Initial Study and Mitigated Negative Declaration

Preliminary Master Plan for Former LA Times Site (PA-17-030)

(1375 Sunflower Ave., 1376 South Coast Dr., and 3370 Harbor Blvd.)

Prepared for

City of Costa Mesa
77 Fair Drive
Costa Mesa, California 92626

Prepared by

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June 20, 2017

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SECTION 1.0 PURPOSE OF THE INITIAL STUDY

In accordance with the California Environmental Quality Act (CEQA) (California Public Resources Code §21000 et seq.) and its Guidelines (*California Code of Regulations*, Title 14, §15000 et seq.), this Initial Study (IS) has been to evaluate the proposed Los Angeles (LA) Times Building Reuse Project. This IS includes a description of the proposed project, location of the project site, evaluation of the potential environmental impacts, findings from the environmental review, and proposed mitigation measures to lessen or avoid environmental impacts on the environment.

Pursuant to Section 15367 of the State CEQA Guidelines, the City of Costa Mesa (hereafter referred to as "the City") is the lead agency for the project. The lead agency is the public agency that has the principal responsibility for carrying out or approving a project. The City, as the lead agency, shall have the authority for project approval and adoption of the accompanying environmental documentation.

The purpose of this document is to evaluate the reuse of the existing 339,063 sf LA Times building and associated surface parking, and construction of 315,000 sf of office building campus and 3 parking structures. The project would include three separate buildings, 3 parking structures, and surface parking lots to be renovated/constructed in three phases. Access to the project site would be from South Coast Drive, Harbor Boulevard and Sunflower Avenue. As appropriate, this document incorporates, by reference, information that was presented in *Final Environmental Impact Report for the 2015-2035 General Plan* (State Clearinghouse No. 2015111053; Costa Mesa 2016).

1.1 SUMMARY OF FINDINGS

Based on the environmental checklist form completed for the project and supporting environmental analysis, the proposed project would have no impact or a less than significant impact on the following environmental impact areas: aesthetics, agriculture and forest resources, air quality, biological resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use/planning, noise, mineral resources, population and housing, public services, recreation, transportation/circulation, and utilities and service systems. An explanation as to why this finding has been made for these issues can be found under each of these topics referenced in the Checklist form.

The proposed project has the potential to have significant impacts on cultural resources without the incorporation of the recommended mitigation measures into the project.

According to the State CEQA Guidelines, it is appropriate to prepare an MND for the proposed project because, after incorporation of the recommended mitigation measures, potentially significant environmental impacts would be eliminated or reduced to a level considered less than significant.

1.2 PROJECT APPROVAL

The IS and proposed MND, which comprise this CEQA document, have been submitted to potentially affected groups and agencies. Notices of availability of the IS and MND have been posted at the project site, at the Orange County Clerk/Recorder's Office, on the City of Costa Mesa website, and at the City of Costa Mesa Clerk's Office for review and comment.

There will be a 30-day public review period for the IS/MND in accordance with Section 15073 of the State CEQA Guidelines. In reviewing the IS and proposed MND, the reviewer should focus

on the sufficiency of the document in identifying and analyzing the potential impacts of the project on the environment and the ways in which the potentially significant effects are avoided or mitigated through components of the project and mitigation measures to be applied. Comments on the analysis contained herein may be sent to:

Ms. Minoo Ashabi, AIA
Principal Planner
City of Costa Mesa Development Services Department
77 Fair Drive
Costa Mesa, California 92626
Email: minoo.ashabi@costamesaca.gov

Following receipt and evaluation of comments from agencies, organizations and/or individuals, the City will determine whether any substantial new environmental issues have been raised. If not, or if the new issues do not provide substantial evidence that the project will have a significant effect on the environment, the project and environmental documentation will be considered for approval.

1.3 REPORT ORGANIZATION

This document has been organized into the following sections:

- ***Section 1 – Introduction.*** This section provides an introduction and overview describing the conclusions of the IS.
- ***Section 2 – Project Location and Environmental Setting.*** This section provides an overview of the proposed project location; a description of existing on-site and surrounding land uses; and a statement of purpose and need.
- ***Section 3 – Project Description.*** This section identifies key project characteristics and includes a list of anticipated discretionary actions.
- ***Section 4 – Environmental Checklist.*** The completed Environmental Checklist Form provides an overview of the potential impacts that may or may not result from project implementation.
- ***Section 5 – Environmental Evaluation.*** This section contains an analysis of environmental impacts identified in the environmental checklist. As necessary, the narrative responses are followed by mitigation measures (MMs).
- ***Section 6 – Report Preparers.*** This section identifies those individuals responsible for preparing the IS.
- ***Section 7 – References.*** The References section identifies resources used to prepare this document.

SECTION 2.0 PROJECT LOCATION AND ENVIRONMENTAL SETTING

The proposed project would be implemented on the site of the former Los Angeles (LA) Times Building in the City of Costa Mesa (City). In July 2016, the GP FEIR was certified and the 2015-2035 General Plan was approved. These documents addressed the development of the LA Times site with up to 655,000 square feet (sf) of office development or 553,000 sf of commercial/retail development. As analyzed, the site is allowed to generate a maximum trip budget of 1,015 AM trips and 976 PM trips and development is limited to 5 stories/75 feet.

2.1 PROJECT LOCATION

The LA Times Building Reuse project (proposed project) site is located at 1375 West Sunflower Avenue and 3370 Harbor Boulevard in the City of Costa Mesa as shown on Exhibit 1, Regional Location/Local Vicinity Map. The LA Times building and associated surface parking areas encompass approximately 19.5 acres on 2 adjacent parcels currently owned by Tribune Publishing (Assessor Parcel Numbers [APNs] 140-041-24 and 140-041-40). The adjacent baseball field is approximately 4 acres on an additional parcel owned by Tribune Publishing (APN 140-041-62). The 23.5-acre project site is bound to the west by the National University campus, office buildings, and Harbor Boulevard; to the north by Sunflower Avenue and commercial and industrial development; to the east by commercial development, an isolated open space area and Susan Street; to the south by the IKEA retail center; and to the southeast by an active agricultural area.

2.2 PROJECT SETTING

The project site is located in a developed and urbanized area of the City of Costa Mesa, north of Interstate 405 (I-405) as shown on Exhibit 2, Aerial Photograph. The 23.5-acre project site, consisting of 3 parcels owned by Tribune Publishing, is currently occupied by the 339,063 sf former LA Times building and ancillary structures, surface parking areas, and an active baseball field. The site is relatively flat with no notable elevation changes. Landscaping on the site consists of planters along the LA Times building and throughout the associated parking lot, trees lining the perimeter of the baseball field, turf associated with the baseball fields, and an approximately 0.6-acre strip of trees and vegetation along the southern edge of the LA Times site.

The original LA Times building opened in 1968, with its first expansion occurring in 1980 and its final expansion in 1989. In 2010, the LA Times ceased printing operations at their Costa Mesa facility in line with efforts to consolidate their printing facilities into their Los Angeles and Irwindale facilities. This LA Times site was closed in October 2014. (The Press OC 2016; LA Times 2016)

The project site is designated Commercial Center and the site is located in the MP – Industrial Park zone in the Zoning Code.

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Regional Location/Local Vicinity Map

Exhibit 1

LA Times Building Reuse Project

N W E S

1,000 500 0 1,000 Feet

BonTerra PSOMAS

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Aerial Source: Aerials Express 2009

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Aerial Photograph

Exhibit 2

LA Times Building Reuse Project

N W E S

200 100 0 200 Feet

BonTerra PSOMAS

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SECTION 3.0 PROJECT DESCRIPTION

3.1 PROJECT CHARACTERISTICS

The proposed project involves the reuse of the existing 339,063 sf LA Times building and associated surface parking lot. The existing on-site building has historically been used as a newsroom and printing press for the Los Angeles Times newspaper and currently exists as a vacant space. The project also involves the renovation of the existing building and construction of approximately 315,000 sf of office building campus in two additional separate buildings, as shown on Exhibit 3, Site Plan. The proposed project would be renovated/constructed in three phases. Phase 1 of the proposed project would renovate the existing LA Times building, which would have a maximum building height of 56.5 feet with 2 levels of tiered mezzanine and would use the existing steel-structure of the building, and would construct 87 surface parking spaces and a 1,277-space, 3-level parking structure. Approximately three acres of outdoor amenities would be incorporated into the proposed project, including an amphitheater area, sports court, and dedicated bike path. In addition, the project would include 20,000 sf of covered patio areas. These outdoor amenities would be constructed under Phase 1.

Phase 2 would involve the construction of a 190,000 sf, 5-story building with a 220-space surface parking lot and an 697-space, 4-level parking structure to be located north of the LA Times building. Phase 3 would involve the construction a 125,000 SF, 5-story building with 84 surface parking spaces and a 423-space, 3-level parking structure to be located east of Harbor Boulevard.

A total of 2,788 parking spaces are proposed in three parking structures and several surface parking lots. All buildings under the proposed project would be Leadership in Energy and Environmental Design (LEED) certified.

3.1.1 CIRCULATION

Phase 1 of the proposed project would be accessed via two driveways located along South Coast Drive. Internal to the project site, vehicles would be directed to three surface parking areas or the proposed 3-level parking structure. As shown on Exhibit 3, Site Plan, the surface lots would be located south and southeast of the proposed building along South Coast Drive and northwest of the proposed building, north of the proposed parking structure.

Phase 2 of the proposed project would be accessed via a single driveway off of Sunflower Avenue. Vehicles would be directed to the surface parking areas proposed to be located adjacent to Sunflower Avenue, or to the proposed parking structure which would be constructed in the western portion of the site.

Phase 3 would be accessed via a driveway off of Harbor Boulevard and vehicular traffic would be directed to the surface parking areas along the northern edge of the site or to the proposed parking structure in the southeastern corner of the site.

3.1.2 LANDSCAPE AND HARDSCAPE

The eastern side of the proposed building in Phase 1 would be restricted to pedestrian and bicycle access and would include concrete walkways, a meandering bike lane, a basketball court, and an amphitheater. Additional pedestrian connections would be located throughout Phases 2 and 3 of the proposed project, as well.

Proposed landscaping would include a variety of drought-tolerant trees, shrubs and groundcover and would comply with City of Costa Mesa landscape standards.

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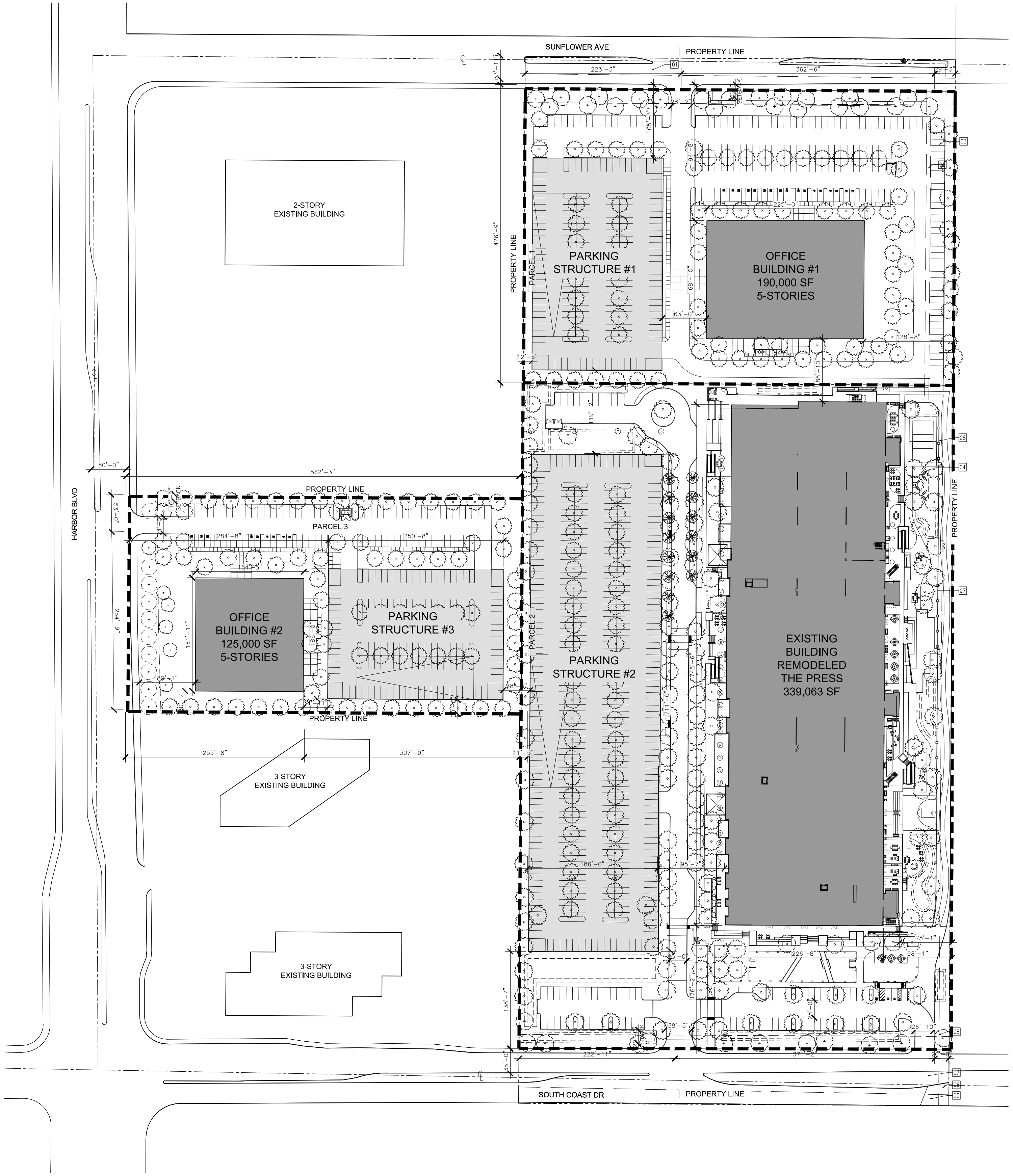

LOT COVERAGE

PARCEL 1:
BUILDING(S) FOOTPRINT: 94,200 SF
TOTAL LOT AREA: 266,909 SF
LOT COVERAGE: 35%
TOTAL GSF: 190,000 SF
FLOOR AREA RATIO: 0.71 F.A.R.
TOTAL OPEN SPACE: 75,857 SF
TOTAL DRIVEWAY & SURFACE PARKING: 96,852 SF

PARCEL 2:
BUILDING(S) FOOTPRINT: 310,984 SF
TOTAL LOT AREA: 578,527 SF
LOT COVERAGE: 54%
TOTAL GSF: 339,063 SF
FLOOR AREA RATIO: 0.59 F.A.R.
TOTAL OPEN SPACE: 164,961 SF
TOTAL DRIVEWAY & SURFACE PARKING: 102,582 SF

PARCEL 3:
BUILDING(S) FOOTPRINT: 71,625 SF
TOTAL LOT AREA: 174,265 SF
LOT COVERAGE: 41%
TOTAL GSF: 125,000 SF
FLOOR AREA RATIO: 0.72 F.A.R.
TOTAL OPEN SPACE: 71,208 SF
TOTAL DRIVEWAY & SURFACE PARKING: 31,432 SF

DEVELOPMENT STANDARDS

DEVELOPMENT STANDARDS PER SEC. 13-53: INDUSTRIAL-MP (CURRENT ZONING STANDARDS)		
	REQUIRED	PROPOSED
MIN. LOT AREA	10,000 SF	1,019,701 SF (NET)
MIN. LOT AREA FOR NEWLY SUBDIVIDED LOTS	10,000 SF	PARCEL 1: 266,909 SF (NET) PARCEL 2: 578,527 SF (NET) PARCEL 3: 174,265 SF (NET)
MIN. LOT WIDTH FOR NEWLY SUBDIVIDED LOTS	120'-0"	PARCEL 1: 615'-0" PARCEL 2: 614'-1" PARCEL 3: 307'-9"
MAX. FLOOR AREA RATIO		655,000 GSF / 1,019,701 SF = 0.64 FAR
MAXIMUM BUILDING/STRUCTURE HEIGHT	3 STORIES/45'-0"	OFFICE BUILDING #1: 75'-0" OFFICE BUILDING #2: 75'-0" THE PRESS: 56'-5" PARKING STRUCTURE #1: 32'-0" PARKING STRUCTURE #2: 41'-4" PARKING STRUCTURE #3: 32'-0"
MINIMUM SETBACKS FOR MAIN BUILDINGS AND ACCESSORY BUILDINGS AND STRUCTURES		
FRONT	ALL LOTS: 20'-0"	OFFICE BUILDING #1: 194'-8" OFFICE BUILDING #2: 80'-1" THE PRESS: 165'-5" PARKING STRUCTURE #1: 98'-2" PARKING STRUCTURE #2: 138'-7" PARKING STRUCTURE #3: 284'-8"
SIDE	INTERIOR LOT: 10'-0" CORNER LOT: 20'-0" ON STREET SIDE	OFFICE BUILDING #1: 128-8" OFFICE BUILDING #2: 337'-4" THE PRESS: 165'-5" PARKING STRUCTURE #1: 12'-5" PARKING STRUCTURE #2: 11'-5" PARKING STRUCTURE #3: 20'-0"
REAR	ALL LOTS: 0'-0"	OFFICE BUILDING #1: 99'-1" OFFICE BUILDING #2: 30'-0" THE PRESS: 75'-4" PARKING STRUCTURE #1: 264'-5" PARKING STRUCTURE #2: 119'-2" PARKING STRUCTURE #3: 38'-6"
REAR ABUTTING A PUBLIC STREET	20'-0"	N/A
PROJECTIONS		
ROOF OR EAVES OVERHANG; AWNING	2'-6" INTO REQUIRED SIDE SETBACK 5'-0" INTO REQUIRED FRONT OR REAR SETBACK	N/A
OPEN, UNENCLOSED STAIRWAYS	2'-6" INTO REQUIRED SETBACK AREA	N/A
PARKING	SEE PARKING TABULATIONS BELOW	
LANDSCAPING	REFER TO SHEET L1.00 FOR LANDSCAPE REQUIREMENTS	
SIGNS	UNDER SEPARATE PERMIT FOR APPROVAL	

Source: LPA 2017

Site Plan

Exhibit 3

LA Times Building Reuse Project

N W E S

0 60 120 Feet

Bonterra PSOMAS

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3.2 PROJECT PHASING AND CONSTRUCTION

Construction of the proposed project is anticipated to begin in January 2018 with completion of Phase 3 in March 2022. As mentioned above, construction of the proposed project would be sequenced in three phases, which are generalized as follows:

- Clearing and grubbing (1 month per phase)
- Demolition (2 months for Phases 1 and 2; 1 month for Phase 3)
- Grading (2 months per phase)
- Renovation (10 months for Phase 1; not applicable to Phases 2 or 3)
- New construction (12 months per phase)

Depending on the construction phase, implementation of the proposed project would require common equipment on-site such as excavators, loaders, scrapers, graders, compactors, cranes, forklifts, scissor lifts, paving machines, rollers, and asphalt delivery trucks. Grading activities for the proposed project would involve cut and fill of approximately 25,000 cubic yards (cy) of soils, which will be balanced on-site.

3.3 DISCRETIONARY ACTIONS

As part of the project, the following discretionary action would be required:

- Approval of Master Plan and/or Preliminary Master Plan

SECTION 4.0 ENVIRONMENTAL CHECKLIST

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

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

DETERMINATION: (To be completed by the Lead Agency.)

On the basis of this initial evaluation:

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

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

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

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on 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 al potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature	Date: 6-19-17
Printed Name: Minoo Ashabi	For: City of Costa Mesa

EVALUATION OF ENVIRONMENTAL IMPACTS:

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

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

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less 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 where the incorporation of mitigation measures has reduced an effect from "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 (mitigation measures from "Earlier Analysis," as described in (5) below, may be cross-referenced).

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

   a) Earlier Analysis Used. Identify and state where they are available for review.

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

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

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

7) Supporting Information Sources: A 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 less than significance.

This section includes the completed Environmental Checklist Form. The checklist form is used to assist in evaluating the potential environmental impacts of the proposed project. The Environmental Checklist Form identifies potential project effects as follows: (1) Potentially Significant Impact; (2) Less Than Significant With Mitigation Incorporated; (3) Less Than Significant Impact; and, (4) No Impact. Substantiation and clarification for each checklist response is provided in Section 5.0, Environmental Evaluation. Included in each discussion are mitigation measures, as appropriate, that are recommended for implementation as part of the proposed project.

ENVIRONMENTAL ISSUES (See attachments for information sources)	**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 within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐
II. AGRICULTURE AND FOREST RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of forestry and Fire Protection regarding the State's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220[g]), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104[g])?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

ENVIRONMENTAL ISSUES (See attachments for information sources)	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY. Where 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 non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☒
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 Wildlife 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, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinances?	☐	☐	☐	☒
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?	☐	☐	☐	☒

ENVIRONMENTAL ISSUES (See attachments for information sources)	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 §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐
e) Cause a substantial adverse change in the significance of a Tribal Cultural Resources as defined in Public Resources Code Section 21074?	☐	☒	☐	☐
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 on- or off-site 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 waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

ENVIRONMENTAL ISSUES (See attachments for information sources)	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GREENHOUSE GAS EMISSIONS. Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, That may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐
VIII. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☒	☐
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☒	☐
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒
IX. 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 such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐

ENVIRONMENTAL ISSUES (See attachments for information sources)	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off- site?	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner in which would result in flooding on- or off-site?	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☒	☐
f) Otherwise substantially degrade water quality?	☐	☐	☒	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☒	☐
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☒	☐
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☒	☐
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒
X. LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒
XI. MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
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?	☐	☐	☐	☒
XII. NOISE. Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐

ENVIRONMENTAL ISSUES (See attachments for information sources)	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒
XIII. POPULATION AND HOUSING Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
XIV. PUBLIC SERVICES.				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire Protection?	☐	☐	☒	☐
Police Protection?	☐	☐	☒	☐
Schools?	☐	☐	☒	☐
Parks?	☐	☐	☒	☐
Other Public Facilities?	☐	☐	☒	☐
XV. RECREATION.				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☒	☐

ENVIRONMENTAL ISSUES (See attachments for information sources)	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. TRANSPORTATION/CIRCULATION. Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system. Including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the 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 due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decreased the performance or safety of such facilities?	☐	☐	☐	☒
XVII. 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 storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects – and/or would the project include a new or retrofitted storm water treatment control Best Management Practice (BMP), (e.g. water quality treatment basin, constructed treatment wetlands), the operation of which could result in significant environmental effects (e.g. increased vectors and odors)?	☐	☐	☒	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐

ENVIRONMENTAL ISSUES (See attachments for information sources)	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE.				
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of rare or endangered plants or animals, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☒	☐	☐
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Fish and Wildlife Determination

(Per Section 21089(b) of the Public Resources Code, all project applicants and public agencies subject to the California Environmental Quality Act shall pay a Fish and Game filing fee for each proposed project that would adversely affect wildlife resources.)*

Based on the responses contained in this Environmental Checklist, there is no evidence that the project has a potential for a change that would adversely affect wildlife resources or the habitat upon which the wildlife depends. Has the presumption of adverse effect set forth in 14 CCR 753.5 (d) been rebutted by substantial evidence?

___ Yes (Certificate of Fee Exemption and County Administrative fee required)

___ No (Pay fee)

***Note:** Fish and Game Code Section 711.4(c)(2)(A) states that projects that are Categorically Exempt from CEQA are also exempt from filing fee.

SECTION 5.0 ENVIRONMENTAL EVALUATION

5.1 AESTHETICS

Impact Analysis

Would the project:

a) Have a substantial adverse effect on a scenic vista?

No Impact. According to Section 4.1 of the *Final Environmental Impact Report (EIR) for the 2015 - 2035 General Plan* (GP FEIR), scenic vistas are defined as locations within the City that would provide views of large, undeveloped areas such as the Upper Newport Bay, the Santa Ana River, and the Santa Ana Mountains. The GP FEIR only notes two sites where development may impact existing views: Segerstrom Home Ranch and Sakioka Lot 2. The project is not located within either of these sites, and the project site does not have views of any scenic vistas. Therefore, the project would not have an adverse effect on a scenic vista.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway or local scenic expressway, scenic highway, or eligible scenic highway?

No Impact. According to the GP FEIR, there are no designated or eligible State scenic highways in the City of Costa Mesa. As the City of Santa Ana is also adjacent to the project site, scenic highways within Santa Ana should also be considered; however, no scenic highways are identified in the *City of Santa Ana General Plan,* Scenic Corridors Element (Santa Ana 2010). Additionally, the California Scenic Highway Mapping System does not identify any Eligible or Officially Designated Scenic Highways within the vicinity of the project (Caltrans 2016). No State scenic highways have been identified adjacent to or in the vicinity of the project site; therefore, the project would not substantially damage scenic resources within a State scenic highway.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Less Than Significant Impact. The proposed project would reuse the existing 339,063 sf building associated with the former LA Times Printing Plant and would involve upgrades to the existing industrial building into an office building façade, compatible with other office buildings in the area, including additions of windows, glass features, and elements of color. Additionally, approximately 315,000 sf of office development would be developed within the adjacent areas currently occupied by surface parking and a baseball field. Reuse of the existing building would not substantially change the existing visual character or quality of the site and its surroundings; however, development of the adjacent parking lot and ball field may impact visual character or quality of the site through the introduction of additional development.

The Land Use Element of the GP FEIR identifies surrounding land uses as Industrial Park and Commercial Center. As the proposed project would introduce office uses to the project site which would be similar to existing development in the area, the project would be compatible with surrounding uses. The GP FEIR also notes that any new development within the City may impact the City's visual character and quality. Goals and policies are provided in the GP FEIR to avoid impacts to visual character or quality from development. The proposed project would be consistent with Goals CD-8 and CD-10 of the General Plan and all related policies that promote quality commercial and industrial/business park development through various design standards

and requirements; therefore, although the project would alter the existing visual character, the project would not degrade the character or quality of the site. A less than significant impact would occur related to the visual character or quality of the site or surrounding areas.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less Than Significant Impact. Under existing conditions, the on-site building, ancillary structures, the parking lot, and the baseball field are all sources of night lighting. Additionally, the project site is located in an urban, developed area and surrounding development in the project area, including industrial and commercial development and roadway lighting, all contribute to night lighting in the project area. Project implementation would add additional sources of light through the development of up to 315,000 sf of additional development; however, in accordance with Policy CD-8.1.H of the General Plan, all new exterior lighting sources would be designed to avoid spillover, light pollution, and glare. Additionally, all building finishes would consist of non-reflective materials and would minimize potential glare impacts. Therefore, project impacts pertaining to light or glare would be less than significant and no mitigation is required.

5.2 AGRICULTURE AND FOREST RESOURCES

Impact Analysis

Would the project:

a) 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?

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. According to the GP FEIR, there are no areas within the City that contain land designated as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance. The project site is not used for agricultural purposes and is not under Williamson Act contract. One area in the vicinity of the project site, the Segerstrom Home Ranch property, is currently used for production of row crops. The project site is located approximately 0.1 mile from this property and is physically separated from the property by Susan Street and South Coast Drive as well as a vacant, undeveloped parcel. There is no direct connection between the project site and the agricultural property. Additionally, the project site has historically functioned as a commercial space without impacting the agricultural operations; therefore, the proposed project would not affect this property. No agricultural-related impacts would result from project implementation. Therefore, no impacts would occur and no mitigation is required.

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

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. According to the GP FEIR, Section 4.2, there are no forest lands or timberlands within the City or in the vicinity of the project site. Therefore, the project would have no impact to forest lands or timberlands and no mitigation is required.

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

No Impact. As discussed previously, the proposed project site is not designated as farmland of significance and is not being used for agricultural production. There are areas in the vicinity of the project site that are currently used for agricultural purposes; however, as discussed previously under Section 5.2 a and b, proposed project actions would not convert these areas to non-agricultural use. Further, there are no forest lands in the vicinity of the project site; therefore, the project would not convert forest land to non-forest use. No impacts would occur and no mitigation is required.

5.3 AIR QUALITY

The City of Costa Mesa is located in the South Coast Air Basin (SoCAB), a 6,600-square-mile area bound by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The SoCAB includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, in addition to the San Gorgonio Pass area of Riverside County. Air quality in Orange County is regulated by the South Coast Air Quality Management District (SCAQMD), which is the agency principally responsible for comprehensive air pollution control in the SoCAB.

Criteria Pollutants and Attainment Status

The criteria pollutants for which federal standards have been promulgated and that are most relevant to this air quality impact analysis are ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), and particulate matter (PM10 and PM2.5). Respirable particulate matter with an aerodynamic diameter of 10 micrometers or less is referred to as PM10. Fine particulate matter, PM2.5, is a subgroup of PM10 that consists of smaller particles that have an aerodynamic diameter of 2.5 micrometers or less. O_3 is a gas that is formed when volatile organic compounds (VOCs) and nitrogen oxides (NOx)—both byproducts of internal combustion engine exhaust—undergo slow photochemical reactions in the presence of sunlight. Thus, VOCs and NOx are O_3 precursors. The State of California has ambient air quality standards for these pollutants and also for sulfates, hydrogen sulfide, vinyl chloride, and visibility reducing particles.

Based on monitored air pollutant concentrations, the U.S. Environmental Protection Agency (USEPA) and the California Air Resources Board (CARB) designate an area's status in attaining the National Ambient Air Quality Standards (NAAQS) and the California Ambient Air Quality Standards (CAAQS), respectively, for selected criteria pollutants. These attainment designations are shown in Table 1.

TABLE 1
ATTAINMENT STATUS OF CRITERIA POLLUTANTS
IN THE SOUTH COAST AIR BASIN

Pollutant	State	Federal
O_3 (1-hour)	Nonattainment	Extreme Nonattainment[a]
O_3 (8-hour)		Extreme Nonattainment
PM10	Nonattainment	Attainment/Maintenance
PM2.5	Nonattainment	Serious Nonattainment
CO	Attainment	Attainment/Maintenance
NO_2	Attainment	Attainment/Maintenance
SO_2	Attainment	Attainment
Lead	Attainment	Attainment/Nonattainment[b]
All others	Attainment[c]	No Standard

O_3: ozone; PM10: particulate matter 10 microns or less in diameter; PM2.5: particulate matter 2.5 microns or less in diameter; CO: carbon monoxide; NO_2: nitrogen dioxide; SO_2: sulfur dioxide.

[a] 1-hour O_3 standard was revoked, effective June 15, 2005 ; however, the Basin has not attained this standard and is still subject to anti-backsliding requirements.
[*b] Los Angeles County is classified Nonattainment for lead; the remainder of the SoCAB, including Orange County, is in attainment of the federal standard.
[c] CAAQS pollutants Hydrogen sulfide, sulfates, and vinyl chloride

Source: SCAQMD 2016a.

Sensitive Receptors

Some populations are more susceptible to the effects of air pollution than the population at large; these populations are defined as sensitive receptors. Sensitive receptors include children, the elderly, the sick, and people who spend hours outdoors in vigorous exercise. Land uses associated with sensitive receptors include residences, schools, playgrounds, childcare centers, athletic facilities, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes (Costa Mesa 2016b).

Impact Analysis

Would the Project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less than Significant Impact. The SCAQMD *2016 Air Quality Management Plan* (2016 AQMP) is the current air quality plan. On March 3, 2017, the SCAQMD adopted the 2016 AQMP, which was a regional and multi-agency effort, including SCAQMD, the California Air Resources Board (CARB), the Southern California Association of Governments (SCAG), and the United States Environmental Protection Agency (USEPA). The 2016 AQMP includes an analysis of emissions, meteorology, atmospheric chemistry, regional growth projections, and the impact of existing control measures. The purpose of the 2016 AQMP is to set forth a comprehensive program that would promote reductions in criteria pollutants, greenhouse gases, and toxic risk as well as efficiencies in energy use, transportation, and the goods movement (SCAQMD 2017a). The 2016 AQMP incorporates the latest scientific and technical information and planning assumptions, including the 2016 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS); updated emission inventory methods for various source categories; and SCAG's latest growth forecasts. The 2016 AQMP includes strategies and measures necessary to meet the National Ambient Air Quality Standards (NAAQS).

Pursuant to the methodology provided in Chapter 12 of the 1993 SCAQMD *CEQA Air Quality Handbook*, consistency with the 2016 AQMP is affirmed when a project: (1) does not increase the frequency or severity of an air quality standards violation or cause a new violation and (2) is consistent with the growth assumptions in the AQMP (SCAQMD 1993).

With respect to criterion 1, as discussed in thresholds "b" and "c" below, construction and operational direct and cumulative emissions would not exceed applicable SCAQMD air quality thresholds. Therefore, the project would not increase the frequency or severity of an air quality standards violation or cause a new violation, and the impact would be less than significant.

With respect to criterion 2, the project site General Plan designation was Industrial Park prior to adoption of the 2015-2035 General Plan, which changed the designation to Commercial Center. The assumptions for the 2016 AQMP are based on the prior Industrial Park designation. Office land uses generate more vehicle trips than industrial land uses of the same size. Therefore, the proposed project is not consistent with the growth assumptions for the 2016 AQMP. However, as shown in the analysis in threshold "b", the net increase in long-term emissions would be less than half of the SCAQMD project significance thresholds. Therefore, the increase is not considered considerable, nor does it constitute a conflict with the 2016 AQMP. The impact would be less than significant.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less Than Significant Impact. The SCAQMD provides significance thresholds for both construction and operation of projects within the SCAQMD jurisdictional boundaries. The SCAQMD recommends that projects be evaluated in terms of the quantitative thresholds shown in Table 2 to assess impacts of Project-related air pollutant emissions.

TABLE 2
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
AIR QUALITY SIGNIFICANCE THRESHOLDS

Mass Daily Thresholds (lbs/day)		
Pollutant	**Construction**	**Operation**
VOC	75	55
NOx	100	55
CO	550	550
PM10	150	150
PM2.5	55	55
SOx	150	150
Lead	3	3

SCAQMD: South Coast Air Quality Management District; lbs/day: pounds per day; VOC: volatile organic compound; NOx: nitrogen oxides; CO: carbon monoxide; PM10: respirable particulate matter with a diameter of 10 microns or less; PM2.5: fine particulate matter with a diameter of 2.5 microns or less; and, SOx: sulfur oxides.

Source: SCAQMD 2015.

Construction Emissions – Regional

Short-term criteria pollutant emissions would occur during site preparation, grading, building construction, paving, and painting activities associated with construction of the new buildings. Emissions would occur from use of off-road construction equipment, worker, vendor, and hauling

trips, and disturbance of on-site soils (fugitive dust). Emissions were calculated with the California Emission Estimator Model (CalEEMod) Version 2016.3.1 computer program (CAPCOA 2016). CalEEMod is designed to model construction emissions for land development projects and allows for the input of project- and County-specific information. Construction emissions impacts are based on the intensity of construction, as measured in pounds of pollutant emissions per day. Construction emissions for two general office buildings totaling 360,000 square feet, the renovation of an existing building (339,063 sf), construction of three parking structures (totaling 2,437 parking spaces) and 452 surface parking spaces were calculated using the CalEEMod program described above. Demolition and export of 15,529 tons of existing structures and pavement, and export of 1,040 cubic yards (cy) of soil was included in the CalEEMod program. It was estimated that construction would start in January 2017; a later start would have the same or less emissions. The project would be required to comply with SCAQMD Rule 403, Fugitive Dust, which requires dust control measures, typically watering all active grading and demolition activities, thereby minimizing fugitive dust, PM10, and PM 2.5 emissions. The project would also be required to comply with SCAQMD Rule 1113, Architectural Coatings, which limits the VOC content of paints, thereby minimizing VOC emissions. Model details are included in Appendix A. Estimated construction emissions are shown in Table 3.

TABLE 3
ESTIMATED MAXIMUM DAILY CONSTRUCTION EMISSIONS
(POUNDS/DAY)

Year of Construction[a]	ROG	NOx	CO	PM10	PM2.5
2018	60	78	58	9	3
2019	35	50	42	9	3
2021	4	34	26	4	2
2022	50	1	2	<1	<1
SCAQMD Thresholds	*75*	*100*	*550*	*150*	*55*
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**

ROG: reactive organic gases; NOx: nitrogen oxides; CO: carbon monoxide; PM10: respirable particulate matter with a diameter of 10 microns or less; PM2.5: fine particulate matter with a diameter of 2.5 microns or less; SCAQMD: South Coast Air Quality Management District.

[a] No construction planned for 2020.

Source: CalEEMod and architectural coating data in Appendix A.

As shown in Table 3, construction emissions would be less than the applicable significance thresholds and the impact would be less than significant.

Construction Emissions – Local/Ambient Air Quality

The localized effects from the on-site portion of daily emissions were evaluated at receptor locations potentially impacted by the project according to the SCAQMD's localized significance threshold (LST) method, which utilizes on-site emissions rate look up tables and project-specific modeling, where appropriate. LSTs are applicable to the following criteria pollutants: NO_2, CO, PM10, and PM2.5. LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or State ambient air quality standard, and are developed based on the ambient concentrations of that pollutant for each source receptor area and distance to the nearest receptor; all receptors are considered, not just the sensitive receptors described above. For LST CO and NO_2 exposure analysis, receptors who could be exposed for one hour or more are considered. For initial demolition and construction, the commercial building south of the western portion of the site is considered. For later

construction, the existing uses on the project site have been considered for CO and NO_2 analyses. For PM10 and PM2.5 exposure analysis, receptors who could be exposed for 24 hours are considered. Residences 200 meters east of the project site were considered for PM10 and PM 2.5 analyses. The mass rate look-up tables were developed for each source receptor area and can be used to determine whether or not a project may generate significant adverse localized air quality impacts. The SCAQMD provides LST mass rate look-up tables for projects that are less than or equal to five acres, which means this is the appropriate method for the project. When quantifying mass emissions for localized analysis, only emissions that occur on site are considered. Consistent with the SCAQMD's LST method guidelines, emissions related to off-site delivery/haul truck activity and employee trips are not considered in the evaluation of localized impacts.

LST analyses for the project site are shown in Table 4. The highest maximum daily emissions for LST purposes would occur during the grading phase of Phase 1, in 2018. As shown in Table 4, localized emissions for all criteria pollutants would be less than their respective SCAQMD LST significance thresholds for all pollutants. Thus, impacts would be less than significant and no mitigation is required.

TABLE 4
MAXIMUM LOCALIZED CONSTRUCTION POLLUTANT EMISSIONS
(LBS/DAY)

	NOx	CO	PM10	PM2.5
Maximum Daily Emissions	24	13	2	1
SCAQMD LSTs*	112	805	58	24
Exceeds SCAQMD Thresholds?	**No**	**No**	**No**	**No**

lbs/day: pounds per day; NOx: nitrogen oxides; CO: carbon monoxide; PM10: respirable particulate matter with a diameter of 10 microns or less; PM2.5: fine particulate matter with a diameter of 2.5 microns or less; SCAQMD: South Coast Air Quality Management District; LST: Local Significance Threshold.

* Thresholds for Source Receptor Area 18, North Coastal Orange County, 5-acre site, 25 meter receptor distance for NOx and CO, 200 meter receptor distance for PM10 and PM2.5

Source: SCAQMD 2009.

Operational Emissions

Operational emissions are composed of area, energy, and mobile (i.e., vehicle) source emissions. Emissions were calculated with CalEEMod for the assumed project buildout of 655,000 square feet of General Office use and three parking structures. The primary source of operational criteria pollutant emissions from the proposed project would be vehicles used by project employees, customers, and vendors. The proposed project's mobile source emissions are based on the project-related trip generation rate, as contained in the proposed project's traffic analysis for full development in 2022 (Stantec 2017). Estimated peak daily operational emissions are shown in Table 5.

As presented in Table 5, operational emissions generated by the proposed project would be below the SCAQMD regional thresholds of significance. Therefore, the impact would be less than significant and no mitigation is required.

TABLE 5
PEAK DAILY OPERATIONAL EMISSIONS

Emissions Source	Emissions (lbs/day)				
	VOC	NOx	CO	PM10	PM2.5
Area sources	15	<1	<1	<1	<1
Energy sources	<1	2	1	<1	<1
Mobile sources	11	18	139	49	13
Emergency Generator	<1	<1	<1	<1	<1
Total Gross Operational Emissions	**26**	**20**	**140**	**50**	**13**
SCAQMD Significance Thresholds	*55*	*55*	*550*	*150*	*55*
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**

lbs/day: pounds per day; VOC: volatile organic compounds; NOx: nitrogen oxides; CO: carbon monoxide; PM10: respirable particulate matter with a diameter of 10 microns or less; PM2.5: fine particulate matter with a diameter of 2.5 microns or less; SCAQMD: South Coast Air Quality Management District.

Totals may not add due to rounding.

Notes: Emissions are the higher of summer or winter seasons.
SOx and lead emissions are not shown; these emissions would be negligible for the proposed project.
CalEEMod model data sheets are included in Appendix A.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard (Including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Less than Significant Impact. The region is a nonattainment area for PM10, PM2.5, and O_3 (refer to Table 1). SCAQMD's policy with respect to cumulative impacts associated with the above referenced pollutants and their precursors is that impacts that would be directly less than significant would also be cumulatively less than significant (SCAQMD 2003). Therefore, the proposed project's long-term operational emissions of the nonattainment pollutants would be cumulatively less than significant.

As discussed under threshold "b", short-term construction emissions would be reduced to less than significant levels. Therefore, consistent with SCAQMD policy, the cumulative construction impact of nonattainment pollutants would be less than significant. As shown in Table 5, project long-term operational emissions of PM10, PM2.5, and the O_3 precursors VOC and NOx would be less than significant. Therefore, the proposed project's long-term operational emissions of the nonattainment pollutants would be cumulatively less than significant.

d) Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact.

<u>Concentrations of Criteria Pollutants</u>

Exposure of persons to construction period NO_2, CO, PM10, and PM2.5 emissions is discussed in response to Question "b" above. There would be no significant impacts, and no additional mitigation is required.

There would be no notable operational criteria pollutant sources that could expose sensitive receptors to substantial criteria pollutant concentrations.

Toxic Air Contaminants

The majority of health risk from toxic emission sources within the SoCAB is from diesel particulate matter and pollutants associated with industrial uses. The proposed office use project is not anticipated to involve emission sources that would generate substantial levels of toxic emissions. The proposed project would likewise not develop industrial uses nor would it place sensitive receptors near industrial uses. The project impact would be less than significant.

