41	12-May-04	7	mg/L	DO Bottom
LA-41	10-Feb-05	7	mg/l	DO Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-41	18-Jul-07	7.00	mg/l	DO Bottom
LA-41	13-Apr-00	7.1	mg/L	DO Bottom
LA-41	14-Apr-04	7.1	mg/L	DO Bottom
LA-41	11-Aug-05	7.1	mg/l	DO Bottom
LA-41	5-Nov-01	7.2	mg/L	DO Bottom
LA-41	31-Jul-02	7.2	mg/L	DO Bottom
LA-41	18-Aug-04	7.2	mg/l	DO Bottom
LA-41	15-Sep-05	7.2	mg/l	DO Bottom
LA-41	17-Aug-06	7.2	mg/l	DO Bottom
LA-41	15-Sep-00	7.3	mg/L	DO Bottom
LA-41	15-Sep-00	7.3	mg/L	DO Bottom
LA-41	20-Jun-02	7.3	mg/L	DO Bottom
LA-41	20-Jul-06	7.3	mg/l	DO Bottom
LA-41	10-Mar-05	7.5	mg/l	DO Bottom
LA-41	21-Jul-04	7.8	mg/l	DO Bottom
LA-41	7-Jul-05	7.9	mg/l	DO Bottom
LA-41	12-Jun-08	7.90	mg/l	DO Bottom
LA-41	9-Jun-05	8.1	mg/l	DO Bottom
LA-41	16-Jun-00	8.5	mg/L	DO Bottom
LA-44	20-Jul-06	3.4	mg/l	DO Bottom
LA-44	9-Oct-03	4.8	mg/L	DO Bottom
LA-44	16-Jan-03	4.9	mg/L	DO Bottom
LA-44	10-Jan-00	5.1	mg/L	DO Bottom
LA-44	13-Nov-02	5.4	mg/L	DO Bottom
LA-44	4-Sep-03	5.4	mg/L	DO Bottom
LA-44	13-Oct-04	5.4	mg/l	DO Bottom
LA-44	13-Apr-06	5.4	mg/l	DO Bottom
LA-44	23-Aug-01	5.5	mg/L	DO Bottom
LA-44	16-May-07	5.50	mg/l	DO Bottom
LA-44	19-Dec-02	5.6	mg/L	DO Bottom
LA-44	14-May-03	5.6	mg/L	DO Bottom
LA-44	19-Nov-03	5.6	mg/L	DO Bottom
LA-44	16-Nov-05	5.6	mg/l	DO Bottom
LA-44	17-Apr-08	5.70	mg/l	DO Bottom
LA-44	19-Feb-03	5.7	mg/L	DO Bottom
LA-44	13-Oct-05	5.7	mg/l	DO Bottom
LA-44	5-Dec-00	5.9	mg/L	DO Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-44	13-Apr-00	6	mg/L	DO Bottom
LA-44	16-May-02	6	mg/L	DO Bottom
LA-44	8-Dec-05	6	mg/l	DO Bottom
LA-44	11-Jan-01	6.1	mg/L	DO Bottom
LA-44	18-Jul-01	6.1	mg/L	DO Bottom
LA-44	4-Dec-03	6.1	mg/L	DO Bottom
LA-44	30-Aug-00	6.2	mg/L	DO Bottom
LA-44	15-Feb-01	6.2	mg/L	DO Bottom
LA-44	16-Jun-04	6.2	mg/L	DO Bottom
LA-44	15-Sep-00	6.3	mg/L	DO Bottom
LA-44	13-Sep-01	6.3	mg/L	DO Bottom
LA-44	12-Jan-06	6.3	mg/l	DO Bottom
LA-44	11-May-06	6.3	mg/l	DO Bottom
LA-44	12-Apr-07	6.30	mg/l	DO Bottom
LA-44	9-Aug-07	6.30	mg/l	DO Bottom
LA-44	14-Feb-08	6.30	mg/l	DO Bottom
LA-44	25-Feb-00	6.4	mg/L	DO Bottom
LA-44	10-Dec-01	6.4	mg/L	DO Bottom
LA-44	13-Dec-01	6.4	mg/L	DO Bottom
LA-44	10-Nov-04	6.4	mg/l	DO Bottom
LA-44	27-Apr-05	6.4	mg/l	DO Bottom
LA-44	11-Aug-05	6.4	mg/l	DO Bottom
LA-44	24-Oct-07	6.40	mg/l	DO Bottom
LA-44	16-Jun-00	6.5	mg/L	DO Bottom
LA-44	13-Mar-03	6.5	mg/L	DO Bottom
LA-44	20-Jan-05	6.5	mg/l	DO Bottom
LA-44	7-Feb-07	6.50	mg/l	DO Bottom
LA-44	15-Mar-07	6.50	mg/l	DO Bottom
LA-44	15-Nov-07	6.50	mg/l	DO Bottom
LA-44	20-Mar-08	6.50	mg/l	DO Bottom
LA-44	19-Dec-07	6.60	mg/l	DO Bottom
LA-44	15-May-08	6.60	mg/l	DO Bottom
LA-44	3-Oct-00	6.6	mg/L	DO Bottom
LA-44	29-Nov-00	6.6	mg/L	DO Bottom
LA-44	25-Jan-01	6.6	mg/L	DO Bottom
LA-44	21-Feb-02	6.6	mg/L	DO Bottom
LA-44	10-Mar-02	6.6	mg/L	DO Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-44	14-Mar-02	6.6	mg/L	DO Bottom
LA-44	9-Dec-02	6.6	mg/L	DO Bottom
LA-44	7-Aug-03	6.6	mg/L	DO Bottom
LA-44	15-Sep-04	6.6	mg/l	DO Bottom
LA-44	15-Jun-06	6.6	mg/l	DO Bottom
LA-44	18-Jul-07	6.70	mg/l	DO Bottom
LA-44	17-Jan-08	6.70	mg/l	DO Bottom
LA-44	17-Jan-02	6.7	mg/L	DO Bottom
LA-44	19-Jun-03	6.7	mg/L	DO Bottom
LA-44	21-Jan-04	6.7	mg/L	DO Bottom
LA-44	25-Feb-04	6.7	mg/L	DO Bottom
LA-44	22-Dec-04	6.7	mg/l	DO Bottom
LA-44	21-Sep-06	6.7	mg/l	DO Bottom
LA-44	15-Nov-06	6.7	mg/l	DO Bottom
LA-44	31-Jul-02	6.8	mg/L	DO Bottom
LA-44	10-Sep-03	6.8	mg/L	DO Bottom
LA-44	25-Jan-07	6.8	mg/l	DO Bottom
LA-44	25-Jan-07	6.80	mg/l	DO Bottom
LA-44	1-May-00	6.9	mg/L	DO Bottom
LA-44	12-May-05	6.9	mg/l	DO Bottom
LA-44	13-Jul-00	7	mg/L	DO Bottom
LA-44	20-Jun-02	7	mg/L	DO Bottom
LA-44	29-Aug-02	7	mg/L	DO Bottom
LA-44	17-Mar-04	7	mg/L	DO Bottom
LA-44	21-Jul-04	7	mg/l	DO Bottom
LA-44	10-Feb-05	7	mg/l	DO Bottom
LA-44	10-Mar-05	7	mg/l	DO Bottom
LA-44	15-Sep-05	7	mg/l	DO Bottom
LA-44	16-Feb-06	7	mg/l	DO Bottom
LA-44	4-Oct-02	7.1	mg/L	DO Bottom
LA-44	14-Apr-04	7.2	mg/L	DO Bottom
LA-44	5-Nov-01	7.3	mg/L	DO Bottom
LA-44	27-Mar-01	7.4	mg/L	DO Bottom
LA-44	19-Apr-01	7.4	mg/L	DO Bottom
LA-44	12-May-04	7.4	mg/L	DO Bottom
LA-44	6-Jul-01	7.5	mg/L	DO Bottom
LA-44	10-Jul-03	7.6	mg/L	DO Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-44	18-Aug-04	7.6	mg/l	DO Bottom
LA-44	9-Jun-05	7.6	mg/l	DO Bottom
LA-44	17-Aug-06	7.6	mg/l	DO Bottom
LA-44	12-Jun-08	7.70	mg/l	DO Bottom
LA-44	21-Dec-00	7.8	mg/L	DO Bottom
LA-44	7-Jul-05	7.8	mg/l	DO Bottom
LA-46	16-Jan-03	4.5	mg/L	DO Bottom
LA-46	9-Oct-03	4.5	mg/L	DO Bottom
LA-46	13-Oct-04	4.5	mg/l	DO Bottom
LA-46	23-Aug-01	5.2	mg/L	DO Bottom
LA-46	14-May-03	5.4	mg/L	DO Bottom
LA-46	15-Sep-00	5.5	mg/L	DO Bottom
LA-46	13-Sep-01	5.5	mg/L	DO Bottom
LA-46	13-Nov-02	5.5	mg/L	DO Bottom
LA-46	13-Apr-06	5.6	mg/l	DO Bottom
LA-46	13-Oct-05	5.7	mg/l	DO Bottom
LA-46	16-Nov-05	5.7	mg/l	DO Bottom
LA-46	30-Aug-00	5.8	mg/L	DO Bottom
LA-46	5-Dec-00	5.8	mg/L	DO Bottom
LA-46	16-May-02	5.8	mg/L	DO Bottom
LA-46	4-Dec-03	5.8	mg/L	DO Bottom
LA-46	15-Mar-07	5.80	mg/l	DO Bottom
LA-46	13-Dec-01	5.9	mg/L	DO Bottom
LA-46	9-Dec-02	5.9	mg/L	DO Bottom
LA-46	19-Dec-02	5.9	mg/L	DO Bottom
LA-46	19-Nov-03	5.9	mg/L	DO Bottom
LA-46	10-Mar-02	6	mg/L	DO Bottom
LA-46	4-Sep-03	6	mg/L	DO Bottom
LA-46	11-May-06	6	mg/l	DO Bottom
LA-46	16-May-07	6.00	mg/l	DO Bottom
LA-46	24-Oct-07	6.00	mg/l	DO Bottom
LA-46	11-Jan-01	6.1	mg/L	DO Bottom
LA-46	12-Apr-07	6.20	mg/l	DO Bottom
LA-46	15-Nov-07	6.20	mg/l	DO Bottom
LA-46	10-Dec-01	6.2	mg/L	DO Bottom
LA-46	14-Mar-02	6.2	mg/L	DO Bottom
LA-46	8-Dec-05	6.2	mg/l	DO Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-46	17-Jan-02	6.3	mg/L	DO Bottom
LA-46	25-Feb-04	6.3	mg/L	DO Bottom
LA-46	16-Jun-04	6.3	mg/L	DO Bottom
LA-46	12-Jan-06	6.3	mg/l	DO Bottom
LA-46	17-Jan-08	6.30	mg/l	DO Bottom
LA-46	17-Apr-08	6.30	mg/l	DO Bottom
LA-46	15-Sep-04	6.4	mg/l	DO Bottom
LA-46	11-Aug-05	6.4	mg/l	DO Bottom
LA-46	15-Jun-06	6.4	mg/l	DO Bottom
LA-46	10-Jan-00	6.5	mg/L	DO Bottom
LA-46	25-Feb-00	6.5	mg/L	DO Bottom
LA-46	25-Jan-01	6.5	mg/L	DO Bottom
LA-46	15-Feb-01	6.5	mg/L	DO Bottom
LA-46	27-Mar-01	6.5	mg/L	DO Bottom
LA-46	19-Apr-01	6.5	mg/L	DO Bottom
LA-46	6-Jul-01	6.5	mg/L	DO Bottom
LA-46	18-Jul-01	6.5	mg/L	DO Bottom
LA-46	5-Nov-01	6.5	mg/L	DO Bottom
LA-46	21-Feb-02	6.5	mg/L	DO Bottom
LA-46	13-Mar-03	6.5	mg/L	DO Bottom
LA-46	10-Nov-04	6.5	mg/l	DO Bottom
LA-46	20-Jan-05	6.5	mg/l	DO Bottom
LA-46	21-Sep-06	6.5	mg/l	DO Bottom
LA-46	7-Feb-07	6.50	mg/l	DO Bottom
LA-46	9-Aug-07	6.60	mg/l	DO Bottom
LA-46	14-Feb-08	6.60	mg/l	DO Bottom
LA-46	20-Mar-08	6.60	mg/l	DO Bottom
LA-46	19-Jun-03	6.6	mg/L	DO Bottom
LA-46	17-Aug-06	6.6	mg/l	DO Bottom
LA-46	15-Nov-06	6.6	mg/l	DO Bottom
LA-46	18-Jul-07	6.70	mg/l	DO Bottom
LA-46	19-Dec-07	6.70	mg/l	DO Bottom
LA-46	15-May-08	6.70	mg/l	DO Bottom
LA-46	3-Oct-00	6.7	mg/L	DO Bottom
LA-46	19-Feb-03	6.7	mg/L	DO Bottom
LA-46	21-Jan-04	6.7	mg/L	DO Bottom
LA-46	12-May-04	6.7	mg/L	DO Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-46	12-May-05	6.7	mg/l	DO Bottom
LA-46	1-May-00	6.8	mg/L	DO Bottom
LA-46	13-Jul-00	6.8	mg/L	DO Bottom
LA-46	29-Nov-00	6.8	mg/L	DO Bottom
LA-46	17-Mar-04	6.8	mg/L	DO Bottom
LA-46	27-Apr-05	6.8	mg/l	DO Bottom
LA-46	22-Dec-04	6.9	mg/l	DO Bottom
LA-46	10-Feb-05	6.9	mg/l	DO Bottom
LA-46	16-Feb-06	6.9	mg/l	DO Bottom
LA-46	25-Jan-07	6.9	mg/l	DO Bottom
LA-46	25-Jan-07	6.90	mg/l	DO Bottom
LA-46	13-Apr-00	7	mg/L	DO Bottom
LA-46	7-Aug-03	7	mg/L	DO Bottom
LA-46	10-Sep-03	7	mg/L	DO Bottom
LA-46	14-Apr-04	7	mg/L	DO Bottom
LA-46	21-Jul-04	7	mg/l	DO Bottom
LA-46	29-Aug-02	7.1	mg/L	DO Bottom
LA-46	4-Oct-02	7.1	mg/L	DO Bottom
LA-46	16-Jun-00	7.2	mg/L	DO Bottom
LA-46	21-Dec-00	7.2	mg/L	DO Bottom
LA-46	18-Aug-04	7.2	mg/l	DO Bottom
LA-46	10-Mar-05	7.3	mg/l	DO Bottom
LA-46	15-Sep-05	7.3	mg/l	DO Bottom
LA-46	7-Jul-05	7.4	mg/l	DO Bottom
LA-46	10-Jul-03	7.5	mg/L	DO Bottom
LA-46	31-Jul-02	7.6	mg/L	DO Bottom
LA-46	20-Jul-06	7.7	mg/l	DO Bottom
LA-46	20-Jun-02	7.8	mg/L	DO Bottom
LA-46	9-Jun-05	7.9	mg/l	DO Bottom
LA-46	12-Jun-08	7.90	mg/l	DO Bottom
LA-47	16-Jan-03	2.1	mg/L	DO Bottom
LA-47	9-Oct-03	5	mg/L	DO Bottom
LA-47	19-Dec-02	5.1	mg/L	DO Bottom
LA-47	19-Nov-03	5.1	mg/L	DO Bottom
LA-47	14-May-03	5.4	mg/L	DO Bottom
LA-47	5-Dec-00	5.5	mg/L	DO Bottom
LA-47	4-Sep-03	5.5	mg/L	DO Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-47	16-Nov-05	5.5	mg/l	DO Bottom
LA-47	17-Apr-08	5.60	mg/l	DO Bottom
LA-47	23-Aug-01	5.6	mg/L	DO Bottom
LA-47	13-Sep-01	5.6	mg/L	DO Bottom
LA-47	13-Nov-02	5.7	mg/L	DO Bottom
LA-47	13-Apr-06	5.8	mg/l	DO Bottom
LA-47	19-Jun-03	5.9	mg/L	DO Bottom
LA-47	22-Dec-04	5.9	mg/l	DO Bottom
LA-47	10-Jan-00	6	mg/L	DO Bottom
LA-47	11-Jan-01	6	mg/L	DO Bottom
LA-47	18-Jul-01	6	mg/L	DO Bottom
LA-47	24-Oct-07	6.00	mg/l	DO Bottom
LA-47	14-Feb-08	6.00	mg/l	DO Bottom
LA-47	15-Sep-00	6.1	mg/L	DO Bottom
LA-47	4-Dec-03	6.1	mg/L	DO Bottom
LA-47	8-Dec-05	6.1	mg/l	DO Bottom
LA-47	12-Jan-06	6.1	mg/l	DO Bottom
LA-47	16-May-07	6.20	mg/l	DO Bottom
LA-47	3-Oct-00	6.3	mg/L	DO Bottom
LA-47	13-Dec-01	6.3	mg/L	DO Bottom
LA-47	10-Nov-04	6.3	mg/l	DO Bottom
LA-47	12-Apr-07	6.30	mg/l	DO Bottom
LA-47	17-Jan-02	6.4	mg/L	DO Bottom
LA-47	19-Feb-03	6.4	mg/L	DO Bottom
LA-47	15-Sep-04	6.4	mg/l	DO Bottom
LA-47	11-May-06	6.4	mg/l	DO Bottom
LA-47	13-Apr-00	6.5	mg/L	DO Bottom
LA-47	15-Feb-01	6.5	mg/L	DO Bottom
LA-47	21-Feb-02	6.5	mg/L	DO Bottom
LA-47	16-May-02	6.5	mg/L	DO Bottom
LA-47	13-Mar-03	6.5	mg/L	DO Bottom
LA-47	16-Feb-06	6.5	mg/l	DO Bottom
LA-47	7-Feb-07	6.50	mg/l	DO Bottom
LA-47	15-Mar-07	6.50	mg/l	DO Bottom
LA-47	19-Dec-07	6.50	mg/l	DO Bottom
LA-47	20-Mar-08	6.50	mg/l	DO Bottom
LA-47	15-May-08	6.50	mg/l	DO Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-47	18-Jul-07	6.60	mg/l	DO Bottom
LA-47	25-Feb-00	6.6	mg/L	DO Bottom
LA-47	30-Aug-00	6.6	mg/L	DO Bottom
LA-47	10-Dec-01	6.6	mg/L	DO Bottom
LA-47	7-Aug-03	6.6	mg/L	DO Bottom
LA-47	13-Oct-05	6.6	mg/l	DO Bottom
LA-47	21-Sep-06	6.6	mg/l	DO Bottom
LA-47	25-Jan-07	6.70	mg/l	DO Bottom
LA-47	15-Nov-07	6.70	mg/l	DO Bottom
LA-47	25-Jan-01	6.7	mg/L	DO Bottom
LA-47	31-Jul-02	6.7	mg/L	DO Bottom
LA-47	13-Oct-04	6.7	mg/l	DO Bottom
LA-47	15-Jun-06	6.7	mg/l	DO Bottom
LA-47	25-Jan-07	6.7	mg/l	DO Bottom
LA-47	21-Dec-00	6.8	mg/L	DO Bottom
LA-47	19-Apr-01	6.8	mg/L	DO Bottom
LA-47	25-Feb-04	6.8	mg/L	DO Bottom
LA-47	17-Mar-04	6.8	mg/L	DO Bottom
LA-47	9-Aug-07	6.80	mg/l	DO Bottom
LA-47	1-May-00	6.9	mg/L	DO Bottom
LA-47	9-Dec-02	6.9	mg/L	DO Bottom
LA-47	21-Jan-04	6.9	mg/L	DO Bottom
LA-47	16-Jun-04	6.9	mg/L	DO Bottom
LA-47	20-Jan-05	6.9	mg/l	DO Bottom
LA-47	15-Nov-06	6.9	mg/l	DO Bottom
LA-47	17-Jan-08	6.90	mg/l	DO Bottom
LA-47	29-Nov-00	7	mg/L	DO Bottom
LA-47	4-Oct-02	7	mg/L	DO Bottom
LA-47	10-Jul-03	7	mg/L	DO Bottom
LA-47	10-Feb-05	7	mg/l	DO Bottom
LA-47	12-May-05	7	mg/l	DO Bottom
LA-47	13-Jul-00	7.1	mg/L	DO Bottom
LA-47	10-Mar-02	7.1	mg/L	DO Bottom
LA-47	14-Mar-02	7.1	mg/L	DO Bottom
LA-47	27-Apr-05	7.1	mg/l	DO Bottom
LA-47	5-Nov-01	7.2	mg/L	DO Bottom
LA-47	10-Sep-03	7.2	mg/L	DO Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-47	20-Jun-02	7.3	mg/L	DO Bottom
LA-47	29-Aug-02	7.4	mg/L	DO Bottom
LA-47	27-Mar-01	7.6	mg/L	DO Bottom
LA-47	6-Jul-01	7.6	mg/L	DO Bottom
LA-47	14-Apr-04	7.6	mg/L	DO Bottom
LA-47	17-Aug-06	7.6	mg/l	DO Bottom
LA-47	12-May-04	7.7	mg/L	DO Bottom
LA-47	15-Sep-05	7.7	mg/l	DO Bottom
LA-47	21-Jul-04	7.8	mg/l	DO Bottom
LA-47	18-Aug-04	7.8	mg/l	DO Bottom
LA-47	11-Aug-05	7.8	mg/l	DO Bottom
LA-47	12-Jun-08	7.90	mg/l	DO Bottom
LA-47	10-Mar-05	8.1	mg/l	DO Bottom
LA-47	7-Jul-05	8.2	mg/l	DO Bottom
LA-47	16-Jun-00	8.3	mg/L	DO Bottom
LA-47	9-Jun-05	8.3	mg/l	DO Bottom
LA-47	20-Jul-06	8.3	mg/l	DO Bottom
LA-30	16-Jan-03	2.5	mg/L	DO Surface
LA-30	9-Oct-03	4.3	mg/L	DO Surface
LA-30	23-Aug-01	5	mg/L	DO Surface
LA-30	19-Nov-03	5.1	mg/L	DO Surface
LA-30	11-Jan-01	5.2	mg/L	DO Surface
LA-30	14-May-03	5.2	mg/L	DO Surface
LA-30	16-Nov-05	5.2	mg/l	DO Surface
LA-30	13-Oct-05	5.3	mg/l	DO Surface
LA-30	17-Apr-08	5.30	mg/l	DO Surface
LA-30	13-Sep-01	5.4	mg/L	DO Surface
LA-30	4-Sep-03	5.4	mg/L	DO Surface
LA-30	18-Jul-01	5.5	mg/L	DO Surface
LA-30	13-Nov-02	5.5	mg/L	DO Surface
LA-30	19-Jun-03	5.5	mg/L	DO Surface
LA-30	16-Jun-00	5.6	mg/L	DO Surface
LA-30	10-Jan-00	5.7	mg/L	DO Surface
LA-30	13-Dec-01	5.7	mg/L	DO Surface
LA-30	19-Dec-02	5.7	mg/L	DO Surface
LA-30	13-Oct-04	5.7	mg/l	DO Surface
LA-30	13-Apr-06	5.7	mg/l	DO Surface

Port of Los Angeles - Inner Harbor Water Quality Data

LA-30	5-Dec-00	5.8	mg/L	DO Surface
LA-30	13-Mar-03	5.8	mg/L	DO Surface
LA-30	8-Dec-05	5.9	mg/l	DO Surface
LA-30	10-Dec-01	6	mg/L	DO Surface
LA-30	9-Dec-02	6	mg/L	DO Surface
LA-30	4-Dec-03	6	mg/L	DO Surface
LA-30	10-Mar-02	6.1	mg/L	DO Surface
LA-30	21-Jan-04	6.1	mg/L	DO Surface
LA-30	24-Oct-07	6.20	mg/l	DO Surface
LA-30	1-May-00	6.2	mg/L	DO Surface
LA-30	17-Jan-02	6.2	mg/L	DO Surface
LA-30	16-May-02	6.2	mg/L	DO Surface
LA-30	19-Feb-03	6.2	mg/L	DO Surface
LA-30	16-Jun-04	6.2	mg/L	DO Surface
LA-30	3-Oct-00	6.3	mg/L	DO Surface
LA-30	12-Jan-06	6.3	mg/l	DO Surface
LA-30	11-May-06	6.3	mg/l	DO Surface
LA-30	14-Feb-08	6.30	mg/l	DO Surface
LA-30	20-Mar-08	6.30	mg/l	DO Surface
LA-30	15-May-08	6.30	mg/l	DO Surface
LA-30	13-Jul-00	6.4	mg/L	DO Surface
LA-30	7-Aug-03	6.4	mg/L	DO Surface
LA-30	10-Nov-04	6.4	mg/l	DO Surface
LA-30	15-Mar-07	6.40	mg/l	DO Surface
LA-30	16-May-07	6.50	mg/l	DO Surface
LA-30	12-Apr-07	6.60	mg/l	DO Surface
LA-30	13-Apr-00	6.6	mg/L	DO Surface
LA-30	30-Aug-00	6.6	mg/L	DO Surface
LA-30	21-Feb-02	6.6	mg/L	DO Surface
LA-30	20-Jan-05	6.6	mg/l	DO Surface
LA-30	15-Jun-06	6.6	mg/l	DO Surface
LA-30	15-Nov-06	6.6	mg/l	DO Surface
LA-30	25-Jan-07	6.70	mg/l	DO Surface
LA-30	25-Jan-01	6.7	mg/L	DO Surface
LA-30	15-Sep-04	6.7	mg/l	DO Surface
LA-30	25-Jan-07	6.7	mg/l	DO Surface
LA-30	29-Nov-00	6.8	mg/L	DO Surface

Port of Los Angeles - Inner Harbor Water Quality Data

LA-30	15-Feb-01	6.8	mg/L	DO Surface
LA-30	6-Jul-01	6.8	mg/L	DO Surface
LA-30	14-Mar-02	6.8	mg/L	DO Surface
LA-30	29-Aug-02	6.8	mg/L	DO Surface
LA-30	25-Feb-04	6.8	mg/L	DO Surface
LA-30	17-Mar-04	6.8	mg/L	DO Surface
LA-30	22-Dec-04	6.8	mg/l	DO Surface
LA-30	12-May-05	6.8	mg/l	DO Surface
LA-30	15-Sep-05	6.8	mg/l	DO Surface
LA-30	21-Sep-06	6.8	mg/l	DO Surface
LA-30	15-Nov-07	6.80	mg/l	DO Surface
LA-30	15-Sep-00	6.9	mg/L	DO Surface
LA-30	21-Dec-00	6.9	mg/L	DO Surface
LA-30	19-Apr-01	6.9	mg/L	DO Surface
LA-30	18-Aug-04	6.9	mg/l	DO Surface
LA-30	10-Feb-05	6.9	mg/l	DO Surface
LA-30	7-Feb-07	6.90	mg/l	DO Surface
LA-30	19-Dec-07	6.90	mg/l	DO Surface
LA-30	16-Feb-06	7	mg/l	DO Surface
LA-30	18-Jul-07	7.10	mg/l	DO Surface
LA-30	9-Aug-07	7.10	mg/l	DO Surface
LA-30	17-Jan-08	7.10	mg/l	DO Surface
LA-30	25-Feb-00	7.1	mg/L	DO Surface
LA-30	31-Jul-02	7.1	mg/L	DO Surface
LA-30	14-Apr-04	7.1	mg/L	DO Surface
LA-30	4-Oct-02	7.2	mg/L	DO Surface
LA-30	12-May-04	7.2	mg/L	DO Surface
LA-30	20-Jun-02	7.3	mg/L	DO Surface
LA-30	10-Jul-03	7.3	mg/L	DO Surface
LA-30	10-Mar-05	7.3	mg/l	DO Surface
LA-30	5-Nov-01	7.4	mg/L	DO Surface
LA-30	21-Jul-04	7.4	mg/l	DO Surface
LA-30	7-Jul-05	7.4	mg/l	DO Surface
LA-30	11-Aug-05	7.4	mg/l	DO Surface
LA-30	20-Jul-06	7.4	mg/l	DO Surface
LA-30	9-Jun-05	7.5	mg/l	DO Surface
LA-30	17-Aug-06	7.5	mg/l	DO Surface

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LA-30	27-Mar-01	7.6	mg/L	DO Surface					
LA-30	27-Apr-05	7.6	mg/l	DO Surface					
LA-30	10-Sep-03	8	mg/L	DO Surface					
LA-30	12-Jun-08	8.30	mg/l	DO Surface	7.2	8.3	7.4875	16	2007-2008
LA-32B	13-Oct-04	4.3	mg/l	DO Surface					
LA-32B	7-Aug-03	4.5	mg/L	DO Surface					
LA-32B	16-Nov-05	4.7	mg/l	DO Surface					
LA-32B	19-Nov-03	4.8	mg/L	DO Surface					
LA-32B	12-May-05	4.8	mg/l	DO Surface					
LA-32B	8-Dec-05	5.1	mg/l	DO Surface					
LA-32B	11-Jan-01	5.2	mg/L	DO Surface					
LA-32B	9-Dec-02	5.2	mg/L	DO Surface					
LA-32B	9-Oct-03	5.3	mg/L	DO Surface					
LA-32B	19-Jun-03	5.5	mg/L	DO Surface					
LA-32B	17-Apr-08	5.50	mg/l	DO Surface					
LA-32B	15-May-08	5.60	mg/l	DO Surface					
LA-32B	10-Mar-05	5.6	mg/l	DO Surface					
LA-32B	13-Sep-01	5.7	mg/L	DO Surface					
LA-32B	13-Nov-02	5.8	mg/L	DO Surface					
LA-32B	13-Apr-06	5.8	mg/l	DO Surface					
LA-32B	15-Jun-06	5.9	mg/l	DO Surface					
LA-32B	17-Jan-02	6	mg/L	DO Surface					
LA-32B	21-Feb-02	6	mg/L	DO Surface					
LA-32B	4-Dec-03	6	mg/L	DO Surface					
LA-32B	21-Jan-04	6	mg/L	DO Surface					
LA-32B	15-Nov-07	6.10	mg/l	DO Surface					
LA-32B	20-Jan-05	6.1	mg/l	DO Surface					
LA-32B	12-Jan-06	6.1	mg/l	DO Surface					
LA-32B	20-Jul-06	6.1	mg/l	DO Surface					
LA-32B	14-Feb-08	6.20	mg/l	DO Surface					
LA-32B	23-Aug-01	6.2	mg/L	DO Surface					
LA-32B	13-Dec-01	6.2	mg/L	DO Surface					
LA-32B	13-Oct-05	6.2	mg/l	DO Surface					
LA-32B	29-Nov-00	6.3	mg/L	DO Surface					
LA-32B	10-Sep-03	6.3	mg/L	DO Surface					
LA-32B	15-Mar-07	6.30	mg/l	DO Surface					
LA-32B	24-Oct-07	6.30	mg/l	DO Surface					

Port of Los Angeles - Inner Harbor Water Quality Data

LA-32B	25-Feb-00	6.4	mg/L	DO Surface
LA-32B	30-Aug-00	6.4	mg/L	DO Surface
LA-32B	10-Dec-01	6.4	mg/L	DO Surface
LA-32B	21-Sep-06	6.4	mg/l	DO Surface
LA-32B	5-Dec-00	6.5	mg/L	DO Surface
LA-32B	6-Jul-01	6.5	mg/L	DO Surface
LA-32B	10-Mar-02	6.5	mg/L	DO Surface
LA-32B	13-Mar-03	6.5	mg/L	DO Surface
LA-32B	22-Dec-04	6.5	mg/l	DO Surface
LA-32B	27-Apr-05	6.5	mg/l	DO Surface
LA-32B	11-Aug-05	6.5	mg/l	DO Surface
LA-32B	15-Nov-06	6.5	mg/l	DO Surface
LA-32B	12-Apr-07	6.60	mg/l	DO Surface
LA-32B	17-Jan-08	6.60	mg/l	DO Surface
LA-32B	3-Oct-00	6.6	mg/L	DO Surface
LA-32B	19-Feb-03	6.6	mg/L	DO Surface
LA-32B	10-Jul-03	6.6	mg/L	DO Surface
LA-32B	14-Apr-04	6.6	mg/L	DO Surface
LA-32B	10-Nov-04	6.6	mg/l	DO Surface
LA-32B	9-Jun-05	6.6	mg/l	DO Surface
LA-32B	11-May-06	6.6	mg/l	DO Surface
LA-32B	25-Jan-07	6.70	mg/l	DO Surface
LA-32B	16-May-07	6.70	mg/l	DO Surface
LA-32B	19-Dec-07	6.70	mg/l	DO Surface
LA-32B	10-Jan-00	6.7	mg/L	DO Surface
LA-32B	16-Jun-04	6.7	mg/L	DO Surface
LA-32B	15-Sep-04	6.7	mg/l	DO Surface
LA-32B	16-Feb-06	6.7	mg/l	DO Surface
LA-32B	25-Jan-07	6.7	mg/l	DO Surface
LA-32B	18-Feb-04	6.8	mg/L	DO Surface
LA-32B	7-Feb-07	6.80	mg/l	DO Surface
LA-32B	15-Sep-00	6.9	mg/L	DO Surface
LA-32B	29-Aug-02	6.9	mg/L	DO Surface
LA-32B	17-Mar-04	6.9	mg/L	DO Surface
LA-32B	10-Feb-05	6.9	mg/l	DO Surface
LA-32B	13-Apr-00	7	mg/L	DO Surface
LA-32B	1-May-00	7	mg/L	DO Surface

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LA-32B	25-Jan-01	7	mg/L	DO Surface					
LA-32B	15-Feb-01	7	mg/L	DO Surface					
LA-32B	16-May-02	7	mg/L	DO Surface					
LA-32B	18-Jul-07	7.10	mg/l	DO Surface					
LA-32B	27-Mar-01	7.1	mg/L	DO Surface					
LA-32B	18-Jul-01	7.1	mg/L	DO Surface					
LA-32B	21-Jul-04	7.1	mg/l	DO Surface					
LA-32B	9-Aug-07	7.20	mg/l	DO Surface					
LA-32B	20-Mar-08	7.20	mg/l	DO Surface					
LA-32B	5-Nov-01	7.2	mg/L	DO Surface					
LA-32B	12-May-04	7.3	mg/L	DO Surface					
LA-32B	13-Jul-00	7.4	mg/L	DO Surface					
LA-32B	21-Dec-00	7.4	mg/L	DO Surface					
LA-32B	18-Aug-04	7.4	mg/l	DO Surface					
LA-32B	4-Oct-02	7.5	mg/L	DO Surface					
LA-32B	16-Jun-00	7.7	mg/L	DO Surface					
LA-32B	19-Apr-01	7.7	mg/L	DO Surface					
LA-32B	12-Jun-08	7.80	mg/l	DO Surface	7	7.8	7.325	16	2007-2008
LA-32B	17-Aug-06	7.9	mg/l	DO Surface					
LA-32B	15-Sep-05	8.4	mg/l	DO Surface					
LA-32B	7-Jul-05	8.7	mg/l	DO Surface					
LA-32B	20-Jun-02	9.1	mg/L	DO Surface					
LA-33	16-Jun-00	4.5	mg/L	DO Surface					
LA-33	9-Oct-03	4.9	mg/L	DO Surface					
LA-33	19-Nov-03	5.3	mg/L	DO Surface					
LA-33	14-May-03	5.5	mg/L	DO Surface					
LA-33	13-Oct-05	5.5	mg/l	DO Surface					
LA-33	13-Sep-01	5.6	mg/L	DO Surface					
LA-33	13-Nov-02	5.6	mg/L	DO Surface					
LA-33	19-Dec-02	5.6	mg/L	DO Surface					
LA-33	16-Jan-03	5.6	mg/L	DO Surface					
LA-33	19-Jun-03	5.6	mg/L	DO Surface					
LA-33	16-Nov-05	5.6	mg/l	DO Surface					
LA-33	13-Apr-06	5.6	mg/l	DO Surface					
LA-33	17-Apr-08	5.70	mg/l	DO Surface					
LA-33	4-Sep-03	5.7	mg/L	DO Surface					
LA-33	23-Aug-01	5.8	mg/L	DO Surface					

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LA-33	4-Dec-03	5.8	mg/L	DO Surface
LA-33	11-Jan-01	5.9	mg/L	DO Surface
LA-33	17-Jan-02	5.9	mg/L	DO Surface
LA-33	15-May-08	5.90	mg/l	DO Surface
LA-33	10-Sep-03	6	mg/L	DO Surface
LA-33	8-Dec-05	6	mg/l	DO Surface
LA-33	18-Jul-01	6.1	mg/L	DO Surface
LA-33	13-Oct-04	6.1	mg/l	DO Surface
LA-33	12-May-05	6.1	mg/l	DO Surface
LA-33	12-Apr-07	6.20	mg/l	DO Surface
LA-33	10-Dec-01	6.2	mg/L	DO Surface
LA-33	13-Dec-01	6.2	mg/L	DO Surface
LA-33	12-Jan-06	6.2	mg/l	DO Surface
LA-33	19-Apr-01	6.3	mg/L	DO Surface
LA-33	5-Dec-00	6.4	mg/L	DO Surface
LA-33	21-Feb-02	6.4	mg/L	DO Surface
LA-33	14-Mar-02	6.4	mg/L	DO Surface
LA-33	9-Dec-02	6.4	mg/L	DO Surface
LA-33	19-Feb-03	6.4	mg/L	DO Surface
LA-33	15-Sep-05	6.4	mg/l	DO Surface
LA-33	10-Jan-00	6.5	mg/L	DO Surface
LA-33	13-Apr-00	6.5	mg/L	DO Surface
LA-33	3-Oct-00	6.5	mg/L	DO Surface
LA-33	7-Aug-03	6.5	mg/L	DO Surface
LA-33	18-Feb-04	6.5	mg/L	DO Surface
LA-33	10-Nov-04	6.5	mg/l	DO Surface
LA-33	20-Jan-05	6.5	mg/l	DO Surface
LA-33	27-Apr-05	6.5	mg/l	DO Surface
LA-33	11-May-06	6.5	mg/l	DO Surface
LA-33	15-Jun-06	6.5	mg/l	DO Surface
LA-33	15-Nov-06	6.5	mg/l	DO Surface
LA-33	24-Oct-07	6.50	mg/l	DO Surface
LA-33	15-Nov-07	6.60	mg/l	DO Surface
LA-33	14-Feb-08	6.60	mg/l	DO Surface
LA-33	25-Feb-00	6.6	mg/L	DO Surface
LA-33	27-Mar-01	6.6	mg/L	DO Surface
LA-33	20-Mar-08	6.70	mg/l	DO Surface

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LA-33	30-Aug-00	6.7	mg/L	DO Surface
LA-33	29-Nov-00	6.7	mg/L	DO Surface
LA-33	10-Mar-02	6.7	mg/L	DO Surface
LA-33	21-Jan-04	6.7	mg/L	DO Surface
LA-33	16-Jun-04	6.7	mg/L	DO Surface
LA-33	9-Jun-05	6.7	mg/l	DO Surface
LA-33	25-Jan-01	6.8	mg/L	DO Surface
LA-33	16-May-02	6.8	mg/L	DO Surface
LA-33	13-Mar-03	6.8	mg/L	DO Surface
LA-33	12-May-04	6.8	mg/L	DO Surface
LA-33	15-Sep-04	6.8	mg/l	DO Surface
LA-33	21-Sep-06	6.8	mg/l	DO Surface
LA-33	25-Jan-07	6.8	mg/l	DO Surface
LA-33	25-Jan-07	6.80	mg/l	DO Surface
LA-33	15-Mar-07	6.80	mg/l	DO Surface
LA-33	16-May-07	6.80	mg/l	DO Surface
LA-33	18-Jul-07	6.80	mg/l	DO Surface
LA-33	17-Jan-08	6.80	mg/l	DO Surface
LA-33	31-Jul-02	6.9	mg/L	DO Surface
LA-33	10-Feb-05	6.9	mg/l	DO Surface
LA-33	7-Feb-07	6.90	mg/l	DO Surface
LA-33	15-Feb-01	7	mg/L	DO Surface
LA-33	17-Mar-04	7	mg/L	DO Surface
LA-33	22-Dec-04	7	mg/l	DO Surface
LA-33	16-Feb-06	7	mg/l	DO Surface
LA-33	9-Aug-07	7.00	mg/l	DO Surface
LA-33	19-Dec-07	7.00	mg/l	DO Surface
LA-33	1-May-00	7.1	mg/L	DO Surface
LA-33	13-Jul-00	7.1	mg/L	DO Surface
LA-33	21-Dec-00	7.1	mg/L	DO Surface
LA-33	29-Aug-02	7.1	mg/L	DO Surface
LA-33	10-Jul-03	7.1	mg/L	DO Surface
LA-33	18-Aug-04	7.1	mg/l	DO Surface
LA-33	15-Sep-00	7.2	mg/L	DO Surface
LA-33	5-Nov-01	7.2	mg/L	DO Surface
LA-33	7-Jul-05	7.2	mg/l	DO Surface
LA-33	4-Oct-02	7.3	mg/L	DO Surface

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LA-33	21-Jul-04	7.3	mg/l	DO Surface
LA-33	20-Jul-06	7.3	mg/l	DO Surface
LA-33	6-Jul-01	7.4	mg/L	DO Surface
LA-33	14-Apr-04	7.5	mg/L	DO Surface
LA-33	17-Aug-06	7.5	mg/l	DO Surface
LA-33	20-Jun-02	7.6	mg/L	DO Surface
LA-33	11-Aug-05	7.6	mg/l	DO Surface
LA-33	10-Mar-05	8.2	mg/l	DO Surface
LA-33	12-Jun-08	9.00	mg/l	DO Surface
LA-35	13-Sep-01	5	mg/L	DO Surface
LA-35	10-Jan-00	5.2	mg/L	DO Surface
LA-35	19-Nov-03	5.2	mg/L	DO Surface
LA-35	10-Dec-01	5.3	mg/L	DO Surface
LA-35	9-Oct-03	5.4	mg/L	DO Surface
LA-35	16-Nov-05	5.4	mg/l	DO Surface
LA-35	19-Jun-03	5.5	mg/L	DO Surface
LA-35	24-Oct-07	5.50	mg/l	DO Surface
LA-35	19-Dec-02	5.6	mg/L	DO Surface
LA-35	13-Oct-05	5.6	mg/l	DO Surface
LA-35	4-Sep-03	5.7	mg/L	DO Surface
LA-35	4-Dec-03	5.7	mg/L	DO Surface
LA-35	23-Aug-01	5.8	mg/L	DO Surface
LA-35	19-Feb-03	5.8	mg/L	DO Surface
LA-35	21-Jan-04	5.8	mg/L	DO Surface
LA-35	12-May-05	5.8	mg/l	DO Surface
LA-35	13-Apr-06	5.8	mg/l	DO Surface
LA-35	3-Oct-00	5.9	mg/L	DO Surface
LA-35	9-Dec-02	5.9	mg/L	DO Surface
LA-35	16-Jan-03	5.9	mg/L	DO Surface
LA-35	15-Sep-05	5.9	mg/l	DO Surface
LA-35	8-Dec-05	5.9	mg/l	DO Surface
LA-35	15-Mar-07	5.90	mg/l	DO Surface
LA-35	14-May-03	6	mg/L	DO Surface
LA-35	15-May-08	6.00	mg/l	DO Surface
LA-35	25-Feb-00	6.1	mg/L	DO Surface
LA-35	13-Dec-01	6.1	mg/L	DO Surface
LA-35	12-Jan-06	6.1	mg/l	DO Surface

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LA-35	17-Apr-08	6.20	mg/l	DO Surface
LA-35	11-Jan-01	6.2	mg/L	DO Surface
LA-35	11-May-06	6.2	mg/l	DO Surface
LA-35	13-Oct-04	6.3	mg/l	DO Surface
LA-35	13-Jul-00	6.4	mg/L	DO Surface
LA-35	30-Aug-00	6.4	mg/L	DO Surface
LA-35	5-Dec-00	6.4	mg/L	DO Surface
LA-35	19-Apr-01	6.4	mg/L	DO Surface
LA-35	10-Mar-02	6.4	mg/L	DO Surface
LA-35	13-Mar-03	6.4	mg/L	DO Surface
LA-35	20-Jan-05	6.4	mg/l	DO Surface
LA-35	20-Mar-08	6.40	mg/l	DO Surface
LA-35	29-Nov-00	6.5	mg/L	DO Surface
LA-35	14-Mar-02	6.5	mg/L	DO Surface
LA-35	12-Apr-07	6.50	mg/l	DO Surface
LA-35	15-Nov-07	6.50	mg/l	DO Surface
LA-35	14-Feb-08	6.50	mg/l	DO Surface
LA-35	17-Jan-08	6.60	mg/l	DO Surface
LA-35	18-Jul-01	6.6	mg/L	DO Surface
LA-35	17-Jan-02	6.6	mg/L	DO Surface
LA-35	21-Feb-02	6.6	mg/L	DO Surface
LA-35	15-Sep-04	6.6	mg/l	DO Surface
LA-35	10-Nov-04	6.6	mg/l	DO Surface
LA-35	22-Dec-04	6.6	mg/l	DO Surface
LA-35	15-Jun-06	6.6	mg/l	DO Surface
LA-35	25-Jan-07	6.70	mg/l	DO Surface
LA-35	13-Apr-00	6.7	mg/L	DO Surface
LA-35	15-Feb-01	6.7	mg/L	DO Surface
LA-35	31-Jul-02	6.7	mg/L	DO Surface
LA-35	7-Aug-03	6.7	mg/L	DO Surface
LA-35	18-Feb-04	6.7	mg/L	DO Surface
LA-35	20-Jul-06	6.7	mg/l	DO Surface
LA-35	15-Nov-06	6.7	mg/l	DO Surface
LA-35	25-Jan-07	6.7	mg/l	DO Surface
LA-35	15-Sep-00	6.8	mg/L	DO Surface
LA-35	25-Jan-01	6.8	mg/L	DO Surface
LA-35	27-Mar-01	6.8	mg/L	DO Surface

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LA-35	6-Jul-01	6.8	mg/L	DO Surface
LA-35	5-Nov-01	6.8	mg/L	DO Surface
LA-35	17-Mar-04	6.8	mg/L	DO Surface
LA-35	12-May-04	6.8	mg/L	DO Surface
LA-35	10-Feb-05	6.8	mg/l	DO Surface
LA-35	19-Dec-07	6.80	mg/l	DO Surface
LA-35	16-May-02	6.9	mg/L	DO Surface
LA-35	29-Aug-02	6.9	mg/L	DO Surface
LA-35	16-Jun-04	6.9	mg/L	DO Surface
LA-35	16-Feb-06	6.9	mg/l	DO Surface
LA-35	21-Sep-06	6.9	mg/l	DO Surface
LA-35	1-May-00	7	mg/L	DO Surface
LA-35	10-Sep-03	7	mg/L	DO Surface
LA-35	21-Jul-04	7	mg/l	DO Surface
LA-35	7-Feb-07	7.10	mg/l	DO Surface
LA-35	18-Jul-07	7.10	mg/l	DO Surface
LA-35	9-Aug-07	7.10	mg/l	DO Surface
LA-35	21-Dec-00	7.1	mg/L	DO Surface
LA-35	27-Apr-05	7.1	mg/l	DO Surface
LA-35	4-Oct-02	7.2	mg/L	DO Surface
LA-35	10-Jul-03	7.2	mg/L	DO Surface
LA-35	18-Aug-04	7.2	mg/l	DO Surface
LA-35	20-Jun-02	7.3	mg/L	DO Surface
LA-35	14-Apr-04	7.6	mg/L	DO Surface
LA-35	10-Mar-05	7.7	mg/l	DO Surface
LA-35	9-Jun-05	7.7	mg/l	DO Surface
LA-35	11-Aug-05	7.7	mg/l	DO Surface
LA-35	16-Jun-00	7.8	mg/L	DO Surface
LA-35	7-Jul-05	7.8	mg/l	DO Surface
LA-35	17-Aug-06	8.1	mg/l	DO Surface
LA-35	12-Jun-08	8.40	mg/l	DO Surface
LA-35	16-May-07	8.60	mg/l	DO Surface
LA-39	13-Oct-04	4	mg/l	DO Surface
LA-39	19-Nov-03	4.9	mg/L	DO Surface
LA-39	10-Mar-02	5	mg/L	DO Surface
LA-39	17-Apr-08	5.20	mg/l	DO Surface
LA-39	13-Sep-01	5.3	mg/L	DO Surface

Port of Los Angeles - Inner Harbor Water Quality Data

LA-39	9-Oct-03	5.4	mg/L	DO Surface
LA-39	11-Jan-01	5.5	mg/L	DO Surface
LA-39	13-Oct-05	5.5	mg/l	DO Surface
LA-39	14-May-03	5.6	mg/L	DO Surface
LA-39	4-Sep-03	5.6	mg/L	DO Surface
LA-39	13-Apr-06	5.6	mg/l	DO Surface
LA-39	13-Nov-02	5.7	mg/L	DO Surface
LA-39	18-Jul-01	5.8	mg/L	DO Surface
LA-39	17-Jan-02	5.8	mg/L	DO Surface
LA-39	8-Dec-05	5.8	mg/l	DO Surface
LA-39	19-Dec-02	5.9	mg/L	DO Surface
LA-39	4-Dec-03	5.9	mg/L	DO Surface
LA-39	12-Jan-06	6	mg/l	DO Surface
LA-39	24-Oct-07	6.10	mg/l	DO Surface
LA-39	15-May-08	6.10	mg/l	DO Surface
LA-39	19-Feb-03	6.1	mg/L	DO Surface
LA-39	19-Jun-03	6.1	mg/L	DO Surface
LA-39	16-Nov-05	6.1	mg/l	DO Surface
LA-39	15-Mar-07	6.20	mg/l	DO Surface
LA-39	12-Apr-07	6.20	mg/l	DO Surface
LA-39	13-Dec-01	6.2	mg/L	DO Surface
LA-39	30-Aug-00	6.3	mg/L	DO Surface
LA-39	15-Sep-00	6.3	mg/L	DO Surface
LA-39	15-Nov-06	6.3	mg/l	DO Surface
LA-39	10-Jan-00	6.4	mg/L	DO Surface
LA-39	25-Feb-00	6.4	mg/L	DO Surface
LA-39	23-Aug-01	6.4	mg/L	DO Surface
LA-39	9-Dec-02	6.4	mg/L	DO Surface
LA-39	10-Jul-03	6.4	mg/L	DO Surface
LA-39	12-May-05	6.4	mg/l	DO Surface
LA-39	25-Jan-01	6.5	mg/L	DO Surface
LA-39	29-Aug-02	6.5	mg/L	DO Surface
LA-39	13-Mar-03	6.5	mg/L	DO Surface
LA-39	10-Nov-04	6.5	mg/l	DO Surface
LA-39	22-Dec-04	6.5	mg/l	DO Surface
LA-39	20-Jan-05	6.5	mg/l	DO Surface
LA-39	16-Feb-06	6.5	mg/l	DO Surface

Port of Los Angeles - Inner Harbor Water Quality Data

LA-39	15-Jun-06	6.5	mg/l	DO Surface
LA-39	15-Nov-07	6.60	mg/l	DO Surface
LA-39	14-Feb-08	6.60	mg/l	DO Surface
LA-39	13-Jul-00	6.6	mg/L	DO Surface
LA-39	10-Dec-01	6.6	mg/L	DO Surface
LA-39	14-Mar-02	6.6	mg/L	DO Surface
LA-39	12-May-04	6.6	mg/L	DO Surface
LA-39	15-Sep-05	6.6	mg/l	DO Surface
LA-39	21-Sep-06	6.6	mg/l	DO Surface
LA-39	1-May-00	6.7	mg/L	DO Surface
LA-39	21-Feb-02	6.7	mg/L	DO Surface
LA-39	21-Jan-04	6.7	mg/L	DO Surface
LA-39	18-Feb-04	6.7	mg/L	DO Surface
LA-39	16-Jun-04	6.7	mg/L	DO Surface
LA-39	15-Sep-04	6.7	mg/l	DO Surface
LA-39	3-Oct-00	6.8	mg/L	DO Surface
LA-39	31-Jul-02	6.8	mg/L	DO Surface
LA-39	11-May-06	6.8	mg/l	DO Surface
LA-39	17-Jan-08	6.80	mg/l	DO Surface
LA-39	20-Mar-08	6.80	mg/l	DO Surface
LA-39	5-Dec-00	6.9	mg/L	DO Surface
LA-39	14-Apr-04	6.9	mg/L	DO Surface
LA-39	9-Jun-05	6.9	mg/l	DO Surface
LA-39	17-Aug-06	6.9	mg/l	DO Surface
LA-39	25-Jan-07	6.9	mg/l	DO Surface
LA-39	25-Jan-07	6.90	mg/l	DO Surface
LA-39	7-Feb-07	6.90	mg/l	DO Surface
LA-39	19-Dec-07	6.90	mg/l	DO Surface
LA-39	13-Apr-00	7	mg/L	DO Surface
LA-39	21-Dec-00	7	mg/L	DO Surface
LA-39	15-Feb-01	7	mg/L	DO Surface
LA-39	16-Jan-03	7	mg/L	DO Surface
LA-39	18-Jul-07	7.10	mg/l	DO Surface
LA-39	29-Nov-00	7.1	mg/L	DO Surface
LA-39	16-May-02	7.1	mg/L	DO Surface
LA-39	17-Mar-04	7.1	mg/L	DO Surface
LA-39	10-Feb-05	7.1	mg/l	DO Surface