Carbon Monoxide Hotspots

A carbon monoxide (CO) hotspot is an area of localized CO pollution that is caused by severe vehicle congestion on major roadways, typically near intersections. CO hotspots have the potential to violate state and federal CO standards at intersections, even if the broader Basin is in attainment for federal and state levels. The *City of Costa Mesa Year 2015 - 2035 General Plan EIR* states, "Pursuant to existing regulations, future development projects associated with buildout of the proposed General Plan will be screened and analyzed pursuant to the CO Protocol to determine if a CO hotspot may occur at congested intersections." The California Department of Transportation *Project-Level Carbon Monoxide Protocol* (CO Protocol) indicates that there is a potential impact if a project worsens traffic at intersections operating at level of service (LOS) E or F (UCD ITS 1997). The project traffic analysis forecasts that no intersections would operate at LOS E or F in the Opening Day (2018) scenario. In the long range (2035) scenario, one intersection, Harbor Boulevard and MacArthur Boulevard, would operate at LOS E in the PM peak hour. However, the intersection capacity utilization factor would not change from the No-Project to the Full Project condition (Stantec 2017). Therefore, project traffic contributions to this intersection would not be substantial. In addition, the SoCAB is in a state of attainment for CO, and future concentrations would be expected to be less than current levels. As such, there would be no potential for a CO hotspot and the impact would be less than significant.

e) Create objectionable odors affecting a substantial number of people?

No Impact. According to the *CEQA Air Quality Handbook*, land uses associated with odor complaints include agricultural operations, wastewater treatment plants, landfills, and certain industrial operations (such as manufacturing uses that produce chemicals, paper, etc.) (SCAQMD 1993). The proposed project would not develop or include these types of activities. There would be no impact.

5.4 BIOLOGICAL RESOURCES

Impact Analysis

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 Wildlife or U.S. Fish and Wildlife Service?

No Impact. The project site is located within an urban area and is fully developed with a vacant building, ancillary structures, associated surface parking areas, and a baseball field. Based on a review of the site's existing conditions and according the Costa Mesa General Plan, the site does not contain habitat which would support candidate, sensitive, or special

status (i.e., threatened or endangered) species. On-site vegetation is limited to ornamental species associated with maintained landscape areas. Therefore, the site does not support areas of natural habitat or areas that would support sensitive biological resources. Specifically, the project site does not support habitat that would be conducive to nesting burrowing owls as discussed in Mitigation 4.3.A-1 of the GP FEIR. No areas of annual or perennial grasslands, desert, or arid scrubland with low-growing vegetation or agricultural use or vegetation exist on the project site; therefore, a focused survey for burrowing owls would not be required.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Services?

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

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

e) Conflict with any local policies or ordinances protecting biological resources, such as 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?

No Impact. As discussed previously, the project site is located in a largely urban area and is fully developed. The site does not support any riparian habitat, wetlands, or other sensitive natural community. The project site is not located within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan. The developed nature of the site and the areas immediately surrounding the site, in combination with the lack of wildlife species in the area, would preclude use of the project site as a migratory wildlife corridor. Additionally, the site does not support native wildlife and does not serve as a native wildlife nursery site. Therefore, the proposed project would not result in a significant impact related to biological resources. No impacts would occur.

5.5 CULTURAL RESOURCES

Impact Analysis

Would the Project:

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

No Impact. Consistent with the analyses provided in the GP FEIR and the 2015-2035 General Plan's Historical and Cultural Resources Element, the project site does not contain any known historically significant resources (Costa Mesa 2016a,b). The State-recommended threshold under which buildings may be considered historic resources is a construction age of 50 years (California Code of Regulations, §4852.d.2). As detailed in Table CUL-1, City of Costa Mesa Historic Resources Inventory, of the GP FEIR there are two properties (Segerstrom House and Segerstrom Barn) located approximately ½ mile southeast of the project site; however, these

properties would not be impacted by development of the proposed project. No other historic resources were identified within ½ mile of the project site. Therefore, no impacts to historic resources would occur.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Less Than Significant With Mitigation. Due to the location of the project site in a developed, urban area that has been subjected to previous disturbance related to urban development, the potential for discovery of archaeological resources or disturbances of human resources is low. Development of the proposed project is not expected to uncover any archaeological resources. However, there is the possibility that resources exist at subsurface levels, and the uncovering of such resources could occur during excavation activities. Therefore, there is the potential that grading and excavation activities related to the development of the proposed project could result in the disturbance of undiscovered archaeological resources, thereby resulting in a potentially significant impact. Potential effects to unknown resources would be reduced to less than significant levels through the implementation of **MM CULT-1**.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant With Mitigation. The majority of the project site has previously been disturbed. Still, the possibility exists that as-yet unidentified paleontological sites are present beneath the site. Similar to the discussion provided under threshold "b" above, impacts to paleontological resources would be reduced to less than significant levels through the implementation of **MM CULT-2.**

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

Less Than Significant Impact. The nearest cemetery is located 0.65 miles southwest of the project site, and there are no known formal cemeteries on the project site; however, the potential exists that undiscovered human remains may be encountered during development activities. Per the GP FEIR, compliance with Section 7050.5 of the California Health and Safety Code and Section 5097.98 of the California Public Resources Code, which require the County Coroner to be notified immediately if any human remains are encountered, would reduce potential impacts to less than significant levels.

e) Would the project cause a substantial adverse change in the significance of a Tribal Cultural Resource as defined in Public Resources Code Section 21074?

Less Than Significant With Mitigation. Pursuant to Assembly Bill 52, the City of Costa Mesa contacted 14 Native American Tribes regarding the proposed project. The tribes were mailed an informational letter on August 19, 2016 that describes the project and requests any information regarding resources that may exist on or near the project site. To date, one tribe, the Gabrielino Band of Mission Indians – Kizh Nation, responded and requested consultation. In their response letter, the tribe requested that a Certified Native American Monitor be present during any and all ground disturbance in an effort to protect any cultural resources that may be effected. As discussed previously in the Response to Threshold b, there is the potential that grading and excavation activities related to the development of the proposed project could result in the disturbance of undiscovered archaeological resources, thereby resulting in a potentially significant impact. These undiscovered resources may include Tribal Cultural Resources. Potential effects to unknown resources would be reduced to less than significant levels through the implementation of **MM CULT-1**.

Mitigation Measures

MM CULT-1 Prior to approval of each grading plan, the Property Owner/Developer shall submit a letter to the Development Services Department, Planning Division, which identifies the Archaeologist who has been hired to ensure that the following actions are implemented:

a. All on-site demolition, excavation, and grading activities shall be monitored by a qualified Archaeologist and Certified Native American Monitor. The Archaeologist must be present at the pre-grading conference in order to establish procedures for temporarily halting or redirecting work to permit the sampling, identification, and evaluation of artifacts if potentially significant artifacts are uncovered. If artifacts are uncovered and determined to be significant, the archaeological monitor shall determine appropriate actions in cooperation with the Property Owner/Developer and Certified Native American Monitor for exploration and/or salvage.

b. Specimens that are collected prior to or during the grading process will be donated to an appropriate educational or research institution.

c. Any archaeological work at the site shall be conducted under the direction of the certified Archaeologist. If any artifacts are discovered during grading operations when the archaeological monitor is not present, grading shall be diverted around the area until the monitor can survey the area.

d. A final report detailing the findings and disposition of the specimens shall be submitted to the City Engineer. Upon completion of the grading, the Archaeologist shall notify the City as to when the final report will be submitted.

MM CULT-2 Prior to approval of each grading plan, the Property Owner/Developer shall submit a letter to the Development Services Department, Planning Division, identifying the Paleontologist that has been hired to ensure that the following actions are implemented:

a. Site excavation and grading that would disturb soils at a depth of 5 feet or more and in areas deemed sensitive by the Paleontologist shall be monitored by a qualified Paleontologist. The Paleontologist must be present at the pre-grading conference in order to establish procedures to temporarily halt or redirect work to permit the sampling, identification, and evaluation of fossils if potentially significant paleontological resources are uncovered. If artifacts are uncovered and found to be significant, the paleontological monitor shall determine appropriate actions in cooperation with the Property Owner/Developer for exploration and/or salvage.

b. Specimens that are collected prior to or during the grading process will be donated to an appropriate educational or research institution.

c. Any paleontological work at the site shall be conducted under the direction of the certified Paleontologist. If any fossils are discovered during grading operations when the paleontological monitor is not present, grading shall be diverted around the area until the monitor can survey the area.

d. A final report detailing the findings and disposition of the specimens shall be submitted. Upon completion of the grading, the Paleontologist shall notify the City as to when the final report will be submitted.

5.6 GEOLOGY AND SOILS

Impact Analysis

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.

Less Than Significant Impact. The project site, as with the entire Southern California region, is subject to secondary effects from earthquakes, including ground shaking due to future earthquakes on regionally active faults. The project site is not located within a State-designated Alquist-Priolo Earthquake Fault Zone. According to the GP FEIR, the nearest Alquist-Priolo fault zones to the project site are the Newport-Inglewood structural zone and the Whittier-Elsinore fault zone, both of which contain active faults. The Whittier-Elsinore fault zone is over 17 miles from the project site. The Newport-Inglewood structural zone extends into the City of Costa Mesa and is the closest fault zone to the project site. According to Exhibit 4.6-6, Geological Hazards Map, of the GP FEIR, the nearest fault to the project site is located approximately 1.3 miles away and the main fault is located 0.3 miles south of the City limits (Costa Mesa 2016). The *City of Santa Ana General Plan* (identified because the City of Santa Ana abuts the northern edge of the project site) also notes that the Newport-Inglewood structural zone is the closest active fault zone to the City of Santa Ana; however, there are no known active faults within Santa Ana (Santa Ana 2010). Implementation of the proposed project would be consistent with existing codes and regulations, including the *California Building Code* (CBC) and the requirements of the Alquist-Priolo Special Studies Zone Act (*California Public Resources Code* §§2621 et seq.). Therefore, development of the proposed project would result in a less than significant impact related to rupture of a known earthquake fault, and no mitigation is required.

ii) Strong seismic ground shaking?

Less Than Significant Impact. The project site is situated in a seismically active area. As discussed previously, the site is located proximate to several active faults; therefore, during the life of the project, the property would likely experience similar moderate to occasionally high ground shaking from these fault zones as well as some background shaking from other seismically active areas in the Southern California region. Design and construction in accordance with current *California Building Code* (CBC) requirements is anticipated to address the issues related to potential ground shaking; therefore, impacts related to strong seismic ground shaking would be less than significant.

iii) Seismic-related ground failure, including liquefaction?

iv) Landslides?

Less Than Significant Impact. Adverse effects due to rupture of nearby known earthquake faults and seismic ground shaking, including soil liquefaction, lateral spreading, ground lurching, and landsliding, would be prevented through project design. The proposed project would incorporate all guidance set forth by General Plan policies S-1.A and S-1.E related to construction and site design. The project would also comply with all applicable CBC standards. Therefore, the proposed

project would have a less than significant impact related to seismic-related ground failure, including liquefaction, and landslides.

b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. As discussed in the GP FEIR, existing vacant properties and currently developed sites are not likely to contribute to soil erosion or loss of topsoil as the soil is sufficiently covered by either vegetation or impervious surface. Because the project site is currently developed and the proposed project would not introduce new, unvegetated areas to the site, impacts related to soil erosion would be less than significant. Further, as discussed further in Section 5.9, Hydrology and Water Quality, the project would comply with all applicable regulations related to stormwater and soil erosion and would implement best management practices to reduce the potential for soil erosion of the loss of topsoil. Therefore, impacts related to soil erosion of the loss of topsoil would be less than significant.

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 on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less Than Significant Impact. The project site is currently developed with various industrial uses, surface parking, and a baseball field. Due to the site's relatively flat surface, there is no potential for on- or off-site landslides. Additionally, the site has been exposed to previous grading and site preparation; therefore, the likelihood of geologic instability is low. Therefore, with adherence to General Plan Policy S-1.E related to compliance with applicable building codes relating to the seismic design of structures and compliance with all applicable CBC regulations, the proposed project would have a less than significant impact related to unstable geologic units or soils would not represent a significant impact.

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?

Less Than Significant Impact. The project site has been subject to previous development associated with the LA Times Building; therefore, it is expected that any potentially expansive soils were subject to prior removal and/or remediation. Implementation of the proposed project would be subject to City requirements as well as all State requirements as set forth in the CBC. Therefore, with compliance with all applicable local and State regulations, impacts related to expansive soils would not represent a significant impact.

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

No Impact. As discussed in Section 5.17, Utilities and Service Systems, of this IS, the proposed project would connect to existing City-owned and maintained wastewater infrastructure and would not require the use of septic tanks or alternative wastewater disposal systems. No impact would occur.

5.7 GREENHOUSE GAS EMISSIONS

Climate change refers to any significant change in climate, such as the average temperature, precipitation, or wind patterns over a period of time. Climate change may result from natural factors, natural processes, and human activities that change the composition of the atmosphere and alter the surface and features of the land. Significant changes in global climate patterns have been associated with global warming, which is an average increase in the temperature of the atmosphere near the Earth's surface; this is attributed to an accumulation of GHG emissions in the atmosphere. GHGs trap heat in the atmosphere which, in turn, increases the Earth's surface temperature. Some GHGs occur naturally and are emitted to the atmosphere through natural processes, while others are created and emitted solely through human activities.

The International Panel on Climate Change (IPCC) has concluded that (IPCC 2013):

> Warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. The atmosphere and ocean have warmed, the amounts of snow and ice have diminished, sea level has risen, and the concentrations of greenhouse gases have increased. The atmospheric concentrations of carbon dioxide, methane, and nitrous oxide have increased to levels unprecedented in at least the last 800,000 years. Carbon dioxide concentrations have increased by 40% since pre-industrial times, primarily from fossil fuel emissions and secondarily from net land use change emissions. Human influence on the climate system is clear. This is evident from the increasing greenhouse gas concentrations in the atmosphere, positive radiative forcing, observed warming, and understanding of the climate system.

Table 6 shows the magnitude of GHG emissions on the global, national, State, and regional scales.

TABLE 6
COMPARISON OF WORLDWIDE GREENHOUSE GAS EMISSIONS

Area and Data Year	Annual GHG Emissions ($MMTCO_2e$)
World (2012)	46,049
United States (2014)	6,870
California (2014)	442
Orange County (2011)	21
GHG: greenhouse gas; $MMTCO_2e$: million metric tons of carbon dioxide equivalent. Source: WRI 2016; USEPA 2016; CARB 2015, SCAG 2011.	

GHGs, as defined under California's Assembly Bill (AB) 32, include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). General discussions on climate change often include water vapor, ozone, and aerosols in the GHG category. Water vapor and atmospheric ozone are not gases that are formed directly in the construction or operation of development projects, nor can they be controlled in these projects. Aerosols are not gases. While these elements have a role in climate change, they are not considered by regulatory bodies, such as CARB, or climate change groups, such as the California Climate Action Registry (CCAR), as gases to be reported or analyzed for control. Therefore, no further discussion of water vapor, ozone, or aerosols is provided herein.

GHGs vary widely in the power of their climatic effects; therefore, climate scientists have established a unit called global warming potential (GWP). The GWP of a gas is a measure of both its potency and lifespan in the atmosphere as compared to CO_2. For example, since CH_4 and N_2O are approximately 25 and 298 times more powerful than CO_2, respectively, in their ability to trap heat in the atmosphere, they have GWPs of 25 and 298, respectively (CO_2 has a GWP of 1). Carbon dioxide equivalent (CO_2e) is a quantity that enables all GHG emissions to be considered as a group despite their varying GWP. The GWP of each GHG is multiplied by the emission rate of that gas to produce the CO_2e emissions.

On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order (EO) S-3-05, which calls for a reduction in GHG emissions to year 2000 levels by 2010, to year 1990 levels by 2020, and to 80 percent below 1990 levels by 2050.

AB 32, the California Global Warming Solutions Act of 2006, recognizes that California is the source of substantial amounts of GHG emissions. The statute states:

> Global warming poses a serious threat to the economic well being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.

In order to avert these consequences, AB 32 establishes a State goal of reducing GHG emissions to 1990 levels by the year 2020, codifying the EO S-3-05 goal, which is a reduction of approximately 28 percent from forecasted emission levels, with further reductions to follow.

On April 4, 2012, SCAG's Regional Council adopted the *2012-2035 Regional Transportation Plan/Sustainable Communities Strategy: Towards a Sustainable Future.* The RTP/SCS includes a strong commitment to reduce emissions from transportation sources to comply with SB 375. The RTP/SCS contains a host of improvements to the region's multimodal transportation system. These improvements include closures of critical gaps in the network that hinder access to certain parts of the region, as well as the strategic expansion of the transportation system where there is room to grow in order to provide the region with greater mobility. The RTP/SCS demonstrates the region's ability to attain and exceed the GHG emission-reduction targets set forth by the CARB. The SCS outlines a plan for integrating the transportation network and related strategies with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands. The regional vision of the RTP/SCS maximizes current voluntary local efforts that support the goals of SB 375. The RTP/SCS focuses the majority of new housing and job growth in high-quality transit areas and other opportunity areas in existing main streets, downtowns, and commercial corridors, resulting in an improved jobs-housing balance and more opportunity for transit-oriented development. This overall land use development pattern supports and complements the proposed transportation network that emphasizes system preservation, active transportation, and transportation demand management measures.

SCAG's SCS is now included in its 2016–2040 RTP/SCS. The document was adopted by SCAG on April 7, 2016. The 2016–2040 RTP/SCS is expected to reduce per capita transportation emissions by 8 percent by 2020 and by 18 percent by 2035 (SCAG 2016). On June 28, 2016, CARB accepted SCAG's determination that the Final RTP/SCS would meet the region's GHG reduction target.

On April 29, 2015, Governor Edmund Brown signed EO B-30-15, which orders "A new interim statewide greenhouse gas emission reduction target to reduce greenhouse gas emissions to 40 percent below 1990 levels by 2030 is established in order to ensure California meets its target of reducing greenhouse gas emissions to 80 percent below 1990 levels by 2050" (COOG 2015).

Impact Analysis

Beginning in April 2008, the SCAQMD convened a Working Group to provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents. The Working Group was scheduled to meet once per month. On December 5, 2008, the SCAQMD Governing Board adopted its staff proposal for an interim CEQA GHG significance threshold of 10,000 metric tons of CO_2 equivalent per year ($MTCO_2e$/year) for industrial projects where the SCAQMD is the lead agency. The policy objective for establishing this significance threshold is to capture projects that represent approximately 90 percent of GHG emissions from new sources and to avoid Environmental Impact Report (EIR)-level analysis for relatively small impacts (SCAQMD 2008).

In September 2010, the Working Group proposed extending the 10,000 $MTCO_2e$/year screening threshold currently applicable to industrial projects where the SCAQMD is the lead agency, described above, to other lead agency industrial projects. For all other projects, SCAQMD staff proposed a multiple tier analysis to determine the appropriate threshold to be used. The draft proposal suggests the following tiers: Tier 1 is any applicable CEQA exemptions, Tier 2 is consistency with a GHG reduction plan, Tier 3 is a screening value or bright-line, Tier 4 is a performance-based standard, and Tier 5 is GHG mitigation offsets.[1] According to the presentation given at the September 28, 2010, Working Group meeting, SCAQMD staff proposed a Tier 3 draft threshold of 1,400 to 3,500 $MTCO_2e$/year depending on whether the project was commercial, mixed use, or residential. For the Tier 4 draft threshold, SCAQMD staff presented a percent emission reduction target option but did not provide any specific recommendation for a numerical target; instead, it referenced the San Joaquin Valley Air Pollution Control District (SJVAPCD) approach. The percent reduction target is based on consistency with AB 32 as it was based on the same numeric reductions calculated in the Scoping Plan to reach 1990 levels by 2020. The second Tier 4 option is to utilize efficiency targets: 2020 targets are 4.8 $MTCO_2e$/year per service population (SP) for project-level thresholds where SP is project residents plus employees and 6.6 $MTCO_2e$/year per SP for a plan-level threshold (SCAQMD 2010). Targets for 2035 are 3.0 $MTCO_2e$/year per SP for project-level thresholds and 4.1 $MTCO_2e$/year per SP for plan-level thresholds. The Working Group has not convened since the fall of 2010. As of the publication of this EIR, the proposal to establish a GHG threshold for developments like the project has not been considered or approved for use by the SCAQMD Board, but the methodology has been used by lead agencies to evaluate GHG impacts under CEQA.

Buildout of the proposed project is anticipated in 2022. Therefore, a project-level threshold of 4.56 $MTCO_2e$/year per SP, interpolated from the 2020 and 2035 values noted above, is used for this impact analysis.

Would the Project:

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

[1] A bright-line is a single value, applicable to all projects of one type, regardless of size. Thus, a bright-line is different from performance standards or efficiency standards that are generally based on a per-unit basis.

Less Than Significant Impact.

Short-Term Emissions

Construction GHG emissions for the 655,000 square-foot office building were calculated using the CalEEMod program described in Section 5.3, Air Quality and are shown in Table 7.

TABLE 7
ESTIMATED GREENHOUSE GAS EMISSIONS FROM CONSTRUCTION

Year	Emissions ($MTCO_2e$)
2018	1,618
2019	496
2021	658
2022	8
Total	**2,780**
Amortized over 30 years	**93**

$MTCO_2e$: metric tons of carbon dioxide equivalent

Notes: Totals may not add due to rounding variances.
Detailed calculations in Appendix A.

Because construction activity impacts are relatively short-term, they contribute a relatively small portion of the total lifetime greenhouse gas (GHG) emissions of a project. In addition, GHG emission-reduction measures for construction equipment are relatively limited. Therefore, as originally proposed by the SCAQMD, it has become current practice that construction emissions are amortized over a project lifetime, typically 30 years (SCAQMD 2008). Thus, the amortized construction GHG emissions would be 93 $MTCO_2e$/year.

Long-Term Emissions

The proposed project would generate GHGs, primarily from mobile sources (i.e. the vehicles used by project employees, customers, and vendors) and energy sources (i.e. purchased electricity and the combustion of natural gas). Operational GHG emissions were calculated with CalEEMod for the assumed 2022 project buildout of 655,000 square feet of General Office use, and three parking structures, as described in Section 5.3, Air Quality. Estimated GHG operational emissions are shown in Table 8.

TABLE 8
ESTIMATED PROJECT
GREENHOUSE GAS EMISSIONS

Source	Emissions ($MTCO_2e$/yr)
Area	<0.5
Energy	3,288
Mobile	5,795
Waste	306
Water	189
Emergency Generator	1
Proposed Project Total Operations	**9,579**
Construction Amortized	93
Proposed Project Gross Emissions	**9,672**

$MTCO_2e$/yr: Metric tons of carbon dioxide equivalent per year; GHG: greenhouse gas

[a] Total derived by dividing construction emissions (see Table 5-9) by 30.

Note: Detailed calculations in Appendix A

As shown in Table 8, the proposed project would generate GHG emissions of 9,672 $MTCO_2e$ per year. As described above, impact is based on the efficiency of the project, which is calculated in Table 9. It is assumed that the project would have 2,620 employees at buildout, which would be the service population. As shown in Table 9, both the gross and net GHG efficiencies would be less than the GHG efficiency threshold. The impact would be less than significant and no mitigation is required.

TABLE 9
GREENHOUSE GAS EMISSIONS EFFICIENCY

Source	Emissions $MTCO_2e$/year
Proposed Project Gross Emissions (Table 8)	9,672
Service Population	2,620
GHG efficiency ($MTCO_2e$/SP/year)	**3.69**
SCAQMD-Recommended Project-level Significance Threshold	4.56
Exceed threshold?	***No***

$MTCO_2e$/year: metric tons of carbon dioxide equivalent per year; GHG: greenhouse gas; SP: service population; SCAQMD: South Coast Air Quality Management District.

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

Less than Significant Impact. State policies and standards adopted for the purpose of reducing GHG emissions include Executive Order (EO) S-3-05, AB 32, SB 375, and EO B-30-15. The quantitative goal of these regulations is to reduce GHG emissions to 1990 levels by 2020, to 40 percent below 1990 levels by 2030, and to 80 percent below 1990 levels by 2050. Statewide plans and regulations (such as GHG emissions standards for vehicles, the Low Carbon Fuel Standard, Cap-and-Trade, and renewable energy) are being implemented at the statewide level,

and compliance at a project level is not addressed. Therefore, the proposed project does not conflict with these plans and regulations.

Additional State regulations, plans, and polices adopted for the purpose of reducing GHG emissions that are directly applicable to the proposed project include California Title 24 Energy Efficiency Standards for Residential and Nonresidential Buildings and the Title 24 California Green Building Standards Code (CALGreen Code). New construction and improvements to existing facilities for the proposed project would be executed in compliance with the requirements of these regulations, thereby supporting and not conflicting with these regulations. Further, the buildings are being designed to achieve a minimum of Leadership in Energy and Environmental Design (LEED) Silver certification, which would likely result in additional GHG emissions reductions.

The proposed project would not conflict with applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of greenhouse gases. The impact would be less than significant and no mitigation is required.

5.8 HAZARDS AND HAZARDOUS MATERIALS

Impact Analysis

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?

Less Than Significant Impact. Project construction activities would require the transport and use of standard construction equipment and materials, some of which may include a hazardous component such as transport and storage of fuels. These activities would be conducted in compliance with existing federal, State, and local regulations.

The proposed project would involve the construction and daily operation of up to 655,000 sf of office space. Due to the type of anticipated uses at the project site, daily project operations are not expected to involve the use or transport of hazardous materials. Additionally, the project site is located near several major arterials that may be used to transport hazardous materials; however, the proposed project would neither increase the frequency of transport, nor would it introduce hazards that would increase the likelihood for accidental release of hazardous materials into the environment.

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

No Impact. The nearest schools to the proposed project site are California Elementary School and Killybrooke Elementary School, both located over one-quarter mile from the project site. As noted in the response to thresholds “a” and “b”, above, there is a potential for hazardous materials to be transported to and used at the project site during construction activities; however, these activities would be conducted in compliance with existing federal, State, and local regulations. Specifically, all transporters, users, or generators of hazardous waste must comply with the Toxic Substances Control Act of 1976 (15 U.S.C. Section 2601 et seq.) and the Environmental Health Standards for the Management of Hazardous Waste as set forth in California Code of Regulations

Title 22, Division 4.5 Further, because the two closest schools are located over one-quarter mile from the project site, potential impacts associated with the hazardous emissions or handling of hazardous materials near a school would be less than significant, and no mitigation is required.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less Than Significant Impact. According to Table 4.8-4 of the GP FEIR, two leaking underground storage tanks (LUST) have been identified on-site. These LUSTs contain diesel and gasoline and affect the local groundwater. The GP FEIR also identifies three LUSTs located within 0.5 mile of the project site: Mobil #18-HDR (3195 Harbor Avenue), Mobil #18-JMY (3470 Fairview Road), and Unocal #5404 (3599 Harbor Boulevard). In addition, there is one LUST within one mile of the project site: Shell Oil (1201 Baker Street).

A Phase I Environmental Site Assessment (ESA) was performed for the site by RPS GaiaTech in July 2015 and is included as Appendix B. The ESA identified three LUST incidents on-site involving the release of petroleum. Two of these incidents were discovered in 1988 and 1990. The 1988 LUST remediation activities involved the excavation of soil and received regulatory closure in September 1990. The 1990 LUST incident, identified as the South Tank Release, was investigated and remediated up through the 2000s and received regulatory closure in 2013. The third LUST incident was identified in the ESA as the Northern Tank Release. The Northern Tank Release was discovered in the early 1990s and occurred on the central western portion of the site. (RPS GaiaTech 2015)

According to the *2nd Quarter 2016 – Quarterly Groundwater Monitoring and Remedial Progress Report* prepared for the project site and included as Appendix B, remediation activities (specifically the remedial extraction system) have been nonoperational since April 2014 and on-site activities have been limited to groundwater monitoring. Groundwater will continue to be monitored until the Orange County Health Care Agency finds that the project site meets the criteria of the Low Threat UST Case Closure Policy. Additionally, it is noted that the project site is not included on the Hazardous Waste and Substances Site List compiled by the Department of Toxic Substances Control (DTSC) pursuant to Government Code Section 65962.5(a)(1) (CalEPA 2016). Therefore, impacts would be less than significant.

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

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

Less Than Significant Impact. The nearest airport to the project site is John Wayne Airport, located approximately 2.6 miles east of the project site; no private airstrips are located in the vicinity of the project site. According to the April 2008 *Airport Environs Land Use Plan for John Wayne Airport* (AELUP), the project site is located within the John Wayne Airport Environs Land Use Plan Airport Planning Areas. The project site, however, is located outside of the designated Safety Compatibility Zones 1 through 6, outside of the established Obstruction Imaginary Surfaces, and outside of the identified CNEL contours. The project would be located within the Notification Area for John Wayne Airport: 20,000-foot Radius at 100:1 Slope influence area and would, therefore, be subject to established notification requirements as detailed in the AELUP. Due to the location of the proposed project site, it is not expected to expose people to safety hazards related to airport operations. There is currently a helipad on the project site; however,

this helipad would be removed as part of the proposed project. Implementation of the proposed project would result in a less than significant impact on airport facilities and operations; no mitigation would be required.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact. The City's Emergency Operations Plan (EOP) provides guidance on emergency and disaster preparedness. Implementation of the proposed project would reuse and redevelop the project site with office uses and would not include any modifications to the local circulation system. Additionally, as discussed in detail in Section 5.16, Traffic/Transportation, no significant traffic impacts would occur; therefore, it is not anticipated that the project-related traffic would interfere with the implementation of the City's EOP through additional vehicle trips on the local circulation system. Therefore, no impact would occur.

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?

No Impact. According to Section 4.8 of the GP FEIR, the project site is not located within or proximate to any Very High, High, or Moderate Fire Hazard Areas. There are also no undeveloped properties adjacent to or in the vicinity of the project site that would have the potential for wildfires. Therefore, implementation of the proposed project would have no impact related to risk of loss, injury, or death involving wildland fires and no mitigation is required.

5.9 HYDROLOGY AND WATER QUALITY

Impact Analysis

Would the Project:

a) Violate any water quality standards or waste discharge requirements?

e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

f) Otherwise substantially degrade water quality?

Short-Term Construction-Related Water Quality Impacts

Less Than Significant Impact. Potential impacts of construction activities on water quality focus on sediments, turbidity, and pollutants associated with sediments. Construction-related activities that are primarily responsible for sediment releases are related to exposing soils to potential mobilization by rainfall, runoff, and wind. These activities include grading and other earth-disturbance activities. Non-sediment-related pollutants that are also of concern during construction include waste construction materials and chemicals, liquid products, and petroleum products used in building construction or the maintenance of heavy equipment. Construction impacts from implementation of the proposed project would be minimized through compliance with the National Pollutant Discharge Elimination System (NPDES) regulations under the City's municipal separate storm sewer system (MS4) permit. A storm water pollution prevention plan (SWPPP) would be developed as required by and in compliance with the NPDES Construction General Permit. Erosion-control best management practices (BMPs) are designed to prevent

erosion, whereas sediment controls are designed to trap sediment once it has been mobilized. The NPDES Construction General Permit requires the SWPPP to include BMPs to be selected and implemented based on the phase of construction and weather conditions. Erosion-control and treatment-control BMPs would be implemented per NPDES requirements. Full compliance with applicable local, State, and federal regulations, including regulations set forth in Chapter III. Water Quality, Title 8 of the Costa Mesa Municipal Code, the federal Clean Water Act (Title 33, U.S.C. Section 1251 et. seq.), and the NPDES Program, would ensure that water quality impacts associated with construction would be less than significant.

Long-Term Operational Water Quality Impacts

Less Than Significant Impact. Currently, the project site is developed with mostly impervious surfaces and limited areas of landscaping. Therefore, new development on the project site would not substantially increase the amount of impervious surface on-site; however, development would improve control of runoff through mandated incorporation of runoff control features in the project design. Specifically, the proposed project would include a bio-retention planter with underdrains as shown in Exhibit 4, Conceptual Water Quality Management Plan, which would treat runoff from the project site before entering local storm drains. Therefore, the project would not introduce substantial amounts of urban pollutants to the storm water runoff beyond existing conditions and impacts related to long-term operational water quality impacts would not represent a significant impact.

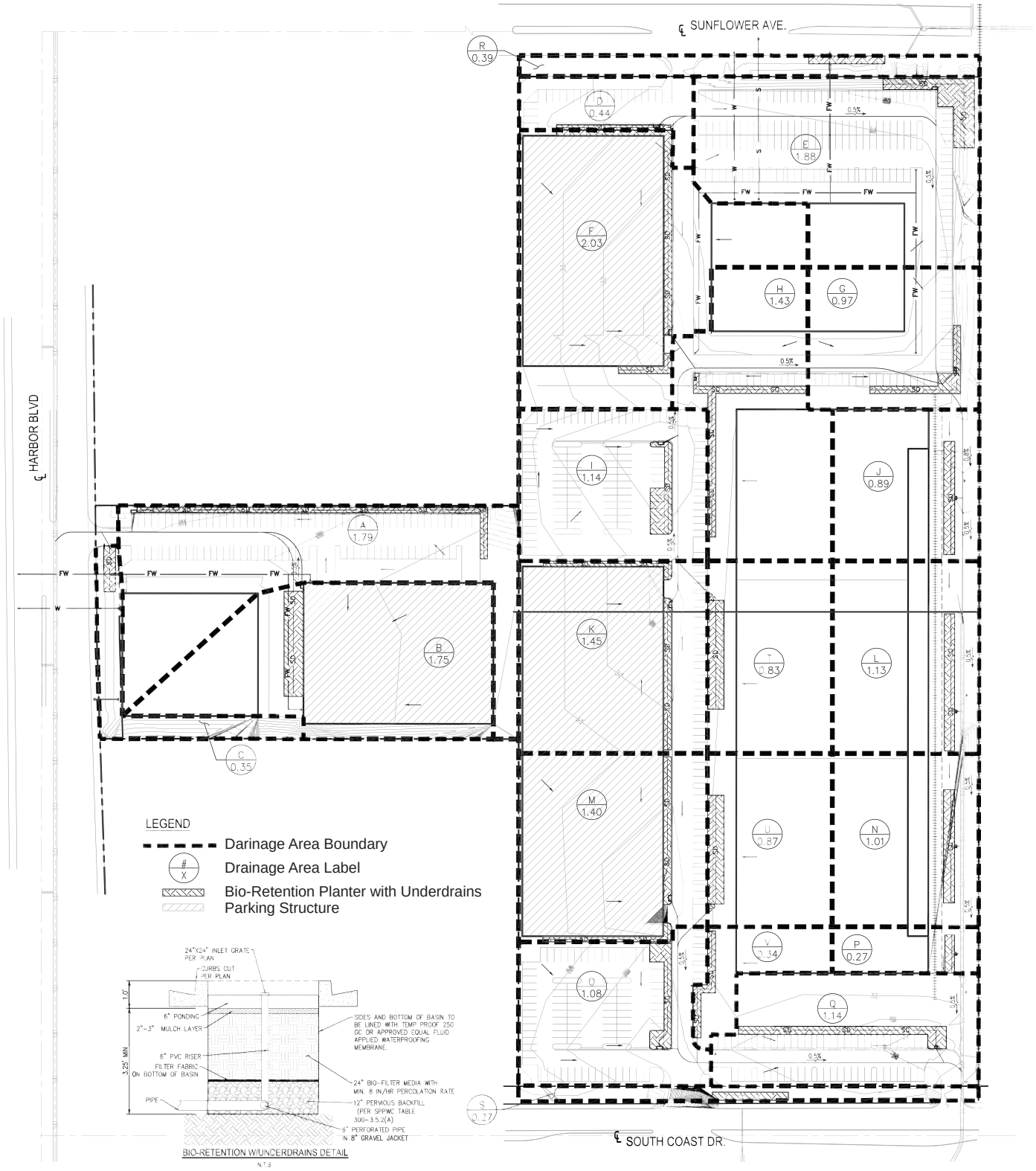
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not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

Less Than Significant Impact. The project site is currently developed and exists as a primarily impervious site. Pervious areas are limited to landscaped areas surrounding the existing building and the turf baseball field. Therefore, the site does not currently support a substantial amount of groundwater recharge. The proposed project would introduce new, impervious areas; however, project design would include areas of landscaping that would allow for limited collection and percolation of surface water into the underlying groundwater basin. The amount of impervious surface area would be similar in size to existing conditions; therefore, implementation of the project would have a less than significant impact related to the depletion of groundwater supplies and recharge.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

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

Less Than Significant Impact. The project site is generally flat and would remain generally flat with development under the proposed project. The proposed project would redevelop a currently developed site with few pervious areas. As shown on Exhibit 4,Conceptual Water Quality Management Plan, and detailed in the preliminary WQMP calculations prepared for the project by Tait & Associates, Inc., the project would implement bio-retention planters with under drains throughout the project site to capture runoff volumes. The planters would allow for up to six inches



Source: TAIT 2016

Conceptual Water Quality Management Plan

Exhibit 4

LA Times Building Reuse Project

BonTerra PSOMAS

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of ponding as well as percolation through a bio-filter media. Under proposed conditions, approximately 10 percent of the project of the project site would be pervious surfaces. Based on calculations prepared for the preliminary WQMP, the proposed bio-retention planters would exceed the minimum required design capture volume for the project site; therefore, the runoff exiting via the existing stormdrain system would not exceed existing conditions. Therefore, a less than significant impact would occur related to changes in the drainage pattern.

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

Less Than Significant Impact. According to Figure 4.9.2 of the GP FEIR, Local Flooding Hazards, the proposed project is not located within a 100-year flood hazard area. Therefore, the project would not expose people or structures to flood hazard conditions nor would any proposed structures impede or redirect flood flows.

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

Less Than Significant Impact. The Santiago Creek Dam is located approximately 12 miles northeast of the project site and the Prado Dam is located approximately 20 miles northeast of the project site. Figure S-4, Dam Inundation Areas, of the GP FEIR shows that the project site is located within the inundation path for both Santiago Creek Dam and Prado Dam should they experience dam failure. However, both Santiago Creek Dam and Prado Dam are subject to regular inspection by the Division of Safety or Dams (DSOD) to ensure that the dams are performing and being maintained in a safe manner. Therefore, impacts would be less than significant.

j) Inundation by seiche or mudflow?

No Impact. As previously discussed, the project site is located in an area that is generally flat with no potential for slope-stability hazards. In addition, Figure S-5, Tsunami and Sea Level Rise Hazard Areas, of the GP FEIR shows that the project site does not lie within a tsunami and sea level rise hazard area. The proposed project would reuse a currently developed site with similar uses; therefore, implementation of the project would not introduce any uses that would expose people or structures to hazards associated with a seiche or mudflows. No impacts are anticipated and no mitigation is required.

5.10 LAND USE AND PLANNING

Impact Analysis

Would the Project:

a) Physically divide an established community?

No Impact. The proposed project is a redevelopment and infill project and is located in an area dominated by commercial and industrial development; however, the project site is not considered to be part of a community or planned development. Because the existing uses on the project site

are unrelated to the surrounding land uses, the proposed project would not physically divide an established community. No impact would occur and no mitigation is required.

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

Less Than Significant Impact. The project site is located in City of Costa Mesa and the 2015-2035 General Plan designates the project site as Commercial Center. The intent of this designation is to allow for large areas with a concentration of diverse commercial uses serving local and regional needs. Anticipated uses include retail stores, professional offices, restaurants, hotels, and theaters. As noted in the 2015-2035 General Plan, the LA Times site is specifically identified for office or retail use. As such, the proposed project would be consistent with the General Plan land use designation for the project site. Additionally, and as discussed throughout this IS, the project would incorporate, or be consistent with, all applicable 2015-2035 General Plan goals, policies and objectives.

The current zoning for the project site is Planned Development Commercial (PDC). Implementation of the proposed project would be consistent with existing zoning and would not conflict with applicable plans, policies, and regulations. Therefore, no impacts would occur and no mitigation is required.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. The City does not participate in the County of Orange Natural Community Conservation Plan (NCCP)/habitat conservation plan (HCP), and no other HCPs or NCCPs apply to the project site. Therefore, the proposed project would not conflict with any applicable HCP or NCCP, no impact would occur, and no mitigation is required.

5.11 MINERAL RESOURCES

Impact Analysis

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?

No Impact. According to Section 4.11 of the GP FEIR, known mineral resource deposits in the City include oil, peat, and aggregate. There are currently no oil wells on the project site, and peat is only located in areas adjacent to the Santa Ana River. Figure 4.11-1 of the GP FEIR shows that the majority of the City is designated MRZ-3, Areas of Undetermined Mineral Resource Significance. Therefore, it is possible that aggregate resources underlie the project site; however, per the GP FEIR, if aggregate resources were present at the project site, they would remain untouched as the site is currently developed and too urban to consider for mining operations. Therefore, no impact would occur related to the loss of availability of a known mineral resource and no mitigation is required.

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?

No Impact. Additionally, the GP FEIR notes that no City of Costa Mesa planning documents have identified locally-important mineral resources within the City. Therefore, implementation of the proposed project would not result in the loss of availability of a locally-important mineral resource recovery site and no mitigation is required.

5.12 NOISE

Standards for Noise Equivalent

Noise consists of pitch, loudness, and duration; therefore, a variety of methods for measuring noise have been developed. According to the California General Plan Guidelines for Noise Elements, the following are common metrics for measuring noise:

- **L_{eq} (Equivalent Energy Noise Level):** The sound level corresponding to a steady-state sound level containing the same total energy as a time-varying signal over given sample periods. L_{eq} is typically computed over 1-, 8-, and 24-hour sample periods.
- **CNEL (Community Noise Equivalent Level):** The average equivalent A-weighted sound level during a 24-hour day, obtained after addition of five decibels to sound levels in the evening from 7:00 PM to 10:00 PM and of ten decibels to sound levels occurring at night from 10:00 PM to 7:00 AM.

Sensitive Receptors

The State of California defines sensitive receptors as those land uses that require serenity or are otherwise adversely affected by noise events or conditions. Schools, libraries, churches, hospitals, and residential uses make up the majority of these areas. The nearest sensitive receptors to the project site are:

- National University – the building at the southeast corner of Harbor Boulevard and Sunflower Avenue is approximately 200 feet west of the project site,
- Whittier Law School – the campus is located at the southwest corner of Harbor Boulevard and Sunflower Avenue and is approximately 200 feet west of the project site, and
- Multi-family residences east of Susan Street are approximately 630 feet east of the project site.

The proposed project would not be a sensitive receptor.

Impact Analysis

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?**

Less than Significant Impact.

Construction

Noise from construction activity would be generated during the demolition and development of the proposed Project. Noise from the construction phase of the project would be primarily

generated by construction vehicle engines, treads, exhaust, worker and truck commutes, back-up bells and demolition activities. Noise levels produced from construction activities are affected by the type of activity performed, the number of construction equipment, the magnitude of noise sources and the proximity of the nearest noise sensitive uses.

Noise levels associated with project-related construction activities have been quantified at the nearest noise sensitive uses for each construction phase. The City of Costa Mesa has developed noise exposure limits at residential uses. The EIR for the City of Costa Mesa General Plan Amendment states that noise levels at sensitive receptors should be analyzed on a case-by-case basis and appropriate mitigation should be applied to bring noise levels down to acceptable levels. Residential uses are considered to be noise sensitive uses, whereas commercial and industrial uses are generally not considered to be noise sensitive uses. Noise levels were evaluated against the construction noise criteria developed by the Federal Transit Administration for construction noise exposure at residential uses. These noise levels are shown under worst-case conditions with construction activities occurring closest to each noise sensitive use as well as under typical conditions with noise sources at the approximated center of the project site. Calculated noise levels are shown in Table 10. As shown in Table 10, project-related construction noise would not exceed the construction noise criteria at the nearest noise sensitive uses, which are the residential uses located along Susan Street. These residences are located approximately 630 feet east of the project site. Because noise levels would not exceed the construction noise criteria, the project would not result in significant impacts related to construction noise exposure at the nearest noise sensitive use.

TABLE 10
CONSTRUCTION NOISE LEVELS

Noise Levels at the Residential Uses Located Along Susan Street				
Worst-Case Noise Levels at 630 Feet Away				
Construction Phase	**All Applicable Equipment in Use**	**Minimum Required Equipment in Use**	**Noise Threshold**	**Exceeds?**
Ground Clearing/Demolition	62	62	80	No
Excavation	67	57	80	No
Foundation Construction	56	56	80	No
Building Construction	65	53	80	No
Finishing and Site Cleanup	67	53	80	No
Typical Noise Levels at 1,250 Feet Away				
Construction Phase	**All Applicable Equipment in Use**	**Minimum Required Equipment in Use**	**Noise Threshold**	**Exceeds?**
Ground Clearing/Demolition	56	56	80	No
Excavation	61	51	80	No
Foundation Construction	50	50	80	No
Building Construction	59	47	80	No
Finishing and Site Cleanup	61	47	80	No
Source: Source: Bolt, Beranek and Newman, "Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances," prepared for the USEPA, December 31, 1971. Based on analysis for Office Building, Hotel, Hospital, School, and Public Works.				

Operational

The City of Costa Mesa Municipal Code, Title XIII, Planning, Zoning, and Development, Chapter XIII, Noise Control, Section 13-280, Exterior Noise Standards, requires that noise generated from a property not to exceed, for more than 30 minutes in an hour, 55 decibels (dBA) between 7:00 AM and 11:00 PM and 50 dBA between 11:00 PM and 7:00 AM at a residential property. The proposed project's primary operational noise sources would be heating, ventilating, and air conditioning (HVAC) units. The nearest residential property is approximately 700 feet from the project site. Large HVAC equipment typically have sound power ratings of 85 to 90 decibels, which is equivalent to sound pressure levels of 53 to 58 dBA at a distance of 50 feet.[2] At a distance of 700 feet without assuming any reduction for the buildings between the project site and the off-site residences, the noise level from one large HVAC unit would be 35 dBA L_{eq}, and from four units would be 41 dBA, which is less than the 50 dBA L_{eq} nighttime exterior noise standard. Because there are buildings between the project site and the residences, HVAC noise levels would be less than the values quoted above. The impact would be less than significant.

b) Expose persons to or generation of excessive ground borne vibration or ground borne noise levels?

Less than Significant Impact. Typical sources of groundborne vibration and noise include construction activities and heavy vehicle traffic. Excessive vibration can lead to structural damage and general annoyance to the public. Vibration can also adversely affect delicate instruments such as electron microscopes, advanced technology production, and research equipment.

Construction

Pile drivers and rock blasting are generally the primary cause of construction-related vibration impacts. Other than pile driving and blasting, building and roadway construction have the potential to generate perceptible vibration levels to sensitive receptors within 20 feet from the operation of heavy equipment. It is anticipated that drilled piles or caissons would be used for the proposed project. The nearest building to the area of the project site where construction is anticipated is the commercial building on Harbor Boulevard south of the project site, currently occupied by the Automobile Club of Southern California.

As noted in the *City of Costa Mesa Year 2015 - 2035 General Plan EIR*, potential vibration due to future construction activities would be assessed in conjunction with the City's routine review of site-specific geotechnical studies and the recommended grading and foundation design measures and this review will provide an adequate mechanism to require special measures to mitigate potentially significant vibration impacts. The impact would be less than significant.

Operational

The proposed project would not include any operations that would generate notable vibration. The impact would be less than significant.

[2] The noise levels described above and in most of this section are sound pressure levels. However, sound power is often used to describe stationary noise sources. Sound power describes the total sound energy emitted by a source, also in decibels; sound power does not change with distance.

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

Less than Significant Impact.

Future Noise Levels along Existing Roadway Segments

At full development, the project would generate 7,225 average daily trips (ADT) at the full development of the project (Stantec 2017). These trips would be distributed among nearby roads. The project traffic analysis lists those roads that would carry two percent or more of the project traffic (145 ADT). Susan Street, south of Sunflower Avenue, the location of the closest residences, is not among those roads. Peak hour traffic volumes are typically approximately 10 percent of ADT. Thus, project-generated traffic on Susan Street south of Sunflower Avenue are anticipated to be less than 14 trips in an hour. The traffic noise increase to the residences on Susan Street would not be substantial and the noise impact would be less than significant.

The addition of project traffic to the existing traffic volume is a conservative method because the no-project traffic volumes at the time of full development of the project would be greater than the existing volumes and the project impact would be less than calculated with existing volumes. This method is used to estimate the traffic noise increase to the National University building at the intersection of Harbor Boulevard and Sunflower Avenue. The existing traffic volume on Sunflower Avenue east of Harbor Boulevard is 13,000 ADT (Stantec 2017). It is estimated that approximately 24 percent of the project traffic (1,734 ADT) would use this segment and the addition of the project traffic would increase the noise level by 0.5 dBA, which would not be perceptible (Stantec 2017). The existing traffic volume on Harbor Boulevard south of Sunflower Avenue is 50,000 ADT (Stantec 2017). It is estimated that approximately 4 percent of the project traffic (289 ADT) would use this segment and the addition of the project traffic would increase the noise level by less than 0.1 dBA, which would not be perceptible. Thus, the project traffic noise increases at National University would not be substantial and the impact would be less than significant.

Stationary Sources

Noise levels from HVAC units are described in response to Threshold 5.12 (a). The existing noise environment in the vicinity of the project site is dominated by traffic noise from Harbor Boulevard and Sunflower Avenue. The HVAC unit noise would likely not be audible in the daytime and perhaps slightly audible if units are operating late at night. The noise increase would not be substantial and the impact would be less than significant.

d) Result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project?

Less than Significant Impact. As described in response to Threshold 5.12 (a), construction noise would not result in excessive levels of noise exposure at the nearest noise sensitive uses. The impact would be less than significant.

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

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

No Impact. The project site is more than two miles from John Wayne Airport and is outside of the 60 dBA CNEL noise contour for John Wayne Airport. There are no private airstrips in the vicinity of the project site. There would be no impact.

5.13 POPULATION AND HOUSING

Impact Analysis

Would the Project:

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

Less Than Significant Impact. It is anticipated that approximately 1,200 new jobs would be created for the project's first phase (reuse of the existing 339,063 sf building) and an additional 1,400 new jobs would be created for the potential development of 655,000 sf of office uses. The proposed project is included in the GP FEIR which is the basis for future population, housing and employment projections. Therefore, the increase in jobs and associated indirect increase in population and housing demands would be consistent with future projections for the City.

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

c) **Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?**

No Impact. The proposed project involves the reuse of the LA Times building and the addition of 655,000 sf of office development. The project site does not contain any housing; therefore, the project would not displace any existing housing or substantial numbers of people.

5.14 PUBLIC SERVICES

Impact Analysis

a) **Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: fire protection, police protection, schools, parks, and other public facilities?**

Less Than Significant Impact. The proposed project would result in an increased demand for police and fire protection service resulting from an increase in the number of employees to the project site in addition to an increase of vehicular traffic to the area. However, although the demands for these services would increase with the proposed project beyond existing conditions, development of the site, the associated increase in jobs, and the indirect increase in population and housing would be consistent with what was assumed in the GP FEIR which provides the basis for future planning purposes. Therefore, no significant impacts would occur related to police and fire services.

The project proposes office development and would not include construction of any housing. Although an increase in population is anticipated because some employees of the proposed project are assumed to relocate to the local area, this increase in population would be indirect

and would be within the anticipated population growth in the City as assumed in the GP FEIR. Any related increase in student generation, demand for City parklands, or demand for library services resulting from project implementation would also be consistent with what was assumed in the GP FEIR and would be the basis for future planning purposes. Therefore, no significant impacts would occur related to school, park, and library services.

5.15 RECREATION

Impact Analysis

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 which might have an adverse physical effect on the environment?**

Less Than Significant Impact. The proposed project involves the reuse of a currently developed site with office building campus uses. As mentioned previously, the project is not anticipated to directly induce population growth; therefore, it would not directly impact any local recreational facilities through increase of use. Additionally, the proposed Project would include a dedicated bike path through the project site and a sports court which would provide space for a variety of recreational activities for employees of the proposed project. Therefore, impacts related to demand or use of recreational facilities would be less than significant and no mitigation is required.

5.16 TRANSPORTATION/TRAFFIC

Impact Analysis

Would the Project:

a) **Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?**

Less Than Significant Impact.

The following information is based on the *Tribune Property Traffic Analysis* (TIA) prepared by Stantec Consulting Services Inc. in March 2017 for the proposed project (Stantec 2017) and included as Appendix C of this document.

The traffic study area for the proposed project includes 18 study intersections (16 intersections in Costa Mesa and two intersections in Santa Ana):

- Harbor & MacArthur (Santa Ana)
- Harbor & Scenic/Lake Center
- Harbor & Sunflower
- Harbor & South Coast
- Hyland & South Coast/I-405 NB On-Ramp
- Harbor & I-405 NB Ramps
- Harbor & I-405 SB Ramps
- Harbor & Gisler
- Harbor & Baker
- Susan & Sunflower
- Susan & South Coast
- Fairview & MacArthur (Santa Ana)
- Fairview & Sunflower
- Fairview & South Coast
- Fairview & I-405 NB Ramps
- Fairview & I-405 SB Ramps
- Fairview & Paularino
- Fairview & Baker

Performance Criteria

A set of performance criteria is utilized in the TIA to determine existing and future operating LOS for the intersections in the study area. Traffic LOS is designated “A” through “F” with LOS “A” representing free flow conditions and LOS “F” representing severe traffic congestion. Table 10 summarizes general LOS descriptions for urban streets and intersections as well as the volume/capacity (V/C) ranges that correspond to LOS “A” through “F”. The V/C ranges listed in the table are designated in the 2015-2035 General Plan Circulation Element as well as the Orange County Congestion Management Program (CMP). The performance criteria applied in this study for the intersections in the study area are based on LOS calculation methodologies and performance standards adopted by the Cities of Costa Mesa and Santa Ana.

The intersection performance criteria applied in the TIA involve the use of peak hour intersection capacity utilization (ICU) values. The ICU calculation methodology adopted by the Cities of Costa Mesa and Santa Ana applies a saturation flow rate of 1,700 vehicles per hour per intersection lane and a 0.05 clearance interval, which is consistent with the Orange County Congestion Management Plan (CMP). The ICU ranges that correspond to LOS “A” through “F” are the same as the V/C ranges shown in Table 10. LOS “D” (ICU not to exceed .90) is the performance standard for City of Costa Mesa and Santa Ana intersections.

Caltrans freeway ramp intersections are analyzed in the TIA using the Highway Capacity Manual (HCM) LOS methodology for signalized intersections in addition to the ICU methodology. In the HCM signalized intersection analysis methodology, the LOS at an intersection location is determined based on the estimated average delay experienced by all traffic using the intersection. The vehicle delay ranges that correspond to LOS “A” through “F” as specified in the HCM are summarized in Table 11.

TABLE 10
LEVEL OF SERVICE DESCRIPTIONS – URBAN STREETS AND INTERSECTIONS

Level of Service (LOS)	Description	Volume/Capacity (V/C) Range
A	LOS A describes primarily free-flow operations. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control delay at the intersections is minimal. The travel speed exceeds 85% of the base free-flow speed.	.00 – .60
B	LOS B describes reasonably unimpeded operation. The ability to maneuver within the traffic stream is only slightly restricted, and control delay at the intersections is not significant. The travel speed is between 67% and 85% of the base free-flow speed.	.61 – .70
C	LOS C describes stable operation. The ability to maneuver and change lanes at midsegment locations may be more restricted than at LOS B. Longer queues at the intersections may contribute to lower travel speeds. The travel speed is between 50% and 67% of the base free-flow speed.	.71 – .80
D	LOS D indicates a less stable condition in which small increases in flow may cause substantial increases in delay and decreases in travel speed. This operation may be due to adverse signal progression, high volume, or inappropriate signal timing at the intersections. The travel speed is between 40% and 50% of the base free-flow speed.	.81 – .90
E	LOS E is characterized by unstable operation and significant delay. Such operations may be due to some combination of adverse progression, high volume, and inappropriate signal timing at the intersections. The travel speed is between 30% and 40% of the base free-flow speed.	.91 – 1.00
F	LOS F is characterized by flow at extremely low speed. Congestion is likely occurring at the intersections, as indicated by high delay and extensive queuing. The travel speed is 30% or less of the base free-flow speed.	Above 1.00
Source: Stantec, *Tribune Property Traffic Analysis,* March 2017		

TABLE 11
INTERSECTION LEVEL OF SERVICE RANGES (ICU AND HCM DELAY)

Level of Service (LOS)	Intersection Capacity Utilization (ICU)	Signal Control Delay	Stop Control Delay
A	0.00 – 0.60	0.00 – 10.0 seconds	0.00 – 10.0 seconds
B	0.61 – 0.70	10.1 – 20.0 seconds	10.1 – 15.0 seconds
C	0.71 – 0.80	20.1 – 35.0 seconds	15.1 – 25.0 seconds
D	0.81 – 0.90	35.1 – 55.0 seconds	25.1 – 35.0 seconds
E	0.91 – 1.00	55.1 – 80.0 seconds	35.1 – 50.0 seconds
F	Above 1.00	Above 80.0 seconds	Above 50.0 seconds
Source: Stantec, *Tribune Property Traffic Analysis,* March 2017			

Project Trip Generation and Distribution

Vehicle trip generation estimates are provided for the proposed future land uses on the project site. The trip generation estimates were calculated based on Institute of Transportation Engineers

(ITE) trip generation rates used in the Costa Mesa travel demand model that was applied in the City's General Plan update. The daily and peak hour (AM and PM) trip generation estimates for the approximately 345,000[3] sf of office use with the initial phase of the project and the 655,000 sf of office use with full General Plan buildout of the project are summarized in Table 12.

The project site is currently vacant. As identified previously, traffic distribution patterns for the project were developed based on select zone assignments for the project site using the base year (existing) and long-range (year 2035) versions of the Costa Mesa travel demand model. The resulting project trip distribution patterns for opening day (year 2018) and long-range (year 2035) are summarized in Table 13. The opening day (year 2018) distribution pattern was used to add the trip generation estimates for the 345,000 sf initial development phase to year 2018 no-project traffic forecasts, and the long-range (year 2035) distribution pattern was used to delete the trip generation estimates for the 655,000 square-foot full development of the project from year 2035 with-project traffic forecasts based on the recently adopted 2015-2035 General Plan. Because the site is currently unoccupied, no credit is being taken for trips generated by the site at this time.

TABLE 12
TRIP GENERATION ESTIMATES FOR THE PROJECT SITE

Land Use	Units	Amount	AM Peak Hour			PM Peak Hour			ADT
			IB	OB	Total	IB	OB	Total	
Proposed Project									
Initial Development Phase (345,000 Square Feet)[1]									
General Office	TSF	345	473	66	539	86	428	514	3,805
Full General Plan Development (655,000 Square Feet)									
General Office	TSF	655	897	124	1,021	164	812	976	7,225
Trip Generation Rates									
General Office (710)	TSF	--	1.37	0.19	1.56	0.25	1.24	1.49	11.03

Abbreviations: ADT – Average Daily Trips; IB – Inbound Trips OB – Outbound Trips; TSF – Thousand Square Feet

1 The Traffic Impact Analysis analyzed the existing building at 345,000 sf, which is slightly greater than the actual area (339,063 sf) as stated in Section 3.0, Project Description. Therefore, this analysis represents a conservative analysis of traffic impacts by evaluating a slightly larger building during Phase 1.

Source: Stantec, *Tribune Property Traffic Analysis,* March 2017

[3] The Traffic Impact Analysis analyzed the existing building at 345,000 sf, which is slightly greater than the actual area (339,063 sf) as stated in Section 3.0, Project Description. Therefore, this analysis represents a conservative analysis of traffic impacts by evaluating a slightly larger building during Phase 1.

TABLE 13
PROJECT TRIP DISTRIBUTION PATTERN

Roadway Location	Percentage of Project Site Trip Generation	
	Opening Day (Year 2018)	Long-Range (Year 2035)
Fairview Road north of Sunflower Avenue	6%	6%
Fairview Road south of I-405 Freeway	2%	2%
Harbor Boulevard north of Sunflower Avenue	16%	19%
Harbor Boulevard south of I-405 Freeway	14%	12%
I-405 Freeway north of Harbor Boulevard	12%	17%
I-405 Freeway south of Fairview Road	27%	21%
South Coast Drive east of Fairview Road	3%	3%
Sunflower Avenue west of Harbor Boulevard	2%	3%
Sunflower Avenue east of Fairview Road	16%	14%
Susan Street north of Sunflower Avenue	2%	3%
Total	100%	100%
Source: Stantec, *Tribune Property Traffic Analysis,* March 2017		

Short-Range Traffic Conditions

Table 14 summarizes AM and PM peak hour intersection capacity utilization (ICU) values and levels of service for the intersections in the study area based on existing (2015/2016) conditions and 2018 opening day conditions with and without the 345,000 sf initial development phase of the proposed project (actual ICU worksheets are provided in Appendix A of the TIA). Table 15 summarizes existing and 2018 AM and PM peak hour levels of service for the Caltrans freeway ramp intersections in the study area based on the Highway Capacity Manual (HCM) signalized intersection level of service (LOS) methodology (HCM intersection LOS calculation worksheets are provided in Appendix B of the TIA). The 2018 volumes are provided both with and without the initial development phase of the project.

Vehicle trip generation estimates for the Vans corporate headquarters project located at the northeast corner of the South Coast Drive/Hyland Avenue intersection and the Steelwave project located on the former Emulex site are summarized in Tables 16 and 17, respectively. The traffic generated by these two projects was distributed to the study area intersections based on Costa Mesa traffic model select zone assignments for their respective project sites. Table 18 summarizes year 2018 AM and PM peak hour ICU values and levels of service with the Vans and Steelwave projects without and with the 345,000 sf initial development phase of the proposed project (ICU worksheets are provided in Appendix A of the TIA), and Table 19 summarizes the corresponding year 2018 AM and PM peak hour levels of service for the Caltrans freeway ramp intersections in the study area based on the HCM signalized intersection LOS methodology (HCM intersection LOS calculation worksheets are provided in Appendix B of the TIA).

As the LOS summary tables indicate, each of the intersections analyzed is forecast to operate at an acceptable LOS “D” or better under 2018 opening day conditions with development of the initial phase of the project. Therefore, the 345,000 sf initial development phase of the proposed project does not significantly impact any of the study area intersections based on 2018 opening day conditions.

TABLE 14
EXISTING AND OPENING DAY (2018) INTERSECTION LOS SUMMARY (ICU METHODOLOGY)

Intersection	Existing (2015/2016)				Opening Day (2018) No-Project				Opening Day (2018) With 345,000 SF Initial Project Phase			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
1. Harbor & MacArthur	.73	C	.83	D	.77	C	.85	D	.77	C	.85	D
2. Harbor & Scenic/Lake Center	.66	B	.57	A	.67	B	.58	A	.68	B	.59	A
3. Harbor & Sunflower	.64	B	.68	B	.66	B	.70	B	.68	B	.72	C
4. Harbor & South Coast	.50	A	.69	B	.51	A	.72	C	.52	A	.74	C
5. Hyland & South Coast/I-405 NB On	.26	A	.58	A	.26	A	.59	A	.27	A	.59	A
6. Harbor & I-405 NB Ramps	.59	A	.73	C	.66	B	.79	C	.67	B	.81	D
7. Harbor & I-405 SB Ramps	.44	A	.62	B	.46	A	.64	B	.48	A	.65	B
8. Harbor & Gisler	.58	A	.70	B	.59	A	.72	C	.59	A	.73	C
9. Harbor & Baker	.49	A	.62	B	.51	A	.63	B	.52	A	.63	B
10. Susan & Sunflower	.30	A	.72	C	.31	A	.74	C	.37	A	.74	C
11. Susan & South Coast	.24	A	.52	A	.26	A	.52	A	.28	A	.57	A
12. Fairview & MacArthur	.68	B	.76	C	.69	B	.79	C	.69	B	.79	C
13. Fairview & Sunflower	.55	A	.65	B	.56	A	.66	B	.57	A	.68	B
14. Fairview & South Coast	.68	B	.86	D	.69	B	.87	D	.70	B	.87	D
15. Fairview & I-405 NB Ramps	.52	A	.63	B	.54	A	.65	B	.54	A	.66	B
16. Fairview & I-405 SB Ramps	.58	A	.49	A	.59	A	.51	A	.59	A	.51	A
17. Fairview & Paularino	.46	A	.45	A	.46	A	.47	A	.47	A	.47	A
18. Fairview & Baker	.64	B	.60	A	.66	B	.62	B	.66	B	.62	B

Abbreviations: ICU – intersection capacity utilization; LOS – level of service; NB – northbound SB – southbound
Source: Stantec, *Tribune Property Traffic Analysis,* March 2017

TABLE 15
EXISTING AND OPENING DAY (2018) INTERSECTION LOS SUMMARY (HCM METHODOLOGY)

Intersection	Existing (2015/2016)				Opening Day (2018) No-Project				Opening Day (2018) With 345,000 SF Initial Project Phase			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Delay[a]	LOS	Delay[a]	LOS	Delay[a]	LOS	Delay[a]	LOS	Delay[a]	LOS	Delay[a]	LOS
5. Hyland & South Coast/I-405 NB On	1.7	A	1.2	A	1.7	A	1.2	A	1.7	A	1.2	A
6. Harbor & I-405 NB Ramps	15.4	B	20.1	C	15.9	B	21.1	C	16.6	B	21.5	C
7. Harbor & I-405 SB Ramps	10.4	B	14.2	B	10.4	B	14.8	B	11.2	B	15.1	B
15. Fairview & I-405 NB Ramps	18.8	B	28.4	C	19.4	B	30.0	C	19.4	B	30.3	C
16. Fairview & I-405 SB Ramps	20.0	C	18.0	B	20.1	C	18.4	B	20.1	C	18.3	B

Abbreviations: HCM – Highway Capacity Manual; LOS – level of service NB – northbound; SB – southbound

[a] Average vehicle delay in seconds.

Source: Stantec, *Tribune Property Traffic Analysis,* March 2017

TABLE 16
TRIP GENERATION ESTIMATES FOR THE VANS CORPORATE HEADQUARTERS PROJECT

Land Use	Units	Amount	AM Peak Hour			PM Peak Hour			ADT
			IB	OB	Total	IB	OB	Total	
Vans Project									
Corporate Headquarters	TSF	178.893	252	20	272	25	227	252	1,428
Trip Generation Rates									
Corporate Headquarters (714)	TSF	--	1.41	0.11	1.52	0.14	1.27	1.41	7.98

Abbreviations: ADT – Average Daily Trips; IB – Inbound Trips OB – Outbound Trips; TSF – Thousand Square Feet
Source: Stantec, *Tribune Property Traffic Analysis,* March 2017

TABLE 17
TRIP GENERATION ESTIMATES FOR THE STEELWAVE PROJECT

Land Use	Units	Amount	AM Peak Hour			PM Peak Hour			ADT
			IB	OB	Total	IB	OB	Total	
Steelwave Project									
Existing Development									
Industrial Park	TSF	172	115	26	141	31	115	146	1,175
Proposed Steelwave Development Plan									
Office (Existing Buildings)	TSF	172	236	33	269	43	213	256	1,897
Hotel	Room	128	40	28	68	40	37	77	1,046
Quality Restaurant	TSF	7.72	3	3	6	39	19	58	694
High Turnover Restaurant	TSF	5.58	33	27	60	33	22	55	709
Retail	TSF	2.00	1	1	2	4	5	9	107
Trip Generation Summary									
Total (Before Trip Reduction)			313	92	405	159	296	455	4,453
10% Internal Capture Trip Reduction			-20	-20	-40	-23	-23	-46	-445
Total (After Trip Reduction)			293	72	365	136	273	409	4,008
Difference (Proposed Steelwave Development Plan Versus Existing Development)									
Net Trip Generation Increase			178	46	224	105	158	263	2,833
Trip Generation Rates									
Industrial Park (130)	TSF	--	0.67	0.15	0.82	0.18	0.67	0.85	6.83
Office (710)	TSF	--	1.37	0.19	1.56	0.25	1.24	1.49	11.03
Hotel (310)	Room	--	0.31	0.22	0.53	0.31	0.29	0.60	8.17
Quality Restaurant (931)	TSF	--	0.41	0.40	0.81	5.02	2.47	7.49	89.95
High Turnover Restaurant (932)	TSF	--	5.95	4.86	10.81	5.91	3.94	9.85	127.15
Retail (820)	TSF	--	0.73	0.45	1.18	2.23	2.41	4.64	53.28

Abbreviations: ADT – Average Daily Trips; IB – Inbound Trips OB – Outbound Trips; TSF – Thousand Square Feet
Source: Stantec, *Tribune Property Traffic Analysis,* March 2017

TABLE 18
OPENING DAY (2018) INTERSECTION LOS SUMMARY WITH THE VANS AND STEELWAVE PROJECTS (ICU METHODOLOGY)

Intersection	No-Project				With 345,000 SF Initial Project Phase			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
1. Harbor & MacArthur	0.77	C	0.87	D	0.80	C	0.87	D
2. Harbor & Scenic/Lake Center	0.68	B	0.59	A	0.69	B	0.60	A
3. Harbor & Sunflower	0.68	B	0.71	C	0.69	B	0.72	C
4. Harbor & South Coast	0.55	A	0.76	C	0.55	A	0.77	C
5. Hyland & South Coast/I-405 NB On	0.28	A	0.61	B	0.28	A	0.64	B
6. Harbor & I-405 NB Ramps	0.67	B	0.80	C	0.69	B	0.82	D
7. Harbor & I-405 SB Ramps	0.48	A	0.65	B	0.50	A	0.66	B
8. Harbor & Gisler	0.60	A	0.73	C	0.60	A	0.73	C
9. Harbor & Baker	0.51	A	0.63	B	0.52	A	0.64	B
10. Susan & Sunflower	0.32	A	0.75	C	0.38	A	0.75	C
11. Susan & South Coast	0.30	A	0.56	A	0.31	A	0.59	A
12. Fairview & MacArthur	0.69	B	0.79	C	0.69	B	0.79	C
13. Fairview & Sunflower	0.57	A	0.67	B	0.57	A	0.69	B
14. Fairview & South Coast	0.69	B	0.87	D	0.70	B	0.87	D
15. Fairview & I-405 NB Ramps	0.54	A	0.66	B	0.54	A	0.66	B
16. Fairview & I-405 SB Ramps	0.59	A	0.52	A	0.59	A	0.52	A
17. Fairview & Paularino	0.47	A	0.47	A	0.47	A	0.47	A
18. Fairview & Baker	0.66	B	0.62	B	0.66	B	0.62	B

Abbreviations: ICU – intersection capacityutilization; LOS – level of service; NB – northbound SB – southbound
Source: Stantec, *Tribune Property Traffic Analysis,* March 2017

TABLE 19
OPENING DAY (2018) INTERSECTION LOS SUMMARY WITH THE VANS AND STEELWAVE PROJECTS (HCM METHODOLOGY)

Intersection	No-Project				With 345,000 SF Initial Project Phase			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Delay[a]	LOS	Delay[a]	LOS	Delay[a]	LOS	Delay[a]	LOS
5. Hyland & South Coast/I-405 NB On	1.3	A	1.2	A	1.3	A	1.2	A
6. Harbor & I-405 NB Ramps	16.5	B	21.3	C	17.7	B	22.0	C
7. Harbor & I-405 SB Ramps	11.2	B	15.1	B	12.2	B	15.4	B
15. Fairview & I-405 NB Ramps	19.4	B	31.1	C	19.5	B	31.2	C
16. Fairview & I-405 SB Ramps	20.2	C	18.5	B	20.3	C	18.5	B

Abbreviations: HCM – Highway Capacity Manual; LOS – level of service NB – northbound; SB – southbound
[a] Average vehicle delay in seconds.
Source: Stantec, *Tribune Property Traffic Analysis,* March 2017

Interim Traffic Conditions

Table 20 summarizes interim year 2022 AM and PM peak hour intersection capacity utilization (ICU) values and levels of service without and with the proposed project, and Table 21 summarizes the corresponding year 2022 AM and PM peak hour levels of service for the Caltrans freeway ramp intersections in the study area based on the HCM signalized intersection LOS methodology.

As the LOS summary tables indicate, each of the intersections analyzed is forecast to operate at an acceptable LOS "D" or better under interim year 2022 conditions with full development of the project. Therefore, full buildout of the proposed project would not significantly impact any of the study area intersections based on interim 2022 conditions.

TABLE 20
INTERIM YEAR (2022) INTERSECTION LOS SUMMARY
WITH THE VANS AND STEELWAVE PROJECTS (ICU METHODOLOGY)

	No-Project				With 655,000 SF Full Project			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
Intersection	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
1. Harbor & MacArthur	0.77	C	0.87	D	0.80	C	0.87	D
2. Harbor & Scenic/Lake Center	0.68	B	0.59	A	0.69	B	0.60	A
3. Harbor & Sunflower	0.68	B	0.71	C	0.69	B	0.72	C
4. Harbor & South Coast	0.55	A	0.76	C	0.55	A	0.77	C
5. Hyland & South Coast/I-405 NB On	0.28	A	0.61	B	0.28	A	0.64	B
6. Harbor & I-405 NB Ramps	0.67	B	0.80	C	0.69	B	0.82	D
7. Harbor & I-405 SB Ramps	0.48	A	0.65	B	0.50	A	0.66	B
8. Harbor & Gisler	0.60	A	0.73	C	0.60	A	0.73	C
9. Harbor & Baker	0.51	A	0.63	B	0.52	A	0.64	B
10. Susan & Sunflower	0.32	A	0.75	C	0.38	A	0.75	C
11. Susan & South Coast	0.30	A	0.56	A	0.31	A	0.59	A
12. Fairview & MacArthur	0.69	B	0.79	C	0.69	B	0.79	C
13. Fairview & Sunflower	0.57	A	0.67	B	0.57	A	0.69	B
14. Fairview & South Coast	0.69	B	0.87	D	0.70	B	0.87	D
15. Fairview & I-405 NB Ramps	0.54	A	0.66	B	0.54	A	0.66	B
16. Fairview & I-405 SB Ramps	0.59	A	0.52	A	0.59	A	0.52	A
17. Fairview & Paularino	0.47	A	0.47	A	0.47	A	0.47	A
18. Fairview & Baker	0.66	B	0.62	B	0.66	B	0.62	B

Abbreviations: ICU – intersection capacityutilization; LOS – level of service; NB – northbound SB – southbound

Source: Stantec, *Tribune Property Traffic Analysis,* March 2017

TABLE 21
INTERIM YEAR (2022) INTERSECTION LOS SUMMARY
WITH THE VANS AND STEELWAVE PROJECTS (HCM METHODOLOGY)

Intersection	No-Project				With 655,000 SF Full Project			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Delay[a]	LOS	Delay[a]	LOS	Delay[a]	LOS	Delay[a]	LOS
5. Hyland & South Coast/I-405 NB On	1.3	A	1.2	A	1.2	A	1.1	A
6. Harbor & I-405 NB Ramps	17.3	B	23.0	C	19.3	B	23.8	C
7. Harbor & I-405 SB Ramps	11.8	B	16.0	B	13.6	B	16.7	B
15. Fairview & I-405 NB Ramps	20.3	C	33.4	C	20.6	C	34.0	C
16. Fairview & I-405 SB Ramps	20.9	C	18.9	B	20.9	C	18.9	B

Abbreviations: HCM – Highway Capacity Manual; LOS – level of service NB – northbound; SB – southbound
[a] Average vehicle delay in seconds.
Source: Stantec, *Tribune Property Traffic Analysis,* March 2017

Long-Range Traffic Conditions

Table 22 summarizes year 2035 long-range AM and PM peak hour intersection capacity utilization (ICU) values and levels of service for the intersections in the study area based on no-project conditions (i.e., no development of the proposed project) and conditions with full development of the proposed project (655,000 sf of office use). Table 23 summarizes 2035 no-project and with-project AM and PM peak hour levels of service for the Caltrans freeway ramp intersections in the study area based on the Highway Capacity Manual (HCM) signalized intersection level of service (LOS) methodology (HCM intersection LOS calculation worksheets are provided in Appendix B of the TIA).

As the LOS summary tables indicate, each of the intersections analyzed is forecast to operate at an acceptable LOS “D” or better under 2035 conditions with full development of the project with the exception of the Harbor Boulevard/MacArthur Boulevard intersection in the City of Santa Ana, which is forecast to operate at LOS “E” during the PM peak hour. However, the proposed project does not significantly impact that intersection because the PM peak hour ICU is the same (0.93) under 2035 no-project and with-project conditions. Therefore, full buildout of the proposed project would not significantly impact any of the study area intersections based on 2035 long-range conditions.

The recently adopted Costa Mesa General Plan identifies non-committed long-range improvements that are planned at four of the Costa Mesa intersections in the study area. Those improvements, which are listed in Table 24, are included in the 2035 long-range intersection LOS results discussed above. The proposed project’s fair share contribution towards the implementation of Costa Mesa General Plan roadway improvements both within and beyond the study area will be satisfied through the project’s payment of Costa Mesa Traffic Impact Fees.

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

Less Than Significant Impact. The analysis presented in the TIA is consistent with the requirements and procedures outlined in the current Orange County Congestion Management Program (CMP). The CMP requires that a traffic impact analysis be conducted for any project

generating 2,400 or more daily trips or 1,600 or more daily trips for projects that directly access the CMP Highway System (HS). As noted previously, the proposed project is forecasted to generate approximately 1,997 daily trip-ends and thus does not meet the criteria requiring a CMP traffic impact analysis. Therefore, impacts would be less than significant.

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 due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses?

No Impact. The project would not involve any modifications to the local circulation system and all on-site circulation would be subject to review by the City of Costa Mesa. No impact would occur.

e) Result in inadequate emergency access?

No Impact. The project site is located along Sunflower Avenue, and is not in the vicinity of an established emergency response or evacuation plan. Construction activity would be confined to the project site and would not interfere with vehicle movement or emergency access along this roadway. Impacts related to the addition of project-related traffic would be less than significant; therefore, the project would not interfere with the movement of emergency vehicles along local roadways. No impact related to inadequate emergency access would occur, and no mitigation is required.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

No Impact. The proposed project would be located near various alternative transportation modes and routes, including transit stops and pedestrian facilities. According to the GP FEIR, there are existing Class II bikeways located along Sunflower Avenue and South Coast Drive in the project vicinity as well as a proposed Class I bikeway immediately east of the project site. Existing transit service in the project area is provided by the OCTA and there are multiple OCTA stops within ¼ mile of the project site that provide access to Routes 211, 216, 464, and 794. Routes 211 and 216 are Intracounty Express routes and route 794 is an Intercounty Express route, all of which operate during weekday rush hour only. Route 464 is classified by the OCTA as a Stationlink because it provides service to the Santa Ana Metrolink Station. (OCTA 2015). No impacts to alternative transportation are anticipated, and no mitigation is required.

TABLE 22
LONG-RANGE (2035) INTERSECTION LOS SUMMARY
(ICU METHODOLOGY)

Intersection	No-Project				With 655,000 SF Full Project			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	ICU	LOS	ICU	LOS	ICU	LOS	ICU	LOS
1. Harbor & MacArthur	.85	D	.93	E	.86	D	.93	E
2. Harbor & Scenic/Lake Center	.61	B	.66	B	.64	B	.69	B
3. Harbor & Sunflower	.60	A	.71	C	.61	B	.72	C
4. Harbor & South Coast	.56	A	.80	C	.56	A	.84	D
5. Hyland & South Coast/I-405 NB On	.26	A	.52	A	.26	A	.56	A
6. Harbor & I-405 NB Ramps	.79	C	.89	D	.81	D	.89	D
7. Harbor & I-405 SB Ramps	.57	A	.71	C	.62	B	.73	C
8. Harbor & Gisler	.58	A	.77	C	.58	A	.78	C
9. Harbor & Baker	.54	A	.78	C	.55	A	.79	C
10. Susan & Sunflower	.43	A	.62	B	.49	A	.64	B
11. Susan & South Coast	.46	A	.68	B	.46	A	.68	B
12. Fairview & MacArthur	.74	C	.83	D	.74	C	.83	D
13. Fairview & Sunflower	.71	C	.66	B	.73	C	.70	B
14. Fairview & South Coast	.68	B	.77	C	.69	B	.79	C
15. Fairview & I-405 NB Ramps	.66	B	.74	C	.68	B	.75	C
16. Fairview & I-405 SB Ramps	.65	B	.70	B	.65	B	.70	B
17. Fairview & Paularino	.58	A	.56	A	.58	A	.57	A
18. Fairview & Baker	.77	C	.81	D	.77	C	.81	D

Abbreviations: ICU – intersection capacityutilization; LOS – level of service; NB – northbound SB – southbound

Denotes a peak hour deficiency.

Source: Stantec, *Tribune Property Traffic Analysis,* March 2017

TABLE 23
LONG-RANGE (2035) INTERSECT ION LOS SUMMARY
(HCM METHODOLOGY)

Intersection	No-Project				With 655,000 SF Full Project			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Delay[a]	LOS	Delay[a]	LOS	Delay[a]	LOS	Delay[a]	LOS
5. Hyland & South Coast/I-405 NB On	1.3	A	1.2	A	1.3	A	1.2	A
6. Harbor & I-405 NB Ramps	15.6	B	21.4	C	17.7	B	22.1	C
7. Harbor & I-405 SB Ramps	20.7	C	19.2	B	22.5	C	20.1	C
15. Fairview & I-405 NB Ramps	40.3	D	39.5	D	41.5	D	40.1	D
16. Fairview & I-405 SB Ramps	22.0	C	26.0	C	22.1	C	25.4	C

Abbreviations: HCM – Highway Capacity Manual; LOS – level of service NB – northbound; SB – southbound

[a] Average vehicle delay in seconds.

Source: Stantec, *Tribune Property Traffic Analysis,* March 2017

TABLE 24
NON-COMMITTED GENERAL PLAN IMPROVEMENTS IN THE STUDY AREA

Intersection	Non-Committed General Plan Improvement
3. Harbor & Sunflower	Add eastbound and westbound right-turn lanes.
4. Harbor & South Coast	Widen the eastbound approach to provide one left-turn lane, one through lane and two right-turn lanes.
5. Hyland & South Coast/I-405 NB On-Ramp	Add a second westbound through lane.
8. Harbor & Gisler	Add a southbound right-turn lane and a third eastbound left-turn lane.
Source: Stantec, *Tribune Property Traffic Analysis,* March 2017	

5.17 UTILITIES AND SERVICE SYSTEMS

Impact Analysis

Would the Project:

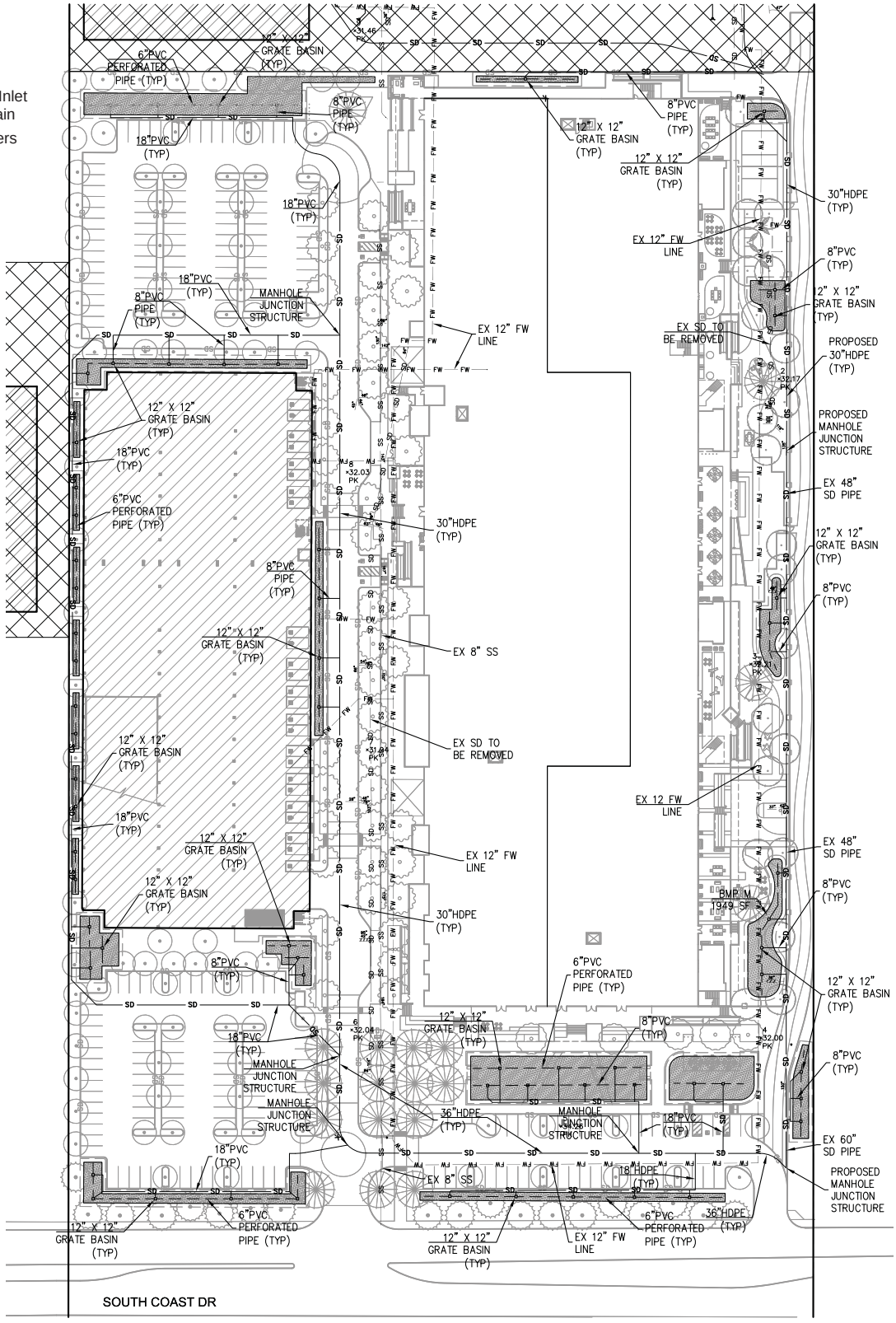
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

No Impact. The Costa Mesa Sanitary District (CMSD), an independent special district, provides sewer service to the City of Costa Mesa, including the project site. As the CMSD owns sewer lines that are tributary to Orange County Sanitation District (OCSD) treatment plants, the CMSD complies with the wastewater discharge requirements (WDR) issued by the State Water Resources Control Board (SWRCB) for OCSD facilities (CMSD 2015). The WDR ensures that adequate levels of treatment are provided to wastewater flows emanating from all land uses in the OCSD and CMSD service areas. The wastewater from the proposed project would not require treatment beyond that provided to existing commercial uses in the City and would not exceed established treatment requirements in the WDR. No impact would occur.