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LA-39	7-Jul-05	7.1	mg/l	DO Surface
LA-39	11-Aug-05	7.1	mg/l	DO Surface
LA-39	6-Jul-01	7.2	mg/L	DO Surface
LA-39	20-Jun-02	7.2	mg/L	DO Surface
LA-39	18-Aug-04	7.2	mg/l	DO Surface
LA-39	10-Sep-03	7.3	mg/L	DO Surface
LA-39	27-Apr-05	7.3	mg/l	DO Surface
LA-39	4-Oct-02	7.4	mg/L	DO Surface
LA-39	21-Jul-04	7.4	mg/l	DO Surface
LA-39	10-Mar-05	7.4	mg/l	DO Surface
LA-39	20-Jul-06	7.4	mg/l	DO Surface
LA-39	9-Aug-07	7.40	mg/l	DO Surface
LA-39	27-Mar-01	7.5	mg/L	DO Surface
LA-39	7-Aug-03	7.5	mg/L	DO Surface
LA-39	16-May-07	7.50	mg/l	DO Surface
LA-39	19-Apr-01	7.6	mg/L	DO Surface
LA-39	5-Nov-01	7.7	mg/L	DO Surface
LA-39	16-Jun-00	8	mg/L	DO Surface
LA-39	12-Jun-08	8.70	mg/l	DO Surface
LA-41	9-Oct-03	4.3	mg/L	DO Surface
LA-41	18-Jul-01	4.8	mg/L	DO Surface
LA-41	13-Sep-01	5	mg/L	DO Surface
LA-41	16-Nov-05	5.1	mg/l	DO Surface
LA-41	16-May-07	5.20	mg/l	DO Surface
LA-41	23-Aug-01	5.2	mg/L	DO Surface
LA-41	19-Nov-03	5.4	mg/L	DO Surface
LA-41	13-Apr-06	5.4	mg/l	DO Surface
LA-41	10-Mar-02	5.5	mg/L	DO Surface
LA-41	13-Nov-02	5.5	mg/L	DO Surface
LA-41	4-Dec-03	5.5	mg/L	DO Surface
LA-41	19-Dec-02	5.6	mg/L	DO Surface
LA-41	15-May-08	5.70	mg/l	DO Surface
LA-41	11-Jan-01	5.7	mg/L	DO Surface
LA-41	16-Jan-03	5.7	mg/L	DO Surface
LA-41	19-Feb-03	5.7	mg/L	DO Surface
LA-41	13-Oct-05	5.7	mg/l	DO Surface
LA-41	15-Sep-00	5.8	mg/L	DO Surface

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LA-41	15-Sep-00	5.8	mg/L	DO Surface
LA-41	16-May-02	5.8	mg/L	DO Surface
LA-41	14-May-03	5.8	mg/L	DO Surface
LA-41	17-Apr-08	5.80	mg/l	DO Surface
LA-41	5-Dec-00	5.9	mg/L	DO Surface
LA-41	8-Dec-05	5.9	mg/l	DO Surface
LA-41	10-Jan-00	6	mg/L	DO Surface
LA-41	10-Dec-01	6	mg/L	DO Surface
LA-41	21-Feb-02	6	mg/L	DO Surface
LA-41	14-Mar-02	6	mg/L	DO Surface
LA-41	12-Jan-06	6	mg/l	DO Surface
LA-41	15-Jun-06	6	mg/l	DO Surface
LA-41	17-Jan-08	6.00	mg/l	DO Surface
LA-41	17-Jan-02	6.1	mg/L	DO Surface
LA-41	20-Jan-05	6.1	mg/l	DO Surface
LA-41	30-Aug-00	6.2	mg/L	DO Surface
LA-41	13-Dec-01	6.2	mg/L	DO Surface
LA-41	10-Nov-04	6.2	mg/l	DO Surface
LA-41	29-Nov-00	6.3	mg/L	DO Surface
LA-41	6-Jul-01	6.3	mg/L	DO Surface
LA-41	9-Dec-02	6.3	mg/L	DO Surface
LA-41	16-Feb-06	6.3	mg/l	DO Surface
LA-41	11-May-06	6.3	mg/l	DO Surface
LA-41	12-Apr-07	6.30	mg/l	DO Surface
LA-41	15-Nov-07	6.30	mg/l	DO Surface
LA-41	19-Jun-03	6.4	mg/L	DO Surface
LA-41	10-Jul-03	6.4	mg/L	DO Surface
LA-41	25-Feb-04	6.4	mg/L	DO Surface
LA-41	20-Mar-08	6.40	mg/l	DO Surface
LA-41	25-Jan-01	6.5	mg/L	DO Surface
LA-41	4-Sep-03	6.5	mg/L	DO Surface
LA-41	15-Sep-04	6.5	mg/l	DO Surface
LA-41	15-Mar-07	6.50	mg/l	DO Surface
LA-41	18-Jul-07	6.50	mg/l	DO Surface
LA-41	19-Dec-07	6.60	mg/l	DO Surface
LA-41	3-Oct-00	6.6	mg/L	DO Surface
LA-41	13-Mar-03	6.6	mg/L	DO Surface

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LA-41	16-Jun-04	6.6	mg/L	DO Surface
LA-41	13-Oct-04	6.6	mg/l	DO Surface
LA-41	22-Dec-04	6.6	mg/l	DO Surface
LA-41	12-May-05	6.6	mg/l	DO Surface
LA-41	21-Sep-06	6.6	mg/l	DO Surface
LA-41	15-Nov-06	6.6	mg/l	DO Surface
LA-41	7-Feb-07	6.70	mg/l	DO Surface
LA-41	9-Aug-07	6.70	mg/l	DO Surface
LA-41	7-Aug-03	6.7	mg/L	DO Surface
LA-41	25-Feb-00	6.8	mg/L	DO Surface
LA-41	1-May-00	6.8	mg/L	DO Surface
LA-41	13-Jul-00	6.8	mg/L	DO Surface
LA-41	15-Feb-01	6.8	mg/L	DO Surface
LA-41	21-Jan-04	6.8	mg/L	DO Surface
LA-41	25-Jan-07	6.8	mg/l	DO Surface
LA-41	25-Jan-07	6.80	mg/l	DO Surface
LA-41	10-Feb-05	6.9	mg/l	DO Surface
LA-41	15-Sep-05	6.9	mg/l	DO Surface
LA-41	14-Feb-08	6.90	mg/l	DO Surface
LA-41	5-Nov-01	7	mg/L	DO Surface
LA-41	20-Jun-02	7	mg/L	DO Surface
LA-41	31-Jul-02	7	mg/L	DO Surface
LA-41	29-Aug-02	7	mg/L	DO Surface
LA-41	4-Oct-02	7	mg/L	DO Surface
LA-41	17-Mar-04	7	mg/L	DO Surface
LA-41	14-Apr-04	7	mg/L	DO Surface
LA-41	13-Apr-00	7.2	mg/L	DO Surface
LA-41	27-Mar-01	7.3	mg/L	DO Surface
LA-41	11-Aug-05	7.3	mg/l	DO Surface
LA-41	17-Aug-06	7.3	mg/l	DO Surface
LA-41	18-Aug-04	7.5	mg/l	DO Surface
LA-41	10-Mar-05	7.5	mg/l	DO Surface
LA-41	24-Oct-07	7.70	mg/l	DO Surface
LA-41	19-Apr-01	7.7	mg/L	DO Surface
LA-41	16-Jun-00	8	mg/L	DO Surface
LA-41	12-May-04	8	mg/L	DO Surface
LA-41	7-Jul-05	8	mg/l	DO Surface

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LA-41	21-Jul-04	8.1	mg/l	DO Surface
LA-41	9-Jun-05	8.2	mg/l	DO Surface
LA-41	20-Jul-06	8.4	mg/l	DO Surface
LA-41	12-Jun-08	8.80	mg/l	DO Surface
LA-41	10-Sep-03	9.6	mg/L	DO Surface
LA-44	10-Jan-00	6.1	mg/L	DO Surface
LA-44	25-Feb-00	5.9	mg/L	DO Surface
LA-44	13-Apr-00	5	mg/L	DO Surface
LA-44	1-May-00	6.7	mg/L	DO Surface
LA-44	16-Jun-00	8.5	mg/L	DO Surface
LA-44	13-Jul-00	6.4	mg/L	DO Surface
LA-44	30-Aug-00	6.3	mg/L	DO Surface
LA-44	15-Sep-00	6	mg/L	DO Surface
LA-44	3-Oct-00	6	mg/L	DO Surface
LA-44	29-Nov-00	6.6	mg/L	DO Surface
LA-44	5-Dec-00	5.8	mg/L	DO Surface
LA-44	21-Dec-00	7	mg/L	DO Surface
LA-44	11-Jan-01	5.6	mg/L	DO Surface
LA-44	25-Jan-01	6.1	mg/L	DO Surface
LA-44	15-Feb-01	6.5	mg/L	DO Surface
LA-44	27-Mar-01	8	mg/L	DO Surface
LA-44	19-Apr-01	7.4	mg/L	DO Surface
LA-44	6-Jul-01	7	mg/L	DO Surface
LA-44	18-Jul-01	5.4	mg/L	DO Surface
LA-44	23-Aug-01	5.3	mg/L	DO Surface
LA-44	13-Sep-01	5.2	mg/L	DO Surface
LA-44	5-Nov-01	6.3	mg/L	DO Surface
LA-44	10-Dec-01	6	mg/L	DO Surface
LA-44	13-Dec-01	5.7	mg/L	DO Surface
LA-44	17-Jan-02	5.8	mg/L	DO Surface
LA-44	21-Feb-02	6.1	mg/L	DO Surface
LA-44	10-Mar-02	6	mg/L	DO Surface
LA-44	14-Mar-02	6.5	mg/L	DO Surface
LA-44	16-May-02	6.3	mg/L	DO Surface
LA-44	20-Jun-02	7.3	mg/L	DO Surface
LA-44	31-Jul-02	7.1	mg/L	DO Surface
LA-44	29-Aug-02	7	mg/L	DO Surface

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LA-44	4-Oct-02	7.1	mg/L	DO Surface
LA-44	13-Nov-02	5.1	mg/L	DO Surface
LA-44	9-Dec-02	6.6	mg/L	DO Surface
LA-44	19-Dec-02	5.2	mg/L	DO Surface
LA-44	16-Jan-03	6.4	mg/L	DO Surface
LA-44	19-Feb-03	5	mg/L	DO Surface
LA-44	13-Mar-03	6	mg/L	DO Surface
LA-44	14-May-03	5.6	mg/L	DO Surface
LA-44	19-Jun-03	6.5	mg/L	DO Surface
LA-44	10-Jul-03	7.9	mg/L	DO Surface
LA-44	7-Aug-03	7	mg/L	DO Surface
LA-44	4-Sep-03	5.7	mg/L	DO Surface
LA-44	10-Sep-03	7.3	mg/L	DO Surface
LA-44	9-Oct-03	4.6	mg/L	DO Surface
LA-44	19-Nov-03	5.3	mg/L	DO Surface
LA-44	4-Dec-03	5.6	mg/L	DO Surface
LA-44	21-Jan-04	6.8	mg/L	DO Surface
LA-44	25-Feb-04	6.7	mg/L	DO Surface
LA-44	17-Mar-04	6.7	mg/L	DO Surface
LA-44	14-Apr-04	7.2	mg/L	DO Surface
LA-44	12-May-04	7.9	mg/L	DO Surface
LA-44	16-Jun-04	6.8	mg/L	DO Surface
LA-44	21-Jul-04	7.5	mg/l	DO Surface
LA-44	18-Aug-04	7.6	mg/l	DO Surface
LA-44	15-Sep-04	6.6	mg/l	DO Surface
LA-44	13-Oct-04	6.3	mg/l	DO Surface
LA-44	10-Nov-04	6.4	mg/l	DO Surface
LA-44	22-Dec-04	6.3	mg/l	DO Surface
LA-44	20-Jan-05	6.3	mg/l	DO Surface
LA-44	10-Feb-05	6.8	mg/l	DO Surface
LA-44	10-Mar-05	8.5	mg/l	DO Surface
LA-44	27-Apr-05	7.5	mg/l	DO Surface
LA-44	12-May-05	6.9	mg/l	DO Surface
LA-44	9-Jun-05	8.6	mg/l	DO Surface
LA-44	7-Jul-05	8	mg/l	DO Surface
LA-44	11-Aug-05	6.1	mg/l	DO Surface
LA-44	15-Sep-05	7	mg/l	DO Surface

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LA-44	13-Oct-05	5.5	mg/l	DO Surface
LA-44	16-Nov-05	5.1	mg/l	DO Surface
LA-44	8-Dec-05	5.9	mg/l	DO Surface
LA-44	12-Jan-06	6	mg/l	DO Surface
LA-44	16-Feb-06	5.8	mg/l	DO Surface
LA-44	13-Apr-06	5.2	mg/l	DO Surface
LA-44	11-May-06	6.2	mg/l	DO Surface
LA-44	15-Jun-06	6.6	mg/l	DO Surface
LA-44	20-Jul-06	7.7	mg/l	DO Surface
LA-44	17-Aug-06	7.6	mg/l	DO Surface
LA-44	21-Sep-06	6.5	mg/l	DO Surface
LA-44	15-Nov-06	6.6	mg/l	DO Surface
LA-44	25-Jan-07	6.60	mg/l	DO Surface
LA-44	25-Jan-07	6.6	mg/l	DO Surface
LA-44	7-Feb-07	6.70	mg/l	DO Surface
LA-44	15-Mar-07	6.10	mg/l	DO Surface
LA-44	12-Apr-07	5.80	mg/l	DO Surface
LA-44	16-May-07	5.70	mg/l	DO Surface
LA-44	18-Jul-07	6.80	mg/l	DO Surface
LA-44	9-Aug-07	6.80	mg/l	DO Surface
LA-44	24-Oct-07	5.60	mg/l	DO Surface
LA-44	15-Nov-07	6.30	mg/l	DO Surface
LA-44	19-Dec-07	6.50	mg/l	DO Surface
LA-44	17-Jan-08	6.50	mg/l	DO Surface
LA-44	14-Feb-08	6.20	mg/l	DO Surface
LA-44	20-Mar-08	6.50	mg/l	DO Surface
LA-44	17-Apr-08	5.40	mg/l	DO Surface
LA-44	15-May-08	6.40	mg/l	DO Surface
LA-44	12-Jun-08	8.50	mg/l	DO Surface
LA-46	10-Jan-00	5.8	mg/L	DO Surface
LA-46	25-Feb-00	6.7	mg/L	DO Surface
LA-46	13-Apr-00	5.9	mg/L	DO Surface
LA-46	1-May-00	6.6	mg/L	DO Surface
LA-46	16-Jun-00	7.3	mg/L	DO Surface
LA-46	13-Jul-00	6.4	mg/L	DO Surface
LA-46	30-Aug-00	6.5	mg/L	DO Surface
LA-46	15-Sep-00	7.4	mg/L	DO Surface

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LA-46	3-Oct-00	6.3	mg/L	DO Surface
LA-46	29-Nov-00	6.5	mg/L	DO Surface
LA-46	5-Dec-00	6	mg/L	DO Surface
LA-46	21-Dec-00	7.3	mg/L	DO Surface
LA-46	11-Jan-01	6	mg/L	DO Surface
LA-46	25-Jan-01	5.9	mg/L	DO Surface
LA-46	15-Feb-01	7	mg/L	DO Surface
LA-46	27-Mar-01	7.8	mg/L	DO Surface
LA-46	19-Apr-01	6.9	mg/L	DO Surface
LA-46	6-Jul-01	7.3	mg/L	DO Surface
LA-46	18-Jul-01	4.7	mg/L	DO Surface
LA-46	23-Aug-01	5.3	mg/L	DO Surface
LA-46	13-Sep-01	3.7	mg/L	DO Surface
LA-46	5-Nov-01	6.9	mg/L	DO Surface
LA-46	10-Dec-01	5.6	mg/L	DO Surface
LA-46	13-Dec-01	5.4	mg/L	DO Surface
LA-46	17-Jan-02	5.3	mg/L	DO Surface
LA-46	21-Feb-02	6.1	mg/L	DO Surface
LA-46	10-Mar-02	6.4	mg/L	DO Surface
LA-46	14-Mar-02	5.9	mg/L	DO Surface
LA-46	16-May-02	5.3	mg/L	DO Surface
LA-46	20-Jun-02	7.5	mg/L	DO Surface
LA-46	31-Jul-02	6.8	mg/L	DO Surface
LA-46	29-Aug-02	7	mg/L	DO Surface
LA-46	4-Oct-02	6.6	mg/L	DO Surface
LA-46	13-Nov-02	5	mg/L	DO Surface
LA-46	9-Dec-02	6	mg/L	DO Surface
LA-46	19-Dec-02	4.8	mg/L	DO Surface
LA-46	16-Jan-03	0.8	mg/L	DO Surface
LA-46	19-Feb-03	5.3	mg/L	DO Surface
LA-46	13-Mar-03	6	mg/L	DO Surface
LA-46	14-May-03	5.6	mg/L	DO Surface
LA-46	19-Jun-03	6.7	mg/L	DO Surface
LA-46	10-Jul-03	7.7	mg/L	DO Surface
LA-46	7-Aug-03	6.3	mg/L	DO Surface
LA-46	4-Sep-03	5.7	mg/L	DO Surface
LA-46	10-Sep-03	7.3	mg/L	DO Surface

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LA-46	9-Oct-03	5	mg/L	DO Surface
LA-46	19-Nov-03	5.4	mg/L	DO Surface
LA-46	4-Dec-03	5.4	mg/L	DO Surface
LA-46	21-Jan-04	6.4	mg/L	DO Surface
LA-46	25-Feb-04	6.7	mg/L	DO Surface
LA-46	17-Mar-04	6.7	mg/L	DO Surface
LA-46	14-Apr-04	6.8	mg/L	DO Surface
LA-46	12-May-04	7.1	mg/L	DO Surface
LA-46	16-Jun-04	6.3	mg/L	DO Surface
LA-46	21-Jul-04	7.4	mg/l	DO Surface
LA-46	18-Aug-04	8	mg/l	DO Surface
LA-46	15-Sep-04	6.9	mg/l	DO Surface
LA-46	13-Oct-04	6.3	mg/l	DO Surface
LA-46	10-Nov-04	6.4	mg/l	DO Surface
LA-46	22-Dec-04	6.4	mg/l	DO Surface
LA-46	20-Jan-05	6.1	mg/l	DO Surface
LA-46	10-Feb-05	6.8	mg/l	DO Surface
LA-46	10-Mar-05	7.4	mg/l	DO Surface
LA-46	27-Apr-05	6	mg/l	DO Surface
LA-46	12-May-05	6.5	mg/l	DO Surface
LA-46	9-Jun-05	7.9	mg/l	DO Surface
LA-46	7-Jul-05	7.7	mg/l	DO Surface
LA-46	11-Aug-05	6.2	mg/l	DO Surface
LA-46	15-Sep-05	7.3	mg/l	DO Surface
LA-46	13-Oct-05	5.3	mg/l	DO Surface
LA-46	16-Nov-05	5	mg/l	DO Surface
LA-46	8-Dec-05	5.8	mg/l	DO Surface
LA-46	12-Jan-06	6.1	mg/l	DO Surface
LA-46	16-Feb-06	6.5	mg/l	DO Surface
LA-46	13-Apr-06	5.4	mg/l	DO Surface
LA-46	11-May-06	6.2	mg/l	DO Surface
LA-46	15-Jun-06	6.2	mg/l	DO Surface
LA-46	20-Jul-06	7.2	mg/l	DO Surface
LA-46	17-Aug-06	7.3	mg/l	DO Surface
LA-46	21-Sep-06	6.5	mg/l	DO Surface
LA-46	15-Nov-06	6.6	mg/l	DO Surface
LA-46	25-Jan-07	6.50	mg/l	DO Surface

Port of Los Angeles - Inner Harbor Water Quality Data

LA-46	25-Jan-07	6.5	mg/l	DO Surface
LA-46	7-Feb-07	6.50	mg/l	DO Surface
LA-46	15-Mar-07	6.00	mg/l	DO Surface
LA-46	12-Apr-07	6.00	mg/l	DO Surface
LA-46	16-May-07	5.00	mg/l	DO Surface
LA-46	18-Jul-07	6.90	mg/l	DO Surface
LA-46	9-Aug-07	6.60	mg/l	DO Surface
LA-46	24-Oct-07	6.50	mg/l	DO Surface
LA-46	15-Nov-07	6.50	mg/l	DO Surface
LA-46	19-Dec-07	6.40	mg/l	DO Surface
LA-46	17-Jan-08	6.30	mg/l	DO Surface
LA-46	14-Feb-08	5.70	mg/l	DO Surface
LA-46	20-Mar-08	6.50	mg/l	DO Surface
LA-46	17-Apr-08	5.90	mg/l	DO Surface
LA-46	15-May-08	6.70	mg/l	DO Surface
LA-46	12-Jun-08	7.60	mg/l	DO Surface
LA-47	10-Jan-00	6	mg/L	DO Surface
LA-47	25-Feb-00	6.6	mg/L	DO Surface
LA-47	13-Apr-00	6.1	mg/L	DO Surface
LA-47	1-May-00	6.7	mg/L	DO Surface
LA-47	16-Jun-00	8.6	mg/L	DO Surface
LA-47	13-Jul-00	6.9	mg/L	DO Surface
LA-47	30-Aug-00	6.6	mg/L	DO Surface
LA-47	15-Sep-00	6.4	mg/L	DO Surface
LA-47	3-Oct-00	6.3	mg/L	DO Surface
LA-47	29-Nov-00	6	mg/L	DO Surface
LA-47	5-Dec-00	5	mg/L	DO Surface
LA-47	21-Dec-00	7.5	mg/L	DO Surface
LA-47	11-Jan-01	5.5	mg/L	DO Surface
LA-47	25-Jan-01	5.6	mg/L	DO Surface
LA-47	15-Feb-01	6.9	mg/L	DO Surface
LA-47	27-Mar-01	7.8	mg/L	DO Surface
LA-47	19-Apr-01	6.7	mg/L	DO Surface
LA-47	6-Jul-01	7.3	mg/L	DO Surface
LA-47	18-Jul-01	5	mg/L	DO Surface
LA-47	23-Aug-01	5.2	mg/L	DO Surface
LA-47	13-Sep-01	4	mg/L	DO Surface

Port of Los Angeles - Inner Harbor Water Quality Data

LA-47	5-Nov-01	7.4	mg/L	DO Surface
LA-47	10-Dec-01	4.8	mg/L	DO Surface
LA-47	13-Dec-01	5.7	mg/L	DO Surface
LA-47	17-Jan-02	5.9	mg/L	DO Surface
LA-47	21-Feb-02	6.3	mg/L	DO Surface
LA-47	10-Mar-02	7	mg/L	DO Surface
LA-47	14-Mar-02	7	mg/L	DO Surface
LA-47	16-May-02	6	mg/L	DO Surface
LA-47	20-Jun-02	7.3	mg/L	DO Surface
LA-47	31-Jul-02	6.9	mg/L	DO Surface
LA-47	29-Aug-02	7.2	mg/L	DO Surface
LA-47	4-Oct-02	7	mg/L	DO Surface
LA-47	13-Nov-02	4.5	mg/L	DO Surface
LA-47	9-Dec-02	7.1	mg/L	DO Surface
LA-47	19-Dec-02	5.3	mg/L	DO Surface
LA-47	16-Jan-03	4.3	mg/L	DO Surface
LA-47	19-Feb-03	5.8	mg/L	DO Surface
LA-47	13-Mar-03	5.7	mg/L	DO Surface
LA-47	14-May-03	5.3	mg/L	DO Surface
LA-47	19-Jun-03	5.6	mg/L	DO Surface
LA-47	10-Jul-03	7.4	mg/L	DO Surface
LA-47	7-Aug-03	6.4	mg/L	DO Surface
LA-47	4-Sep-03	6.5	mg/L	DO Surface
LA-47	10-Sep-03	7.6	mg/L	DO Surface
LA-47	9-Oct-03	4.5	mg/L	DO Surface
LA-47	19-Nov-03	4.6	mg/L	DO Surface
LA-47	4-Dec-03	5.5	mg/L	DO Surface
LA-47	21-Jan-04	6.3	mg/L	DO Surface
LA-47	25-Feb-04	6.7	mg/L	DO Surface
LA-47	17-Mar-04	6.5	mg/L	DO Surface
LA-47	14-Apr-04	6.8	mg/L	DO Surface
LA-47	12-May-04	7.7	mg/L	DO Surface
LA-47	16-Jun-04	6.2	mg/L	DO Surface
LA-47	21-Jul-04	8.4	mg/l	DO Surface
LA-47	18-Aug-04	7.7	mg/l	DO Surface
LA-47	15-Sep-04	6.1	mg/l	DO Surface
LA-47	13-Oct-04	6.6	mg/l	DO Surface

Port of Los Angeles - Inner Harbor Water Quality Data

LA-47	10-Nov-04	6.1	mg/l	DO Surface
LA-47	22-Dec-04	6.1	mg/l	DO Surface
LA-47	20-Jan-05	6.3	mg/l	DO Surface
LA-47	10-Feb-05	6.2	mg/l	DO Surface
LA-47	10-Mar-05	7.1	mg/l	DO Surface
LA-47	27-Apr-05	7.4	mg/l	DO Surface
LA-47	12-May-05	6.9	mg/l	DO Surface
LA-47	9-Jun-05	7.7	mg/l	DO Surface
LA-47	7-Jul-05	8.5	mg/l	DO Surface
LA-47	11-Aug-05	7.4	mg/l	DO Surface
LA-47	15-Sep-05	7.5	mg/l	DO Surface
LA-47	13-Oct-05	6	mg/l	DO Surface
LA-47	16-Nov-05	4.9	mg/l	DO Surface
LA-47	8-Dec-05	5.7	mg/l	DO Surface
LA-47	12-Jan-06	5.6	mg/l	DO Surface
LA-47	16-Feb-06	6.7	mg/l	DO Surface
LA-47	13-Apr-06	5.3	mg/l	DO Surface
LA-47	11-May-06	6.3	mg/l	DO Surface
LA-47	15-Jun-06	6.3	mg/l	DO Surface
LA-47	20-Jul-06	7.5	mg/l	DO Surface
LA-47	17-Aug-06	8.1	mg/l	DO Surface
LA-47	21-Sep-06	6.4	mg/l	DO Surface
LA-47	15-Nov-06	6.7	mg/l	DO Surface
LA-47	25-Jan-07	6.50	mg/l	DO Surface
LA-47	25-Jan-07	6.5	mg/l	DO Surface
LA-47	7-Feb-07	6.30	mg/l	DO Surface
LA-47	15-Mar-07	6.40	mg/l	DO Surface
LA-47	12-Apr-07	6.30	mg/l	DO Surface
LA-47	16-May-07	6.00	mg/l	DO Surface
LA-47	18-Jul-07	6.10	mg/l	DO Surface
LA-47	9-Aug-07	6.50	mg/l	DO Surface
LA-47	24-Oct-07	5.40	mg/l	DO Surface
LA-47	15-Nov-07	6.70	mg/l	DO Surface
LA-47	19-Dec-07	6.10	mg/l	DO Surface
LA-47	17-Jan-08	6.70	mg/l	DO Surface
LA-47	14-Feb-08	6.10	mg/l	DO Surface
LA-47	20-Mar-08	6.30	mg/l	DO Surface

Port of Los Angeles - Inner Harbor Water Quality Data

LA-47	17-Apr-08	5.40	mg/l	DO Surface
LA-47	15-May-08	6.60	mg/l	DO Surface
LA-47	12-Jun-08	8.50	mg/l	DO Surface
LA-30	14-Feb-08	12.20	°C	Temperature, Bottom
LA-30	17-Jan-08	13.00	°C	Temperature, Bottom
LA-30	4-Sep-03	13.5	C	Temperature, Bottom
LA-30	16-May-07	13.50	°C	Temperature, Bottom
LA-30	20-Mar-08	13.60	°C	Temperature, Bottom
LA-30	7-Feb-07	13.80	°C	Temperature, Bottom
LA-30	21-Jan-04	14	C	Temperature, Bottom
LA-30	25-Feb-04	14	C	Temperature, Bottom
LA-30	22-Dec-04	14	C	Temperature, Bottom
LA-30	13-Apr-06	14	C	Temperature, Bottom
LA-30	25-Jan-07	14.00	C	Temperature, Bottom
LA-30	25-Jan-07	14	C	Temperature, Bottom
LA-30	19-Dec-07	14.00	°C	Temperature, Bottom
LA-30	16-Feb-06	14.1	C	Temperature, Bottom
LA-30	8-Dec-05	14.5	C	Temperature, Bottom
LA-30	25-Feb-00	14.8	C	Temperature, Bottom
LA-30	15-Mar-07	14.90	°C	Temperature, Bottom
LA-30	15-Feb-01	15	C	Temperature, Bottom
LA-30	14-Mar-02	15	C	Temperature, Bottom
LA-30	19-Dec-02	15	C	Temperature, Bottom
LA-30	10-Feb-05	15	C	Temperature, Bottom
LA-30	12-Jan-06	15	C	Temperature, Bottom
LA-30	11-May-06	15	C	Temperature, Bottom
LA-30	12-Apr-07	15.00	°C	Temperature, Bottom
LA-30	17-Apr-08	15.00	°C	Temperature, Bottom
LA-30	13-Apr-00	15.1	C	Temperature, Bottom
LA-30	3-Oct-00	15.5	C	Temperature, Bottom
LA-30	25-Jan-01	15.5	C	Temperature, Bottom
LA-30	27-Mar-01	15.5	C	Temperature, Bottom
LA-30	19-Apr-01	15.5	C	Temperature, Bottom
LA-30	13-Dec-01	15.5	C	Temperature, Bottom
LA-30	17-Jan-02	15.5	C	Temperature, Bottom
LA-30	13-Mar-03	15.5	C	Temperature, Bottom
LA-30	14-Apr-04	15.5	C	Temperature, Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-30	20-Jan-05	15.5	C	Temperature, Bottom
LA-30	27-Apr-05	15.5	C	Temperature, Bottom
LA-30	7-Jul-05	15.5	C	Temperature, Bottom
LA-30	24-Oct-07	15.80	°C	Temperature, Bottom
LA-30	29-Nov-00	16	C	Temperature, Bottom
LA-30	21-Dec-00	16	C	Temperature, Bottom
LA-30	16-Jan-03	16	C	Temperature, Bottom
LA-30	4-Dec-03	16	C	Temperature, Bottom
LA-30	10-Mar-05	16	C	Temperature, Bottom
LA-30	21-Feb-02	16.5	C	Temperature, Bottom
LA-30	4-Oct-02	16.5	C	Temperature, Bottom
LA-30	19-Feb-03	16.5	C	Temperature, Bottom
LA-30	14-May-03	16.5	C	Temperature, Bottom
LA-30	15-Sep-05	16.5	C	Temperature, Bottom
LA-30	15-Nov-07	16.50	°C	Temperature, Bottom
LA-30	15-May-08	16.80	°C	Temperature, Bottom
LA-30	16-May-02	17	C	Temperature, Bottom
LA-30	13-Nov-02	17	C	Temperature, Bottom
LA-30	17-Mar-04	17	C	Temperature, Bottom
LA-30	12-May-05	17	C	Temperature, Bottom
LA-30	9-Jun-05	17	C	Temperature, Bottom
LA-30	13-Oct-05	17	C	Temperature, Bottom
LA-30	16-Nov-05	17	C	Temperature, Bottom
LA-30	6-Jul-01	17.5	C	Temperature, Bottom
LA-30	5-Nov-01	17.5	C	Temperature, Bottom
LA-30	19-Jun-03	17.5	C	Temperature, Bottom
LA-30	12-May-04	17.5	C	Temperature, Bottom
LA-30	15-Jun-06	17.5	C	Temperature, Bottom
LA-30	17-Aug-06	17.5	C	Temperature, Bottom
LA-30	5-Dec-00	18	C	Temperature, Bottom
LA-30	11-Jan-01	18	C	Temperature, Bottom
LA-30	18-Jul-01	18	C	Temperature, Bottom
LA-30	10-Mar-02	18	C	Temperature, Bottom
LA-30	20-Jun-02	18	C	Temperature, Bottom
LA-30	9-Dec-02	18	C	Temperature, Bottom
LA-30	19-Nov-03	18	C	Temperature, Bottom
LA-30	16-Jun-04	18	C	Temperature, Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-30	10-Nov-04	18	C	Temperature, Bottom					
LA-30	11-Aug-05	18	C	Temperature, Bottom					
LA-30	21-Sep-06	18	C	Temperature, Bottom					
LA-30	15-Nov-06	18	C	Temperature, Bottom					
LA-30	18-Jul-07	18.20	°C	Temperature, Bottom					
LA-30	10-Jan-00	18.5	C	Temperature, Bottom					
LA-30	9-Oct-03	18.5	C	Temperature, Bottom					
LA-30	10-Dec-01	19	C	Temperature, Bottom					
LA-30	29-Aug-02	19	C	Temperature, Bottom					
LA-30	10-Jul-03	19	C	Temperature, Bottom					
LA-30	18-Aug-04	19	C	Temperature, Bottom					
LA-30	13-Oct-04	19	C	Temperature, Bottom					
LA-30	12-Jun-08	19.00	°C	Temperature, Bottom	18	19	18.45	16	2007-2008
LA-30	15-Sep-00	19.5	C	Temperature, Bottom					
LA-30	31-Jul-02	19.5	C	Temperature, Bottom					
LA-30	21-Jul-04	19.5	C	Temperature, Bottom					
LA-30	9-Aug-07	19.50	°C	Temperature, Bottom					
LA-30	16-Jun-00	20	C	Temperature, Bottom					
LA-30	30-Aug-00	20	C	Temperature, Bottom					
LA-30	13-Sep-01	20	C	Temperature, Bottom					
LA-30	7-Aug-03	20	C	Temperature, Bottom					
LA-30	20-Jul-06	20	C	Temperature, Bottom					
LA-30	23-Aug-01	20.5	C	Temperature, Bottom					
LA-30	15-Sep-04	20.5	C	Temperature, Bottom					
LA-30	13-Jul-00	21	C	Temperature, Bottom					
LA-30	10-Sep-03	23	C	Temperature, Bottom					
LA-32B	14-Feb-08	12.30	°C	Temperature, Bottom					
LA-32B	17-Jan-08	12.80	°C	Temperature, Bottom					
LA-32B	20-Mar-08	12.80	°C	Temperature, Bottom					
LA-32B	25-Jan-07	13.00	C	Temperature, Bottom					
LA-32B	25-Jan-07	13	C	Temperature, Bottom					
LA-32B	16-May-07	13.00	°C	Temperature, Bottom					
LA-32B	7-Feb-07	13.20	°C	Temperature, Bottom					
LA-32B	25-Feb-00	13.3	C	Temperature, Bottom					
LA-32B	13-Dec-01	13.5	C	Temperature, Bottom					
LA-32B	21-Jan-04	13.5	C	Temperature, Bottom					
LA-32B	15-Mar-07	13.90	°C	Temperature, Bottom					

Port of Los Angeles - Inner Harbor Water Quality Data

LA-32B	25-Jan-01	14	C	Temperature, Bottom
LA-32B	15-Feb-01	14	C	Temperature, Bottom
LA-32B	18-Feb-04	14	C	Temperature, Bottom
LA-32B	20-Jan-05	14	C	Temperature, Bottom
LA-32B	16-Feb-06	14	C	Temperature, Bottom
LA-32B	13-Apr-06	14	C	Temperature, Bottom
LA-32B	12-Apr-07	14.00	°C	Temperature, Bottom
LA-32B	19-Dec-07	14.00	°C	Temperature, Bottom
LA-32B	17-Jan-02	14.5	C	Temperature, Bottom
LA-32B	22-Dec-04	14.5	C	Temperature, Bottom
LA-32B	8-Dec-05	14.5	C	Temperature, Bottom
LA-32B	13-Apr-00	15	C	Temperature, Bottom
LA-32B	3-Oct-00	15	C	Temperature, Bottom
LA-32B	21-Dec-00	15	C	Temperature, Bottom
LA-32B	4-Oct-02	15	C	Temperature, Bottom
LA-32B	13-Mar-03	15	C	Temperature, Bottom
LA-32B	14-Apr-04	15	C	Temperature, Bottom
LA-32B	10-Feb-05	15	C	Temperature, Bottom
LA-32B	27-Apr-05	15	C	Temperature, Bottom
LA-32B	7-Jul-05	15	C	Temperature, Bottom
LA-32B	12-Jan-06	15	C	Temperature, Bottom
LA-32B	11-May-06	15	C	Temperature, Bottom
LA-32B	24-Oct-07	15.00	°C	Temperature, Bottom
LA-32B	15-Nov-07	15.20	°C	Temperature, Bottom
LA-32B	17-Apr-08	15.40	°C	Temperature, Bottom
LA-32B	5-Dec-00	15.5	C	Temperature, Bottom
LA-32B	27-Mar-01	15.5	C	Temperature, Bottom
LA-32B	19-Apr-01	15.5	C	Temperature, Bottom
LA-32B	21-Feb-02	15.5	C	Temperature, Bottom
LA-32B	16-May-02	15.5	C	Temperature, Bottom
LA-32B	4-Dec-03	15.5	C	Temperature, Bottom
LA-32B	29-Nov-00	16	C	Temperature, Bottom
LA-32B	13-Nov-02	16	C	Temperature, Bottom
LA-32B	10-Mar-05	16	C	Temperature, Bottom
LA-32B	12-May-05	16	C	Temperature, Bottom
LA-32B	9-Jun-05	16	C	Temperature, Bottom
LA-32B	15-Sep-05	16	C	Temperature, Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-32B	13-Oct-05	16	C	Temperature, Bottom					
LA-32B	16-Nov-05	16	C	Temperature, Bottom					
LA-32B	15-May-08	16.00	°C	Temperature, Bottom					
LA-32B	10-Mar-02	16.5	C	Temperature, Bottom					
LA-32B	19-Feb-03	16.5	C	Temperature, Bottom					
LA-32B	19-Jun-03	16.5	C	Temperature, Bottom					
LA-32B	11-Aug-05	16.5	C	Temperature, Bottom					
LA-32B	11-Jan-01	17	C	Temperature, Bottom					
LA-32B	9-Dec-02	17	C	Temperature, Bottom					
LA-32B	17-Mar-04	17	C	Temperature, Bottom					
LA-32B	12-May-04	17	C	Temperature, Bottom					
LA-32B	13-Oct-04	17	C	Temperature, Bottom					
LA-32B	10-Nov-04	17	C	Temperature, Bottom					
LA-32B	15-Jun-06	17	C	Temperature, Bottom					
LA-32B	17-Aug-06	17	C	Temperature, Bottom					
LA-32B	15-Nov-06	17	C	Temperature, Bottom					
LA-32B	6-Jul-01	17.5	C	Temperature, Bottom					
LA-32B	19-Nov-03	17.5	C	Temperature, Bottom					
LA-32B	12-Jun-08	17.50	°C	Temperature, Bottom	16.5	17.5	16.96875	16	2007-2008
LA-32B	21-Sep-06	17.8	C	Temperature, Bottom					
LA-32B	10-Jan-00	18	C	Temperature, Bottom					
LA-32B	18-Jul-01	18	C	Temperature, Bottom					
LA-32B	5-Nov-01	18	C	Temperature, Bottom					
LA-32B	10-Dec-01	18	C	Temperature, Bottom					
LA-32B	20-Jun-02	18	C	Temperature, Bottom					
LA-32B	29-Aug-02	18	C	Temperature, Bottom					
LA-32B	7-Aug-03	18	C	Temperature, Bottom					
LA-32B	16-Jun-04	18	C	Temperature, Bottom					
LA-32B	18-Aug-04	18	C	Temperature, Bottom					
LA-32B	18-Jul-07	18.00	°C	Temperature, Bottom					
LA-32B	15-Sep-00	18.5	C	Temperature, Bottom					
LA-32B	16-Jun-00	19	C	Temperature, Bottom					
LA-32B	10-Jul-03	19	C	Temperature, Bottom					
LA-32B	9-Oct-03	19	C	Temperature, Bottom					
LA-32B	21-Jul-04	19	C	Temperature, Bottom					
LA-32B	9-Aug-07	19.00	°C	Temperature, Bottom					
LA-32B	30-Aug-00	19.5	C	Temperature, Bottom					

Port of Los Angeles - Inner Harbor Water Quality Data

LA-32B	13-Sep-01	19.5	C	Temperature, Bottom
LA-32B	10-Sep-03	19.5	C	Temperature, Bottom
LA-32B	20-Jul-06	19.5	C	Temperature, Bottom
LA-32B	13-Jul-00	19.7	C	Temperature, Bottom
LA-32B	23-Aug-01	20	C	Temperature, Bottom
LA-32B	15-Sep-04	21	C	Temperature, Bottom
LA-33	14-Feb-08	12.80	°C	Temperature, Bottom
LA-33	20-Mar-08	12.90	°C	Temperature, Bottom
LA-33	25-Jan-07	13.00	C	Temperature, Bottom
LA-33	25-Jan-07	13	C	Temperature, Bottom
LA-33	16-May-07	13.00	°C	Temperature, Bottom
LA-33	17-Jan-08	13.00	°C	Temperature, Bottom
LA-33	17-Apr-08	13.20	°C	Temperature, Bottom
LA-33	21-Jan-04	13.5	C	Temperature, Bottom
LA-33	13-Apr-06	13.5	C	Temperature, Bottom
LA-33	7-Feb-07	13.50	°C	Temperature, Bottom
LA-33	15-Feb-01	14	C	Temperature, Bottom
LA-33	13-Dec-01	14	C	Temperature, Bottom
LA-33	17-Jan-02	14	C	Temperature, Bottom
LA-33	4-Sep-03	14	C	Temperature, Bottom
LA-33	18-Feb-04	14	C	Temperature, Bottom
LA-33	22-Dec-04	14	C	Temperature, Bottom
LA-33	20-Jan-05	14	C	Temperature, Bottom
LA-33	16-Feb-06	14	C	Temperature, Bottom
LA-33	12-Apr-07	14.00	°C	Temperature, Bottom
LA-33	19-Dec-07	14.00	°C	Temperature, Bottom
LA-33	15-Mar-07	14.20	°C	Temperature, Bottom
LA-33	25-Feb-00	14.3	C	Temperature, Bottom
LA-33	25-Jan-01	14.5	C	Temperature, Bottom
LA-33	4-Oct-02	14.5	C	Temperature, Bottom
LA-33	16-Jan-03	14.5	C	Temperature, Bottom
LA-33	8-Dec-05	14.5	C	Temperature, Bottom
LA-33	3-Oct-00	15	C	Temperature, Bottom
LA-33	21-Dec-00	15	C	Temperature, Bottom
LA-33	27-Mar-01	15	C	Temperature, Bottom
LA-33	19-Apr-01	15	C	Temperature, Bottom
LA-33	21-Feb-02	15	C	Temperature, Bottom