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?

Less Than Significant Impact. The project site is currently served by water and wastewater treatment facilities. The CMSD Sewer System Management Plan (SSMP) is designed to serve a population of approximately 116,700 (CMSD 2015). The proposed project is consistent with what was analyzed in the GP FEIR and these projections would be the basis for future planning purposes for Mesa Water District and the CMSD; expansion of existing facilities would be part of these future planning processes. Additionally, the project Applicant would be responsible for all necessary on-site infrastructure improvements and connections as illustrated in Exhibit 5, Conceptual Wet Utilities Plan.

Due to potential sewer flows greater than levels anticipated in the CMSD Sewer Master Plan, the CMSD requested that a sewer capacity study be conducted for the proposed project. The *Sewer Capacity Study for The Press* performed by Tait & Associates and included as Appendix D notes that, with the addition of the proposed project, the projected peak wet weather flow would be above half full; however, this would be within the range of acceptable gravity flow operation and there would be no surcharging (Tait & Associates 2016). Therefore, impacts related to water and wastewater treatment facilities would be less than significant.



Source: TAIT 2016

Conceptual Wet Utilities Plan

Exhibit 5

LA Times Building Reuse Project

BonTerra PSOMAS

(9/7/2016 CJS) R:\Projects\COS_ CMX\3COS010200\Graphics\Ex5_wet_utils_20160907.pdf

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c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less Than Significant Impact. Storm drain facilities currently serve the project site and are maintained by the County of Orange. Similar to existing conditions, following completion of construction activities, the proposed project site would consist primarily of impervious surfaces and would include limited landscaped areas (which would serve as pervious areas). Therefore, implementation of the proposed project would not substantially alter the amount or rate of runoff and existing storm drain facilities would adequately accommodate drainage from the project site. Additionally, the proposed project is consistent with what was analyzed in the GP FEIR and these projections would be the basis for future planning purposes for County storm drain facilities; expansion of existing facilities would be part of these future planning processes. The project Applicant would be responsible for all necessary on-site infrastructure improvements and connections. Therefore, impacts related to storm drains would be less than significant.

d) Have sufficient water supplies available to serve the Project from existing entitlements and resources, or are new or expanded entitlements needed?

Less Than Significant Impact. The proposed project site is currently served by Mesa Water District (Mesa). According to the *L.A. Times Building Reuse Project Water Supply Assessment* (WSA), prepared for the proposed project by Psomas (April 2017), and included as Appendix E, the project at buildout would require approximately 126 acre-feet per year (AFY) of potable water. As of 2015, the project site required approximately 15 AFY due to ongoing irrigation activities and ancillary water use for maintenance and upkeep of the existing building; therefore, development of the project would increase demand by approximately 111 AFY. This increase in demand would represent approximately 0.6 percent of the total demand estimated for Mesa in the year 2040.

Mesa's water supply is derived primarily from groundwater produced from the Orange County Groundwater Basin, which accounts for 94 percent of the overall water supply and 100 percent of the potable water supply. This is supplemented by recycled water purchased from the Orange County Water District, which accounts for approximately 6 percent of Mesa's water supply. Additionally, Mesa has imported water connections for back-up supply and maintains emergency supply connections with adjacent water agencies. According to the WSA, Mesa is projected to have sufficient water supplies to meet all normal, single-dry year, and multiple-dry year demands, including the demand related to the proposed project, through year 2040. Therefore, the proposed project could be adequately served through connection to existing infrastructure and based on Mesa's available water supply (Mesa Water District 2016). Anticipated impacts would be less than significant and no mitigation would be required.

e) Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments?

Less Than Significant Impact. As discussed previously in the response to threshold "b", above, the proposed project is consistent with what was analyzed in the GP FEIR and these projections would be the basis for future planning purposes for the CMSD; expansion of existing facilities would be part of these future planning processes. The project Applicant would also be responsible for all necessary on-site infrastructure improvements and connections. Additionally, based on the determination in the sewer capacity study that gravity flow operation would be within an acceptable range with implementation of the project, the CMSD issued a letter, included in

Appendix D, addressing their ability to serve the project's sewer system needs (CMSD 2016). Impacts related to wastewater treatment capacity would be less than significant.

f) Be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs?

Less Than Significant Impact. Solid waste generated from the project site would most likely be disposed of at the Frank R. Bowerman Landfill, which is part of the Orange County landfill system operated by OC Waste & Recycling. The landfill is permitted to receive a maximum of 11,500 tons per day (tpd). The Frank R. Bowerman Landfill is approximately 725 acres with 530 acres permitted for refuse disposal. The landfill opened in 1990 and is scheduled to close in approximately 2053 (OC Waste 2015). According to the GP FEIR Section 4.17, Utilities and Service Systems, the Frank R. Bowerman Landfill has a remaining capacity of more than 55 percent. Because the proposed project is consistent with what was analyzed in the GP FEIR and would, therefore, be assumed for future planning purposes, impacts related to available capacity of the landfill system would be adequately accommodated and would be less than significant.

g) Comply with Federal, State, and local statutes and regulations related to solid waste?

No Impact. State, County, and local agencies with regulatory authority related to solid waste include the California Department of Resources Recycling and Recovery (CalRecycle), OC Waste & Recycling (County of Orange), and the City of Costa Mesa. Regulations specifically applicable to the proposed project include the California Integrated Waste Management Act of 1989 (AB 939) and Section 4.408 of the CALGreen Code. The proposed project would comply with all applicable regulations set forth by AB 939 and Section 4.408 of the CALGreen Code, in addition to all applicable standards within the Costa Mesa Municipal Code and General Plan Policies CON-2.J through CON-2.L; therefore, no conflict with statues and regulations related to solid waste would occur and no mitigation is required.

5.18 MANDATORY FINDINGS OF SIGNIFICANCE

IMPACT ANALYSIS

Does the Project:

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

Less Than Significant With Mitigation. The proposed project would be located in an urban, developed area. As noted in Section 5.4, Biological Resources, the project site does not contain any significant or sensitive biological resources; therefore, project development would not 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 plan or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal. As discussed in Section 5.5, Cultural Resources, although no known historical, archaeological or paleontological resources exist on the project site, there is the potential to unearth or disturb an unknown resource during project construction. Therefore, MMs **CULT-1** and **CULT-2** are recommended to reduce potential

impacts related to the elimination of important examples of the major periods of California history or prehistory to less than significant levels.

b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental efforts 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 probably future projects)?

Less Than Significant Impact with Mitigation. The impact analysis contained in this IS addresses impacts on a project-level and, where appropriate, a cumulative-level. Specifically, the traffic/circulation analysis in Section 5.16 accounted for the proposed Steelwave and Vans projects as part of the analysis. As discussed throughout this document, the project would have the potential to impact the environment; however, specific MMs are listed that if implemented would reduce these impacts, including cumulative impacts, to less than significant levels.

c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant With Mitigation. As described previously in Section 3.0, Project Description, the proposed project would include the reuse of an existing building and construction of additional buildings consistent with the Commercial Center land use designation. Implementation would not displace or otherwise significantly impact existing residences. All identified impacts, with the exception of impacts related to cultural resources which requires implementation of MMs **CULT-1** and **CULT-2**, would be less than significant; therefore, the project would not cause substantial adverse effects on human beings.

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APPENDIX A

CALEEMOD MODEL DATA

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	295.00	1000sqft	6.77	295,000.00	0
General Office Building	215.00	1000sqft	1.00	215,000.00	0
General Office Building	145.00	1000sqft	0.75	145,000.00	0
Other Asphalt Surfaces	50.00	1000sqft	1.15	50,000.00	0
Other Asphalt Surfaces	35.00	1000sqft	0.80	35,000.00	0
Parking Lot	226.00	Space	2.03	120,000.00	0
Unenclosed Parking with Elevator	759.00	Space	6.83	303,600.00	0
Unenclosed Parking with Elevator	860.00	Space	5.25	344,000.00	0
Unenclosed Parking with Elevator	580.00	Space	5.22	232,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	8			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	527.1	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - 2022 SCE CO2 IF

Land Use - Per data needs

Construction Phase - .

Off-road Equipment - 2 forklifts, 1 crane, 2 aerial lifts (to replace scissor lifts)

Off-road Equipment - exc to replace Brokk, 1 loader, 1 forklift

Off-road Equipment - 1 grader, 1 scraper, 1 (plate) compactor

Off-road Equipment - 1 paving equip, 2 rollers

Off-road Equipment - 1 exc, 1 loader

Off-road Equipment - 1 crane, 2 forklifts, 2 aerial lifts

Off-road Equipment - 1 exc, 1 TLB

Off-road Equipment - 1 grader, 1 scraper, 1 plate compactor

Off-road Equipment - 1 paving equip, 2 rollers

Off-road Equipment - 1 loader, 1 excavator

Off-road Equipment - 2 forlifts, 1 crane, 2 aerial lifts

Off-road Equipment - 1 exc, 1 TLB

Off-road Equipment - 1 grader, 1 scraper, 1 plate compactor

Off-road Equipment - 1 paving equip, 2 rollers

Off-road Equipment - 1 exc, 1 loader

Trips and VMT - manual calcs to fix trips

Demolition - manual calcs based off data needs

Grading - balanced on site

Vehicle Trips - traffic report

Area Coating - Painting done on separate- manual calcs

Energy Use - .

Water And Wastewater - manual calcs from data needs

Solid Waste - defaults

Sequestration - planting 356

Construction Off-road Equipment Mitigation -

Energy Mitigation - compliance

Water Mitigation -

Waste Mitigation - compliance

Operational Off-Road Equipment - assumption is that it's tested once week for 1 hour.

Area Mitigation - x

Table Name	Column Name	Default Value	New Value
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tblConstructionPhase	NumDays	440.00	208.00
tblConstructionPhase	NumDays	440.00	261.00
tblConstructionPhase	NumDays	30.00	42.00
tblConstructionPhase	NumDays	30.00	41.00
tblConstructionPhase	NumDays	30.00	41.00
tblConstructionPhase	NumDays	35.00	21.00
tblConstructionPhase	NumDays	35.00	21.00
tblConstructionPhase	NumDays	35.00	22.00
tblConstructionPhase	NumDays	20.00	21.00
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tblConstructionPhase	PhaseEndDate	1/31/2022	12/31/2021
tblConstructionPhase	PhaseEndDate	2/16/2018	12/29/2017
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tblConstructionPhase	PhaseEndDate	11/12/2018	12/31/2018
tblConstructionPhase	PhaseEndDate	5/31/2021	1/31/2022
tblConstructionPhase	PhaseEndDate	1/30/2018	10/31/2017
tblConstructionPhase	PhaseEndDate	3/29/2021	1/29/2021
tblConstructionPhase	PhaseEndDate	3/30/2017	1/31/2017
tblConstructionPhase	PhaseEndDate	11/29/2017	6/29/2018
tblConstructionPhase	PhaseStartDate	1/30/2021	1/1/2021

tblConstructionPhase	PhaseStartDate	5/3/2017	3/15/2017
tblConstructionPhase	PhaseStartDate	6/30/2018	6/1/2018
tblConstructionPhase	PhaseStartDate	1/1/2019	1/1/2021
tblConstructionPhase	PhaseStartDate	6/1/2019	6/15/2018
tblConstructionPhase	PhaseStartDate	1/1/2022	2/27/2021
tblConstructionPhase	PhaseStartDate	2/1/2017	3/1/2017
tblConstructionPhase	PhaseStartDate	10/13/2018	12/1/2018
tblConstructionPhase	PhaseStartDate	5/1/2021	1/1/2022
tblConstructionPhase	PhaseStartDate	12/30/2017	10/1/2017
tblConstructionPhase	PhaseStartDate	2/27/2021	1/1/2021
tblConstructionPhase	PhaseStartDate	3/1/2017	1/1/2017
tblConstructionPhase	PhaseStartDate	11/1/2017	6/1/2018
tblGrading	AcresOfGrading	67.50	112.50
tblGrading	AcresOfGrading	67.50	112.50
tblGrading	AcresOfGrading	67.50	112.50
tblLandUse	LandUseSquareFeet	90,400.00	120,000.00
tblLandUse	LotAcreage	3.33	0.75
tblLandUse	LotAcreage	4.94	1.00
tblLandUse	LotAcreage	7.74	5.25
tblOffRoadEquipment	HorsePower	97.00	122.00
tblOffRoadEquipment	LoadFactor	0.37	0.44
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	52.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	1.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	527.1
tblProjectCharacteristics	OperationalYear	2014	2022
tblSequestration	NumberOfNewTrees	0.00	356.00
tblTripsAndVMT	VendorTripNumber	261.00	62.00
tblTripsAndVMT	VendorTripNumber	261.00	66.00
tblTripsAndVMT	VendorTripNumber	261.00	92.00
tblTripsAndVMT	WorkerTripNumber	618.00	151.00
tblTripsAndVMT	WorkerTripNumber	618.00	161.00
tblTripsAndVMT	WorkerTripNumber	618.00	224.00
tblVehicleTrips	WD_TR	11.01	11.03
tblWater	IndoorWaterUseRate	90,199,877.11	39,785,000.00
tblWater	OutdoorWaterUseRate	55,283,795.65	3,711,320.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	4.5269	44.2674	37.9554	0.0688	4.9528	1.9587	6.9115	0.9048	1.8028	2.7075			6,492.6765	1.1136	0.0000	6,516.0611
2018	4.3949	40.6512	43.4852	0.0951	8.6968	1.6944	10.1342	1.7413	1.5597	3.0638			8,750.9451	1.1406	0.0000	8,774.8983
2019	2.1787	16.4869	25.2605	0.0599	3.0789	0.5891	3.6680	0.8278	0.5421	1.3699			5,162.6979	0.4670	0.0000	5,172.5044
2021	3.1081	28.2319	29.7325	0.0667	4.8161	1.1856	6.0017	0.8680	1.0916	1.9596			5,862.1423	1.0928	0.0000	5,885.0915
2022	1.0241	5.1882	6.4956	0.0103	0.0894	0.2830	0.3725	0.0237	0.2604	0.2841			968.2612	0.2931	0.0000	974.4165
Total	**15.2326**	**134.8255**	**142.9291**	**0.3008**	**21.6341**	**5.7109**	**27.0879**	**4.3656**	**5.2566**	**9.3850**			**27,236.7230**	**4.1071**	**0.0000**	**27,322.9718**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	4.5269	44.2674	37.9554	0.0688	3.4947	1.9587	5.4533	0.7473	1.8028	2.5501			6,492.6765	1.1136	0.0000	6,516.0611
2018	4.3949	40.6512	43.4852	0.0951	5.8940	1.6944	7.3314	1.3170	1.5597	2.6394			8,750.9451	1.1406	0.0000	8,774.8983
2019	2.1787	16.4869	25.2605	0.0599	3.0789	0.5891	3.6680	0.8278	0.5421	1.3699			5,162.6979	0.4670	0.0000	5,172.5044
2021	3.1081	28.2319	29.7325	0.0667	3.3579	1.1856	4.5435	0.7106	1.0916	1.8022			5,862.1423	1.0928	0.0000	5,885.0915
2022	1.0241	5.1882	6.4956	0.0103	0.0894	0.2830	0.3725	0.0237	0.2604	0.2841			968.2612	0.2931	0.0000	974.4165
Total	**15.2326**	**134.8255**	**142.9291**	**0.3008**	**15.9148**	**5.7109**	**21.3687**	**3.6263**	**5.2566**	**8.6457**			**27,236.7230**	**4.1071**	**0.0000**	**27,322.9718**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**26.44**	**0.00**	**21.11**	**16.93**	**0.00**	**7.88**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	36.8166	2.9600e-003	0.3237	2.0000e-005		1.1600e-003	1.1600e-003		1.1600e-003	1.1600e-003			0.6927	1.8300e-003		0.7310
Energy	0.1856	1.6872	1.4173	0.0101		0.1282	0.1282		0.1282	0.1282			2,024.6414	0.0388	0.0371	2,036.9631
Mobile	18.1207	37.3617	185.7722	0.6624	49.1941	0.6737	49.8678	13.1280	0.6221	13.7501			49,322.7006	1.7173		49,358.7634
Offroad	0.0413	0.3660	0.4595	8.2000e-004		0.0184	0.0184		0.0184	0.0184			77.8793	3.7000e-003		77.9570
Total	**55.1641**	**39.4179**	**187.9726**	**0.6734**	**49.1941**	**0.8214**	**50.0155**	**13.1280**	**0.7699**	**13.8979**			**51,425.9140**	**1.7616**	**0.0371**	**51,474.4145**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	36.8166	2.9600e-003	0.3237	2.0000e-005		1.1600e-003	1.1600e-003		1.1600e-003	1.1600e-003			0.6927	1.8300e-003		0.7310
Energy	0.1352	1.2292	1.0325	7.3700e-003		0.0934	0.0934		0.0934	0.0934			1,474.9861	0.0283	0.0270	1,483.9626
Mobile	18.1207	37.3617	185.7722	0.6624	49.1941	0.6737	49.8678	13.1280	0.6221	13.7501			49,322.7006	1.7173		49,358.7634
Offroad	0.0413	0.3660	0.4595	8.2000e-004		0.0184	0.0184		0.0184	0.0184			77.8793	3.7000e-003		77.9570
Total	**55.1137**	**38.9599**	**187.5879**	**0.6706**	**49.1941**	**0.7866**	**49.9807**	**13.1280**	**0.7351**	**13.8631**			**50,876.2587**	**1.7511**	**0.0270**	**50,921.4141**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.17**	**2.09**	**0.45**	**0.53**	**0.00**	**6.47**	**0.11**	**0.00**	**6.91**	**0.38**	**0.00**	**0.00**	**1.22**	**0.81**	**27.16**	**1.23**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	P1 Demo	Demolition	1/1/2017	2/28/2017	5	42	
2	P1 Site Prep	Site Preparation	1/1/2017	1/31/2017	5	22	
3	P1 Grading	Grading	3/1/2017	5/2/2017	5	45	
4	P1 Building Improvements	Building Construction	3/15/2017	12/29/2017	5	208	
5	P1 Paving	Paving	10/1/2017	10/31/2017	5	22	
6	P2 Site Prep	Site Preparation	6/1/2018	6/29/2018	5	21	
7	P2 Building Construction	Building Construction	6/1/2018	5/31/2019	5	261	
8	P2 Demo	Demolition	6/15/2018	8/10/2018	5	41	
9	P2 Grading	Grading	8/11/2018	10/12/2018	5	45	
10	P2 Paving	Paving	12/1/2018	12/31/2018	5	21	
11	P3 Demo	Demolition	1/1/2021	2/26/2021	5	41	
12	P3 Site Prep	Site Preparation	1/1/2021	1/29/2021	5	21	
13	P3 Building Construction	Building Construction	1/1/2021	12/31/2021	5	261	
14	P3 Grading	Grading	2/27/2021	4/30/2021	5	45	
15	P3 Paving	Paving	1/1/2022	1/31/2022	5	21	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
P1 Demo	Concrete/Industrial Saws	0	8.00	81	0.73
P1 Demo	Excavators	1	8.00	162	0.38
P1 Demo	Forklifts	1	8.00	89	0.20
P1 Demo	Rubber Tired Dozers	0	8.00	255	0.40
P1 Demo	Tractors/Loaders/Backhoes	1	8.00	122	0.44
P1 Site Prep	Excavators	1	8.00	162	0.38
P1 Site Prep	Rubber Tired Dozers	0	8.00	255	0.40
P1 Site Prep	Tractors/Loaders/Backhoes	1	8.00	97	0.37
P1 Grading	Excavators	0	8.00	162	0.38
P1 Grading	Graders	1	8.00	174	0.41
P1 Grading	Plate Compactors	1	8.00	8	0.43
P1 Grading	Rubber Tired Dozers	0	8.00	255	0.40
P1 Grading	Scrapers	1	8.00	361	0.48
P1 Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
P1 Building Improvements	Aerial Lifts	2	8.00	62	0.31
P1 Building Improvements	Cranes	1	7.00	226	0.29
P1 Building Improvements	Forklifts	2	8.00	89	0.20
P1 Building Improvements	Generator Sets	0	8.00	84	0.74
P1 Building Improvements	Tractors/Loaders/Backhoes	0	7.00	97	0.37
P1 Building Improvements	Welders	0	8.00	46	0.45
P1 Paving	Pavers	0	8.00	125	0.42
P1 Paving	Paving Equipment	1	8.00	130	0.36
P1 Paving	Rollers	2	8.00	80	0.38
P2 Site Prep	Excavators	1	8.00	162	0.38
P2 Site Prep	Rubber Tired Dozers	0	8.00	255	0.40
P2 Site Prep	Tractors/Loaders/Backhoes	1	8.00	97	0.37

P2 Building Construction	Aerial Lifts	2	8.00	62	0.31
P2 Building Construction	Cranes	1	7.00	226	0.29
P2 Building Construction	Forklifts	2	8.00	89	0.20
P2 Building Construction	Generator Sets	0	8.00	84	0.74
P2 Building Construction	Tractors/Loaders/Backhoes	0	7.00	97	0.37
P2 Building Construction	Welders	0	8.00	46	0.45
P2 Demo	Concrete/Industrial Saws	0	8.00	81	0.73
P2 Demo	Excavators	1	8.00	162	0.38
P2 Demo	Rubber Tired Dozers	0	8.00	255	0.40
P2 Demo	Tractors/Loaders/Backhoes	1	8.00	97	0.37
P2 Grading	Excavators	0	8.00	162	0.38
P2 Grading	Graders	1	8.00	174	0.41
P2 Grading	Plate Compactors	1	8.00	8	0.43
P2 Grading	Rubber Tired Dozers	0	8.00	255	0.40
P2 Grading	Scrapers	1	8.00	361	0.48
P2 Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
P2 Paving	Pavers	0	8.00	125	0.42
P2 Paving	Paving Equipment	1	8.00	130	0.36
P2 Paving	Rollers	2	8.00	80	0.38
P3 Demo	Concrete/Industrial Saws	0	8.00	81	0.73
P3 Demo	Excavators	1	8.00	162	0.38
P3 Demo	Rubber Tired Dozers	0	8.00	255	0.40
P3 Demo	Tractors/Loaders/Backhoes	1	8.00	97	0.37
P3 Site Prep	Excavators	1	8.00	162	0.38
P3 Site Prep	Rubber Tired Dozers	0	8.00	255	0.40
P3 Site Prep	Tractors/Loaders/Backhoes	1	8.00	97	0.37
P3 Building Construction	Aerial Lifts	2	8.00	62	0.31
P3 Building Construction	Cranes	1	7.00	226	0.29

P3 Building Construction	Forklifts	2	8.00	89	0.20
P3 Building Construction	Generator Sets	0	8.00	84	0.74
P3 Building Construction	Tractors/Loaders/Backhoes	0	7.00	97	0.37
P3 Building Construction	Welders	0	8.00	46	0.45
P3 Grading	Excavators	0	8.00	162	0.38
P3 Grading	Graders	1	8.00	174	0.41
P3 Grading	Plate Compactors	1	8.00	8	0.43
P3 Grading	Rubber Tired Dozers	0	8.00	255	0.40
P3 Grading	Scrapers	1	8.00	361	0.48
P3 Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
P3 Paving	Pavers	0	8.00	125	0.42
P3 Paving	Paving Equipment	1	8.00	130	0.36
P3 Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
P1 Demo	3	8.00	0.00	682.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P1 Site Prep	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P1 Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P1 Building Improvements	5	161.00	66.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P1 Paving	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P2 Site Prep	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P2 Building Construction	5	224.00	92.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P2 Demo	2	5.00	0.00	965.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P2 Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P2 Paving	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P3 Demo	2	5.00	0.00	93.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P3 Site Prep	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P3 Building Construction	5	151.00	62.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P3 Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P3 Paving	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 P1 Demo - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.5120	0.0000	3.5120	0.5318	0.0000	0.5318			0.0000			0.0000
Off-Road	0.9080	9.5155	7.6994	0.0114		0.5351	0.5351		0.4923	0.4923			1,165.1293	0.3570		1,172.6261
Total	**0.9080**	**9.5155**	**7.6994**	**0.0114**	**3.5120**	**0.5351**	**4.0471**	**0.5318**	**0.4923**	**1.0240**			**1,165.1293**	**0.3570**		**1,172.6261**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2980	4.2441	3.5813	0.0119	0.2829	0.0617	0.3446	0.0775	0.0568	0.1343			1,181.1074	8.5100e-003		1,181.2860
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0266	0.0358	0.3762	1.0300e-003	0.0894	6.1000e-004	0.0900	0.0237	5.6000e-004	0.0243			82.6376	3.9600e-003		82.7208
Total	**0.3246**	**4.2799**	**3.9575**	**0.0129**	**0.3723**	**0.0623**	**0.4347**	**0.1012**	**0.0573**	**0.1585**			**1,263.7450**	**0.0125**		**1,264.0069**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5804	0.0000	1.5804	0.2393	0.0000	0.2393			0.0000			0.0000
Off-Road	0.9080	9.5155	7.6994	0.0114		0.5351	0.5351		0.4923	0.4923			1,165.1292	0.3570		1,172.6261
Total	**0.9080**	**9.5155**	**7.6994**	**0.0114**	**1.5804**	**0.5351**	**2.1155**	**0.2393**	**0.4923**	**0.7316**			**1,165.1292**	**0.3570**		**1,172.6261**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2980	4.2441	3.5813	0.0119	0.2829	0.0617	0.3446	0.0775	0.0568	0.1343			1,181.1074	8.5100e-003		1,181.2860
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0266	0.0358	0.3762	1.0300e-003	0.0894	6.1000e-004	0.0900	0.0237	5.6000e-004	0.0243			82.6376	3.9600e-003		82.7208
Total	**0.3246**	**4.2799**	**3.9575**	**0.0129**	**0.3723**	**0.0623**	**0.4347**	**0.1012**	**0.0573**	**0.1585**			**1,263.7450**	**0.0125**		**1,264.0069**

3.3 P1 Site Prep - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6790	7.0607	5.8149	8.4000e-003		0.4266	0.4266		0.3924	0.3924			859.5267	0.2634		865.0572
Total	**0.6790**	**7.0607**	**5.8149**	**8.4000e-003**	**0.0000**	**0.4266**	**0.4266**	**0.0000**	**0.3924**	**0.3924**			**859.5267**	**0.2634**		**865.0572**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0166	0.0224	0.2351	6.4000e-004	0.0559	3.8000e-004	0.0563	0.0148	3.5000e-004	0.0152			51.6485	2.4800e-003		51.7005
Total	**0.0166**	**0.0224**	**0.2351**	**6.4000e-004**	**0.0559**	**3.8000e-004**	**0.0563**	**0.0148**	**3.5000e-004**	**0.0152**			**51.6485**	**2.4800e-003**		**51.7005**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6790	7.0607	5.8149	8.4000e-003		0.4266	0.4266		0.3924	0.3924			859.5267	0.2634		865.0572
Total	**0.6790**	**7.0607**	**5.8149**	**8.4000e-003**	**0.0000**	**0.4266**	**0.4266**	**0.0000**	**0.3924**	**0.3924**			**859.5267**	**0.2634**		**865.0572**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0166	0.0224	0.2351	6.4000e-004	0.0559	3.8000e-004	0.0563	0.0148	3.5000e-004	0.0152			51.6485	2.4800e-003		51.7005
Total	**0.0166**	**0.0224**	**0.2351**	**6.4000e-004**	**0.0559**	**3.8000e-004**	**0.0563**	**0.0148**	**3.5000e-004**	**0.0152**			**51.6485**	**2.4800e-003**		**51.7005**

3.4 P1 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.6513	0.0000	2.6513	0.2863	0.0000	0.2863			0.0000			0.0000
Off-Road	2.2918	26.2109	15.2469	0.0216		1.2062	1.2062		1.1105	1.1105			2,195.4335	0.6657		2,209.4130
Total	**2.2918**	**26.2109**	**15.2469**	**0.0216**	**2.6513**	**1.2062**	**3.8574**	**0.2863**	**1.1105**	**1.3967**			**2,195.4335**	**0.6657**		**2,209.4130**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0266	0.0358	0.3762	1.0300e-003	0.0894	6.1000e-004	0.0900	0.0237	5.6000e-004	0.0243			82.6376	3.9600e-003		82.7208
Total	**0.0266**	**0.0358**	**0.3762**	**1.0300e-003**	**0.0894**	**6.1000e-004**	**0.0900**	**0.0237**	**5.6000e-004**	**0.0243**			**82.6376**	**3.9600e-003**		**82.7208**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.1931	0.0000	1.1931	0.1288	0.0000	0.1288			0.0000			0.0000
Off-Road	2.2918	26.2109	15.2469	0.0216		1.2062	1.2062		1.1105	1.1105			2,195.4335	0.6657		2,209.4130
Total	**2.2918**	**26.2109**	**15.2469**	**0.0216**	**1.1931**	**1.2062**	**2.3992**	**0.1288**	**1.1105**	**1.2393**			**2,195.4335**	**0.6657**		**2,209.4130**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0266	0.0358	0.3762	1.0300e-003	0.0894	6.1000e-004	0.0900	0.0237	5.6000e-004	0.0243			82.6376	3.9600e-003		82.7208
Total	**0.0266**	**0.0358**	**0.3762**	**1.0300e-003**	**0.0894**	**6.1000e-004**	**0.0900**	**0.0237**	**5.6000e-004**	**0.0243**			**82.6376**	**3.9600e-003**		**82.7208**

3.5 P1 Building Improvements - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0856	11.9867	7.0688	0.0113		0.6580	0.6580		0.6054	0.6054			1,155.4520	0.3540		1,162.8866
Total	**1.0856**	**11.9867**	**7.0688**	**0.0113**		**0.6580**	**0.6580**		**0.6054**	**0.6054**			**1,155.4520**	**0.3540**		**1,162.8866**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.5884	5.3134	7.6918	0.0142	0.4126	0.0816	0.4941	0.1175	0.0750	0.1925			1,396.0711	0.0102		1,396.2843
Worker	0.5346	0.7206	7.5716	0.0207	1.7996	0.0123	1.8119	0.4773	0.0114	0.4886			1,663.0823	0.0797		1,664.7563
Total	**1.1229**	**6.0341**	**15.2634**	**0.0348**	**2.2122**	**0.0939**	**2.3060**	**0.5948**	**0.0864**	**0.6811**			**3,059.1534**	**0.0899**		**3,061.0406**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0856	11.9867	7.0688	0.0113		0.6580	0.6580		0.6054	0.6054			1,155.4520	0.3540		1,162.8866
Total	**1.0856**	**11.9867**	**7.0688**	**0.0113**		**0.6580**	**0.6580**		**0.6054**	**0.6054**			**1,155.4520**	**0.3540**		**1,162.8866**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.5884	5.3134	7.6918	0.0142	0.4126	0.0816	0.4941	0.1175	0.0750	0.1925			1,396.0711	0.0102		1,396.2843
Worker	0.5346	0.7206	7.5716	0.0207	1.7996	0.0123	1.8119	0.4773	0.0114	0.4886			1,663.0823	0.0797		1,664.7563
Total	**1.1229**	**6.0341**	**15.2634**	**0.0348**	**2.2122**	**0.0939**	**2.3060**	**0.5948**	**0.0864**	**0.6811**			**3,059.1534**	**0.0899**		**3,061.0406**

3.6 P1 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9045	9.0189	6.5184	9.2500e-003		0.5811	0.5811		0.5346	0.5346			946.6791	0.2901		952.7703
Paving	0.4740					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3785**	**9.0189**	**6.5184**	**9.2500e-003**		**0.5811**	**0.5811**		**0.5346**	**0.5346**			**946.6791**	**0.2901**		**952.7703**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0266	0.0358	0.3762	1.0300e-003	0.0894	6.1000e-004	0.0900	0.0237	5.6000e-004	0.0243			82.6376	3.9600e-003		82.7208
Total	**0.0266**	**0.0358**	**0.3762**	**1.0300e-003**	**0.0894**	**6.1000e-004**	**0.0900**	**0.0237**	**5.6000e-004**	**0.0243**			**82.6376**	**3.9600e-003**		**82.7208**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9045	9.0189	6.5184	9.2500e-003		0.5811	0.5811		0.5346	0.5346			946.6791	0.2901		952.7703
Paving	0.4740					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3785**	**9.0189**	**6.5184**	**9.2500e-003**		**0.5811**	**0.5811**		**0.5346**	**0.5346**			**946.6791**	**0.2901**		**952.7703**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0266	0.0358	0.3762	1.0300e-003	0.0894	6.1000e-004	0.0900	0.0237	5.6000e-004	0.0243			82.6376	3.9600e-003		82.7208
Total	**0.0266**	**0.0358**	**0.3762**	**1.0300e-003**	**0.0894**	**6.1000e-004**	**0.0900**	**0.0237**	**5.6000e-004**	**0.0243**			**82.6376**	**3.9600e-003**		**82.7208**

3.7 P2 Site Prep - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.5626	5.8040	5.6953	8.4000e-003		0.3403	0.3403		0.3130	0.3130			845.5151	0.2632		851.0427
Total	**0.5626**	**5.8040**	**5.6953**	**8.4000e-003**	**0.0000**	**0.3403**	**0.3403**	**0.0000**	**0.3130**	**0.3130**			**845.5151**	**0.2632**		**851.0427**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0151	0.0204	0.2147	6.4000e-004	0.0559	3.8000e-004	0.0563	0.0148	3.5000e-004	0.0152			49.7113	2.3100e-003		49.7598
Total	**0.0151**	**0.0204**	**0.2147**	**6.4000e-004**	**0.0559**	**3.8000e-004**	**0.0563**	**0.0148**	**3.5000e-004**	**0.0152**			**49.7113**	**2.3100e-003**		**49.7598**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.5626	5.8040	5.6953	8.4000e-003		0.3403	0.3403		0.3130	0.3130			845.5151	0.2632		851.0427
Total	**0.5626**	**5.8040**	**5.6953**	**8.4000e-003**	**0.0000**	**0.3403**	**0.3403**	**0.0000**	**0.3130**	**0.3130**			**845.5151**	**0.2632**		**851.0427**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0151	0.0204	0.2147	6.4000e-004	0.0559	3.8000e-004	0.0563	0.0148	3.5000e-004	0.0152			49.7113	2.3100e-003		49.7598
Total	**0.0151**	**0.0204**	**0.2147**	**6.4000e-004**	**0.0559**	**3.8000e-004**	**0.0563**	**0.0148**	**3.5000e-004**	**0.0152**			**49.7113**	**2.3100e-003**		**49.7598**

3.8 P2 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9275	10.3871	6.7283	0.0113		0.5427	0.5427		0.4993	0.4993			1,137.1268	0.3540		1,144.5609
Total	**0.9275**	**10.3871**	**6.7283**	**0.0113**		**0.5427**	**0.5427**		**0.4993**	**0.4993**			**1,137.1268**	**0.3540**		**1,144.5609**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.7649	6.7957	10.2591	0.0197	0.5750	0.1071	0.6822	0.1638	0.0985	0.2623			1,912.9614	0.0141		1,913.2573
Worker	0.6779	0.9148	9.6174	0.0288	2.5038	0.0169	2.5207	0.6640	0.0157	0.6797			2,227.0653	0.1035		2,229.2389
Total	**1.4427**	**7.7105**	**19.8765**	**0.0485**	**3.0788**	**0.1240**	**3.2028**	**0.8278**	**0.1142**	**0.9420**			**4,140.0267**	**0.1176**		**4,142.4962**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9275	10.3871	6.7283	0.0113		0.5427	0.5427		0.4993	0.4993			1,137.1268	0.3540		1,144.5609
Total	**0.9275**	**10.3871**	**6.7283**	**0.0113**		**0.5427**	**0.5427**		**0.4993**	**0.4993**			**1,137.1268**	**0.3540**		**1,144.5609**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.7649	6.7957	10.2591	0.0197	0.5750	0.1071	0.6822	0.1638	0.0985	0.2623			1,912.9614	0.0141		1,913.2573
Worker	0.6779	0.9148	9.6174	0.0288	2.5038	0.0169	2.5207	0.6640	0.0157	0.6797			2,227.0653	0.1035		2,229.2389
Total	**1.4427**	**7.7105**	**19.8765**	**0.0485**	**3.0788**	**0.1240**	**3.2028**	**0.8278**	**0.1142**	**0.9420**			**4,140.0267**	**0.1176**		**4,142.4962**

3.8 P2 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8315	9.3390	6.5022	0.0113		0.4722	0.4722		0.4344	0.4344			1,118.8217	0.3540		1,126.2553
Total	**0.8315**	**9.3390**	**6.5022**	**0.0113**		**0.4722**	**0.4722**		**0.4344**	**0.4344**			**1,118.8217**	**0.3540**		**1,126.2553**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.7136	6.3001	9.8035	0.0197	0.5751	0.0999	0.6750	0.1638	0.0919	0.2557			1,886.3850	0.0142		1,886.6830
Worker	0.6336	0.8477	8.9547	0.0289	2.5038	0.0171	2.5208	0.6640	0.0158	0.6798			2,157.4913	0.0988		2,159.5661
Total	**1.3471**	**7.1478**	**18.7582**	**0.0486**	**3.0789**	**0.1169**	**3.1958**	**0.8278**	**0.1077**	**0.9355**			**4,043.8762**	**0.1130**		**4,046.2491**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8315	9.3390	6.5022	0.0113		0.4722	0.4722		0.4344	0.4344			1,118.8217	0.3540		1,126.2553
Total	**0.8315**	**9.3390**	**6.5022**	**0.0113**		**0.4722**	**0.4722**		**0.4344**	**0.4344**			**1,118.8217**	**0.3540**		**1,126.2553**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.7136	6.3001	9.8035	0.0197	0.5751	0.0999	0.6750	0.1638	0.0919	0.2557			1,886.3850	0.0142		1,886.6830
Worker	0.6336	0.8477	8.9547	0.0289	2.5038	0.0171	2.5208	0.6640	0.0158	0.6798			2,157.4913	0.0988		2,159.5661
Total	**1.3471**	**7.1478**	**18.7582**	**0.0486**	**3.0789**	**0.1169**	**3.1958**	**0.8278**	**0.1077**	**0.9355**			**4,043.8762**	**0.1130**		**4,046.2491**

3.9 P2 Demo - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.0961	0.0000	5.0961	0.7716	0.0000	0.7716			0.0000			0.0000
Off-Road	0.5626	5.8040	5.6953	8.4000e-003		0.3403	0.3403		0.3130	0.3130			845.5151	0.2632		851.0427
Total	**0.5626**	**5.8040**	**5.6953**	**8.4000e-003**	**5.0961**	**0.3403**	**5.4363**	**0.7716**	**0.3130**	**1.0846**			**845.5151**	**0.2632**		**851.0427**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.4169	5.7097	5.0604	0.0172	0.4101	0.0894	0.4995	0.1123	0.0822	0.1945			1,683.3390	0.0125		1,683.6015
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0151	0.0204	0.2147	6.4000e-004	0.0559	3.8000e-004	0.0563	0.0148	3.5000e-004	0.0152			49.7113	2.3100e-003		49.7598
Total	**0.4321**	**5.7301**	**5.2751**	**0.0179**	**0.4660**	**0.0898**	**0.5558**	**0.1271**	**0.0826**	**0.2097**			**1,733.0503**	**0.0148**		**1,733.3613**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.2932	0.0000	2.2932	0.3472	0.0000	0.3472			0.0000			0.0000
Off-Road	0.5626	5.8040	5.6953	8.4000e-003		0.3403	0.3403		0.3130	0.3130			845.5151	0.2632		851.0427
Total	**0.5626**	**5.8040**	**5.6953**	**8.4000e-003**	**2.2932**	**0.3403**	**2.6335**	**0.3472**	**0.3130**	**0.6603**			**845.5151**	**0.2632**		**851.0427**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.4169	5.7097	5.0604	0.0172	0.4101	0.0894	0.4995	0.1123	0.0822	0.1945			1,683.3390	0.0125		1,683.6015
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0151	0.0204	0.2147	6.4000e-004	0.0559	3.8000e-004	0.0563	0.0148	3.5000e-004	0.0152			49.7113	2.3100e-003		49.7598
Total	**0.4321**	**5.7301**	**5.2751**	**0.0179**	**0.4660**	**0.0898**	**0.5558**	**0.1271**	**0.0826**	**0.2097**			**1,733.0503**	**0.0148**		**1,733.3613**