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LA-33	14-Mar-02	15	C	Temperature, Bottom
LA-33	19-Dec-02	15	C	Temperature, Bottom
LA-33	13-Mar-03	15	C	Temperature, Bottom
LA-33	4-Dec-03	15	C	Temperature, Bottom
LA-33	10-Feb-05	15	C	Temperature, Bottom
LA-33	10-Mar-05	15	C	Temperature, Bottom
LA-33	27-Apr-05	15	C	Temperature, Bottom
LA-33	7-Jul-05	15	C	Temperature, Bottom
LA-33	12-Jan-06	15	C	Temperature, Bottom
LA-33	11-May-06	15	C	Temperature, Bottom
LA-33	24-Oct-07	15.00	°C	Temperature, Bottom
LA-33	13-Apr-00	15.2	C	Temperature, Bottom
LA-33	16-May-02	15.5	C	Temperature, Bottom
LA-33	19-Feb-03	15.5	C	Temperature, Bottom
LA-33	14-May-03	15.5	C	Temperature, Bottom
LA-33	15-Sep-05	15.5	C	Temperature, Bottom
LA-33	15-May-08	15.80	°C	Temperature, Bottom
LA-33	29-Nov-00	16	C	Temperature, Bottom
LA-33	5-Dec-00	16	C	Temperature, Bottom
LA-33	13-Nov-02	16	C	Temperature, Bottom
LA-33	17-Mar-04	16	C	Temperature, Bottom
LA-33	12-May-05	16	C	Temperature, Bottom
LA-33	9-Jun-05	16	C	Temperature, Bottom
LA-33	13-Oct-05	16	C	Temperature, Bottom
LA-33	16-Nov-05	16	C	Temperature, Bottom
LA-33	15-Nov-07	16.00	°C	Temperature, Bottom
LA-33	19-Jun-03	16.5	C	Temperature, Bottom
LA-33	17-Aug-06	16.5	C	Temperature, Bottom
LA-33	11-Jan-01	17	C	Temperature, Bottom
LA-33	18-Jul-01	17	C	Temperature, Bottom
LA-33	10-Mar-02	17	C	Temperature, Bottom
LA-33	19-Nov-03	17	C	Temperature, Bottom
LA-33	12-May-04	17	C	Temperature, Bottom
LA-33	10-Nov-04	17	C	Temperature, Bottom
LA-33	11-Aug-05	17	C	Temperature, Bottom
LA-33	15-Nov-06	17	C	Temperature, Bottom
LA-33	6-Jul-01	17.5	C	Temperature, Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-33	7-Aug-03	17.5	C	Temperature, Bottom
LA-33	13-Oct-04	17.5	C	Temperature, Bottom
LA-33	12-Jun-08	17.80	°C	Temperature, Bottom
LA-33	21-Sep-06	17.8	C	Temperature, Bottom
LA-33	10-Jan-00	18	C	Temperature, Bottom
LA-33	23-Aug-01	18	C	Temperature, Bottom
LA-33	5-Nov-01	18	C	Temperature, Bottom
LA-33	10-Dec-01	18	C	Temperature, Bottom
LA-33	20-Jun-02	18	C	Temperature, Bottom
LA-33	29-Aug-02	18	C	Temperature, Bottom
LA-33	9-Dec-02	18	C	Temperature, Bottom
LA-33	16-Jun-04	18	C	Temperature, Bottom
LA-33	21-Jul-04	18	C	Temperature, Bottom
LA-33	18-Aug-04	18	C	Temperature, Bottom
LA-33	15-Jun-06	18	C	Temperature, Bottom
LA-33	18-Jul-07	18.00	°C	Temperature, Bottom
LA-33	9-Aug-07	18.00	°C	Temperature, Bottom
LA-33	15-Sep-00	18.5	C	Temperature, Bottom
LA-33	31-Jul-02	18.5	C	Temperature, Bottom
LA-33	9-Oct-03	18.5	C	Temperature, Bottom
LA-33	14-Apr-04	18.5	C	Temperature, Bottom
LA-33	16-Jun-00	19	C	Temperature, Bottom
LA-33	13-Sep-01	19	C	Temperature, Bottom
LA-33	10-Jul-03	19	C	Temperature, Bottom
LA-33	10-Sep-03	19	C	Temperature, Bottom
LA-33	20-Jul-06	19	C	Temperature, Bottom
LA-33	13-Jul-00	19.5	C	Temperature, Bottom
LA-33	30-Aug-00	19.5	C	Temperature, Bottom
LA-33	15-Sep-04	20.5	C	Temperature, Bottom
LA-35	25-Jan-07	12.50	C	Temperature, Bottom
LA-35	25-Jan-07	12.5	C	Temperature, Bottom
LA-35	14-Feb-08	12.60	°C	Temperature, Bottom
LA-35	13-Apr-06	13	C	Temperature, Bottom
LA-35	20-Mar-08	13.00	°C	Temperature, Bottom
LA-35	17-Apr-08	13.00	°C	Temperature, Bottom
LA-35	17-Jan-08	13.10	°C	Temperature, Bottom
LA-35	7-Feb-07	13.40	°C	Temperature, Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-35	21-Jan-04	13.5	C	Temperature, Bottom
LA-35	16-May-07	13.50	°C	Temperature, Bottom
LA-35	13-Dec-01	14	C	Temperature, Bottom
LA-35	17-Jan-02	14	C	Temperature, Bottom
LA-35	19-Dec-02	14	C	Temperature, Bottom
LA-35	16-Jan-03	14	C	Temperature, Bottom
LA-35	4-Sep-03	14	C	Temperature, Bottom
LA-35	18-Feb-04	14	C	Temperature, Bottom
LA-35	15-Mar-07	14.00	°C	Temperature, Bottom
LA-35	19-Dec-07	14.00	°C	Temperature, Bottom
LA-35	16-Feb-06	14.1	C	Temperature, Bottom
LA-35	15-Feb-01	14.5	C	Temperature, Bottom
LA-35	14-Mar-02	14.5	C	Temperature, Bottom
LA-35	22-Dec-04	14.5	C	Temperature, Bottom
LA-35	20-Jan-05	14.5	C	Temperature, Bottom
LA-35	8-Dec-05	14.5	C	Temperature, Bottom
LA-35	12-Apr-07	14.50	°C	Temperature, Bottom
LA-35	25-Feb-00	14.7	C	Temperature, Bottom
LA-35	13-Apr-00	15	C	Temperature, Bottom
LA-35	3-Oct-00	15	C	Temperature, Bottom
LA-35	25-Jan-01	15	C	Temperature, Bottom
LA-35	21-Feb-02	15	C	Temperature, Bottom
LA-35	4-Oct-02	15	C	Temperature, Bottom
LA-35	13-Mar-03	15	C	Temperature, Bottom
LA-35	14-Apr-04	15	C	Temperature, Bottom
LA-35	10-Feb-05	15	C	Temperature, Bottom
LA-35	27-Apr-05	15	C	Temperature, Bottom
LA-35	7-Jul-05	15	C	Temperature, Bottom
LA-35	12-Jan-06	15	C	Temperature, Bottom
LA-35	24-Oct-07	15.00	°C	Temperature, Bottom
LA-35	11-May-06	15.1	C	Temperature, Bottom
LA-35	21-Dec-00	15.5	C	Temperature, Bottom
LA-35	27-Mar-01	15.5	C	Temperature, Bottom
LA-35	19-Apr-01	15.5	C	Temperature, Bottom
LA-35	16-May-02	15.5	C	Temperature, Bottom
LA-35	14-May-03	15.5	C	Temperature, Bottom
LA-35	4-Dec-03	15.5	C	Temperature, Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-35	17-Mar-04	15.5	C	Temperature, Bottom
LA-35	15-Nov-07	15.50	°C	Temperature, Bottom
LA-35	15-May-08	15.80	°C	Temperature, Bottom
LA-35	19-Feb-03	16	C	Temperature, Bottom
LA-35	10-Mar-05	16	C	Temperature, Bottom
LA-35	12-May-05	16	C	Temperature, Bottom
LA-35	15-Sep-05	16	C	Temperature, Bottom
LA-35	13-Oct-05	16	C	Temperature, Bottom
LA-35	16-Nov-05	16	C	Temperature, Bottom
LA-35	29-Nov-00	16.5	C	Temperature, Bottom
LA-35	5-Dec-00	16.5	C	Temperature, Bottom
LA-35	19-Jun-03	16.5	C	Temperature, Bottom
LA-35	9-Jun-05	16.5	C	Temperature, Bottom
LA-35	11-Jan-01	17	C	Temperature, Bottom
LA-35	10-Mar-02	17	C	Temperature, Bottom
LA-35	9-Dec-02	17	C	Temperature, Bottom
LA-35	7-Aug-03	17	C	Temperature, Bottom
LA-35	19-Nov-03	17	C	Temperature, Bottom
LA-35	12-May-04	17	C	Temperature, Bottom
LA-35	11-Aug-05	17	C	Temperature, Bottom
LA-35	15-Jun-06	17	C	Temperature, Bottom
LA-35	17-Aug-06	17	C	Temperature, Bottom
LA-35	15-Nov-06	17	C	Temperature, Bottom
LA-35	6-Jul-01	17.5	C	Temperature, Bottom
LA-35	18-Jul-01	17.5	C	Temperature, Bottom
LA-35	10-Nov-04	17.5	C	Temperature, Bottom
LA-35	21-Sep-06	17.8	C	Temperature, Bottom
LA-35	12-Jun-08	17.90	°C	Temperature, Bottom
LA-35	5-Nov-01	18	C	Temperature, Bottom
LA-35	10-Dec-01	18	C	Temperature, Bottom
LA-35	20-Jun-02	18	C	Temperature, Bottom
LA-35	10-Jul-03	18	C	Temperature, Bottom
LA-35	16-Jun-04	18	C	Temperature, Bottom
LA-35	18-Aug-04	18	C	Temperature, Bottom
LA-35	13-Oct-04	18	C	Temperature, Bottom
LA-35	18-Jul-07	18.00	°C	Temperature, Bottom
LA-35	10-Jan-00	18.5	C	Temperature, Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-35	13-Sep-01	19	C	Temperature, Bottom
LA-35	31-Jul-02	19	C	Temperature, Bottom
LA-35	29-Aug-02	19	C	Temperature, Bottom
LA-35	9-Oct-03	19	C	Temperature, Bottom
LA-35	21-Jul-04	19	C	Temperature, Bottom
LA-35	20-Jul-06	19	C	Temperature, Bottom
LA-35	13-Jul-00	19.5	C	Temperature, Bottom
LA-35	30-Aug-00	19.5	C	Temperature, Bottom
LA-35	15-Sep-00	19.5	C	Temperature, Bottom
LA-35	23-Aug-01	19.5	C	Temperature, Bottom
LA-35	9-Aug-07	19.50	°C	Temperature, Bottom
LA-35	16-Jun-00	20	C	Temperature, Bottom
LA-35	10-Sep-03	20	C	Temperature, Bottom
LA-35	15-Sep-04	21	C	Temperature, Bottom
LA-39	17-Jan-08	12.50	°C	Temperature, Bottom
LA-39	25-Jan-07	12.8	C	Temperature, Bottom
LA-39	25-Jan-07	12.80	C	Temperature, Bottom
LA-39	14-Feb-08	12.80	°C	Temperature, Bottom
LA-39	13-Apr-06	13	C	Temperature, Bottom
LA-39	20-Mar-08	13.00	°C	Temperature, Bottom
LA-39	15-Feb-01	13.5	C	Temperature, Bottom
LA-39	21-Jan-04	13.5	C	Temperature, Bottom
LA-39	16-May-07	13.50	°C	Temperature, Bottom
LA-39	7-Feb-07	13.80	°C	Temperature, Bottom
LA-39	25-Feb-00	14	C	Temperature, Bottom
LA-39	13-Dec-01	14	C	Temperature, Bottom
LA-39	4-Sep-03	14	C	Temperature, Bottom
LA-39	18-Feb-04	14	C	Temperature, Bottom
LA-39	20-Jan-05	14	C	Temperature, Bottom
LA-39	10-Feb-05	14	C	Temperature, Bottom
LA-39	12-Jan-06	14	C	Temperature, Bottom
LA-39	15-Mar-07	14.00	°C	Temperature, Bottom
LA-39	12-Apr-07	14.00	°C	Temperature, Bottom
LA-39	19-Dec-07	14.00	°C	Temperature, Bottom
LA-39	3-Oct-00	14.5	C	Temperature, Bottom
LA-39	21-Dec-00	14.5	C	Temperature, Bottom
LA-39	25-Jan-01	14.5	C	Temperature, Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-39	17-Jan-02	14.5	C	Temperature, Bottom
LA-39	4-Oct-02	14.5	C	Temperature, Bottom
LA-39	16-Jan-03	14.5	C	Temperature, Bottom
LA-39	22-Dec-04	14.5	C	Temperature, Bottom
LA-39	7-Jul-05	14.5	C	Temperature, Bottom
LA-39	8-Dec-05	14.5	C	Temperature, Bottom
LA-39	11-May-06	14.8	C	Temperature, Bottom
LA-39	13-Apr-00	15	C	Temperature, Bottom
LA-39	21-Feb-02	15	C	Temperature, Bottom
LA-39	14-Mar-02	15	C	Temperature, Bottom
LA-39	13-Mar-03	15	C	Temperature, Bottom
LA-39	4-Dec-03	15	C	Temperature, Bottom
LA-39	14-Apr-04	15	C	Temperature, Bottom
LA-39	27-Apr-05	15	C	Temperature, Bottom
LA-39	16-Feb-06	15	C	Temperature, Bottom
LA-39	24-Oct-07	15.10	°C	Temperature, Bottom
LA-39	27-Mar-01	15.5	C	Temperature, Bottom
LA-39	19-Apr-01	15.5	C	Temperature, Bottom
LA-39	19-Dec-02	15.5	C	Temperature, Bottom
LA-39	19-Feb-03	15.5	C	Temperature, Bottom
LA-39	14-May-03	15.5	C	Temperature, Bottom
LA-39	15-Nov-07	15.50	°C	Temperature, Bottom
LA-39	29-Nov-00	16	C	Temperature, Bottom
LA-39	10-Mar-02	16	C	Temperature, Bottom
LA-39	16-May-02	16	C	Temperature, Bottom
LA-39	13-Nov-02	16	C	Temperature, Bottom
LA-39	17-Mar-04	16	C	Temperature, Bottom
LA-39	10-Mar-05	16	C	Temperature, Bottom
LA-39	12-May-05	16	C	Temperature, Bottom
LA-39	9-Jun-05	16	C	Temperature, Bottom
LA-39	15-Sep-05	16	C	Temperature, Bottom
LA-39	13-Oct-05	16	C	Temperature, Bottom
LA-39	16-Nov-05	16	C	Temperature, Bottom
LA-39	17-Apr-08	16.00	°C	Temperature, Bottom
LA-39	15-May-08	16.00	°C	Temperature, Bottom
LA-39	19-Jun-03	16.5	C	Temperature, Bottom
LA-39	11-Aug-05	16.5	C	Temperature, Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-39	17-Aug-06	16.5	C	Temperature, Bottom
LA-39	15-Nov-06	16.8	C	Temperature, Bottom
LA-39	5-Dec-00	17	C	Temperature, Bottom
LA-39	11-Jan-01	17	C	Temperature, Bottom
LA-39	6-Jul-01	17	C	Temperature, Bottom
LA-39	5-Nov-01	17	C	Temperature, Bottom
LA-39	9-Dec-02	17	C	Temperature, Bottom
LA-39	7-Aug-03	17	C	Temperature, Bottom
LA-39	19-Nov-03	17	C	Temperature, Bottom
LA-39	12-May-04	17	C	Temperature, Bottom
LA-39	12-Jun-08	17.00	°C	Temperature, Bottom
LA-39	10-Nov-04	17.5	C	Temperature, Bottom
LA-39	15-Jun-06	17.5	C	Temperature, Bottom
LA-39	21-Sep-06	17.5	C	Temperature, Bottom
LA-39	10-Jan-00	18	C	Temperature, Bottom
LA-39	15-Sep-00	18	C	Temperature, Bottom
LA-39	18-Jul-01	18	C	Temperature, Bottom
LA-39	23-Aug-01	18	C	Temperature, Bottom
LA-39	10-Dec-01	18	C	Temperature, Bottom
LA-39	20-Jun-02	18	C	Temperature, Bottom
LA-39	31-Jul-02	18	C	Temperature, Bottom
LA-39	10-Jul-03	18	C	Temperature, Bottom
LA-39	16-Jun-04	18	C	Temperature, Bottom
LA-39	18-Aug-04	18	C	Temperature, Bottom
LA-39	13-Oct-04	18	C	Temperature, Bottom
LA-39	18-Jul-07	18.00	°C	Temperature, Bottom
LA-39	9-Aug-07	18.00	°C	Temperature, Bottom
LA-39	29-Aug-02	18.5	C	Temperature, Bottom
LA-39	16-Jun-00	19	C	Temperature, Bottom
LA-39	13-Sep-01	19	C	Temperature, Bottom
LA-39	9-Oct-03	19	C	Temperature, Bottom
LA-39	21-Jul-04	19	C	Temperature, Bottom
LA-39	30-Aug-00	19.5	C	Temperature, Bottom
LA-39	10-Sep-03	19.5	C	Temperature, Bottom
LA-39	20-Jul-06	19.5	C	Temperature, Bottom
LA-39	13-Jul-00	20	C	Temperature, Bottom
LA-39	15-Sep-04	20.5	C	Temperature, Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-41	17-Jan-08	13.00	°C	Temperature, Bottom
LA-41	14-Feb-08	13.10	°C	Temperature, Bottom
LA-41	25-Jan-07	13.50	C	Temperature, Bottom
LA-41	25-Jan-07	13.5	C	Temperature, Bottom
LA-41	20-Mar-08	13.50	°C	Temperature, Bottom
LA-41	7-Feb-07	13.80	°C	Temperature, Bottom
LA-41	15-Feb-01	14	C	Temperature, Bottom
LA-41	25-Feb-04	14	C	Temperature, Bottom
LA-41	22-Dec-04	14	C	Temperature, Bottom
LA-41	12-Jan-06	14	C	Temperature, Bottom
LA-41	16-May-07	14.00	°C	Temperature, Bottom
LA-41	19-Dec-07	14.00	°C	Temperature, Bottom
LA-41	25-Feb-00	14.4	C	Temperature, Bottom
LA-41	25-Jan-01	14.5	C	Temperature, Bottom
LA-41	19-Dec-02	14.5	C	Temperature, Bottom
LA-41	4-Sep-03	14.5	C	Temperature, Bottom
LA-41	21-Jan-04	14.5	C	Temperature, Bottom
LA-41	8-Dec-05	14.5	C	Temperature, Bottom
LA-41	12-Apr-07	14.50	°C	Temperature, Bottom
LA-41	17-Apr-08	14.50	°C	Temperature, Bottom
LA-41	13-Dec-01	15	C	Temperature, Bottom
LA-41	17-Jan-02	15	C	Temperature, Bottom
LA-41	14-Mar-02	15	C	Temperature, Bottom
LA-41	4-Oct-02	15	C	Temperature, Bottom
LA-41	16-Jan-03	15	C	Temperature, Bottom
LA-41	13-Mar-03	15	C	Temperature, Bottom
LA-41	20-Jan-05	15	C	Temperature, Bottom
LA-41	10-Feb-05	15	C	Temperature, Bottom
LA-41	16-Feb-06	15	C	Temperature, Bottom
LA-41	13-Apr-06	15	C	Temperature, Bottom
LA-41	15-Mar-07	15.00	°C	Temperature, Bottom
LA-41	11-May-06	15.2	C	Temperature, Bottom
LA-41	3-Oct-00	15.5	C	Temperature, Bottom
LA-41	29-Nov-00	15.5	C	Temperature, Bottom
LA-41	13-Apr-00	16	C	Temperature, Bottom
LA-41	27-Mar-01	16	C	Temperature, Bottom
LA-41	19-Apr-01	16	C	Temperature, Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-41	21-Feb-02	16	C	Temperature, Bottom
LA-41	16-May-02	16	C	Temperature, Bottom
LA-41	19-Feb-03	16	C	Temperature, Bottom
LA-41	4-Dec-03	16	C	Temperature, Bottom
LA-41	17-Mar-04	16	C	Temperature, Bottom
LA-41	14-Apr-04	16	C	Temperature, Bottom
LA-41	10-Mar-05	16	C	Temperature, Bottom
LA-41	7-Jul-05	16	C	Temperature, Bottom
LA-41	24-Oct-07	16.00	°C	Temperature, Bottom
LA-41	15-Nov-07	16.00	°C	Temperature, Bottom
LA-41	13-Nov-02	16.5	C	Temperature, Bottom
LA-41	12-May-05	16.5	C	Temperature, Bottom
LA-41	15-Sep-05	16.5	C	Temperature, Bottom
LA-41	11-Jan-01	17	C	Temperature, Bottom
LA-41	14-May-03	17	C	Temperature, Bottom
LA-41	13-Oct-05	17	C	Temperature, Bottom
LA-41	16-Nov-05	17	C	Temperature, Bottom
LA-41	15-Nov-06	17	C	Temperature, Bottom
LA-41	15-May-08	17.00	°C	Temperature, Bottom
LA-41	10-Dec-01	17.5	C	Temperature, Bottom
LA-41	19-Nov-03	17.5	C	Temperature, Bottom
LA-41	10-Jan-00	18	C	Temperature, Bottom
LA-41	5-Dec-00	18	C	Temperature, Bottom
LA-41	18-Jul-01	18	C	Temperature, Bottom
LA-41	5-Nov-01	18	C	Temperature, Bottom
LA-41	19-Jun-03	18	C	Temperature, Bottom
LA-41	7-Aug-03	18	C	Temperature, Bottom
LA-41	12-May-04	18	C	Temperature, Bottom
LA-41	10-Nov-04	18	C	Temperature, Bottom
LA-41	9-Jun-05	18	C	Temperature, Bottom
LA-41	17-Aug-06	18	C	Temperature, Bottom
LA-41	6-Jul-01	18.5	C	Temperature, Bottom
LA-41	10-Mar-02	18.5	C	Temperature, Bottom
LA-41	29-Aug-02	18.5	C	Temperature, Bottom
LA-41	9-Dec-02	18.5	C	Temperature, Bottom
LA-41	16-Jun-04	18.5	C	Temperature, Bottom
LA-41	12-Jun-08	18.80	°C	Temperature, Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-41	21-Sep-06	18.9	C	Temperature, Bottom
LA-41	9-Oct-03	19	C	Temperature, Bottom
LA-41	18-Aug-04	19	C	Temperature, Bottom
LA-41	13-Oct-04	19	C	Temperature, Bottom
LA-41	15-Jun-06	19	C	Temperature, Bottom
LA-41	18-Jul-07	19.80	°C	Temperature, Bottom
LA-41	16-Jun-00	20	C	Temperature, Bottom
LA-41	30-Aug-00	20	C	Temperature, Bottom
LA-41	15-Sep-00	20	C	Temperature, Bottom
LA-41	15-Sep-00	20	C	Temperature, Bottom
LA-41	23-Aug-01	20	C	Temperature, Bottom
LA-41	20-Jun-02	20	C	Temperature, Bottom
LA-41	21-Jul-04	20	C	Temperature, Bottom
LA-41	11-Aug-05	20	C	Temperature, Bottom
LA-41	9-Aug-07	20.00	°C	Temperature, Bottom
LA-41	10-Jul-03	20.5	C	Temperature, Bottom
LA-41	15-Sep-04	20.5	C	Temperature, Bottom
LA-41	13-Jul-00	21	C	Temperature, Bottom
LA-41	13-Sep-01	21	C	Temperature, Bottom
LA-41	31-Jul-02	21	C	Temperature, Bottom
LA-41	20-Jul-06	21	C	Temperature, Bottom
LA-41	10-Sep-03	22.5	C	Temperature, Bottom
LA-44	14-Feb-08	12.90	°C	Temperature, Bottom
LA-44	17-Jan-08	13.00	°C	Temperature, Bottom
LA-44	16-May-07	13.50	°C	Temperature, Bottom
LA-44	7-Feb-07	13.80	°C	Temperature, Bottom
LA-44	15-Feb-01	14	C	Temperature, Bottom
LA-44	21-Jan-04	14	C	Temperature, Bottom
LA-44	25-Feb-04	14	C	Temperature, Bottom
LA-44	22-Dec-04	14	C	Temperature, Bottom
LA-44	12-Jan-06	14	C	Temperature, Bottom
LA-44	25-Jan-07	14.00	C	Temperature, Bottom
LA-44	25-Jan-07	14	C	Temperature, Bottom
LA-44	19-Dec-07	14.00	°C	Temperature, Bottom
LA-44	20-Mar-08	14.00	°C	Temperature, Bottom
LA-44	17-Apr-08	14.00	°C	Temperature, Bottom
LA-44	25-Feb-00	14.4	C	Temperature, Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-44	25-Jan-01	14.5	C	Temperature, Bottom
LA-44	4-Sep-03	14.5	C	Temperature, Bottom
LA-44	8-Dec-05	14.5	C	Temperature, Bottom
LA-44	16-Feb-06	14.8	C	Temperature, Bottom
LA-44	15-Mar-07	14.80	°C	Temperature, Bottom
LA-44	3-Oct-00	15	C	Temperature, Bottom
LA-44	21-Dec-00	15	C	Temperature, Bottom
LA-44	13-Dec-01	15	C	Temperature, Bottom
LA-44	14-Mar-02	15	C	Temperature, Bottom
LA-44	4-Oct-02	15	C	Temperature, Bottom
LA-44	19-Dec-02	15	C	Temperature, Bottom
LA-44	13-Mar-03	15	C	Temperature, Bottom
LA-44	20-Jan-05	15	C	Temperature, Bottom
LA-44	10-Feb-05	15	C	Temperature, Bottom
LA-44	13-Apr-06	15	C	Temperature, Bottom
LA-44	12-Apr-07	15.00	°C	Temperature, Bottom
LA-44	29-Nov-00	15.5	C	Temperature, Bottom
LA-44	17-Jan-02	15.5	C	Temperature, Bottom
LA-44	11-May-06	15.5	C	Temperature, Bottom
LA-44	13-Apr-00	16	C	Temperature, Bottom
LA-44	27-Mar-01	16	C	Temperature, Bottom
LA-44	19-Apr-01	16	C	Temperature, Bottom
LA-44	21-Feb-02	16	C	Temperature, Bottom
LA-44	16-May-02	16	C	Temperature, Bottom
LA-44	16-Jan-03	16	C	Temperature, Bottom
LA-44	19-Feb-03	16	C	Temperature, Bottom
LA-44	4-Dec-03	16	C	Temperature, Bottom
LA-44	17-Mar-04	16	C	Temperature, Bottom
LA-44	14-Apr-04	16	C	Temperature, Bottom
LA-44	10-Mar-05	16	C	Temperature, Bottom
LA-44	27-Apr-05	16	C	Temperature, Bottom
LA-44	12-May-05	16	C	Temperature, Bottom
LA-44	7-Jul-05	16	C	Temperature, Bottom
LA-44	15-Nov-07	16.00	°C	Temperature, Bottom
LA-44	13-Nov-02	16.5	C	Temperature, Bottom
LA-44	15-Sep-05	16.5	C	Temperature, Bottom
LA-44	24-Oct-07	16.80	°C	Temperature, Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-44	5-Dec-00	17	C	Temperature, Bottom
LA-44	14-May-03	17	C	Temperature, Bottom
LA-44	13-Oct-05	17	C	Temperature, Bottom
LA-44	16-Nov-05	17	C	Temperature, Bottom
LA-44	15-Nov-06	17	C	Temperature, Bottom
LA-44	15-May-08	17.00	°C	Temperature, Bottom
LA-44	11-Jan-01	17.5	C	Temperature, Bottom
LA-44	7-Aug-03	17.5	C	Temperature, Bottom
LA-44	19-Nov-03	17.5	C	Temperature, Bottom
LA-44	18-Jul-01	18	C	Temperature, Bottom
LA-44	5-Nov-01	18	C	Temperature, Bottom
LA-44	10-Mar-02	18	C	Temperature, Bottom
LA-44	19-Jun-03	18	C	Temperature, Bottom
LA-44	13-Oct-04	18	C	Temperature, Bottom
LA-44	10-Nov-04	18	C	Temperature, Bottom
LA-44	9-Jun-05	18	C	Temperature, Bottom
LA-44	11-Aug-05	18	C	Temperature, Bottom
LA-44	17-Aug-06	18	C	Temperature, Bottom
LA-44	10-Jan-00	18.5	C	Temperature, Bottom
LA-44	10-Dec-01	18.5	C	Temperature, Bottom
LA-44	9-Oct-03	18.5	C	Temperature, Bottom
LA-44	12-May-04	18.5	C	Temperature, Bottom
LA-44	16-Jun-04	18.5	C	Temperature, Bottom
LA-44	15-Jun-06	18.5	C	Temperature, Bottom
LA-44	21-Sep-06	18.8	C	Temperature, Bottom
LA-44	6-Jul-01	19	C	Temperature, Bottom
LA-44	20-Jun-02	19	C	Temperature, Bottom
LA-44	29-Aug-02	19	C	Temperature, Bottom
LA-44	9-Dec-02	19	C	Temperature, Bottom
LA-44	12-Jun-08	19.00	°C	Temperature, Bottom
LA-44	23-Aug-01	19.5	C	Temperature, Bottom
LA-44	18-Aug-04	19.5	C	Temperature, Bottom
LA-44	18-Jul-07	19.50	°C	Temperature, Bottom
LA-44	16-Jun-00	20	C	Temperature, Bottom
LA-44	13-Jul-00	20	C	Temperature, Bottom
LA-44	15-Sep-00	20	C	Temperature, Bottom
LA-44	21-Jul-04	20	C	Temperature, Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-44	20-Jul-06	20	C	Temperature, Bottom
LA-44	30-Aug-00	20.5	C	Temperature, Bottom
LA-44	31-Jul-02	20.5	C	Temperature, Bottom
LA-44	10-Jul-03	20.5	C	Temperature, Bottom
LA-44	15-Sep-04	20.5	C	Temperature, Bottom
LA-44	9-Aug-07	20.50	°C	Temperature, Bottom
LA-44	13-Sep-01	21	C	Temperature, Bottom
LA-44	10-Sep-03	21	C	Temperature, Bottom
LA-46	17-Jan-08	13.00	°C	Temperature, Bottom
LA-46	14-Feb-08	13.00	°C	Temperature, Bottom
LA-46	25-Feb-04	14	C	Temperature, Bottom
LA-46	22-Dec-04	14	C	Temperature, Bottom
LA-46	25-Jan-07	14.00	C	Temperature, Bottom
LA-46	25-Jan-07	14	C	Temperature, Bottom
LA-46	7-Feb-07	14.00	°C	Temperature, Bottom
LA-46	16-May-07	14.00	°C	Temperature, Bottom
LA-46	19-Dec-07	14.00	°C	Temperature, Bottom
LA-46	20-Mar-08	14.00	°C	Temperature, Bottom
LA-46	15-Feb-01	14.5	C	Temperature, Bottom
LA-46	21-Jan-04	14.5	C	Temperature, Bottom
LA-46	10-Feb-05	14.5	C	Temperature, Bottom
LA-46	8-Dec-05	14.5	C	Temperature, Bottom
LA-46	12-Jan-06	14.5	C	Temperature, Bottom
LA-46	25-Feb-00	14.8	C	Temperature, Bottom
LA-46	16-Feb-06	14.8	C	Temperature, Bottom
LA-46	15-Mar-07	14.90	°C	Temperature, Bottom
LA-46	25-Jan-01	15	C	Temperature, Bottom
LA-46	13-Dec-01	15	C	Temperature, Bottom
LA-46	19-Dec-02	15	C	Temperature, Bottom
LA-46	4-Sep-03	15	C	Temperature, Bottom
LA-46	20-Jan-05	15	C	Temperature, Bottom
LA-46	13-Apr-06	15	C	Temperature, Bottom
LA-46	12-Apr-07	15.00	°C	Temperature, Bottom
LA-46	11-May-06	15.2	C	Temperature, Bottom
LA-46	3-Oct-00	15.5	C	Temperature, Bottom
LA-46	21-Dec-00	15.5	C	Temperature, Bottom
LA-46	17-Jan-02	15.5	C	Temperature, Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-46	14-Mar-02	15.5	C	Temperature, Bottom
LA-46	16-Jan-03	15.5	C	Temperature, Bottom
LA-46	29-Nov-00	16	C	Temperature, Bottom
LA-46	27-Mar-01	16	C	Temperature, Bottom
LA-46	19-Apr-01	16	C	Temperature, Bottom
LA-46	16-May-02	16	C	Temperature, Bottom
LA-46	4-Oct-02	16	C	Temperature, Bottom
LA-46	19-Feb-03	16	C	Temperature, Bottom
LA-46	13-Mar-03	16	C	Temperature, Bottom
LA-46	4-Dec-03	16	C	Temperature, Bottom
LA-46	17-Mar-04	16	C	Temperature, Bottom
LA-46	14-Apr-04	16	C	Temperature, Bottom
LA-46	10-Mar-05	16	C	Temperature, Bottom
LA-46	7-Jul-05	16	C	Temperature, Bottom
LA-46	24-Oct-07	16.00	°C	Temperature, Bottom
LA-46	15-Nov-07	16.00	°C	Temperature, Bottom
LA-46	17-Apr-08	16.00	°C	Temperature, Bottom
LA-46	13-Apr-00	16.5	C	Temperature, Bottom
LA-46	21-Feb-02	16.5	C	Temperature, Bottom
LA-46	13-Nov-02	16.5	C	Temperature, Bottom
LA-46	27-Apr-05	16.5	C	Temperature, Bottom
LA-46	12-May-05	16.5	C	Temperature, Bottom
LA-46	14-May-03	17	C	Temperature, Bottom
LA-46	7-Aug-03	17	C	Temperature, Bottom
LA-46	15-Sep-05	17	C	Temperature, Bottom
LA-46	13-Oct-05	17	C	Temperature, Bottom
LA-46	16-Nov-05	17	C	Temperature, Bottom
LA-46	15-May-08	17.00	°C	Temperature, Bottom
LA-46	5-Dec-00	17.5	C	Temperature, Bottom
LA-46	19-Jun-03	17.5	C	Temperature, Bottom
LA-46	15-Nov-06	17.5	C	Temperature, Bottom
LA-46	10-Jan-00	18	C	Temperature, Bottom
LA-46	11-Jan-01	18	C	Temperature, Bottom
LA-46	5-Nov-01	18	C	Temperature, Bottom
LA-46	10-Mar-02	18	C	Temperature, Bottom
LA-46	19-Nov-03	18	C	Temperature, Bottom
LA-46	10-Nov-04	18	C	Temperature, Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-46	9-Jun-05	18	C	Temperature, Bottom
LA-46	11-Aug-05	18	C	Temperature, Bottom
LA-46	17-Aug-06	18	C	Temperature, Bottom
LA-46	18-Jul-01	18.5	C	Temperature, Bottom
LA-46	12-May-04	18.5	C	Temperature, Bottom
LA-46	16-Jun-04	18.5	C	Temperature, Bottom
LA-46	6-Jul-01	19	C	Temperature, Bottom
LA-46	10-Dec-01	19	C	Temperature, Bottom
LA-46	9-Dec-02	19	C	Temperature, Bottom
LA-46	9-Oct-03	19	C	Temperature, Bottom
LA-46	18-Aug-04	19	C	Temperature, Bottom
LA-46	13-Oct-04	19	C	Temperature, Bottom
LA-46	15-Jun-06	19	C	Temperature, Bottom
LA-46	21-Sep-06	19	C	Temperature, Bottom
LA-46	12-Jun-08	19.00	°C	Temperature, Bottom
LA-46	20-Jun-02	19.5	C	Temperature, Bottom
LA-46	29-Aug-02	19.5	C	Temperature, Bottom
LA-46	18-Jul-07	19.50	°C	Temperature, Bottom
LA-46	15-Sep-00	20	C	Temperature, Bottom
LA-46	23-Aug-01	20	C	Temperature, Bottom
LA-46	31-Jul-02	20	C	Temperature, Bottom
LA-46	9-Aug-07	20.00	°C	Temperature, Bottom
LA-46	16-Jun-00	20.5	C	Temperature, Bottom
LA-46	13-Jul-00	20.5	C	Temperature, Bottom
LA-46	30-Aug-00	20.5	C	Temperature, Bottom
LA-46	10-Jul-03	20.5	C	Temperature, Bottom
LA-46	21-Jul-04	20.5	C	Temperature, Bottom
LA-46	15-Sep-04	20.5	C	Temperature, Bottom
LA-46	13-Sep-01	21	C	Temperature, Bottom
LA-46	20-Jul-06	21	C	Temperature, Bottom
LA-46	10-Sep-03	22	C	Temperature, Bottom
LA-47	14-Feb-08	12.80	°C	Temperature, Bottom
LA-47	17-Jan-08	12.90	°C	Temperature, Bottom
LA-47	25-Jan-07	13.50	C	Temperature, Bottom
LA-47	25-Jan-07	13.5	C	Temperature, Bottom
LA-47	19-Dec-07	13.80	°C	Temperature, Bottom
LA-47	25-Feb-04	14	C	Temperature, Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-47	22-Dec-04	14	C	Temperature, Bottom
LA-47	7-Feb-07	14.00	°C	Temperature, Bottom
LA-47	16-May-07	14.00	°C	Temperature, Bottom
LA-47	20-Mar-08	14.00	°C	Temperature, Bottom
LA-47	25-Feb-00	14.4	C	Temperature, Bottom
LA-47	25-Jan-01	14.5	C	Temperature, Bottom
LA-47	15-Feb-01	14.5	C	Temperature, Bottom
LA-47	21-Jan-04	14.5	C	Temperature, Bottom
LA-47	8-Dec-05	14.5	C	Temperature, Bottom
LA-47	12-Jan-06	14.5	C	Temperature, Bottom
LA-47	16-Feb-06	14.5	C	Temperature, Bottom
LA-47	15-Mar-07	14.80	°C	Temperature, Bottom
LA-47	21-Dec-00	15	C	Temperature, Bottom
LA-47	13-Dec-01	15	C	Temperature, Bottom
LA-47	17-Jan-02	15	C	Temperature, Bottom
LA-47	4-Oct-02	15	C	Temperature, Bottom
LA-47	19-Dec-02	15	C	Temperature, Bottom
LA-47	16-Jan-03	15	C	Temperature, Bottom
LA-47	4-Sep-03	15	C	Temperature, Bottom
LA-47	4-Dec-03	15	C	Temperature, Bottom
LA-47	10-Feb-05	15	C	Temperature, Bottom
LA-47	13-Apr-06	15	C	Temperature, Bottom
LA-47	11-May-06	15	C	Temperature, Bottom
LA-47	12-Apr-07	15.00	°C	Temperature, Bottom
LA-47	17-Apr-08	15.10	°C	Temperature, Bottom
LA-47	29-Nov-00	15.5	C	Temperature, Bottom
LA-47	14-Mar-02	15.5	C	Temperature, Bottom
LA-47	13-Mar-03	15.5	C	Temperature, Bottom
LA-47	20-Jan-05	15.5	C	Temperature, Bottom
LA-47	3-Oct-00	16	C	Temperature, Bottom
LA-47	27-Mar-01	16	C	Temperature, Bottom
LA-47	19-Apr-01	16	C	Temperature, Bottom
LA-47	21-Feb-02	16	C	Temperature, Bottom
LA-47	16-May-02	16	C	Temperature, Bottom
LA-47	19-Feb-03	16	C	Temperature, Bottom
LA-47	17-Mar-04	16	C	Temperature, Bottom
LA-47	10-Mar-05	16	C	Temperature, Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-47	7-Jul-05	16	C	Temperature, Bottom
LA-47	15-Nov-07	16.00	°C	Temperature, Bottom
LA-47	13-Apr-00	16.5	C	Temperature, Bottom
LA-47	13-Nov-02	16.5	C	Temperature, Bottom
LA-47	14-Apr-04	16.5	C	Temperature, Bottom
LA-47	27-Apr-05	16.5	C	Temperature, Bottom
LA-47	12-May-05	16.5	C	Temperature, Bottom
LA-47	24-Oct-07	16.50	°C	Temperature, Bottom
LA-47	10-Mar-02	17	C	Temperature, Bottom
LA-47	14-May-03	17	C	Temperature, Bottom
LA-47	15-Sep-05	17	C	Temperature, Bottom
LA-47	13-Oct-05	17	C	Temperature, Bottom
LA-47	16-Nov-05	17	C	Temperature, Bottom
LA-47	15-May-08	17.10	°C	Temperature, Bottom
LA-47	5-Dec-00	17.5	C	Temperature, Bottom
LA-47	11-Jan-01	17.5	C	Temperature, Bottom
LA-47	19-Jun-03	17.5	C	Temperature, Bottom
LA-47	7-Aug-03	17.5	C	Temperature, Bottom
LA-47	19-Nov-03	17.5	C	Temperature, Bottom
LA-47	10-Nov-04	17.5	C	Temperature, Bottom
LA-47	10-Jan-00	18	C	Temperature, Bottom
LA-47	5-Nov-01	18	C	Temperature, Bottom
LA-47	12-May-04	18	C	Temperature, Bottom
LA-47	13-Oct-04	18	C	Temperature, Bottom
LA-47	9-Jun-05	18	C	Temperature, Bottom
LA-47	17-Aug-06	18	C	Temperature, Bottom
LA-47	15-Nov-06	18	C	Temperature, Bottom
LA-47	18-Jul-01	18.5	C	Temperature, Bottom
LA-47	16-Jun-04	18.5	C	Temperature, Bottom
LA-47	11-Aug-05	18.5	C	Temperature, Bottom
LA-47	6-Jul-01	19	C	Temperature, Bottom
LA-47	10-Dec-01	19	C	Temperature, Bottom
LA-47	20-Jun-02	19	C	Temperature, Bottom
LA-47	29-Aug-02	19	C	Temperature, Bottom
LA-47	9-Dec-02	19	C	Temperature, Bottom
LA-47	9-Oct-03	19	C	Temperature, Bottom
LA-47	21-Sep-06	19	C	Temperature, Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-47	18-Jul-07	19.00	°C	Temperature, Bottom
LA-47	12-Jun-08	19.10	°C	Temperature, Bottom
LA-47	31-Jul-02	19.5	C	Temperature, Bottom
LA-47	18-Aug-04	19.5	C	Temperature, Bottom
LA-47	10-Jul-03	20	C	Temperature, Bottom
LA-47	15-Jun-06	20	C	Temperature, Bottom
LA-47	16-Jun-00	20.5	C	Temperature, Bottom
LA-47	30-Aug-00	20.5	C	Temperature, Bottom
LA-47	21-Jul-04	20.5	C	Temperature, Bottom
LA-47	9-Aug-07	20.50	°C	Temperature, Bottom
LA-47	13-Jul-00	21	C	Temperature, Bottom
LA-47	15-Sep-00	21	C	Temperature, Bottom
LA-47	23-Aug-01	21	C	Temperature, Bottom
LA-47	13-Sep-01	21	C	Temperature, Bottom
LA-47	10-Sep-03	21	C	Temperature, Bottom
LA-47	15-Sep-04	21	C	Temperature, Bottom
LA-47	20-Jul-06	21	C	Temperature, Bottom
LA-49	15-Feb-01	14	C	Temperature, Bottom
LA-49	25-Feb-04	14	C	Temperature, Bottom
LA-49	22-Dec-04	14	C	Temperature, Bottom
LA-49	12-Jan-06	14	C	Temperature, Bottom
LA-49	16-Feb-06	14.2	C	Temperature, Bottom
LA-49	25-Feb-00	14.4	C	Temperature, Bottom
LA-49	25-Jan-01	14.5	C	Temperature, Bottom
LA-49	8-Dec-05	14.5	C	Temperature, Bottom
LA-49	13-Apr-06	14.5	C	Temperature, Bottom
LA-49	21-Dec-00	15	C	Temperature, Bottom
LA-49	13-Dec-01	15	C	Temperature, Bottom
LA-49	4-Oct-02	15	C	Temperature, Bottom
LA-49	19-Dec-02	15	C	Temperature, Bottom
LA-49	16-Jan-03	15	C	Temperature, Bottom
LA-49	13-Mar-03	15	C	Temperature, Bottom
LA-49	4-Sep-03	15	C	Temperature, Bottom
LA-49	4-Dec-03	15	C	Temperature, Bottom
LA-49	21-Jan-04	15	C	Temperature, Bottom
LA-49	10-Feb-05	15	C	Temperature, Bottom
LA-49	3-Oct-00	15.5	C	Temperature, Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-49	17-Jan-02	15.5	C	Temperature, Bottom
LA-49	20-Jan-05	15.5	C	Temperature, Bottom
LA-49	29-Nov-00	16	C	Temperature, Bottom
LA-49	27-Mar-01	16	C	Temperature, Bottom
LA-49	19-Apr-01	16	C	Temperature, Bottom
LA-49	14-Mar-02	16	C	Temperature, Bottom
LA-49	16-May-02	16	C	Temperature, Bottom
LA-49	19-Feb-03	16	C	Temperature, Bottom
LA-49	17-Mar-04	16	C	Temperature, Bottom
LA-49	10-Mar-05	16	C	Temperature, Bottom
LA-49	11-May-06	16.1	C	Temperature, Bottom
LA-49	13-Apr-00	16.5	C	Temperature, Bottom
LA-49	13-Nov-02	16.5	C	Temperature, Bottom
LA-49	14-Apr-04	16.5	C	Temperature, Bottom
LA-49	27-Apr-05	16.5	C	Temperature, Bottom
LA-49	11-Jan-01	17	C	Temperature, Bottom
LA-49	21-Feb-02	17	C	Temperature, Bottom
LA-49	14-May-03	17	C	Temperature, Bottom
LA-49	19-Nov-03	17	C	Temperature, Bottom
LA-49	12-May-05	17	C	Temperature, Bottom
LA-49	7-Jul-05	17	C	Temperature, Bottom
LA-49	16-Nov-05	17	C	Temperature, Bottom
LA-49	7-Aug-03	17.5	C	Temperature, Bottom
LA-49	15-Sep-05	17.5	C	Temperature, Bottom
LA-49	13-Oct-05	17.5	C	Temperature, Bottom
LA-49	15-Nov-06	17.5	C	Temperature, Bottom
LA-49	5-Dec-00	18	C	Temperature, Bottom
LA-49	5-Nov-01	18	C	Temperature, Bottom
LA-49	10-Mar-02	18	C	Temperature, Bottom
LA-49	12-May-04	18	C	Temperature, Bottom
LA-49	13-Oct-04	18	C	Temperature, Bottom
LA-49	10-Nov-04	18	C	Temperature, Bottom
LA-49	10-Jan-00	18.5	C	Temperature, Bottom
LA-49	18-Jul-01	18.5	C	Temperature, Bottom
LA-49	10-Dec-01	18.5	C	Temperature, Bottom
LA-49	19-Jun-03	18.5	C	Temperature, Bottom
LA-49	16-Jun-04	18.5	C	Temperature, Bottom

Port of Los Angeles - Inner Harbor Water Quality Data

LA-49	9-Jun-05	18.5	C	Temperature, Bottom
LA-49	6-Jul-01	19	C	Temperature, Bottom
LA-49	20-Jun-02	19	C	Temperature, Bottom
LA-49	9-Dec-02	19	C	Temperature, Bottom
LA-49	9-Oct-03	19	C	Temperature, Bottom
LA-49	11-Aug-05	19	C	Temperature, Bottom
LA-49	15-Jun-06	19	C	Temperature, Bottom
LA-49	17-Aug-06	19	C	Temperature, Bottom
LA-49	21-Sep-06	19	C	Temperature, Bottom
LA-49	29-Aug-02	19.5	C	Temperature, Bottom
LA-49	18-Aug-04	19.5	C	Temperature, Bottom
LA-49	16-Jun-00	20	C	Temperature, Bottom
LA-49	15-Sep-00	20	C	Temperature, Bottom
LA-49	31-Jul-02	20	C	Temperature, Bottom
LA-49	21-Jul-04	20	C	Temperature, Bottom
LA-49	10-Jul-03	20.5	C	Temperature, Bottom
LA-49	13-Jul-00	21	C	Temperature, Bottom
LA-49	30-Aug-00	21	C	Temperature, Bottom
LA-49	13-Sep-01	21	C	Temperature, Bottom
LA-49	15-Sep-04	21	C	Temperature, Bottom
LA-49	20-Jul-06	21	C	Temperature, Bottom
LA-49	10-Sep-03	22	C	Temperature, Bottom
LA-30	4-Sep-03	13	C	Temperature, Surface
LA-30	17-Jan-08	13.00	°C	Temperature, Surface
LA-30	14-Feb-08	13.00	°C	Temperature, Surface
LA-30	14-May-03	13.5	C	Temperature, Surface
LA-30	21-Jan-04	13.5	C	Temperature, Surface
LA-30	25-Feb-04	13.5	C	Temperature, Surface
LA-30	25-Jan-01	14	C	Temperature, Surface
LA-30	17-Jan-02	14	C	Temperature, Surface
LA-30	16-Feb-06	14	C	Temperature, Surface
LA-30	25-Jan-07	14.00	C	Temperature, Surface
LA-30	25-Jan-07	14	C	Temperature, Surface
LA-30	7-Feb-07	14.00	°C	Temperature, Surface
LA-30	16-May-07	14.00	°C	Temperature, Surface
LA-30	19-Dec-07	14.00	°C	Temperature, Surface
LA-30	20-Mar-08	14.00	°C	Temperature, Surface

Port of Los Angeles - Inner Harbor Water Quality Data

LA-30	17-Apr-08	14.00	°C	Temperature, Surface
LA-30	21-Dec-00	14.5	C	Temperature, Surface
LA-30	15-Feb-01	14.5	C	Temperature, Surface
LA-30	13-Dec-01	14.5	C	Temperature, Surface
LA-30	19-Feb-03	14.5	C	Temperature, Surface
LA-30	22-Dec-04	14.5	C	Temperature, Surface
LA-30	8-Dec-05	14.5	C	Temperature, Surface
LA-30	13-Apr-06	14.5	C	Temperature, Surface
LA-30	15-Mar-07	14.50	°C	Temperature, Surface
LA-30	25-Feb-00	14.8	C	Temperature, Surface
LA-30	27-Mar-01	15	C	Temperature, Surface
LA-30	19-Apr-01	15	C	Temperature, Surface
LA-30	21-Feb-02	15	C	Temperature, Surface
LA-30	14-Mar-02	15	C	Temperature, Surface
LA-30	4-Oct-02	15	C	Temperature, Surface
LA-30	16-Jan-03	15	C	Temperature, Surface
LA-30	4-Dec-03	15	C	Temperature, Surface
LA-30	10-Feb-05	15	C	Temperature, Surface
LA-30	27-Apr-05	15	C	Temperature, Surface
LA-30	7-Jul-05	15	C	Temperature, Surface
LA-30	12-Jan-06	15	C	Temperature, Surface
LA-30	11-May-06	15	C	Temperature, Surface
LA-30	3-Oct-00	15.5	C	Temperature, Surface
LA-30	19-Dec-02	15.5	C	Temperature, Surface
LA-30	20-Jan-05	15.5	C	Temperature, Surface
LA-30	12-Apr-07	15.50	°C	Temperature, Surface
LA-30	24-Oct-07	15.50	°C	Temperature, Surface
LA-30	13-Apr-00	16	C	Temperature, Surface
LA-30	29-Nov-00	16	C	Temperature, Surface
LA-30	13-Nov-02	16	C	Temperature, Surface
LA-30	10-Sep-03	16	C	Temperature, Surface
LA-30	9-Oct-03	16	C	Temperature, Surface
LA-30	14-Apr-04	16	C	Temperature, Surface
LA-30	10-Mar-05	16	C	Temperature, Surface
LA-30	15-Sep-05	16	C	Temperature, Surface
LA-30	15-Nov-07	16.00	°C	Temperature, Surface
LA-30	19-Nov-03	16.5	C	Temperature, Surface

Port of Los Angeles - Inner Harbor Water Quality Data

LA-30	11-Jan-01	17	C	Temperature, Surface					
LA-30	18-Jul-01	17	C	Temperature, Surface					
LA-30	16-May-02	17	C	Temperature, Surface					
LA-30	9-Dec-02	17	C	Temperature, Surface					
LA-30	13-Mar-03	17	C	Temperature, Surface					
LA-30	17-Mar-04	17	C	Temperature, Surface					
LA-30	12-May-04	17	C	Temperature, Surface					
LA-30	12-May-05	17	C	Temperature, Surface					
LA-30	13-Oct-05	17	C	Temperature, Surface					
LA-30	16-Nov-05	17	C	Temperature, Surface					
LA-30	15-May-08	17.00	°C	Temperature, Surface					
LA-30	6-Jul-01	17.5	C	Temperature, Surface					
LA-30	5-Nov-01	17.5	C	Temperature, Surface					
LA-30	10-Mar-02	17.5	C	Temperature, Surface					
LA-30	17-Aug-06	17.5	C	Temperature, Surface					
LA-30	15-Nov-06	17.5	C	Temperature, Surface					
LA-30	10-Jan-00	18	C	Temperature, Surface					
LA-30	5-Dec-00	18	C	Temperature, Surface					
LA-30	10-Dec-01	18	C	Temperature, Surface					
LA-30	20-Jun-02	18	C	Temperature, Surface					
LA-30	29-Aug-02	18	C	Temperature, Surface					
LA-30	18-Aug-04	18	C	Temperature, Surface					
LA-30	10-Nov-04	18	C	Temperature, Surface					
LA-30	9-Jun-05	18	C	Temperature, Surface					
LA-30	11-Aug-05	18	C	Temperature, Surface					
LA-30	15-Jun-06	18	C	Temperature, Surface					
LA-30	21-Sep-06	18	C	Temperature, Surface					
LA-30	12-Jun-08	18.60	°C	Temperature, Surface	17.5	18.6	17.9125	16	2007-2008
LA-30	15-Sep-00	19	C	Temperature, Surface					
LA-30	23-Aug-01	19	C	Temperature, Surface					
LA-30	31-Jul-02	19	C	Temperature, Surface					
LA-30	19-Jun-03	19	C	Temperature, Surface					
LA-30	7-Aug-03	19	C	Temperature, Surface					
LA-30	16-Jun-04	19	C	Temperature, Surface					
LA-30	13-Oct-04	19	C	Temperature, Surface					
LA-30	18-Jul-07	19.00	°C	Temperature, Surface					
LA-30	30-Aug-00	19.5	C	Temperature, Surface					

Port of Los Angeles - Inner Harbor Water Quality Data

LA-30	13-Sep-01	19.5	C	Temperature, Surface
LA-30	13-Jul-00	20	C	Temperature, Surface
LA-30	21-Jul-04	20	C	Temperature, Surface
LA-30	15-Sep-04	20	C	Temperature, Surface
LA-30	16-Jun-00	20.2	C	Temperature, Surface
LA-30	20-Jul-06	20.5	C	Temperature, Surface
LA-30	9-Aug-07	20.50	°C	Temperature, Surface
LA-30	10-Jul-03	21.5	C	Temperature, Surface
LA-32B	25-Jan-07	13.00	C	Temperature, Surface
LA-32B	25-Jan-07	13	C	Temperature, Surface
LA-32B	16-May-07	13.00	°C	Temperature, Surface
LA-32B	17-Jan-08	13.00	°C	Temperature, Surface
LA-32B	14-Feb-08	13.00	°C	Temperature, Surface
LA-32B	25-Jan-01	13.5	C	Temperature, Surface
LA-32B	13-Dec-01	13.5	C	Temperature, Surface
LA-32B	21-Jan-04	13.5	C	Temperature, Surface
LA-32B	18-Feb-04	13.5	C	Temperature, Surface
LA-32B	13-Apr-06	13.5	C	Temperature, Surface
LA-32B	20-Mar-08	13.50	°C	Temperature, Surface
LA-32B	25-Feb-00	13.8	C	Temperature, Surface
LA-32B	15-Feb-01	14	C	Temperature, Surface
LA-32B	17-Jan-02	14	C	Temperature, Surface
LA-32B	20-Jan-05	14	C	Temperature, Surface
LA-32B	8-Dec-05	14	C	Temperature, Surface
LA-32B	16-Feb-06	14	C	Temperature, Surface
LA-32B	7-Feb-07	14.00	°C	Temperature, Surface
LA-32B	15-Mar-07	14.00	°C	Temperature, Surface
LA-32B	19-Dec-07	14.00	°C	Temperature, Surface
LA-32B	3-Oct-00	14.5	C	Temperature, Surface
LA-32B	21-Dec-00	14.5	C	Temperature, Surface
LA-32B	19-Feb-03	14.5	C	Temperature, Surface
LA-32B	22-Dec-04	14.5	C	Temperature, Surface
LA-32B	10-Feb-05	14.5	C	Temperature, Surface
LA-32B	21-Feb-02	15	C	Temperature, Surface
LA-32B	4-Oct-02	15	C	Temperature, Surface
LA-32B	7-Jul-05	15	C	Temperature, Surface
LA-32B	12-Jan-06	15	C	Temperature, Surface

Port of Los Angeles - Inner Harbor Water Quality Data

LA-32B	12-Apr-07	15.00	°C	Temperature, Surface
LA-32B	17-Apr-08	15.00	°C	Temperature, Surface
LA-32B	11-May-06	15.4	C	Temperature, Surface
LA-32B	13-Apr-00	15.5	C	Temperature, Surface
LA-32B	29-Nov-00	15.5	C	Temperature, Surface
LA-32B	5-Dec-00	15.5	C	Temperature, Surface
LA-32B	27-Mar-01	15.5	C	Temperature, Surface
LA-32B	19-Apr-01	15.5	C	Temperature, Surface
LA-32B	13-Nov-02	15.5	C	Temperature, Surface
LA-32B	10-Sep-03	15.5	C	Temperature, Surface
LA-32B	12-May-05	15.5	C	Temperature, Surface
LA-32B	24-Oct-07	15.50	°C	Temperature, Surface
LA-32B	15-Nov-07	15.50	°C	Temperature, Surface
LA-32B	16-May-02	16	C	Temperature, Surface
LA-32B	13-Mar-03	16	C	Temperature, Surface
LA-32B	19-Nov-03	16	C	Temperature, Surface
LA-32B	4-Dec-03	16	C	Temperature, Surface
LA-32B	14-Apr-04	16	C	Temperature, Surface
LA-32B	27-Apr-05	16	C	Temperature, Surface
LA-32B	13-Oct-05	16	C	Temperature, Surface
LA-32B	16-Nov-05	16	C	Temperature, Surface
LA-32B	10-Mar-02	16.5	C	Temperature, Surface
LA-32B	9-Oct-03	16.5	C	Temperature, Surface
LA-32B	10-Mar-05	16.5	C	Temperature, Surface
LA-32B	15-Sep-05	16.5	C	Temperature, Surface
LA-32B	11-Jan-01	17	C	Temperature, Surface
LA-32B	9-Dec-02	17	C	Temperature, Surface
LA-32B	17-Mar-04	17	C	Temperature, Surface
LA-32B	12-May-04	17	C	Temperature, Surface
LA-32B	11-Aug-05	17	C	Temperature, Surface
LA-32B	15-Jun-06	17	C	Temperature, Surface
LA-32B	17-Aug-06	17	C	Temperature, Surface
LA-32B	15-Nov-06	17	C	Temperature, Surface
LA-32B	15-May-08	17.00	°C	Temperature, Surface
LA-32B	10-Jan-00	17.5	C	Temperature, Surface
LA-32B	13-Oct-04	17.5	C	Temperature, Surface
LA-32B	10-Nov-04	17.5	C	Temperature, Surface

Port of Los Angeles - Inner Harbor Water Quality Data

LA-32B	9-Jun-05	17.5	C	Temperature, Surface					
LA-32B	12-Jun-08	17.90	°C	Temperature, Surface	16.5	17.9	17.11875	16	2007-2008
LA-32B	6-Jul-01	18	C	Temperature, Surface					
LA-32B	18-Jul-01	18	C	Temperature, Surface					
LA-32B	23-Aug-01	18	C	Temperature, Surface					
LA-32B	20-Jun-02	18	C	Temperature, Surface					
LA-32B	29-Aug-02	18	C	Temperature, Surface					
LA-32B	18-Aug-04	18	C	Temperature, Surface					
LA-32B	21-Sep-06	18	C	Temperature, Surface					
LA-32B	5-Nov-01	18.5	C	Temperature, Surface					
LA-32B	10-Dec-01	18.5	C	Temperature, Surface					
LA-32B	18-Jul-07	18.50	°C	Temperature, Surface					
LA-32B	15-Sep-00	19	C	Temperature, Surface					
LA-32B	19-Jun-03	19	C	Temperature, Surface					
LA-32B	16-Jun-04	19	C	Temperature, Surface					
LA-32B	13-Jul-00	19.5	C	Temperature, Surface					
LA-32B	30-Aug-00	19.5	C	Temperature, Surface					
LA-32B	13-Sep-01	19.5	C	Temperature, Surface					
LA-32B	21-Jul-04	19.5	C	Temperature, Surface					
LA-32B	9-Aug-07	19.50	°C	Temperature, Surface					
LA-32B	16-Jun-00	19.8	C	Temperature, Surface					
LA-32B	7-Aug-03	20	C	Temperature, Surface					
LA-32B	15-Sep-04	20	C	Temperature, Surface					
LA-32B	20-Jul-06	20	C	Temperature, Surface					
LA-32B	10-Jul-03	21	C	Temperature, Surface					
LA-33	14-May-03	13	C	Temperature, Surface					
LA-33	4-Sep-03	13	C	Temperature, Surface					
LA-33	18-Feb-04	13	C	Temperature, Surface					
LA-33	13-Apr-06	13	C	Temperature, Surface					
LA-33	25-Jan-07	13.00	C	Temperature, Surface					
LA-33	25-Jan-07	13	C	Temperature, Surface					
LA-33	16-May-07	13.00	°C	Temperature, Surface					
LA-33	17-Jan-08	13.00	°C	Temperature, Surface					
LA-33	14-Feb-08	13.00	°C	Temperature, Surface					
LA-33	20-Mar-08	13.00	°C	Temperature, Surface					
LA-33	21-Jan-04	13.5	C	Temperature, Surface					
LA-33	17-Apr-08	13.50	°C	Temperature, Surface					

Port of Los Angeles - Inner Harbor Water Quality Data

LA-33	15-Feb-01	14	C	Temperature, Surface
LA-33	17-Jan-02	14	C	Temperature, Surface
LA-33	19-Feb-03	14	C	Temperature, Surface
LA-33	20-Jan-05	14	C	Temperature, Surface
LA-33	7-Jul-05	14	C	Temperature, Surface
LA-33	8-Dec-05	14	C	Temperature, Surface
LA-33	16-Feb-06	14	C	Temperature, Surface
LA-33	7-Feb-07	14.00	°C	Temperature, Surface
LA-33	25-Feb-00	14.2	C	Temperature, Surface
LA-33	3-Oct-00	14.5	C	Temperature, Surface
LA-33	21-Dec-00	14.5	C	Temperature, Surface
LA-33	25-Jan-01	14.5	C	Temperature, Surface
LA-33	13-Dec-01	14.5	C	Temperature, Surface
LA-33	15-Mar-07	14.50	°C	Temperature, Surface
LA-33	19-Dec-07	14.50	°C	Temperature, Surface
LA-33	29-Nov-00	15	C	Temperature, Surface
LA-33	21-Feb-02	15	C	Temperature, Surface
LA-33	14-Mar-02	15	C	Temperature, Surface
LA-33	4-Oct-02	15	C	Temperature, Surface
LA-33	19-Dec-02	15	C	Temperature, Surface
LA-33	16-Jan-03	15	C	Temperature, Surface
LA-33	4-Dec-03	15	C	Temperature, Surface
LA-33	14-Apr-04	15	C	Temperature, Surface
LA-33	22-Dec-04	15	C	Temperature, Surface
LA-33	10-Feb-05	15	C	Temperature, Surface
LA-33	27-Apr-05	15	C	Temperature, Surface
LA-33	12-Jan-06	15	C	Temperature, Surface
LA-33	12-Apr-07	15.00	°C	Temperature, Surface
LA-33	24-Oct-07	15.00	°C	Temperature, Surface
LA-33	15-May-08	15.00	°C	Temperature, Surface
LA-33	13-Apr-00	15.5	C	Temperature, Surface
LA-33	27-Mar-01	15.5	C	Temperature, Surface
LA-33	19-Apr-01	15.5	C	Temperature, Surface
LA-33	16-May-02	15.5	C	Temperature, Surface
LA-33	13-Nov-02	15.5	C	Temperature, Surface
LA-33	10-Sep-03	15.5	C	Temperature, Surface
LA-33	15-Nov-07	15.50	°C	Temperature, Surface

Port of Los Angeles - Inner Harbor Water Quality Data

LA-33	5-Dec-00	16	C	Temperature, Surface
LA-33	13-Mar-03	16	C	Temperature, Surface
LA-33	19-Nov-03	16	C	Temperature, Surface
LA-33	17-Mar-04	16	C	Temperature, Surface
LA-33	10-Mar-05	16	C	Temperature, Surface
LA-33	12-May-05	16	C	Temperature, Surface
LA-33	15-Sep-05	16	C	Temperature, Surface
LA-33	13-Oct-05	16	C	Temperature, Surface
LA-33	16-Nov-05	16	C	Temperature, Surface
LA-33	11-May-06	16	C	Temperature, Surface
LA-33	10-Mar-02	16.5	C	Temperature, Surface
LA-33	9-Oct-03	16.5	C	Temperature, Surface
LA-33	12-May-04	16.5	C	Temperature, Surface
LA-33	9-Jun-05	16.5	C	Temperature, Surface
LA-33	15-Jun-06	16.5	C	Temperature, Surface
LA-33	17-Aug-06	16.5	C	Temperature, Surface
LA-33	11-Jan-01	17	C	Temperature, Surface
LA-33	9-Dec-02	17	C	Temperature, Surface
LA-33	11-Aug-05	17	C	Temperature, Surface
LA-33	15-Nov-06	17	C	Temperature, Surface
LA-33	10-Jan-00	17.5	C	Temperature, Surface
LA-33	6-Jul-01	17.5	C	Temperature, Surface
LA-33	18-Jul-01	17.5	C	Temperature, Surface
LA-33	13-Oct-04	17.5	C	Temperature, Surface
LA-33	10-Nov-04	17.5	C	Temperature, Surface
LA-33	12-Jun-08	17.80	°C	Temperature, Surface
LA-33	10-Dec-01	18	C	Temperature, Surface
LA-33	20-Jun-02	18	C	Temperature, Surface
LA-33	31-Jul-02	18	C	Temperature, Surface
LA-33	29-Aug-02	18	C	Temperature, Surface
LA-33	18-Aug-04	18	C	Temperature, Surface
LA-33	21-Sep-06	18	C	Temperature, Surface
LA-33	18-Jul-07	18.00	°C	Temperature, Surface
LA-33	23-Aug-01	18.5	C	Temperature, Surface
LA-33	5-Nov-01	18.5	C	Temperature, Surface
LA-33	16-Jun-04	19	C	Temperature, Surface
LA-33	21-Jul-04	19	C	Temperature, Surface

Port of Los Angeles - Inner Harbor Water Quality Data

LA-33	20-Jul-06	19	C	Temperature, Surface
LA-33	9-Aug-07	19.00	°C	Temperature, Surface
LA-33	16-Jun-00	19.5	C	Temperature, Surface
LA-33	13-Jul-00	19.5	C	Temperature, Surface
LA-33	30-Aug-00	19.5	C	Temperature, Surface
LA-33	15-Sep-00	19.5	C	Temperature, Surface
LA-33	13-Sep-01	19.5	C	Temperature, Surface
LA-33	7-Aug-03	19.5	C	Temperature, Surface
LA-33	19-Jun-03	20	C	Temperature, Surface
LA-33	15-Sep-04	20.5	C	Temperature, Surface
LA-33	10-Jul-03	21.5	C	Temperature, Surface
LA-35	24-Oct-07	5.00	°C	Temperature, Surface
LA-35	14-May-03	13	C	Temperature, Surface
LA-35	13-Apr-06	13	C	Temperature, Surface
LA-35	17-Jan-08	13.00	°C	Temperature, Surface
LA-35	14-Feb-08	13.00	°C	Temperature, Surface
LA-35	13-Dec-01	13.5	C	Temperature, Surface
LA-35	4-Sep-03	13.5	C	Temperature, Surface
LA-35	21-Jan-04	13.5	C	Temperature, Surface
LA-35	18-Feb-04	13.5	C	Temperature, Surface
LA-35	25-Jan-07	13.50	C	Temperature, Surface
LA-35	25-Jan-07	13.5	C	Temperature, Surface
LA-35	20-Mar-08	13.50	°C	Temperature, Surface
LA-35	25-Jan-01	14	C	Temperature, Surface
LA-35	17-Jan-02	14	C	Temperature, Surface
LA-35	19-Dec-02	14	C	Temperature, Surface
LA-35	8-Dec-05	14	C	Temperature, Surface
LA-35	7-Feb-07	14.00	°C	Temperature, Surface
LA-35	16-May-07	14.00	°C	Temperature, Surface
LA-35	19-Dec-07	14.00	°C	Temperature, Surface
LA-35	16-Feb-06	14.2	C	Temperature, Surface
LA-35	15-Feb-01	14.5	C	Temperature, Surface
LA-35	19-Feb-03	14.5	C	Temperature, Surface
LA-35	20-Jan-05	14.5	C	Temperature, Surface
LA-35	15-Mar-07	14.50	°C	Temperature, Surface
LA-35	17-Apr-08	14.50	°C	Temperature, Surface
LA-35	21-Dec-00	15	C	Temperature, Surface

Port of Los Angeles - Inner Harbor Water Quality Data

LA-35	21-Feb-02	15	C	Temperature, Surface
LA-35	14-Mar-02	15	C	Temperature, Surface
LA-35	4-Oct-02	15	C	Temperature, Surface
LA-35	16-Jan-03	15	C	Temperature, Surface
LA-35	4-Dec-03	15	C	Temperature, Surface
LA-35	22-Dec-04	15	C	Temperature, Surface
LA-35	10-Feb-05	15	C	Temperature, Surface
LA-35	27-Apr-05	15	C	Temperature, Surface
LA-35	7-Jul-05	15	C	Temperature, Surface
LA-35	12-Jan-06	15	C	Temperature, Surface
LA-35	11-May-06	15	C	Temperature, Surface
LA-35	12-Apr-07	15.00	°C	Temperature, Surface
LA-35	13-Apr-00	15.5	C	Temperature, Surface
LA-35	29-Nov-00	15.5	C	Temperature, Surface
LA-35	27-Mar-01	15.5	C	Temperature, Surface
LA-35	19-Apr-01	15.5	C	Temperature, Surface
LA-35	17-Mar-04	15.5	C	Temperature, Surface
LA-35	14-Apr-04	15.5	C	Temperature, Surface
LA-35	15-Nov-07	15.50	°C	Temperature, Surface
LA-35	25-Feb-00	15.8	C	Temperature, Surface
LA-35	5-Dec-00	16	C	Temperature, Surface
LA-35	16-May-02	16	C	Temperature, Surface
LA-35	13-Mar-03	16	C	Temperature, Surface
LA-35	19-Nov-03	16	C	Temperature, Surface
LA-35	10-Mar-05	16	C	Temperature, Surface
LA-35	12-May-05	16	C	Temperature, Surface
LA-35	13-Oct-05	16	C	Temperature, Surface
LA-35	16-Nov-05	16	C	Temperature, Surface
LA-35	15-May-08	16.00	°C	Temperature, Surface
LA-35	3-Oct-00	16.5	C	Temperature, Surface
LA-35	9-Oct-03	16.5	C	Temperature, Surface
LA-35	11-Aug-05	16.5	C	Temperature, Surface
LA-35	11-Jan-01	17	C	Temperature, Surface
LA-35	10-Mar-02	17	C	Temperature, Surface
LA-35	9-Dec-02	17	C	Temperature, Surface
LA-35	10-Sep-03	17	C	Temperature, Surface
LA-35	12-May-04	17	C	Temperature, Surface

Port of Los Angeles - Inner Harbor Water Quality Data

LA-35	15-Jun-06	17	C	Temperature, Surface
LA-35	17-Aug-06	17	C	Temperature, Surface
LA-35	15-Nov-06	17	C	Temperature, Surface
LA-35	6-Jul-01	17.5	C	Temperature, Surface
LA-35	18-Jul-01	17.5	C	Temperature, Surface
LA-35	31-Jul-02	17.5	C	Temperature, Surface
LA-35	10-Nov-04	17.5	C	Temperature, Surface
LA-35	15-Sep-05	17.5	C	Temperature, Surface
LA-35	10-Jan-00	18	C	Temperature, Surface
LA-35	20-Jun-02	18	C	Temperature, Surface
LA-35	18-Aug-04	18	C	Temperature, Surface
LA-35	13-Oct-04	18	C	Temperature, Surface
LA-35	9-Jun-05	18	C	Temperature, Surface
LA-35	21-Sep-06	18	C	Temperature, Surface
LA-35	18-Jul-07	18.00	°C	Temperature, Surface
LA-35	12-Jun-08	18.30	°C	Temperature, Surface
LA-35	10-Dec-01	18.5	C	Temperature, Surface
LA-35	29-Aug-02	18.5	C	Temperature, Surface
LA-35	13-Jul-00	19	C	Temperature, Surface
LA-35	23-Aug-01	19	C	Temperature, Surface
LA-35	5-Nov-01	19	C	Temperature, Surface
LA-35	13-Sep-01	19.5	C	Temperature, Surface
LA-35	7-Aug-03	19.5	C	Temperature, Surface
LA-35	16-Jun-04	19.5	C	Temperature, Surface
LA-35	21-Jul-04	19.5	C	Temperature, Surface
LA-35	20-Jul-06	19.5	C	Temperature, Surface
LA-35	30-Aug-00	20	C	Temperature, Surface
LA-35	19-Jun-03	20	C	Temperature, Surface
LA-35	9-Aug-07	20.00	°C	Temperature, Surface
LA-35	16-Jun-00	21	C	Temperature, Surface
LA-35	15-Sep-00	21	C	Temperature, Surface
LA-35	10-Jul-03	21	C	Temperature, Surface
LA-35	15-Sep-04	21	C	Temperature, Surface
LA-39	14-May-03	12.5	C	Temperature, Surface
LA-39	17-Jan-08	12.50	°C	Temperature, Surface
LA-39	18-Feb-04	13	C	Temperature, Surface
LA-39	13-Apr-06	13	C	Temperature, Surface

Port of Los Angeles - Inner Harbor Water Quality Data

LA-39	25-Jan-07	13.00	C	Temperature, Surface
LA-39	25-Jan-07	13	C	Temperature, Surface
LA-39	14-Feb-08	13.00	°C	Temperature, Surface
LA-39	20-Mar-08	13.00	°C	Temperature, Surface
LA-39	4-Sep-03	13.5	C	Temperature, Surface
LA-39	21-Jan-04	13.5	C	Temperature, Surface
LA-39	25-Feb-00	14	C	Temperature, Surface
LA-39	15-Feb-01	14	C	Temperature, Surface
LA-39	4-Oct-02	14	C	Temperature, Surface
LA-39	19-Feb-03	14	C	Temperature, Surface
LA-39	20-Jan-05	14	C	Temperature, Surface
LA-39	7-Feb-07	14.00	°C	Temperature, Surface
LA-39	16-May-07	14.00	°C	Temperature, Surface
LA-39	17-Apr-08	14.00	°C	Temperature, Surface
LA-39	21-Dec-00	14.5	C	Temperature, Surface
LA-39	25-Jan-01	14.5	C	Temperature, Surface
LA-39	13-Dec-01	14.5	C	Temperature, Surface
LA-39	17-Jan-02	14.5	C	Temperature, Surface
LA-39	14-Mar-02	14.5	C	Temperature, Surface
LA-39	10-Feb-05	14.5	C	Temperature, Surface
LA-39	8-Dec-05	14.5	C	Temperature, Surface
LA-39	12-Jan-06	14.5	C	Temperature, Surface
LA-39	16-Feb-06	14.5	C	Temperature, Surface
LA-39	15-Mar-07	14.50	°C	Temperature, Surface
LA-39	12-Apr-07	14.50	°C	Temperature, Surface
LA-39	19-Dec-07	14.50	°C	Temperature, Surface
LA-39	13-Apr-00	15	C	Temperature, Surface
LA-39	3-Oct-00	15	C	Temperature, Surface
LA-39	21-Feb-02	15	C	Temperature, Surface
LA-39	13-Nov-02	15	C	Temperature, Surface
LA-39	16-Jan-03	15	C	Temperature, Surface
LA-39	4-Dec-03	15	C	Temperature, Surface
LA-39	14-Apr-04	15	C	Temperature, Surface
LA-39	10-Mar-05	15	C	Temperature, Surface
LA-39	27-Apr-05	15	C	Temperature, Surface
LA-39	7-Jul-05	15	C	Temperature, Surface
LA-39	24-Oct-07	15.00	°C	Temperature, Surface

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LA-39	29-Nov-00	15.5	C	Temperature, Surface
LA-39	27-Mar-01	15.5	C	Temperature, Surface
LA-39	19-Apr-01	15.5	C	Temperature, Surface
LA-39	19-Dec-02	15.5	C	Temperature, Surface
LA-39	10-Sep-03	15.5	C	Temperature, Surface
LA-39	9-Oct-03	15.5	C	Temperature, Surface
LA-39	22-Dec-04	15.5	C	Temperature, Surface
LA-39	12-May-05	15.5	C	Temperature, Surface
LA-39	15-Sep-05	15.5	C	Temperature, Surface
LA-39	11-May-06	15.5	C	Temperature, Surface
LA-39	15-Nov-07	15.50	°C	Temperature, Surface
LA-39	10-Mar-02	16	C	Temperature, Surface
LA-39	16-May-02	16	C	Temperature, Surface
LA-39	13-Mar-03	16	C	Temperature, Surface
LA-39	19-Nov-03	16	C	Temperature, Surface
LA-39	17-Mar-04	16	C	Temperature, Surface
LA-39	13-Oct-05	16	C	Temperature, Surface
LA-39	16-Nov-05	16	C	Temperature, Surface
LA-39	15-May-08	16.00	°C	Temperature, Surface
LA-39	12-May-04	16.5	C	Temperature, Surface
LA-39	11-Aug-05	16.5	C	Temperature, Surface
LA-39	17-Aug-06	16.5	C	Temperature, Surface
LA-39	5-Dec-00	17	C	Temperature, Surface
LA-39	11-Jan-01	17	C	Temperature, Surface
LA-39	6-Jul-01	17	C	Temperature, Surface
LA-39	9-Dec-02	17	C	Temperature, Surface
LA-39	9-Jun-05	17	C	Temperature, Surface
LA-39	15-Nov-06	17	C	Temperature, Surface
LA-39	18-Jul-01	17.5	C	Temperature, Surface
LA-39	13-Oct-04	17.5	C	Temperature, Surface
LA-39	10-Nov-04	17.5	C	Temperature, Surface
LA-39	15-Jun-06	17.5	C	Temperature, Surface
LA-39	10-Jan-00	18	C	Temperature, Surface
LA-39	5-Nov-01	18	C	Temperature, Surface
LA-39	10-Dec-01	18	C	Temperature, Surface
LA-39	20-Jun-02	18	C	Temperature, Surface
LA-39	31-Jul-02	18	C	Temperature, Surface

Port of Los Angeles - Inner Harbor Water Quality Data

LA-39	29-Aug-02	18	C	Temperature, Surface
LA-39	18-Aug-04	18	C	Temperature, Surface
LA-39	21-Sep-06	18	C	Temperature, Surface
LA-39	18-Jul-07	18.00	°C	Temperature, Surface
LA-39	12-Jun-08	18.00	°C	Temperature, Surface
LA-39	15-Sep-00	18.5	C	Temperature, Surface
LA-39	16-Jun-00	19	C	Temperature, Surface
LA-39	23-Aug-01	19	C	Temperature, Surface
LA-39	16-Jun-04	19	C	Temperature, Surface
LA-39	21-Jul-04	19	C	Temperature, Surface
LA-39	20-Jul-06	19	C	Temperature, Surface
LA-39	9-Aug-07	19.00	°C	Temperature, Surface
LA-39	13-Jul-00	19.5	C	Temperature, Surface
LA-39	30-Aug-00	19.5	C	Temperature, Surface
LA-39	13-Sep-01	19.5	C	Temperature, Surface
LA-39	7-Aug-03	19.5	C	Temperature, Surface
LA-39	19-Jun-03	20	C	Temperature, Surface
LA-39	15-Sep-04	20.5	C	Temperature, Surface
LA-39	10-Jul-03	21	C	Temperature, Surface
LA-41	17-Jan-08	13.00	°C	Temperature, Surface
LA-41	14-Feb-08	13.00	°C	Temperature, Surface
LA-41	14-May-03	13.5	C	Temperature, Surface
LA-41	13-Dec-01	14	C	Temperature, Surface
LA-41	17-Jan-02	14	C	Temperature, Surface
LA-41	21-Jan-04	14	C	Temperature, Surface
LA-41	25-Feb-04	14	C	Temperature, Surface
LA-41	13-Apr-06	14	C	Temperature, Surface
LA-41	16-May-07	14.00	°C	Temperature, Surface
LA-41	20-Mar-08	14.00	°C	Temperature, Surface
LA-41	25-Feb-00	14.4	C	Temperature, Surface
LA-41	25-Jan-01	14.5	C	Temperature, Surface
LA-41	15-Feb-01	14.5	C	Temperature, Surface
LA-41	22-Dec-04	14.5	C	Temperature, Surface
LA-41	8-Dec-05	14.5	C	Temperature, Surface
LA-41	12-Jan-06	14.5	C	Temperature, Surface
LA-41	16-Feb-06	14.5	C	Temperature, Surface
LA-41	25-Jan-07	14.50	C	Temperature, Surface

Port of Los Angeles - Inner Harbor Water Quality Data

LA-41	25-Jan-07	14.5	C	Temperature, Surface
LA-41	7-Feb-07	14.50	°C	Temperature, Surface
LA-41	17-Apr-08	14.50	°C	Temperature, Surface
LA-41	14-Mar-02	15	C	Temperature, Surface
LA-41	19-Dec-02	15	C	Temperature, Surface
LA-41	16-Jan-03	15	C	Temperature, Surface
LA-41	19-Feb-03	15	C	Temperature, Surface
LA-41	4-Sep-03	15	C	Temperature, Surface
LA-41	20-Jan-05	15	C	Temperature, Surface
LA-41	10-Feb-05	15	C	Temperature, Surface
LA-41	15-Mar-07	15.00	°C	Temperature, Surface
LA-41	12-Apr-07	15.00	°C	Temperature, Surface
LA-41	19-Dec-07	15.00	°C	Temperature, Surface
LA-41	29-Nov-00	15.5	C	Temperature, Surface
LA-41	21-Feb-02	15.5	C	Temperature, Surface
LA-41	4-Oct-02	15.5	C	Temperature, Surface
LA-41	15-Sep-05	15.5	C	Temperature, Surface
LA-41	11-May-06	15.5	C	Temperature, Surface
LA-41	13-Apr-00	16	C	Temperature, Surface
LA-41	3-Oct-00	16	C	Temperature, Surface
LA-41	27-Mar-01	16	C	Temperature, Surface
LA-41	19-Apr-01	16	C	Temperature, Surface
LA-41	16-May-02	16	C	Temperature, Surface
LA-41	9-Oct-03	16	C	Temperature, Surface
LA-41	4-Dec-03	16	C	Temperature, Surface
LA-41	14-Apr-04	16	C	Temperature, Surface
LA-41	10-Mar-05	16	C	Temperature, Surface
LA-41	12-May-05	16	C	Temperature, Surface
LA-41	7-Jul-05	16	C	Temperature, Surface
LA-41	24-Oct-07	16.00	°C	Temperature, Surface
LA-41	13-Nov-02	16.5	C	Temperature, Surface
LA-41	15-Nov-07	16.50	°C	Temperature, Surface
LA-41	11-Jan-01	17	C	Temperature, Surface
LA-41	13-Mar-03	17	C	Temperature, Surface
LA-41	10-Sep-03	17	C	Temperature, Surface
LA-41	19-Nov-03	17	C	Temperature, Surface
LA-41	17-Mar-04	17	C	Temperature, Surface

Port of Los Angeles - Inner Harbor Water Quality Data

LA-41	13-Oct-05	17	C	Temperature, Surface
LA-41	16-Nov-05	17	C	Temperature, Surface
LA-41	15-Nov-06	17	C	Temperature, Surface
LA-41	5-Dec-00	17.5	C	Temperature, Surface
LA-41	15-May-08	17.50	°C	Temperature, Surface
LA-41	10-Jan-00	18	C	Temperature, Surface
LA-41	5-Nov-01	18	C	Temperature, Surface
LA-41	10-Dec-01	18	C	Temperature, Surface
LA-41	10-Mar-02	18	C	Temperature, Surface
LA-41	9-Dec-02	18	C	Temperature, Surface
LA-41	12-May-04	18	C	Temperature, Surface
LA-41	10-Nov-04	18	C	Temperature, Surface
LA-41	11-Aug-05	18	C	Temperature, Surface
LA-41	17-Aug-06	18	C	Temperature, Surface
LA-41	6-Jul-01	18.5	C	Temperature, Surface
LA-41	18-Jul-01	18.5	C	Temperature, Surface
LA-41	29-Aug-02	18.5	C	Temperature, Surface
LA-41	12-Jun-08	18.80	°C	Temperature, Surface
LA-41	23-Aug-01	19	C	Temperature, Surface
LA-41	16-Jun-04	19	C	Temperature, Surface
LA-41	18-Aug-04	19	C	Temperature, Surface
LA-41	13-Oct-04	19	C	Temperature, Surface
LA-41	9-Jun-05	19	C	Temperature, Surface
LA-41	21-Sep-06	19	C	Temperature, Surface
LA-41	18-Jul-07	19.50	°C	Temperature, Surface
LA-41	16-Jun-00	20	C	Temperature, Surface
LA-41	15-Sep-00	20	C	Temperature, Surface
LA-41	15-Sep-00	20	C	Temperature, Surface
LA-41	13-Sep-01	20	C	Temperature, Surface
LA-41	20-Jun-02	20	C	Temperature, Surface
LA-41	19-Jun-03	20	C	Temperature, Surface
LA-41	7-Aug-03	20	C	Temperature, Surface
LA-41	15-Jun-06	20	C	Temperature, Surface
LA-41	21-Jul-04	20.5	C	Temperature, Surface
LA-41	15-Sep-04	20.5	C	Temperature, Surface
LA-41	9-Aug-07	20.50	°C	Temperature, Surface
LA-41	13-Jul-00	21	C	Temperature, Surface

Port of Los Angeles - Inner Harbor Water Quality Data

LA-41	30-Aug-00	21	C	Temperature, Surface
LA-41	20-Jul-06	21.5	C	Temperature, Surface
LA-41	31-Jul-02	22	C	Temperature, Surface
LA-41	10-Jul-03	22	C	Temperature, Surface
LA-44	17-Jan-08	13.00	°C	Temperature, Surface
LA-44	14-Feb-08	13.00	°C	Temperature, Surface
LA-44	14-May-03	13.5	C	Temperature, Surface
LA-44	13-Apr-06	13.5	C	Temperature, Surface
LA-44	25-Jan-07	13.50	C	Temperature, Surface
LA-44	25-Jan-07	13.5	C	Temperature, Surface
LA-44	13-Dec-01	14	C	Temperature, Surface
LA-44	17-Jan-02	14	C	Temperature, Surface
LA-44	4-Sep-03	14	C	Temperature, Surface
LA-44	21-Jan-04	14	C	Temperature, Surface
LA-44	25-Feb-04	14	C	Temperature, Surface
LA-44	16-Feb-06	14	C	Temperature, Surface
LA-44	16-May-07	14.00	°C	Temperature, Surface
LA-44	20-Mar-08	14.00	°C	Temperature, Surface
LA-44	17-Apr-08	14.00	°C	Temperature, Surface
LA-44	25-Jan-01	14.5	C	Temperature, Surface
LA-44	15-Feb-01	14.5	C	Temperature, Surface
LA-44	22-Dec-04	14.5	C	Temperature, Surface
LA-44	8-Dec-05	14.5	C	Temperature, Surface
LA-44	12-Jan-06	14.5	C	Temperature, Surface
LA-44	7-Feb-07	14.50	°C	Temperature, Surface
LA-44	15-Mar-07	14.80	°C	Temperature, Surface
LA-44	19-Dec-07	14.90	°C	Temperature, Surface
LA-44	25-Feb-00	15	C	Temperature, Surface
LA-44	21-Dec-00	15	C	Temperature, Surface
LA-44	21-Feb-02	15	C	Temperature, Surface
LA-44	14-Mar-02	15	C	Temperature, Surface
LA-44	4-Oct-02	15	C	Temperature, Surface
LA-44	19-Dec-02	15	C	Temperature, Surface
LA-44	16-Jan-03	15	C	Temperature, Surface
LA-44	19-Feb-03	15	C	Temperature, Surface
LA-44	20-Jan-05	15	C	Temperature, Surface
LA-44	10-Feb-05	15	C	Temperature, Surface

Port of Los Angeles - Inner Harbor Water Quality Data

LA-44	12-Apr-07	15.00	°C	Temperature, Surface
LA-44	29-Nov-00	15.5	C	Temperature, Surface
LA-44	11-May-06	15.5	C	Temperature, Surface
LA-44	24-Oct-07	15.50	°C	Temperature, Surface
LA-44	27-Mar-01	16	C	Temperature, Surface
LA-44	19-Apr-01	16	C	Temperature, Surface
LA-44	16-May-02	16	C	Temperature, Surface
LA-44	13-Nov-02	16	C	Temperature, Surface
LA-44	9-Oct-03	16	C	Temperature, Surface
LA-44	4-Dec-03	16	C	Temperature, Surface
LA-44	14-Apr-04	16	C	Temperature, Surface
LA-44	10-Mar-05	16	C	Temperature, Surface
LA-44	12-May-05	16	C	Temperature, Surface
LA-44	7-Jul-05	16	C	Temperature, Surface
LA-44	15-Nov-07	16.00	°C	Temperature, Surface
LA-44	13-Apr-00	16.5	C	Temperature, Surface
LA-44	13-Mar-03	16.5	C	Temperature, Surface
LA-44	15-Sep-05	16.5	C	Temperature, Surface
LA-44	3-Oct-00	17	C	Temperature, Surface
LA-44	5-Dec-00	17	C	Temperature, Surface
LA-44	11-Jan-01	17	C	Temperature, Surface
LA-44	10-Sep-03	17	C	Temperature, Surface
LA-44	19-Nov-03	17	C	Temperature, Surface
LA-44	17-Mar-04	17	C	Temperature, Surface
LA-44	27-Apr-05	17	C	Temperature, Surface
LA-44	11-Aug-05	17	C	Temperature, Surface
LA-44	13-Oct-05	17	C	Temperature, Surface
LA-44	16-Nov-05	17	C	Temperature, Surface
LA-44	15-Nov-06	17	C	Temperature, Surface
LA-44	10-Jan-00	18	C	Temperature, Surface
LA-44	10-Mar-02	18	C	Temperature, Surface
LA-44	13-Oct-04	18	C	Temperature, Surface
LA-44	10-Nov-04	18	C	Temperature, Surface
LA-44	17-Aug-06	18	C	Temperature, Surface
LA-44	18-Jul-07	18.00	°C	Temperature, Surface
LA-44	15-May-08	18.00	°C	Temperature, Surface
LA-44	18-Jul-01	18.5	C	Temperature, Surface

Port of Los Angeles - Inner Harbor Water Quality Data

LA-44	5-Nov-01	18.5	C	Temperature, Surface
LA-44	9-Dec-02	18.5	C	Temperature, Surface
LA-44	12-May-04	18.5	C	Temperature, Surface
LA-44	9-Jun-05	18.5	C	Temperature, Surface
LA-44	15-Jun-06	18.5	C	Temperature, Surface
LA-44	21-Sep-06	18.5	C	Temperature, Surface
LA-44	6-Jul-01	19	C	Temperature, Surface
LA-44	10-Dec-01	19	C	Temperature, Surface
LA-44	29-Aug-02	19	C	Temperature, Surface
LA-44	16-Jun-04	19	C	Temperature, Surface
LA-44	18-Aug-04	19	C	Temperature, Surface
LA-44	12-Jun-08	19.10	°C	Temperature, Surface
LA-44	23-Aug-01	19.5	C	Temperature, Surface
LA-44	13-Jul-00	20	C	Temperature, Surface
LA-44	13-Sep-01	20	C	Temperature, Surface
LA-44	20-Jun-02	20	C	Temperature, Surface
LA-44	19-Jun-03	20	C	Temperature, Surface
LA-44	21-Jul-04	20	C	Temperature, Surface
LA-44	20-Jul-06	20	C	Temperature, Surface
LA-44	16-Jun-00	20.5	C	Temperature, Surface
LA-44	15-Sep-00	20.5	C	Temperature, Surface
LA-44	15-Sep-04	20.5	C	Temperature, Surface
LA-44	9-Aug-07	20.50	°C	Temperature, Surface
LA-44	30-Aug-00	21	C	Temperature, Surface
LA-44	7-Aug-03	21	C	Temperature, Surface
LA-44	31-Jul-02	22	C	Temperature, Surface
LA-44	10-Jul-03	23	C	Temperature, Surface
LA-46	17-Jan-08	13.00	°C	Temperature, Surface
LA-46	14-Feb-08	13.00	°C	Temperature, Surface
LA-46	14-May-03	13.5	C	Temperature, Surface
LA-46	13-Dec-01	14	C	Temperature, Surface
LA-46	17-Jan-02	14	C	Temperature, Surface
LA-46	21-Jan-04	14	C	Temperature, Surface
LA-46	25-Feb-04	14	C	Temperature, Surface
LA-46	25-Jan-07	14.00	C	Temperature, Surface
LA-46	25-Jan-07	14	C	Temperature, Surface
LA-46	16-May-07	14.00	°C	Temperature, Surface

Port of Los Angeles - Inner Harbor Water Quality Data

LA-46	19-Dec-07	14.00	°C	Temperature, Surface
LA-46	20-Mar-08	14.00	°C	Temperature, Surface
LA-46	16-Feb-06	14.3	C	Temperature, Surface
LA-46	25-Feb-00	14.4	C	Temperature, Surface
LA-46	25-Jan-01	14.5	C	Temperature, Surface
LA-46	15-Feb-01	14.5	C	Temperature, Surface
LA-46	4-Sep-03	14.5	C	Temperature, Surface
LA-46	22-Dec-04	14.5	C	Temperature, Surface
LA-46	8-Dec-05	14.5	C	Temperature, Surface
LA-46	12-Jan-06	14.5	C	Temperature, Surface
LA-46	7-Feb-07	14.50	°C	Temperature, Surface
LA-46	21-Dec-00	15	C	Temperature, Surface
LA-46	14-Mar-02	15	C	Temperature, Surface
LA-46	19-Dec-02	15	C	Temperature, Surface
LA-46	16-Jan-03	15	C	Temperature, Surface
LA-46	19-Feb-03	15	C	Temperature, Surface
LA-46	20-Jan-05	15	C	Temperature, Surface
LA-46	10-Feb-05	15	C	Temperature, Surface
LA-46	13-Apr-06	15	C	Temperature, Surface
LA-46	15-Mar-07	15.00	°C	Temperature, Surface
LA-46	17-Apr-08	15.00	°C	Temperature, Surface
LA-46	21-Feb-02	15.5	C	Temperature, Surface
LA-46	12-Apr-07	15.50	°C	Temperature, Surface
LA-46	13-Apr-00	16	C	Temperature, Surface
LA-46	29-Nov-00	16	C	Temperature, Surface
LA-46	27-Mar-01	16	C	Temperature, Surface
LA-46	19-Apr-01	16	C	Temperature, Surface
LA-46	16-May-02	16	C	Temperature, Surface
LA-46	4-Oct-02	16	C	Temperature, Surface
LA-46	9-Oct-03	16	C	Temperature, Surface
LA-46	4-Dec-03	16	C	Temperature, Surface
LA-46	14-Apr-04	16	C	Temperature, Surface
LA-46	10-Mar-05	16	C	Temperature, Surface
LA-46	12-May-05	16	C	Temperature, Surface
LA-46	7-Jul-05	16	C	Temperature, Surface
LA-46	11-May-06	16	C	Temperature, Surface
LA-46	24-Oct-07	16.00	°C	Temperature, Surface

Port of Los Angeles - Inner Harbor Water Quality Data

LA-46	15-Nov-07	16.00	°C	Temperature, Surface
LA-46	13-Nov-02	16.5	C	Temperature, Surface
LA-46	15-Sep-05	16.5	C	Temperature, Surface
LA-46	3-Oct-00	17	C	Temperature, Surface
LA-46	11-Jan-01	17	C	Temperature, Surface
LA-46	13-Mar-03	17	C	Temperature, Surface
LA-46	10-Sep-03	17	C	Temperature, Surface
LA-46	19-Nov-03	17	C	Temperature, Surface
LA-46	17-Mar-04	17	C	Temperature, Surface
LA-46	27-Apr-05	17	C	Temperature, Surface
LA-46	11-Aug-05	17	C	Temperature, Surface
LA-46	13-Oct-05	17	C	Temperature, Surface
LA-46	16-Nov-05	17	C	Temperature, Surface
LA-46	15-Nov-06	17	C	Temperature, Surface
LA-46	10-Jan-00	18	C	Temperature, Surface
LA-46	5-Dec-00	18	C	Temperature, Surface
LA-46	10-Mar-02	18	C	Temperature, Surface
LA-46	9-Dec-02	18	C	Temperature, Surface
LA-46	10-Nov-04	18	C	Temperature, Surface
LA-46	17-Aug-06	18	C	Temperature, Surface
LA-46	15-May-08	18.00	°C	Temperature, Surface
LA-46	18-Jul-01	18.5	C	Temperature, Surface
LA-46	5-Nov-01	18.5	C	Temperature, Surface
LA-46	10-Dec-01	18.5	C	Temperature, Surface
LA-46	12-May-04	18.5	C	Temperature, Surface
LA-46	6-Jul-01	19	C	Temperature, Surface
LA-46	29-Aug-02	19	C	Temperature, Surface
LA-46	16-Jun-04	19	C	Temperature, Surface
LA-46	18-Aug-04	19	C	Temperature, Surface
LA-46	13-Oct-04	19	C	Temperature, Surface
LA-46	9-Jun-05	19	C	Temperature, Surface
LA-46	15-Jun-06	19	C	Temperature, Surface
LA-46	21-Sep-06	19	C	Temperature, Surface
LA-46	12-Jun-08	19.00	°C	Temperature, Surface
LA-46	23-Aug-01	19.5	C	Temperature, Surface
LA-46	13-Jul-00	20	C	Temperature, Surface
LA-46	20-Jun-02	20	C	Temperature, Surface

Port of Los Angeles - Inner Harbor Water Quality Data

LA-46	18-Jul-07	20.00	°C	Temperature, Surface
LA-46	9-Aug-07	20.00	°C	Temperature, Surface
LA-46	13-Sep-01	20.5	C	Temperature, Surface
LA-46	15-Sep-04	20.5	C	Temperature, Surface
LA-46	16-Jun-00	21	C	Temperature, Surface
LA-46	30-Aug-00	21	C	Temperature, Surface
LA-46	15-Sep-00	21	C	Temperature, Surface
LA-46	31-Jul-02	21	C	Temperature, Surface
LA-46	19-Jun-03	21	C	Temperature, Surface
LA-46	21-Jul-04	21	C	Temperature, Surface
LA-46	20-Jul-06	21	C	Temperature, Surface
LA-46	7-Aug-03	22	C	Temperature, Surface
LA-46	10-Jul-03	23	C	Temperature, Surface
LA-47	17-Jan-08	13.00	°C	Temperature, Surface
LA-47	14-Feb-08	13.00	°C	Temperature, Surface
LA-47	14-May-03	13.5	C	Temperature, Surface
LA-47	25-Jan-01	14	C	Temperature, Surface
LA-47	15-Feb-01	14	C	Temperature, Surface
LA-47	13-Dec-01	14	C	Temperature, Surface
LA-47	21-Jan-04	14	C	Temperature, Surface
LA-47	25-Feb-04	14	C	Temperature, Surface
LA-47	25-Jan-07	14.00	C	Temperature, Surface
LA-47	25-Jan-07	14	C	Temperature, Surface
LA-47	19-Dec-07	14.00	°C	Temperature, Surface
LA-47	20-Mar-08	14.00	°C	Temperature, Surface
LA-47	16-Feb-06	14.2	C	Temperature, Surface
LA-47	21-Dec-00	14.5	C	Temperature, Surface
LA-47	17-Jan-02	14.5	C	Temperature, Surface
LA-47	22-Dec-04	14.5	C	Temperature, Surface
LA-47	8-Dec-05	14.5	C	Temperature, Surface
LA-47	12-Jan-06	14.5	C	Temperature, Surface
LA-47	7-Feb-07	14.50	°C	Temperature, Surface
LA-47	16-May-07	14.50	°C	Temperature, Surface
LA-47	25-Feb-00	15	C	Temperature, Surface
LA-47	21-Feb-02	15	C	Temperature, Surface
LA-47	14-Mar-02	15	C	Temperature, Surface
LA-47	16-Jan-03	15	C	Temperature, Surface

Port of Los Angeles - Inner Harbor Water Quality Data

LA-47	19-Feb-03	15	C	Temperature, Surface
LA-47	4-Sep-03	15	C	Temperature, Surface
LA-47	9-Oct-03	15	C	Temperature, Surface
LA-47	10-Feb-05	15	C	Temperature, Surface
LA-47	7-Jul-05	15	C	Temperature, Surface
LA-47	13-Apr-06	15	C	Temperature, Surface
LA-47	15-Mar-07	15.00	°C	Temperature, Surface
LA-47	17-Apr-08	15.00	°C	Temperature, Surface
LA-47	29-Nov-00	15.5	C	Temperature, Surface
LA-47	4-Oct-02	15.5	C	Temperature, Surface
LA-47	19-Dec-02	15.5	C	Temperature, Surface
LA-47	4-Dec-03	15.5	C	Temperature, Surface
LA-47	20-Jan-05	15.5	C	Temperature, Surface
LA-47	12-Apr-07	15.50	°C	Temperature, Surface
LA-47	3-Oct-00	16	C	Temperature, Surface
LA-47	27-Mar-01	16	C	Temperature, Surface
LA-47	19-Apr-01	16	C	Temperature, Surface
LA-47	10-Sep-03	16	C	Temperature, Surface
LA-47	10-Mar-05	16	C	Temperature, Surface
LA-47	27-Apr-05	16	C	Temperature, Surface
LA-47	11-May-06	16	C	Temperature, Surface
LA-47	24-Oct-07	16.00	°C	Temperature, Surface
LA-47	16-May-02	16.5	C	Temperature, Surface
LA-47	13-Nov-02	16.5	C	Temperature, Surface
LA-47	13-Apr-00	17	C	Temperature, Surface
LA-47	11-Jan-01	17	C	Temperature, Surface
LA-47	10-Mar-02	17	C	Temperature, Surface
LA-47	13-Mar-03	17	C	Temperature, Surface
LA-47	19-Nov-03	17	C	Temperature, Surface
LA-47	17-Mar-04	17	C	Temperature, Surface
LA-47	14-Apr-04	17	C	Temperature, Surface
LA-47	15-Sep-05	17	C	Temperature, Surface
LA-47	13-Oct-05	17	C	Temperature, Surface
LA-47	16-Nov-05	17	C	Temperature, Surface
LA-47	15-Nov-06	17	C	Temperature, Surface
LA-47	15-Nov-07	17.00	°C	Temperature, Surface
LA-47	11-Aug-05	17.5	C	Temperature, Surface

Port of Los Angeles - Inner Harbor Water Quality Data

LA-47	10-Jan-00	18	C	Temperature, Surface
LA-47	5-Nov-01	18	C	Temperature, Surface
LA-47	9-Dec-02	18	C	Temperature, Surface
LA-47	13-Oct-04	18	C	Temperature, Surface
LA-47	10-Nov-04	18	C	Temperature, Surface
LA-47	12-May-05	18	C	Temperature, Surface
LA-47	10-Dec-01	18.5	C	Temperature, Surface
LA-47	12-May-04	18.5	C	Temperature, Surface
LA-47	17-Aug-06	18.5	C	Temperature, Surface
LA-47	15-May-08	18.50	°C	Temperature, Surface
LA-47	12-Jun-08	18.70	°C	Temperature, Surface
LA-47	5-Dec-00	19	C	Temperature, Surface
LA-47	6-Jul-01	19	C	Temperature, Surface
LA-47	18-Jul-01	19	C	Temperature, Surface
LA-47	23-Aug-01	19	C	Temperature, Surface
LA-47	18-Aug-04	19	C	Temperature, Surface
LA-47	21-Sep-06	19	C	Temperature, Surface
LA-47	29-Aug-02	19.5	C	Temperature, Surface
LA-47	16-Jun-04	19.5	C	Temperature, Surface
LA-47	9-Jun-05	19.5	C	Temperature, Surface
LA-47	18-Jul-07	19.50	°C	Temperature, Surface
LA-47	16-Jun-00	20	C	Temperature, Surface
LA-47	20-Jun-02	20	C	Temperature, Surface
LA-47	21-Jul-04	20	C	Temperature, Surface
LA-47	15-Jun-06	20	C	Temperature, Surface
LA-47	9-Aug-07	20.00	°C	Temperature, Surface
LA-47	13-Jul-00	20.5	C	Temperature, Surface
LA-47	15-Sep-00	20.5	C	Temperature, Surface
LA-47	13-Sep-01	20.5	C	Temperature, Surface
LA-47	31-Jul-02	20.5	C	Temperature, Surface
LA-47	30-Aug-00	21	C	Temperature, Surface
LA-47	19-Jun-03	21	C	Temperature, Surface
LA-47	15-Sep-04	21	C	Temperature, Surface
LA-47	20-Jul-06	21.5	C	Temperature, Surface
LA-47	7-Aug-03	22	C	Temperature, Surface
LA-47	10-Jul-03	22.5	C	Temperature, Surface
LA-49	14-May-03	13.5	C	Temperature, Surface

Port of Los Angeles - Inner Harbor Water Quality Data

LA-49	25-Jan-01	14	C	Temperature, Surface
LA-49	15-Feb-01	14	C	Temperature, Surface
LA-49	13-Dec-01	14	C	Temperature, Surface
LA-49	21-Jan-04	14	C	Temperature, Surface
LA-49	25-Feb-04	14	C	Temperature, Surface
LA-49	16-Feb-06	14.2	C	Temperature, Surface
LA-49	25-Feb-00	14.5	C	Temperature, Surface
LA-49	21-Dec-00	14.5	C	Temperature, Surface
LA-49	22-Dec-04	14.5	C	Temperature, Surface
LA-49	8-Dec-05	14.5	C	Temperature, Surface
LA-49	12-Jan-06	14.5	C	Temperature, Surface
LA-49	3-Oct-00	15	C	Temperature, Surface
LA-49	17-Jan-02	15	C	Temperature, Surface
LA-49	16-Jan-03	15	C	Temperature, Surface
LA-49	19-Feb-03	15	C	Temperature, Surface
LA-49	4-Dec-03	15	C	Temperature, Surface
LA-49	10-Feb-05	15	C	Temperature, Surface
LA-49	13-Apr-06	15	C	Temperature, Surface
LA-49	19-Dec-02	15.5	C	Temperature, Surface
LA-49	4-Sep-03	15.5	C	Temperature, Surface
LA-49	20-Jan-05	15.5	C	Temperature, Surface
LA-49	27-Mar-01	16	C	Temperature, Surface
LA-49	19-Apr-01	16	C	Temperature, Surface
LA-49	21-Feb-02	16	C	Temperature, Surface
LA-49	14-Mar-02	16	C	Temperature, Surface
LA-49	4-Oct-02	16	C	Temperature, Surface
LA-49	13-Nov-02	16	C	Temperature, Surface
LA-49	10-Mar-05	16	C	Temperature, Surface
LA-49	11-May-06	16	C	Temperature, Surface
LA-49	29-Nov-00	16.5	C	Temperature, Surface
LA-49	16-May-02	16.5	C	Temperature, Surface
LA-49	13-Mar-03	16.5	C	Temperature, Surface
LA-49	9-Oct-03	16.5	C	Temperature, Surface
LA-49	19-Nov-03	16.5	C	Temperature, Surface
LA-49	14-Apr-04	16.5	C	Temperature, Surface
LA-49	11-Jan-01	17	C	Temperature, Surface
LA-49	10-Sep-03	17	C	Temperature, Surface

Port of Los Angeles - Inner Harbor Water Quality Data

LA-49	17-Mar-04	17	C	Temperature, Surface
LA-49	27-Apr-05	17	C	Temperature, Surface
LA-49	7-Jul-05	17	C	Temperature, Surface
LA-49	16-Nov-05	17	C	Temperature, Surface
LA-49	15-Sep-05	17.5	C	Temperature, Surface
LA-49	13-Oct-05	17.5	C	Temperature, Surface
LA-49	15-Nov-06	17.5	C	Temperature, Surface
LA-49	13-Apr-00	18	C	Temperature, Surface
LA-49	12-May-04	18	C	Temperature, Surface
LA-49	13-Oct-04	18	C	Temperature, Surface
LA-49	10-Nov-04	18	C	Temperature, Surface
LA-49	10-Jan-00	18.5	C	Temperature, Surface
LA-49	5-Nov-01	18.5	C	Temperature, Surface
LA-49	10-Mar-02	18.5	C	Temperature, Surface
LA-49	9-Dec-02	18.5	C	Temperature, Surface
LA-49	5-Dec-00	19	C	Temperature, Surface
LA-49	18-Jul-01	19	C	Temperature, Surface
LA-49	18-Aug-04	19	C	Temperature, Surface
LA-49	11-Aug-05	19	C	Temperature, Surface
LA-49	6-Jul-01	19.5	C	Temperature, Surface
LA-49	10-Dec-01	19.5	C	Temperature, Surface
LA-49	16-Jun-04	19.5	C	Temperature, Surface
LA-49	12-May-05	19.5	C	Temperature, Surface
LA-49	9-Jun-05	19.5	C	Temperature, Surface
LA-49	16-Jun-00	19.7	C	Temperature, Surface
LA-49	20-Jun-02	20	C	Temperature, Surface
LA-49	29-Aug-02	20	C	Temperature, Surface
LA-49	17-Aug-06	20	C	Temperature, Surface
LA-49	21-Sep-06	20	C	Temperature, Surface
LA-49	13-Sep-01	20.5	C	Temperature, Surface
LA-49	21-Jul-04	20.5	C	Temperature, Surface
LA-49	15-Jun-06	20.5	C	Temperature, Surface
LA-49	15-Sep-00	21	C	Temperature, Surface
LA-49	23-Aug-01	21	C	Temperature, Surface
LA-49	31-Jul-02	21	C	Temperature, Surface
LA-49	7-Aug-03	21	C	Temperature, Surface
LA-49	15-Sep-04	21	C	Temperature, Surface

Port of Los Angeles - Inner Harbor Water Quality Data

LA-49	13-Jul-00	21.5	C	Temperature, Surface
LA-49	30-Aug-00	22	C	Temperature, Surface
LA-49	19-Jun-03	22	C	Temperature, Surface
LA-49	20-Jul-06	22	C	Temperature, Surface
LA-49	10-Jul-03	23	C	Temperature, Surface
LA-30	14-May-03	4.00	FT	Transparency, Surface
LA-30	10-Sep-03	4.00	FT	Transparency, Surface
LA-30	16-Feb-06	4.00	FT	Transparency, Surface
LA-30	15-Feb-01	5.00	FT	Transparency, Surface
LA-30	20-Jun-02	5.00	FT	Transparency, Surface
LA-30	16-Jan-03	5.00	FT	Transparency, Surface
LA-30	19-Jun-03	5.00	FT	Transparency, Surface
LA-30	10-Jul-03	5.00	FT	Transparency, Surface
LA-30	25-Feb-04	5.00	FT	Transparency, Surface
LA-30	7-Jul-05	5.00	FT	Transparency, Surface
LA-30	18-Jul-01	6.00	FT	Transparency, Surface
LA-30	19-Feb-03	6.00	FT	Transparency, Surface
LA-30	9-Oct-03	6.00	FT	Transparency, Surface
LA-30	20-Jan-05	6.00	FT	Transparency, Surface
LA-30	10-Feb-05	6.00	FT	Transparency, Surface
LA-30	10-Mar-05	6.00	FT	Transparency, Surface
LA-30	12-Jan-06	6.00	FT	Transparency, Surface
LA-30	13-Apr-06	6.00	FT	Transparency, Surface
LA-30	11-May-06	6.00	FT	Transparency, Surface
LA-30	15-Jun-06	6.00	FT	Transparency, Surface
LA-30	17-Aug-06	6.00	FT	Transparency, Surface
LA-30	9-Aug-07	6.00	ft	Transparency, Surface
LA-30	25-Feb-00	7.00	FT	Transparency, Surface
LA-30	3-Oct-00	7.00	FT	Transparency, Surface
LA-30	5-Nov-01	7.00	FT	Transparency, Surface
LA-30	13-Mar-03	7.00	FT	Transparency, Surface
LA-30	4-Sep-03	7.00	FT	Transparency, Surface
LA-30	19-Nov-03	7.00	FT	Transparency, Surface
LA-30	4-Dec-03	7.00	FT	Transparency, Surface
LA-30	15-Sep-04	7.00	FT	Transparency, Surface
LA-30	12-May-05	7.00	FT	Transparency, Surface
LA-30	9-Jun-05	7.00	FT	Transparency, Surface

Port of Los Angeles - Inner Harbor Water Quality Data

LA-30	15-Sep-05	7.00	FT	Transparency, Surface					
LA-30	16-May-07	7.00	ft	Transparency, Surface					
LA-30	18-Jul-07	7.00	ft	Transparency, Surface					
LA-30	19-Dec-07	7.00	ft	Transparency, Surface					
LA-30	14-Feb-08	7.00	ft	Transparency, Surface					
LA-30	17-Apr-08	7.00	ft	Transparency, Surface					
LA-30	13-Apr-00	8.00	FT	Transparency, Surface					
LA-30	30-Aug-00	8.00	FT	Transparency, Surface					
LA-30	6-Jul-01	8.00	FT	Transparency, Surface					
LA-30	17-Jan-02	8.00	FT	Transparency, Surface					
LA-30	16-May-02	8.00	FT	Transparency, Surface					
LA-30	31-Jul-02	8.00	FT	Transparency, Surface					
LA-30	29-Aug-02	8.00	FT	Transparency, Surface					
LA-30	19-Dec-02	8.00	FT	Transparency, Surface					
LA-30	7-Aug-03	8.00	FT	Transparency, Surface					
LA-30	21-Jan-04	8.00	FT	Transparency, Surface					
LA-30	18-Aug-04	8.00	FT	Transparency, Surface					
LA-30	13-Oct-04	8.00	FT	Transparency, Surface					
LA-30	10-Nov-04	8.00	FT	Transparency, Surface					
LA-30	11-Aug-05	8.00	FT	Transparency, Surface					
LA-30	13-Oct-05	8.00	FT	Transparency, Surface					
LA-30	8-Dec-05	8.00	FT	Transparency, Surface					
LA-30	10-Jan-00	9.00	FT	Transparency, Surface					
LA-30	13-Jul-00	9.00	FT	Transparency, Surface					
LA-30	25-Jan-01	9.00	FT	Transparency, Surface					
LA-30	27-Mar-01	9.00	FT	Transparency, Surface					
LA-30	19-Apr-01	9.00	FT	Transparency, Surface					
LA-30	13-Sep-01	9.00	FT	Transparency, Surface					
LA-30	9-Dec-02	9.00	FT	Transparency, Surface					
LA-30	14-Apr-04	9.00	FT	Transparency, Surface					
LA-30	12-May-04	9.00	FT	Transparency, Surface					
LA-30	21-Jul-04	9.00	FT	Transparency, Surface					
LA-30	15-Nov-07	9.00	ft	Transparency, Surface					
LA-30	12-Jun-08	9.00	ft	Transparency, Surface	8.00	9.00	8.80	15	2007-2008
LA-30	21-Dec-00	10.00	FT	Transparency, Surface					
LA-30	23-Aug-01	10.00	FT	Transparency, Surface					
LA-30	13-Dec-01	10.00	FT	Transparency, Surface					

Port of Los Angeles - Inner Harbor Water Quality Data

LA-30	10-Mar-02	10.00	FT	Transparency, Surface					
LA-30	14-Mar-02	10.00	FT	Transparency, Surface					
LA-30	4-Oct-02	10.00	FT	Transparency, Surface					
LA-30	16-Jun-04	10.00	FT	Transparency, Surface					
LA-30	27-Apr-05	10.00	FT	Transparency, Surface					
LA-30	20-Jul-06	10.00	FT	Transparency, Surface					
LA-30	21-Sep-06	10.00	FT	Transparency, Surface					
LA-30	15-Mar-07	10.00	ft	Transparency, Surface					
LA-30	12-Apr-07	10.00	ft	Transparency, Surface					
LA-30	20-Mar-08	10.00	ft	Transparency, Surface					
LA-30	15-May-08	10.00	ft	Transparency, Surface					
LA-30	16-Jun-00	11.00	FT	Transparency, Surface					
LA-30	15-Sep-00	11.00	FT	Transparency, Surface					
LA-30	13-Nov-02	11.00	FT	Transparency, Surface					
LA-30	17-Mar-04	11.00	FT	Transparency, Surface					
LA-30	25-Jan-07	11.00	FT	Transparency, Surface					
LA-30	25-Jan-07	11.00	FT	Transparency, Surface	5.00	11.00	7.96	83	2000-2008
LA-30	7-Feb-07	11.00	ft	Transparency, Surface					
LA-30	24-Oct-07	11.00	ft	Transparency, Surface					
LA-30	17-Jan-08	11.00	ft	Transparency, Surface					
LA-30	29-Nov-00	12.00	FT	Transparency, Surface					
LA-30	21-Feb-02	12.00	FT	Transparency, Surface					
LA-30	10-Dec-01	13.00	FT	Transparency, Surface					
LA-30	22-Dec-04	13.00	FT	Transparency, Surface					
LA-30	15-Nov-06	13.00	FT	Transparency, Surface					
LA-30	1-May-00	14.00	FT	Transparency, Surface					
LA-30	5-Dec-00	15.00	FT	Transparency, Surface					
LA-30	11-Jan-01	15.00	FT	Transparency, Surface					
LA-30	16-Nov-05	15.00	FT	Transparency, Surface					
LA-32B	10-Jul-03	1.00	FT	Transparency, Surface					
LA-32B	7-Aug-03	1.00	FT	Transparency, Surface					
LA-32B	10-Feb-05	1.00	FT	Transparency, Surface					
LA-32B	10-Mar-05	1.00	FT	Transparency, Surface					
LA-32B	19-Jun-03	2.00	FT	Transparency, Surface					
LA-32B	21-Jan-04	2.00	FT	Transparency, Surface					
LA-32B	19-Feb-03	3.00	FT	Transparency, Surface					
LA-32B	13-Mar-03	3.00	FT	Transparency, Surface					