3.10 P2 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.6513	0.0000	2.6513	0.2863	0.0000	0.2863			0.0000			0.0000
Off-Road	2.0004	22.5210	13.5211	0.0216		1.0271	1.0271		0.9457	0.9457			2,160.1601	0.6653		2,174.1321
Total	**2.0004**	**22.5210**	**13.5211**	**0.0216**	**2.6513**	**1.0271**	**3.6783**	**0.2863**	**0.9457**	**1.2320**			**2,160.1601**	**0.6653**		**2,174.1321**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0242	0.0327	0.3435	1.0300e-003	0.0894	6.0000e-004	0.0900	0.0237	5.6000e-004	0.0243			79.5381	3.7000e-003		79.6157
Total	**0.0242**	**0.0327**	**0.3435**	**1.0300e-003**	**0.0894**	**6.0000e-004**	**0.0900**	**0.0237**	**5.6000e-004**	**0.0243**			**79.5381**	**3.7000e-003**		**79.6157**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.1931	0.0000	1.1931	0.1288	0.0000	0.1288			0.0000			0.0000
Off-Road	2.0004	22.5210	13.5211	0.0216		1.0271	1.0271		0.9457	0.9457			2,160.1601	0.6653		2,174.1321
Total	**2.0004**	**22.5210**	**13.5211**	**0.0216**	**1.1931**	**1.0271**	**2.2201**	**0.1288**	**0.9457**	**1.0745**			**2,160.1601**	**0.6653**		**2,174.1321**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0242	0.0327	0.3435	1.0300e-003	0.0894	6.0000e-004	0.0900	0.0237	5.6000e-004	0.0243			79.5381	3.7000e-003		79.6157
Total	**0.0242**	**0.0327**	**0.3435**	**1.0300e-003**	**0.0894**	**6.0000e-004**	**0.0900**	**0.0237**	**5.6000e-004**	**0.0243**			**79.5381**	**3.7000e-003**		**79.6157**

3.11 P2 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7500	7.6051	6.3686	9.2600e-003		0.4714	0.4714		0.4337	0.4337			931.6057	0.2900		937.6961
Paving	0.4966					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2465**	**7.6051**	**6.3686**	**9.2600e-003**		**0.4714**	**0.4714**		**0.4337**	**0.4337**			**931.6057**	**0.2900**		**937.6961**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0242	0.0327	0.3435	1.0300e-003	0.0894	6.0000e-004	0.0900	0.0237	5.6000e-004	0.0243			79.5381	3.7000e-003		79.6157
Total	**0.0242**	**0.0327**	**0.3435**	**1.0300e-003**	**0.0894**	**6.0000e-004**	**0.0900**	**0.0237**	**5.6000e-004**	**0.0243**			**79.5381**	**3.7000e-003**		**79.6157**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7500	7.6051	6.3686	9.2600e-003		0.4714	0.4714		0.4337	0.4337			931.6057	0.2900		937.6961
Paving	0.4966					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2465**	**7.6051**	**6.3686**	**9.2600e-003**		**0.4714**	**0.4714**		**0.4337**	**0.4337**			**931.6057**	**0.2900**		**937.6961**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0242	0.0327	0.3435	1.0300e-003	0.0894	6.0000e-004	0.0900	0.0237	5.6000e-004	0.0243			79.5381	3.7000e-003		79.6157
Total	**0.0242**	**0.0327**	**0.3435**	**1.0300e-003**	**0.0894**	**6.0000e-004**	**0.0900**	**0.0237**	**5.6000e-004**	**0.0243**			**79.5381**	**3.7000e-003**		**79.6157**

3.12 P3 Demo - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4917	0.0000	0.4917	0.0744	0.0000	0.0744			0.0000			0.0000
Off-Road	0.4223	4.1037	5.6149	8.4100e-003		0.2189	0.2189		0.2014	0.2014			813.7551	0.2632		819.2820
Total	**0.4223**	**4.1037**	**5.6149**	**8.4100e-003**	**0.4917**	**0.2189**	**0.7105**	**0.0744**	**0.2014**	**0.2758**			**813.7551**	**0.2632**		**819.2820**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0367	0.4043	0.4561	1.6600e-003	0.0395	8.3000e-003	0.0478	0.0108	7.6300e-003	0.0185			156.1753	1.2600e-003		156.2017
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0127	0.0166	0.1768	6.5000e-004	0.0559	3.9000e-004	0.0563	0.0148	3.6000e-004	0.0152			45.4674	2.0200e-003		45.5097
Total	**0.0494**	**0.4209**	**0.6329**	**2.3100e-003**	**0.0954**	**8.6900e-003**	**0.1041**	**0.0257**	**7.9900e-003**	**0.0336**			**201.6427**	**3.2800e-003**		**201.7114**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2212	0.0000	0.2212	0.0335	0.0000	0.0335			0.0000			0.0000
Off-Road	0.4223	4.1037	5.6149	8.4100e-003		0.2189	0.2189		0.2014	0.2014			813.7551	0.2632		819.2820
Total	**0.4223**	**4.1037**	**5.6149**	**8.4100e-003**	**0.2212**	**0.2189**	**0.4401**	**0.0335**	**0.2014**	**0.2349**			**813.7551**	**0.2632**		**819.2820**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0367	0.4043	0.4561	1.6600e-003	0.0395	8.3000e-003	0.0478	0.0108	7.6300e-003	0.0185			156.1753	1.2600e-003		156.2017
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0127	0.0166	0.1768	6.5000e-004	0.0559	3.9000e-004	0.0563	0.0148	3.6000e-004	0.0152			45.4674	2.0200e-003		45.5097
Total	**0.0494**	**0.4209**	**0.6329**	**2.3100e-003**	**0.0954**	**8.6900e-003**	**0.1041**	**0.0257**	**7.9900e-003**	**0.0336**			**201.6427**	**3.2800e-003**		**201.7114**

3.13 P3 Site Prep - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.4223	4.1037	5.6149	8.4100e-003		0.2189	0.2189		0.2014	0.2014			813.7551	0.2632		819.2820
Total	**0.4223**	**4.1037**	**5.6149**	**8.4100e-003**	**0.0000**	**0.2189**	**0.2189**	**0.0000**	**0.2014**	**0.2014**			**813.7551**	**0.2632**		**819.2820**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0127	0.0166	0.1768	6.5000e-004	0.0559	3.9000e-004	0.0563	0.0148	3.6000e-004	0.0152			45.4674	2.0200e-003		45.5097
Total	**0.0127**	**0.0166**	**0.1768**	**6.5000e-004**	**0.0559**	**3.9000e-004**	**0.0563**	**0.0148**	**3.6000e-004**	**0.0152**			**45.4674**	**2.0200e-003**		**45.5097**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.4223	4.1037	5.6149	8.4100e-003		0.2189	0.2189		0.2014	0.2014			813.7551	0.2632		819.2820
Total	**0.4223**	**4.1037**	**5.6149**	**8.4100e-003**	**0.0000**	**0.2189**	**0.2189**	**0.0000**	**0.2014**	**0.2014**			**813.7551**	**0.2632**		**819.2820**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0127	0.0166	0.1768	6.5000e-004	0.0559	3.9000e-004	0.0563	0.0148	3.6000e-004	0.0152			45.4674	2.0200e-003		45.5097
Total	**0.0127**	**0.0166**	**0.1768**	**6.5000e-004**	**0.0559**	**3.9000e-004**	**0.0563**	**0.0148**	**3.6000e-004**	**0.0152**			**45.4674**	**2.0200e-003**		**45.5097**

3.14 P3 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6859	7.6917	6.1865	0.0113		0.3585	0.3585		0.3298	0.3298			1,094.4531	0.3540		1,101.8864
Total	**0.6859**	**7.6917**	**6.1865**	**0.0113**		**0.3585**	**0.3585**		**0.3298**	**0.3298**			**1,094.4531**	**0.3540**		**1,101.8864**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.4274	3.1443	6.1668	0.0133	0.3876	0.0558	0.4434	0.1104	0.0514	0.1618			1,241.3389	9.4600e-003		1,241.5374
Worker	0.3843	0.5011	5.3398	0.0195	1.6878	0.0117	1.6995	0.4476	0.0108	0.4584			1,373.1145	0.0609		1,374.3928
Total	**0.8117**	**3.6454**	**11.5066**	**0.0328**	**2.0754**	**0.0675**	**2.1429**	**0.5580**	**0.0622**	**0.6202**			**2,614.4534**	**0.0703**		**2,615.9303**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6859	7.6917	6.1865	0.0113		0.3585	0.3585		0.3298	0.3298			1,094.4531	0.3540		1,101.8864
Total	**0.6859**	**7.6917**	**6.1865**	**0.0113**		**0.3585**	**0.3585**		**0.3298**	**0.3298**			**1,094.4531**	**0.3540**		**1,101.8864**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.4274	3.1443	6.1668	0.0133	0.3876	0.0558	0.4434	0.1104	0.0514	0.1618			1,241.3389	9.4600e-003		1,241.5374
Worker	0.3843	0.5011	5.3398	0.0195	1.6878	0.0117	1.6995	0.4476	0.0108	0.4584			1,373.1145	0.0609		1,374.3928
Total	**0.8117**	**3.6454**	**11.5066**	**0.0328**	**2.0754**	**0.0675**	**2.1429**	**0.5580**	**0.0622**	**0.6202**			**2,614.4534**	**0.0703**		**2,615.9303**

3.15 P3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.6513	0.0000	2.6513	0.2863	0.0000	0.2863			0.0000			0.0000
Off-Road	1.5902	16.8682	11.5786	0.0216		0.7590	0.7590		0.6991	0.6991			2,080.4881	0.6653		2,094.4594
Total	**1.5902**	**16.8682**	**11.5786**	**0.0216**	**2.6513**	**0.7590**	**3.4103**	**0.2863**	**0.6991**	**0.9854**			**2,080.4881**	**0.6653**		**2,094.4594**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0204	0.0266	0.2829	1.0300e-003	0.0894	6.2000e-004	0.0900	0.0237	5.7000e-004	0.0243			72.7478	3.2300e-003		72.8155
Total	**0.0204**	**0.0266**	**0.2829**	**1.0300e-003**	**0.0894**	**6.2000e-004**	**0.0900**	**0.0237**	**5.7000e-004**	**0.0243**			**72.7478**	**3.2300e-003**		**72.8155**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.1931	0.0000	1.1931	0.1288	0.0000	0.1288			0.0000			0.0000
Off-Road	1.5902	16.8682	11.5786	0.0216		0.7590	0.7590		0.6991	0.6991			2,080.4881	0.6653		2,094.4594
Total	**1.5902**	**16.8682**	**11.5786**	**0.0216**	**1.1931**	**0.7590**	**1.9521**	**0.1288**	**0.6991**	**0.8279**			**2,080.4881**	**0.6653**		**2,094.4594**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0204	0.0266	0.2829	1.0300e-003	0.0894	6.2000e-004	0.0900	0.0237	5.7000e-004	0.0243			72.7478	3.2300e-003		72.8155
Total	**0.0204**	**0.0266**	**0.2829**	**1.0300e-003**	**0.0894**	**6.2000e-004**	**0.0900**	**0.0237**	**5.7000e-004**	**0.0243**			**72.7478**	**3.2300e-003**		**72.8155**

3.16 P3 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5081	5.1631	6.2281	9.2600e-003		0.2824	0.2824		0.2598	0.2598			896.6992	0.2900		902.7895
Paving	0.4966					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0047**	**5.1631**	**6.2281**	**9.2600e-003**		**0.2824**	**0.2824**		**0.2598**	**0.2598**			**896.6992**	**0.2900**		**902.7895**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0194	0.0250	0.2675	1.0300e-003	0.0894	6.2000e-004	0.0900	0.0237	5.8000e-004	0.0243			71.5620	3.1000e-003		71.6271
Total	**0.0194**	**0.0250**	**0.2675**	**1.0300e-003**	**0.0894**	**6.2000e-004**	**0.0900**	**0.0237**	**5.8000e-004**	**0.0243**			**71.5620**	**3.1000e-003**		**71.6271**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5081	5.1631	6.2281	9.2600e-003		0.2824	0.2824		0.2598	0.2598			896.6992	0.2900		902.7895
Paving	0.4966					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0047**	**5.1631**	**6.2281**	**9.2600e-003**		**0.2824**	**0.2824**		**0.2598**	**0.2598**			**896.6992**	**0.2900**		**902.7895**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0194	0.0250	0.2675	1.0300e-003	0.0894	6.2000e-004	0.0900	0.0237	5.8000e-004	0.0243			71.5620	3.1000e-003		71.6271
Total	**0.0194**	**0.0250**	**0.2675**	**1.0300e-003**	**0.0894**	**6.2000e-004**	**0.0900**	**0.0237**	**5.8000e-004**	**0.0243**			**71.5620**	**3.1000e-003**		**71.6271**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	18.1207	37.3617	185.7722	0.6624	49.1941	0.6737	49.8678	13.1280	0.6221	13.7501			49,322.7006	1.7173		49,358.7634
Unmitigated	18.1207	37.3617	185.7722	0.6624	49.1941	0.6737	49.8678	13.1280	0.6221	13.7501			49,322.7006	1.7173		49,358.7634

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	3,253.85	699.15	289.10	7,942,052	7,942,052
General Office Building	2,371.45	509.55	210.70	5,788,275	5,788,275
General Office Building	1,599.35	343.65	142.10	3,903,720	3,903,720
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unenclosed Parking with Elevator	0.00	0.00	0.00		
Unenclosed Parking with Elevator	0.00	0.00	0.00		
Unenclosed Parking with Elevator	0.00	0.00	0.00		
Total	7,224.65	1,552.35	641.90	17,634,047	17,634,047

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unenclosed Parking with	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unenclosed Parking with	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unenclosed Parking with	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.505043	0.056653	0.194832	0.151784	0.042126	0.005989	0.016072	0.016505	0.001461	0.002178	0.004464	0.000494	0.002401

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1352	1.2292	1.0325	7.3700e-003		0.0934	0.0934		0.0934	0.0934			1,474.9861	0.0283	0.0270	1,483.9626
NaturalGas Unmitigated	0.1856	1.6872	1.4173	0.0101		0.1282	0.1282		0.1282	0.1282			2,024.6414	0.0388	0.0371	2,036.9631

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	3809.73	0.0411	0.3735	0.3137	2.2400e-003		0.0284	0.0284		0.0284	0.0284			448.2031	8.5900e-003	8.2200e-003	450.9308
General Office Building	5648.9	0.0609	0.5538	0.4652	3.3200e-003		0.0421	0.0421		0.0421	0.0421			664.5770	0.0127	0.0122	668.6215
General Office Building	7750.82	0.0836	0.7599	0.6383	4.5600e-003		0.0578	0.0578		0.0578	0.0578			911.8614	0.0175	0.0167	917.4108
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total		**0.1856**	**1.6872**	**1.4172**	**0.0101**		**0.1282**	**0.1282**		**0.1282**	**0.1282**			**2,024.6414**	**0.0388**	**0.0371**	**2,036.9631**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	2.77545	0.0299	0.2721	0.2286	1.6300e-003		0.0207	0.0207		0.0207	0.0207			326.5236	6.2600e-003	5.9900e-003	328.5108
General Office Building	4.11532	0.0444	0.4035	0.3389	2.4200e-003		0.0307	0.0307		0.0307	0.0307			484.1558	9.2800e-003	8.8800e-003	487.1022
General Office Building	5.64661	0.0609	0.5536	0.4650	3.3200e-003		0.0421	0.0421		0.0421	0.0421			664.3067	0.0127	0.0122	668.3496
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total		**0.1352**	**1.2292**	**1.0325**	**7.3700e-003**		**0.0934**	**0.0934**		**0.0934**	**0.0934**			**1,474.9861**	**0.0283**	**0.0271**	**1,483.9626**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	36.8166	2.9600e-003	0.3237	2.0000e-005		1.1600e-003	1.1600e-003		1.1600e-003	1.1600e-003			0.6927	1.8300e-003		0.7310
Unmitigated	36.8166	2.9600e-003	0.3237	2.0000e-005		1.1600e-003	1.1600e-003		1.1600e-003	1.1600e-003			0.6927	1.8300e-003		0.7310

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.3424					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	34.4441					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0301	2.9600e-003	0.3237	2.0000e-005		1.1600e-003	1.1600e-003		1.1600e-003	1.1600e-003			0.6927	1.8300e-003		0.7310
Total	**36.8166**	**2.9600e-003**	**0.3237**	**2.0000e-005**		**1.1600e-003**	**1.1600e-003**		**1.1600e-003**	**1.1600e-003**			**0.6927**	**1.8300e-003**		**0.7310**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.3424					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	34.4441					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0301	2.9600e-003	0.3237	2.0000e-005		1.1600e-003	1.1600e-003		1.1600e-003	1.1600e-003			0.6927	1.8300e-003		0.7310
Total	**36.8166**	**2.9600e-003**	**0.3237**	**2.0000e-005**		**1.1600e-003**	**1.1600e-003**		**1.1600e-003**	**1.1600e-003**			**0.6927**	**1.8300e-003**		**0.7310**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Generator Sets	1	1.00	52	84	0.74	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Generator Sets	0.0413	0.3660	0.4595	8.2000e-004		0.0184	0.0184		0.0184	0.0184			77.8793	3.7000e-003		77.9570
Total	**0.0413**	**0.3660**	**0.4595**	**8.2000e-004**		**0.0184**	**0.0184**		**0.0184**	**0.0184**			**77.8793**	**3.7000e-003**		**77.9570**

10.0 Vegetation

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	295.00	1000sqft	6.77	295,000.00	0
General Office Building	215.00	1000sqft	1.00	215,000.00	0
General Office Building	145.00	1000sqft	0.75	145,000.00	0
Other Asphalt Surfaces	50.00	1000sqft	1.15	50,000.00	0
Other Asphalt Surfaces	35.00	1000sqft	0.80	35,000.00	0
Parking Lot	226.00	Space	2.03	120,000.00	0
Unenclosed Parking with Elevator	759.00	Space	6.83	303,600.00	0
Unenclosed Parking with Elevator	860.00	Space	5.25	344,000.00	0
Unenclosed Parking with Elevator	580.00	Space	5.22	232,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	8			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	527.1	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - 2022 SCE CO2 IF

Land Use - Per data needs

Construction Phase - .

Off-road Equipment - 2 forklifts, 1 crane, 2 aerial lifts (to replace scissor lifts)

Off-road Equipment - exc to replace Brokk, 1 loader, 1 forklift

Off-road Equipment - 1 grader, 1 scraper, 1 (plate) compactor

Off-road Equipment - 1 paving equip, 2 rollers

Off-road Equipment - 1 exc, 1 loader

Off-road Equipment - 1 crane, 2 forklifts, 2 aerial lifts

Off-road Equipment - 1 exc, 1 TLB

Off-road Equipment - 1 grader, 1 scraper, 1 plate compactor

Off-road Equipment - 1 paving equip, 2 rollers

Off-road Equipment - 1 loader, 1 excavator

Off-road Equipment - 2 forlifts, 1 crane, 2 aerial lifts

Off-road Equipment - 1 exc, 1 TLB

Off-road Equipment - 1 grader, 1 scraper, 1 plate compactor

Off-road Equipment - 1 paving equip, 2 rollers

Off-road Equipment - 1 exc, 1 loader

Trips and VMT - manual calcs to fix trips

Demolition - manual calcs based off data needs

Grading - balanced on site

Vehicle Trips - traffic report

Area Coating - Painting done on separate- manual calcs

Energy Use - .

Water And Wastewater - manual calcs from data needs

Solid Waste - defaults

Sequestration - planting 356

Construction Off-road Equipment Mitigation -

Energy Mitigation - compliance

Water Mitigation -

Waste Mitigation - compliance

Operational Off-Road Equipment - assumption is that it's tested once week for 1 hour.

Area Mitigation - x

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Interior	2213550	0
tblConstructionPhase	NumDays	440.00	261.00
tblConstructionPhase	NumDays	440.00	208.00
tblConstructionPhase	NumDays	440.00	261.00
tblConstructionPhase	NumDays	30.00	42.00
tblConstructionPhase	NumDays	30.00	41.00
tblConstructionPhase	NumDays	30.00	41.00
tblConstructionPhase	NumDays	35.00	21.00
tblConstructionPhase	NumDays	35.00	21.00
tblConstructionPhase	NumDays	35.00	22.00
tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	PhaseEndDate	1/31/2022	12/31/2021
tblConstructionPhase	PhaseEndDate	2/16/2018	12/29/2017
tblConstructionPhase	PhaseEndDate	7/1/2019	5/31/2019
tblConstructionPhase	PhaseEndDate	2/26/2019	2/26/2021
tblConstructionPhase	PhaseEndDate	7/29/2019	8/10/2018
tblConstructionPhase	PhaseEndDate	3/4/2022	4/30/2021
tblConstructionPhase	PhaseEndDate	4/4/2017	5/2/2017
tblConstructionPhase	PhaseEndDate	11/12/2018	12/31/2018
tblConstructionPhase	PhaseEndDate	5/31/2021	1/31/2022
tblConstructionPhase	PhaseEndDate	1/30/2018	10/31/2017
tblConstructionPhase	PhaseEndDate	3/29/2021	1/29/2021
tblConstructionPhase	PhaseEndDate	3/30/2017	1/31/2017
tblConstructionPhase	PhaseEndDate	11/29/2017	6/29/2018
tblConstructionPhase	PhaseStartDate	1/30/2021	1/1/2021
tblConstructionPhase	PhaseStartDate	5/3/2017	3/15/2017

tblConstructionPhase	PhaseStartDate	6/30/2018	6/1/2018
tblConstructionPhase	PhaseStartDate	1/1/2019	1/1/2021
tblConstructionPhase	PhaseStartDate	6/1/2019	6/15/2018
tblConstructionPhase	PhaseStartDate	1/1/2022	2/27/2021
tblConstructionPhase	PhaseStartDate	2/1/2017	3/1/2017
tblConstructionPhase	PhaseStartDate	10/13/2018	12/1/2018
tblConstructionPhase	PhaseStartDate	5/1/2021	1/1/2022
tblConstructionPhase	PhaseStartDate	12/30/2017	10/1/2017
tblConstructionPhase	PhaseStartDate	2/27/2021	1/1/2021
tblConstructionPhase	PhaseStartDate	3/1/2017	1/1/2017
tblConstructionPhase	PhaseStartDate	11/1/2017	6/1/2018
tblGrading	AcresOfGrading	67.50	112.50
tblGrading	AcresOfGrading	67.50	112.50
tblGrading	AcresOfGrading	67.50	112.50
tblLandUse	LandUseSquareFeet	90,400.00	120,000.00
tblLandUse	LotAcreage	3.33	0.75
tblLandUse	LotAcreage	4.94	1.00
tblLandUse	LotAcreage	7.74	5.25
tblOffRoadEquipment	HorsePower	97.00	122.00
tblOffRoadEquipment	LoadFactor	0.37	0.44
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	52.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	1.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	527.1
tblProjectCharacteristics	OperationalYear	2014	2022
tblSequestration	NumberOfNewTrees	0.00	356.00
tblTripsAndVMT	VendorTripNumber	261.00	62.00
tblTripsAndVMT	VendorTripNumber	261.00	66.00
tblTripsAndVMT	VendorTripNumber	261.00	92.00
tblTripsAndVMT	WorkerTripNumber	618.00	151.00
tblTripsAndVMT	WorkerTripNumber	618.00	161.00
tblTripsAndVMT	WorkerTripNumber	618.00	224.00
tblVehicleTrips	WD_TR	11.01	11.03
tblWater	IndoorWaterUseRate	90,199,877.11	39,785,000.00
tblWater	OutdoorWaterUseRate	55,283,795.65	3,711,320.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	4.4436	44.0795	37.1247	0.0701	4.9528	1.9579	6.9107	0.9048	1.8020	2.7068			6,602.1905	1.1132	0.0000	6,625.5685
2018	4.2918	40.4159	41.6082	0.0970	8.6968	1.6934	10.1330	1.7413	1.5588	3.0626			8,901.5183	1.1402	0.0000	8,925.4621
2019	2.0876	16.2745	24.0450	0.0617	3.0789	0.5882	3.6671	0.8278	0.5412	1.3690			5,299.8094	0.4665	0.0000	5,309.6064
2021	3.0551	28.1186	28.8598	0.0680	4.8161	1.1852	6.0013	0.8680	1.0912	1.9592			5,954.0055	1.0925	0.0000	5,976.9479
2022	1.0232	5.1859	6.5159	0.0104	0.0894	0.2830	0.3725	0.0237	0.2604	0.2841			972.2849	0.2931	0.0000	978.4403
Total	**14.9012**	**134.0743**	**138.1536**	**0.3071**	**21.6341**	**5.7076**	**27.0844**	**4.3656**	**5.2536**	**9.3818**			**27,729.8086**	**4.1055**	**0.0000**	**27,816.0252**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2017	4.4436	44.0795	37.1247	0.0701	3.4947	1.9579	5.4525	0.7473	1.8020	2.5493			6,602.1905	1.1132	0.0000	6,625.5685
2018	4.2918	40.4159	41.6082	0.0970	5.8940	1.6934	7.3301	1.3170	1.5588	2.6383			8,901.5183	1.1402	0.0000	8,925.4621
2019	2.0876	16.2745	24.0450	0.0617	3.0789	0.5882	3.6671	0.8278	0.5412	1.3690			5,299.8094	0.4665	0.0000	5,309.6064
2021	3.0551	28.1186	28.8598	0.0680	3.3579	1.1852	4.5431	0.7106	1.0912	1.8018			5,954.0055	1.0925	0.0000	5,976.9479
2022	1.0232	5.1859	6.5159	0.0104	0.0894	0.2830	0.3725	0.0237	0.2604	0.2841			972.2849	0.2931	0.0000	978.4403
Total	**14.9012**	**134.0743**	**138.1536**	**0.3071**	**15.9148**	**5.7076**	**21.3652**	**3.6263**	**5.2536**	**8.6425**			**27,729.8086**	**4.1055**	**0.0000**	**27,816.0252**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**26.44**	**0.00**	**21.12**	**16.93**	**0.00**	**7.88**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	36.8166	2.9600e-003	0.3237	2.0000e-005		1.1600e-003	1.1600e-003		1.1600e-003	1.1600e-003			0.6927	1.8300e-003		0.7310
Energy	0.1856	1.6872	1.4173	0.0101		0.1282	0.1282		0.1282	0.1282			2,024.6414	0.0388	0.0371	2,036.9631
Mobile	17.2220	35.3502	187.3898	0.6936	49.1941	0.6719	49.8660	13.1280	0.6205	13.7485			51,529.0483	1.7159		51,565.0819
Offroad	0.0413	0.3660	0.4595	8.2000e-004		0.0184	0.0184		0.0184	0.0184			77.8793	3.7000e-003		77.9570
Total	**54.2654**	**37.4064**	**189.5902**	**0.7046**	**49.1941**	**0.8196**	**50.0137**	**13.1280**	**0.7683**	**13.8962**			**53,632.2617**	**1.7602**	**0.0371**	**53,680.7330**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	36.8166	2.9600e-003	0.3237	2.0000e-005		1.1600e-003	1.1600e-003		1.1600e-003	1.1600e-003			0.6927	1.8300e-003		0.7310
Energy	0.1352	1.2292	1.0325	7.3700e-003		0.0934	0.0934		0.0934	0.0934			1,474.9861	0.0283	0.0270	1,483.9626
Mobile	17.2220	35.3502	187.3898	0.6936	49.1941	0.6719	49.8660	13.1280	0.6205	13.7485			51,529.0483	1.7159		51,565.0819
Offroad	0.0413	0.3660	0.4595	8.2000e-004		0.0184	0.0184		0.0184	0.0184			77.8793	3.7000e-003		77.9570
Total	**54.2151**	**36.9484**	**189.2054**	**0.7019**	**49.1941**	**0.7848**	**49.9789**	**13.1280**	**0.7334**	**13.8614**			**53,082.6064**	**1.7497**	**0.0270**	**53,127.7325**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.17**	**2.20**	**0.45**	**0.51**	**0.00**	**6.49**	**0.11**	**0.00**	**6.92**	**0.38**	**0.00**	**0.00**	**1.17**	**0.81**	**27.16**	**1.18**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	P1 Demo	Demolition	1/1/2017	2/28/2017	5	42	
2	P1 Site Prep	Site Preparation	1/1/2017	1/31/2017	5	22	
3	P1 Grading	Grading	3/1/2017	5/2/2017	5	45	
4	P1 Building Improvements	Building Construction	3/15/2017	12/29/2017	5	208	
5	P1 Paving	Paving	10/1/2017	10/31/2017	5	22	
6	P2 Site Prep	Site Preparation	6/1/2018	6/29/2018	5	21	
7	P2 Building Construction	Building Construction	6/1/2018	5/31/2019	5	261	
8	P2 Demo	Demolition	6/15/2018	8/10/2018	5	41	
9	P2 Grading	Grading	8/11/2018	10/12/2018	5	45	
10	P2 Paving	Paving	12/1/2018	12/31/2018	5	21	
11	P3 Demo	Demolition	1/1/2021	2/26/2021	5	41	
12	P3 Site Prep	Site Preparation	1/1/2021	1/29/2021	5	21	
13	P3 Building Construction	Building Construction	1/1/2021	12/31/2021	5	261	
14	P3 Grading	Grading	2/27/2021	4/30/2021	5	45	
15	P3 Paving	Paving	1/1/2022	1/31/2022	5	21	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
P1 Demo	Concrete/Industrial Saws	0	8.00	81	0.73
P1 Demo	Excavators	1	8.00	162	0.38
P1 Demo	Forklifts	1	8.00	89	0.20
P1 Demo	Rubber Tired Dozers	0	8.00	255	0.40
P1 Demo	Tractors/Loaders/Backhoes	1	8.00	122	0.44
P1 Site Prep	Excavators	1	8.00	162	0.38
P1 Site Prep	Rubber Tired Dozers	0	8.00	255	0.40
P1 Site Prep	Tractors/Loaders/Backhoes	1	8.00	97	0.37
P1 Grading	Excavators	0	8.00	162	0.38
P1 Grading	Graders	1	8.00	174	0.41
P1 Grading	Plate Compactors	1	8.00	8	0.43
P1 Grading	Rubber Tired Dozers	0	8.00	255	0.40
P1 Grading	Scrapers	1	8.00	361	0.48
P1 Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
P1 Building Improvements	Aerial Lifts	2	8.00	62	0.31
P1 Building Improvements	Cranes	1	7.00	226	0.29
P1 Building Improvements	Forklifts	2	8.00	89	0.20
P1 Building Improvements	Generator Sets	0	8.00	84	0.74
P1 Building Improvements	Tractors/Loaders/Backhoes	0	7.00	97	0.37
P1 Building Improvements	Welders	0	8.00	46	0.45
P1 Paving	Pavers	0	8.00	125	0.42
P1 Paving	Paving Equipment	1	8.00	130	0.36
P1 Paving	Rollers	2	8.00	80	0.38
P2 Site Prep	Excavators	1	8.00	162	0.38
P2 Site Prep	Rubber Tired Dozers	0	8.00	255	0.40
P2 Site Prep	Tractors/Loaders/Backhoes	1	8.00	97	0.37
P2 Building Construction	Aerial Lifts	2	8.00	62	0.31

P2 Building Construction	Cranes	1	7.00	226	0.29
P2 Building Construction	Forklifts	2	8.00	89	0.20
P2 Building Construction	Generator Sets	0	8.00	84	0.74
P2 Building Construction	Tractors/Loaders/Backhoes	0	7.00	97	0.37
P2 Building Construction	Welders	0	8.00	46	0.45
P2 Demo	Concrete/Industrial Saws	0	8.00	81	0.73
P2 Demo	Excavators	1	8.00	162	0.38
P2 Demo	Rubber Tired Dozers	0	8.00	255	0.40
P2 Demo	Tractors/Loaders/Backhoes	1	8.00	97	0.37
P2 Grading	Excavators	0	8.00	162	0.38
P2 Grading	Graders	1	8.00	174	0.41
P2 Grading	Plate Compactors	1	8.00	8	0.43
P2 Grading	Rubber Tired Dozers	0	8.00	255	0.40
P2 Grading	Scrapers	1	8.00	361	0.48
P2 Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
P2 Paving	Pavers	0	8.00	125	0.42
P2 Paving	Paving Equipment	1	8.00	130	0.36
P2 Paving	Rollers	2	8.00	80	0.38
P3 Demo	Concrete/Industrial Saws	0	8.00	81	0.73
P3 Demo	Excavators	1	8.00	162	0.38
P3 Demo	Rubber Tired Dozers	0	8.00	255	0.40
P3 Demo	Tractors/Loaders/Backhoes	1	8.00	97	0.37
P3 Site Prep	Excavators	1	8.00	162	0.38
P3 Site Prep	Rubber Tired Dozers	0	8.00	255	0.40
P3 Site Prep	Tractors/Loaders/Backhoes	1	8.00	97	0.37
P3 Building Construction	Aerial Lifts	2	8.00	62	0.31
P3 Building Construction	Cranes	1	7.00	226	0.29
P3 Building Construction	Forklifts	2	8.00	89	0.20
P3 Building Construction	Generator Sets	0	8.00	84	0.74

P3 Building Construction	Tractors/Loaders/Backhoes	0	7.00	97	0.37
P3 Building Construction	Welders	0	8.00	46	0.45
P3 Grading	Excavators	0	8.00	162	0.38
P3 Grading	Graders	1	8.00	174	0.41
P3 Grading	Plate Compactors	1	8.00	8	0.43
P3 Grading	Rubber Tired Dozers	0	8.00	255	0.40
P3 Grading	Scrapers	1	8.00	361	0.48
P3 Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
P3 Paving	Pavers	0	8.00	125	0.42
P3 Paving	Paving Equipment	1	8.00	130	0.36
P3 Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
P1 Demo	3	8.00	0.00	682.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P1 Site Prep	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P1 Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P1 Building Improvements	5	161.00	66.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P1 Paving	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P2 Site Prep	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P2 Building Construction	5	224.00	92.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P2 Demo	2	5.00	0.00	965.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P2 Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P2 Paving	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P3 Demo	2	5.00	0.00	93.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P3 Site Prep	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P3 Building Construction	5	151.00	62.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P3 Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P3 Paving	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 P1 Demo - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					3.5120	0.0000	3.5120	0.5318	0.0000	0.5318			0.0000			0.0000
Off-Road	0.9080	9.5155	7.6994	0.0114		0.5351	0.5351		0.4923	0.4923			1,165.1293	0.3570		1,172.6261
Total	**0.9080**	**9.5155**	**7.6994**	**0.0114**	**3.5120**	**0.5351**	**4.0471**	**0.5318**	**0.4923**	**1.0240**			**1,165.1293**	**0.3570**		**1,172.6261**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2799	4.1038	3.1011	0.0119	0.2829	0.0616	0.3445	0.0775	0.0567	0.1341			1,183.9320	8.3900e-003		1,184.1082
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0253	0.0326	0.4006	1.0900e-003	0.0894	6.1000e-004	0.0900	0.0237	5.6000e-004	0.0243			87.2583	3.9600e-003		87.3415
Total	**0.3052**	**4.1363**	**3.5017**	**0.0130**	**0.3723**	**0.0622**	**0.4345**	**0.1012**	**0.0572**	**0.1584**			**1,271.1903**	**0.0124**		**1,271.4497**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.5804	0.0000	1.5804	0.2393	0.0000	0.2393			0.0000			0.0000
Off-Road	0.9080	9.5155	7.6994	0.0114		0.5351	0.5351		0.4923	0.4923			1,165.1292	0.3570		1,172.6261
Total	**0.9080**	**9.5155**	**7.6994**	**0.0114**	**1.5804**	**0.5351**	**2.1155**	**0.2393**	**0.4923**	**0.7316**			**1,165.1292**	**0.3570**		**1,172.6261**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2799	4.1038	3.1011	0.0119	0.2829	0.0616	0.3445	0.0775	0.0567	0.1341			1,183.9320	8.3900e-003		1,184.1082
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0253	0.0326	0.4006	1.0900e-003	0.0894	6.1000e-004	0.0900	0.0237	5.6000e-004	0.0243			87.2583	3.9600e-003		87.3415
Total	**0.3052**	**4.1363**	**3.5017**	**0.0130**	**0.3723**	**0.0622**	**0.4345**	**0.1012**	**0.0572**	**0.1584**			**1,271.1903**	**0.0124**		**1,271.4497**

3.3 P1 Site Prep - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6790	7.0607	5.8149	8.4000e-003		0.4266	0.4266		0.3924	0.3924			859.5267	0.2634		865.0572
Total	**0.6790**	**7.0607**	**5.8149**	**8.4000e-003**	**0.0000**	**0.4266**	**0.4266**	**0.0000**	**0.3924**	**0.3924**			**859.5267**	**0.2634**		**865.0572**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0158	0.0204	0.2504	6.8000e-004	0.0559	3.8000e-004	0.0563	0.0148	3.5000e-004	0.0152			54.5365	2.4800e-003		54.5884
Total	**0.0158**	**0.0204**	**0.2504**	**6.8000e-004**	**0.0559**	**3.8000e-004**	**0.0563**	**0.0148**	**3.5000e-004**	**0.0152**			**54.5365**	**2.4800e-003**		**54.5884**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.6790	7.0607	5.8149	8.4000e-003		0.4266	0.4266		0.3924	0.3924			859.5267	0.2634		865.0572
Total	**0.6790**	**7.0607**	**5.8149**	**8.4000e-003**	**0.0000**	**0.4266**	**0.4266**	**0.0000**	**0.3924**	**0.3924**			**859.5267**	**0.2634**		**865.0572**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0158	0.0204	0.2504	6.8000e-004	0.0559	3.8000e-004	0.0563	0.0148	3.5000e-004	0.0152			54.5365	2.4800e-003		54.5884
Total	**0.0158**	**0.0204**	**0.2504**	**6.8000e-004**	**0.0559**	**3.8000e-004**	**0.0563**	**0.0148**	**3.5000e-004**	**0.0152**			**54.5365**	**2.4800e-003**		**54.5884**

3.4 P1 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.6513	0.0000	2.6513	0.2863	0.0000	0.2863			0.0000			0.0000
Off-Road	2.2918	26.2109	15.2469	0.0216		1.2062	1.2062		1.1105	1.1105			2,195.4335	0.6657		2,209.4130
Total	**2.2918**	**26.2109**	**15.2469**	**0.0216**	**2.6513**	**1.2062**	**3.8574**	**0.2863**	**1.1105**	**1.3967**			**2,195.4335**	**0.6657**		**2,209.4130**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0253	0.0326	0.4006	1.0900e-003	0.0894	6.1000e-004	0.0900	0.0237	5.6000e-004	0.0243			87.2583	3.9600e-003		87.3415
Total	**0.0253**	**0.0326**	**0.4006**	**1.0900e-003**	**0.0894**	**6.1000e-004**	**0.0900**	**0.0237**	**5.6000e-004**	**0.0243**			**87.2583**	**3.9600e-003**		**87.3415**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.1931	0.0000	1.1931	0.1288	0.0000	0.1288			0.0000			0.0000
Off-Road	2.2918	26.2109	15.2469	0.0216		1.2062	1.2062		1.1105	1.1105			2,195.4335	0.6657		2,209.4130
Total	**2.2918**	**26.2109**	**15.2469**	**0.0216**	**1.1931**	**1.2062**	**2.3992**	**0.1288**	**1.1105**	**1.2393**			**2,195.4335**	**0.6657**		**2,209.4130**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0253	0.0326	0.4006	1.0900e-003	0.0894	6.1000e-004	0.0900	0.0237	5.6000e-004	0.0243			87.2583	3.9600e-003		87.3415
Total	**0.0253**	**0.0326**	**0.4006**	**1.0900e-003**	**0.0894**	**6.1000e-004**	**0.0900**	**0.0237**	**5.6000e-004**	**0.0243**			**87.2583**	**3.9600e-003**		**87.3415**

3.5 P1 Building Improvements - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0856	11.9867	7.0688	0.0113		0.6580	0.6580		0.6054	0.6054			1,155.4520	0.3540		1,162.8866
Total	**1.0856**	**11.9867**	**7.0688**	**0.0113**		**0.6580**	**0.6580**		**0.6054**	**0.6054**			**1,155.4520**	**0.3540**		**1,162.8866**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.5324	5.1941	6.3464	0.0143	0.4126	0.0808	0.4933	0.1175	0.0743	0.1918			1,407.9728	9.8400e-003		1,408.1794
Worker	0.5085	0.6553	8.0620	0.0218	1.7996	0.0123	1.8119	0.4773	0.0114	0.4886			1,756.0739	0.0797		1,757.7479
Total	**1.0410**	**5.8494**	**14.4084**	**0.0361**	**2.2122**	**0.0931**	**2.3052**	**0.5948**	**0.0856**	**0.6804**			**3,164.0467**	**0.0896**		**3,165.9274**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0856	11.9867	7.0688	0.0113		0.6580	0.6580		0.6054	0.6054			1,155.4520	0.3540		1,162.8866
Total	**1.0856**	**11.9867**	**7.0688**	**0.0113**		**0.6580**	**0.6580**		**0.6054**	**0.6054**			**1,155.4520**	**0.3540**		**1,162.8866**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.5324	5.1941	6.3464	0.0143	0.4126	0.0808	0.4933	0.1175	0.0743	0.1918			1,407.9728	9.8400e-003		1,408.1794
Worker	0.5085	0.6553	8.0620	0.0218	1.7996	0.0123	1.8119	0.4773	0.0114	0.4886			1,756.0739	0.0797		1,757.7479
Total	**1.0410**	**5.8494**	**14.4084**	**0.0361**	**2.2122**	**0.0931**	**2.3052**	**0.5948**	**0.0856**	**0.6804**			**3,164.0467**	**0.0896**		**3,165.9274**

3.6 P1 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9045	9.0189	6.5184	9.2500e-003		0.5811	0.5811		0.5346	0.5346			946.6791	0.2901		952.7703
Paving	0.4740					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3785**	**9.0189**	**6.5184**	**9.2500e-003**		**0.5811**	**0.5811**		**0.5346**	**0.5346**			**946.6791**	**0.2901**		**952.7703**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0253	0.0326	0.4006	1.0900e-003	0.0894	6.1000e-004	0.0900	0.0237	5.6000e-004	0.0243			87.2583	3.9600e-003		87.3415
Total	**0.0253**	**0.0326**	**0.4006**	**1.0900e-003**	**0.0894**	**6.1000e-004**	**0.0900**	**0.0237**	**5.6000e-004**	**0.0243**			**87.2583**	**3.9600e-003**		**87.3415**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9045	9.0189	6.5184	9.2500e-003		0.5811	0.5811		0.5346	0.5346			946.6791	0.2901		952.7703
Paving	0.4740					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3785**	**9.0189**	**6.5184**	**9.2500e-003**		**0.5811**	**0.5811**		**0.5346**	**0.5346**			**946.6791**	**0.2901**		**952.7703**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0253	0.0326	0.4006	1.0900e-003	0.0894	6.1000e-004	0.0900	0.0237	5.6000e-004	0.0243			87.2583	3.9600e-003		87.3415
Total	**0.0253**	**0.0326**	**0.4006**	**1.0900e-003**	**0.0894**	**6.1000e-004**	**0.0900**	**0.0237**	**5.6000e-004**	**0.0243**			**87.2583**	**3.9600e-003**		**87.3415**

3.7 P2 Site Prep - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.5626	5.8040	5.6953	8.4000e-003		0.3403	0.3403		0.3130	0.3130			845.5151	0.2632		851.0427
Total	**0.5626**	**5.8040**	**5.6953**	**8.4000e-003**	**0.0000**	**0.3403**	**0.3403**	**0.0000**	**0.3130**	**0.3130**			**845.5151**	**0.2632**		**851.0427**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0144	0.0186	0.2293	6.8000e-004	0.0559	3.8000e-004	0.0563	0.0148	3.5000e-004	0.0152			52.4933	2.3100e-003		52.5418
Total	**0.0144**	**0.0186**	**0.2293**	**6.8000e-004**	**0.0559**	**3.8000e-004**	**0.0563**	**0.0148**	**3.5000e-004**	**0.0152**			**52.4933**	**2.3100e-003**		**52.5418**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.5626	5.8040	5.6953	8.4000e-003		0.3403	0.3403		0.3130	0.3130			845.5151	0.2632		851.0427
Total	**0.5626**	**5.8040**	**5.6953**	**8.4000e-003**	**0.0000**	**0.3403**	**0.3403**	**0.0000**	**0.3130**	**0.3130**			**845.5151**	**0.2632**		**851.0427**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0144	0.0186	0.2293	6.8000e-004	0.0559	3.8000e-004	0.0563	0.0148	3.5000e-004	0.0152			52.4933	2.3100e-003		52.5418
Total	**0.0144**	**0.0186**	**0.2293**	**6.8000e-004**	**0.0559**	**3.8000e-004**	**0.0563**	**0.0148**	**3.5000e-004**	**0.0152**			**52.4933**	**2.3100e-003**		**52.5418**

3.8 P2 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9275	10.3871	6.7283	0.0113		0.5427	0.5427		0.4993	0.4993			1,137.1268	0.3540		1,144.5609
Total	**0.9275**	**10.3871**	**6.7283**	**0.0113**		**0.5427**	**0.5427**		**0.4993**	**0.4993**			**1,137.1268**	**0.3540**		**1,144.5609**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.6950	6.6463	8.3979	0.0199	0.5750	0.1061	0.6811	0.1638	0.0976	0.2613			1,929.3080	0.0136		1,929.5946
Worker	0.6458	0.8319	10.2725	0.0304	2.5038	0.0169	2.5207	0.6640	0.0157	0.6797			2,351.6994	0.1035		2,353.8730
Total	**1.3408**	**7.4782**	**18.6703**	**0.0502**	**3.0788**	**0.1230**	**3.2018**	**0.8278**	**0.1132**	**0.9410**			**4,281.0075**	**0.1171**		**4,283.4676**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9275	10.3871	6.7283	0.0113		0.5427	0.5427		0.4993	0.4993			1,137.1268	0.3540		1,144.5609
Total	**0.9275**	**10.3871**	**6.7283**	**0.0113**		**0.5427**	**0.5427**		**0.4993**	**0.4993**			**1,137.1268**	**0.3540**		**1,144.5609**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.6950	6.6463	8.3979	0.0199	0.5750	0.1061	0.6811	0.1638	0.0976	0.2613			1,929.3080	0.0136		1,929.5946
Worker	0.6458	0.8319	10.2725	0.0304	2.5038	0.0169	2.5207	0.6640	0.0157	0.6797			2,351.6994	0.1035		2,353.8730
Total	**1.3408**	**7.4782**	**18.6703**	**0.0502**	**3.0788**	**0.1230**	**3.2018**	**0.8278**	**0.1132**	**0.9410**			**4,281.0075**	**0.1171**		**4,283.4676**

3.8 P2 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8315	9.3390	6.5022	0.0113		0.4722	0.4722		0.4344	0.4344			1,118.8217	0.3540		1,126.2553
Total	**0.8315**	**9.3390**	**6.5022**	**0.0113**		**0.4722**	**0.4722**		**0.4344**	**0.4344**			**1,118.8217**	**0.3540**		**1,126.2553**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.6518	6.1644	7.9527	0.0199	0.5751	0.0990	0.6740	0.1638	0.0910	0.2548			1,902.4870	0.0137		1,902.7755
Worker	0.6043	0.7710	9.5901	0.0305	2.5038	0.0171	2.5208	0.6640	0.0158	0.6798			2,278.5008	0.0988		2,280.5757
Total	**1.2561**	**6.9354**	**17.5428**	**0.0504**	**3.0789**	**0.1160**	**3.1949**	**0.8278**	**0.1068**	**0.9346**			**4,180.9877**	**0.1125**		**4,183.3511**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8315	9.3390	6.5022	0.0113		0.4722	0.4722		0.4344	0.4344			1,118.8217	0.3540		1,126.2553
Total	**0.8315**	**9.3390**	**6.5022**	**0.0113**		**0.4722**	**0.4722**		**0.4344**	**0.4344**			**1,118.8217**	**0.3540**		**1,126.2553**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.6518	6.1644	7.9527	0.0199	0.5751	0.0990	0.6740	0.1638	0.0910	0.2548			1,902.4870	0.0137		1,902.7755
Worker	0.6043	0.7710	9.5901	0.0305	2.5038	0.0171	2.5208	0.6640	0.0158	0.6798			2,278.5008	0.0988		2,280.5757
Total	**1.2561**	**6.9354**	**17.5428**	**0.0504**	**3.0789**	**0.1160**	**3.1949**	**0.8278**	**0.1068**	**0.9346**			**4,180.9877**	**0.1125**		**4,183.3511**

3.9 P2 Demo - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.0961	0.0000	5.0961	0.7716	0.0000	0.7716			0.0000			0.0000
Off-Road	0.5626	5.8040	5.6953	8.4000e-003		0.3403	0.3403		0.3130	0.3130			845.5151	0.2632		851.0427
Total	**0.5626**	**5.8040**	**5.6953**	**8.4000e-003**	**5.0961**	**0.3403**	**5.4363**	**0.7716**	**0.3130**	**1.0846**			**845.5151**	**0.2632**		**851.0427**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3935	5.5212	4.3603	0.0173	0.4101	0.0892	0.4993	0.1123	0.0821	0.1944			1,687.3673	0.0123		1,687.6261
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0144	0.0186	0.2293	6.8000e-004	0.0559	3.8000e-004	0.0563	0.0148	3.5000e-004	0.0152			52.4933	2.3100e-003		52.5418
Total	**0.4079**	**5.5397**	**4.5896**	**0.0180**	**0.4660**	**0.0896**	**0.5556**	**0.1271**	**0.0824**	**0.2095**			**1,739.8606**	**0.0146**		**1,740.1680**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.2932	0.0000	2.2932	0.3472	0.0000	0.3472			0.0000			0.0000
Off-Road	0.5626	5.8040	5.6953	8.4000e-003		0.3403	0.3403		0.3130	0.3130			845.5151	0.2632		851.0427
Total	**0.5626**	**5.8040**	**5.6953**	**8.4000e-003**	**2.2932**	**0.3403**	**2.6335**	**0.3472**	**0.3130**	**0.6603**			**845.5151**	**0.2632**		**851.0427**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3935	5.5212	4.3603	0.0173	0.4101	0.0892	0.4993	0.1123	0.0821	0.1944			1,687.3673	0.0123		1,687.6261
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0144	0.0186	0.2293	6.8000e-004	0.0559	3.8000e-004	0.0563	0.0148	3.5000e-004	0.0152			52.4933	2.3100e-003		52.5418
Total	**0.4079**	**5.5397**	**4.5896**	**0.0180**	**0.4660**	**0.0896**	**0.5556**	**0.1271**	**0.0824**	**0.2095**			**1,739.8606**	**0.0146**		**1,740.1680**

3.10 P2 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.6513	0.0000	2.6513	0.2863	0.0000	0.2863			0.0000			0.0000
Off-Road	2.0004	22.5210	13.5211	0.0216		1.0271	1.0271		0.9457	0.9457			2,160.1601	0.6653		2,174.1321
Total	**2.0004**	**22.5210**	**13.5211**	**0.0216**	**2.6513**	**1.0271**	**3.6783**	**0.2863**	**0.9457**	**1.2320**			**2,160.1601**	**0.6653**		**2,174.1321**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0231	0.0297	0.3669	1.0900e-003	0.0894	6.0000e-004	0.0900	0.0237	5.6000e-004	0.0243			83.9893	3.7000e-003		84.0669
Total	**0.0231**	**0.0297**	**0.3669**	**1.0900e-003**	**0.0894**	**6.0000e-004**	**0.0900**	**0.0237**	**5.6000e-004**	**0.0243**			**83.9893**	**3.7000e-003**		**84.0669**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.1931	0.0000	1.1931	0.1288	0.0000	0.1288			0.0000			0.0000
Off-Road	2.0004	22.5210	13.5211	0.0216		1.0271	1.0271		0.9457	0.9457			2,160.1601	0.6653		2,174.1321
Total	**2.0004**	**22.5210**	**13.5211**	**0.0216**	**1.1931**	**1.0271**	**2.2201**	**0.1288**	**0.9457**	**1.0745**			**2,160.1601**	**0.6653**		**2,174.1321**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0231	0.0297	0.3669	1.0900e-003	0.0894	6.0000e-004	0.0900	0.0237	5.6000e-004	0.0243			83.9893	3.7000e-003		84.0669
Total	**0.0231**	**0.0297**	**0.3669**	**1.0900e-003**	**0.0894**	**6.0000e-004**	**0.0900**	**0.0237**	**5.6000e-004**	**0.0243**			**83.9893**	**3.7000e-003**		**84.0669**

3.11 P2 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7500	7.6051	6.3686	9.2600e-003		0.4714	0.4714		0.4337	0.4337			931.6057	0.2900		937.6961
Paving	0.4966					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2465**	**7.6051**	**6.3686**	**9.2600e-003**		**0.4714**	**0.4714**		**0.4337**	**0.4337**			**931.6057**	**0.2900**		**937.6961**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0231	0.0297	0.3669	1.0900e-003	0.0894	6.0000e-004	0.0900	0.0237	5.6000e-004	0.0243			83.9893	3.7000e-003		84.0669
Total	**0.0231**	**0.0297**	**0.3669**	**1.0900e-003**	**0.0894**	**6.0000e-004**	**0.0900**	**0.0237**	**5.6000e-004**	**0.0243**			**83.9893**	**3.7000e-003**		**84.0669**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.7500	7.6051	6.3686	9.2600e-003		0.4714	0.4714		0.4337	0.4337			931.6057	0.2900		937.6961
Paving	0.4966					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.2465**	**7.6051**	**6.3686**	**9.2600e-003**		**0.4714**	**0.4714**		**0.4337**	**0.4337**			**931.6057**	**0.2900**		**937.6961**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0231	0.0297	0.3669	1.0900e-003	0.0894	6.0000e-004	0.0900	0.0237	5.6000e-004	0.0243			83.9893	3.7000e-003		84.0669
Total	**0.0231**	**0.0297**	**0.3669**	**1.0900e-003**	**0.0894**	**6.0000e-004**	**0.0900**	**0.0237**	**5.6000e-004**	**0.0243**			**83.9893**	**3.7000e-003**		**84.0669**

3.12 P3 Demo - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.4917	0.0000	0.4917	0.0744	0.0000	0.0744			0.0000			0.0000
Off-Road	0.4223	4.1037	5.6149	8.4100e-003		0.2189	0.2189		0.2014	0.2014			813.7551	0.2632		819.2820
Total	**0.4223**	**4.1037**	**5.6149**	**8.4100e-003**	**0.4917**	**0.2189**	**0.7105**	**0.0744**	**0.2014**	**0.2758**			**813.7551**	**0.2632**		**819.2820**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0351	0.3911	0.3882	1.6600e-003	0.0395	8.2800e-003	0.0478	0.0108	7.6200e-003	0.0184			156.5488	1.2400e-003		156.5748
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0121	0.0151	0.1899	6.8000e-004	0.0559	3.9000e-004	0.0563	0.0148	3.6000e-004	0.0152			48.0216	2.0200e-003		48.0640
Total	**0.0473**	**0.4062**	**0.5781**	**2.3400e-003**	**0.0954**	**8.6700e-003**	**0.1041**	**0.0257**	**7.9800e-003**	**0.0336**			**204.5704**	**3.2600e-003**		**204.6388**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2212	0.0000	0.2212	0.0335	0.0000	0.0335			0.0000			0.0000
Off-Road	0.4223	4.1037	5.6149	8.4100e-003		0.2189	0.2189		0.2014	0.2014			813.7551	0.2632		819.2820
Total	**0.4223**	**4.1037**	**5.6149**	**8.4100e-003**	**0.2212**	**0.2189**	**0.4401**	**0.0335**	**0.2014**	**0.2349**			**813.7551**	**0.2632**		**819.2820**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0351	0.3911	0.3882	1.6600e-003	0.0395	8.2800e-003	0.0478	0.0108	7.6200e-003	0.0184			156.5488	1.2400e-003		156.5748
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0121	0.0151	0.1899	6.8000e-004	0.0559	3.9000e-004	0.0563	0.0148	3.6000e-004	0.0152			48.0216	2.0200e-003		48.0640
Total	**0.0473**	**0.4062**	**0.5781**	**2.3400e-003**	**0.0954**	**8.6700e-003**	**0.1041**	**0.0257**	**7.9800e-003**	**0.0336**			**204.5704**	**3.2600e-003**		**204.6388**

3.13 P3 Site Prep - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.4223	4.1037	5.6149	8.4100e-003		0.2189	0.2189		0.2014	0.2014			813.7551	0.2632		819.2820
Total	**0.4223**	**4.1037**	**5.6149**	**8.4100e-003**	**0.0000**	**0.2189**	**0.2189**	**0.0000**	**0.2014**	**0.2014**			**813.7551**	**0.2632**		**819.2820**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0121	0.0151	0.1899	6.8000e-004	0.0559	3.9000e-004	0.0563	0.0148	3.6000e-004	0.0152			48.0216	2.0200e-003		48.0640
Total	**0.0121**	**0.0151**	**0.1899**	**6.8000e-004**	**0.0559**	**3.9000e-004**	**0.0563**	**0.0148**	**3.6000e-004**	**0.0152**			**48.0216**	**2.0200e-003**		**48.0640**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Off-Road	0.4223	4.1037	5.6149	8.4100e-003		0.2189	0.2189		0.2014	0.2014			813.7551	0.2632		819.2820
Total	**0.4223**	**4.1037**	**5.6149**	**8.4100e-003**	**0.0000**	**0.2189**	**0.2189**	**0.0000**	**0.2014**	**0.2014**			**813.7551**	**0.2632**		**819.2820**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0121	0.0151	0.1899	6.8000e-004	0.0559	3.9000e-004	0.0563	0.0148	3.6000e-004	0.0152			48.0216	2.0200e-003		48.0640
Total	**0.0121**	**0.0151**	**0.1899**	**6.8000e-004**	**0.0559**	**3.9000e-004**	**0.0563**	**0.0148**	**3.6000e-004**	**0.0152**			**48.0216**	**2.0200e-003**		**48.0640**

3.14 P3 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6859	7.6917	6.1865	0.0113		0.3585	0.3585		0.3298	0.3298			1,094.4531	0.3540		1,101.8864
Total	**0.6859**	**7.6917**	**6.1865**	**0.0113**		**0.3585**	**0.3585**		**0.3298**	**0.3298**			**1,094.4531**	**0.3540**		**1,101.8864**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.3929	3.0785	4.9392	0.0134	0.3876	0.0554	0.4430	0.1104	0.0510	0.1614			1,251.9767	9.1300e-003		1,252.1683
Worker	0.3667	0.4560	5.7363	0.0206	1.6878	0.0117	1.6995	0.4476	0.0108	0.4584			1,450.2531	0.0609		1,451.5315
Total	**0.7596**	**3.5345**	**10.6755**	**0.0340**	**2.0754**	**0.0670**	**2.1425**	**0.5580**	**0.0618**	**0.6198**			**2,702.2298**	**0.0700**		**2,703.6998**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6859	7.6917	6.1865	0.0113		0.3585	0.3585		0.3298	0.3298			1,094.4531	0.3540		1,101.8864
Total	**0.6859**	**7.6917**	**6.1865**	**0.0113**		**0.3585**	**0.3585**		**0.3298**	**0.3298**			**1,094.4531**	**0.3540**		**1,101.8864**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.3929	3.0785	4.9392	0.0134	0.3876	0.0554	0.4430	0.1104	0.0510	0.1614			1,251.9767	9.1300e-003		1,252.1683
Worker	0.3667	0.4560	5.7363	0.0206	1.6878	0.0117	1.6995	0.4476	0.0108	0.4584			1,450.2531	0.0609		1,451.5315
Total	**0.7596**	**3.5345**	**10.6755**	**0.0340**	**2.0754**	**0.0670**	**2.1425**	**0.5580**	**0.0618**	**0.6198**			**2,702.2298**	**0.0700**		**2,703.6998**

3.15 P3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.6513	0.0000	2.6513	0.2863	0.0000	0.2863			0.0000			0.0000
Off-Road	1.5902	16.8682	11.5786	0.0216		0.7590	0.7590		0.6991	0.6991			2,080.4881	0.6653		2,094.4594
Total	**1.5902**	**16.8682**	**11.5786**	**0.0216**	**2.6513**	**0.7590**	**3.4103**	**0.2863**	**0.6991**	**0.9854**			**2,080.4881**	**0.6653**		**2,094.4594**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0194	0.0242	0.3039	1.0900e-003	0.0894	6.2000e-004	0.0900	0.0237	5.7000e-004	0.0243			76.8346	3.2300e-003		76.9023
Total	**0.0194**	**0.0242**	**0.3039**	**1.0900e-003**	**0.0894**	**6.2000e-004**	**0.0900**	**0.0237**	**5.7000e-004**	**0.0243**			**76.8346**	**3.2300e-003**		**76.9023**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.1931	0.0000	1.1931	0.1288	0.0000	0.1288			0.0000			0.0000
Off-Road	1.5902	16.8682	11.5786	0.0216		0.7590	0.7590		0.6991	0.6991			2,080.4881	0.6653		2,094.4594
Total	**1.5902**	**16.8682**	**11.5786**	**0.0216**	**1.1931**	**0.7590**	**1.9521**	**0.1288**	**0.6991**	**0.8279**			**2,080.4881**	**0.6653**		**2,094.4594**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0194	0.0242	0.3039	1.0900e-003	0.0894	6.2000e-004	0.0900	0.0237	5.7000e-004	0.0243			76.8346	3.2300e-003		76.9023
Total	**0.0194**	**0.0242**	**0.3039**	**1.0900e-003**	**0.0894**	**6.2000e-004**	**0.0900**	**0.0237**	**5.7000e-004**	**0.0243**			**76.8346**	**3.2300e-003**		**76.9023**

3.16 P3 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5081	5.1631	6.2281	9.2600e-003		0.2824	0.2824		0.2598	0.2598			896.6992	0.2900		902.7895
Paving	0.4966					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0047**	**5.1631**	**6.2281**	**9.2600e-003**		**0.2824**	**0.2824**		**0.2598**	**0.2598**			**896.6992**	**0.2900**		**902.7895**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0185	0.0228	0.2878	1.0900e-003	0.0894	6.2000e-004	0.0900	0.0237	5.8000e-004	0.0243			75.5857	3.1000e-003		75.6508
Total	**0.0185**	**0.0228**	**0.2878**	**1.0900e-003**	**0.0894**	**6.2000e-004**	**0.0900**	**0.0237**	**5.8000e-004**	**0.0243**			**75.5857**	**3.1000e-003**		**75.6508**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5081	5.1631	6.2281	9.2600e-003		0.2824	0.2824		0.2598	0.2598			896.6992	0.2900		902.7895
Paving	0.4966					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.0047**	**5.1631**	**6.2281**	**9.2600e-003**		**0.2824**	**0.2824**		**0.2598**	**0.2598**			**896.6992**	**0.2900**		**902.7895**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000		0.0000
Worker	0.0185	0.0228	0.2878	1.0900e-003	0.0894	6.2000e-004	0.0900	0.0237	5.8000e-004	0.0243			75.5857	3.1000e-003		75.6508
Total	**0.0185**	**0.0228**	**0.2878**	**1.0900e-003**	**0.0894**	**6.2000e-004**	**0.0900**	**0.0237**	**5.8000e-004**	**0.0243**			**75.5857**	**3.1000e-003**		**75.6508**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	17.2220	35.3502	187.3898	0.6936	49.1941	0.6719	49.8660	13.1280	0.6205	13.7485			51,529.0483	1.7159		51,565.0819
Unmitigated	17.2220	35.3502	187.3898	0.6936	49.1941	0.6719	49.8660	13.1280	0.6205	13.7485			51,529.0483	1.7159		51,565.0819

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	3,253.85	699.15	289.10	7,942,052	7,942,052
General Office Building	2,371.45	509.55	210.70	5,788,275	5,788,275
General Office Building	1,599.35	343.65	142.10	3,903,720	3,903,720
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unenclosed Parking with Elevator	0.00	0.00	0.00		
Unenclosed Parking with Elevator	0.00	0.00	0.00		
Unenclosed Parking with Elevator	0.00	0.00	0.00		
Total	7,224.65	1,552.35	641.90	17,634,047	17,634,047

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unenclosed Parking with	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unenclosed Parking with	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unenclosed Parking with	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.505043	0.056653	0.194832	0.151784	0.042126	0.005989	0.016072	0.016505	0.001461	0.002178	0.004464	0.000494	0.002401

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1352	1.2292	1.0325	7.3700e-003		0.0934	0.0934		0.0934	0.0934			1,474.9861	0.0283	0.0270	1,483.9626
NaturalGas Unmitigated	0.1856	1.6872	1.4173	0.0101		0.1282	0.1282		0.1282	0.1282			2,024.6414	0.0388	0.0371	2,036.9631

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	3809.73	0.0411	0.3735	0.3137	2.2400e-003		0.0284	0.0284		0.0284	0.0284			448.2031	8.5900e-003	8.2200e-003	450.9308
General Office Building	5648.9	0.0609	0.5538	0.4652	3.3200e-003		0.0421	0.0421		0.0421	0.0421			664.5770	0.0127	0.0122	668.6215
General Office Building	7750.82	0.0836	0.7599	0.6383	4.5600e-003		0.0578	0.0578		0.0578	0.0578			911.8614	0.0175	0.0167	917.4108
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total		**0.1856**	**1.6872**	**1.4172**	**0.0101**		**0.1282**	**0.1282**		**0.1282**	**0.1282**			**2,024.6414**	**0.0388**	**0.0371**	**2,036.9631**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	2.77545	0.0299	0.2721	0.2286	1.6300e-003		0.0207	0.0207		0.0207	0.0207			326.5236	6.2600e-003	5.9900e-003	328.5108
General Office Building	4.11532	0.0444	0.4035	0.3389	2.4200e-003		0.0307	0.0307		0.0307	0.0307			484.1558	9.2800e-003	8.8800e-003	487.1022
General Office Building	5.64661	0.0609	0.5536	0.4650	3.3200e-003		0.0421	0.0421		0.0421	0.0421			664.3067	0.0127	0.0122	668.3496
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total		**0.1352**	**1.2292**	**1.0325**	**7.3700e-003**		**0.0934**	**0.0934**		**0.0934**	**0.0934**			**1,474.9861**	**0.0283**	**0.0271**	**1,483.9626**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	36.8166	2.9600e-003	0.3237	2.0000e-005		1.1600e-003	1.1600e-003		1.1600e-003	1.1600e-003			0.6927	1.8300e-003		0.7310
Unmitigated	36.8166	2.9600e-003	0.3237	2.0000e-005		1.1600e-003	1.1600e-003		1.1600e-003	1.1600e-003			0.6927	1.8300e-003		0.7310

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.3424					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	34.4441					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0301	2.9600e-003	0.3237	2.0000e-005		1.1600e-003	1.1600e-003		1.1600e-003	1.1600e-003			0.6927	1.8300e-003		0.7310
Total	**36.8166**	**2.9600e-003**	**0.3237**	**2.0000e-005**		**1.1600e-003**	**1.1600e-003**		**1.1600e-003**	**1.1600e-003**			**0.6927**	**1.8300e-003**		**0.7310**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.3424					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	34.4441					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0301	2.9600e-003	0.3237	2.0000e-005		1.1600e-003	1.1600e-003		1.1600e-003	1.1600e-003			0.6927	1.8300e-003		0.7310
Total	**36.8166**	**2.9600e-003**	**0.3237**	**2.0000e-005**		**1.1600e-003**	**1.1600e-003**		**1.1600e-003**	**1.1600e-003**			**0.6927**	**1.8300e-003**		**0.7310**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Generator Sets	1	1.00	52	84	0.74	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Generator Sets	0.0413	0.3660	0.4595	8.2000e-004		0.0184	0.0184		0.0184	0.0184			77.8793	3.7000e-003		77.9570
Total	**0.0413**	**0.3660**	**0.4595**	**8.2000e-004**		**0.0184**	**0.0184**		**0.0184**	**0.0184**			**77.8793**	**3.7000e-003**		**77.9570**

10.0 Vegetation

Arch coating

	E=EFxFxA	where					
	E=	Emissions lb					
	EF=	Emission factor		lb/sq ft			
	EF=	Cvoc/454x3.785/180		or VOC x	4.63167E-05		
	F=	Factor for interior and exterior apportionment of surface area					
		interior=	0.75				
		exterior=	0.25				
	A=	Painting surface area, sq, ft					
		residential, A=			2.7	times plan bldg area	
		nonresidential, A=			2	times plan bldg area	

Calculate area to be painted

Phase 1

	bldg square feet (sf)							
Non res								
Phase 1	295000							
								User data entry
				0.75	0.25			
total	295000	2	590000	442500	~~147500~~			
percent exterior paint	80				118000			Results to CalEEMod

If CalEEMod is not used
or for manual calc below
The results above are FxA

VOC - g/l		interior	exterior		
	residential	50	100		
	non-residential	100	100		Check applicable AQMD/APQD rules
Emissions - pounds					
	residential	0	0		
	non-residential	2050	547		
	Total			2596	
Building period	3/15-12/29/2017				
Painting period	10/1-12/29/2017				
	total painting days			66	
Emission rate - pounds/day				39.3	Add to CalEEMod results if Arch coating contributes to maximum day

					P1 Bldg	1.09	
						1.12	
					P1 Paving	1.38	
						0.03	
					Total	**43.0**	

Phase 2

	bldg square feet (sf)						
Non res							
Phase 2	215000						
							User data entry
				0.75	0.25		
total	215000	2	430000	322500	~~107500~~		
percent exterior paint	100				107500		Results to CalEEMod

If CalEEMod is not used
or for manual calc below
The results above are FxA

VOC - g/l		interior	exterior		
	residential	50	100		
	non-residential	100	100		Check applicable AQMD/APQD rules
Emissions - pounds					
	residential	0	0		
	non-residential	1494	498		
	Total			1992	
Building period	6/1/2018-5/31/2019				
Painting period	3/1-5/31/2019				
	total painting days			66	
Emission rate - pounds/day				30.2	Add to CalEEMod results if Arch coating contributes to maximum day
			P2 Bldg	0.83	
				1.35	
			Total	**32.4**	

Phase 3

	bldg square feet (sf)						
Non res							
Phase 3	145000						
							User data entry
				0.75	0.25		
total	145000	2	290000	217500	~~72500~~		
percent exterior paint	100				72500		Results to CalEEMod

If CalEEMod is not used
or for manual calc below
The results above are FxA

VOC - g/l		interior	exterior		
	residential	50	100		
	non-residential	100	100		Check applicable AQMD/APQD rules
Emissions - pounds					
	residential	0	0		
	non-residential	1007	336		
	Total			1343	
Building period	1/1-12/31/2021				
Painting period	10/15-12/31/2021				
	total painting days			55	
Emission rate - pounds/day				24.4	Add to CalEEMod results if Arch coating contributes to maximum day
			P3 Bldg	0.69	
				0.81	
			Total	**25.9**	

MND		sf		Adjust		sf
1.98E-05	lb/sf/day	295	General Office Building	2.04E-05	lb/sf/day	295
3,165,000	sf	215	General Office Building	655,000	sf	215
62.67	lb/day	145	General Office Building	13.36	lb/day	145
365	days/year	50	Other Asphalt Surfaces	365	days/year	
22873	lb/yr	35	Other Asphalt Surfaces	4877	lb/yr	
2000	lb/ton	226	Parking Lot	2000	lb/ton	
11.44	ton/yr	759	Unenclosed Parking with Elevator	2.44	ton/yr	
		860	Unenclosed Parking with Elevator			
		580	Unenclosed Parking with Elevator			
		3,165				655
	delta			49.31	lb/day	
				9.00	ton/yr	

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	295.00	1000sqft	6.77	295,000.00	0
General Office Building	215.00	1000sqft	1.00	215,000.00	0
General Office Building	145.00	1000sqft	0.75	145,000.00	0
Other Asphalt Surfaces	50.00	1000sqft	1.15	50,000.00	0
Other Asphalt Surfaces	35.00	1000sqft	0.80	35,000.00	0
Parking Lot	226.00	Space	2.03	120,000.00	0
Unenclosed Parking with Elevator	759.00	Space	6.83	303,600.00	0
Unenclosed Parking with Elevator	860.00	Space	5.25	344,000.00	0
Unenclosed Parking with Elevator	580.00	Space	5.22	232,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	30
Climate Zone	8			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	527.1	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - 2022 SCE CO2 IF

Land Use - Per data needs

Construction Phase - .

Off-road Equipment - 2 forklifts, 1 crane, 2 aerial lifts (to replace scissor lifts)

Off-road Equipment - exc to replace Brokk, 1 loader, 1 forklift

Off-road Equipment - 1 grader, 1 scraper, 1 (plate) compactor

Off-road Equipment - 1 paving equip, 2 rollers

Off-road Equipment - 1 exc, 1 loader

Off-road Equipment - 1 crane, 2 forklifts, 2 aerial lifts

Off-road Equipment - 1 exc, 1 TLB

Off-road Equipment - 1 grader, 1 scraper, 1 plate compactor

Off-road Equipment - 1 paving equip, 2 rollers

Off-road Equipment - 1 loader, 1 excavator

Off-road Equipment - 2 forlifts, 1 crane, 2 aerial lifts

Off-road Equipment - 1 exc, 1 TLB

Off-road Equipment - 1 grader, 1 scraper, 1 plate compactor

Off-road Equipment - 1 paving equip, 2 rollers

Off-road Equipment - 1 exc, 1 loader

Trips and VMT - manual calcs to fix trips

Demolition - manual calcs based off data needs

Grading - balanced on site

Vehicle Trips - traffic report

Area Coating - Painting done on separate- manual calcs

Energy Use - .

Water And Wastewater - manual calcs from data needs

Solid Waste - defaults

Sequestration - planting 356

Construction Off-road Equipment Mitigation -

Energy Mitigation - compliance

Water Mitigation -

Waste Mitigation - compliance

Operational Off-Road Equipment - assumption is that it's tested once week for 1 hour.

Area Mitigation - x

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Interior	2213550	0
tblConstructionPhase	NumDays	440.00	261.00
tblConstructionPhase	NumDays	440.00	208.00
tblConstructionPhase	NumDays	440.00	261.00
tblConstructionPhase	NumDays	30.00	42.00
tblConstructionPhase	NumDays	30.00	41.00
tblConstructionPhase	NumDays	30.00	41.00
tblConstructionPhase	NumDays	35.00	21.00
tblConstructionPhase	NumDays	35.00	21.00
tblConstructionPhase	NumDays	35.00	22.00
tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	NumDays	20.00	22.00
tblConstructionPhase	NumDays	20.00	21.00
tblConstructionPhase	PhaseEndDate	1/31/2022	12/31/2021
tblConstructionPhase	PhaseEndDate	2/16/2018	12/29/2017
tblConstructionPhase	PhaseEndDate	7/1/2019	5/31/2019
tblConstructionPhase	PhaseEndDate	2/26/2019	2/26/2021
tblConstructionPhase	PhaseEndDate	7/29/2019	8/10/2018
tblConstructionPhase	PhaseEndDate	3/4/2022	4/30/2021
tblConstructionPhase	PhaseEndDate	4/4/2017	5/2/2017
tblConstructionPhase	PhaseEndDate	11/12/2018	12/31/2018
tblConstructionPhase	PhaseEndDate	5/31/2021	1/31/2022
tblConstructionPhase	PhaseEndDate	1/30/2018	10/31/2017
tblConstructionPhase	PhaseEndDate	3/29/2021	1/29/2021
tblConstructionPhase	PhaseEndDate	3/30/2017	1/31/2017
tblConstructionPhase	PhaseEndDate	11/29/2017	6/29/2018
tblConstructionPhase	PhaseStartDate	1/30/2021	1/1/2021

tblConstructionPhase	PhaseStartDate	5/3/2017	3/15/2017
tblConstructionPhase	PhaseStartDate	6/30/2018	6/1/2018
tblConstructionPhase	PhaseStartDate	1/1/2019	1/1/2021
tblConstructionPhase	PhaseStartDate	6/1/2019	6/15/2018
tblConstructionPhase	PhaseStartDate	1/1/2022	2/27/2021
tblConstructionPhase	PhaseStartDate	2/1/2017	3/1/2017
tblConstructionPhase	PhaseStartDate	10/13/2018	12/1/2018
tblConstructionPhase	PhaseStartDate	5/1/2021	1/1/2022
tblConstructionPhase	PhaseStartDate	12/30/2017	10/1/2017
tblConstructionPhase	PhaseStartDate	2/27/2021	1/1/2021
tblConstructionPhase	PhaseStartDate	3/1/2017	1/1/2017
tblConstructionPhase	PhaseStartDate	11/1/2017	6/1/2018
tblGrading	AcresOfGrading	67.50	112.50
tblGrading	AcresOfGrading	67.50	112.50
tblGrading	AcresOfGrading	67.50	112.50
tblLandUse	LandUseSquareFeet	90,400.00	120,000.00
tblLandUse	LotAcreage	3.33	0.75
tblLandUse	LotAcreage	4.94	1.00
tblLandUse	LotAcreage	7.74	5.25
tblOffRoadEquipment	HorsePower	97.00	122.00
tblOffRoadEquipment	LoadFactor	0.37	0.44
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	52.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	1.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblProjectCharacteristics	CO2IntensityFactor	630.89	527.1
tblProjectCharacteristics	OperationalYear	2014	2022
tblSequestration	NumberOfNewTrees	0.00	356.00
tblTripsAndVMT	VendorTripNumber	261.00	62.00
tblTripsAndVMT	VendorTripNumber	261.00	66.00
tblTripsAndVMT	VendorTripNumber	261.00	92.00
tblTripsAndVMT	WorkerTripNumber	618.00	151.00
tblTripsAndVMT	WorkerTripNumber	618.00	161.00
tblTripsAndVMT	WorkerTripNumber	618.00	224.00
tblVehicleTrips	WD_TR	11.01	11.03
tblWater	IndoorWaterUseRate	90,199,877.11	39,785,000.00
tblWater	OutdoorWaterUseRate	55,283,795.65	3,711,320.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.3248	2.9464	3.0425	6.0700e-003	0.3707	0.1289	0.4997	0.0815	0.1186	0.2002			512.8890	0.0682	0.0000	514.3203
2018	0.2599	2.2748	2.6700	5.8300e-003	0.4069	0.0911	0.4980	0.0877	0.0838	0.1715			478.7389	0.0567	0.0000	479.9285
2019	0.1152	0.9065	1.3629	3.3000e-003	0.1649	0.0321	0.1970	0.0444	0.0295	0.0739			257.3267	0.0231	0.0000	257.8113
2021	0.2408	2.0055	2.7403	6.6200e-003	0.3404	0.0796	0.4200	0.0808	0.0733	0.1541			513.3463	0.0713	0.0000	514.8444
2022	0.0107	0.0545	0.0683	1.1000e-004	9.2000e-004	2.9700e-003	3.8900e-003	2.4000e-004	2.7300e-003	2.9800e-003			9.2335	2.7900e-003	0.0000	9.2921
Total	**0.9514**	**8.1876**	**9.8840**	**0.0219**	**1.2838**	**0.3347**	**1.6185**	**0.2947**	**0.3080**	**0.6027**			**1,771.5344**	**0.2220**	**0.0000**	**1,776.1965**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2017	0.3248	2.9464	3.0425	6.0700e-003	0.2974	0.1289	0.4263	0.0718	0.1186	0.1905			512.8888	0.0682	0.0000	514.3201
2018	0.2599	2.2748	2.6700	5.8300e-003	0.3167	0.0911	0.4078	0.0754	0.0838	0.1593			478.7387	0.0567	0.0000	479.9283
2019	0.1152	0.9065	1.3629	3.3000e-003	0.1649	0.0321	0.1970	0.0444	0.0295	0.0739			257.3266	0.0231	0.0000	257.8112
2021	0.2408	2.0055	2.7403	6.6200e-003	0.3020	0.0796	0.3816	0.0765	0.0733	0.1497			513.3461	0.0713	0.0000	514.8442
2022	0.0107	0.0545	0.0683	1.1000e-004	9.2000e-004	2.9700e-003	3.8900e-003	2.4000e-004	2.7300e-003	2.9800e-003			9.2334	2.7900e-003	0.0000	9.2921
Total	**0.9514**	**8.1876**	**9.8840**	**0.0219**	**1.0818**	**0.3347**	**1.4165**	**0.2684**	**0.3080**	**0.5764**			**1,771.5337**	**0.2220**	**0.0000**	**1,776.1958**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**15.73**	**0.00**	**12.48**	**8.93**	**0.00**	**4.37**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	6.7173	3.7000e-004	0.0405	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004			0.0786	2.1000e-004	0.0000	0.0829
Energy	0.0339	0.3079	0.2587	1.8500e-003		0.0234	0.0234		0.0234	0.0234			3,399.6410	0.1750	0.0410	3,416.0352
Mobile	2.3601	5.2522	25.7633	0.0924	6.6639	0.0926	6.7566	1.7809	0.0856	1.8665			6,238.8026	0.2145	0.0000	6,243.3065
Offroad	1.0700e-003	9.5200e-003	0.0120	2.0000e-005		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004			1.8369	9.0000e-005	0.0000	1.8388
Waste						0.0000	0.0000		0.0000	0.0000			95.8077	5.6621	0.0000	214.7112
Water						0.0000	0.0000		0.0000	0.0000			146.3378	1.3038	0.0321	183.6777
Total	**9.1123**	**5.5700**	**26.0743**	**0.0943**	**6.6639**	**0.1167**	**6.7806**	**1.7809**	**0.1096**	**1.8905**			**9,882.5045**	**7.3556**	**0.0732**	**10,059.6522**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	6.7173	3.7000e-004	0.0405	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004			0.0786	2.1000e-004	0.0000	0.0829
Energy	0.0247	0.2243	0.1884	1.3500e-003		0.0171	0.0171		0.0171	0.0171			3,039.9275	0.1585	0.0363	3,054.5092
Mobile	2.3601	5.2522	25.7633	0.0924	6.6639	0.0926	6.7566	1.7809	0.0856	1.8665			6,238.8026	0.2145	0.0000	6,243.3065
Offroad	1.0700e-003	9.5200e-003	0.0120	2.0000e-005		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004			1.8369	9.0000e-005	0.0000	1.8388
Waste						0.0000	0.0000		0.0000	0.0000			47.9038	2.8310	0.0000	107.3556
Water						0.0000	0.0000		0.0000	0.0000			118.4405	1.0429	0.0257	148.3028
Total	**9.1032**	**5.4864**	**26.0041**	**0.0938**	**6.6639**	**0.1103**	**6.7743**	**1.7809**	**0.1032**	**1.8841**			**9,446.9899**	**4.2472**	**0.0620**	**9,555.3956**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.11**	**1.67**	**0.32**	**0.55**	**0.00**	**5.85**	**0.10**	**0.00**	**6.23**	**0.36**	**0.00**	**0.00**	**4.43**	**42.26**	**15.28**	**5.03**

2.3 Vegetation

Vegetation

	CO2e
Category	MT
New Trees	252.0480
Total	**252.0480**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	P1 Demo	Demolition	1/1/2017	2/28/2017	5	42	
2	P1 Site Prep	Site Preparation	1/1/2017	1/31/2017	5	22	
3	P1 Grading	Grading	3/1/2017	5/2/2017	5	45	
4	P1 Building Improvements	Building Construction	3/15/2017	12/29/2017	5	208	
5	P1 Paving	Paving	10/1/2017	10/31/2017	5	22	
6	P2 Site Prep	Site Preparation	6/1/2018	6/29/2018	5	21	
7	P2 Building Construction	Building Construction	6/1/2018	5/31/2019	5	261	
8	P2 Demo	Demolition	6/15/2018	8/10/2018	5	41	
9	P2 Grading	Grading	8/11/2018	10/12/2018	5	45	
10	P2 Paving	Paving	12/1/2018	12/31/2018	5	21	
11	P3 Demo	Demolition	1/1/2021	2/26/2021	5	41	
12	P3 Site Prep	Site Preparation	1/1/2021	1/29/2021	5	21	
13	P3 Building Construction	Building Construction	1/1/2021	12/31/2021	5	261	
14	P3 Grading	Grading	2/27/2021	4/30/2021	5	45	
15	P3 Paving	Paving	1/1/2022	1/31/2022	5	21	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
P1 Demo	Concrete/Industrial Saws	0	8.00	81	0.73
P1 Demo	Excavators	1	8.00	162	0.38
P1 Demo	Forklifts	1	8.00	89	0.20
P1 Demo	Rubber Tired Dozers	0	8.00	255	0.40
P1 Demo	Tractors/Loaders/Backhoes	1	8.00	122	0.44
P1 Site Prep	Excavators	1	8.00	162	0.38
P1 Site Prep	Rubber Tired Dozers	0	8.00	255	0.40
P1 Site Prep	Tractors/Loaders/Backhoes	1	8.00	97	0.37
P1 Grading	Excavators	0	8.00	162	0.38
P1 Grading	Graders	1	8.00	174	0.41
P1 Grading	Plate Compactors	1	8.00	8	0.43
P1 Grading	Rubber Tired Dozers	0	8.00	255	0.40
P1 Grading	Scrapers	1	8.00	361	0.48
P1 Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
P1 Building Improvements	Aerial Lifts	2	8.00	62	0.31
P1 Building Improvements	Cranes	1	7.00	226	0.29
P1 Building Improvements	Forklifts	2	8.00	89	0.20
P1 Building Improvements	Generator Sets	0	8.00	84	0.74
P1 Building Improvements	Tractors/Loaders/Backhoes	0	7.00	97	0.37
P1 Building Improvements	Welders	0	8.00	46	0.45
P1 Paving	Pavers	0	8.00	125	0.42
P1 Paving	Paving Equipment	1	8.00	130	0.36
P1 Paving	Rollers	2	8.00	80	0.38
P2 Site Prep	Excavators	1	8.00	162	0.38
P2 Site Prep	Rubber Tired Dozers	0	8.00	255	0.40
P2 Site Prep	Tractors/Loaders/Backhoes	1	8.00	97	0.37