Port of Los Angeles - Inner Harbor Water Quality Data

LA-32B	19-Nov-03	3.00	FT	Transparency, Surface
LA-32B	16-Jun-04	3.00	FT	Transparency, Surface
LA-32B	27-Apr-05	3.00	FT	Transparency, Surface
LA-32B	12-May-05	3.00	FT	Transparency, Surface
LA-32B	9-Jun-05	3.00	FT	Transparency, Surface
LA-32B	16-Feb-06	3.00	FT	Transparency, Surface
LA-32B	10-Sep-03	4.00	FT	Transparency, Surface
LA-32B	9-Oct-03	4.00	FT	Transparency, Surface
LA-32B	18-Feb-04	4.00	FT	Transparency, Surface
LA-32B	15-Sep-04	4.00	FT	Transparency, Surface
LA-32B	13-Oct-04	4.00	FT	Transparency, Surface
LA-32B	7-Jul-05	4.00	FT	Transparency, Surface
LA-32B	16-May-07	4.00	ft	Transparency, Surface
LA-32B	15-Feb-01	5.00	FT	Transparency, Surface
LA-32B	9-Dec-02	5.00	FT	Transparency, Surface
LA-32B	14-Apr-04	5.00	FT	Transparency, Surface
LA-32B	18-Aug-04	5.00	FT	Transparency, Surface
LA-32B	20-Jan-05	5.00	FT	Transparency, Surface
LA-32B	11-Aug-05	5.00	FT	Transparency, Surface
LA-32B	15-Sep-05	5.00	FT	Transparency, Surface
LA-32B	15-Sep-00	6.00	FT	Transparency, Surface
LA-32B	20-Jun-02	6.00	FT	Transparency, Surface
LA-32B	4-Dec-03	6.00	FT	Transparency, Surface
LA-32B	12-May-04	6.00	FT	Transparency, Surface
LA-32B	15-Jun-06	6.00	FT	Transparency, Surface
LA-32B	20-Jul-06	6.00	FT	Transparency, Surface
LA-32B	17-Aug-06	6.00	FT	Transparency, Surface
LA-32B	15-Mar-07	6.00	ft	Transparency, Surface
LA-32B	18-Jul-07	6.00	ft	Transparency, Surface
LA-32B	25-Jan-01	7.00	FT	Transparency, Surface
LA-32B	19-Apr-01	7.00	FT	Transparency, Surface
LA-32B	18-Jul-01	7.00	FT	Transparency, Surface
LA-32B	13-Sep-01	7.00	FT	Transparency, Surface
LA-32B	10-Mar-02	7.00	FT	Transparency, Surface
LA-32B	17-Mar-04	7.00	FT	Transparency, Surface
LA-32B	21-Jul-04	7.00	FT	Transparency, Surface
LA-32B	10-Nov-04	7.00	FT	Transparency, Surface

Port of Los Angeles - Inner Harbor Water Quality Data

LA-32B	8-Dec-05	7.00	FT	Transparency, Surface			
LA-32B	12-Jan-06	7.00	FT	Transparency, Surface			
LA-32B	13-Apr-06	7.00	FT	Transparency, Surface			
LA-32B	7-Feb-07	7.00	ft	Transparency, Surface			
LA-32B	19-Dec-07	7.00	ft	Transparency, Surface			
LA-32B	17-Jan-08	7.00	ft	Transparency, Surface			
LA-32B	25-Feb-00	8.00	FT	Transparency, Surface			
LA-32B	3-Oct-00	8.00	FT	Transparency, Surface			
LA-32B	6-Jul-01	8.00	FT	Transparency, Surface			
LA-32B	23-Aug-01	8.00	FT	Transparency, Surface			
LA-32B	13-Oct-05	8.00	FT	Transparency, Surface			
LA-32B	16-Nov-05	8.00	FT	Transparency, Surface			
LA-32B	21-Sep-06	8.00	FT	Transparency, Surface			
LA-32B	25-Jan-07	8.00	FT	Transparency, Surface	1	15	6.855263
LA-32B	25-Jan-07	8.00	FT	Transparency, Surface			
LA-32B	12-Apr-07	8.00	ft	Transparency, Surface			
LA-32B	10-Jan-00	9.00	FT	Transparency, Surface			
LA-32B	13-Jul-00	9.00	FT	Transparency, Surface			
LA-32B	29-Nov-00	9.00	FT	Transparency, Surface			
LA-32B	21-Dec-00	9.00	FT	Transparency, Surface			
LA-32B	27-Mar-01	9.00	FT	Transparency, Surface			
LA-32B	10-Dec-01	9.00	FT	Transparency, Surface			
LA-32B	16-May-02	9.00	FT	Transparency, Surface			
LA-32B	29-Aug-02	9.00	FT	Transparency, Surface			
LA-32B	13-Nov-02	9.00	FT	Transparency, Surface			
LA-32B	22-Dec-04	9.00	FT	Transparency, Surface			
LA-32B	11-May-06	9.00	FT	Transparency, Surface			
LA-32B	17-Apr-08	9.00	ft	Transparency, Surface			
LA-32B	16-Jun-00	10.00	FT	Transparency, Surface			
LA-32B	5-Nov-01	10.00	FT	Transparency, Surface			
LA-32B	13-Dec-01	10.00	FT	Transparency, Surface			
LA-32B	15-Nov-06	10.00	FT	Transparency, Surface			
LA-32B	24-Oct-07	10.00	ft	Transparency, Surface			
LA-32B	15-Nov-07	10.00	ft	Transparency, Surface			
LA-32B	14-Feb-08	10.00	ft	Transparency, Surface			
LA-32B	15-May-08	10.00	ft	Transparency, Surface			
LA-32B	12-Jun-08	10.00	ft	Transparency, Surface			

Port of Los Angeles - Inner Harbor Water Quality Data

LA-32B	13-Apr-00	11.00	FT	Transparency, Surface
LA-32B	5-Dec-00	11.00	FT	Transparency, Surface
LA-32B	9-Aug-07	11.00	ft	Transparency, Surface
LA-32B	17-Jan-02	12.00	FT	Transparency, Surface
LA-32B	20-Mar-08	12.00	ft	Transparency, Surface
LA-32B	11-Jan-01	13.00	FT	Transparency, Surface
LA-32B	4-Oct-02	14.00	FT	Transparency, Surface
LA-32B	30-Aug-00	15.00	FT	Transparency, Surface
LA-32B	21-Feb-02	15.00	FT	Transparency, Surface
LA-32B	1-May-00	17.00	FT	Transparency, Surface
LA-33	16-Feb-06	2.00	FT	Transparency, Surface
LA-33	19-Jun-03	3.00	FT	Transparency, Surface
LA-33	13-Oct-04	3.00	FT	Transparency, Surface
LA-33	9-Jun-05	3.00	FT	Transparency, Surface
LA-33	7-Jul-05	3.00	FT	Transparency, Surface
LA-33	15-Feb-01	4.00	FT	Transparency, Surface
LA-33	14-May-03	4.00	FT	Transparency, Surface
LA-33	7-Aug-03	4.00	FT	Transparency, Surface
LA-33	9-Oct-03	4.00	FT	Transparency, Surface
LA-33	10-Mar-05	4.00	FT	Transparency, Surface
LA-33	18-Jul-01	5.00	FT	Transparency, Surface
LA-33	19-Feb-03	5.00	FT	Transparency, Surface
LA-33	4-Sep-03	5.00	FT	Transparency, Surface
LA-33	10-Sep-03	5.00	FT	Transparency, Surface
LA-33	4-Dec-03	5.00	FT	Transparency, Surface
LA-33	18-Feb-04	5.00	FT	Transparency, Surface
LA-33	10-Nov-04	5.00	FT	Transparency, Surface
LA-33	20-Jan-05	5.00	FT	Transparency, Surface
LA-33	12-May-05	5.00	FT	Transparency, Surface
LA-33	15-Sep-05	5.00	FT	Transparency, Surface
LA-33	23-Aug-01	6.00	FT	Transparency, Surface
LA-33	10-Jul-03	6.00	FT	Transparency, Surface
LA-33	19-Nov-03	6.00	FT	Transparency, Surface
LA-33	14-Apr-04	6.00	FT	Transparency, Surface
LA-33	8-Dec-05	6.00	FT	Transparency, Surface
LA-33	12-Jan-06	6.00	FT	Transparency, Surface
LA-33	13-Apr-06	6.00	FT	Transparency, Surface

Port of Los Angeles - Inner Harbor Water Quality Data

LA-33	20-Jul-06	6.00	FT	Transparency, Surface
LA-33	16-May-07	6.00	ft	Transparency, Surface
LA-33	18-Jul-07	6.00	ft	Transparency, Surface
LA-33	25-Feb-00	7.00	FT	Transparency, Surface
LA-33	3-Oct-00	7.00	FT	Transparency, Surface
LA-33	25-Jan-01	7.00	FT	Transparency, Surface
LA-33	19-Apr-01	7.00	FT	Transparency, Surface
LA-33	13-Sep-01	7.00	FT	Transparency, Surface
LA-33	5-Nov-01	7.00	FT	Transparency, Surface
LA-33	20-Jun-02	7.00	FT	Transparency, Surface
LA-33	29-Aug-02	7.00	FT	Transparency, Surface
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LA-33	27-Apr-05	8.00	FT	Transparency, Surface
LA-33	15-Jun-06	8.00	FT	Transparency, Surface
LA-33	9-Aug-07	8.00	ft	Transparency, Surface
LA-33	24-Oct-07	8.00	ft	Transparency, Surface

Port of Los Angeles - Inner Harbor Water Quality Data

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LA-33	13-Jul-00	9.00	FT	Transparency, Surface			
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LA-33	13-Dec-01	9.00	FT	Transparency, Surface			
LA-33	16-May-02	9.00	FT	Transparency, Surface			
LA-33	4-Oct-02	9.00	FT	Transparency, Surface			
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LA-33	17-Apr-08	10.00	ft	Transparency, Surface			
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LA-35	15-Feb-01	2.00	FT	Transparency, Surface			
LA-35	19-Jun-03	3.00	FT	Transparency, Surface			
LA-35	18-Feb-04	4.00	FT	Transparency, Surface			

Port of Los Angeles - Inner Harbor Water Quality Data

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LA-35	18-Jul-01	6.00	FT	Transparency, Surface
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LA-35	13-Mar-03	8.00	FT	Transparency, Surface
LA-35	12-May-04	8.00	FT	Transparency, Surface
LA-35	21-Jul-04	8.00	FT	Transparency, Surface
LA-35	10-Feb-05	8.00	FT	Transparency, Surface

Port of Los Angeles - Inner Harbor Water Quality Data

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LA-35	18-Jul-07	8.00	ft	Transparency, Surface			
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LA-35	27-Apr-05	11.00	FT	Transparency, Surface			
LA-35	15-Mar-07	11.00	ft	Transparency, Surface			

Port of Los Angeles - Inner Harbor Water Quality Data

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LA-35	17-Jan-08	11.00	ft	Transparency, Surface
LA-35	16-Jun-00	12.00	FT	Transparency, Surface
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LA-39	4-Dec-03	6.00	FT	Transparency, Surface
LA-39	11-Aug-05	6.00	FT	Transparency, Surface
LA-39	12-Apr-07	6.00	ft	Transparency, Surface
LA-39	16-May-07	6.00	ft	Transparency, Surface
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Port of Los Angeles - Inner Harbor Water Quality Data

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LA-39	27-Apr-05	9.00	FT	Transparency, Surface
LA-39	13-Oct-05	9.00	FT	Transparency, Surface
LA-39	16-Nov-05	9.00	FT	Transparency, Surface
LA-39	8-Dec-05	9.00	FT	Transparency, Surface

Port of Los Angeles - Inner Harbor Water Quality Data

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LA-39	19-Dec-02	13.00	FT	Transparency, Surface			

Port of Los Angeles - Inner Harbor Water Quality Data

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LA-39	13-Dec-01	15.00	FT	Transparency, Surface
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LA-41	5-Nov-01	8.00	FT	Transparency, Surface
LA-41	16-May-02	8.00	FT	Transparency, Surface
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Port of Los Angeles - Inner Harbor Water Quality Data

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LA-41	17-Apr-08	10.00	ft	Transparency, Surface			
LA-41	10-Jan-00	11.00	FT	Transparency, Surface			

Port of Los Angeles - Inner Harbor Water Quality Data

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LA-41	16-Jun-00	11.00	FT	Transparency, Surface
LA-41	15-Sep-00	11.00	FT	Transparency, Surface
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LA-41	3-Oct-00	11.00	FT	Transparency, Surface
LA-41	29-Nov-00	11.00	FT	Transparency, Surface
LA-41	14-Mar-02	11.00	FT	Transparency, Surface
LA-41	13-Nov-02	11.00	FT	Transparency, Surface
LA-41	24-Oct-07	11.00	ft	Transparency, Surface
LA-41	17-Jan-08	11.00	ft	Transparency, Surface
LA-41	14-Feb-08	11.00	ft	Transparency, Surface
LA-41	20-Mar-08	11.00	ft	Transparency, Surface
LA-41	15-May-08	11.00	ft	Transparency, Surface
LA-41	11-Jan-01	12.00	FT	Transparency, Surface
LA-41	6-Jul-01	12.00	FT	Transparency, Surface
LA-41	23-Aug-01	12.00	FT	Transparency, Surface
LA-41	10-Nov-04	12.00	FT	Transparency, Surface
LA-41	21-Sep-06	12.00	FT	Transparency, Surface
LA-41	18-Jul-07	12.00	ft	Transparency, Surface
LA-41	5-Dec-00	13.00	FT	Transparency, Surface
LA-41	17-Jan-02	13.00	FT	Transparency, Surface
LA-41	21-Jan-04	13.00	FT	Transparency, Surface
LA-41	16-Nov-05	13.00	FT	Transparency, Surface
LA-41	15-Nov-06	13.00	FT	Transparency, Surface
LA-41	15-Mar-07	13.00	ft	Transparency, Surface
LA-41	9-Aug-07	13.00	ft	Transparency, Surface
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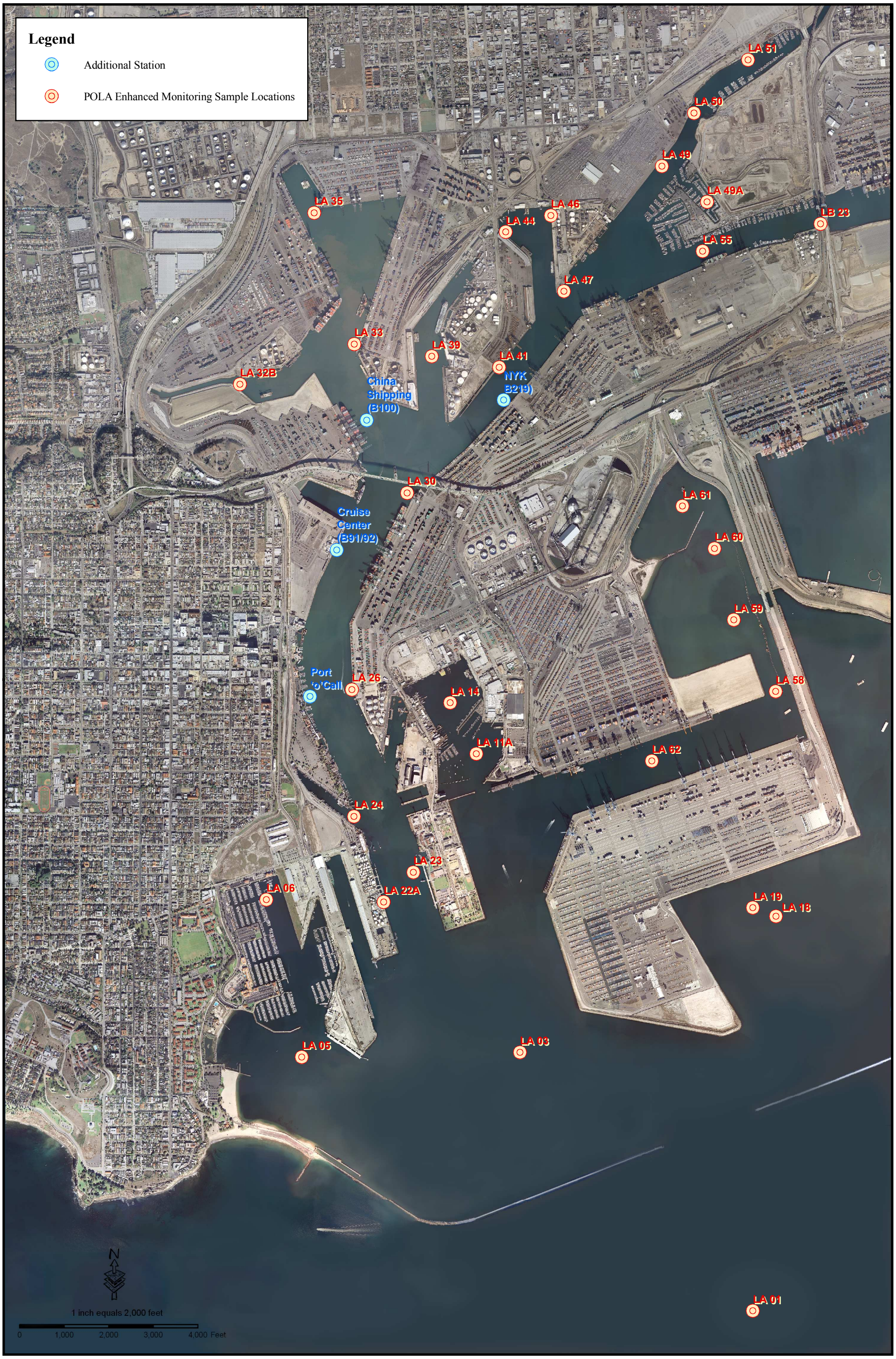

Enhanced Monthly Water Quality Study Station Locations
March 2008

FIGURE
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03/13/08

Final Report
Sediment Characterization for Ocean or Harbor Disposal Berths 145 through 147 Port of Los Angeles

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LIST OF ACRONYMS AND ABBREVIATIONS

AMEC	AMEC Earth & Environmental, Inc.
ASTM	American Society for Testing and Materials
BP	bioaccumulation phase
comp	composite
COPC	chemical of potential concern
CTR	California Toxics Rule
CTV	critical tissue values
DGPS	differential global positioning system
Dry wt.	dry weight
EC_{50}	median effects concentration
EPA	U.S. Environmental Protection Agency
ERL	effects range-low
ERV	ecotoxicity reference value
ERM	effects range-median
ft	feet
g	gram
ITM	*Inland Testing Manual*
kg	kilogram
L	liter
LOEC	lowest observable effects concentration
LPC	limiting permissible concentration
µg	microgram
mg	milligram
MLLW	mean lower low water
ND	not detected
NOEC	no observed effects concentration
PAH	polycyclic aromatic hydrocarbon
PCB	polychlorinated biphenyl
Port	Port of Los Angeles
PSDDA	Puget Sound Dredge Disposal Analysis Program
SAP	sampling and analysis plan
SP	solid phase
SPP	suspended particulate phase
St. Dev.	standard deviation
TBT	tributyltin
TRPH	total recoverable petroleum hydrocarbons
TS	total solids
USACE	U.S. Army Corps of Engineers
Wet wt.	wet weight

1.0 INTRODUCTION

The Port of Los Angeles (Port) is proposing improvements to the existing wharf and backlands of Berths 145 through 147 to accommodate berthing of deeper draft ships. Berths 145 through 147 are located in the West Basin of the Port of Los Angeles, Los Angeles County, California (Figure 1). The project includes dredging approximately 266,500 cubic yards of sediment. AMEC Earth & Environmental, Inc. (AMEC), has been contracted by the Port to conduct a sediment characterization study of the area to determine whether ocean or harbor disposal are appropriate options for the sediments. Disposal is proposed at either the U.S. Environmental Protection Agency (EPA)-approved LA-2 Ocean Dredged Material Disposal Site (LA-2) or at an undetermined in-harbor aquatic disposal location (Figure 2).

This study is based on the protocols described in the document *Evaluation of Dredged Material Proposed for Ocean Disposal* (*Green Book*) (EPA/U.S. Army Corps of Engineers [USACE] 1991), the *Evaluation of Dredged Material Proposed for Discharge in Waters of the U.S.* (*Inland Testing Manual* [*ITM*]) (EPA/USACE 1998), and regional guidance of the EPA Region 9 (EPA 1991). The aforementioned guidance documents present an outline for three-tiered effects-based testing to determine disposal option acceptability for dredged materials. A Tier III evaluation has been selected based on potential sources of contamination near the project site as indicated in previous sediment characterization reports for areas offshore Berths 144 and 147 (Ogden 1996a, Ogden 1996b).

2.0 METHODS AND MATERIALS

Sediment collection, handling, and preservation activities followed the procedures outlined in the site-specific Sampling and Analysis Plan (SAP) (AMEC 2002).

2.1 Marine Sediment Collection

A differential global positioning system (DGPS) was used to locate predetermined station locations (Figures 3 and 4) and mark them with a weighted buoy. After positioning Seaventure Inc.'s vessel, *Early Bird*, on station, the boat was double-tied to docks and/or anchors to maintain its position. Once secured, the position was recorded in the field log and the water depth was measured with a weighted fiberglass tape. The depth was corrected to mean lower low water (MLLW) using National Oceanic and Atmospheric Administration tide tables and the sampling depth confirmed.

TEG Oceanographic Services, Inc.'s vibracore was used to sample sediments aboard the *Early Bird*. The vibracore used a 4-inch-diameter aluminum tube connected to a stainless steel cutter. The aluminum-encased vibrating unit used electricity (240-volt, 3-phase, 26-amp) to drive two outer-rotating vibrators. The vibracore's head and tube were lowered by a hydraulic winch and vibrated until penetration to project depth was achieved. Core penetration depth was calculated with a tape measure attached to the vibracore's head. The vibracore was then turned off and the tube extracted from the sediment and returned to the vessel.

INSERT FIGURE 1

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INSERT FIGURE 4

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After collection, samples were extruded on the vessel into clean, polyethylene-lined trays. Each core was photographed and the unique strata were identified and noted. Samples were logged, and sediments for chemical analysis were placed into a clean stainless steel stockpot for compositing. Thorough compositing was achieved with the use of a stainless steel impeller.

Descriptions of sediment samples, field conditions, and meteorological conditions were recorded in the field log as described in the SAP (AMEC 2002). Table 1 summarizes the field log data. A copy of the core log is provided in Appendix A.

Table 1
Summary of Field Log Data

Site	Coring Location	Number of Cores	Position (Latitude, Longitude)	Target Recovery (ft)	Average Core Recovery (ft)[1]	Comments
1	1	1	33°45.655 118°16.389	8	7	From top of core – 0.5' dk gray silt – 0.5' green/blue fine/medium sand – 2' compact blue fine sand (more compact and finer w/depth) – bottom 3.5' very compact blue gray clay.
1	2	2	33°45.634 118°16.403	12.5	4.5	Top 2' drk gray/blk bottom 3' fine gray sand. At transition between dark gray silt & gray sand is some black sand.
1	3		33°45.691 118°16.385	8	4.5	Top of core – 0.5' gr silt, 0.5' blk silt w/oil staining, 1' gr silt/clay. Bottom 2' dk gr fine sand w/ some clay layers, 0.5' gr/blue fine sand/clay – compact.
1	4	3	33°45.708 118°16.368	10	4.25	Top 1.5' drk gray/blk silt, middle drk gray silty clay. Bottom 1.5' fine gray sand.
1	5	2	33°45.739 118°16.372	7	5	Top of core – 0.5/ gr/blk med sand, 0.5' gr fine sand w/ some clay. Then 2' dk gr fine sand. Bottom 3.5' gr fine sand. Black mass, 2" long @ 2' w/petroleum odor. Core 2 dark gray fine sand, slightly coarser in middle 1', loose top 6".
2	1	1	33°45.497 118°16.456	18	10	Top of core 1.5' dk gr silt w/some clay, 0.5' gr/blk fine sand, 1' gr clay w/shell hash. Bottom, 7' gr clay.

Table 1 (continued)
Summary of Field Log Data

Site	Coring Location	Number of Cores	Position (Latitude, Longitude)	Target Recovery (ft)	Average Core Recovery (ft)[1]	Comments
2	2	1	33°45.531 118°16.450	13	13	Top 1.5 ft dark gray w/shell hash at top, next 3 ft dark gray/light gray silt, next 0.5 ft dark gray clay w/black silt w/oil odor, next 1 ft dark gray clay; bottom 7 ft gray consolidated clay.
2	3	1	33°45.559 118°16.426	18	9	Top 4 ft dark gray silt w/some clay. Middle 1 ft dark gray clay w/silt. Bottom 4 ft firm dark gray clay silt.
2	4	1	33°45.583 118°16.427	10.5	11	Top 6.5 ft dark gray clay w/silt. Bottom 5 ft dark gray clay w/silt w/some shell.
2	5		33°45.609 118°16.412	14.5	6.5	Top 2.5 ft gray silt, next 1 ft mixed black fine sand & green clay, next 0.5 ft green gray clay; bottom 2.5 ft clay/silt. Very compact 1 ft above bottom w/shell hash.
2	6		33°45.484 118°16.452	15	14	Top 4.5 ft dark gray/black silt w/mussel hash top 2 ft. Middle 3 ft dark gray mixed w/fine sand/silt - some shell hash and oil odor. Bottom 5.5 ft dark gray, loose clay.

[1] length of cores varied between cores taken at a single station.

2.2 Sediment Handling and Analyses

Each core was homogenized independently and subsampled for physical and chemical testing. All sediment from within each site were then composited and subsampled for the same suite of physical and chemical analyses. Subsamples were collected in Teflon®-lined, labeled jars and were subsequently stored at 4°C. Five (Site 1) or six (Site 2) core-composite samples were sent in iced coolers along with the site-composite samples to Calscience Environmental Laboratories (Calscience) and CRG Laboratories (CRG) for physical and chemical analyses. The remainder of the site-composite material was retained and stored at 4°C until bioassay and bioaccumulation testing commenced. A complete set of archived samples was retained and frozen for possible additional testing. The sediment samples submitted to Calscience were analyzed for the physical and chemical constituents listed in Table 2.

Table 2
Recommended Methods for Sample Preparation, Analysis, Detection Limits and Reporting Limits for Sediments, Tissues, and Elutriates

Analyte	Preparation Method	Analysis Method	Sediment Target Detection Limit[a]	Tissue Target Detection Limit[a]	Elutriate Reporting Limits[b] (mg/L)
Total Solids (%)	-	160.3	0.1	0.1	-
Total Organic Carbon (%)	Acidify to release carbonates	9060	0.01	-	-
Total Ammonia (mg/kg)	-	350.2M[c]	0.2	-	-
Total & Soluble Sulfides (mg/kg)	Zinc acetate preserve	376.2M[c]	0.1	-	-
Grain Size (%)	-	ASTM D422-63[d] Plumb[e]	0.1	-	-
Arsenic (mg/kg)	3051[f]	6020[f]	0.1	0.25	0.001
Cadmium (mg/kg)	3051[f]	6020[f]	0.1	0.1	0.001
Chromium (mg/kg)	3051[f]	6020[f]	0.1	0.02	0.001
Copper (mg/kg)	3051[f]	6020[f]	0.1	0.1	0.001
Lead (mg/kg)	3051[f]	6020[f]	5.0	1.0	0.001
Mercury (mg/kg)	Total Digestion	7471A[f]	0.02	0.02	0.0005
Nickel (mg/kg)	3051[f]	6020[f]	0.1	1.0	0.001
Selenium (mg/kg)	3051[f]	6020[f]	0.1	0.5	0.001
Silver (mg/kg)	3051[f]	6020[f]	0.2	1.0	0.001
Zinc (mg/kg)	3051[f]	6020[f]	2.0	1.0	0.005
TRPH (mg/kg)	-	418.1M[f]	5.0	5.0	-
PAHs[g] µg/kg)	3550A[f]	8270C[f]	20	20	1.0 - 13
Organochlorine Pesticides[h] (µg/kg)	3550A[f]	8081A/8082[f]	0.5 - 30	0.5 - 25	0.1
PCBs[i](µg/kg)	3550A[f]	8082[f]	20	20	1.0
Phenols (mg/kg)	3545[f]	8270C	20 - 100	-	5.0 - 25
Phthalates (mg/kg)	3545[f]	8270C	10	-	5.0
Organotins (µg/kg)	Rice et al.[j]	Rice et al.[j]	1	-	-

[a] Sediment minimum detection limits are on a dry-weight basis. Tissue minimum detection limits are on a wet-weight basis. To achieve the recommended minimum detection limit for some compounds in sediment, it may be necessary to use a larger sample size than the method describes, a smaller extract volume for gas chromatography/mass spectrometry analyses, and one of the recommended sample cleanup methods, as necessary, to reduce interference.

[b] Reporting Limits provided by Calscience Environmental Laboratories, Inc.

[c] Standard Methods for the Examination of Water and Wastewater, 19th Edition 1995.

[d] ASTM D1234.

[e] Procedures for Handling and Chemical Analysis of Sediment and Water Samples, Russell H. Plumb, Jr., EPA/CE-81-1, May, 1981, Particle Size, Method 2, apparent particle-size distribution.

[f] SW-846, Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Revision 3 (Nov. 1986), as amended by Updates I (Jul 1992), II (Sep 1994), IIA (Aug 1993), IIB (Jan 95), and III (Dec 96).

[g] Includes 14 PAH compounds (LPAHs: naphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene) and (HPAHs: fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(b,k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-c,d)pyrene, dibenzo(a,h)anthracene, benzo(g,h,i)perylene).

[h] Includes Aldrin, α-BHC, β-BHC, γ-BHC (Lindane), δ-BHC, Chlordane, 4,4-DDD, 4,4-DDE, 4,4-DDT, Dieldrin, Endosulfan I and II, Endosulfan sulfate, Endrin, Endrin aldehyde, Heptachlor, Heptachlor epoxide, and Toxaphene.

[i] Includes Aroclors 1016, 1221, 1232, 1242, 1248, 1254, 1260, and 1262.

[j] Rice, C.D., F.A. Espourteille, and R.J. Huggett. 1987. Analysis of tributyltin in estuarine sediments and oyster tissue, *Crassostrea virginica*. Applied Organometallic Chemistry, 1:541-544.

ASTM = American Society for Testing and Materials
HPAH = high-molecular-weight polycyclic aromatic hydrocarbon
LPAH = low-molecular-weight polycyclic aromatic hydrocarbon
µg/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyl
TRPH = total recoverable petroleum hydrocarbons

2.2.1 Elutriate Testing

The elutriate test solution was prepared by mixing seawater and test sediment to yield a volumetric sediment:water ratio of 1:4. Seawater used in tests was collected at Scripps Institution of Oceanography and transported to AMEC's Bioassay Laboratory in San Diego, California. Mechanical mixing, using a stainless steel impeller, was applied to vigorously agitate the mixture for 30 minutes. After a 1-hour settling period, the supernatant was drained from the top of the mixing chamber. The mixture was filtered through a 0.45-micrometer Millipore filter prior to testing.

2.3 Bioassay Testing

Bioassays were conducted on composite sediment samples from both test sites and the two reference sites. The test series included three types of bioassays: (1) solid phase, (2) suspended-particulate phase, and (3) bioaccumulation phase. Each of these tests was performed in accordance with the *Green Book*, the *ITM*, and EPA Region 9's General Requirements for Sediment Testing of Dredged Material Proposed for Ocean Dumping (EPA 1991). Seawater used for all bioassay analyses was also collected at Scripps.

2.3.1 Test Organisms

Table 3 provides a list of the organisms tested in the three-phase bioassay series. Test organisms underwent a holding period under laboratory and test conditions prior to test initiation. During the initial 48-hour acclimation period, test animals were slowly exposed to laboratory water, test temperature, and other test and laboratory conditions. Test organism health and acceptability were determined to be within normal limits and testing proceeded as planned.

Table 3
Test Species

Test Organism	Taxon	SPP	SP	BP
Bivalve Larvae	*Mytilus edulis*	X		
Silverside	*Menidia beryllina*	X		
Mysid shrimp	*Americamysis bahia**	X	X	
Amphipod	*Ampelisca abdita*		X	
Polychaete	*Nereis virens*			X
Mollusk	*Macoma nasuta*			X

SPP – suspended particulate phase
SP – solid phase
BP – bioaccumulation phase
*formerly *Mysidopsis bahia*

2.3.2 Solid Phase Toxicity Tests

Ten-day amphipod and mysid shrimp tests were conducted under static renewal conditions in 1-liter glass beakers according to the protocol described in American Society for Testing and Materials (ASTM) (1990). Tests were prepared with the addition of a 2-centimeter layer of control, reference, or test sediment and 950 milliliters of clean seawater into each test beaker. Gentle aeration was added to each chamber through a 1-milliliter, cotton-plugged pipette.

Twenty amphipods were distributed randomly to each beaker, with 5 replicates exposed to each sediment treatment. After 10 days, test animals were removed by gently sieving the contents of each beaker through a nitex mesh screen. Animals were collected on the screen and final counts were made.

The mysid test was conducted with 10 individuals distributed randomly per replicate container. After 10 days, test animals were removed by gently sieving the contents of each beaker through a nitex mesh screen. Animals were collected on the screen and final counts were made.

2.3.3 Suspended Particulate Phase Toxicity Tests

The test solution used in the suspended-particulate phase bioassays was prepared by mixing seawater and test sediment to yield a volumetric sediment:water ratio of 1:4. Mechanical mixing, using a stainless steel impeller, was applied to vigorously agitate the mixture for 30 minutes. After a 1-hour settling period, the supernatant was drained from the top of the mixing chamber. This material was considered to be 100 percent elutriate and was used to mix the concentrations used for all suspended-particulate phase testing.

The 100 percent elutriate was diluted with clean seawater to prepare the four test concentrations, which were 0 percent (control, no supernatant), 10, 50, and 100 percent supernatant solutions. The test material was distributed to individual test chambers, and initial water quality readings were taken. Readings included dissolved oxygen, pH, temperature, ammonia, and salinity. If dissolved oxygen was found to be below 60 percent of saturation, all

test chambers were aerated. Testing was initiated by randomly adding test organisms to individual test chambers. Water quality was monitored daily thereafter to ensure proper and constant test conditions and was found to be acceptable.

2.3.4 Bioaccumulation Phase

Bioaccumulation testing was performed using the polychaete worm (*Nereis virens*) and the bent-nose clam (*Macoma nasuta*) over a 28-day test period under flow-through conditions. Testing was initiated using reference and test sediments in the same manner as described for the 10-day solid phase tests. For this test, however, 10-gallon glass aquariums were stocked with 10 polychaete worms and 35 clams per replicate. This number of organisms is necessary to generate the amount of biomass necessary to conduct all the required chemical analyses. The chambers were maintained under flow-through conditions and daily water quality measurements were taken on each chamber as specified in the 28-day test.

Upon test termination, the reference and test sediments were sieved to remove the worms and clams. Surviving animals were placed, by replicate, in clean sand in an aquarium and held under flow-through conditions to depurate for 24 hours. Sediments eliminated by the animals during depuration were removed periodically. Following depuration, animals were carefully removed from the holding chambers, placed into labeled, zipper-sealed plastic storage bags, and frozen. Each bag was assigned a random number. Frozen test tissue was transported to CRG for chemical analyses.

A suite of chemical analyses similar to that used to test sediments was applied to the bioaccumulation tissue samples. The constituents analyzed, along with their respective target detection limits, are included in Table 2.

2.4 Statistical Analyses

Statistical analyses were used to evaluate all test results following the guidelines in the *Green Book* and *ITM*. In cases where average survival in the test medium equals or exceeds that of the reference, no statistical analysis was performed. Dunnett's test using the statistical software TOXCALC (Tidepool 1992) was conducted on suspended-particulate phase results to assess significant reductions in fish and mysid shrimp survival or normality in bivalve larvae test. A one-tailed *t*-test using the Microsoft Excel data management tool was used for solid phase test results comparing the test exposure mean survival values to the mean reference values.

Statistical analysis of the bioaccumulation test data compared tissue concentrations from animals held in reference sediments to concentrations from tissues exposed to test sediments. Significance was determined with a one-tailed *t*-test using the Microsoft Excel data management tool. For treatment units with analytes measured below the detection limit, statistical tests were carried out using an average of the concentrations from replicates in which the analyte was detected. In this case, a minimum of three replicates with concentrations above the detection limit was required for statistical testing, and an assumption of unequal variance was adopted as an assumption for the test. In cases where reference tissue levels exceeded treatment levels, no statistical analyses were performed.

3.0 RESULTS

3.1 Field Collection

Field sampling was undertaken on 4 and 5 December 2002. Field logs are included in Appendix A and photographic documentation of the core samples is included in Appendix B.

3.2 Physical Results

The results of the grain size analyses are presented in Table 4. The majority of Site 1 and the Harbor Reference material was found to be primarily fine-fraction sediments whereas the majority of the Site 2 and Ocean Reference sediments were mostly sand. The laboratory grain size data sheets are contained in Appendix C. Additional general chemistry data is presented in Table 5.

Table 4
Grain Size

Particle Size	Units	Site 1 Composite	Site 2 Composite	Ocean Reference Site	Harbor Reference Site
Sand (>74µm)	%	18	65	55	22
Fines (<74µm)	%	82	35	45	78

Table 5
General Chemistry Summary

Parameter	Site 1						Reference Sites	
	1-1	1-2	1-3	1-4	1-5	1-Comp	Ocean	Harbor
Total Solids (TS), %	66.9	74.9	68.6	69.8	76.8	74.4	75.6	60.8
Total Organic Carbon, % dry wt.	1.69	0.18	1.17	1.6	0.16	1.86	0.56	1.12
Total Sulfides, mg/kg	ND	4.0	20	2.9	0.39	4.3	ND	0.49
Soluble Sulfides, mg/kg	ND	ND	ND	ND	ND	ND	ND	ND
Ammonia-N, mg/kg	6.3	ND	4.9	2.0	0.73	2.6	5.0	2.3

Parameter	Site 2							Reference Sites	
	2-1	2-2	2-3	2-4	2-5	2-6	2-Comp	Ocean	Harbor
Total Solids (TS), %	64.9	63.7	63.5	64.9	69.4	61.8	65.1	75.6	60.8
Total Organic Carbon, % dry wt.	0.68	0.87	1.91	2.06	1.75	1.84	0.97	0.56	1.12
Total Sulfides, mg/kg	3.6	12	11	7.1	3.5	2.9	15	ND	0.49
Soluble Sulfides, mg/kg	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ammonia-N, mg/kg	38	29	25	21	5.5	37	21	5.0	2.3

ND = Not Detected within reporting limits
Comp = composite

3.3 Bulk Sediment Chemistry Results

The chemical levels obtained in this study have been compared to the effects range-low (ERL) and the effects range-median (ERM) values. ERLs and ERMs were developed by comparing toxicity effects and chemistry results for numerous studies (Long et al. 1995) and are used as rough benchmarks indicating possible toxicity. The ERL is calculated as the lower 10th percentile concentration of the available sediment data identified as toxic by the original studies investigators (Buchman 1999). The ERM is the median concentration of the compiled data. Original laboratory sediment chemistry reports are included in Appendix D.

Metal and General Chemistry

The variety of metals detected in individual core samples was generally reflected in the composite sample values. A summary of the results is found in Table 6. Site 1 sediments did not exceed any metal ERM values, though some individual core samples exceeded ERL values for copper, nickel, and mercury. Mercury was the only metal to exceed the ERL in the Site 1 composite sample. Site 2 sediments generally exceeded ERL values for arsenic, copper, nickel, and mercury. Sporadic ERL exceedances for lead were also observed in Site 2 individual core sediments. Although the ERM for mercury (0.71 mg/kg) was exceeded only in Core 2 of Site 2 (0.895 mg/kg), exceedance was also observed in the Site 2 composite (0.746 mg/kg).

Organic Chemistry

A summary of the organic chemistry results can also be found in Table 6. Of the chlorinated pesticides, only DDT and its derivatives were detected in the sediment samples. DDT and its derivatives were detected in all of the Site 1 core samples, the Site 1 composite sample, five of the six Site 2 core samples, and the Site 2 composite sample. Of those samples, the ERL for total DDTs was exceeded in four of the five Site 1 core samples, the Site 1 composite sample, four of the six Site 2 core samples, and the Site 2 composite sample. Total DDTs were detected in both reference sites between the ERL and ERM values. The total DDTs' ERM value was not exceeded in any of the samples.

Polychlorinated biphenyls (PCBs) and phenols were not detected in any of the samples. Total phthalates were detected in all but one of the Site 1 core samples and one of the Site 2 core samples; all values were below ERL values.

Total polycyclic aromatic hydrocarbons (PAHs) were found in all core samples and composite samples. None of the samples exceeded the total PAHs' ERL values. However, acenaphthene, fluorene, anthracene, and pyrene were detected above their respective ERL values (see Table 6). Reference sediments did not exhibit PAH concentrations above their respective reporting limits.

Table 6
Bulk Sediment Chemistry Results

Analytes	Units (dry wt.)	ERL	ERM	Site 1						Reference Sites	
				1-1	1-2	1-3	1-4	1-5	1-Comp	Ocean	Harbor
Arsenic	mg/kg	8.2	70	5.78	4.18	7.50	4.07	2.56	3.83	ND	7.47
Cadmium	mg/kg	1.2	9.6	0.656	0.187	0.532	0.232	0.227	0.259	ND	0.719
Chromium (total)	mg/kg	81	370	43.7	21.0	46.4	30.2	17.2	28.0	13.5	45.4
Copper	mg/kg	34	270	***52.7***	22.4	***44.2***	31.9	17.4	27.4	6.88	***48.4***
Lead	mg/kg	46	218	23.5	14.3	***50.7***	23.9	23.2	19.7	3.97	26.8
Nickel	mg/kg	20.9	51.6	***29.7***	11.1	19.7	14.8	10.3	15.4	6.74	**27.2**
Selenium	mg/kg	-	-	ND	ND	ND	0.748	ND	ND	ND	ND
Silver	mg/kg	1	3.7	0.301	ND	0.270	0.208	0.201	ND	ND	0.879
Zinc	mg/kg	150	410	99.6	51.4	92.3	65.5	43.8	60.6	34.5	111
Mercury	mg/kg	0.15	0.71	***0.200***	***0.164***	***0.452***	***0.259***	0.119	***0.211***	0.032	***0.191***
TRPH	mg/kg	-	-	54	50	150	91	46	66	43	54
Total PCBs	µg/kg	-	-	ND	ND	ND	ND	ND	ND	ND	ND
Total Phenols	µg/kg	-	-	ND	ND	ND	ND	ND	ND	ND	ND
Total Phthalates	µg/kg	-	-	24	88	39	51	ND	44	51	83
Total DDTs *	µg/kg	1.58	46.1	***7.3***	***7.8***	***30***	***13.9***	1.4	***7.8***	***38***	***10***
Total PAHs	µg/kg	4022	44792	265	364	1130	782	166	488	ND	ND
Dibutyltin	µg/kg	-	-	ND	ND	ND	ND	ND	7.5	ND	ND
Monobutyltin	µg/kg	-	-	ND	ND	ND	ND	ND	ND	ND	ND
Tributyltin	µg/kg	-	-	ND	ND	3.1	44.5	ND	40.8	ND	ND

Table 6 (continued)
Bulk Sediment Chemistry Results

Analytes	Units (dry wt.)	ERL	ERM	Site 2							Reference Sites	
				2-1	2-2	2-3	2-4	2-5	2-6	2-Comp	Ocean	Harbor
Arsenic	mg/kg	8.2	70	***8.70***	***12.2***	***11.1***	***10.9***	***9.18***	***8.26***	***10.9***	ND	7.47
Cadmium	mg/kg	1.2	9.6	0.339	0.561	0.503	0.325	0.342	0.585	0.612	ND	0.719
Chromium (total)	mg/kg	81	370	40.6	53.3	54.4	47.9	51.5	64.7	65.2	13.5	45.4
Copper	mg/kg	34	270	***40.7***	***85.3***	***73.0***	***50.0***	***58.4***	***65.1***	***83.2***	6.88	***48.4***
Lead	mg/kg	46	218	43.8	***47.9***	45.6	28.7	33.9	***52.6***	***57.7***	3.97	26.8
Nickel	mg/kg	20.9	51.6	***28.5***	***33.9***	***33.0***	***31.9***	***33.8***	***28.1***	***34.9***	6.74	**27.2**
Selenium	mg/kg	-	-	0.781	1.11	ND	ND	1.04	ND	ND	ND	ND
Silver	mg/kg	1	3.7	0.192	0.310	0.256	0.169	0.169	0.245	0.239	ND	0.879
Zinc	mg/kg	150	410	94.6	130	124	93.9	103	117	146	34.5	111
Mercury	mg/kg	0.15	0.71	***0.395***	***0.895***	***0.503***	***0.246***	***0.329***	***0.582***	***0.746***	0.032	***0.191***
TRPH	mg/kg	-	-	180	220	170	44	140	150	41	43	54
Total PCBs	µg/kg	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Phenols	µg/kg	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Phthalates	µg/kg	-	-	ND	21	140	170	65	120	170	51	83
Total DDTs *	µg/kg	1.58	46.1	ND	***12.3***	***4.7***	ND	***4.5***	***16***	***14.3***	**38**	**10**
Total PAHs	µg/kg	4022	44792	38	622	724	330	935	2570	1100	ND	ND
Dibutyltin	µg/kg	-	-	ND	ND	13.3	ND	ND	ND	ND	ND	ND
Monobutyltin	µg/kg	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tributyltin	µg/kg	-	-	ND	3.5	156	11.8	7.5	ND	ND	ND	ND

* = DDT and its derivatives were the only chlorinated pesticides detected
bold = exceeds the ERL
bold = exceeds the ERM
dry wt. = dry weight
ERL = effects range low
ERM = effects range median

µg/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ND = not detected within reporting limits
PAH = polycyclic aromatic hydrocarbon
PCB = polycyclic aromatic hydrocarbon
TRPH = total recoverable petroleum hydrocarbons

Organotins were detected in two of the five core samples and in the composite sample at Site 1 and four of the six Site 2 core samples. The Puget Sound Dredge Disposal Analysis program (PSDDA) screening level for organotins (73 μg/kg) was exceeded in one of the Site 2 core samples.

3.4 Elutriate Chemistry Results

The results of the elutriate chemistry analyses are presented in Table 7. The results are for the two test sites and one seawater sample that was used to prepare the filtered elutriates. Results are compared to the California Toxics Rule (CTR) ambient water quality criteria or the California Ocean Plan in the case of mercury. Laboratory data results are contained in Appendix E.

Table 7
Elutriate Chemistry Data

Parameter	Units	Site 1	Site 2	Seawater	CTR Criteria (mg/L)
Sulfides		ND	ND	ND	--
Arsenic	mg/L	ND	0.003	ND	0.069
Cadmium	mg/L	ND	ND	ND	0.042
Chromium (total)	mg/L	ND	ND	ND	--
Copper	mg/L	ND	ND	ND	0.0048
Lead	mg/L	ND	ND	ND	0.210
Nickel	mg/L	ND	ND	ND	0.074
Selenium	mg/L	ND	ND	ND	0.290
Silver	mg/L	ND	ND	ND	0.0019
Zinc	mg/L	ND	0.009	0.014	0.009
Mercury	mg/L	ND	ND	ND	0.0005*
Total Aroclor PCBs	μg/L	ND	ND	ND	--
Total Phenols	μg/L	ND	ND	ND	--
Total Phthalates	μg/L	ND	ND	ND	--
Total Pesticides	μg/L	ND	ND	ND	--
Total PAHs	μg/L	ND	ND	ND	--

* = minimum level from the California Ocean Plan
CTR = California Toxics Rule
ND = not detected within reporting limits
PAH = polycyclic aromatic hydrocarbon
PCB = polychlorinated biphenyls

3.5 Bioassay and Bioaccumulation Results

Raw toxicity data is included in Appendix F and bioaccumulation data is included in Appendix G.

3.5.1 Solid Phase Bioassay Results

Solid phase toxicity tests included amphipod (*Ampelisca abdita*) and mysid shrimp (*Americamysis bahia*) protocols. As shown in Table 8, neither the amphipod nor the mysid test demonstrated any statistically significant mortality. The initial amphipod test was repeated because the controls did not meet the 90 percent survival standard set by the *Green Book*.

Table 8
Solid Phase Toxicity Results

Site	Amphipod Mean Survival (%)	Mysid Mean Survival (%)
Control	90	96
Ocean Reference	90	94
Harbor Reference	89	100
Site 1	91	94
Site 2	88	94

3.5.2 Suspended Phase Bioassay Results

The results of the suspended-particulate phase tests performed using silversides (*Menidia beryllina*), mysid shrimp (*Americamysis bahia*), and bivalve larvae (*Mytilus edulis*) are shown in Table 9. No toxicity was observed in either the silverside or mysid tests. The bivalve larvae test for Site 1 indicates that the 100 percent and 10 percent concentrations were statistically significant, but the reduction in normal development was minor. The Site 2 test, however, resulted in a 100 percent reduction in normal larvae in both the 50 and 100 percent elutriate concentrations. The EC_{50} for this test was calculated to be 22.3 percent elutriate.

Suspended particulate phase analyses are not typically conducted on the reference sediment samples (because the control is used for statistical comparisons). For this study, however, a test was conducted on the Harbor Reference sediment. Since this is the first study to be conducted using a reference sediment collected in Los Angeles Harbor, it was determined that conducting suspended particulate tests on this sediment would provide useful information on baseline conditions at this site.

Table 9
Suspended-Phase Toxicity Results

Site	Concentration (%)	Silverside Average Survival (%)	Mysid Average Survival (%)	Bivalve Average Normal Development (%)
Control	0	100	96	99
Harbor Reference	10	100	100	97
	50	100	100	91*
	100	100	98	89*
Site 1	10	100	94	97*
	50	100	98	98
	100	100	96	96*
Site 2	10	100	98	98
	50	100	96	0*
	100	100	92	0*

*indicates statistically significant toxicity

3.5.3 Bioaccumulation Test Results

Bioaccumulation results are summarized in Table 10 through 13. Table 10 is a comparison of the metal levels in organisms exposed to the ocean reference sediment to those in organisms exposed to test sediment. A comparison of the metal levels in tissue exposed to Harbor Reference sediment is summarized in Table 11. Tissue levels of organic chemicals in Ocean Reference (Table 12) and Harbor Reference (Table 13) exposures are also presented. In general, the levels of metals in test tissue were low. No pesticides or PCB were detected in any of the samples tested. PAH bioaccumulation was observed in many of the samples. The results are discussed in more detail in the Section 4.4.

3.6 Quality Assurance and Quality Control

Routine *Green Book* and *ITM* standard operating procedures were employed during all phases of this study. This included proper sediment collection and handling procedures; analyzing samples within holding times; method blank and laboratory control analyses at required frequencies; and using EPA-approved testing methods with state-of-the-art instrumentation. For bulk sediment chemistry test, all matrix spike analyses were within acceptable limits. Surrogate analyses were also within acceptable control limits. Due to matrix interferences, the target detection limits were not met for several samples.