P2 Building Construction	Aerial Lifts	2	8.00	62	0.31
P2 Building Construction	Cranes	1	7.00	226	0.29
P2 Building Construction	Forklifts	2	8.00	89	0.20
P2 Building Construction	Generator Sets	0	8.00	84	0.74
P2 Building Construction	Tractors/Loaders/Backhoes	0	7.00	97	0.37
P2 Building Construction	Welders	0	8.00	46	0.45
P2 Demo	Concrete/Industrial Saws	0	8.00	81	0.73
P2 Demo	Excavators	1	8.00	162	0.38
P2 Demo	Rubber Tired Dozers	0	8.00	255	0.40
P2 Demo	Tractors/Loaders/Backhoes	1	8.00	97	0.37
P2 Grading	Excavators	0	8.00	162	0.38
P2 Grading	Graders	1	8.00	174	0.41
P2 Grading	Plate Compactors	1	8.00	8	0.43
P2 Grading	Rubber Tired Dozers	0	8.00	255	0.40
P2 Grading	Scrapers	1	8.00	361	0.48
P2 Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
P2 Paving	Pavers	0	8.00	125	0.42
P2 Paving	Paving Equipment	1	8.00	130	0.36
P2 Paving	Rollers	2	8.00	80	0.38
P3 Demo	Concrete/Industrial Saws	0	8.00	81	0.73
P3 Demo	Excavators	1	8.00	162	0.38
P3 Demo	Rubber Tired Dozers	0	8.00	255	0.40
P3 Demo	Tractors/Loaders/Backhoes	1	8.00	97	0.37
P3 Site Prep	Excavators	1	8.00	162	0.38
P3 Site Prep	Rubber Tired Dozers	0	8.00	255	0.40
P3 Site Prep	Tractors/Loaders/Backhoes	1	8.00	97	0.37
P3 Building Construction	Aerial Lifts	2	8.00	62	0.31
P3 Building Construction	Cranes	1	7.00	226	0.29

P3 Building Construction	Forklifts	2	8.00	89	0.20
P3 Building Construction	Generator Sets	0	8.00	84	0.74
P3 Building Construction	Tractors/Loaders/Backhoes	0	7.00	97	0.37
P3 Building Construction	Welders	0	8.00	46	0.45
P3 Grading	Excavators	0	8.00	162	0.38
P3 Grading	Graders	1	8.00	174	0.41
P3 Grading	Plate Compactors	1	8.00	8	0.43
P3 Grading	Rubber Tired Dozers	0	8.00	255	0.40
P3 Grading	Scrapers	1	8.00	361	0.48
P3 Grading	Tractors/Loaders/Backhoes	0	8.00	97	0.37
P3 Paving	Pavers	0	8.00	125	0.42
P3 Paving	Paving Equipment	1	8.00	130	0.36
P3 Paving	Rollers	2	8.00	80	0.38

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
P1 Demo	3	8.00	0.00	682.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P1 Site Prep	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P1 Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P1 Building Improvements	5	161.00	66.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P1 Paving	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P2 Site Prep	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P2 Building Construction	5	224.00	92.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P2 Demo	2	5.00	0.00	965.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P2 Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P2 Paving	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P3 Demo	2	5.00	0.00	93.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P3 Site Prep	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P3 Building Construction	5	151.00	62.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P3 Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
P3 Paving	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 P1 Demo - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0738	0.0000	0.0738	0.0112	0.0000	0.0112			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0191	0.1998	0.1617	2.4000e-004		0.0112	0.0112		0.0103	0.0103			22.1967	6.8000e-003	0.0000	22.3396
Total	**0.0191**	**0.1998**	**0.1617**	**2.4000e-004**	**0.0738**	**0.0112**	**0.0850**	**0.0112**	**0.0103**	**0.0215**			**22.1967**	**6.8000e-003**	**0.0000**	**22.3396**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.1300e-003	0.0907	0.0729	2.5000e-004	5.8500e-003	1.2900e-003	7.1400e-003	1.6000e-003	1.1900e-003	2.7900e-003			22.5323	1.6000e-004	0.0000	22.5357
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	5.2000e-004	7.7000e-004	8.0700e-003	2.0000e-005	1.8400e-003	1.0000e-005	1.8600e-003	4.9000e-004	1.0000e-005	5.0000e-004			1.5981	8.0000e-005	0.0000	1.5996
Total	**6.6500e-003**	**0.0915**	**0.0810**	**2.7000e-004**	**7.6900e-003**	**1.3000e-003**	**9.0000e-003**	**2.0900e-003**	**1.2000e-003**	**3.2900e-003**			**24.1304**	**2.4000e-004**	**0.0000**	**24.1354**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0332	0.0000	0.0332	5.0200e-003	0.0000	5.0200e-003			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0191	0.1998	0.1617	2.4000e-004		0.0112	0.0112		0.0103	0.0103			22.1967	6.8000e-003	0.0000	22.3395
Total	**0.0191**	**0.1998**	**0.1617**	**2.4000e-004**	**0.0332**	**0.0112**	**0.0444**	**5.0200e-003**	**0.0103**	**0.0154**			**22.1967**	**6.8000e-003**	**0.0000**	**22.3395**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.1300e-003	0.0907	0.0729	2.5000e-004	5.8500e-003	1.2900e-003	7.1400e-003	1.6000e-003	1.1900e-003	2.7900e-003			22.5323	1.6000e-004	0.0000	22.5357
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	5.2000e-004	7.7000e-004	8.0700e-003	2.0000e-005	1.8400e-003	1.0000e-005	1.8600e-003	4.9000e-004	1.0000e-005	5.0000e-004			1.5981	8.0000e-005	0.0000	1.5996
Total	**6.6500e-003**	**0.0915**	**0.0810**	**2.7000e-004**	**7.6900e-003**	**1.3000e-003**	**9.0000e-003**	**2.0900e-003**	**1.2000e-003**	**3.2900e-003**			**24.1304**	**2.4000e-004**	**0.0000**	**24.1354**

3.3 P1 Site Prep - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	7.4700e-003	0.0777	0.0640	9.0000e-005		4.6900e-003	4.6900e-003		4.3200e-003	4.3200e-003			8.5772	2.6300e-003	0.0000	8.6324
Total	**7.4700e-003**	**0.0777**	**0.0640**	**9.0000e-005**	**0.0000**	**4.6900e-003**	**4.6900e-003**	**0.0000**	**4.3200e-003**	**4.3200e-003**			**8.5772**	**2.6300e-003**	**0.0000**	**8.6324**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	2.5000e-004	2.6400e-003	1.0000e-005	6.0000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.6000e-004			0.5232	2.0000e-005	0.0000	0.5237
Total	**1.7000e-004**	**2.5000e-004**	**2.6400e-003**	**1.0000e-005**	**6.0000e-004**	**0.0000**	**6.1000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**			**0.5232**	**2.0000e-005**	**0.0000**	**0.5237**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	7.4700e-003	0.0777	0.0640	9.0000e-005		4.6900e-003	4.6900e-003		4.3200e-003	4.3200e-003			8.5772	2.6300e-003	0.0000	8.6324
Total	**7.4700e-003**	**0.0777**	**0.0640**	**9.0000e-005**	**0.0000**	**4.6900e-003**	**4.6900e-003**	**0.0000**	**4.3200e-003**	**4.3200e-003**			**8.5772**	**2.6300e-003**	**0.0000**	**8.6324**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	1.7000e-004	2.5000e-004	2.6400e-003	1.0000e-005	6.0000e-004	0.0000	6.1000e-004	1.6000e-004	0.0000	1.6000e-004			0.5232	2.0000e-005	0.0000	0.5237
Total	**1.7000e-004**	**2.5000e-004**	**2.6400e-003**	**1.0000e-005**	**6.0000e-004**	**0.0000**	**6.1000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**			**0.5232**	**2.0000e-005**	**0.0000**	**0.5237**

3.4 P1 Grading - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0597	0.0000	0.0597	6.4400e-003	0.0000	6.4400e-003			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0516	0.5898	0.3431	4.9000e-004		0.0271	0.0271		0.0250	0.0250			44.8124	0.0136	0.0000	45.0978
Total	**0.0516**	**0.5898**	**0.3431**	**4.9000e-004**	**0.0597**	**0.0271**	**0.0868**	**6.4400e-003**	**0.0250**	**0.0314**			**44.8124**	**0.0136**	**0.0000**	**45.0978**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	5.6000e-004	8.3000e-004	8.6500e-003	2.0000e-005	1.9800e-003	1.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004			1.7122	8.0000e-005	0.0000	1.7139
Total	**5.6000e-004**	**8.3000e-004**	**8.6500e-003**	**2.0000e-005**	**1.9800e-003**	**1.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.4000e-004**			**1.7122**	**8.0000e-005**	**0.0000**	**1.7139**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0268	0.0000	0.0268	2.9000e-003	0.0000	2.9000e-003			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0516	0.5897	0.3431	4.9000e-004		0.0271	0.0271		0.0250	0.0250			44.8124	0.0136	0.0000	45.0977
Total	**0.0516**	**0.5897**	**0.3431**	**4.9000e-004**	**0.0268**	**0.0271**	**0.0540**	**2.9000e-003**	**0.0250**	**0.0279**			**44.8124**	**0.0136**	**0.0000**	**45.0977**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	5.6000e-004	8.3000e-004	8.6500e-003	2.0000e-005	1.9800e-003	1.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004			1.7122	8.0000e-005	0.0000	1.7139
Total	**5.6000e-004**	**8.3000e-004**	**8.6500e-003**	**2.0000e-005**	**1.9800e-003**	**1.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.4000e-004**			**1.7122**	**8.0000e-005**	**0.0000**	**1.7139**

3.5 P1 Building Improvements - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1129	1.2466	0.7352	1.1700e-003		0.0684	0.0684		0.0630	0.0630			109.0137	0.0334	0.0000	109.7151
Total	**0.1129**	**1.2466**	**0.7352**	**1.1700e-003**		**0.0684**	**0.0684**		**0.0630**	**0.0630**			**109.0137**	**0.0334**	**0.0000**	**109.7151**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0590	0.5634	0.7662	1.4800e-003	0.0423	8.4400e-003	0.0507	0.0121	7.7600e-003	0.0198			132.3667	9.4000e-004	0.0000	132.3865
Worker	0.0520	0.0770	0.8043	2.1800e-003	0.1838	1.2800e-003	0.1851	0.0488	1.1800e-003	0.0500			159.2725	7.5200e-003	0.0000	159.4304
Total	**0.1110**	**0.6404**	**1.5704**	**3.6600e-003**	**0.2261**	**9.7200e-003**	**0.2358**	**0.0609**	**8.9400e-003**	**0.0698**			**291.6391**	**8.4600e-003**	**0.0000**	**291.8168**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1129	1.2466	0.7352	1.1700e-003		0.0684	0.0684		0.0630	0.0630			109.0136	0.0334	0.0000	109.7150
Total	**0.1129**	**1.2466**	**0.7352**	**1.1700e-003**		**0.0684**	**0.0684**		**0.0630**	**0.0630**			**109.0136**	**0.0334**	**0.0000**	**109.7150**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0590	0.5634	0.7662	1.4800e-003	0.0423	8.4400e-003	0.0507	0.0121	7.7600e-003	0.0198			132.3667	9.4000e-004	0.0000	132.3865
Worker	0.0520	0.0770	0.8043	2.1800e-003	0.1838	1.2800e-003	0.1851	0.0488	1.1800e-003	0.0500			159.2725	7.5200e-003	0.0000	159.4304
Total	**0.1110**	**0.6404**	**1.5704**	**3.6600e-003**	**0.2261**	**9.7200e-003**	**0.2358**	**0.0609**	**8.9400e-003**	**0.0698**			**291.6391**	**8.4600e-003**	**0.0000**	**291.8168**

3.6 P1 Paving - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.9500e-003	0.0992	0.0717	1.0000e-004		6.3900e-003	6.3900e-003		5.8800e-003	5.8800e-003			9.4469	2.8900e-003	0.0000	9.5077
Paving	5.2100e-003					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total	**0.0152**	**0.0992**	**0.0717**	**1.0000e-004**		**6.3900e-003**	**6.3900e-003**		**5.8800e-003**	**5.8800e-003**			**9.4469**	**2.8900e-003**	**0.0000**	**9.5077**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	4.0000e-004	4.2300e-003	1.0000e-005	9.7000e-004	1.0000e-005	9.7000e-004	2.6000e-004	1.0000e-005	2.6000e-004			0.8371	4.0000e-005	0.0000	0.8379
Total	**2.7000e-004**	**4.0000e-004**	**4.2300e-003**	**1.0000e-005**	**9.7000e-004**	**1.0000e-005**	**9.7000e-004**	**2.6000e-004**	**1.0000e-005**	**2.6000e-004**			**0.8371**	**4.0000e-005**	**0.0000**	**0.8379**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.9500e-003	0.0992	0.0717	1.0000e-004		6.3900e-003	6.3900e-003		5.8800e-003	5.8800e-003			9.4469	2.8900e-003	0.0000	9.5077
Paving	5.2100e-003					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total	**0.0152**	**0.0992**	**0.0717**	**1.0000e-004**		**6.3900e-003**	**6.3900e-003**		**5.8800e-003**	**5.8800e-003**			**9.4469**	**2.8900e-003**	**0.0000**	**9.5077**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	2.7000e-004	4.0000e-004	4.2300e-003	1.0000e-005	9.7000e-004	1.0000e-005	9.7000e-004	2.6000e-004	1.0000e-005	2.6000e-004			0.8371	4.0000e-005	0.0000	0.8379
Total	**2.7000e-004**	**4.0000e-004**	**4.2300e-003**	**1.0000e-005**	**9.7000e-004**	**1.0000e-005**	**9.7000e-004**	**2.6000e-004**	**1.0000e-005**	**2.6000e-004**			**0.8371**	**4.0000e-005**	**0.0000**	**0.8379**

3.7 P2 Site Prep - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	5.9100e-003	0.0609	0.0598	9.0000e-005		3.5700e-003	3.5700e-003		3.2900e-003	3.2900e-003			8.0539	2.5100e-003	0.0000	8.1066
Total	**5.9100e-003**	**0.0609**	**0.0598**	**9.0000e-005**	**0.0000**	**3.5700e-003**	**3.5700e-003**	**0.0000**	**3.2900e-003**	**3.2900e-003**			**8.0539**	**2.5100e-003**	**0.0000**	**8.1066**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	2.2000e-004	2.3000e-003	1.0000e-005	5.8000e-004	0.0000	5.8000e-004	1.5000e-004	0.0000	1.6000e-004			0.4807	2.0000e-005	0.0000	0.4811
Total	**1.5000e-004**	**2.2000e-004**	**2.3000e-003**	**1.0000e-005**	**5.8000e-004**	**0.0000**	**5.8000e-004**	**1.5000e-004**	**0.0000**	**1.6000e-004**			**0.4807**	**2.0000e-005**	**0.0000**	**0.4811**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	5.9100e-003	0.0609	0.0598	9.0000e-005		3.5700e-003	3.5700e-003		3.2900e-003	3.2900e-003			8.0539	2.5100e-003	0.0000	8.1066
Total	**5.9100e-003**	**0.0609**	**0.0598**	**9.0000e-005**	**0.0000**	**3.5700e-003**	**3.5700e-003**	**0.0000**	**3.2900e-003**	**3.2900e-003**			**8.0539**	**2.5100e-003**	**0.0000**	**8.1066**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	2.2000e-004	2.3000e-003	1.0000e-005	5.8000e-004	0.0000	5.8000e-004	1.5000e-004	0.0000	1.6000e-004			0.4807	2.0000e-005	0.0000	0.4811
Total	**1.5000e-004**	**2.2000e-004**	**2.3000e-003**	**1.0000e-005**	**5.8000e-004**	**0.0000**	**5.8000e-004**	**1.5000e-004**	**0.0000**	**1.6000e-004**			**0.4807**	**2.0000e-005**	**0.0000**	**0.4811**

3.8 P2 Building Construction - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0705	0.7894	0.5114	8.6000e-004		0.0413	0.0413		0.0380	0.0380			78.4004	0.0244	0.0000	78.9129
Total	**0.0705**	**0.7894**	**0.5114**	**8.6000e-004**		**0.0413**	**0.0413**		**0.0380**	**0.0380**			**78.4004**	**0.0244**	**0.0000**	**78.9129**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0562	0.5266	0.7451	1.5000e-003	0.0431	8.0900e-003	0.0511	0.0123	7.4400e-003	0.0197			132.5448	9.5000e-004	0.0000	132.5648
Worker	0.0481	0.0714	0.7471	2.2200e-003	0.1869	1.2800e-003	0.1882	0.0496	1.1900e-003	0.0508			155.8640	7.1400e-003	0.0000	156.0138
Total	**0.1043**	**0.5980**	**1.4922**	**3.7200e-003**	**0.2299**	**9.3700e-003**	**0.2393**	**0.0619**	**8.6300e-003**	**0.0706**			**288.4088**	**8.0900e-003**	**0.0000**	**288.5786**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0705	0.7894	0.5114	8.6000e-004		0.0413	0.0413		0.0380	0.0380			78.4003	0.0244	0.0000	78.9128
Total	**0.0705**	**0.7894**	**0.5114**	**8.6000e-004**		**0.0413**	**0.0413**		**0.0380**	**0.0380**			**78.4003**	**0.0244**	**0.0000**	**78.9128**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0562	0.5266	0.7451	1.5000e-003	0.0431	8.0900e-003	0.0511	0.0123	7.4400e-003	0.0197			132.5448	9.5000e-004	0.0000	132.5648
Worker	0.0481	0.0714	0.7471	2.2200e-003	0.1869	1.2800e-003	0.1882	0.0496	1.1900e-003	0.0508			155.8640	7.1400e-003	0.0000	156.0138
Total	**0.1043**	**0.5980**	**1.4922**	**3.7200e-003**	**0.2299**	**9.3700e-003**	**0.2393**	**0.0619**	**8.6300e-003**	**0.0706**			**288.4088**	**8.0900e-003**	**0.0000**	**288.5786**

3.8 P2 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0453	0.5090	0.3544	6.2000e-004		0.0257	0.0257		0.0237	0.0237			55.3163	0.0175	0.0000	55.6838
Total	**0.0453**	**0.5090**	**0.3544**	**6.2000e-004**		**0.0257**	**0.0257**		**0.0237**	**0.0237**			**55.3163**	**0.0175**	**0.0000**	**55.6838**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0376	0.3501	0.5094	1.0800e-003	0.0309	5.4100e-003	0.0363	8.8100e-003	4.9800e-003	0.0138			93.7276	6.9000e-004	0.0000	93.7420
Worker	0.0322	0.0475	0.4991	1.6000e-003	0.1340	9.3000e-004	0.1350	0.0356	8.6000e-004	0.0365			108.2828	4.8900e-003	0.0000	108.3854
Total	**0.0699**	**0.3975**	**1.0086**	**2.6800e-003**	**0.1649**	**6.3400e-003**	**0.1712**	**0.0444**	**5.8400e-003**	**0.0502**			**202.0104**	**5.5800e-003**	**0.0000**	**202.1274**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0453	0.5090	0.3544	6.2000e-004		0.0257	0.0257		0.0237	0.0237			55.3162	0.0175	0.0000	55.6838
Total	**0.0453**	**0.5090**	**0.3544**	**6.2000e-004**		**0.0257**	**0.0257**		**0.0237**	**0.0237**			**55.3162**	**0.0175**	**0.0000**	**55.6838**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0376	0.3501	0.5094	1.0800e-003	0.0309	5.4100e-003	0.0363	8.8100e-003	4.9800e-003	0.0138			93.7276	6.9000e-004	0.0000	93.7420
Worker	0.0322	0.0475	0.4991	1.6000e-003	0.1340	9.3000e-004	0.1350	0.0356	8.6000e-004	0.0365			108.2828	4.8900e-003	0.0000	108.3854
Total	**0.0699**	**0.3975**	**1.0086**	**2.6800e-003**	**0.1649**	**6.3400e-003**	**0.1712**	**0.0444**	**5.8400e-003**	**0.0502**			**202.0104**	**5.5800e-003**	**0.0000**	**202.1274**

3.9 P2 Demo - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1045	0.0000	0.1045	0.0158	0.0000	0.0158			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0115	0.1190	0.1168	1.7000e-004		6.9800e-003	6.9800e-003		6.4200e-003	6.4200e-003			15.7243	4.9000e-003	0.0000	15.8271
Total	**0.0115**	**0.1190**	**0.1168**	**1.7000e-004**	**0.1045**	**6.9800e-003**	**0.1115**	**0.0158**	**6.4200e-003**	**0.0222**			**15.7243**	**4.9000e-003**	**0.0000**	**15.8271**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.3800e-003	0.1191	0.1004	3.5000e-004	8.2800e-003	1.8300e-003	0.0101	2.2700e-003	1.6800e-003	3.9500e-003			31.3490	2.3000e-004	0.0000	31.3538
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	2.9000e-004	4.3000e-004	4.5000e-003	1.0000e-005	1.1300e-003	1.0000e-005	1.1300e-003	3.0000e-004	1.0000e-005	3.1000e-004			0.9384	4.0000e-005	0.0000	0.9394
Total	**8.6700e-003**	**0.1195**	**0.1049**	**3.6000e-004**	**9.4100e-003**	**1.8400e-003**	**0.0112**	**2.5700e-003**	**1.6900e-003**	**4.2600e-003**			**32.2874**	**2.7000e-004**	**0.0000**	**32.2932**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0470	0.0000	0.0470	7.1200e-003	0.0000	7.1200e-003			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0115	0.1190	0.1168	1.7000e-004		6.9800e-003	6.9800e-003		6.4200e-003	6.4200e-003			15.7243	4.9000e-003	0.0000	15.8271
Total	**0.0115**	**0.1190**	**0.1168**	**1.7000e-004**	**0.0470**	**6.9800e-003**	**0.0540**	**7.1200e-003**	**6.4200e-003**	**0.0135**			**15.7243**	**4.9000e-003**	**0.0000**	**15.8271**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.3800e-003	0.1191	0.1004	3.5000e-004	8.2800e-003	1.8300e-003	0.0101	2.2700e-003	1.6800e-003	3.9500e-003			31.3490	2.3000e-004	0.0000	31.3538
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	2.9000e-004	4.3000e-004	4.5000e-003	1.0000e-005	1.1300e-003	1.0000e-005	1.1300e-003	3.0000e-004	1.0000e-005	3.1000e-004			0.9384	4.0000e-005	0.0000	0.9394
Total	**8.6700e-003**	**0.1195**	**0.1049**	**3.6000e-004**	**9.4100e-003**	**1.8400e-003**	**0.0112**	**2.5700e-003**	**1.6900e-003**	**4.2600e-003**			**32.2874**	**2.7000e-004**	**0.0000**	**32.2932**

3.10 P2 Grading - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0597	0.0000	0.0597	6.4400e-003	0.0000	6.4400e-003			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0450	0.5067	0.3042	4.9000e-004		0.0231	0.0231		0.0213	0.0213			44.0925	0.0136	0.0000	44.3776
Total	**0.0450**	**0.5067**	**0.3042**	**4.9000e-004**	**0.0597**	**0.0231**	**0.0828**	**6.4400e-003**	**0.0213**	**0.0277**			**44.0925**	**0.0136**	**0.0000**	**44.3776**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	5.1000e-004	7.5000e-004	7.9000e-003	2.0000e-005	1.9800e-003	1.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004			1.6480	8.0000e-005	0.0000	1.6496
Total	**5.1000e-004**	**7.5000e-004**	**7.9000e-003**	**2.0000e-005**	**1.9800e-003**	**1.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.4000e-004**			**1.6480**	**8.0000e-005**	**0.0000**	**1.6496**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0268	0.0000	0.0268	2.9000e-003	0.0000	2.9000e-003			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0450	0.5067	0.3042	4.9000e-004		0.0231	0.0231		0.0213	0.0213			44.0924	0.0136	0.0000	44.3776
Total	**0.0450**	**0.5067**	**0.3042**	**4.9000e-004**	**0.0268**	**0.0231**	**0.0500**	**2.9000e-003**	**0.0213**	**0.0242**			**44.0924**	**0.0136**	**0.0000**	**44.3776**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	5.1000e-004	7.5000e-004	7.9000e-003	2.0000e-005	1.9800e-003	1.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004			1.6480	8.0000e-005	0.0000	1.6496
Total	**5.1000e-004**	**7.5000e-004**	**7.9000e-003**	**2.0000e-005**	**1.9800e-003**	**1.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.4000e-004**			**1.6480**	**8.0000e-005**	**0.0000**	**1.6496**

3.11 P2 Paving - 2018

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.8700e-003	0.0799	0.0669	1.0000e-004		4.9500e-003	4.9500e-003		4.5500e-003	4.5500e-003			8.8740	2.7600e-003	0.0000	8.9320
Paving	5.2100e-003					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total	**0.0131**	**0.0799**	**0.0669**	**1.0000e-004**		**4.9500e-003**	**4.9500e-003**		**4.5500e-003**	**4.5500e-003**			**8.8740**	**2.7600e-003**	**0.0000**	**8.9320**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	3.5000e-004	3.6900e-003	1.0000e-005	9.2000e-004	1.0000e-005	9.3000e-004	2.4000e-004	1.0000e-005	2.5000e-004			0.7691	4.0000e-005	0.0000	0.7698
Total	**2.4000e-004**	**3.5000e-004**	**3.6900e-003**	**1.0000e-005**	**9.2000e-004**	**1.0000e-005**	**9.3000e-004**	**2.4000e-004**	**1.0000e-005**	**2.5000e-004**			**0.7691**	**4.0000e-005**	**0.0000**	**0.7698**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.8700e-003	0.0799	0.0669	1.0000e-004		4.9500e-003	4.9500e-003		4.5500e-003	4.5500e-003			8.8739	2.7600e-003	0.0000	8.9320
Paving	5.2100e-003					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total	**0.0131**	**0.0799**	**0.0669**	**1.0000e-004**		**4.9500e-003**	**4.9500e-003**		**4.5500e-003**	**4.5500e-003**			**8.8739**	**2.7600e-003**	**0.0000**	**8.9320**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	3.5000e-004	3.6900e-003	1.0000e-005	9.2000e-004	1.0000e-005	9.3000e-004	2.4000e-004	1.0000e-005	2.5000e-004			0.7691	4.0000e-005	0.0000	0.7698
Total	**2.4000e-004**	**3.5000e-004**	**3.6900e-003**	**1.0000e-005**	**9.2000e-004**	**1.0000e-005**	**9.3000e-004**	**2.4000e-004**	**1.0000e-005**	**2.5000e-004**			**0.7691**	**4.0000e-005**	**0.0000**	**0.7698**

3.12 P3 Demo - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0101	0.0000	0.0101	1.5300e-003	0.0000	1.5300e-003			0.0000	0.0000	0.0000	0.0000
Off-Road	8.6600e-003	0.0841	0.1151	1.7000e-004		4.4900e-003	4.4900e-003		4.1300e-003	4.1300e-003			15.1336	4.8900e-003	0.0000	15.2364
Total	**8.6600e-003**	**0.0841**	**0.1151**	**1.7000e-004**	**0.0101**	**4.4900e-003**	**0.0146**	**1.5300e-003**	**4.1300e-003**	**5.6600e-003**			**15.1336**	**4.8900e-003**	**0.0000**	**15.2364**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.4000e-004	8.4300e-003	9.0200e-003	3.0000e-005	8.0000e-004	1.7000e-004	9.7000e-004	2.2000e-004	1.6000e-004	3.8000e-004			2.9085	2.0000e-005	0.0000	2.9090
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	3.5000e-004	3.7100e-003	1.0000e-005	1.1300e-003	1.0000e-005	1.1300e-003	3.0000e-004	1.0000e-005	3.1000e-004			0.8584	4.0000e-005	0.0000	0.8592
Total	**9.8000e-004**	**8.7800e-003**	**0.0127**	**4.0000e-005**	**1.9300e-003**	**1.8000e-004**	**2.1000e-003**	**5.2000e-004**	**1.7000e-004**	**6.9000e-004**			**3.7669**	**6.0000e-005**	**0.0000**	**3.7681**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.5400e-003	0.0000	4.5400e-003	6.9000e-004	0.0000	6.9000e-004			0.0000	0.0000	0.0000	0.0000
Off-Road	8.6600e-003	0.0841	0.1151	1.7000e-004		4.4900e-003	4.4900e-003		4.1300e-003	4.1300e-003			15.1336	4.8900e-003	0.0000	15.2364
Total	**8.6600e-003**	**0.0841**	**0.1151**	**1.7000e-004**	**4.5400e-003**	**4.4900e-003**	**9.0300e-003**	**6.9000e-004**	**4.1300e-003**	**4.8200e-003**			**15.1336**	**4.8900e-003**	**0.0000**	**15.2364**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.4000e-004	8.4300e-003	9.0200e-003	3.0000e-005	8.0000e-004	1.7000e-004	9.7000e-004	2.2000e-004	1.6000e-004	3.8000e-004			2.9085	2.0000e-005	0.0000	2.9090
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	3.5000e-004	3.7100e-003	1.0000e-005	1.1300e-003	1.0000e-005	1.1300e-003	3.0000e-004	1.0000e-005	3.1000e-004			0.8584	4.0000e-005	0.0000	0.8592
Total	**9.8000e-004**	**8.7800e-003**	**0.0127**	**4.0000e-005**	**1.9300e-003**	**1.8000e-004**	**2.1000e-003**	**5.2000e-004**	**1.7000e-004**	**6.9000e-004**			**3.7669**	**6.0000e-005**	**0.0000**	**3.7681**

3.13 P3 Site Prep - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	4.4300e-003	0.0431	0.0590	9.0000e-005		2.3000e-003	2.3000e-003		2.1100e-003	2.1100e-003			7.7514	2.5100e-003	0.0000	7.8040
Total	**4.4300e-003**	**0.0431**	**0.0590**	**9.0000e-005**	**0.0000**	**2.3000e-003**	**2.3000e-003**	**0.0000**	**2.1100e-003**	**2.1100e-003**			**7.7514**	**2.5100e-003**	**0.0000**	**7.8040**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	1.8000e-004	1.9000e-003	1.0000e-005	5.8000e-004	0.0000	5.8000e-004	1.5000e-004	0.0000	1.6000e-004			0.4397	2.0000e-005	0.0000	0.4401
Total	**1.2000e-004**	**1.8000e-004**	**1.9000e-003**	**1.0000e-005**	**5.8000e-004**	**0.0000**	**5.8000e-004**	**1.5000e-004**	**0.0000**	**1.6000e-004**			**0.4397**	**2.0000e-005**	**0.0000**	**0.4401**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Off-Road	4.4300e-003	0.0431	0.0590	9.0000e-005		2.3000e-003	2.3000e-003		2.1100e-003	2.1100e-003			7.7514	2.5100e-003	0.0000	7.8040
Total	**4.4300e-003**	**0.0431**	**0.0590**	**9.0000e-005**	**0.0000**	**2.3000e-003**	**2.3000e-003**	**0.0000**	**2.1100e-003**	**2.1100e-003**			**7.7514**	**2.5100e-003**	**0.0000**	**7.8040**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	1.8000e-004	1.9000e-003	1.0000e-005	5.8000e-004	0.0000	5.8000e-004	1.5000e-004	0.0000	1.6000e-004			0.4397	2.0000e-005	0.0000	0.4401
Total	**1.2000e-004**	**1.8000e-004**	**1.9000e-003**	**1.0000e-005**	**5.8000e-004**	**0.0000**	**5.8000e-004**	**1.5000e-004**	**0.0000**	**1.6000e-004**			**0.4397**	**2.0000e-005**	**0.0000**	**0.4401**

3.14 P3 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0895	1.0038	0.8073	1.4700e-003		0.0468	0.0468		0.0430	0.0430			129.5697	0.0419	0.0000	130.4497
Total	**0.0895**	**1.0038**	**0.8073**	**1.4700e-003**		**0.0468**	**0.0468**		**0.0430**	**0.0430**			**129.5697**	**0.0419**	**0.0000**	**130.4497**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0540	0.4182	0.7641	1.7400e-003	0.0498	7.2500e-003	0.0571	0.0142	6.6700e-003	0.0209			147.6896	1.1000e-003	0.0000	147.7126
Worker	0.0468	0.0672	0.7132	2.5800e-003	0.2163	1.5200e-003	0.2179	0.0575	1.4100e-003	0.0589			165.0220	7.2100e-003	0.0000	165.1733
Total	**0.1008**	**0.4854**	**1.4773**	**4.3200e-003**	**0.2662**	**8.7700e-003**	**0.2749**	**0.0717**	**8.0800e-003**	**0.0798**			**312.7115**	**8.3100e-003**	**0.0000**	**312.8859**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0895	1.0038	0.8073	1.4700e-003		0.0468	0.0468		0.0430	0.0430			129.5695	0.0419	0.0000	130.4495
Total	**0.0895**	**1.0038**	**0.8073**	**1.4700e-003**		**0.0468**	**0.0468**		**0.0430**	**0.0430**			**129.5695**	**0.0419**	**0.0000**	**130.4495**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0540	0.4182	0.7641	1.7400e-003	0.0498	7.2500e-003	0.0571	0.0142	6.6700e-003	0.0209			147.6896	1.1000e-003	0.0000	147.7126
Worker	0.0468	0.0672	0.7132	2.5800e-003	0.2163	1.5200e-003	0.2179	0.0575	1.4100e-003	0.0589			165.0220	7.2100e-003	0.0000	165.1733
Total	**0.1008**	**0.4854**	**1.4773**	**4.3200e-003**	**0.2662**	**8.7700e-003**	**0.2749**	**0.0717**	**8.0800e-003**	**0.0798**			**312.7115**	**8.3100e-003**	**0.0000**	**312.8859**

3.15 P3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0597	0.0000	0.0597	6.4400e-003	0.0000	6.4400e-003			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0358	0.3795	0.2605	4.9000e-004		0.0171	0.0171		0.0157	0.0157			42.4662	0.0136	0.0000	42.7514
Total	**0.0358**	**0.3795**	**0.2605**	**4.9000e-004**	**0.0597**	**0.0171**	**0.0767**	**6.4400e-003**	**0.0157**	**0.0222**			**42.4662**	**0.0136**	**0.0000**	**42.7514**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	4.3000e-004	6.1000e-004	6.5100e-003	2.0000e-005	1.9800e-003	1.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004			1.5074	7.0000e-005	0.0000	1.5088
Total	**4.3000e-004**	**6.1000e-004**	**6.5100e-003**	**2.0000e-005**	**1.9800e-003**	**1.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.4000e-004**			**1.5074**	**7.0000e-005**	**0.0000**	**1.5088**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0268	0.0000	0.0268	2.9000e-003	0.0000	2.9000e-003			0.0000	0.0000	0.0000	0.0000
Off-Road	0.0358	0.3795	0.2605	4.9000e-004		0.0171	0.0171		0.0157	0.0157			42.4662	0.0136	0.0000	42.7513
Total	**0.0358**	**0.3795**	**0.2605**	**4.9000e-004**	**0.0268**	**0.0171**	**0.0439**	**2.9000e-003**	**0.0157**	**0.0186**			**42.4662**	**0.0136**	**0.0000**	**42.7513**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	4.3000e-004	6.1000e-004	6.5100e-003	2.0000e-005	1.9800e-003	1.0000e-005	1.9900e-003	5.2000e-004	1.0000e-005	5.4000e-004			1.5074	7.0000e-005	0.0000	1.5088
Total	**4.3000e-004**	**6.1000e-004**	**6.5100e-003**	**2.0000e-005**	**1.9800e-003**	**1.0000e-005**	**1.9900e-003**	**5.2000e-004**	**1.0000e-005**	**5.4000e-004**			**1.5074**	**7.0000e-005**	**0.0000**	**1.5088**

3.16 P3 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.3400e-003	0.0542	0.0654	1.0000e-004		2.9700e-003	2.9700e-003		2.7300e-003	2.7300e-003			8.5415	2.7600e-003	0.0000	8.5995
Paving	5.2100e-003					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total	**0.0106**	**0.0542**	**0.0654**	**1.0000e-004**		**2.9700e-003**	**2.9700e-003**		**2.7300e-003**	**2.7300e-003**			**8.5415**	**2.7600e-003**	**0.0000**	**8.5995**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	2.7000e-004	2.8800e-003	1.0000e-005	9.2000e-004	1.0000e-005	9.3000e-004	2.4000e-004	1.0000e-005	2.5000e-004			0.6920	3.0000e-005	0.0000	0.6926
Total	**1.9000e-004**	**2.7000e-004**	**2.8800e-003**	**1.0000e-005**	**9.2000e-004**	**1.0000e-005**	**9.3000e-004**	**2.4000e-004**	**1.0000e-005**	**2.5000e-004**			**0.6920**	**3.0000e-005**	**0.0000**	**0.6926**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	5.3400e-003	0.0542	0.0654	1.0000e-004		2.9700e-003	2.9700e-003		2.7300e-003	2.7300e-003			8.5414	2.7600e-003	0.0000	8.5995
Paving	5.2100e-003					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total	**0.0106**	**0.0542**	**0.0654**	**1.0000e-004**		**2.9700e-003**	**2.9700e-003**		**2.7300e-003**	**2.7300e-003**			**8.5414**	**2.7600e-003**	**0.0000**	**8.5995**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Worker	1.9000e-004	2.7000e-004	2.8800e-003	1.0000e-005	9.2000e-004	1.0000e-005	9.3000e-004	2.4000e-004	1.0000e-005	2.5000e-004			0.6920	3.0000e-005	0.0000	0.6926
Total	**1.9000e-004**	**2.7000e-004**	**2.8800e-003**	**1.0000e-005**	**9.2000e-004**	**1.0000e-005**	**9.3000e-004**	**2.4000e-004**	**1.0000e-005**	**2.5000e-004**			**0.6920**	**3.0000e-005**	**0.0000**	**0.6926**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.3601	5.2522	25.7633	0.0924	6.6639	0.0926	6.7566	1.7809	0.0856	1.8665			6,238.8026	0.2145	0.0000	6,243.3065
Unmitigated	2.3601	5.2522	25.7633	0.0924	6.6639	0.0926	6.7566	1.7809	0.0856	1.8665			6,238.8026	0.2145	0.0000	6,243.3065

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	3,253.85	699.15	289.10	7,942,052	7,942,052
General Office Building	2,371.45	509.55	210.70	5,788,275	5,788,275
General Office Building	1,599.35	343.65	142.10	3,903,720	3,903,720
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unenclosed Parking with Elevator	0.00	0.00	0.00		
Unenclosed Parking with Elevator	0.00	0.00	0.00		
Unenclosed Parking with Elevator	0.00	0.00	0.00		
Total	7,224.65	1,552.35	641.90	17,634,047	17,634,047

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unenclosed Parking with	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unenclosed Parking with	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Unenclosed Parking with	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.505043	0.056653	0.194832	0.151784	0.042126	0.005989	0.016072	0.016505	0.001461	0.002178	0.004464	0.000494	0.002401

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

Exceed Title 24

Install Energy Efficient Appliances

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000			2,795.7270	0.1538	0.0318	2,808.8225
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000			3,064.4389	0.1686	0.0349	3,078.7931
NaturalGas Mitigated	0.0247	0.2243	0.1884	1.3500e-003		0.0171	0.0171		0.0171	0.0171			244.2005	4.6800e-003	4.4800e-003	245.6867
NaturalGas Unmitigated	0.0339	0.3079	0.2587	1.8500e-003		0.0234	0.0234		0.0234	0.0234			335.2021	6.4200e-003	6.1500e-003	337.2421

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	1.39055e+006	7.5000e-003	0.0682	0.0573	4.1000e-004		5.1800e-003	5.1800e-003		5.1800e-003	5.1800e-003			74.2050	1.4200e-003	1.3600e-003	74.6566
General Office Building	2.06185e+006	0.0111	0.1011	0.0849	6.1000e-004		7.6800e-003	7.6800e-003		7.6800e-003	7.6800e-003			110.0282	2.1100e-003	2.0200e-003	110.6978
General Office Building	2.82905e+006	0.0153	0.1387	0.1165	8.3000e-004		0.0105	0.0105		0.0105	0.0105			150.9689	2.8900e-003	2.7700e-003	151.8877
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Total		**0.0339**	**0.3079**	**0.2587**	**1.8500e-003**		**0.0234**	**0.0234**		**0.0234**	**0.0234**			**335.2021**	**6.4200e-003**	**6.1500e-003**	**337.2421**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	2.06101e+006	0.0111	0.1010	0.0849	6.1000e-004		7.6800e-003	7.6800e-003		7.6800e-003	7.6800e-003			109.9834	2.1100e-003	2.0200e-003	110.6528
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
General Office Building	1.01304e+006	5.4600e-003	0.0497	0.0417	3.0000e-004		3.7700e-003	3.7700e-003		3.7700e-003	3.7700e-003			54.0597	1.0400e-003	9.9000e-004	54.3887
General Office Building	1.50209e+006	8.1000e-003	0.0736	0.0619	4.4000e-004		5.6000e-003	5.6000e-003		5.6000e-003	5.6000e-003			80.1574	1.5400e-003	1.4700e-003	80.6452
Total		**0.0247**	**0.2243**	**0.1884**	**1.3500e-003**		**0.0171**	**0.0171**		**0.0171**	**0.0171**			**244.2005**	**4.6900e-003**	**4.4800e-003**	**245.6867**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	2.2649e+006	541.5116	0.0298	6.1600e-003	544.0481
General Office Building	3.3583e+006	802.9310	0.0442	9.1400e-003	806.6921
General Office Building	4.6079e+006	1,101.6961	0.0606	0.0125	1,106.8566
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	105600	25.2478	1.3900e-003	2.9000e-004	25.3660
Unenclosed Parking with Elevator	654240	156.4213	8.6100e-003	1.7800e-003	157.1540
Unenclosed Parking with Elevator	856152	204.6961	0.0113	2.3300e-003	205.6550
Unenclosed Parking with Elevator	970080	231.9350	0.0128	2.6400e-003	233.0214
Total		**3,064.4389**	**0.1686**	**0.0349**	**3,078.7931**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	2.0161e+006	482.0258	0.0265	5.4900e-003	484.2837
General Office Building	2.98939e+006	714.7279	0.0393	8.1400e-003	718.0758
General Office Building	4.10172e+006	980.6731	0.0540	0.0112	985.2667
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	105600	25.2478	1.3900e-003	2.9000e-004	25.3660
Unenclosed Parking with Elevator	654240	156.4213	8.6100e-003	1.7800e-003	157.1540
Unenclosed Parking with Elevator	856152	204.6961	0.0113	2.3300e-003	205.6550
Unenclosed Parking with Elevator	970080	231.9350	0.0128	2.6400e-003	233.0214
Total		**2,795.7270**	**0.1538**	**0.0318**	**2,808.8225**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	6.7173	3.7000e-004	0.0405	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004			0.0786	2.1000e-004	0.0000	0.0829
Unmitigated	6.7173	3.7000e-004	0.0405	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004			0.0786	2.1000e-004	0.0000	0.0829

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4275					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Consumer Products	6.2860					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Landscaping	3.7600e-003	3.7000e-004	0.0405	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004			0.0786	2.1000e-004	0.0000	0.0829
Total	**6.7173**	**3.7000e-004**	**0.0405**	**0.0000**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**			**0.0786**	**2.1000e-004**	**0.0000**	**0.0829**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.4275					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Consumer Products	6.2860					0.0000	0.0000		0.0000	0.0000			0.0000	0.0000	0.0000	0.0000
Landscaping	3.7600e-003	3.7000e-004	0.0405	0.0000		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004			0.0786	2.1000e-004	0.0000	0.0829
Total	**6.7173**	**3.7000e-004**	**0.0405**	**0.0000**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**			**0.0786**	**2.1000e-004**	**0.0000**	**0.0829**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Use Water Efficient Irrigation System

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	118.4405	1.0429	0.0257	148.3028
Unmitigated	146.3378	1.3038	0.0321	183.6777

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	39.785 / 3.71132	146.3378	1.3038	0.0321	183.6777
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**146.3378**	**1.3038**	**0.0321**	**183.6777**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	31.828 / 3.48493	118.4405	1.0429	0.0257	148.3028
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**118.4405**	**1.0429**	**0.0257**	**148.3028**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	47.9038	2.8310	0.0000	107.3556
Unmitigated	95.8077	5.6621	0.0000	214.7112

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	471.98	95.8077	5.6621	0.0000	214.7112
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Total		**95.8077**	**5.6621**	**0.0000**	**214.7112**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	235.99	47.9038	2.8310	0.0000	107.3556
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unenclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
Total		**47.9038**	**2.8310**	**0.0000**	**107.3556**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Generator Sets	1	1.00	52	84	0.74	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Generator Sets	1.0700e-003	9.5200e-003	0.0120	2.0000e-005		4.8000e-004	4.8000e-004		4.8000e-004	4.8000e-004			1.8369	9.0000e-005	0.0000	1.8388
Total	**1.0700e-003**	**9.5200e-003**	**0.0120**	**2.0000e-005**		**4.8000e-004**	**4.8000e-004**		**4.8000e-004**	**4.8000e-004**			**1.8369**	**9.0000e-005**	**0.0000**	**1.8388**

10.0 Vegetation

	Total CO2	CH4	N2O	CO2e
Category	MT			
Unmitigated	252.0480	0.0000	0.0000	252.0480

10.2 Net New Trees

Species Class

	Number of Trees	Total CO2	CH4	N2O	CO2e
		MT			
Miscellaneous	356	252.0480	0.0000	0.0000	252.0480
Total		**252.0480**	**0.0000**	**0.0000**	**252.0480**

APPENDIX B

PHASE I ENVIRONMENTAL SITE ASSESSMENT AND GROUNDWATER MONITORING AND REMEDIAL PROGRESS REPORT

CONFIDENTIAL

PHASE I ENVIRONMENTAL SITE ASSESSMENT

FORMER LOS ANGELES TIMES FACILITY
1375 SUNFLOWER AVENUE
COSTA MESA, CALIFORNIA

PREPARED FOR:
TRIBUNE MEDIA COMPANY

PREPARED BY:
RPS GAIATECH

JULY 2015

RPS GAIATECH PROJECT NO. 158195.611.00

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EXECUTIVE SUMMARY

Tribune Media Company retained GaiaTech Incorporated dba RPS GaiaTech to conduct a Phase I Environmental Site Assessment (ESA) of the Former Los Angeles Times Facility located at 1375 Sunflower Avenue in Costa Mesa, Orange County, California (the site). RPS GaiaTech conducted the Phase I ESA to identify Recognized Environmental Conditions (RECs), as defined by the ASTM International (ASTM) *Standard Practice for Environmental Site Assessments* – E 1527-13 (ASTM-13). RPS GaiaTech performed the Phase I ESA to constitute all appropriate inquiry consistent with good commercial and customary practice.