Table 10
Metals Bioaccumulation Results
Ocean Reference Tissue Compared to Test Tissue

Analyte (mg/kg dry wt.)	Clam Ocean Reference		Clam Site 1		Clam Site 2		Worm Ocean Reference		Worm Site 1		Worm Site 2	
	Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.
% Solids	11.3	1.44	10.0	0.88	11.2	0.50	13.9	1.08	14.5	1.38	14.2	0.75
Arsenic (As)	12.7	0.95	13.7	2.21	13.0	1.40	11.0	0.97	9.9	0.72	9.8	0.90
Cadmium (Cd)	0.16	0.041	0.16	0.015	0.14	0.022	0.15	0.027	0.14	0.019	0.14	0.019
Chromium (Cr)	6.6	0.97	6.8	1.77	6.8	1.34	4.9	3.71	3.2	0.49	3.5	0.39
Copper (Cu)	15.4	2.19	**21.0***	4.22	17.0	2.98	7.8	1.19	8.2	0.47	8.5	0.85
Lead (Pb)	2.0	0.35	**3.8***	0.89	**3.3***	0.88	0.7	0.18	0.6	0.10	0.8	0.09
Mercury (Hg)	0.15	0.034	0.16	0.032	0.14	0.034	0.15	0.057	0.18	0.025	0.17	0.037
Nickel (Ni)	3.3	0.56	3.4	0.54	3.6	0.77	1.2	0.18	1.0	0.22	1.2	0.11
Selenium (Se)	1.8	0.20	1.8	0.17	1.8	0.15	1.8	0.33	1.7	0.25	1.6	0.25
Silver (Ag)	0.23	0.046	0.19	0.067	0.19	0.036	0.07	0.045	0.04	0.012	0.05	0.009
Zinc (Zn)	67.6	10.28	76.4	12.6	61.3	9.77	95.0	37.87	41.4	23.1	66.1	47.4

***indicates statistically elevated compared to reference tissue ($p \leq 0.05$)**
dry wt. = dry weight
mg/kg = milligram per kilogram
Std. Dev. = standard deviation

Table 11
Metals Bioaccumulation Results
Harbor Reference Tissue Compared to Test Tissue

Analyte (mg/kg dry wt.)	Clam Harbor Reference		Clam Site 1		Clam Site 2		Worm Harbor Reference		Worm Site 1		Worm Site 2	
	Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.
% Solids	11.0	0.67	10.0	0.88	11.2	0.50	13.1	2.15	14.5	1.38	14.2	0.75
Arsenic (As)	13.1	1.45	13.7	2.21	13.0	1.40	10.0	1.53	9.9	0.72	9.8	0.90
Cadmium (Cd)	0.16	0.029	0.16	0.015	0.14	0.022	0.14	0.023	0.14	0.019	0.14	0.019
Chromium (Cr)	7.3	1.14	6.8	1.77	6.8	1.34	4.2	2.06	3.2	0.49	3.5	0.39
Copper (Cu)	18.0	3.24	21.0	4.22	17.0	2.98	7.6	0.32	**8.2***	0.47	**8.5***	0.85
Lead (Pb)	2.8	0.52	**3.8***	0.89	3.3	0.88	0.6	0.14	0.6	0.10	0.8	0.09
Mercury (Hg)	0.15	0.03	0.16	0.032	0.14	0.034	0.15	0.04	0.18	0.025	0.17	0.037
Nickel (Ni)	4.2	0.51	3.4	0.54	3.6	0.77	1.0	0.08	1.0	0.22	**1.2***	0.11
Selenium (Se)	1.8	0.16	1.8	0.17	1.8	0.15	1.8	0.31	1.7	0.25	1.6	0.25
Silver (Ag)	0.19	0.034	0.19	0.067	0.19	0.036	0.06	0.011	0.04	0.012	0.05	0.009
Zinc (Zn)	68.2	12.80	76.4	12.6	61.3	9.77	78.3	79.29	41.4	23.1	66.1	47.4

***indicates statistically elevated compared to reference tissue ($p \leq 0.05$)**
dry wt. = dry weight
mg/kg = milligram per kilogram
Std. Dev. = standard deviation

Table 12
Organics Bioaccumulation Results
Ocean Reference Tissue Compared to Test Tissue

Analyte (µg/kg dry wt.)	Clam Ocean Reference		Clam Site 1		Clam Site 2		Worm Ocean Reference		Worm Site 1		Worm Site 2	
	Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.
% Solids	11.3	1.44	10.0	0.88	11.2	0.50	13.9	1.08	14.5	1.38	14.2	0.75
Pesticides	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-
PCBs	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-
Acenaphthene	ND	-	ND	-	23	11.4	ND	-	ND	-	68	42.5
Acenaphthylene	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-
Anthracene	ND	-	ND	-	110	16.5	ND	-	45	17.0	147	40.4
Benz[a]anthracene	ND	-	89	59.1	260	18.0	ND	-	ND	-	79	29.0
Benzo[a]pyrene	ND	-	591	179.9	464	86.0	ND	-	61	16.3	56	53.3
Benzo[b]fluoranthene	ND	-	639	177.0	579	61.7	ND	-	83	33.5	88	45.3
Benzo[g,h,i]perylene	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-
Benzo[k]fluoranthene	ND	-	403	113.1	330	38.8	ND	-	86	32.2	80	31.4
Chrysene	ND	-	147	38.0	400	14.4	ND	-	ND	-	183	121.5
Dibenzo[a,h]anthracene	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-
Fluoranthene	ND	-	ND	-	721	99.3	ND	-	23	4.7	341	148.9
Fluorene	ND	-	ND	-	19	5.5	ND	-	ND	-	29	-
Indeno[1,2,3-c,d]pyrene	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-
Naphthalene	ND	-	45	-	ND	-	66	8.3	73	21.1	109	113.6
Phenanthrene	ND	-	ND	-	147	50.3	ND	-	37	-	359	92.4
Pyrene	ND	-	615	107.1	1259	463.0	ND	-	107	60.0	363	226.0
Average Total PAHs	ND	-	1854	1062.5	3690	1796.4	22	34.4	301	223.2	1717	822.5

dry wt. = dry weight
µg/kg = microgram per kilogram
PAHs = polycyclic aromatic hydrocarbons
PCBs = polychlorinated biphenyls
Std. Dev. = standard deviation

Table 13
Organics Bioaccumulation Results
Harbor Reference Tissue Compared to Test Tissue

Analyte (µg/kg dry wt.)	Clam Harbor Reference		Clam Site 1		Clam Site 2		Worm Harbor Reference		Worm Site 1		Worm Site 2	
	Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.	Average	Std. Dev.
% Solids	11.0	0.67	10.0	0.88	11.2	0.50	13.1	2.15	14.5	13.8	14.2	0.75
Pesticides	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-
PCBs	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-
Acenaphthene	ND	-	ND	-	23	11.4	ND	-	ND	-	68	42.5
Acenaphthylene	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-
Anthracene	ND	-	ND	-	110	16.5	20	6.4	45	17.0	147	40.4
Benz[a]anthracene	ND	-	89	59.1	260	18.0	ND	-	ND	-	79	29.0
Benzo[a]pyrene	ND	-	591	179.9	464	86.0	ND	-	61	16.3	56	53.3
Benzo[b]fluoranthene	ND	-	639	177.0	579	61.7	ND	-	83	33.5	88	45.3
Benzo[g,h,i]perylene	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-
Benzo[k]fluoranthene	ND	-	403	113.1	330	38.8	ND	-	86	32.2	80	31.4
Chrysene	ND	-	147	38.0	400	14.4	ND	-	ND	-	183	121.5
Dibenzo[a,h]anthracene	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-
Fluoranthene	ND	-	ND	-	721	99.3	ND	-	23	4.7	341	148.9
Fluorene	ND	-	ND	-	19	5.5	ND	-	ND	-	29	-
Indeno[1,2,3-c,d]pyrene	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-
Naphthalene	ND	-	45	-	ND	-	61.7	-	73	21.1	109	113.6
Phenanthrene	ND	-	ND	-	147	50.3	ND	-	37	-	359	92.4
Pyrene	ND	-	615	107.1	1259	463.0	ND	-	107	60.0	363	226.0
Average Total PAHs	ND	-	1854	1062.5	3690	1796.4	20	25.4	301	223.2	1717	822.5

dry wt. = dry weight
µg/kg = microgram per kilogram
PAHs = polycyclic aromatic hydrocarbons
PCBs = polychlorinated biphenyls
Std. Dev. = standard deviation

4.0 DISCUSSION

4.1 Sediment Chemistry

The chemistry results indicate elevated metal levels in most samples. Mercury was the most prevalent metal contaminant: it exceeded the ERL value in almost all samples and only exceeded the ERM value in two samples (Core 2 in Site 2 and the Site 2 composite). Overall, metals concentrations in the test samples were generally lower than the Harbor Reference site but higher than the Ocean Reference site. DDT and its derivatives (the only pesticide detected) were also detected and exceeded the ERL value in 12 of the 13 samples, but not the ERM value. Generally, the test site total DDTs values were lower than the ocean reference site. PAHs did not exceed the ERL values for either site and were not detected in the reference site samples. Organotins were detected in the test samples; only 1 core in Site 2 had levels of tributyltin above the PSDDA screening level of 73 μg/kg TBT.

4.2 Elutriate Chemistry

All chemicals were found to be "nondetect" in Site 1 elutriate. Only arsenic (0.003 mg/L) and zinc (0.009 mg/L) were detected in the Site 2 elutriate. The arsenic level is well below the CTR criteria level of 0.069 mg/L. The zinc level is equal to the CTR criteria level of 0.009 mg/L, but it should be noted that the seawater used to prepare the elutriate sample had a zinc level of 0.014 mg/L. The results indicate that dissolved contaminants are not a problem in the test sediment.

4.3 Bioassay Tests

4.3.1 Solid Phase Tests

Survival of amphipods and mysid shrimp was high for all treatments ranging from 88 percent to 100 percent. These results indicate that the Berths 145-147 test sediments are not toxic to benthic test organisms. Therefore, the proposed dredged material is not predicted to cause adverse benthic effects at either the ocean or harbor disposal sites and is in compliance with Clean Water Act and Ocean Dumping Law criteria.

4.3.2 Suspended Particulate Phase Tests

No mortality was observed in any of the *Menidia* exposures. Survival was high in all the mysid shrimp exposures ranging from 92 percent to 100 percent. Normality of bivalve larvae for Site 1 and the Harbor Reference sediment were high; values ranged from 89 percent to 99 percent. There was significant abnormality observed in the Site 2 exposure. The filtered elutriate chemistry analyses did not indicate that a particular chemical was present in elevated levels. No normal larvae were observed in the 50 percent and 100 percent elutriate concentrations; the EC_{50} for the Site 2 test was 22.3 percent elutriate.

The bivalve water quality data (Appendix Table F-22) strongly indicates that the toxicity observed in the Site 2 bivalve larvae test was due to the elevated ammonia levels in the elutriate water. At test initiation (time = 0 hr), the total ammonia level in the 100 percent

elutriate concentration was 15.7 mg/L. This can be converted to unionized ammonia (the toxic form of ammonia) using the initial test temperature of 14.8°C and the pH level of 8.13.

The resulting unionized ammonia concentration is 0.55 mg/L. Studies by Tang (1997) and Nicely (2000) found unionized ammonia EC_{50} levels for mussel larvae development of 0.19 and 0.12 mg/L, respectively. They also both reported a no observed effects concentration (NOEC) of 0.08 mg/L and lowest observable effects concentrations (LOEC) of 0.15 mg/L unionized ammonia. Based on the unionized ammonia level in the Site 2 suspended particulate elutriate (0.55 mg/l), it is clear that unionized ammonia is the likely cause of the observed toxicity. Since ammonia is a naturally occurring toxicant that would be rapidly dispersed at either disposal site, no effects on water column organisms would be expected.

These results indicate that the proposed dredged material meets the criterion for no water column impacts at the ocean or harbor disposal sites.

4.4 Bioaccumulation Tests

Metals

The metal levels in clams and worms exposed to test sediment were compared statistically to the level in reference sediment using a one-tailed *t*-test ($p \leq 0.05$). These analyses were done using the Ocean Reference site tissues and the Harbor Reference site tissues.

For the Ocean Reference site comparisons, only copper in Site 1 and lead in Sites 1 and 2 clam tissue was found to be statistically elevated (Table 10). No metals were found to be at statistically significant levels in worm tissue for the ocean reference site test. The significant copper level in clam tissue (21.0 mg/kg) was only 1.4 times the average concentration in the Ocean Reference tissue level (15.4 mg/kg). The significant lead level in Site 1 clam tissue (3.8 mg/kg) and Site 2 test tissue were only 1.7 and 1.9 times the Ocean Reference tissue level (2.0 mg/kg), respectively.

For the Harbor Reference comparisons, lead was statistically significant in Site 1 clam tissue, while copper was statistically significant in Sites 1 and 2 worm tissue and nickel in Site 2 worm tissue (Table 11). Again, the level of elevated bioaccumulation in the test tissues compared to the harbor reference was relatively low. The lead level in the Site 1 test tissue (3.8 mg/kg) was 1.4 times that of the Harbor Reference level (2.8 mg/kg). The worm levels of copper were Site 1 and 2 test tissue was 1.1 times the Harbor Reference level (7.6 mg/kg) for both sites. The Site 2 nickel level (1.2 mg/kg) was only 1.2 times the Harbor Reference tissue level (1.0 mg/kg).

The fact that several tissue samples exposed to test sediments had statistically elevated levels for certain metals does not indicate that ecological impacts would occur at the disposal site. This decision is based upon factors such as toxicological importance of the contaminants, the degree and severity of bioaccumulation, and the potential for biomagnification of contaminants. The metal results indicate that the degree of bioaccumulation in organisms exposed to test

sediment was minor (no test tissue was more than 2 times its corresponding reference tissue level). These results would not preclude disposal at either the ocean or harbor site.

Organics

The three types of organic contaminants measured in reference and test tissue were organochlorine pesticides, PCBs, and PAHs. No pesticides or PCBs were detected in any of the reference or test tissues (Tables 12 and 13). PAHs were detected in both clams and worms for both sites. The reference site clam tissues were not at detectable concentrations for PAHs, while both reference site worm tissues had low levels of the PAH naphthalene.

To determine if there are potential ecological impacts at the ocean or harbor disposal sites that could be associated the presence of PAHs at the concentrations presented in Tables 12 and 13, a comparison to regulatory standards can be made.

The Food and Drugs Administration (FDA) has Action Levels for Poisonous and Deleterious Substances in Fish and Shellfish for Human Food. There are Action Levels for six chemicals measured in this study (mercury, chlordane, DDT + DDE, dieldrin + aldrin, heptachlor + heptachlor epoxide, and PCBs); none of these chemical exceeded the Action Levels. There are no Action Levels for PAHs. The EPA does, however, have fish tissue screening level guidelines for cancer and non-cancer risk for several of the PAHs analyzed in this study (USEPA 1997). These guidelines are presented in Table 14.

Table 14 first compares the dry weight ERL and ERM benchmark values to the test sediment results. This comparison indicates that Site 2 sediment was slightly above the ERLs for acenaphthene and fluorine and that there is a low likelihood of toxicity due to exposure to the sediment. This was confirmed by the lack of toxicity observed in the solid phase tests.

Table 14 also compares the EPA's wet weight guideline values for screening level hazard comparisons for humans were compared to the wet weight PAH levels in clam and worm tissue. This comparison indicates that benzo(a)pyrene in clam tissue for both test sites (59.1 and 52.0 μg/kg), respectively exceeded the cancer risk concentration of 15 μg/kg for humans. No other PAHs exceeded cancer or non-cancer guideline levels.

Benzo(a)pyrene bioaccumulation in clams is a potential concern because (1) benzo(a)pyrene is a known carcinogen, and (2) clams are not able to metabolize PAHs and are, therefore, able to pass them to higher trophic levels. The EPA guidelines presented in Table 14 are for fish and not clam tissue. Applying a trophic transfer rate from clams to fish of 0.1 to the benzo(a)pyrene concentration in the clam tissue would result in fish tissue levels of 5.9 and 5.2 for Sites 1 and 2, respectively (USEPA 2000). These levels are below the EPA cancer guidelines for humans benzo(a)pyrene. Therefore, disposal of the proposed dredged material at either the ocean or harbor sites would not likely cause significant bioaccumulation impacts for humans.

Table 14
PAH Concentrations Compared to NOAA ERLs and ERMs and EPA Screening Level Hazard Guidelines

Analyte	Sediment ERL (µg/kg dry wt.)	Sediment ERM (µg/kg dry wt.)	Site 1 Sediment Composite (µg/kg dry wt.)	Site 2 Sediment Composite (µg/kg dry wt.)	Fish Tissue Conc. = EPA 10^{-5} Risk (µg/kg wet wt.)	Fish Tissue EPA Noncancer Hazard Quotient = 1 (µg/kg wet wt.)	Site 1 Clam (µg/kg wet wt.)	Site 1 Worm (µg/kg wet wt.)	Site 2 Clam (µg/kg wet wt.)	Site 2 Worm (µg/kg wet wt.)
Acenaphthene	16	500	ND	***21***		650000	ND	ND	2.6	9.7
Acenaphthylene	44	640	ND	ND			ND	ND	ND	ND
Anthracene	85.3	1100	16	44		3200000	ND	6.5	12.3	20.9
Benzo[a]anthracene	261	1600	20	54	150		8.9	ND	29.1	11.2
Benzo[a]pyrene	430	1600	69	100	15		***59.1***	8.8	***52.0***	8.0
Benzo[b]fluoranthene			89	140	150		63.9	12.0	64.8	12.5
Benzo[g,h,i]perylene			28	30			ND	ND	ND	ND
Benzo[k]fluoranthene			69	100	1500		40.3	12.5	37.0	11.4
Chrysene	384	2800	50	100	15000		14.7	ND	44.8	26.0
Dibenzo[a,h]anthracene	63.4	260	ND	ND	15		ND	ND	ND	ND
Fluoranthene	600	5100	16	92		430000	ND	3.3	80.8	48.4
Fluorene	19	540	ND	***21***		430000	ND	ND	2.1	4.1
Indeno[1,2,3-c,d]pyrene			21	24	150		ND	ND	ND	ND
Naphthalene	160	2100	ND	32		430000	4.5	10.6	ND	15.5
Phenanthrene	240	1500	ND	57		3200000	ND	5.4	16.5	51.0
Pyrene	665	2600	110	290		320000	61.5	15.5	141	51.5
AverageTotal PAHs	4022	44792	448	1100			185	43.6	413	244

bold = concentrations that exceed guideline levels
dry wt. = dry weight
µg/kg = microgram per kilogram
PAHs = polycyclic aromatic hydrocarbons
wet wt. = wet weight

For assessing potential bioaccumulation risk to ecological receptors, measures of exposure for a chemical of potential concern (COPC) can be compared to ecotoxicity reference values (ERVs) for that COPC and receptor group type (Table 15). For developing appropriate ERVs, receptor group types include aquatic mollusks (relevant for clam tissues) and aquatic annelids (relevant for worm tissues). Briefly, ERVs are applied as critical tissue values (CTVs) for effects-based whole-body concentrations of COPCs in the appropriate aquatic receptor groups.

Measures of bioaccumulation exposure for COPCs in the aquatic receptor groups can be assessed as whole-body concentrations for a COPC in a particular receptor. This "critical body residue" approach is a method for assessing exposure estimates for COPCs in aquatic receptors in complex and/or multistep food web systems (e.g., McCarty and Mackay 1993; Jarvinen and Ankley 1999; Jarvinen et al. 1998; Field 1998). It is noted that: "Biomarkers and tissue residues are particularly useful when exposures across many pathways must be integrated and when site-specific factors influence bioavailability." (USEPA 1998; p. 69).

Effects-based critical body residues are referred to as CTVs. COPC concentrations in whole-body samples of clams and worms can be compared to effects-based whole-body residue levels for a COPC in mollusks and annelids, respectively (Table 15). The analysis presented on Table 15 indicates that the PAHs levels in calm and worm tissue observed in this study are well below the level where adverse effects would be expected.

5.0 RESULTS SUMMARY

The following is a summary of the study results.

- No solid phase toxicity was observed, therefore the proposed dredged material meets the limiting permissible concentration (LPC) for benthic impacts.
- No suspended particulate phase toxicity in Site 1 sediment test, therefore the Site 1 LPC for water column impacts is met.
- No silverside or mysid shrimp suspended particulate toxicity in Site 2. Toxicity was observed in the Site 2 bivalve larvae test, but evidence indicates it was caused by elevated unionized ammonia levels. The LPC for water column impacts is, therefore, met by Site 2 sediment.
- Low levels of metal bioaccumulation, no pesticide or PCB bioaccumulation, and acceptable levels of PAH bioaccumulation were observed, therefore the dredged material meets the LPC for bioaccumulation impacts.

Table 15
PAH Concentrations in Test Tissue Samples Compared to Available Effects-Based Critical Tissue Values

Analyte (all values wet wt.)	Site 1 Clam (µg/kg)	Site 2 Clam (µg/kg)	Clams/molluscs (whole body) (USACE)[a]		Site 1 Worm (µg/kg)	Site 2 Worm (µg/kg)	Worms/annelids (whole body) (USEPA/Duluth)[b]		Worms/annelids (whole body) (USACE)[a]	
			No Effect[c] (µg/kg)	Adverse Effect[c] (µg/kg)			No Effect[c] (µg/kg)	Adverse Effect[c] (µg/kg)	No Effect (µg/kg)	Adverse Effect[c] (µg/kg)
Acenaphthene	ND	2.6		29400	ND	9.7				
Acenaphthylene	ND	ND			ND	ND				
Anthracene	ND	12.3			6.5	20.9	3400-52400	6300-52400		
Benzo[a]anthracene	8.9	29.1	600		ND	11.2				
Benzo[a]pyrene	59.1	52.0	2.21-1250	300	8.8	8.0				
Benzo[b]fluoranthene	63.9	64.8			12.0	12.5				
Benzo[g,h,i]perylene	ND	ND			ND	ND				
Benzo[k]fluoranthene	40.3	37.0			12.5	11.4				
Chrysene	14.7	44.8	930		ND	26.0				
Dibenzo[a,h]anthracene	ND	ND			ND	ND				
Fluoranthene	ND	80.8	1290	220	3.3	48.4	12500-250000	25000-250000		
Fluorene	ND	2.1			ND	4.1	189000			
Indeno[1,2,3-c,d]pyrene	ND	ND			ND	ND				
Naphthalene	4.5	ND			10.6	15.5				
Phenanthrene	ND	16.5		30700	5.4	51.0	780	780	780	780
Pyrene	61.5	141	1080		15.5	51.5	0.8-380000	10000-465000	0.8-380000	380000-465000
Average Total PAHs	185	413			43.6	244				

µg/kg = micrograms per kilogram
USACE = US Army Corps of Engineers
USEPA = US Environmental Protection Agency
wet wt. = wet weight
[a]USACE. 2002. Environmental Residue-Effects Database (ERED).
[b]Jarvinen, A.W. and G.T. Ankley. 1999.
[c]effect levels focused on ecologically relevant endpoints of reductions in growth/development, reproduction, or survival.

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1.0 EXECUTIVE SUMMARY

This report presents the results of an environmental characterization of sediments from twelve different berth areas located throughout the Port of Los Angeles (Figure 1, Table 1) where the Los Angeles Harbor Department (Port) plans to conduct maintenance dredging. The planned dredging will involve removing approximately 87,650 cubic yards of sediment to various dredge depths. In addition to maintenance dredging, this report also presents the results of an environmental characterization of sediments to be dredged as part of a future deepening project at Berths 122 through 131. The total volume of material tested for this future deepening is approximately 84,000 cubic yards, and it encompasses the sediments from the maintenance dredging elevations down to an elevation of –55 ft mean lower low water (MLLW). Samples for future deepening were taken separately from those for the maintenance-dredging program.

Disposal options for sediments to be removed from the berths associated with this program are being studied. Options for clean dredge materials include offshore disposal at LA2; however, reuse of this material would be preferred. For dredge materials meeting criteria for open-water disposal, options include landfill reuse, upland storage, or storage at the Pier 400 submerged storage site being constructed as part of the Channel Deepening Project. For dredge materials not meeting criteria for open-water disposal, reuse in a confined disposal facility or upland disposal site are options.

Of the 12 berth areas proposed for maintenance dredging, recent data (within the last three years) exists for four of the areas. Further testing was not conducted on these sediments. However, for the sake of convenience, the results of the previous testing conducted on the sediments from these four areas are summarized in this report, and the original test reports are referenced. Sampling and testing was carried out as defined in the project Sampling and Analysis Plan (Kinnetic Laboratories/ToxScan, 2003) previously reviewed by the Port and regulatory agencies.

Vibracore samples were taken in each berth area not previously characterized and combined into appropriate composite samples to be representative of the sediment to be dredged. A composite sample consisting of five or six sampling locations was formed for every 10,000 cy or so of material to be removed for maintenance dredging purposes. For future deepening purposes, a composite sample was formed for every 30,000 cy or so of material because of the likelihood that deepening sediments consist of virgin material with less anthropogenic influence.

A phased approach was used for testing each of the sediment composites. For all composite samples, composite testing consisted of bulk sediment physical and chemical analyses and biological and chemical testing of the sediment elutriates. Sediment data were then evaluated using State of California Title 22 criteria and effects range-low (ERL) and effects range-median (ERM) values derived by Long et al. (1995) to see if testing for open water disposal was warranted. Elutriate data were compared to background water and evaluated using chronic and acute criteria promulgated in the California Toxics Rule (40 CFR Part 131, EPA 2000). For those composite samples representing sediments that looked like possible candidates for open water reuse/disposal, additional toxicity testing and bioaccumulation assessments were also conducted. Additional chemical analyses were also performed on individual cores in order to allow for more than one or two disposal options for problematic composite areas.

As specified in the Inland testing Manual (USEPA/USACE 1998), toxicity and bioaccumulation results were statistically evaluated against reference sites that are nearby planned unconfined aquatic disposal

areas and have similar characteristics to those areas. For this study, reference sediments were collected, using a bucket dredge, at the LA2 Reference Site to represent the LA2 Deep Ocean Disposal Area and in the Outer Harbor near Pier 400 to represent in-harbor disposal areas.

The results of this study were used to evaluate the potential suitabilities of reuse/disposal options. Contaminants of concern were found in all composites at concentrations in excess of ERL and/or ERM sediment guidance values. Decisions were made not to further test sediments for open water disposal from Berths 36, 153-155, 165-167, 177-179, and 180-181 because of generally high concentrations of multiple contaminants of concern.

Sediments from most of the other berth areas that were further tested showed fairly substantial bioaccumulation of PCBs and PAHs that would seem to preclude open water disposal as an option, though toxicity of tested sediments generally did not exceed Limiting Permissible Concentrations (LPCs). The bioaccumulation results were evaluated using the USACE Biota/Sediment Accumulation Factors (BSAFs) database to see if the tissue concentrations measured were within expected ranges and with the USACE/USEPA Environmental Residue Effects Database to assess if toxicity results were consistent with the tissue burdens measured. With few exceptions, mostly minor, and within the expected limitations of these generalized databases, the results of these bioaccumulation tests fall within the range of predicted BSAFs values and the toxicity results are generally as expected from the Residue Effects Database.

The lack of toxicity exceeding LPCs and minimal contamination found in elutriate samples should allow the sediments from all berth areas to be suitable for placement at an in-harbor confined aquatic disposal facility. Because all analytes from all samples were below California Code of Regulations Title 22 criteria and very little contaminant leaching occurred, the sediment from all berth areas should also be acceptable for upland disposal.

An initial evaluation of the suitability of each composite sample tested is summarized in the table that follows. Final determinations of suitabilities of these sediments for given categories of reuse/disposal will be made by regulatory agencies and matched to options available to the Port.

Initial Suitability Categories of Tested Sediments for POLA 2003 Maintenance Dredging

Composite Area	Dredge Volume (cy)	Open Water	Confined Aquatic	Upland
36	750	Not Tested	Suitable	Suitable
90-92 & 93A-93B	10,100	Not Suitable	Suitable	Suitable
122-124 Maintenance Dredging	6,500	Suitable	Suitable	Suitable
122-124 Future Deepening	24,000	Not Suitable	Suitable	Suitable
125-126 Future Deepening	29,000	Not Suitable	Suitable	Suitable
127-131 Maintenance Dredging	6,700	Not Suitable	Suitable	Suitable
127-131 Future Deepening	31,000	Not Suitable	Suitable	Suitable
153-155	13,300	Not Tested	Suitable	Suitable
165-166	4,300	Not Tested	Suitable	Suitable
177-179	10,400	Not Tested	Suitable	Suitable
180-181	8,200	Not Tested	Suitable	Suitable
226-231A	25,200	Not Suitable	Suitable	Suitable
226-231B		Not Suitable	Suitable	Suitable
226-231C		Not Suitable	Suitable	Suitable
240B	6,500	Not Suitable	Suitable	Suitable

2.0 INTRODUCTION AND PURPOSE

The Los Angeles Harbor Department (Port) is planning to carry out maintenance dredging at various berths throughout the Port of Los Angeles. The plan involves dredging approximately 87,650 cubic yards of sediment from several berths within the Port to various dredge depths.

Dredging is planned at the twelve berth areas illustrated in Figure 1 and listed in Table 1. Table 1 also presents the proposed dredge depths, estimated dredge material volumes, and sampling requirements for each berth included in this program. The proposed dredge depths and estimated dredge material volumes include a two-foot overdredge allowance.

In addition to maintenance dredging, this report evaluates sediments from Berths 122 through 131 that are proposed for future deepening. Deepening involves dredging sediments from the currently proposed maintenance dredge depth to an elevation of –55 ft MLLW. Samples for testing were taken in this lower layer separately from those for the maintenance-dredging program. The total volume of material tested for this future deepening is approximately 84,000 cubic yards.

Previous dredge material testing data exists for some of the berth areas to be dredged, and current data (within the past three years) exists for Berth 36, Berths 165-166, Berths 240B, and for the upper layer (maintenance dredging) of Berths 122-124. For convenience, the available data for these berths are summarized in this report and the original test reports are referenced. New sampling and testing was only conducted for the berths and layers of sediment for which current data was not available.

Disposal options for sediments removed from the berths associated with this program are being studied. Options for clean dredge materials include offshore disposal at LA2; however, reuse of this material would be preferred. For dredge materials meeting criteria for open-water disposal, options include landfill reuse, upland storage, or storage at the Pier 400 submerged storage site being constructed as part of the Channel Deepening Project. For dredge materials not meeting criteria for open-water disposal, reuse in a confined disposal facility or upland disposal site are options.

The purpose of this present program was to sample and test sediments from within the proposed maintenance dredging areas to provide sediment quality data for evaluation of dredging and disposal options. This report details sampling methods, analytical and biological testing procedures, and presents and discusses the data gathered.

At the request of the Port, an interim report (Kinnetic Laboratories/ToxScan, 2003) presenting sediment and elutriate chemistry results and elutriate bioassay results was prepared for the Berths 226-231 sediments so that the Port could obtain permits for possible placement of the Berths 226-231 sediments into the Southwest Slip Confined Disposal Facility. Subsequent to the report, additional bioassay and bioaccumulation testing was conducted on the sediments to keep open the option for possible unconfined aquatic disposal. The results presented in the interim report are reported and discussed again in this report along with the results from the bioassay and bioaccumulation testing.

2.1 Previous Studies

Previous environmental sampling programs associated with dredging projects within the Port of Los Angeles provide analytical and toxicity data pertinent to several of the berthing areas listed in Table 1. These data are discussed for each berthing area separately below. Bulk sediment chemistry data are discussed in terms of effects range-low (ERL) and effects range-median (ERM) values. These values were derived by Long et al. (1995) as estimates of low (ERL) and median (ERM) concentrations of

certain chemical constituents that are expected to cause toxicity to aquatic organisms. Table 2 lists available ERL and ERM values for selected analytes.

2.1.1 Berth 36

AMEC Earth and Environmental, Inc. (2001a) sampled the Berth 36 sediments in October of 2001. Two locations were sampled with a vibracore to a project depth of –15 ft MLLW. Bulk sediment and elutriate samples were prepared from the sediments at each location. The results of this study are summarized in Appendix A. Sediment analyses revealed nickel at a concentration that exceeded the ERM value in one of the samples. Chlordane was found in concentrations greater than the ERM in both of the samples, and some individual PAHs exceeded the ERM in one of the samples. ERLs for several metals and PAHs were exceeded in one sample. Analyte concentrations in elutriates prepared from the sediments were the same as the analyte concentrations found in the background water. AMEC concluded the Berth 36 sediments were suitable for upland disposal. No further sampling and testing were conducted at this berth.

2.1.2 Berths 90-92 and 93A and 93B

There are no known previous studies conducted in the vicinity of Berths 90-92 and 93A and 93B.

2.1.3 Berths 122-124

There are two recent pertinent studies conducted on the sediments from Berths 122-124. Most recently, AMEC (2001b) sampled Berths 121-124 in February of 2001. Twelve locations were sampled with either a vibracore or pipe dredge. Five of these locations were in front of Berths 122-124. These five locations were combined into a single composite sample and subjected to bulk sediment analyses and bioassay and bioaccumulation assessments. The project depth for this study was –48 ft MLLW. The results of this study are provided in Appendix A. Copper, lead and nickel were found in concentrations between the ERL and ERM. There was no toxicity observed in the test organisms, and only slight bioaccumulation of metals and PAHs were observed in the tissues of clams. There was also no bioaccumulation or toxicity observed from the sediments sampled in front of Berth 121. AMEC concluded that the sediments were suitable for ocean disposal at LA2.

A few years prior to the AMEC (2001b) study, Ogden (1997) sampled the sediments in front of Berths 121-126. Using a vibracore they sampled ten locations; five were in front of Berths 121-124 and five were in front of Berths 125-126. A single composite was made of the five cores in front of Berths 121-124. The project depth was to –47 ft MLLW. Copper and nickel were found in concentrations between the ERL and ERM. Significant bivalve larvae toxicity was observed in the 100% elutriate of the sample. Significant copper bioaccumulation was found in the tissues of clams and significant zinc and arsenic bioaccumulation were found in the tissues of worms. Despite the observed toxicity to bivalve larvae, disposal of the sediments would not exceed the Limiting Permissible Concentration (LPC) at the LA2 ocean disposal site after the 4-hour initial mixing period. The metals bioaccumulation never exceeded 1.4 times the average reference levels. Ogden concluded that the Berths 121-124 sediments were suitable for disposal at the LA2 disposal site.

In 1999, the sediments from Berths 121-124 were dredged and disposed of at LA2. This should have removed the sediments that had the potential to cause adverse biological effects. Based on the AMEC (2001b) study, no further sampling was conducted in 2003 on the sediments slated for maintenance dredging. Additional testing was only conducted on sediments slated for future deepening to –55 ft MLLW.

2.1.4 Berths 125-126

The sediments from Berths 125-126 were sampled and tested in April of 1997 by Ogden (1997) and subsequently dredged in 1999. The dredged sediments were disposed of at LA2.

Ogden (1997) analyzed a single composite from Berths 125-126 comprising five cores. This composite sample was subjected to bulk sediment chemical analysis along with bioassay and bioaccumulation assessments. The results from the composite sample are summarized in Appendix A. The only analytes to exceed the ERL in the composite sample were copper, mercury, and nickel. No analytes exceeded the ERM. Significant chronic and acute toxicity were observed by bivalve larvae exposed to the 100% elutriate made from the composite sediments. Despite the observed water column toxicity, it was determined that Berths 125-126 sediments would not exceed the LPC upon disposal at the LA2 site after initial mixing. Statistically significant bioaccumulation of copper and zinc was found in the tissues of worms exposed to the test sediments. However these concentrations were at levels below 1.4 times the reference tissue concentrations.

Except in one area, significant shoaling has not taken place since the Berths 125-126 sediments were dredged in 1999. Therefore, for most of the area, additional testing was only conducted on sediments slated for future deepening to –55 ft MLLW. In the one shoaled area, a separate sample was collected from one core of the sediments from the mudline elevation to the maintenance dredging depth of –47 ft MLLW.

2.1.5 Berths 127-131

The sediments from Berths 127-131 were most recently sampled in June of 1995 (Ogden, 1995). Using a vibracore, the sediments were sampled to a project depth of –46 ft MLLW. Ten locations were sampled and formed into a single composite sample that was subjected to bulk sediment analyses and bioassay and bioaccumulation assessments. Sediment copper and nickel were the only constituents that exceeded the ERL, and no constituents exceeded the ERM. Significant low-level solid phase toxicity was observed in worms but worm survival was high (84%) in the test sediment, and statistical significance was due to high reference survival (97%) and very low intra-replicate variability in both reference and test sediment exposures. Significant toxicity was also observed for mysid shrimp and bivalve larvae in the 100% sediment elutriate. Despite the observed water column toxicity, it was determined that sediments from Berths 127-131 would not exceed the LPC upon disposal at the LA2 site after initial mixing. Statistically significant bioaccumulation of cadmium and lead was found in the tissues of clams exposed to test sediments, and significant bioaccumulation of selenium was found in the tissues of worms exposed to test sediments. DDE was found in the tissues of both clams and worms after exposure to test sediments, but a higher concentration of DDE was found in tissues from worms exposed to the LA2 reference site. DDE bioaccumulation was statistically significant in clams, primarily because no DDE was detected in Reference clams. The statistical significance of the cadmium, lead and selenium accumulation was probably related to low intra-replicate variability. Ogden concluded that the Berths 127-131 were acceptable for disposal at LA2.

The sediments from Berths 127-131 were dredged in 1996 and disposed of at the LA2 disposal site. Seven years of sediments have accumulated in front of Berths 127-131 since the last dredge operation, therefore additional sampling and testing was conducted on the sediments to be dredged in 2003.

2.1.6 Berths 153-155

There are no known previous studies conducted in the vicinity of Berths 153-155. Therefore these sediments were sampled as part of the 2003 maintenance dredging effort.

2.1.7 Berths 165-166

The sediments from Berths 165-166 were sampled and tested in June of 2002 by Kinnetic Laboratories/ToxScan Inc. (2002). Four cores were collected to a project depth of –40 ft MLLW (-38 ft MLLW plus two feet overdredge allowance). A single composite sample was generated and subjected to bulk sediment and elutriate analyses. Results of this testing program are summarized in Appendix A. These data showed that concentrations of contaminants relative to ERL guidelines were elevated for a series of metals, PAHs, and PCBs. In addition, mercury, DDT compounds, and pyrene were at concentrations that exceeded ERM guidelines. Contaminant concentrations in the elutriate extract were all below applicable water quality criteria. Thus impacts to harbor waters from solubilizing contaminants into the water column during dredging or from return of decant water should not be a problem.

The Kinnetic Laboratories Inc. (2002) study concluded that the approximately 4300 cubic yards of sediments to be dredged from Berths 165-166 are probably not suitable for open water disposal. However, all sediment contaminant concentrations were below Title 22 criteria (CCR Title 22 §66261.24). Therefore, disposal of these sediments should be possible at a landfill or upland site where contact with aquatic organisms is not a factor. Further toxicity and bioaccumulation testing would be required if the possibility of open water disposal was to be considered. No further sampling and testing was conducted for this effort.

2.1.8 Berths 177-179

The last time sediments from Berths 177-179 were dredged was in 1992. ToxScan (1991) performed the dredge and disposal suitability study on one composite sample and found high levels of DDT and PCBs (greater than the ERM) and elevated levels of PAHs. They also observed amphipod and worm toxicity as well as significant bioaccumulation of metals in clams and worms, and DDD in worms. The sediments were placed in the Pier 300 landfill. Because it has been more than three years since the last dredging, additional sampling and testing was conducted on the sediments to be dredged in 2003.

2.1.9 Berths 180-181

There are no known previous studies conducted in the vicinity of Berths 180-181. Therefore these sediments were sampled as part of the 2003 maintenance dredging effort.

2.1.10 Berths 226-231

The last time sediments from Berths 226-231 were dredged was in 1993. ToxScan (1990) performed the dredge and disposal suitability study on one composite sample from Berths 229-232 and found elevated levels of DDE (just short of the ERM). There was no observed toxicity in any of the particulate phase or suspended particulate phase bioassays. There was significant bioaccumulation of several metals and DDE in the tissues of clams and worms exposed to the test sediments. The sediments were disposed of at LA. Because of the 10 years since the last dredging, additional sampling and testing was conducted on the sediments to be dredged in 2003.

Another study that may be relevant was conducted in 1997 on the sediments adjacent to Berths 226-231 at Berths 233-236 (ToxScan, 1997). Two composites were analyzed. There were elevated levels of total DDT, PCBs, and PAHs in both composites. One composite showed significant toxicity to amphipods when compared to the reference site. This composite also showed significant bioaccumulation of DDTs and pyrene in the tissue of clams exposed to the test sediments and of DDTs, PCBs, and copper in the tissue of worms exposed to the test sediments. Sediments from Berths 233-236 have not been dredged since the 1997 testing.

2.1.11 Berth 240B

AMEC (2001c) sampled the Berth 240B sediments in December of 2000. They sampled the sediment of two thin shoaled areas using a vibracore. Three sampling locations were located within one shoaled area and two sampling locations were located within the second shoaled area. Samples were collected to a project depth of −37 ft MLLW in the first shoaled area and −39 ft MLLW in the second shoaled area. Sediments from all five sampling locations were combined into a single composite sample and subjected to bulk sediment analyses and bioassay/bioaccumulation assessments. The results of this study are summarized in Appendix A. Cadmium, copper, lead, and total PAHs were detected in concentrations between the ERL and ERM. Mercury was found at a concentration twice the ERM. No significant toxicity was observed in animals exposed to the sediments or elutriates prepared from the sediments. There was significant bioaccumulation of metals and PAHs in the tissues of clams exposed to the sediments. However, none of the analytes were found in tissues at levels greater than those detected in the sediments to which they were exposed. Based on these results, AMEC deemed these sediments suitable for disposal at LA2. These Berth 240B sediments have yet to be dredged. Since it has been less than three years since the sediments have been tested, no further sampling and testing was conducted.

3.0 SCOPE OF STUDY

3.1 Approach

Vibracore samples were taken in each berth area and combined into appropriate composite samples to be representative of the sediment to be dredged. A total of fifty-one locations were sampled within the Port of Los Angeles maintenance dredging project area (Figure 1). Table 1 lists the dredge elevations, the estimated volume of material to be removed, the number of cores collected, and the composite samples formed from each berth area. Core locations are depicted on Figures 2 through 11 and the final sampling coordinates are listed on Table 3. The figures also depict the approximate limits of the dredging operations at each berth location.

Five sampling locations were cored for approximately each 10,000 cy of material to be dredged. Vertical composites were made from each core according to the sampling intervals listed in Table 3. A subsample from each vertical composite was subjected to bulk sediment physical and chemical analyses. The remainder of each vertical composite was used to form the horizontal composites representing all or portions of each berth area. Composite samples consisted of the sediments from the five (or in one case six) sampling locations within each composite area. The proposed dredge area at Berths 226-231 required three composite samples made from the sediments of fifteen sampling locations. The adjacent dredge areas for Berths 90-92 and Berths 93A-93B required only one composite sample comprising sediments from five sampling locations. The proposed dredge area at Berths 153-155 required one composite sample comprising sediments from six sampling locations. The remaining six proposed maintenance-dredging areas each required one composite sample comprising sediments from five sampling locations each.

In addition to the various composites to be formed for maintenance dredging evaluation, three additional composite samples were formed from the core material below the maintenance dredging project elevations to –55 ft MLLW at Berths 122-124, 125-126 and 127-131 for potential future deepening of these berths. More than half of the sediments from Berths 127-131 were sampled for both maintenance dredging and future deepening, and Berths 122-124 sediments were only sampled for the purpose of future deepening because recent data exists for the sediments to be removed for maintenance dredging. Also, most of the Berths 125-126 sediments were only sampled for the purpose of future deepening because the current mudline elevation is below the intended maintenance dredging elevation. The upper potion of a single core was used to sample the surface sediments (-43.2 to –47 ft MLLW) from a small shoaled area within the Berths 125-126 dredge area. This sample was subjected to only bulk sediment physical and chemical testing to see if the upper sediments within the shoaled area were noticeably different from the sediments to be removed for the future-deepening project. Because of the likelihood that deepening sediments consist of virgin material with less anthropogenic influence, the yardage of material to be dredged for deepening purposes is much larger per composite sample (approximately 30,000 cy) then the approximately 10,000 cubic yards per maintenance dredging composite.

For all composite samples, composite testing consisted of bulk sediment physical and chemical analyses and biological and chemical testing of the sediment elutriates. For those composite samples representing sediments that looked like good candidates for open water disposal, bioaccumulation assessments and additional toxicity testing were also conducted.

As a cost savings measure, a phased approach was used for the evaluation of the maintenance dredging sediments. The chemical and biological testing procedures detailed in the Inland Testing Manual (ITM), (USEPA/USACE 1998) were used to evaluate the suitability of these maintenance-dredged sediments for unconfined aquatic (open water) disposal. After each phase of testing was completed, critical data review

was performed to direct subsequent test phases. If the results of any test phase indicated that the sediment did not qualify for open water disposal, then subsequent testing was directed toward an alternate disposal option, utilizing a confined disposal facility (CDF) within the harbor or an upland site. New guidance (USACE, 2003a) was used to clarify the test procedures on sediments slated for a confined or upland disposal facility.

The first phase of testing for either open water or CDF disposal was bulk sediment chemical analysis on each composite sample. A determination of whether the sediments were hazardous waste was made from the bulk sediment results using Title 22 criteria, supplemented if necessary by WET testing for any analytes that exceed STLC limits. The results were also used to identify sediments that may not be suitable for open water storage or disposal. In addition to the Title 22 criteria, evaluations were made by comparing data with NOAA sediment quality guidelines consisting of ERL and ERM values (Long and Morgan, 1995). These values correlate concentrations of selected contaminants with the likelihood of adverse biological effects. Table 2 lists available ERL and ERM values. Note that ERLs and ERMs have not been developed for all analytes. Those samples that showed low to moderate levels of contamination that would not be expected to produce severe toxicity proceeded to the next phase of open water testing. Sediments with contaminant levels that were judged likely to produce toxicity were further tested following procedures detailed in the Upland Testing Manual (UTM) (USACE 2003a). Three of the twelve composite samples were determined to be unworthy of further testing for open water placement. These composites were made from the sediments of Berths 153-155, 177-179 and 180-181.

This first phase of testing also included elutriate analyses. Both open water and CDF disposal requires chemical analysis of sediment elutriate prepared with water from the dredge site. For open water disposal, the ITM describes methods for preparation of a "standard elutriate", while the UTM requires analysis of an "effluent elutriate," prepared by slightly different methods, for disposal at a confined disposal facility. Elutriate chemistry results were evaluated by comparing them with water quality standards to assure that, after appropriate dilution and mixing have occurred, water quality criteria would not be exceeded. Except for mercury, the water quality criteria used were the "acute" criterion maximum concentrations (CMC) and "chronic" criterion continuous concentrations (CCC) from the California Toxics Rule (40 CFR Part 131, USEPA 2000a). For evaluation purposes, mercury criteria were used from the water quality objectives for marine aquatic life listed in the California Ocean Plan (SWRCB, 2001).

The second phase of testing for CDF disposal, which included the sediments from Berths 153-155, 177-179 and 180-181, is an elutriate bioassay with a single, sensitive water column species. Elutriate toxicity is evaluated to assure that the Limiting Permissible Concentration (LPC) would not be exceeded by effluent water returning to the disposal environment from the CDF.

Testing prescribed by the ITM for open water disposal comprises elutriate bioassays with three water column species, benthic bioassays with two infaunal species, and evaluation of bioaccumulation potential using two sediment-dwelling organisms. After the bioassays were complete, the results were evaluated to determine if sediment toxicity is severe enough to preclude open water disposal.

Following ITM guidelines, results of the test sediments were compared to reference area sediments in the vicinity of the disposal sites. For this study, an in-harbor reference site has been designated between the Pier 400 submerged storage site and the outer harbor breakwater near 33° 43.5' N and 118° 15.5' W (Figure 1). Reference sediment from near the LA2 ocean disposal site (33° 37.1' N and 118° 17.4' W) was also tested.

Suspended particulate-phase (water column) bioassays using mysids, fish and larvae of mussels or oysters were conducted on sediments considered for open-water disposal in the harbor. Standard elutriates were

prepared with water collected from the main channel, and dilution water consisted of clean open-coast seawater at the bioassay laboratory in Santa Cruz. Concurrent bioassays were performed on elutriates and laboratory control water. Results of the elutriate bioassays were statistically compared with control water bioassays. Elutriates that produce significantly greater toxicity than control water were identified, and if mortality and/or development effects were sufficiently high to produce LC50 and/or EC50 values, initial mixing calculations were performed to specify limiting permissible concentrations (LPCs). Sediments that do not exceed their LPCs may be placed at an open-water disposal site.

Solid phase (benthic) bioassays were also conducted on sediments considered for open-water disposal using worms and amphipods. Test sediments underwent bioassay testing concurrently with the reference sediments collected both from the vicinity of the outer harbor disposal site and from the vicinity of the LA2 offshore disposal site, and with control sediments collected from the organisms' home environment. Results of the benthic bioassays were statistically compared with reference sediment bioassay results. Test sediments that produced statistically greater mortality than reference sediments in which test mortality exceeded reference mortality by greater than an allowable percentage, were considered to exceed the Limiting Permissible Concentration (LPC) for disposal.

The 28-day bioaccumulation exposures were performed on sediments considered for open water disposal using worms and clams. Test sediments were exposed concurrently with reference and control sediments. If sediments were not severely toxic to benthic species, the final phase of testing for open water disposal was accomplished by analyzing the tissues of organisms that completed the 28-day exposures to test sediments along with control and reference sediments. Concentrations of metal and organic contaminants in tissues of organisms exposed to reference sediments were compared with concentrations in organisms exposed to test sediments. Constituents that showed statistically significantly elevated concentration in test tissues were considered to be potentially bioaccumulative, and were then evaluated to determine if these levels are biologically important.

4.0 METHODS

4.1 Sampling Methods

4.1.1 Sediment Sampling

Vibracore sampling was conducted from the Kinnetic Laboratories survey vessel the *D.W.HOOD.* This 35-foot survey vessel is equipped with a hydraulic A-frame and winch suitable for handling the coring equipment. Accompanying the *D.W. HOOD,* was a 17-foot Boston Whaler. This chase boat was used to assist the *D.W. HOOD* with three-point anchoring and to transport cores to a shore-based processing area.

Sample coordinates, water depths, and mudline elevations corrected to MLLW were recorded at each sampling location. Navigation and final positioning were conducted using a Garmin 215D series differential GPS navigation system, operating in differential mode. Water depths were measured with a graduated lead line. Tidal stage was determined using *Tide Tool 2.1a* software checked against a local tide gauge. Figures 2 through 11 show the core locations sampled and Table 3 lists the core lengths obtained, mudline and sample recovery elevations, number of cores collected at each sampling location, and final positions of each location.

Coring was conducted with a vibracore built by Kinnetic Laboratories. This vibracore consists of a 4-inch diameter aluminum coring tube lined with clean polyethylene tubing, a stainless steel cutting tip, and a stainless-steel core catcher. The vibrating unit has two counter-rotating motors encased in a waterproof aluminum housing. A three-phase, 240-volt generator powers the motors. The vibracore head and tube were lowered overboard with a hydraulic A-frame and winch. The core tube was allowed to penetrate the surficial materials below the mudline as far as possible under the static weight of the vibracore unit. The unit was then vibrated until it reached project depth plus two feet for overdredge, or until the vibracore was rejected from further penetration. To accurately calculate penetration depth, the lead-line measurements were taken just prior to the coring operation.

After successfully penetrating to the desired depth, power was shut off to the vibracore head, and the vibracore was brought aboard the vessel. A check valve located on at the top of the core tube reduces or prevents sediment loss during pullout. The length of sediment recovered was noted by measuring down the interior of the core tube to the top of the sediment. The core tube was then detached from the vibra-head and the core cutter and catcher were removed. The core liners were then sealed and the core tubes were capped and transported to the shore-based processing facility. Two cores were taken at numerous sampling sites to ensure sufficient material for analytical and biological testing.

Except for the plastic bucket dredge used for reference sediment collection, all sample contact surfaces were either stainless steel, polyethylene, Halar®, or Teflon coated. Compositing tools were stainless steel or Halar®-coated stainless steel. All contact surfaces of the sampling devices were cleaned for each sampling area. The cleaning protocol consisted of a site-water rinse, a Micro-90® soap wash, steam cleaning, and then finished with deionized water rinses.

4.1.2 Water Sampling

Water was collected from the main channel during two different occasions for use in preparing elutriates for chemical analyses and bioassays. A sample of background water was also collected

during each occasion to assess ambient aquatic chemistry. The first set of water samples collected were used exclusively for Berths 226-231. The second set was used for the remaining dredge areas.

A peristaltic pump with Teflon tubing was used to collect water from a depth of 1 ft below the water surface. Water for chemical analysis was pumped into protocol-cleaned 10 liter *borosilicate glass bottles.* Water for biological testing was pumped into 5-gallon polyethylene containers. All water samples were iced and shipped to the analytical laboratory where they were held at 4ºC until used.

4.1.3 Core Processing

Following retrieval, all cores were transported to a shore-based processing area and kept in a refrigerated truck until processed. Sediment cores were processed by extruding the core liners and sediment onto cleaned PVC core racks. The liners were then cut open with a clean pair of scissors. If extrusion was not possible, the core tubes were split lengthwise using a double-cut shears to expose the core liner. Once exposed, sediment that came in contact with the core liner was removed with a pre-cleaned stainless steel spoon.

Before sub-sampling, each core was photographed, measured, and lithologically logged according to the United Soil Classification System (USCS). Additional sediment characteristics including likely sediment origin and other observations were also recorded. Logged physical characteristics for each core can be found in the geotechnical report prepared by Diaz Yourman & Associates and attached as Appendix C.

Following logging, a vertical composite was taken from each core by a vertical scrape protocol that resulted in equal sub-sampling along the entire length of the core. Part of each vertical composite was subjected to separate chemical analysis while the other part was used to form a composite sample. Sub-samples were also taken from each core for later analysis of physical characteristics.

Sediment composites were formed for bulk sediment chemistry, elutriate, and possible bioassay testing. Vertical composites were collected first from each core. Then a proportionate amount of the five (or six) vertical composite samples from each composite area were transferred into a pre-cleaned stainless steel pan and manually homogenized. A separate protocol-cleaned compositing vessel was used for each composite area. Composite samples were then transferred into appropriate pre-cleaned sample containers. Sediment samples for bulk sediment and elutriate chemical analysis were placed into pre-cleaned and certified glass jars with Teflon-lined lids. Sediment for bioaccumulation and bioassay assessments were placed into pre-cleaned, polyethylene-lined 3.5 gallon buckets with lids. Except for samples to be analyzed for dissolved sulfides, all sediment samples were either packed on ice or placed into a refrigerated truck where they were maintained at 2-4º C until delivery to the laboratory. Samples for dissolved sulfides were placed in a separate polyethylene jar, frozen immediately with dry ice, and kept frozen until analyzed.

All samples were handled under Chain of Custody protocols beginning at the time of collection. Sampling data was also recorded on field log sheets.

4.1.4 Reference and Control Sediments

Samples of reference sediments were collected for biological and chemical testing. Samples were collected from a designated in-harbor reference site (33° 43.5' N and 118° 15.5' W) in the vicinity of a proposed open-water disposal site (Pier 400 Submerged Storage Site, Figure 1) and at the LA2 reference site (33° 37.1' N and 118° 17.4' W). Reference sediments were collected with a chain-rigged, plastic bucket dredge deployed from the *D.W. HOOD*. The bucket dredge was lowered to the bottom at each site and then towed for several minutes around the target sampling coordinates before retrieval. Retrieved sediments were immediately placed into appropriate containers and iced.

Samples of control sediment were collected for biological testing. Control sediment for amphipod bioassays were the "home sediment" from the area where the amphipods were collected. Control sediment for *Nephtys* bioassays were "home sediment" from the area where polychaetes were collected (Tomales Bay). Tomales Bay sediment also served as the control sediment for bioaccumulation exposures.

4.1.5 Documentation

All samples were handled under Chain of Custody documentation. Samples were marked with pre-printed, waterproof labels listing unique alphanumeric identifications. Duplicate information was recorded on the chain of custody form, which also includes sampling information such matrix, analysis, method, and detection limit. Completed Chain of Custody forms accompany the Laboratory Reports on CD-ROM in Appendix E.

The following information was recorded on unique field logs for each boring: station identification, date and time, climatic and rainfall data, sea state observations, total coring time, boring coordinates, core number, depth of penetration, core length recovery, core length requirement, sample type and interval, stratigraphic observations, tidal stage and water depth. Copies of the field logs are provided in Appendix D.

4.2 Laboratory Testing Methods

4.2.1 Bulk Sediment Analysis

ToxScan, Inc. (Cal-ELAP No. 1515), a State Certified analytical laboratory, performed all chemical and biological analyses. Only USEPA and USACE approved methodologies were used.

Bulk sediment analytical parameters, methods, and proposed detection limits are presented in Tables 4 and 5. Sediment samples were analyzed in a manner consistent with guidelines for dredge material testing methods in the USEPA/USACE ITM (USEPA/USACE 1998). Samples were extracted and analyzed within specified EPA holding times, and all analyses were accomplished with appropriate quality control measures.

4.2.2 Elutriate Preparation Methods

Standard elutriates were prepared according to ITM methods. Sediment was mixed with dredge site water in a 4:1 volumetric ratio. Vigorous mixing proceeded for 30 minutes, and the mixture was allowed to settle undisturbed. The clear supernatant was carefully collected and used as the test media for chemical and bioassay analyses. Dissolved metal analyses were performed on a

0.45µ filtered subsample of elutriate. Total metals and organic analyses utilized unfiltered elutriate.

Effluent elutriates were prepared following the methods described in the ITM, (Appendix B-3.3.) A slurry of sediment and dredge site water was prepared at a concentration of 150 g/L (dry weight basis). The slurry was mixed for five minutes to a uniform consistency with a laboratory mixer, and then vigorously aerated for one hour. The aerated slurry was allowed to settle for 24 hours. Afterwards, the supernatant was siphoned off. Prior to the analysis of dissolved metals, the elutriate was filtered through a 0.45µ filter. All other analyses were performed on unfiltered elutriate. Total metals analysis was not required.

The analytes, test methods, and reporting limits for elutriate chemical analysis are presented in Tables 4 and 5.

4.2.3 DI-WET Tests

Leaching characteristics were evaluated by use of a modification of the State of California, Title 22 Waste Extraction Test (WET) known as the DI-WET. This modified WET uses deionized water as an extractant rather than sodium citrate used in the standard WET test.

The DI-WET test involved extracting 50 grams of sediment for 48 hours at a ratio of one part sediment to ten parts deionized water. After extraction, the solution was filtered through a 0.45-micron filter prior to analysis. Analytical results were reported as micrograms of each constituent per liter of extractant.

The DI-WET results were compared against the Title 22 California Code of Regulations (CCR) Soluble Toxicity Concentration Limit (STLC) values to evaluate whether a sample is regarded by California as a hazardous waste.

4.2.4 Bioassay Analyses

For those berth areas where unconfined aquatic disposal is an option, the composite sediments along with reference-area and control sediments were tested for toxicity and for bioaccumulation potential. Bioassay protocols followed the ITM (USEPA/USACE, 1998) for both Suspended Particulate (elutriate) Phase and Solid Phase bioassays. Phase III testing for CDF disposal requires only a single Suspended Particulate-Phase bioassay.

All species used in this testing program comply with ITM recommendations and guidelines for bioassay and bioaccumulation tests.

For Suspended Particulate-Phase bioassays (open water):

Mysidopsis bahia (mysid)
Menidia beryllina (fish)
larvae of *Mytilus galloprovincialis* (mussel)

For Suspended Particulate-Phase bioassays (CDF disposal):

larvae of *Mytilus galloprovincialis* (mussel)

For Solid Phase Bioassays:

Nephtys caecoides (worm)
Ampelisca abdita (amphipod)

The methods and endpoints used for the bioassays are listed in Table 6.

4.2.5 Bioaccumulation Assessment

The ITM requires a 28-day exposure period of two benthic species to test, reference, and control sediments prior to tissue analysis. The species used for this program, which conform to ITM recommendations, are as follows:

Nereis viriens (worm)
Macoma nasuta (clam)

Following exposure of the organisms to the test sediment, they were placed in a clean, non-stressful environment to purge their systems of test sediment. The purge time was long enough to purge sediment, but not long enough to allow them to depurate accumulated toxicants. Generally, 24 hours was sufficient, but a few organisms were sacrificed to ensure completion of the purge.

Tissue samples were thoroughly homogenized with a stainless steel Tekmar Tissuemizer. The entire blade and barrel assembly was pre-cleaned with hot DI water and Micro 90® detergent and then rinsed thoroughly with DI water. The blade was rinsed again with DI water just prior to use. The Tissuemizer was triple rinsed between samples to minimize sample cross contamination. Samples were triple-wrapped and frozen when not in use. All tissue handling and processing was conducted at a laminar flow bench in a trace-metal clean laboratory.

Bioaccumulation tissue samples for sediment composites that passed the chemical screening and bioassay testing, and qualified as viable candidates for open water disposal were analyzed according to the list of constituents in Table 4. Methods and proposed analytical detection limits for the analysis of these tissues are listed in Tables 4 and 5.

4.2.6 Statistical Evaluations

Statistical analysis of experimental data was performed for each of the bioassay and bioaccumulation assessments. Tests of fundamental assumptions (e.g., variance homogeneity) were followed by the appropriate parametric or non-parametric analyses.

In cases where a contaminant was detected in tissues of organisms exposed to test sediment but was not detected (ND) in reference tissues, a value was assigned to the ND sample which equaled 50% of the analytical detection limit (DL) for that contaminant. This is consistent with interim recommendations published in the ITM (USEPA/USACE, 1998).

Variance homogeneity is one of the underlying assumptions of most parametric statistics. Bartlett's or Cochran's test was therefore applied to the data from the bioassays and the tissue chemistry of the bioaccumulation assessments. Significant results for this and all subsequent parametric tests were determined by the critical value (alpha = 0.05) of the appropriate distributions.

Once homogeneity has been established, the ANOVA and Dunnett's test were employed to analyze differences between treatment responses (e.g., test sediment tanks). Survival responses in the control tanks serve primarily for procedural quality assurance.

When sample variances did not exhibit homogeneity, as determined by Cochran's test, the Testing Manual recommends a data transformation. Arcsine Check was applied to proportional data of bioassays and log(x + 1) was applied to bioaccumulation data which are not homogenous. When the data transformation was unable to compensate the deviation, non-parametric tests were employed.

Non-parametric procedures use ranked values for calculating test statistics and the corresponding hypotheses use rank sums for comparison. Kruskal-Wallace and Wilcoxson-Wilcox tests were used to identify differences between treatment responses.

ITM guidelines for interpretation of suspended particulate-phase bioassays require that initial mixing calculations be performed to determine the concentration of suspended particulate material remaining at the disposal site within four hours after dumping (Csp) for any sample producing toxicity sufficient to generate an LC50. If the Csp does not exceed 1% of the LC50, the sediment was judged to comply with water column toxicity criteria.

Guidelines for interpretation of benthic bioassay results are published in the ITM. If survival responses in test sediment were statistically significantly lower than those in reference sediment *and* if the difference in mean survival between groups was greater than 10% (20% for amphipods), then the test sediment was considered to have the potential to significantly degrade the marine environment.

Guidelines for evaluation of bioaccumulation are described in the ITM and the District Engineer and the Regional Administrator make final interpretation. Therefore, statistical testing of bioaccumulation test phase results was complete when appropriate comparison (Dunnett's or Wilcoxson-Wilcox) described significant or non-significant tissue burden from exposure to dredged material.

4.3 Geotechnical Testing

Diaz Yourman & Associates performed the geotechnical portion of this study. A complete report prepared by Diaz Yourman & Associates, which includes the procedures used to determine grain size distribution and Atterberg limits, has been attached as Appendix C.

5.0 QUALITY ASSURANCE/QUALITY CONTROL SUMMARY

Kinnetic Laboratories/ToxScan conducts its activities in accordance with formal QA/QC procedures. The objectives of the QA/QC Program are to fully document the field and laboratory data collected, to maintain data integrity from the time of field collection to storage at the end of the project, and to produce the highest quality data possible. The program is designed to allow the data to be assessed by the following parameters: Precision, Accuracy, Comparability, Representativeness, and Completeness. These parameters are controlled by adhering to documented methods and procedures (SOPs), and by the analysis of quality control (QC) samples on a routine basis. Appendix B describes QA/QC procedures employed in this study as well as a summary of laboratory QA/QC results.

Field Quality Control includes adherence to SOPs and formal sample documentation and tracking. Analytical chemistry Quality Control is formalized by EPA and State Certification agencies, and involves internal quality control checks such as method blanks, matrix spike/spike duplicates, duplicates, surrogates, and calibration standards (USEPA 1994b, 1994c). Standard Reference Materials (SRMs) are also run along with calibration standards for each batch of samples.

Quality assurance measures applied to aquatic toxicity testing are explicitly stated in the various protocols specified. Monitoring of test conditions is important in these quality control measures. Key monitoring factors for the bioassay tests are summarized in Appendix F and include temperature, salinity, pH, dissolved oxygen, dissolved sulfides and ammonia in overlying waters and interstitial waters. Two other important measures are the inclusion of an experimental control, where organisms are simultaneously exposed to laboratory test conditions in the absence of a toxicant stress, and the inclusion of reference toxicant bioassays, where the organisms are exposed to standard toxicants and the results compared to a control chart. A discussion of the QA/QC findings for the biological testing is included in Appendix B, with supporting data tables given in Appendix F.

All analytical data collected for the Malaga Mudstone testing project underwent QA/QC evaluation according to EPA National Functional Guidelines for inorganic and organic data review (USEPA 1994b and 1994c). These data were then qualified if necessary and as appropriate.

A detailed report of laboratory QA/QC findings is located in Appendix B. A summary of findings based upon the validation of the data generated by this project is as follows:

- All chemical analyses were completed within holding times.
- Method blanks for most analyses indicated no contamination associated with most analytical procedures. Exceptions were blanks for chromium, copper nickel, selenium, bis(2-ethylhexyl)phthalate, di-n-butylphthalate, diethyl phthalate, dibutyltin, tributyltin, and monobutyltin associated with some sediment analyses, and chromium, nickel, copper, lead, and zinc associated with some water or elutriate analyses. The concentrations of chromium, copper, and nickel reported in the sediment blanks were insignificant relative to concentrations found in samples. The sediment selenium blank concentration was between 13% and 60% of concentrations reported in the samples. Thus, the associated sediment data were qualified as non-detected (“U”). The organic data warranted qualification (“U”) when sample concentrations were less than five times the blank detection. For the chromium, nickel, copper, lead, and zinc detected in the

water method blanks, all detections were less than five times the project detection limits and therefore no elutriate or water data were qualified.

- Based upon laboratory duplicate analyses, acceptable precision was achieved for all analyses with the exception of total sulfides in sediment and percent lipids in tissues. These results were qualified with a "J" flag.
- Variability between matrix spikes and matrix spike duplicates was within acceptable limits except for dibutyltin, tributyltin, and tetrabutyltin species in sediment and monobutyltin and tetrabutyltin in elutriate samples. One matrix spike duplicate yielded high recoveries for all three species. These results have been annotated with a "J" flag in the chemistry tables. The lack of precision for monobutyltin and dibutyltin is directly related to the consistently poor spike recoveries inherent with the analytical method. In the reference sediments, poor MS recovery for copper and zinc were observed but were not qualified because other QA measures were acceptable. The MS/MSD RPD slightly exceeded QC limits for acenaphthene in reference sediments; no data were qualified because precision was only slightly affected and accuracy was acceptable.
- Surrogate spiked recoveries of metals, chlorinated pesticides, semivolatile compounds and speciated butyltins in sediment and elutriates were all within QC limits with the exception of one compound, 2-Fluorobiphynyl for one sample, which was detected above recovery limits. This resulted in only one compound (acenaphthylene) being qualified as an estimate ("J") for that sample.
- The use and good recovery of standard reference materials, showed a high degree of accuracy for most metals and conventional analyses. The exception was the SRMs for cadmium in one sediment batch and chromium in another. The associated samples were qualified as an estimate ("J").
- Dissolved zinc values associated with some elutriate samples were higher than total values. Even though the QC objectives for the associated samples were met, use of the data should be cautionary.
- Target reporting limits (dry weight basis) were met for most analytes. The exception was butyltins in sediments, where target limits were 1 ug/kg and achieved limits ranged from 1.2 to 1.9 ug/kg. This shortfall in reporting limits is probably not environmentally significant in view of measured concentrations in most sediment samples.
- Bioassay test performance requirements were met except for the *Ampelisca* test where mean survival in home control sediment was 3% below the 90% required for test validity. This survival shortfall was due to high mortality in one of five replicates. The remaining performance criteria were met, and survival in both reference sediments exceeded 90%. The test could not be repeated because of a lack of sediment. The *Ampelisca* test data were judged to be useable, but qualified. All other bioassays met acceptance criteria and were considered valid.
- Monitoring during test performance showed that all measured environmental parameters (temperature, dissolved oxygen, salinity and pH) remained within protocol limits except for a temperature elevation of <1C during the first day of the *Menidia* test started on May 28. This temperature excursion was immediately corrected by adjustment of the temperature controller.
- All bioaccumulation replicate exposure tanks yielded adequate tissue weight to perform required chemical analyses. The temperature of the flow-through seawater system averaged around 14°C, ranging between 12°C and 16°C over the four- week exposure period. Dissolved oxygen, salinity and pH in seawater tanks reflected typical oceanic conditions over the entire exposure period.

- Overall, evaluation of the quality control/quality assurance data indicates that the chemical and toxicity data are generally within established performance criteria and can be used reliably for general characterization of sediments in the proposed project area.

6.0 RESULTS AND DISCUSSION

The results of this study are presented in a series of summary tables. The bulk sediment chemistry results are presented in Tables 7 through 14. Title 22 criteria, ERL and ERM effects levels, and reference sediment results are included in each bulk sediment table to assist in evaluation. The standard and effluent elutriate chemistry results are presented in Tables 15 through 22. California Toxics Rule and Title 22 STLC criteria are included with the elutriate results to assist in evaluation. Survival data for both the solid phase bioassays and LC50 and EC50 data for the suspended particulate phase bioassays are presented in Table 23. Complete analytical laboratory reports are included in Appendix E and bioassay results are included in Appendix F. Summaries of mean tissue concentrations after 30-day exposures of *Macoma nasuta* and *Nereis viriens* to test and reference sediments are presented in Tables 24 and 25.

The results for each berth area sampled for 2003 maintenance dredging and/or future deepening are discussed separately below.

6.1 Berths 90-92 and 93A-93B Maintenance Dredging

Three core samples were collected from Berths 90-92 and two core samples were collected from Berths 93A-93B as illustrated in Figure 2. Each core represents dredge material from the mudline down to –39 ft MLLW. Because of the limited amount of material to be dredged, all five cores from both berth areas were combined into a single composite sample. In addition to bulk sediment and elutriate analyses, bioassays and bioaccumulation exposures were performed on the composite sample. Bulk sediment chemistry and physical testing were also performed on each of the individual core samples.

6.1.1 Bulk sediment chemistry

The composite sample from Berths 90-92 and 93A-93B consisted primarily of sand (59.1%), with lesser amounts of silt (22.1%) and clay (18.9%). In comparison, the LA2 and Pier 400 reference sites consisted of 81.6% and 23.2% sand, respectively.

The composite sample from Berths 90-92 and 93A-93B showed elevated levels of many inorganic and organic constituents (Table 7). However, all hazardous waste constituents were well below Title 22 TTLC criteria. DDE, total DDTs, and several individual PAHs exceeded ERM values, while copper, mercury, total PCBs, and total PAHs exceeded ERL values. Analysis of individual core segments showed generally higher levels of metals contaminants compared to the composite sample, while Sites 3 and 5 appear to contribute a majority of the organics contamination.

Total speciated butyltins (as dibutyltin, monobutyltin, tributyltin and tetrabutyltin) were detected in the Berths 90-92 and 93A-93B composite sample at a concentration of 299 ug/kg. Butyltin concentrations in individual cores ranged from 151 ug/kg (Site 3) to 459 ug/kg (Site 2). Sediment quality guidelines do not exist for speciated butyltins.

When comparing the Berths 90-92 and 93A-93B composite sediment results with the reference sites, the Pier 400 reference site showed similar levels of nutrients, metals, petroleum hydrocarbons, DDT, and PCBs but considerably lower levels of butyltins and PAHs. Except for a few metals that were similar in concentration, sediment from the LA2 reference site was generally lower in contaminant concentrations.

6.1.2 Elutriate Chemistry

Results of the chemical analysis of both standard and effluent elutriate from the Berths 90-92 and 93A-93B sediment composite are shown in Table 15.

Dissolved metal concentrations in both the standard and effluent elutriates from Berths 90-92 and 93A-93B were below "chronic" (CCC) screening criteria, and were similar to background water concentrations, although total and dissolve arsenic values were nearly 20 times higher in the standard elutriate and nearly 10 times higher in the effluent elutriate. However, the arsenic values were still below chronic water quality criteria.

Tributyltin concentrations exceeded the CCC criterion by a factor of 37 in the Berths 90-92 and 93A-93B effluent elutriate and by a factor of 80 in the standard elutriate. However, the tributyltin concentration in both elutriates were well below the "acute" (CMC) criterion. The background water sample exceeded the CCC criterion by a factor of seven.

Except for very low concentrations of a few PAHs, none of the organic compounds were detected in either elutriate from Berths 90-92 and 93A-93B, and all organic compounds were undetected in the background water sample.

6.1.3 Toxicity Testing

Water column (suspended particulate phase) bioassay results for Berths 90-92 and 93A-93B sediments (Table 23) indicate no significant toxicity to *Americamysis* or *Menidia* (LC50=>100%) and minor toxicity to *Mytilus* (LC50= 70.9%, EC50 =69%). Initial mixing calculations show that the LPC ***would not*** be exceeded by unconfined aquatic disposal of the sediments.

Benthic (solid phase) bioassay results for the Berths 90-92 and 93A-93B sediment composite are summarized in Table 23. The results indicate that worm survival (*Nephtys*) in these sediments (100%) was not significantly lower than survival in reference sediments from LA2 (98%) or from Pier 400 (94%). Amphipod *(Ampelisca*) survival in Berths 90-92 and 93A-93B sediments (51%) was significantly lower than survival in LA2 reference sediments (92%) and in Pier 400 reference sediments (91%). The difference between survival in test and reference sediments was greater than 20%, meaning that the LPC ***would*** be exceeded for open water disposal.

Note that the *Ampelisca* bioassay showed an 87% survival in home control sediment, which is less than the 90% recommended by the test protocol. This was caused by poor survival in one replicate. This test was judged to be useable because of good reference survival and adequate sediment was not available for a retest.

6.1.4 Bioaccumulation Assessment

Nereis viriens

Analysis of worm (*Nereis*) tissues after exposure to the Berths 90-92 and 93A-93B sediment composite revealed that the mean concentration of only one metal was statistically significantly higher than either of the reference tissue mean concentrations (Table 24). Specifically, the mean tissue concentration of copper was 1.1 times higher than the mean copper concentration in worms exposed to the Pier 400 reference sediment.

Of the organic compounds, no chlorinated pesticides or PCBs were statistically significantly elevated in worm tissue after exposure to Berths 90-92 and 93A-93B sediments (Table 24). However, there were six individual PAH compounds (benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, chrysene, fluoranthene, and pyrene) that were statistically significantly elevated when compared with both reference sediments. All six compounds were undetected in the reference tissues. This resulted in tissue burdens for these compounds that ranged from about 9 (benzo(a)pyrene) to 49 (pyrene) times higher than reference tissues. Note that for statistical evaluation, analytes undetected in the tissues were equivalent to 50% of the detection limit.

Macoma nasuta

Analysis of clam (*Macoma*) tissues after exposure to the Berths 90-92 and 93A-93B sediment composite revealed three metals (copper, lead, and zinc) in mean concentrations that were statistically significantly higher than LA2 reference tissue mean concentrations (Table 25). Copper was 1.3 times higher, lead was 2.6 times higher, and zinc was 1.2 times higher. No metals were significantly elevated above the Pier 400 reference tissues.

Several of the organic compounds in clam tissues exposed to the Berths 90-92 and 93A-93B sediment composite were statistically significantly elevated over reference tissue levels (Table 25). Of the chlorinated pesticides, DDE was 1.6 times higher, DDT was 7.6 times higher, and total DDTs were 2.0 times higher compared to the LA2 reference tissues. Total PCBs were 10.8 times higher and 4.3 times higher compared to the LA2 and Pier 400 reference tissues, respectively. There were also nine PAH compounds (anthracene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, chrysene, fluoranthene, indeno(1,2,3 cd)pyrene, and pyrene) plus total PAHs that were statistically significantly elevated in the test tissues compared to both reference tissue samples. Except for benzo(a)pyrene (33.5 ug/kg) in the Pier 400 tissues, all nine compounds were undetected in the reference tissues. This resulted in tissue burdens for these compounds that ranged from 4.4 (anthracene) to 400 (pyrene) times higher than reference tissues. Note that for statistical evaluation, analytes undetected in the tissues, including DDTs, PCBs, and PAHs, were equivalent to 50% of the detection limit.

6.2 Berths 122-124 Future Deepening

Five core samples were collected from Berths 122-124 as illustrated in Figure 3. Since previous (2001) data exists for the maintenance dredging sediments, the samples collected only represent the sediments proposed for future deepening. Thus each core represents dredge material from -48 ft MLLW to –55 ft MLLW. In addition to bulk sediment and elutriate analyses, bioassays and bioaccumulation exposures were performed on the composite sample. Bulk sediment chemistry and physical testing were also performed on each of the individual core samples.

6.2.1 Bulk Sediment Chemistry

The composite sample from Berths 122-124 consisted primarily of sand (77.6%), with lesser amounts of silt (13.0%) and clay (9.4%). In comparison, the LA2 and Pier 400 reference sites consisted of 81.6% and 23.2% sand, respectively.

The composite sample from Berths 122-124 showed relatively low concentrations (below effects levels) of most inorganic and organic constituents (Table 8). Only total DDTs exceeded ERL values, while no constituents exceeded ERM values. Analysis of individual core segments showed generally higher levels of metals contaminants compared to the composite sample with

two of the five core samples exceeding ERL values for copper and nickel and one core sample exceeding the ERL value for arsenic. DDE and total DDTs were also relatively higher in the individual core samples with three core samples exceeding the ERL value for DDE and four of the core samples exceeding the ERL value for total DDTs. The Site 2 sample exceeded ERL values for the PAH compounds acenaphthene and anthracene.

Total speciated butyltins (as dibutyltin, monobutyltin, tributyltin and tetrabutyltin) were detected in the Berths 122-124 composite sample at a concentration of 11.0 ug/kg. Butyltin concentrations in individual cores ranged from below the detection limit (Site 5) to 44.7 ug/kg (Site 3). Sediment quality guidelines do not exist for speciated butyltins.

When comparing the Berths 122-124 composite sediment results with the reference sites, the LA2 reference site showed similar levels of nutrients, metals, organotins, and organic pollutants and the Pier 400 reference site showed relatively higher levels of oil and grease, metals, DDTs, and PCBs.

6.2.2 Elutriate Chemistry

Results of the chemical analysis of both standard and effluent elutriate from the Berths 122-124 sediment composite are shown in Table 16.

Dissolved metal concentrations in both the standard and effluent elutriates from Berths 122-124 were below "chronic" (CCC) screening criteria. Except for dissolved zinc in the standard elutriate, metal concentrations in the elutriates (total and dissolved) were similar to background water concentrations. Dissolved zinc was approximately seven times higher in the standard elutriate sample. However, the dissolved zinc data is suspect since the dissolved fraction was around four times higher than the total fraction even though all quality control objectives were met.

Tributyltin concentrations exceeded the CCC criterion by a factor of three in the Berths 122-124 effluent elutriate and by a factor of 11 in the standard elutriate. However, the tributyltin concentration in both elutriates were well below the "acute" (CMC) criterion. The background water sample exceeded the CCC criterion by a factor of seven.

Except for a very low concentration of pyrene in the standard elutriate, none of the organic contaminants were detected in either elutriate from Berths 122-124, and all organic compounds were undetected in the background water sample.

6.2.3 Toxicity Testing

Water column (suspended particulate phase) bioassay results for Berths 122-124 sediment (Table 23) show no significant toxicity to *Americamysis*, *Menidia* or *Mytilus* (LC50 and EC50 for all three species=>100%).

Benthic (solid phase) bioassay results for the Berths 122-124 sediment composite are summarized in Table 23. The results show that worm (*Nephtys*) survival in the test sediments (92%) was not statistically significantly lower than survival in reference sediments from LA2 (98%) or from Pier 400 (94%). Worm survival in control sediment was 98%. Amphipod (*Ampelisca*) survival in Berths 122-124 sediments (77%) was also not significantly lower than survival in LA2 reference sediment (92%) and in Pier 400 reference sediment (91%).

6.2.4 Bioaccumulation Assessment

Nereis viriens

Analysis of worm (*Nereis*) tissues after exposure to the Berths 122-124 sediment composite revealed that none of the mean metal concentrations were statistically significantly higher than either of the reference tissue mean concentrations (Table 24).

Of the organic compounds, only total PCBs were statistically significantly elevated in worm tissue exposed to Berths 122-124 sediments. The Berths 122-124 worm tissue had a mean concentration of total PCBs that was about 3.3 times higher than the reference tissues. Note that for statistical evaluation, analytes undetected in the tissues were equivalent to 50% of the detection limit.

Macoma nasuta

Like the Nereis tissues, clam (*Macoma*) tissues analyzed after exposure to the Berths 122-124 sediment composite revealed that none of the mean metal concentrations were statistically significantly higher than either of the reference tissue mean concentrations (Table 25).

A few of the organic compounds in clam tissues exposed to the Berths 122-124 sediment composite were statistically significantly elevated over reference tissue levels (Table 25). Total PCBs were 18 times higher and 7.1 times higher compared to the LA2 and Pier 400 reference tissues, respectively. There were also three PAH compounds (benzo(b)fluoranthene, benzo(a)pyrene, and pyrene) plus total PAHs that were statistically significantly elevated in the test tissues compared to both reference tissue samples. Except for benzo(a)pyrene (33.5 ug/kg) in the Pier 400 tissues, all three compounds were undetected in the reference tissues. This resulted in tissue burdens for these compounds that were 11 times higher for benzo(b)fluoranthene, 2.2 times higher for benzo(a)pyrene, and 16.5 times higher for pyrene compare to the reference tissues. Note that for statistical evaluation, analytes undetected in the tissues were equivalent to 50% of the detection limit.

6.3 Berths 125-126 Future Deepening

Five core samples were collected from Berths 125-126 sediments as illustrated in Figure 4. Since most of this area does not require maintenance dredging, the samples collected only represent the sediments proposed for future deepening. Thus, except for one core location (Site 4), each core represents dredge material from the mudline elevation (-45 to –47 ft MLLW) to –55 ft MLLW. A second sample representing a small shoaled area was collected from Site 4. Therefore, Site 4 had one sample representing the sediments from –43.2 to –47 ft MLLW and one sample representing the sediments from –47 to –55 ft MLLW. In addition to bulk sediment and elutriate analyses, bioassays and bioaccumulation exposures were performed on the composite sample. Bulk sediment chemistry and physical testing were also performed on each of the individual core samples including the top of Site 4.

6.3.1 Bulk sediment chemistry

The composite sample from Berths 125-126 consisted primarily of sand (54.8%), with lesser amounts of silt (24.6%) and clay (20.6%). In comparison, the LA2 and Pier 400 reference sites consisted of 81.6% and 23.2% sand, respectively.

The composite sample from Berths 125-126 showed relatively low concentrations (below effects levels) of most inorganic and organic constituents (Table 9). Only DDE, total DDTs, and total PCBs (from Aroclor 1254) exceeded ERL values, while no constituents exceeded ERM values. Analysis of individual core segments showed generally higher levels of metals contaminants compared to the composite sample with most cores exceeding the ERL values for arsenic, copper, mercury, and nickel and one core sample slightly exceeding the ERL value for zinc. In some cases, DDE, total DDTs, and total PCBs were also relatively higher in the individual core samples with three core samples exceeding the ERM value for DDE and four core samples exceeding the ERM value for total PCBs.
With a few exceptions, the top sample from Site 4 is relatively similar to the sediments below. The top sample contained DDE and total PCB concentrations that were above ERM values while the sediments below only exceeded ERL values for those constituents. PAH compounds were generally low in both the top and bottom samples except for anthracene and Dibenzo(a,h)anthracene, which slightly exceeded ERL values in the top sample but not in the bottom sample.

Total speciated butyltins (as dibutyltin, monobutyltin, tributyltin and tetrabutyltin) were detected in the Berths 125-126 composite sample at a concentration of 54.5 ug/kg. Butyltin concentrations in individual cores ranged from below the detection limit (Site 1) to 148 ug/kg (Site 4 top). Sediment quality guidelines do not exist for speciated butyltins.

When comparing the Berths 125-126 composite sediment results with the reference sites, the LA2 reference site showed similar levels of nutrients, metals, butyltins, and organic pollutants and the Pier 400 reference site showed relatively higher levels of metals and DDTs.

6.3.2 Elutriate Chemistry

Results of the chemical analysis of both standard and effluent elutriate from the Berths 125-126 sediment composite are shown in Table 17.

Dissolved metals concentrations in both the standard and effluent elutriates from Berths 125-126 were below "chronic" (CCC) screening criteria, and they were very similar to background water concentrations.

Tributyltin concentrations exceeded the CCC criterion by a factor of 5 in the effluent elutriate and by a factor of 24 in the standard elutriate from Berths 125-126, while the background water sample exceeded the CCC criterion by a factor of seven.

Except for very low concentrations of pyrene, none of the organic contaminants were detected in either elutriate from Berths 125-126, and all organic compounds were undetected in the background water sample.

6.3.3 Toxicity Testing

Water column (suspended particulate phase) bioassay results for Berths 125-126 sediments (Table 23) indicate no significant toxicity to *Americamysis* or *Menidia* (LC50=>100%) and minor toxicity to *Mytilus* (LC50= 70.9%, EC50 =69%). Initial mixing calculations show that the LPC ***would not*** be exceeded by unconfined aquatic disposal of the sediments.

Benthic (solid phase) bioassay results for the Berths 125-126 sediment composite are summarized in Table 23. The results indicate that worm (*Nephtys*) survival in these sediments (90%) was not

statistically significantly lower than survival in reference sediments from LA2 (98%) or from Pier 400 (94%). Worm survival in control sediment was 98%. Amphipod *(Ampelisca*) survival in Berth Berths 125-126 sediments (72%) was significantly lower than survival in LA2 reference sediments (92%) and in Pier 400 reference sediments (91%). The difference between survival in test and reference sediments was not greater than 20%, meaning that the LPC ***would* not** be exceeded for open water disposal.

6.3.4 Bioaccumulation Assessment

Nereis viriens

Analysis of worm (*Nereis*) tissues after exposure to the Berths 125-126 sediment composite revealed that the mean concentration of only one metal was statistically significantly higher than either of the reference tissue mean concentrations (Table 24). Specifically, the mean tissue concentration of lead was 1.5 times higher than the mean lead concentration in worms exposed to the LA2 reference sediment.

Of the organic compounds, total PCBs and one PAH compound were statistically significantly elevated in worm tissue after exposure to Berths 125-126 sediments (Table 24). The Berths 125-126 worm tissue had a mean concentration of total PCBs that was about 4 times higher than both reference tissue mean concentrations and a mean concentration of pyrene that was 11.7 times higher than both reference tissue mean concentrations. Note that for statistical evaluation, analytes undetected in the tissues were equivalent to 50% of the detection limit.

Macoma nasuta

Analysis of clam (*Macoma*) tissues after exposure to the Berths 125-126 sediment composite revealed that the mean concentration of only one metal was statistically significantly higher than either of the reference tissue mean concentrations (Table 25). Specifically, the mean tissue concentration of zinc was 1.2 times higher than the mean zinc concentration in clams exposed to the LA2 reference sediment.

Several of the organic compounds in clam tissues exposed to the Berths 125-126 sediment composite were statistically significantly elevated over reference tissue levels (Table 25). Total PCBs were 30 times higher and 11.9 times higher compared to the LA2 and Pier 400 reference tissues, respectively. There were also five PAH compounds (benzo(a)anthracene, benzo(b)fluoranthene, benzo(a)pyrene, fluoranthene, and pyrene) plus total PAHs that were significantly elevated in the test tissues compared to both reference tissue samples. Except for benzo(a)pyrene (33.5 ug/kg) in the Pier 400 tissues, all five compounds were undetected in the reference tissues. This resulted in tissue burdens for these compounds that ranged from 5 (benzo(a)anthracene) to 47 (pyrene) times higher than reference tissues. Note that for statistical evaluation, analytes undetected in the tissues were equivalent to 50% of the detection limit

6.4 Berths 127-131 Maintenance Dredging and Future Deepening.

Five sediment core samples were collected from Berths 127-131 as illustrated in Figure 5. A top and bottom composite sample was generated from this berth area. The top composite sample represents the sediments from the mudline elevation down to the maintenance dredging depth (including overdredge) of –47 ft MLLW, while the bottom composite sample represents the sediments from –47 ft MLLW to the future deepening project depth of –55 ft MLLW. Note in Figure 5 that only a portion of the maintenance dredging area is proposed for future deepening.

In addition to bulk sediment and elutriate analyses, bioassays and bioaccumulation exposures were performed on each of the composite samples. Bulk sediment chemistry and physical testing were also performed on one or two strata from each of the individual core samples.

6.4.1 Bulk sediment chemistry

The composite samples from Berths 127-131 consisted primarily of sand. The sand, silt and clay fraction for the top composite sample was 69.9%, 15.0%, and 15%, respectively. The sand, silt and clay fraction for the bottom composite sample was 88.5%, 6.1%, and 5.5%, respectively. In comparison, the LA2 and Pier 400 reference sites consisted of 81.6% and 23.2% sand, respectively.

The composite samples from Berths 127-131 showed relatively low concentrations (below effects levels) of most inorganic and organic constituents, with the top composite having slightly higher concentrations for a lot of constituents (Table 10). The top composite exceeded ERL values for copper and mercury but the bottom composite did not. Both composites exceeded the ERL values for DDE and total DDTs with levels about two times higher in the top composite. The top composite exceeded ERM values for Aroclor 1254 and total PCBs while the bottom composite exceeded ERL values for the same two constituents. Semivolatile concentrations were all below ERL values in both composites.

Analysis of individual core segments showed generally higher levels of metal contaminants compared to the composite samples in three of the five top core samples and one of the bottom core samples. Between six and eight metals exceeded ERL values in the worst three top core samples while only copper exceeded the ERL value in another top core sample and no metals exceeded ERL values in the fifth top core sample. For the three bottom core samples, copper, mercury, and nickel exceeded ERL values in one of the core samples with no exceedances occurring in the other two core samples.

The same three top core samples and single bottom core sample with higher metals also had higher levels of DDE, total DDTs, Aroclor 1254, and total PCBs when compared to the composite samples. PAHs were also somewhat higher in the three top core samples.

Total speciated butyltins (as dibutyltin, monobutyltin, tributyltin and tetrabutyltin) were detected in the Berths 127-131 composite samples at concentrations of 122 ug/kg for the top composite sample and 15.2 ug/kg for the bottom composite sample. Butyltin concentrations in individual cores ranged from below the detection limit (Site 4 bottom) to 184ug/kg (Site 3 top). Sediment quality guidelines do not exist for speciated butyltins.

When comparing the Berths 127-131 composite sediment results with the reference sites, the LA2 reference site showed somewhat similar levels of nutrients, metals, and organic pollutants except for PCBs when compared to the top composite sample. LA2 oil and grease, TPH, and PCBs were lower than in the top composite sample. The Pier 400 reference sediments showed relatively higher levels of metals and DDTs compared to both composite samples, a relatively lower concentration of total PCBs when compared to the top composite sample, and a relatively higher concentration of oil and grease when compared to the bottom composite sample. Pier 400 nutrients were similar to both composite samples. Concentrations of semivolatile compounds were somewhat similar in both composite samples and both reference site samples, although, PAH compounds were slightly elevated but below ERL values in the top composite sample.

6.4.2 Elutriate Chemistry

Results of the chemical analysis of both standard and effluent elutriate from the two Berths 127-131 composite samples are shown in Table 18.

Standard and effluent elutriate dissolved metal concentrations from Berths 127-131 were below "chronic" (CCC) screening criteria in both the bottom and top composite samples. Except for arsenic in the standard elutriate of the top composite sample, metal concentrations in the elutriates (total and dissolved) were similar to background water concentrations. Total and dissolved arsenic were approximately eight times higher in the top standard elutriate sample compared to background water, though still below the CCC criteria.

Tributyltin concentrations exceeded the CCC criterion in all Berths 127-131 elutriate samples and in the background water sample with the top composite elutriates containing the highest concentrations. The bottom composite elutriates were similar to the background waters in tributyltin content, while the top standard elutriate tributyltin concentration was nine times higher than the background concentration and top effluent elutriate was four times higher.

Except for the top standard elutriate, no organic contaminants were detected in the elutriate samples from Berths 127-131 and in the background water sample. The top standard elutriate did have slight detections of total DDT, total PCBs, and pyrene, with the concentration of total PCBs exceeding the CCC value. Note though the CCC value for total PCBs is below the project detection limit.

6.4.3 Toxicity Testing

Water column (suspended particulate phase) bioassay results show no significant toxicity to either *Americamysis*, *Menidia* , or to *Mytilus* (LC50=>100%, EC50=>100%) for either the top or bottom composite from Berths 127-131.

Benthic (solid phase) bioassay results for the Berths 127-131 sediment composites are summarized in Table 23. For both the top and bottom composite, worm (*Nephtys*) survival was 100%. Thus, survival in the test sediments was not statistically significantly lower than survival in reference sediments from LA2 (98%) or from Pier 400 (94%). Worm survival in control sediment was 98%. Amphipod *(Ampelisca*) survival in the Berths 127-131 top composite (51%) was statistically significantly lower than survival in LA2 reference sediments (92%) and in Pier 400 reference sediments (91%). The difference between survival in test and reference sediments was greater than 20%, meaning that the LPC ***would*** be exceeded for open water disposal. Amphipod survival in the Berths 127-131 deep sediments (79%) was not significantly lower than survival in LA2 reference sediment (92%) and in Pier 400 reference sediment (91%).

6.4.4 Bioaccumulation Assessment

Nereis viriens

Analysis of worm (*Nereis*) tissues after exposure to the Berths 127-131 sediment composites revealed that the mean concentration of only one metal in tissues from the top composite was statistically significantly higher than either of the reference tissue mean concentrations (Table 24). No metals were significantly elevated in the deep composite tissues. The mean tissue concentration of lead from the top composite was 1.9 times higher than the mean lead

concentration in worms exposed to the LA2 reference sediment and 1.7 times higher than Pier 400 reference worms.

Of the organic compounds, only total PCBs were statistically significantly elevated in worm tissue after exposure to the Berths 127-131 top sediments (Table 24). No organic compounds were statistically significantly elevated in worms exposed to the deep composite. The top composite worm tissue had a mean concentration of total PCBs that was 3.3 times higher than both reference tissue mean concentrations. Note that for statistical evaluation, analytes undetected in the tissues were equivalent to 50% of the detection limit.

Macoma nasuta

Analysis of clam (*Macoma*) tissues after exposure to the Berths 127-131 sediment composites revealed that the mean concentration of three metals (copper, lead, and zinc) were statistically significantly higher in the top composite and only one metal (zinc) was significantly higher in the deep composite when compared to both reference tissue mean concentrations (Table 25). In the top composite clam tissues, the mean copper concentration was 1.35 times higher than the LA2 reference clam tissues, and the mean concentration of lead was 4.4 times higher and zinc was 1.26 times higher than the LA2 reference clam tissues. In the bottom composite, the mean tissue concentration of zinc was 1.23 times higher than the mean zinc concentration in clams exposed to the LA2 reference sediment.

For both Berths 127-131 composites, PCBs and several PAHs were statistically significantly elevated in the clam tissues compared to both sets of reference clam tissues (Table 25). For the top composite, total PCBs in the clam tissues were 29 times higher and 11.5 times higher than LA2 and Pier 400 reference tissues, respectively. For the bottom composite, total PCBs in the clam tissues were 13.2 times higher compared to LA2 reference tissues, and 5.2 times higher compared to Pier 400 reference tissues. There were four individual PAH compounds (benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, and pyrene) in top composite clam tissues and two PAH compounds (benzo(b)fluoranthene and benzo(a)pyrene) that were statistically significantly elevated in the bottom composite clam tissues compared to both reference tissue samples. Except for benzo(a)pyrene (33.5 ug/kg) in the Pier 400 tissues, all five compounds were undetected in the reference tissues. Pyrene was most significantly elevated (48 times higher than reference) in the top composite clam tissues, and benzo(b)fluoranthene was most significantly elevated (19 times higher than reference) in the bottom composite clam tissues. Note that for statistical evaluation, analytes undetected in the tissues were equivalent to 50% of the detection limit.

6.5 Berths 153-155 Maintenance Dredging

Six core samples were collected from Berths 153-155 as illustrated in Figure 6. Each core represents dredge material from the mudline down to –39 ft MLLW. All six cores were combined into a single composite sample. Due to elevated levels of sediment contamination, 28-day bioaccumulation exposures and full bioassay testing were not performed on the Berths 153-155 composite sample. Instead, only bulk sediment and elutriate analyses and a single water column bioassay were conducted. Bulk sediment chemistry and physical testing were also performed on each of the individual core samples. Because lead exceeded the Title 22 STLC criterion, a wet extraction test (WET) for lead was performed on the sediment composite.

6.5.1 Bulk sediment chemistry

The composite sample from Berths 153-155 consisted primarily of fine grained material (31.3% silt and 27.1% clay) with a sand content of 41.6%. In comparison, the LA2 and Pier 400 reference sites consisted of 81.6% and 23.2% sand, respectively.

The composite sample from Berths 153-155 showed elevated levels of many inorganic and organic constituents (Table 11). However, all hazardous waste constituents were well below Title 22 TTLC criteria, and only lead exceeded Title 22 STLC criteria. Mercury, DDD, DDE, DDT, total DDTs, and pyrene exceeded ERM values, while arsenic, copper, lead, nickel, zinc, total PCBs, and several PAH compounds along with total PAHs exceeded ERL values. Analysis of individual core segments showed additional ERL exceedances for cadmium and chromium in a few of the cores, and several more ERM exceedances for individual PAH compounds in a few of the cores. Note that Aroclor 1260 was detected in the individual core samples at levels exceeding ERL and ERM values but not in the composite sample. This probably was a result of analyst interpretation of the Aroclor 1260 and Aroclor 1254 chromatogram peaks, which overlap each other considerably.

Total speciated butyltins (as dibutyltin, monobutyltin, tributyltin and tetrabutyltin) were detected in the Berths 153-155 composite sample at a concentration of 179 ug/kg. Butyltin concentrations in individual cores ranged from 70.5 ug/kg (Site 6) to 426 ug/kg (Site 4 top). Sediment quality guidelines do not exist for speciated butyltins.

When comparing the Berths 153-155 composite sediment results with the reference sites, the Pier 400 reference site showed similar levels of nutrients, most metals, and chlorinated pesticides, and lower levels of petroleum hydrocarbons, oil and grease, mercury, tributyltin, PCBs, and PAHs. Except for a few metals that were similar in concentration, sediment from the LA2 reference site was generally much lower in contaminant concentrations.

6.5.2 Elutriate Chemistry

Results of the chemical analysis of both standard and effluent elutriate from the Berths 153-155 sediment composite are shown in Table 19.

Except for dissolved arsenic in the standard elutriate, dissolved metal concentrations in both the standard and effluent elutriates from Berths 153-155 were below "chronic" (CCC) screening criteria. In addition, total and dissolved arsenic, total chromium, total copper, total nickel, and dissolved zinc in the standard elutriate were somewhat elevated above background waters. However, the dissolved zinc data is suspect since the dissolved fraction was around four times higher than the total fraction even though all quality control objectives were met. The dissolved metal concentrations in the effluent elutriate were fairly similar to background water concentrations.

Tributyltin concentrations exceeded the CCC criterion by a factor of four in the effluent elutriate and by a factor of 15 in the standard elutriate from Berths 153-155, while tributyltin concentrations in the background water sample were seven times higher than the CCC criterion.

Several organic compounds were detected in the standard elutriate from Berths 153-155, while only low levels of acenaphthylene and pyrene were detected in the effluent elutriate. Of the organic compounds found in the standard elutriate, only total PCBs exceeded CCC criteria. No organic compounds were detected in the background water sample.

6.5.3 DI-WET

Since lead exceeded the Title 22 STLC criterion in the Berths 153-155 sediment composite, a DI WET for lead was performed to determine if leached lead exceeds water quality criteria. A concentration of 1.8 ug/l was detected in the extractant, which is far below the STLC and CCC criteria.

6.5.4 Toxicity Testing

Initial examination of bulk sediment chemistry data strongly suggested that the Berths 153-155 sediment composite was contaminated with metals, pesticides, PCBs and PAHs at concentrations generally exceeding ERM values. Consequently, the decision was made to subject the Berths 153-155 sediment to only the limited bioassay testing required for disposal in an upland site or in a confined aquatic disposal facility. Only a single water column bioassay using *Mytilus galloprovincialis* was performed with this sediment sample. Minor toxicity was shown to *Mytilus* survival (LC50=73.8) and to *Mytilus* normal development (EC50=69.5%). Note that *Mytilus* survival and development was significantly decreased from controls only in the 100% elutriate, but not in the 50% elutriate concentration. This shows that a 1:1 dilution of elutriate would eliminate all toxicity to *Mytilus* larvae.

6.6 Berths 177-179 Maintenance Dredging

Five core samples were collected from Berths 177-179 sediments as illustrated in Figure 7. Each core represents dredge material from the mudline down to –38 ft MLLW. All five cores were combined into a single composite sample. Due to elevated levels of sediment contamination, 28-day bioaccumulation exposures and full bioassay testing were not performed on the Berths 177-179 composite sample. Instead, only bulk sediment and elutriate analyses and a single water column bioassay were conducted. Bulk sediment chemistry and physical testing were also performed on each of the individual core samples. Because lead exceeded the Title 22 STLC criterion, a wet extraction test (WET) for lead was performed on the sediment composite.

6.6.1 Bulk sediment chemistry

The composite sample from Berths 177-179 consisted primarily of fine grain material (32.8% silt and 25.0% clay) with a sand content of 42.2%. In comparison, the LA2 and Pier 400 reference sites consisted of 81.6% and 23.2% sand, respectively.

The composite sample from Berths 177-179 showed elevated levels of many inorganic and organic constituents (Table 12). However, all hazardous waste constituents were well below Title 22 TTLC criteria, and only lead exceeded Title 22 STLC criteria. Mercury, DDD, DDE, DDT, total DDTs, Aroclor 1254, total PCBs, and dibenzo(a,h)anthracene exceeded ERM values, while arsenic, cadmium, copper, lead, nickel, zinc, and several PAH compounds along with total PAHs exceeded ERL values. Analysis of individual core segments showed additional ERL exceedances for chromium in most cores, and several more ERM exceedances for nickel and individual PAH compounds in a few of the cores. Note that Aroclor 1260 was detected in the individual core samples at levels exceeding ERL and ERM values but not in the composite sample. This probably was a result of analyst interpretation of the Aroclor 1260 and Aroclor 1254 chromatogram peaks, which overlap each other considerably.

Total speciated butyltins (as dibutyltin, monobutyltin, tributyltin and tetrabutyltin) were detected in the Berths 177-179 composite sample at a concentration of 151 ug/kg. Butyltin concentrations

in individual cores ranged from 117 ug/kg (Site 5) to 688 ug/kg (Site 2). Sediment quality guidelines do not exist for speciated butyltins.

When comparing the Berths 177-179 composite sediment results with the reference sites, the Pier 400 reference site showed similar levels of most metals and DDE, and lower levels of petroleum hydrocarbons, oil and grease, mercury, tributyltin, chlorinated pesticides, PCBs, and PAHs. Except for selenium and silver that were similar in concentration, sediment from the LA2 reference site was generally much lower in contaminant concentrations.

6.6.2 Elutriate Chemistry

Results of the chemical analysis of both standard and effluent elutriate from the Berths 177-179 sediment composite are shown in Table 20.

Dissolved metal concentrations in both the standard and effluent elutriates from Berths 177-179 were below "chronic" (CCC) screening criteria. However, total and dissolved arsenic, total chromium, and total lead in the standard elutriate were somewhat elevated above background waters. Except for the dissolved zinc concentration, the dissolved metal concentrations in the effluent elutriate were fairly similar to background water concentrations. Dissolved zinc was approximately two times higher in the effluent elutriate.

Tributyltin concentrations exceeded the CCC criterion by a factor of two in the effluent elutriate and by a factor of 80 in the standard elutriate from Berths 177-179, while tributyltin concentrations in the background water sample were seven times higher than the CCC criterion. Tributyltin concentrations in both elutriates were well below the "acute" (CMC) criterion.

Organic contamination was for the most part absent in the standard and effluent elutriates from Berths 177-179. Low levels of fluoranthene and pyrene were detected in both elutriates, and benzo(a)pyrene was detected in the standard elutriate at concentration slightly higher than the detection limit. No organic compounds were detected in the background water sample.

6.6.3 DI-WET

Since lead exceeded the Title 22 STLC criterion in the Berths 177-179 sediment composite, a DI WET for lead was performed to determine if leached lead exceeds water quality criteria. Dissolved lead was not detected in the extractant above the reporting limit of 1.0 ug/l.

6.6.4 Toxicity Testing

Initial examination of bulk sediment chemistry data strongly suggested that the Berths 177-179 sediment composite was contaminated with metals, pesticides, PCBs and PAHs at concentrations generally exceeding ERM values. Consequently, the decision was made to subject the Berths 177-179 sediment to only the limited bioassay testing required for disposal in an upland site or in a confined aquatic disposal facility. Only a single water column bioassay using *Mytilus galloprovincialis* was performed with this sediment sample. No toxicity was shown to *Mytilus* survival (LC50=>100%) or to *Mytilus* normal development (EC50=>100%).

6.7 Berths 180-181 Maintenance Dredging

Five core samples were collected from Berths 180-181 sediments as illustrated in Figure 8. Each core represents dredge material from the mudline down to –37 ft MLLW. All five cores were

combined into a single composite sample. Due to elevated levels of sediment contamination, 28-day bioaccumulation exposures and full bioassay testing were not performed on the Berths 180-181 composite sample. Instead, only bulk sediment and elutriate analyses and a single water column bioassay were conducted. Bulk sediment chemistry and physical testing were also performed on each of the individual core samples. Because lead exceeded the Title 22 STLC criterion, a wet extraction test (WET) for lead was performed on the sediment composite.

6.7.1 Bulk sediment chemistry

The composite sample from Berths 180-181 consisted primarily of fine grained material (32.1% silt and 30.8% clay) with a sand content of 37.1%. In comparison, the LA2 and Pier 400 reference sites consisted of 81.6% and 23.2% sand, respectively.

The composite sample from Berths 180-181 showed elevated levels of many inorganic and organic constituents (Table 13). However, all hazardous waste constituents were well below Title 22 TTLC criteria, and only lead exceeded Title 22 STLC criteria. Lead, mercury, nickel, zinc, DDD, DDE, total DDTs, Aroclor 1254, total PCBs, benzo(a)pyrene, and dibenzo(a,h)anthracene exceeded ERM values, while arsenic, cadmium, chromium, copper, and several other PAH compounds along with total PAHs exceeded ERL values. The composite chemistry was similar to the individual core segment chemistry. Note that Aroclor 1260 was detected in the individual core samples at levels exceeding ERL and ERM values but not in the composite sample. This probably was a result of analyst interpretation of the Aroclor 1260 and Aroclor 1254 chromatogram peaks, which overlap each other considerably.

Total speciated butyltins (as dibutyltin, monobutyltin, tributyltin and tetrabutyltin) were detected in the Berths 180-181 composite sample at a concentration of 218 ug/kg. Butyltin concentrations in individual cores ranged from 205 ug/kg (Site 2) to 466 ug/kg (Site 1). Sediment quality guidelines do not exist for speciated butyltins.

When comparing the Berths 180-181 composite sediment results with the reference sites, analyte concentrations were lower in the reference sediments for most constituents. The few exceptions were arsenic, DDE, and total DDTs in the Pier 400 sediment, which were similar in concentrations.

6.7.2 Elutriate Chemistry

Results of the chemical analysis of both standard and effluent elutriate from the Berths 180-181 sediment composite are shown in Table 21.

Dissolved metal concentrations in both the standard and effluent elutriates from Berths 180-181 were below “chronic” (CCC) screening criteria. However, total and dissolved arsenic and chromium and total lead and nickel in the standard elutriate were somewhat elevated above background waters. Except for the dissolved zinc concentration, the dissolved metal concentrations in the effluent elutriate were fairly similar to background water concentrations. Dissolved zinc was approximately two times higher in the effluent elutriate.

Tributyltin concentrations were similar to the CCC criterion in both the effluent and standard elutriates from Berths 180-181. Tributyltin concentrations in the background water sample were seven times higher than the CCC criterion.

Organic contamination was for the most part absent in the standard and effluent elutriates from Berths 180-181. A few PAHs were detected in both elutriates at levels one to three times the detection limits. No organic compounds were detected in the background water sample.

6.7.3 WET Testing

Since lead exceeded the Title 22 STLC criterion in the Berths 177-179 sediment composite, a DI WET for lead was performed to determine if leached lead exceeds water quality criteria. Dissolved lead was not detected in the extractant above the reporting limit of 1.0 ug/l.

6.7.4 Water Column Bioassay

Initial examination of bulk sediment chemistry data strongly suggested that this sediment composite was contaminated with metals, pesticides, PCBs and PAHs at concentrations generally exceeding ERM values. Consequently, the decision was made to subject the Berths 180-181 sediment to only the limited bioassay testing required for disposal in an upland site or in a confined aquatic disposal facility. Only a single water column bioassay using *Mytilus galloprovincialis* was performed with this sediment sample. No toxicity was shown to *Mytilus* survival (LC50=>100%) and to *Mytilus* normal development (EC50=>100%).

6.8 Berths 226-231 Maintenance Dredging

Fifteen core samples were collected from Berths 226-231 sediments as illustrated in Figures 9 through 11. Each core represents dredge material from the mudline down to –48 ft MLLW. The fifteen core samples were combined into three composite samples (Composite A, B and C) containing five cores each. In addition to bulk sediment and elutriate analyses, bioassays and bioaccumulation exposures were performed on each of the composite samples. Bulk sediment chemistry and physical testing were also performed on each of the individual core samples.

6.8.1 Bulk sediment chemistry

The three sediment composite samples from Berths 226-231 consist primarily of sand (47-80%), with lesser amounts of silt (11-31%) and clay (9-22%). In comparison, the LA2 and Pier 400 reference sites consisted of 81.6% and 23.2% sand, respectively.

Among metal analytes, ERL guidelines were exceeded for copper, lead, mercury and nickel in composite A, and for copper and mercury in composite C. Individual cores from the A and C composite areas all showed copper and mercury concentrations that were greater than ERL guidelines. Core samples A-2 and C-2 showed the highest concentrations of metal contaminants, with ERL exceedances of five or six metals. No metals exceeded any ERL value in composite B, and only one individual core from Composite B exceeded the ERL values for copper and mercury. Metal concentrations in all samples were well below ERM values. All metal concentrations were far below Title 22 TTLC criteria.

Among the chlorinated pesticides, DDE was detected in concentrations above the ERM value in composites A and C, and in nine of the ten individual cores comprising those composites. DDE exceeded the ERL value in composite B and exceeded either the ERL or ERM values in four of five individual core samples. DDE was the primary DDT compound detected in the samples. The ERM value for total DDTs was exceeded in Composite A and in six of the fifteen individual

core samples. All remaining samples contained total DDTs in excess of the ERL value. There were a few additional chlorinated pesticides detected at very low concentrations, near their method detection limits. All DDT concentrations were far below Title 22 TTLC criteria.

One PCB, Aroclor 1254, exceeded the ERL value in Composites A and C. The ERL value for Aroclor-1254 was also exceeded in all of the individual core samples from Composite Area A and in four of the five individual core samples from Composite Area C. Although PCBs were not detected in the Composite B sample, two of the five individual core samples from Composite Area B exceeded the ERL for Aroclor 1254. No samples contained PCB concentrations approaching ERM values, and all PCB concentrations were far below Title 22 TTLC criteria.

Among the semivolatile compounds, fluorene slightly exceeded the ERL value in all three composite samples, but concentrations were well below the ERM value. None of the remaining PAH compounds exceeded ERL values in any of the composite samples. However, one individual core sample (A-5) exceeded ERL values for seven of the eleven individual PAH compounds for which guideline values exist. Core sample A-5 also exceeded the ERL value for total PAHs.

Total speciated butyltins (as dibutyltin, monobutyltin, tributyltin and tetrabutyltin) were detected in the composites in concentrations ranging from 36 to 132 ug/kg. Butyltin concentrations in individual cores ranged from 3.3 ug/kg (core B-4) to 393 ug/kg (core A-4). Sediment quality guidelines do not exist for speciated butyltins.

When comparing the Berths 226-231 composite sediment results with the reference sites, Composite B was more chemically similar to the LA2 reference site, while composites A and C were more similar to the Pier 400 reference site. The exceptions to this were for oil and grease, some nutrients, speciated butyltins, and semivolatile compounds, which were generally higher in the composite samples than in the reference site samples.

6.8.2 Elutriate Chemistry

Results of the chemical analysis of both standard and effluent elutriate from the Berths 226-231 composite samples are shown in Table 22.

Standard and effluent elutriate dissolved metal concentrations from Berths 226-231 were below "chronic" (CCC) screening criteria in all three composite samples. Except for total and dissolved arsenic and dissolved zinc in the standard elutriate of the Composite A sample, metal concentrations (total and dissolved) in the elutriates were similar to background water concentrations. Total and dissolve arsenic were more than ten times higher in the Composite A standard elutriate sample compared to background water, and dissolved zinc was about four times higher. However, the dissolved zinc data is suspect since the dissolved fraction was more than four times higher than the total fraction even though all quality control objectives were met.

Tributyltin concentrations exceeded the CCC criterion in the Berths 226-231 Composite A and B standard elutriate samples by a factor of 6 and 24, respectively. A low concentration (four times higher than the CCC criterion) was also found in the background water sample. Tributyltin was not detected in any other sample and no other speciated butyltins were detected in any of the Berths 226-231 elutriate samples.

Except for low concentrations of DDE and a few PAH compounds in some of the composite samples, no organic compounds were detected in the elutriates from Berths 226-231. Similarly, no organic compounds were detected in the background water sample.

6.8.3 Toxicity Testing

Water column (suspended particulate phase) bioassay results for Composite A sediments from Berths 226-231 (Table 23) indicate no significant toxicity to *Americamysis* or *Menidia* (LC50=>100%) and minor toxicity to *Mytilus* (LC50= 71.1%, EC50 =71.9%). Initial mixing calculations show that the LPC ***would not*** be exceeded by unconfined aquatic disposal of the Composite A sediments. Water column bioassay results for Composites B and C indicated no significant toxicity to either *Americamysis*, *Menidia* or *Mytilus* (LC50 and EC50 for all three species=>100%).

Benthic (solid phase) bioassay results for the three composite sediments from Berths 226-231 are summarized in Table 23. *Nephtys* survival was 100% in both Composites A and B and 96% in Composite C. Thus, survival in the composite sediments was not statistically significantly lower than survival in reference sediments from LA2 (98%) or from Pier 400 (94%). *Nephtys* survival in control sediment was 98%. *Ampelisca* survival in the three composites, which ranged from 78% to 84%, was not significantly lower than survival in LA2 reference sediments (92%) and in Pier 400 reference sediments (91%).

6.8.4 Bioaccumulation Assessment

Nereis viriens

When compared with either LA2 or Pier 400 reference tissues, there was no significant accumulation of metals, chlorinated pesticides, PCBs or PAHs in worm (*Nereis*) tissues from any of the three composite samples exposed to Berths 226-231 sediments see (Table 24)

Macoma nausta

Concentrations of metals in clam (*Macoma*) tissues exposed to the three Berths 226-231 sediment composite samples were similar, especially among Composites A and C (Table 25). The mean concentrations of both copper and zinc in clams from Composites A and C were statistically significantly higher (but less than two times) than the mean concentration of copper and zinc in clams exposed to LA2 reference sediments. There was no significant accumulation of metals in Composite B clam tissues.

Presence of organic compounds in clam tissues exposed to the Berths 226-231 sediment composites was also similar among composites (Table 25). Clam tissues from all three composites had statistically significantly elevated concentrations of DDE, total PCBs (Aroclor 1254), three PAH compounds benzo(b)fluoranthene, benzo(a)pyrene, and pyrene, and total PAHs compared to either the LA2 reference tissues or both LA2 and Pier 400 reference tissues. Tissue burdens for DDE ranged from 1.3 to 1.5 times higher than the LA2 reference tissues. Total PCBs were two to seven times higher in the composite tissues compared to both reference tissues, and the PAH compounds were anywhere from 5.5 times higher for total PAHs in Composite A tissues to 33 times higher for pyrene in Composite B tissues compared to both reference sites. Note that for statistical evaluation, analytes undetected in the tissues were equivalent to 50% of the detection limit.

7.0 CONCLUSIONS, AND RECOMMENDATIONS

Each berth area or composite area sampled for maintenance dredging or future deepening is a candidate for one or more disposal options including ocean disposal, in-harbor unconfined aquatic disposal, in-harbor confined aquatic disposal, and disposal at an upland facility. Based on the evaluation of all data, initial categories of suitability for reuse/disposal of the tested sediments are given in Table 26. This table also summarizes the data leading to a particular conclusion or recommendation. Final determinations of suitabilities of these sediments for given categories of reuse/disposal will be made by regulatory agencies and matched to options available to the Port for these maintenance dredging sediments.

To obtain these initial categories of suitability for reuse/disposal for each of the maintenance dredging sediments tested, the sediment testing results were evaluated. Contaminants of concern were found in all composites at concentrations in excess of ERL and/or ERM sediment guidance values. Decisions were made not to further test sediments for open water disposal from Berths 36, 153-155, 165-167, 177-179, and 180-181 because of generally high concentrations of multiple contaminants of concern.

Sediments from most of the other berth areas that were further tested showed fairly substantial bioaccumulation of PCBs and PAHs that would seem to preclude open water disposal as an option, though toxicity of tested sediments generally did not exceed Limiting Permissible Concentrations (LPCs). Only the future maintenance dredging sediments from Berths 122-124 were judged suitable for ocean disposal at LA2 or at an in-harbor unconfined aquatic disposal facility based on the lack of or minor toxicity, low levels of observed bioaccumulation, and the lack of a significant potential to impact water quality.

The lack of toxicity exceeding LPCs and minimal contamination found in elutriate samples should allow the sediments from all berth areas to be suitable for placement at an in-harbor confined aquatic disposal facility. Because all analytes from all samples were below Title 22 criteria and very little contaminant leaching occurred, the sediment from all berth areas should also be acceptable for upland disposal.

Because the bioaccumulation results, mainly with clams, determined the reuse/disposal categories of many of the sediments to be dredged, the bioaccumulation results were also evaluated using the USACE Biota/Sediment Accumulation Factors (BSAFs) database for *Macoma nausta* (http://www.wes.army.mil/el/bsaf/bsaf.html) to see if the nonpolar organic tissue concentrations measured were within expected ranges for given sediment concentrations. Data were also compared to the USACE/USEPA Environmental Residue Effects Database (ERED) (http://www.wes.army.mil/ el.ered) to assess if toxicity results were consistent with the tissue burdens measured.

To make comparisons with the BSAF database, Accumulation Factors (AFs) were calculated and compared directly to the BSAF database. AFs and BSAFs are the ratio of sediment concentrations normalized to the total organic carbon content of the sediment and tissue concentrations normalized to the percent lipid fraction. Table 27 summarizes these comparisons for *Macoma nasuta*. With a few exceptions, most of them minor, the *Macoma nausta* AFs calculated for this program fall within the range of BSAFs found in the Corps of Engineers database for *Macoma nasuta*. Therefore, the substantially elevated levels of organic compounds found in the *Macoma* tissues are reliable estimates and were not found to be abnormally high.

To see if the toxicity results were generally consistent with the tissue burdens measured in the longer-term (28 day) bioaccumulation tests and to put this bioaccumulation in a better perspective, there are some generalizations that can be made, as follows:

- Accumulation of copper and zinc by both clams and worms was minor in magnitude, although statistically significant. Incremental increases in concentration over LA2 reference tissue were less than 1.5 times in all tissues, and absolute tissue concentrations were well below the lowest No Observable Effects Concentration (NOEC) values for survival (25 mg/kg copper for *Macoma balthica*, 279 mg/kg zinc for *Mytilus edulis*) reported in the ERED database.

- Accumulation of lead was slightly greater in magnitude, with a peak increment over LA2 reference tissue of 4.4 times in clams exposed to Berths 127-131 top sediment. Increments in all other tissues were less than 2 times. The lowest NOEC reported in ERED for lead was 11.4 mg/kg (for growth in *Crassostrea gigas*), well above the highest tissue value found in this study (8.4 mg/kg in Berth 127-131 top clams).

- DDE accumulated in clams exposed to several test sediments but only to a minor degree, showing increments over LA2 reference tissue of 1.5 or less. The highest reported tissue value in this study was 134 ug/kg. The lowest reported invertebrate NOEC for DDE in ERED was 20,000 ug/kg for development in *Chironomous tentans*. The lowest reported NOEC for DDE in ERED was approximately 1500 ug/kg for mortality in *Salvelinus namaycush.*

- DDT accumulated in Berths 90-92 and 93A-93B clams to an increment of 7.6 times over both reference clam tissues. This increment is misleading because DDT was not detected in any reference tissue, and the statistical comparison was made against 50% of the detection limit. Furthermore, the DDT tissue concentration found (30.2 ug/kg) was far below the lowest NOEC reported in ERED (620 ug/kg) for feeding behavior in *Mercenaria mercenaria*.

- PCBs (as Aroclor 1254) were statistically significantly accumulated by clams from virtually all sediment composites tested, and by worms from three sediment composites. The magnitude of the accumulation was often large, ranging from increments of 5.6 to 30 times over LA2 reference tissues and increments of 2.2 to 12 times over Pier 400 reference tissues. Aroclor 1254 was not detected in LA2 tissues, thus the comparison was made with 50% of the detection limit. Aroclor 1254 was detected in one replicate of Pier 400 tissue, allowing comparison with a higher basis. The highest increments over reference tissues were found in clams exposed to sediments from Berths122-124 (17.9 times/7.1times over LA2 and Pier 400), Berths125-126 (30 times/12 times), and the top of Berths 127-131 (29 times/11.5 times). Even the maximum tissue value reported in this study (610 ug/kg) was far below the lowest NOEC reported in EPA (2000) for a mollusk (13,800 ug/kg for burrowing behavior in *Macoma nasuta*).

- Some individual PAHs showed statistically significant accumulation by clams from each of the sediments tested and by worms only from the Berths 90-92 and 93A-93B sediments. The magnitude of the accumulation of individual PAHs was often very large, with increments over reference tissues as high as 400 times for pyrene in *Macoma* and 100 times for pyrene in *Nereis.* Berths 90-92 and 93A-93B sediments produced significant accumulation of 9 individual PAHs by clams, with increments over reference tissues

ranging from 4.4 times (anthracene) to 400 times (pyrene). Berths 90-92 and 93A-93B sediments also produced significant accumulation of 6 individual PAHs by worms, with increments ranging from 8.6 times (Bernzo(a)pyrene) to 99 times (pyrene). Sediments from Berths 125-126 produced accumulation by clams of 5 individual PAHs with incremental increases between 5 times (Benzo(a)anthracene) and 47 times (pyrene). Berths 127-131 sediments produced accumulation of 4 individual PAHs with increments of 29 times (benzo(k)fluoranthene) to 48 times (pyrene) over reference tissues. Sediments from the remaining berths produced accumulation of 2 two or three PAH compounds, with incremental increases ranging from 2.2 times to 33 times.

- Pyrene was the PAH compound that was most often accumulated by clams. Total PAHs were statistically significantly elevated in tissues exposed to all test sediments. The incidence of statistical significance was somewhat influenced by the absence of detectable PAHs in both tissues, so that comparisons were made using reference tissue values equal to 50% of detection limit. The large incremental increases, however, suggest that this was not a major factor. Despite the very large incremental increases over reference tissues, the absolute tissue concentrations were generally much below the NOEC levels reported in ERED, with a few exceptions.

- The highest tissue concentration of any individual PAH was 8400 ug/kg of pyrene in clams exposed to Berths 90-92 and 93A-93B sediments. The lowest NOEC reported in ERED for pyrene was 5400 ug/kg, for survival in *Dreissena polymorpha*, a freshwater mussel. Clearly this high concentration of tissue pyrene might be expected to produce biological effects in mollusks.

- ERED reports a NOEC of 10 ug/kg of benzo(a)pyrene for feeding behavior in *Mercenaria mercenaria*. The next lowest NOEC for benzo(a)pyrene in a mollusk is 1500 ug/kg for reproduction in *Mytilus edulis*, which seems more in line with reported NOECs for other PAHs. Tissue concentrations of benzo(a)pyrene in this study ranged from 144 to 2480 ug/kg, exceeding the 10ug/kg NOEC in all test tissues, but exceeding the 1500 ug/kg NOEC only in clams exposed to sediments from Berths 90-92 and 93A-93B.

- Using the critical Body Residue approach for non-polar narcosis developed by McCarty and Mackay (1993), measured tissue concentrations of total PAHs were converted to molar equivalents and then compared to the effects range reported for chronic narcosis. The measured tissue residue for total PAHs in clams exposed to Berths 90-92 and 93A-93B sediments was 0.011 mmol/kg, well below the levels found to cause toxicity (0.2 to 0.8 mmol/kg). In other words, with the exception of pyrene and benzo(a)pyrene in clams exposed to Berths 90-92 and 93A-93B sediments, tissue residue values in study organisms were below reported biological effects levels.

To summarize, with few exceptions, mostly minor, and within the expected limitations of these generalized databases, the results of these bioaccumulation tests fall within the range of predicted BSAFs values and the toxicity results are generally as expected from the Residue Effects Database.

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Appendix G.1
Defining Low-Income Populations

1.0 Introduction

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, requires federal agencies to assess the potential for their actions to have disproportionately high and adverse environmental and health impacts on minority and low-income populations. This memorandum provides background documentation for how low-income populations were defined for the purposes of environmental justice analysis in the EIS/EIR for the Berth 97-109 project at the Port of Los Angeles. Although common practice among many federal agencies is to use national poverty thresholds from the U.S. Census Bureau, costs of living are sufficiently higher in southern California compared to the nation as a whole that a higher low-income threshold may be justified. Using a higher low-income threshold would result in a larger number of households being counted as low-income for the purposes of analysis under Executive Order 12898 and related environmental justice guidance.

2.0 Guidance

Environmental justice guidance issued by various federal agencies refers to several different methodologies and definitions for identifying low-income persons or households. Guidance from the Council on Environmental Quality (CEQ) applies to all federal agencies, and the Army Corps of Engineers also uses EPA guidance. EPA guidance is also relevant because EPA is the federal agency responsible for reviewing the environmental justice analysis for legal sufficiency.

CEQ *Environmental Justice Guidance Under NEPA* (CEQ, 1997) suggests that Census poverty thresholds should be used to identify low-income populations. Census poverty thresholds have the advantage of being defined differently for different household sizes and numbers of dependents. For example, the threshold for a two-parent family with one child is different for the threshold for a single parent with five children. However, the Census poverty thresholds do not include geographic variations (e.g., for differences in the cost of living).

USEPA guidance for identifying low-income populations recommends that analysts consider regional definitions for poverty or low-income status. For example, EPA's *Final Guidance for Incorporating Environmental Justice Concerns in EPA's NEPA Compliance Analyses* (USEPA, 1998) notes that "In conjunction with census data, the EPA NEPA analyst should also consider state and regional low-income and poverty definitions as appropriate" (USEPA 1998, Section 2.1.2). EPA's *Final Guidance for Consideration of Environmental Justice in Clean Air Act 309 Reviews* (USEPA, 1999) contains almost identical language, noting that "In addition to using U.S. Census defined parameters for measuring income and poverty, it is also important to consider state and regional low-income and poverty definitions where appropriate" (USEPA, 1999; Section 3.0 Issue Number 2). (Both USEPA guidance documents also advise using additional local resources, such as public outreach and other outreach efforts that involve community members in defining their communities.)

3.0 Review of Alternative Definitions

SAIC surveyed available literature as well as several national, state, and county agencies to explore the use of regional thresholds or guidelines to classify low-income people or households. This section provides information about the different approaches identified in this review.

Poverty or low-income status as defined by the national agencies surveyed generally is not regionalized, with the exception of Alaska and Hawaii. In other words, these agencies typically have one national standard. These national agency definitions are included, however, because they often serve as the basis for regionalized guidelines.

At the national level, there is a distinction between poverty thresholds and poverty guidelines. Poverty thresholds are the original version of the federal poverty measures as defined by the U.S. Census Bureau. The poverty threshold figures vary by household size and number of dependents, whereas the poverty guidelines vary by household size only. The poverty guidelines are a simplification of the poverty thresholds used by some agencies for administrative purposes, such as determining eligibility for federal and other programs.

The different approaches surveyed include:

- U.S. Census Bureau Poverty Thresholds
- U.S. Department of Health and Human Services Poverty Guidelines
- U.S. Department of Housing and Urban Development AMI Limits
- U.S. Department of Agriculture Food and Nutrition Income Eligibility Guidelines
- U.S. Social Security Administration Medicare Part D Income Eligibility Guidelines
- U.S. Citizenship and Immigration Services Poverty Guidelines
- California Department of Aging Title V Eligibility Criteria
- California Health and Safety Code Low and Moderate Income Definitions
- Los Angeles Department of Public Social Services Income Eligibility Guidelines
- Metropolitan Transportation Commission Equity Analysis and EJ Report
- RAND Corporation and UCLA School of Public Health poverty research publication
- Public Policy Institute of California poverty research publication

These approaches are described in more detail in the paragraphs that follow. The specific numerical guidelines, where applicable, are summarized in Table 1 at the conclusion of this section.

3.1 Census Bureau Poverty Thresholds (2006)

The U.S. Census Bureau develops a set of money income thresholds to determine who is in poverty, forming a detailed 48-cell matrix that varies by family size and composition.

The thresholds do not vary geographically, but are updated annually for inflation using the Consumer Price Index for Urban Consumers (CPI-U). Poverty thresholds were originally developed in 1963-1964 by the Social Security Administration based the portion of a family budget spent on food and U.S. Department of Agriculture economy food plans. The Census poverty thresholds are used primarily for statistical purposes and not necessarily intended as a complete description of what people and families need to live nor as eligibility criteria for public aid programs.

3.2 HHS Poverty Guidelines (2007)

The U.S. Department of Health and Human Services Poverty Guidelines are issued each year in the Federal Register for use in determination of program eligibility. The HHS guidelines represent the basis for many other state and regional guidelines, therefore are referenced in the following descriptions as simply the "federal poverty guidelines." Programs using these guidelines include Head Start, the Food Stamp Program, the National School Lunch Program, the Low-Income Home Energy Assistant Program, and the Children's Health Insurance Program. The HHS Poverty Guidelines are based on simplifications of the U.S. Census Bureau's detailed matrix of poverty thresholds and are updated annually using Consumer Price Index data. The guidelines vary by family size, with one set of figures for the 48 contiguous states, one set for Alaska, and one set for Hawaii.

3.3 HUD AMI Limits (HUD, 2007a)

The U.S. Department of Housing and Urban Development develops income limits for its programs based on Median Family Income (MFI) reported from the U.S. Census Bureau's American Community Survey, updated annually. HUD income limits are percentages of MFI, or Area Median Income (AMI), calculated in accordance with the U.S. Housing Act of 1937, as amended. There are three distinct income limits: AMI30 (Extremely Low Income, 30 percent MFI), AMI50 (Very Low Income, 50 percent MFI), and AMI80 (Low Income, 80 percent MFI). The very low-income designation (based on 50 percent of MFI) is considered to have the strongest statutory basis as, according to HUD, it has the best-defined income limits, has been subject to minimal legislative adjustments following calculation methodology review, and is tied by legislation to a number of other income limit calculations.

3.4 USDA Income Eligibility Guidelines (2007)

The U.S. Department of Agriculture establishes annual income guidelines to be used in determining eligibility for free and reduced meals and free milk programs by schools, institutions, and other relevant facilities. The USDA guidelines are based on percentages of the federal poverty guidelines as reported by HHS. Income eligibility for reduced priced meals is 185 percent of the federal guideline and eligibility for free meals is 130 percent of the federal guideline.

3.5 SSA Medicare Part D

The U.S. Social Security Administration determines the eligibility of individuals seeking Medicare Part D coverage based on income limits up to 150 percent of the federal

poverty guideline. As eligibility for Medicare is on an individual basis, the guidelines are not reported by family size and are not included in Table 1 below.

3.6 USCIS (2006)

The U.S. Citizenship and Immigration Service establishes minimum income requirements for individuals filing an Affidavit of Support under the Immigration and Nationality Act. Individuals petitioning for sponsorship of their foreign national spouse or child complete the affidavit. The USCIS poverty guidelines are 125 percent of the federal poverty guidelines.

3.7 California Department of Aging (2007)

California Department of Aging administers several programs that determine eligibility based on income limits. The Senior and Community Service Employment Program (Title V) uses 125 percent (135 percent for LA County and several other counties) of the federal poverty guidelines for eligibility and reporting purposes. The Health Insurance Counseling and Advocacy Program (HICAP) determines Specified Low-Income Medicare Beneficiaries (SLMB) to be those with income up to 150 percent of the federal poverty guidelines. SLMB status is relevant in determining eligibility for certain national and state Medicare benefit programs.

3.8 California Health and Safety Code

California Health and Safety Code Section 50093 establishes that "persons and families of low or moderate income" are defined as persons and families whose income does not exceed 120 percent of area median income, adjusted for family size in accordance with HUD standards. The state may permit agencies to use higher income limitations in designated geographic areas of the state upon determination that the 120 percent limitation is too low based on area rental and home purchase prices. The code does not specify figures by family size therefore the guidelines are not included in Table 1 below.

3.9 Los Angeles County DPSS (2007)

The Los Angeles County Department of Public Social Services bases eligibility for certain county programs on a broad range of income guidelines depending on the particular program. All program eligibility guidelines however are based various percentages of the federal poverty guidelines. Eligibility criteria for various county programs range from 100 percent to 250 percent of the federal poverty guideline.

3.10 San Francisco Bay Area Metropolitan Transportation Commission (2001)

The San Francisco Bay Area Metropolitan Transportation Commission *2001 Regional Transportation Plan Equity Analysis and Environmental Justice Report* identifies low-income households as those with incomes up to 200 percent of federal poverty guidelines, due to the relatively high cost of living in the Bay Area. Citing the MTC report, the *Draft EIR for the Chevron USA Long Wharf Marine Oil Terminal* (February 2006) also uses 200 percent of the federal guidelines for the purposes of identifying low-income populations.

3.11 RAND Corporation and UCLA (2003)

In their report *Concentrated Poverty vs. Concentrated Affluence*, researchers from RAND Corporation and UCLA analyzed the relationship between concentrations of families in poverty and their neighborhood social environments and children's outcomes, particularly in terms of school performance. It is important to note that the focus of this paper is not on defining what threshold should be used to determine low-income status, but rather on determining how low-income status correlates with outcomes for children growing up. In a separate analysis contained in the report, low income families were identified as those with annual family income less than or equal to $24,000 and high income families were identified as those with annual income equal to or greater than $75,000. The report does not explain in detail the reason for using these thresholds, nor does it identify poverty thresholds or guidelines for different family sizes.

3.12 Public Policy Institute of California (2006)

The report *Poverty in California: Moving Beyond the Federal Measure* (Reed, 2006) describes and implements the method recommended in a 1995 National Academy of Sciences (NAS) study for adjusting poverty thresholds to incorporate regional housing costs. The primary objective of the study was to measure poverty levels in California incorporating the higher cost of living in California relative to the rest of the nation. As a byproduct, the study involved calculating both numerical income thresholds in California and a ratio of California poverty thresholds to national thresholds.

The approach used in this study is based on a method suggested by a NAS panel and documented in Citro and Michael (1995). The NAS report listed a series of recommendations, including the inclusion of an adjustment for geographic differences in the poverty threshold. As a first and partial step to account for cost-of-living differences across geographic areas, the NAS panel recommended that the housing component of poverty thresholds be adjusted for geographic differences in the cost of living (Short, 2001; Citro and Michael, 1995). The basic approach is to adjust the U.S. Census Poverty Threshold (federal poverty threshold) using the ratio of regional housing costs to national housing costs. This ratio is, in turn, constructed from the U.S. Department of Housing and Urban Development (HUD) Fair Market Rent (FMR) dataset (HUD, 2007b).[1]

FMRs determine the eligibility of rental housing units for the Section 8 Housing Assistance Payments program. FMRs are gross rent estimates – included is the shelter rent plus the cost of all utilities, except telephones. FMRs are estimated annually for 354 metropolitan areas and 2,350 nonmetropolitan county FMR areas. The current definition used is the 40th percentile rent (i.e., the dollar amount below which 40 percent of the standard-quality rental housing units are rented). The 40th percentile rent is based on the distribution of rents of all units occupied by recent movers (renter households who moved to their present residence within the past 15 months). (This means that it more

[1] U.S. Census Poverty Thresholds are available online at: http://www.census.gov/hhes/www/poverty/threshld.html. HUD FMRs are available online at: http://www.huduser.org/datasets/fmr.html.

likely represents rents close to or at current market values, since rent controls only apply for people who stay in their unit continuously.) HUD estimates FMRs for different size units based on number of bedrooms (1 to 4 bedrooms, or efficiency units). HUD develops this statistic by drawing from three sources of data: U.S. Census, the HUD American Housing Survey (AHS), and random digit dialing telephone surveys (HUD, 1995).

The method used requires calculating the ratio of the local FMR within a specified geographic area to the national average FMR for a given unit size category (number of bedrooms). HUD does not develop the national average FMR. Reed (2006) calculated the national average FMR as a population-weighted average using population estimates from the U.S. Census (Reed, 2007).[2]

Having computed the national average FMR, Reed (2006) used the ratio of the regional FMR to the national FMR to calculate regionally specific poverty thresholds based on federal poverty thresholds. Since this ratio (regional FMR to national FMR) reflects only the regional difference in the cost of housing, Reed (2006) applies the ratio to the estimated proportion of income low-income families spend on housing.
The NAS panel estimated this proportion to be 0.44; that figure is based on the proportion of consumer expenditures devoted to housing for two-adult/two-child families spending at the 35th percentile of the distribution on food, housing, and clothing (from the BLS Consumer Expenditure Survey). Nonhousing costs, such as for food, clothing, and health care, also differ geographically. However, the data to adjust nonhousing costs for geographic variation generally do not exist, and the NAS panel recommends adjusting the housing component only given the current state of research.[3]

[2] To calculate the national average FMR, Reed (2006) used data from the U.S. Census Current Population Survey (CPS). Reed linked FMR data to CPS data by metropolitan area and by state for non-metropolitan area. She then computed the national average FMR using this construct dataset. This method should produce approximately the same result as using the complete FMR dataset available from HUD and linking to the population of each county, which is easier to implement primarily because it does not require using the CPS.

[3] Citro and Michael (1995) state that "No adjustment has been made for spatial differences in prices, not because the adjustment is necessarily undesirable in principle, but because of the practical difficulties of adequately measuring those differences. There are no geographic area cost-of-living indexes that correspond to the Consumer Price Index: Bureau of Labor Statistics (BLS) produces price indexes for a limited number of metropolitan areas, but not for rural areas. Moreover, the BLS indexes are designed to allow comparison of differences in price inflation across areas; they do not permit comparison of price levels across areas…. At this stage of knowledge, we recommend that the adjustment be made for the housing component of the poverty thresholds. Research indicates that housing (including utilities) is the item for which prices vary most across the country, and considerable effort has been devoted to estimating interarea housing cost indexes."

Thus, the ratio of the regional poverty threshold to the national threshold would be

(0.44) x (Regional FMR/National Average FMR) + (0.56).

This ratio could be applied to any of the national poverty thresholds, which differ by number of people and number of adults in the household. (However, when calculating a specific numeric threshold, the analysis should take into account the relationship between number of bedrooms and household size.)

3.13 Summary

Based on the assessment of the above programs, low income definitions for administrative purposes (such as program eligibility) are generally a percentage increase over the federal poverty guidelines. These adjustments appear to reflect both broad national considerations and more regionalized economic situations (higher area cost of living). The percentage adjustment to the federal poverty guidelines is generally between 120 percent and 135 percent.

Table 1 provides a summary of low-income guidelines recommended or used by the various agencies and studies included in this paper. The first row in the table displays the U.S. Census Poverty Thresholds, which are the basis for determining the U.S. Health and Human Services 2007 Poverty Guidelines shown in the second row. The HHS Poverty Guidelines are generally the basis for the other guidelines displayed in the table, most of which are 125 percent to 135 percent of the HHS guidelines.

Table 1
Comparison of Low-Income Guidelines (2007 except as noted)

Organization	Number of Persons in Household							
	1	2	3	4	5	6	7	8
US Census (2006)	$10,295	$13,166	$16,079	$20,615	$24,375	$27,544	$31,225	$34,694
US HHS[1]	$10,210	$13,690	$17,170	$20,650	$24,130	$27,610	$31,090	$34,570
US HUD AMI30	$15,550	$17,750	$20,000	$22,200	$24,000	$25,750	$27,550	$29,300
US HUD AMI50	$25,900	$29,600	$33,300	$37,000	$39,950	$42,900	$45,900	$48,850
US HUD AMI80	$41,450	$47,350	$53,300	$59,200	$63,950	$68,650	$73,400	$78,150
USDA Free Meal	$13,273	$17,797	$22,321	$26,845	$31,369	$35,893	$40,417	$44,941
USDA Reduced Meal	$18,889	$25,327	$31,765	$38,203	$44,641	$51,079	$57,517	$63.955
USCIS	NA	$17,120	$21,470	$25,820	$30,170	$34,520	$38,870	$43,220
CA Title V	$12,763	$17,113	$21,463	$25,813	$30,163	$34,513	$38,863	$43,213
CA Title V (L.A.)	$13,785	$18,485	$23,180	$27,880	$32,580	$37,275	$41,975	$46,670
CA HICAP	$15,315	$20,535	$25,755	$30,975	$36,195	$41,415	$46,635	$51,855
LA DPSS 100%	$10,210	$13,690	$17,170	$20,650	$24,130	$27,610	$31,090	$34,570
LA DPSS 250%	$25,525	$34,225	$42,925	$51,625	$60,325	$69,025	$77,725	$86,425

1. U.S. Health and Human Services Federal Poverty Guidelines

4.0 Method Used

From an analytical perspective, it is best to use a ratio based directly on Census poverty thresholds. The most comprehensive source of income data at a fine geographic level is the U.S. Decennial Census. For block groups (which generally contain 600 to 3,000 people), the Census provides number of households in $5,000 income categories (but not cross-tabulated by other characteristics such as household size), and the number of people with a given ratio of income to the Census poverty threshold for their household size and number of dependents (for income-to-poverty ratios of 0-0.5, 0.5-0.75, 0.75-1, 1-1.25, 1.25-1.5, 1.5-1.75, 1.75-1.85, 1.85-2, and over 2). Thus, for instance, the Census can be used to derive the number of people whose income was less than 1.5 times the Census poverty threshold for their particular situation (household size and number of dependents). The advantage of the income-to-poverty ratio data is that they use the full richness of the Census dataset on individual income and household characteristics; that is, individual people and households are evaluated with respect to their individual situations.

Because the papers from the Public Policy Institute of California (Reed, 2006) and the National Academy of Sciences (Citro and Michael, 1995) have the best developed approach to identifying regional low-income thresholds, SAIC developed poverty thresholds following the method described in these papers. Thus, SAIC calculated the ratio of the FMR for Los Angeles County to the national average FMR. To calculate the national average FMR, SAIC used a population-weighted average, using population data from the FMR dataset constructed by HUD and representing population estimates from the 2000 U.S. Census within a specified FMR area. For comparison purposes, SAIC computed the ratio of the Los Angeles County FMR to the national average FMR for all years between 1999 and 2007. The computed index values are presented in Table 2.

Table 2
Ratio of Los Angeles County FMR to National FMR

Year	Efficiency	1-bdrm	2-bdrm	3-bdrm	4-bdrm
1999	1.17	1.19	1.22	1.24	1.28
2000	1.17	1.18	1.21	1.23	1.28
2001	1.13	1.14	1.17	1.19	1.23
2002	1.13	1.14	1.17	1.19	1.23
2003	1.26	1.27	1.30	1.32	1.37
2004	1.30	1.31	1.34	1.36	1.41
2005	1.31	1.40	1.46	1.49	1.58
2006	1.36	1.45	1.52	1.56	1.64
2007	1.39	1.49	1.55	1.59	1.68

SAIC then developed ratios indicating the relationship between the regional poverty threshold (for Los Angeles County) to the national poverty thresholds using the method described above in Section 3.12 (i.e., 0.56 + 0.44 x Regional FMR/National FMR). Table 3 presents the resulting ratios.

Table 3
Ratio of Los Angeles County Poverty Threshold to National Poverty Threshold

Year	Efficiency	1-bdrm	2-bdrm	3-bdrm	4-bdrm
1999	1.08	1.08	1.10	1.10	1.12
2000	1.07	1.08	1.09	1.10	1.12
2001	1.06	1.06	1.08	1.08	1.10
2002	1.06	1.06	1.08	1.08	1.10
2003	1.11	1.12	1.13	1.14	1.16
2004	1.13	1.14	1.15	1.16	1.18
2005	1.14	1.17	1.20	1.22	1.25
2006	1.16	1.20	1.23	1.25	1.28
2007	1.17	1.21	1.24	1.26	1.30

The year-over-year increases in the ratio of the implied Los Angeles County poverty threshold to the national threshold suggest that in recent years, the degree to which the regional cost of living exceeds the national average has increased. However, the ratios are all between 1.06 and 1.30, and most are under 1.25. This suggests that using Census data on the number of people with income-to-poverty-threshold ratio of either less than 1, or less than 1.25, would be an appropriate regional definition for low-income populations.

To be conservative (i.e., include more people in the low-income category), SAIC used 1.25 times the Census poverty threshold to measure low-income populations for this analysis. The use of this higher threshold is also consistent with the concepts used by various federal and state agencies, as described in Section 3, which involve using 1.25 to 1.35 times the HHS poverty guidelines.

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Appendix G.2
Minority and Low income Population in Block Group near Port of Los Angeles

Area	Total population	Percent Minority Population	Population for whom poverty status is determined	Ratio of income in 1999 to poverty level; less than or equal to 1.24	Percent of Population Below Poverty
Long Beach City	461,522	66.87	453,065	134,986	29.79
Los Angeles City	3,694,820	70.25	3,622,606	1,053,683	29.09
Los Angeles County	9,519,338	68.91	9,349,771	2,235,042	23.90
Census Tract 2933.01	**2,977**	**66.27**	**2,969**	**257**	**8.66**
Block Group 1	2,977	66.27	2,969	257	8.66
Census Tract 2933.02	**4,302**	**65.34**	**4,269**	**652**	**15.27**
Block Group 1	1,866	52.14	1,683	94	5.59
Block Group 2	2,436	75.45	2,586	558	21.58
Census Tract 2933.04	**4,207**	**81.46**	**4,199**	**1,228**	**29.25**
Block Group 1	2,467	80.58	2,301	621	26.99
Block Group 2	1,740	82.70	1,898	607	31.98
Census Tract 2933.05	**4,660**	**64.42**	**4,641**	**952**	**20.51**

Block Group 1	1,040	80.96	1,146	410	35.78
Block Group 2	2,230	74.44	2,005	455	22.69
Block Group 3	1,390	35.97	1,490	87	5.84
Census Tract 2941.10	**4,060**	**90.91**	**4,078**	**792**	**19.42**
Block Group 1	1,759	89.60	1,681	497	29.57
Block Group 2	1,389	91.58	1,357	195	14.37
Block Group 3	912	92.43	1,040	100	9.62
Census Tract 2941.20	**2,529**	**98.42**	**2,498**	**588**	**23.54**
Block Group 1	637	99.22	653	89	13.63
Block Group 2	1,204	99.00	1,156	403	34.86
Block Group 3	688	96.66	689	96	13.93
Census Tract 2942	**4,425**	**88.11**	**4,396**	**1,070**	**24.34**
Block Group 1	1,088	84.56	1,102	237	21.51
Block Group 2	1,905	87.98	1,859	514	27.65
Block Group 3	1,432	90.99	1,435	319	22.23
Census Tract 2943	**7,059**	**88.94**	**7,017**	**2,287**	**32.59**
Block Group 1	1,330	88.95	1,406	550	39.12
Block Group 2	1,456	84.62	1,328	247	18.60

Block Group 3	2,043	90.55	1,969	515	26.16
Block Group 4	2,230	90.27	2,314	975	42.13
Census Tract 2944.10	**3,854**	**84.02**	**3,836**	**1,315**	**34.28**
Block Group 1	796	95.48	828	394	47.58
Block Group 2	3,058	81.03	3,008	921	30.62
Census Tract 2944.20	**3,270**	**88.23**	**3,528**	**1,341**	**38.01**
Block Group 1	1,138	96.13	1,191	293	24.60
Block Group 2	1,017	97.15	1,229	698	56.79
Block Group 3	1,115	72.02	1,108	350	31.59
Census Tract 2945.10	**4,266**	**95.64**	**4,236**	**1,562**	**36.87**
Block Group 1	1,650	94.30	1,567	396	25.27
Block Group 2	2,616	96.48	2,669	1,166	43.69
Census Tract 2945.20	**3,609**	**93.77**	**3,580**	**1,259**	**35.17**
Block Group 1	1,519	92.69	1,434	498	34.73
Block Group 2	2,090	94.55	2,146	761	35.46
Census Tract 2946.10	**3,875**	**93.24**	**3,866**	**1,069**	**27.65**
Block Group 1	1,208	92.72	1,353	180	13.30
Block Group 2	2,667	93.48	2,513	889	35.38

Census Tract 2946.20	**3,931**	**97.91**	**3,901**	**1,364**	**34.97**
Block Group 1	1,600	98.19	1,550	558	36.00
Block Group 2	1,581	98.10	1,642	567	34.53
Block Group 3	750	96.93	709	239	33.71
Census Tract 2947	**3,270**	**93.15**	**3,242**	**1,716**	**52.93**
Block Group 1	12	58.33	-	-	Unknown
Block Group 2	19	84.21	-	-	Unknown
Block Group 3	95	52.63	117	15	12.82
Block Group 4	1,894	92.03	1,978	1,112	56.22
Block Group 5	523	99.62	470	284	60.43
Block Group 6	727	97.52	677	305	45.05
Census Tract 2948.10	**4,039**	**97.72**	**3,997**	**1,715**	**42.91**
Block Group 1	1,936	96.80	1,779	449	25.24
Block Group 2	2,103	98.57	2,218	1,266	57.08
Census Tract 2948.20	**3,555**	**96.71**	**3,561**	**1,834**	**51.50**
Block Group 1	2,084	96.07	2,197	1,178	53.62
Block Group 2	1,471	97.62	1,364	656	48.09
Census Tract 2948.30	**3,274**	**96.09**	**3,205**	**1,542**	**48.11**

Block Group 1	2,097	98.04	2,134	1,014	47.52
Block Group 2	1,177	92.61	1,071	528	49.30
Census Tract 2949	**3,262**	**95.65**	**3,262**	**1,642**	**50.34**
Block Group 1	1,316	92.78	1,310	277	21.15
Block Group 2	1,946	97.58	1,952	1,365	69.93
Block Group 3	-	Unknown	-	-	Unknown
Census Tract 2951.01	**5,188**	**34.14**	**5,146**	**438**	**8.51**
Block Group 1	370	50.00	340	-	0.00
Block Group 2	4,455	27.77	4,390	211	4.81
Block Group 3	363	96.14	416	227	54.57
Census Tract 2961	**1,434**	**67.99**	**155**	**48**	**30.97**
Block Group 1	184	20.65	155	48	30.97
Block Group 2	1,241	75.42	-	-	Unknown
Block Group 9	9	11.11	-	-	Unknown
Census Tract 2962.10	**2,858**	**92.30**	**2,904**	**1,247**	**42.94**
Block Group 1	1,361	94.71	1,473	638	43.31
Block Group 2	374	75.40	370	113	30.54
Block Group 3	1,123	95.01	1,061	496	46.75

Census Tract 2962.20	**3,605**	**91.21**	**3,559**	**2,231**	**62.69**
Block Group 1	989	98.18	925	508	54.92
Block Group 2	2,117	91.92	1,985	1,252	63.07
Block Group 3	499	74.35	649	471	72.57
Census Tract 2963	**4,348**	**52.21**	**4,316**	**571**	**13.23**
Block Group 1	1,424	67.77	1,383	312	22.56
Block Group 2	2,924	44.63	2,933	259	8.83
Census Tract 2964	**6,294**	**42.79**	**6,181**	**553**	**8.95**
Block Group 1	428	60.98	441	86	19.50
Block Group 2	1,139	56.80	1,060	105	9.91
Block Group 3	1,251	51.40	1,253	68	5.43
Block Group 4	1,146	34.21	1,185	152	12.83
Block Group 5	2,330	32.19	2,242	142	6.33
Census Tract 2965	**3,796**	**85.46**	**3,774**	**993**	**26.31**
Block Group 1	1,316	88.91	1,395	464	33.26
Block Group 2	1,621	84.70	1,614	377	23.36
Block Group 3	859	81.61	765	152	19.87
Census Tract 2966	**5,200**	**79.29**	**5,161**	**1,898**	**36.78**

Block Group 1	1,406	91.04	1,311	618	47.14
Block Group 2	1,274	75.75	1,304	590	45.25
Block Group 3	1,028	72.96	913	279	30.56
Block Group 4	1,492	75.60	1,633	411	25.17
Census Tract 2969	**8,250**	**65.10**	**8,216**	**2,352**	**28.63**
Block Group 1	1,360	72.35	1,335	442	33.11
Block Group 2	2,183	79.75	2,116	824	38.94
Block Group 3	1,935	67.75	2,053	637	31.03
Block Group 4	889	48.48	846	121	14.30
Block Group 5	1,883	48.01	1,866	328	17.58
Census Tract 2970	**5,482**	**32.29**	**5,208**	**574**	**11.02**
Block Group 1	1,026	21.15	1,075	35	3.26
Block Group 2	666	25.53	720	112	15.56
Block Group 3	1,240	40.56	1,164	138	11.86
Block Group 4	1,671	38.84	1,319	221	16.76
Block Group 5	879	26.28	930	68	7.31
Census Tract 2971.10	**4,547**	**79.44**	**4,117**	**1,981**	**48.12**
Block Group 1	2,109	73.02	1,831	934	51.01

Block Group 2	2,438	84.99	2,286	1,047	45.80
Census Tract 2971.20	**3,358**	**77.64**	**3,501**	**1,388**	**39.65**
Block Group 1	44	15.91	45	11	24.44
Block Group 2	1,714	83.31	1,856	745	40.14
Block Group 3	1,600	73.25	1,600	632	39.50
Census Tract 2972	**8,011**	**51.70**	**7,875**	**1,428**	**18.13**
Block Group 1	2,162	66.74	2,105	634	30.12
Block Group 2	1,424	54.63	1,376	234	17.01
Block Group 3	1,602	45.88	1,610	217	13.48
Block Group 4	1,422	42.97	1,471	225	15.30
Block Group 5	1,401	41.04	1,313	118	8.99
Census Tract 2973	**2,886**	**30.53**	**3,032**	**225**	**7.42**
Block Group 1	743	23.42	720	36	5.00
Block Group 2	1,229	35.64	1,247	67	5.37
Block Group 3	914	29.43	1,065	122	11.46
Census Tract 2974	**3,615**	**15.91**	**3,527**	**66**	**1.87**
Block Group 1	1,028	16.34	928	8	0.86
Block Group 2	387	19.90	390	-	0.00

Block Group 3	2,200	15.00	2,209	58	2.63
Census Tract 2975	**3,324**	**29.51**	**3,243**	**280**	**8.63**
Block Group 1	1,553	38.70	1,572	232	14.76
Block Group 2	676	20.71	587	26	4.43
Block Group 3	1,095	21.92	1,084	22	2.03
Census Tract 2976	**6,572**	**40.02**	**6,422**	**854**	**13.30**
Block Group 1	774	32.56	768	86	11.20
Block Group 2	893	33.03	914	142	15.54
Block Group 3	1,328	34.11	1,412	115	8.14
Block Group 4	1,249	39.55	1,208	149	12.33
Block Group 5	883	47.45	912	275	30.15
Block Group 9	1,445	49.62	1,208	87	7.20
Census Tract 5436.02	**4,141**	**70.47**	**4,047**	**410**	**10.13**
Block Group 2	4,141	70.47	4,047	410	10.13
Census Tract 5436.03	**4,116**	**62.39**	**4,106**	**368**	**8.96**
Block Group 1	4,116	62.39	4,106	368	8.96
Census Tract 5436.04	**5,162**	**86.38**	**5,135**	**362**	**7.05**
Block Group 1	3,120	86.41	3,031	182	6.00

Block Group 2	2,040	86.32	2,104	180	8.56
Block Group 3	2	100.00	-	-	Unknown
Census Tract 5437.02	**6,354**	**85.19**	**6,324**	**890**	**14.07**
Block Group 1	812	81.40	863	51	5.91
Block Group 2	2,256	92.82	2,195	304	13.85
Block Group 3	906	81.13	945	177	18.73
Block Group 4	1,319	81.96	1,279	78	6.10
Block Group 5	1,061	79.36	1,042	280	26.87
Census Tract 5437.03	**3,617**	**84.30**	**3,584**	**398**	**11.10**
Block Group 1	3,617	84.30	3,584	398	11.10
Census Tract 5439.04	**4,426**	**96.00**	**4,362**	**1,139**	**26.11**
Block Group 1	1,617	93.32	1,665	324	19.46
Block Group 2	2,806	97.54	2,697	815	30.22
Block Group 3	-	Unknown	-	-	Unknown
Block Group 4	3	100.00	-	-	Unknown
Census Tract 5727	**1,820**	**93.79**	**1,679**	**359**	**21.38**
Block Group 4	1,820	93.79	1,679	359	21.38
Census Tract 5728	**263**	**87.83**	**292**	**210**	**71.92**

Block Group 1	262	87.79	292	210	71.92
Block Group 2	-	Unknown	-	-	Unknown
Block Group 3	1	100.00	-	-	Unknown
Census Tract 5729	**3,310**	**97.31**	**3,273**	**1,382**	**42.22**
Block Group 2	2,106	98.10	2,022	1,117	55.24
Block Group 3	1,204	95.93	1,251	265	21.18
Census Tract 5755	**252**	**78.17**	**208**	**111**	**53.37**
Block Group 1	49	97.96	40	25	62.50
Block Group 2	2	0.00	-	-	Unknown
Block Group 3	16	81.25	-	-	Unknown
Block Group 4	180	73.33	168	86	51.19
Block Group 5	5	80.00	-	-	Unknown
Census Tract 5756	**46**	**84.78**	**2**	**-**	**0.00**
Block Group 1	11	45.45	-	-	Unknown
Block Group 2	2	50.00	2	-	0.00
Block Group 3	33	100.00	-	-	Unknown
Block Group 9	-	Unknown	-	-	Unknown
Census Tract 6099	**1,678**	**65.85**	**1,624**	**328**	**20.20**

Block Group 1	1,023	70.58	1,019	208	20.41
Block Group 2	655	58.47	605	120	19.83
Census Tract 6510.01	**975**	**40.21**	**978**	**48**	**4.91**
Block Group 4	975	40.21	978	48	4.91
Census Tract 6514	**1,150**	**28.70**	**1,198**	**62**	**5.18**
Block Group 1	1,150	28.70	1,198	62	5.18
Census Tract 6700.01	**3,244**	**42.88**	**3,131**	**354**	**11.31**
Block Group 1	1,646	43.38	1,595	188	11.79
Block Group 2	1,598	42.37	1,536	166	10.81
Census Tract 6700.02	**3,773**	**50.01**	**3,750**	**542**	**14.45**
Block Group 1	1,260	53.73	1,273	150	11.78
Block Group 2	2,513	48.15	2,477	392	15.83
Census Tract 6700.03	**6,037**	**42.47**	**6,037**	**710**	**11.76**
Block Group 1	786	45.04	854	163	19.09
Block Group 2	1,526	40.89	1,504	77	5.12
Block Group 3	1,366	39.46	1,376	68	4.94
Block Group 4	2,359	44.38	2,303	402	17.46
Census Tract 6701	**6,484**	**47.96**	**6,474**	**1,271**	**19.63**

Block Group 1	689	40.64	695	127	18.27
Block Group 2	2,003	44.38	1,987	469	23.60
Block Group 3	3,792	51.19	3,792	675	17.80
Census Tract 6702.01	**3,889**	**25.74**	**3,889**	**90**	**2.31**
Block Group 1	3,889	25.74	3,889	90	2.31
Census Tract 6705	**1,871**	**23.46**	**1,869**	**24**	**1.28**
Block Group 1	1,871	23.46	1,869	24	1.28
Census Tract 6706	**4,576**	**27.97**	**4,607**	**131**	**2.84**
Block Group 1	2,896	27.94	2,910	14	0.48
Block Group 3	1,680	28.04	1,697	117	6.89
Census Tract 6707.01	**6,777**	**32.95**	**6,748**	**345**	**5.11**
Block Group 1	2,631	40.25	2,612	297	11.37
Block Group 2	1,879	25.33	1,909	6	0.31
Block Group 3	1,224	33.74	1,205	4	0.33
Block Group 4	1,043	27.33	1,022	38	3.72
Census Tract 6707.02	**5,357**	**21.77**	**5,355**	**120**	**2.24**
Block Group 1	1,363	23.18	1,404	26	1.85
Block Group 2	1,163	23.39	1,084	20	1.85

Block Group 3	382	16.23	399	21	5.26
Block Group 4	2,185	21.19	2,150	53	2.47
Block Group 5	264	20.08	318	-	0.00

Source: U.S. Census Bureau 2000, Summary File 1 and Summary File 2; Compiled by ICF Jones and Stokes, July 2008