Information obtained through the Orange County Tax Assessor's Office and confirmed by site representatives indicated that the site is owned by CA - Orange County Plant, LLC.

The site has been primarily vacant since 2014, when the Los Angeles Times (LA Times) ceased operations at the site. A security guard monitors the site entrance and the site owner (CA - Orange County Plant, LLC) leases a portion of the parking lot to a local car dealership for overflow vehicle parking. In addition, the site owner allows a local charity to store dry goods within the office portion of the building. One 12,000-gallon diesel UST remains operational in connection with an emergency generator at the site. Otherwise, aside from janitorial products no materials are stored or used at the site.

The 21.12-acre site is developed with a 361,483-square-foot, two-story building divided between administrative offices, printing, warehousing and support areas. A guard shack is located to the northwest of the building, a former fueling canopy is located to the west and a storage building is located to the southwest. A helicopter landing pad and a groundwater remediation system, discussed further below, are also located to the west of the building. Two oil water separators (OWS) (one for the kitchen area and one for plate making/printing area), a 12,000-gallon diesel underground storage tank (UST) and a former ink aboveground storage tank (AST) secondary containment area (the ASTs have been removed) are located to the east of the building. A railroad spur is located along the eastern site boundary. The remaining exterior yard space consists of a concrete-paved parking and access areas. Landscaped areas are located to the north of the building and around the site perimeter.

The site consisted of undeveloped or agricultural land from at least 1896 until the late 1960s, when the original portion (northern) of the current building was constructed. The building was occupied by newspaper companies, primarily the LA Times, from that time until 2010 when printing operations ceased. Later, in 2014, administrative office operations ceased. The site has remained primarily vacant since that time with the exception of a charity that is allowed to use the office area of the building for storage (baby supplies) and a local car dealership that is allowed to park cars in the parking area. Historical site operations are discussed further below.

The site area was largely undeveloped or used for agricultural and rural residential development from at least 1896 until the 1950s when a rail spur was developed to the west. By the 1960s industrial development began to the north and northwest while residential development expanded

to the south and southwest. During the 1970s and 1980s commercial and light industrial development began and expanded to the north, northeast, northwest and west. By 1987 the former industrial facility to the north was razed and replaced with commercial structures. The site area was developed to its current relative configuration by 2003, after the constructive of an additional commercial facility (currently operated by Ikea) to the south. No historical site area operations with the potential for environmental impact to the site were identified.

Findings

Environmental and other conditions associated with the site are characterized as RECs, Controlled RECs (CRECs), Historical RECs (HRECs), de minimis conditions, noteworthy issues, or other issues as defined in Section 1.1 of this report. Any exceptions to, or deletions from, this practice are described in Section 1.2 and 1.3 of this report if not identified below.

This assessment revealed evidence of the following REC in connection with the site:

- **Current Leaking Underground Storage Tank (LUST) Incident:** A petroleum release from USTs in a fueling area on the central western portion of the site was discovered in the early 1990s that resulted in the removal of three 12,000-gallon gasoline USTs and the opening of a LUST case. This release is known as the Los Angeles Times – Northern Tank Release (NTR). Investigations and remediation in relation to the NTR is ongoing and soil and groundwater impact from the release has been determined to extend beyond the western site boundary to properties adjacent to the west and southwest of the site. The most recent analytical data available for the NTR (4th Quarter 2014 Groundwater Monitoring and Remedial Progress Report) identified maximum concentration of total petroleum hydrocarbons – gasoline range (TVPH) at 9,700 micrograms per liter (ug/L); benzene at 1,800 ug/L; toluene at 290 ug/L; ethylbenzene at 1,100 ug/L and other petroleum constituents at elevated concentrations in groundwater. Remediation including soil vapor extraction and quarterly groundwater sampling continues in relation to the NTR.

This assessment identified the following CREC in connection with the site:

- **Historical LUST Incidents:** Two additional petroleum LUST incidents have occurred at the site, one was identified in 1988 resulting in the excavation of soil (date unknown). This release received regulatory closure in September of 1990. Little additional information regarding this release was identified in available records reviewed. The other closed LUST incident was discovered in September of 1990 on the southern portion of the site in the area of three 12,000-gallon petroleum USTs and a dispenser island (separate USTs from the NTR release discussed above). These USTs were removed from the ground in November 1995 and this release is identified as the Los Angeles Times – South Tank Release (STR). Investigation and remediation in relation to this incident continued through the 2000s. The most recent analytical data for the STR identified residual impact to soil at a maximum concentration of 850 milligrams per kilogram (mg/kg) for TVPH; 0.900 mg/kg for benzene; 2.1 mg/kg for toluene; 66 mg/kg for

xylenes; and 18 mg/kg for ethylbenzene, among others. The most recent groundwater analytical data (2011) detected elevated concentrations of petroleum constituents including TPVH at a maximum concentration of 1,800 micrograms per liter (ug/L); benzene at 280 ug/L; toluene at 7.7 ug/L; xylenes at 52 ug/L; ethylbenzene at 62 ug/L, among others. In 2013, the OCHCA issued closure for the STR citing that the extent of the release had been delineated (impacts were limited to the site) and the potential for impact to human health appeared unlikely. Residual impact as a result of these releases likely remains at the site; however, these releases have been closed and the potential for further regulatory scrutiny appears low.

1.0 INTRODUCTION

1.1 Purpose

Tribune Media Company retained GaiaTech Incorporated dba RPS GaiaTech to conduct a Phase I Environmental Site Assessment (ESA) of the Former Los Angeles Times facility located at 1375 Sunflower Avenue in Costa Mesa, Orange County, California (the site). The Phase I ESA was conducted to identify Recognized Environmental Conditions (RECs), as defined by the ASTM International (ASTM) *Standard Practice for Environmental Site Assessments* – E 1527-13 (ASTM-13). RPS GaiaTech performed the Phase I ESA to constitute all appropriate inquiry consistent with good commercial and customary practice.

Based on the Environmental Professional's (EP) evaluation of available information, findings of this report are classified and defined as follows:

- REC: the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.
- Controlled REC (CREC): a REC that resulted from a past release that has been addressed to the satisfaction of the applicable regulatory authority, with contamination allowed to remain in place subject to the implementation of required controls;
- Historical REC (HREC): a past release that has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls;
- De minimis condition: a condition that could otherwise be considered a REC but in the EP's opinion does not appear to represent a threat to human health or the environment and/or would not likely be the subject of an enforcement action if brought to the attention of appropriate governmental agencies;
- Noteworthy issue: a contingent site risk that does not clearly fall within the ASTM definition of a REC, HREC, or de minimis condition and/or a risk that can have a material environmental or environmentally-driven impact on the business.
- Other issue: an environmental issue or condition (e.g. asbestos, radon, or mold) at a property that falls outside of the scope of the ASTM-13 practice.

1.2 Scope of Work

RPS GaiaTech performed the Phase I ESA site inspection on June 2, 2015. Ms. Loraine Drown, Property Manager for CA - Orange County Plant, LLC (site owner), provided information regarding the site and accompanied RPS GaiaTech during the site inspection.

Ms. Drown has been associated with the site since approximately 2013. Additional information regarding the site was provided by Mr. Carl Cade of Tribune Real Estate Holdings, representative of the site owner.

RPS GaiaTech conducted the Phase I ESA in overall accordance with industry standards, including the requirements of ASTM-13 and the federal AAI standard. The Phase I ESA included the following activities, subject to any limitations noted in this report:

1. Interviews with site owner(s), key site manager(s), and/or major occupant(s) and a review of site records with regard to current and former site operations that may have impacted the site.

2. A comprehensive site inspection to identify and evaluate potential sources of environmental impact, including but not limited to waste and chemical storage areas, underground storage tanks (USTs), aboveground storage tanks (ASTs), equipment containing polychlorinated biphenyls (PCBs), wastewater and storm water discharges, and air emissions. The inspection included observations for evidence of chemical spills, releases, or on-site waste disposal. A Site Location Map and a Site Layout and Area Map are included in Appendix A. Photographs of the site are included in Appendix B.

3. A review of historical information for potential on- or off-site sources of impact to the site. To the extent feasible under the conditions of the assessment, the historical information obtained included: verbal information and records from site and/or local agency representatives; previous reports; construction plans; building permits; property record cards; topographic maps; fire insurance maps; historical city directories; and aerial photographs. Copies of relevant historical documentation are included in Appendix C.

4. A visual survey of the properties in the vicinity of the site as observed from the site boundaries and public rights-of-way to evaluate the potential for impact to the site from these properties. A Site Layout and Area Map is included in Appendix A.

5. A review of tribal, state, and federal environmental database information, provided by Environmental Data Resources, Inc. (EDR) supplemented by agency interviews and record review, where appropriate. The database search was conducted using ASTM-designated search parameters; for parameters requiring a search of the site and adjacent properties only, the search radii were extended to ensure that ASTM-required search distances from the property boundary were met. Facilities listed in the database report as “unplottable” were reviewed to evaluate whether any are located in the immediate vicinity of the site, based on field observations. The database search report is included as Appendix D.

6. As determined necessary by the EP and beneficial in determining the environmental risk associated with nearby facilities, supplemental research (potentially including the review of agency files, interviews with agency representatives, or others familiar with surrounding properties) was conducted.

7. Review of public health records and records of institutional and engineering controls pertaining to the site, as available through state listings provided by EDR, recorded on the current deed, or readily available in land title records.

8. A review of vapor migration associated with on and off-site sources of known and/or potential environmental impact.

RPS GaiaTech also performed the following activity in addition to those activities that comprise the ASTM scope of work:

- A limited visual survey to identify typically suspect asbestos-containing materials (ACMs). No sampling was conducted.

2.0 SITE CHARACTERISTICS

2.1 Site Location

The site is located at 1375 Sunflower Avenue in Costa Mesa, Orange County, California. The site is located on the south side of Sunflower Avenue, approximately 570 feet east of the intersection of Sunflower Avenue and Harbor Boulevard.

2.2 Site Description

a) Site Ownership

Information obtained through the Orange County Tax Assessor's Office and confirmed by site representatives indicated that the site is owned by CA - Orange County Plant, LLC.

Information obtained through the Orange County Register of Deeds indicated that the most recent deed activity for the site consists of a Grant Deed issued to CA - Orange County Plant, LLC from Los Angeles Times Communications LLC, and recorded March 25, 2013. No Activity or Use Limitations (AULs) or environmental liens were attached to the deed reviewed.

No AULs were identified in the U.S. Engineering Controls, U.S. Institutional Controls or state AULs databases searched by EDR.

b) Current Use of the Site

The site has been primarily vacant since 2014, when the Los Angeles Times (LA Times) ceased operations at the site. A security guard monitors the site entrance and the site owner (CA - Orange County Plant, LLC) leases a portion of the parking lot to a local car dealership for overflow vehicle parking. In addition, the site owner allows a local charity to store dry goods within the office portion of the building. One 12,000-gallon diesel UST remains operational in connection with an emergency generator at the site. Otherwise, aside from janitorial products no materials are stored or used at the site.

c) Structures, Improvements and Other Features

The 21.12-acre site is developed with a 361,483-square-foot, two-story building divided between administrative offices, printing, warehousing and support areas. A guard shack is located to the northwest of the building, a former fueling canopy is located to the west and a storage building is located to the southwest. A helicopter landing pad and a groundwater remediation system, discussed further in Section 3.1, are also located to the west of the building. Two oil water separators (OWS) (one for the kitchen area and one for plate making/printing area), a 12,000-gallon diesel UST and a former AST secondary containment area are located to the east of the building. A railroad spur is located along

the eastern site boundary. The remaining exterior yard space consists of a concrete-paved parking and access areas.

Landscaped areas are located to the north of the building and around the site perimeter. No pits, mounds, or other obvious terrain anomalies were identified at the site. No areas of distressed vegetation were identified at the site.

The building is heated with natural gas-fired boilers and cooled with an electric chilling tower system. Water and sanitary sewer services are municipally provided. Several groundwater monitoring wells were identified at the site as discussed in Section 3.1. No current or historical potable wells or septic systems were identified at the site.

2.3 Environmental Setting

a) Topography and Drainage

The 7.5-minute topographic map of the area (*Newport Beach, California* quadrangle, 1965) indicated that the site is located at an approximate elevation of between 25 and 35 feet above mean sea level. The site is located in an area characterized by relatively flat terrain. Surface water drainage in the area is toward local drainage features such as ditches and channels. The site is graded relatively flat.

b) Soils, Geology, and Hydrogeology

According to information provided in the environmental database search report and the USDA's Web Soil Survey, the soils in the site area consist primarily of Bolsa silt loam. Bolsa silt loam is characterized as somewhat poorly drained with a very high available water capacity.

Based on subsurface investigations conducted at the site, discussed further in Section 3.4, the near-surface geology in the site area is comprised of fine grained clays and silts to a depth of 25 feet below ground surface (bgs) underlain by silt or clay to at least 35 feet bgs. Fill material was also identified near the surface in former UST storage areas. Site-specific information regarding bedrock was not available. Depth to groundwater information for the site area was not readily available; however, based on available subsurface information static water is present between 14 and 27 feet bgs at the site and flows to the south-southwest toward the Costa Mesa Greenville Banning Channel, located approximately 550 feet south of the site.

c) Water Resources

Potable water is supplied to the site and surrounding properties by the Mesa Water District (MWD). Information provided by the MWD indicated that drinking water is primarily received from eight groundwater wells. RPS GaiaTech conducted a search of California's online GeoTracker Groundwater Ambient Monitoring and Assessment

(GAMA) database for water wells in the area. Based on information provided in the EDR report and GAMA database one public water supply well (MWD well) is located approximately 0.39 mile north of the site. Several additional water wells were identified throughout the site area, many of these appeared to be related to environmental investigations (rather than water extraction wells); although, the use of each could not be confirmed. Finally, remediation records on file for the site indicated that at least 35 water supply wells are located within a 1.0-mile radius of the site area. The closest water supply well is located adjacent to the northeast of the site.

3.0 SITE HISTORY

3.1 Overview of Site History

The site consisted of undeveloped or agricultural land from at least 1896 until the late 1960s, when the original portion (northern) of the current building was constructed. The building was occupied by newspaper companies, primarily the LA Times, from that time until 2010 when printing operations ceased. Later, in 2014, administrative office operations ceased. The site has remained primarily vacant since that time with the exception of a charity that is allowed to use the office area of the building for storage (baby supplies) and a local car dealership that is allowed to park cars in the parking area. Historical site operations are discussed further below.

A petroleum release from USTs in a fueling area on the central western portion of the site was discovered in the early 1990s that resulted in the removal of three 12,000-gallon gasoline USTs and the opening of a LUST case. This release is known as the Los Angeles Times – Northern Tank Release (NTR). Investigations and remediation in relation to the NTR is ongoing and soil and groundwater impact from the release has been determined to extend beyond the western site boundary to properties adjacent to the west and southwest of the site. The most recent analytical data available for the NTR (4th Quarter 2014 Groundwater Monitoring and Remedial Progress Report) identified maximum concentration of total petroleum hydrocarbons – gasoline range (TVPH) at 9,700 micrograms per liter (ug/L); benzene at 1,800 ug/L; toluene at 290 ug/L; ethylbenzene at 1,100 ug/L and other petroleum constituents at elevated concentrations in groundwater. Remediation including soil vapor extraction and quarterly groundwater sampling continues in relation to the NTR.

Two additional petroleum LUST incidents have occurred at the site, one was identified in 1988 resulting in the excavation of soil (date unknown). This release received regulatory closure in September of 1990. Little additional information regarding this release was identified in available records reviewed. The other closed LUST incident was discovered in September of 1990 on the southern portion of the site in the area of three 12,000-gallon petroleum USTs and a dispenser island (separate USTs from the NTR release discussed above). These USTs were removed from the ground in November 1995 and this release is identified as the Los Angeles Times – South Tank Release (STR). Investigation and remediation in relation to this incident continued through the 2000s. The most recent analytical data for the STR identified residual impact to soil at a maximum concentration of 850 milligrams per kilogram (mg/kg) for TVPH; 0.900 mg/kg for benzene; 2.1 mg/kg for toluene; 66 mg/kg for xylenes; and 18 mg/kg for ethylbenzene, among others. The most recent groundwater analytical data (2011) detected elevated concentrations of petroleum constituents including TPVH at a maximum concentration of 1,800 micrograms per liter (ug/L); benzene at 280 ug/L; toluene at 7.7 ug/L; xylenes at 52 ug/L; ethylbenzene at 62 ug/L, among others. In 2013, the OCHCA issued closure for the STR citing that the extent of the release had been delineated (impacts were limited to the site)

and the potential for impact to human health appeared unlikely. Residual impact as a result of these releases likely remains at the site; however, these releases have been closed and the potential for further regulatory scrutiny appears low.

One 12,000-gallon double-walled diesel UST equipped with continuous interstitial monitoring is located to the east of the building. The UST powers an emergency generator located within the building. The UST was installed in 1989. Site representatives provided copies of a Permit to Operate the UST, a Spill Bucket Testing Report Form (July 2014) and Secondary Containment Testing Report Form (January 2015). These reports indicated that the UST piping, pipe sump, fill sump spill bucket and piping sump passed testing in 2014/2015. Given the age of the UST there is a potential for an unidentified release from this UST to have resulted in environmental impact to the site; however, releases from the UST were not identified in recent tank tightness tests conducted.

Several floor drains were observed within the building, primarily in AST containment areas, a plate-making room and janitorial closets. According to site representatives, the floor drains in the AST containment and plate-making room discharged water to an OWS and then to the sanitary sewer system. Based on information from site representatives, only minor amounts of inks, if any were discharged to floor drains in the AST areas and only wastewater containing allowable quantities of plate-making chemicals as discharged to the drains in the plate-making room. In addition, according to site representatives a secondary containment area for former ink ASTs to the east of the building is equipped with underground piping that was used to move ink from the outdoor ASTs to indoor areas. RPS GaiaTech could not confirm the age or integrity of the interior of the floor drains, OWS or underground piping. In addition, little information in relation to the generation of ignitable waste, corrosive waste, silver and tetrachloroethylene (TCE) at the site in large and small quantities from the 1980s to 2000 was identified in available information reviewed. Given the lack of available information regarding these historical operations the potential for impact to the site exists; however, site-wide petroleum impact would likely have been identified during extensive subsurface investigations completed at the site from the 1990s through the present.

3.2 Historical Photographs and Maps

RPS GaiaTech reviewed available historical aerial photographs and topographic maps from the sources listed in Section 8.0. According to EDR, no Sanborn fire insurance maps were available for the site area. The information from these sources is summarized below.

Period	Description
1896 Topo 1899 Topo 1901 Topo 1902 Topo 1905 Topo 1907 Topo 1911 Topo 1915 Topo 1920 Topo 1925 Topo 1930 Topo 1932 Topo 1938 Aerial 1939 Topo 1945 Topo 1947 Aerial 1946 Topo 1951 Topo 1953 Aerial 1958 Topo 1963 Aerial 1968 Topo	The site appears as undeveloped or agricultural land.
1972 Aerial 1975 Topo 1977 Topo 1977 Aerial 1981 Topo 1982 Topo 1983 Topo	The original portion of the current building (northern) is present. The southern portion of the site appears agricultural land.
1987 Aerial 1990 Aerial 1995 Aerial 2002 Aerial 2003 Aerial 2004 Aerial 2005 Aerial 2006 Aerial 2007 Aerial 2009 Aerial 2010 Aerial 2011 Aerial 2013 Aerial 2014 Aerial	The building has expanded to the south and the southern portion of the site appears developed with the building additions and paved-parking areas. The site appears in its current configuration.

3.3 Interviews and Agency Records

a) Information Provided by Site Representatives, Site Owner and Report User

Site Representatives
Site representatives indicated that the site was constructed in the 1960s and used as an office and printing facility for newspapers, primarily for the Los Angeles Times from that time until 2010 when printing operations ceased. Later, in 2014, administrative office operations ceased. The site has remained primarily vacant since that time with the exception of a charity that is allowed to use the office area of the building for storage (baby supplies) and a local car dealership that is allowed to park cars in the parking area. In addition, a guard shack is manned at the site entrance 24 hours a day.

Aside from the LUST incidents discussed in Section 3.1, site representatives were not aware of current or historical environmental impacts at the site.

User and Owner Representative
Mr. Carl Cade, on behalf of Tribune Media Company, indicated that aside from the LUST incidents discussed in Section 3.1, he was not aware of any environmental cleanup liens filed or recorded against the site; any AULs in place at the site; any specialized knowledge of the site or adjoining properties; any conditions that would affect the fair market value of the site; any knowledge of obvious indicators of the presence or likely presence of contamination at the site; or any other commonly known or reasonably ascertainable information regarding the environmental condition of the site.

b) Agency Interviews and File Review

RPS GaiaTech contacted or filed Freedom of Information Act (FOIA) requests with various agencies to obtain environmentally relevant information regarding the site. A listing of the various agencies contacted is provided in Section 8.0. Pertinent information from these agencies is summarized as follows.

- Orange County Assessor's Office: According to the property information provided for the site, the site is 18.956 acres; however, additional information provided by site representatives (a survey completed in 2013) indicated that the site is actually 21.121 acres.

- City of Costa Mesa: RPS GaiaTech requested copies of building department, utility department and fire department records for the site including records of building and/or occupancy permits; utility connection dates; records of current or historical septic systems or water wells or wastewater treatment systems; records of ASTs, USTs, hazardous material storage, wastes, spills, releases, clean-ups, and environmental compliance/permitting/inspection records. Mr. Michael Dunn, Deputy City Clerk responded that both building and HAZMAT records were

identified for the site; however, copies of same had not been received at the time of issuance of this report.

- Regional Water Quality Control Board (RWQCB): RPS GaiaTech conducted a search and reviewed available information for the site and site area through the State Water Board's online GeoTracker database. The site was identified in the database and relevant information from the database is included below or in Section 3.4.

- California Department of Toxic Substance Control (DTSC): GaiaTech conducted a search of the DTSC online Envirostor database. The site was not identified in the database. Information regarding relevant area facilities obtained from database records is included in Section 4.4.

- California Environmental Protection Agency (Cal EPA): GaiaTech reviewed information available online through the CalEPA's website for the site area. The site was not identified in Cal EPA databases reviewed. Relevant information obtained is discussed elsewhere in this report.

c) Database Search Report

RPS GaiaTech reviewed a database search report of federal and state environmental databases to determine if the site or nearby properties are listed and have a potential to adversely impact the site. Detailed descriptions of the databases that were searched and definitions of database acronyms are included within the Executive Summary Section and the Government Records Section of the database search report, which is included as Appendix D. Pertinent listings for the site are discussed below, and relevant listings for surrounding properties are discussed in Section 4.4

- The site address was identified in several databases including compliance-related databases such as the NPDES, AST, EMI, FINDS, US AIRS, WDS, ENVIROSTORE, RCRA and UST databases. The RCRA database indicated that this facility was a registered large quantity generator (LQG) in 1980 and 1990; a small quantity generator in 1996 and both a LQG and SQG in 2000 for the generation of ignitable waste, corrosive waste, silver and tetrachloroethylene (TCE). The database report indicated that 10 USTs at the site: one 6,000-gallon diesel UST installed in 1980; one 1,000-gallon waste oil UST installed in 1980; two "waste" UST of unidentified size installed in 1980; five 12,000-gallon gasoline UST installed in 1980; and one 5,000-gallon diesel UST installed in 1978.

  The remainder of the database listings (HIST Cortese, LUST, CA FID UST, SLIC, HIST UST, Orange Co. Industrial Site) are related to releases reported or identified at the site, primarily releases from USTs. Database records identified three UST releases at this facility. Additional information regarding these releases was obtained from the resources discussed in Section 3.3 (primarily GeoTracker and EnviroStor) and is summarized below.

- A petroleum release to soil was identified in 1988 resulting in the excavation of soil (date unknown). The release received regulatory closure in September of 1990. Little additional information regarding this release was identified in available records reviewed. There is a potential for residual impact to soil as a result of this release; however, given that the release was limited to soil impact and regulatory closure was granted further regulatory scrutiny in relation to this release appears unlikely.

- Another petroleum release was discovered in September of 1990 on the southern portion of the site in the area of three 12,000-gallon petroleum USTs and a dispenser island. These USTs were removed from the ground in November 1995 and this release is identified as the Los Angeles Times – South Tank release (STR). Investigation and remediation in relation to this incident continued through the 2000s and included the installation of soil vapor extraction systems. In 2013 the Orange County Health Care Agency (OCHCA) issued closure for the south tank release given that the extent of the release had been delineated and the potential for impact to human health appeared unlikely. Additional information regarding this release is discussed in Section 3.4.

- Another petroleum release was discovered on the central-western portion of the site in 1990, in the area of three additional 12,000-gallon petroleum USTs. These USTs were removed from the ground and this release resulted in a separate LUST incident known as the NTR in 1992. Investigation and remediation from this release is ongoing, as discussed in Section 3.4.

3.4 Prior Environmental Reports

Relevant information from available previous environmental reports for the site is summarized below.

<u>Los Angeles Times – South Tank Release (STR) Summary</u>

- In 1990 subsurface investigations were completed on the southwestern portion of the site. The investigations identified petroleum hydrocarbons and fuel constituents in soil and shallow groundwater.
- The southern UST fueling tanks were identified as the source of the release and several additional subsurface investigations were conducted to delineate impact from the USTs.
- In 1995, the three 12,000-gallon fiberglass gasoline USTs and a 250-gallon OWS on the southern portion of the site were removed. Discolored material (pea-gravel) was noted in the UST tank bed and petroleum impacted soil was identified during sampling.

- Impact to soil and groundwater by TVPH (i.e., gasoline-range hydrocarbons) and benzene, toluene, ethlybenzene and xylene (BTEX), as well as impact to groundwater from other fuel oxygenates (low levels) were identified at the site.
- During the late 1990s an interim remedial measure (IRM) consisting of soil vapor extraction (SVE) removed an estimated 26,800 pounds of petroleum hydrocarbon constituents and then a high-vacuum, dual-phase extraction (HVDPE) system was installed at the site for further remediation.
- The most recent analytical data (August 2011) for the site identified the following:
  - Soil impact at a maximum concentration of 850 milligrams per kilogram (mg/kg) for TVPH (gasoline standard) in soil at; 0.900 mg/kg for benzene; 2.1 mg/kg for toluene; 66 mg/kg for xylenes; and 18 mg/kg for ethylbenzene.
  - Groundwater impact at a maximum concentration of 1,800 micrograms per liter (ug/L) for TVPH; 280 ug/L for benzene; 7.7 ug/L for toluene; 52 ug/L for xylenes; 62 ug/L for ethylbenzene; 13 ug/L for methyl tert-butyl ether (MTBE); and 29 ug/L for tert-butanol (TBA).
- Remediation and delineation investigations for the STR continued through 2012, when the Orange County Health Care Agency – Public Health Services – Environmental Health (OCHCA) department issued a Notification of Pre-Closure Requirements for the STR. The notification advised that the release would receive closure after certification that all monitoring well destruction and waste disposal information was received.
- On February 11, 2013 a Remedial Action Completion Certification was issued by the OCHCA for the STR, closing the LUST incident, citing the following reasons for closure.
  - The USTs were removed;
  - The site is located in a light industrial area with no plans for redevelopment; and
  - The concentrations of constituents in groundwater and soil with respect to distance to receptors and groundwater production wells indicate that there is not a risk to human health.

Los Angeles Times – North Tank Release (NTR) Summary

- A release from the three gasoline USTs in the northern tank farm (central-western portion of the site, in 1990. In 1992 the USTs were removed from the ground and discolored material (pea-gravel) was reported in the UST tank bed and petroleum impacted soil was identified during sampling resulting in a LUST incident.
- Additional assessment activities were conducted from 1992 through 1995 and free product as a result of the release was identified. A bailing system and later an SVE were installed at the site to remove free product resulting in the removal of 27,042 pounds of hydrocarbons from the area.
- Investigations and remediation in relation to the NTR have taken place since the 1990s and soil and groundwater impact from the NTR has been determined to extend beyond the western site boundary properties adjacent to the west and

southwest of the site. The west adjacent property is a baseball field while the southwest adjacent property is an office building.

- The most recent analytical data available for investigation of the NTR (4th Quarter 2014 Groundwater Monitoring and Remedial Progress Report) identified the following:
  - Groundwater impact at a maximum concentration of TVPH 9,700 ug/L in an off-site well to the southwest; benzene at 1,800 ug/L in an off-site well to the southwest; toluene at 290 ug/L in an off-site well to the west; ethylbenzene at 1,100 ug/L in an off-site well to the west; xylenes at 95 ug/L in an off-site well to the west; MTBE at 35 ug/L in an on-site well; and TBA at 180 in an off-site well to the southwest.
  - Two SVE systems continue to operate at the site (although the remedial extraction system was nonoperational during the fourth quarter of 2014) and quarterly groundwater sampling continues in an attempt to further remediate the LUST incident and receive regulatory closure.

3.5 City Directories and Other Historical Sources

RPS GaiaTech attempted to review historical city directories at the Los Angeles Public Library and the Orange County Library; however, directories were not available for RPS GaiaTech's review. RPS GaiaTech requested historical city directory listings EDR; however, additional information had not been received at the time of issuance of this report.

4.0 SURROUNDING PROPERTIES

4.1 Surrounding Property Overview

The site area was largely undeveloped or used for agricultural and rural residential development from at least 1896 until the 1950s when a rail spur was developed to the west. By the 1960s industrial development began to the north and northwest while residential development expanded to the south and southwest. During the 1970s and 1980s commercial and light industrial development began and expanded to the north, northeast, northwest and west. By 1987 the former industrial facility to the north was razed and replaced with commercial structures. The site area was developed to its current relative configuration by 2003, after the constructive of an additional commercial facility (currently operated by Ikea) to the south. No historical site area operations with the potential for environmental impact to the site were identified.

4.2 Area Observations

The use of the properties surrounding the site is summarized below.

North: The site is bordered to the north by Sunflower Avenue and then a Codan facility (likely offices or warehouse) followed by a commercial/ warehouse complex.

East: The site is bordered to the east an Emulex Corporation (manufacturing) facility and then Susan Street followed by residential development and a parking lot.

South: The site is bordered to the south by South Coast Drive followed by an Ikea shopping center.

West: The site is bordered to the west by (from north to south) National University a baseball field (Harbor Ball Park), Triple A Automotive Club and then and office building. Farther west is Harbor Boulevard followed by commercial development and a school.

The neighboring properties generally appear well-maintained. No obvious potential for environmental impacts to the site from current uses of surrounding properties was identified. Area facilities identified in the environmental database report reviewed are discussed further in Section 4.4.

4.3 Historical Photographs and Maps

RPS GaiaTech reviewed readily available historical topographic maps and aerial photographs obtained from the sources listed in Section 8.0. According to EDR, no Sanborn fire insurance maps were available for the site area. The information from these sources is summarized below.

Period	Description
1896 Topo 1899 Topo 1901 Topo 1902 Topo 1905 Topo 1907 Topo 1911 Topo 1915 Topo 1920 Topo 1925 Topo 1930 Topo 1932 Topo 1938 Aerial 1939 Topo 1945 Topo 1946 Topo	Streets are present to the north and south and scattered residential development is visible throughout the area.
1947 Aerial 1951 Topo 1953 Aerial 1958 Topo	A railroad spur is present to the west.
1963 Aerial 1968 Topo	An industrial facility is present to the north (across Sunflower Avenue). An additional light industrial or industrial structure is present to the northwest. Residential development is present to the far south and southwest.
1972 Aerial 1975 Topo 1977 Topo	Light industrial, industrial or commercial development has expanded to the west and far north. The industrial facility to the north has expanded. The highway to the south is present.
1977 Aerial 1981 Topo 1982 Topo	Light industrial, industrial or commercial development has expanded to the far north.
1987 Aerial	The industrial plant to the north appears to have been razed and replaced with a commercial structure. Light industrial or commercial development has expanded to the northeast, northwest and southwest.
1995 Aerial 2002 Aerial	The north and west adjacent facilities are present. The immediate site area (properties adjacent to the site) appears developed to its current relative configuration with the exception of the baseball field to the west and the manufacturing facility to the east.

Period	Description
2003 Aerial 2004 Aerial 2005 Aerial 2006 Aerial 2007 Aerial 2009 Aerial 2010 Aerial 2011 Aerial	The light industrial building to the east (current Emulex) and commercial building to the south (currently Ikea) are present and the site area appears developed to its current relative configuration with the exception of the baseball field to the west.
2013 Aerial 2014 Aerial	The baseball field to the west is present and the site area appears developed to its current relative configuration.

4.4 Environmental Database Review

RPS GaiaTech reviewed the database search report discussed in Section 3.3 to evaluate the potential for surrounding properties to impact the site. This evaluation also included an assessment of vapor migration using available historical, subsurface, and regulatory information, as well as published regulatory guidance, industry standards (including critical screening distances) and professional experience.

Detailed descriptions of the databases that were searched and definitions of database acronyms are included within the Executive Summary Section and the Government Records Section of the database search report included as Appendix D. Relevant listings for surrounding properties are discussed below. Note that groundwater gradient discussions presented in this section are based on information described in Section 2.3.

- AMF Voit at 3801 s Harbor, adjacent to the northwest of the site, was identified in several databases including the CERCLIST-NFRAP, HIST Cortese and LUST databases. The CERCLIS-NFRAP database indicated that the facility underwent an assessment in 1990, was determined not to qualify for the NPL and was deferred to RCRA. The CORRACTS database indicated that the facility was a tire manufacturer and was added to the corrective action list in 1991 and assigned a medium priority. The LUST database indicated that a release was reported in 1987 and included impact to groundwater from solvents. Remediation in relation to the release began in 1987 and the release was issued closure by 1995. Little additional information was included in the database report; however, GeoTracker database records confirmed that the release was issued closure in June of 1995. Given the LUST incident received closure in 1995 the potential for impact to the site is reduced.

- Aviation Equipment at 1571 MacArthur Boulevard, approximately 2,400 feet north-northwest of the site, was identified in the Orange Co. Industrial Sites database for a release of halogenated solvents and organic compounds with little additional information provided. The release was issued closure in 2009; therefore, given the

distance of the facility from the site and the closed status of the release, the potential for impact to the site appears unlikely.

- South Coast Circuits Inc. at 3506 West Lake Center Drive, approximately 850 feet north of the site, was identified in the RCRA-LQG and ENVIROSTOR databases. The database report indicated that this facility has generated corrosive waste, arsenic, chromium, and lead from plating operations since at least 1997. The facility has received violations in relation to its RCRA status; however, each appears to have been minor. No indication of spills or releases from this facility were identified. Given the nature of these database listings and the distance of this facility relative to the site the potential for impact to the site appears low.

Although other facilities were identified in the database search report, due to gradient, status, distance and/or the type of the listing, no additional properties of potential environmental significance were identified.

4.5 Other Environmental and Historical Sources

a) Information from Site Representatives

Aside from impact as a result of the historical LUST incidents at the site, site representatives were not aware of potential or known environmental impacts associated with the neighboring properties.

b) City Directories

In the city directory review discussed in Section 3.5 city directories were not available for RPS GaiaTech's review.

c) Other Sources

Additional information pertaining to adjacent properties is discussed elsewhere in relevant section of this report, including Section 4.4. Based on RPS GaiaTech's review, no database listings that warrant additional scrutiny (such as the review of agency documentation) were identified in connection with neighboring properties.

5.0 SITE INSPECTION

5.1 Materials Use and Storage

Based on information provided by site representatives and RPS GaiaTech's field observations, no chemicals are used at the site and only small amounts (retail-sized containers) of janitorial products are stored at the site. The concrete floors within former the chemical storage areas were observed to be in good condition with no indications of cracking or deterioration.

Several floor drains were observed within the building, primarily in AST containment areas, in a plate-making room and in janitorial closets. According to site representatives, the floor drains in the AST containment and plate-making room discharge to an OWS while the janitorial floor drains (used for mop water) discharge to the sanitary sewer system. The floor drains and historical wastewater discharges are discussed further in Section 3.1.

Minor staining (ink and/or oil) was observed on the concrete floor inside the printing and support areas of the building; however, the concrete was observed to be in good condition with no evidence of cracks, breaks, or other direct conduits to the subsurface. As a result, this minor staining is not likely to represent a potential for environmental impact to the site.

Aside from those previously discussed, the site representatives were not aware of spills or releases at the site. RPS GaiaTech did not observe obvious visual indications of spills or releases, with the exception of the staining elsewhere in this report.

5.2 Storage Tanks

a) Underground Storage Tanks (USTs)

One 12,000-gallon diesel UST is located to the east of the building and is used as a fueling source for a generator located within the building. Site representative indicated that the UST was installed in 1989. The most recent Permit to Operate the UST (2015) indicated that the UST is double-walled and equipped with continuous interstitial monitoring. Site representatives provided a copy of a Consent Order issued by the OCHCA (aka OC CUPA) to the site in relation to the UST.

The Consent Order was filed to close compliance-related UST allegations and implement deadlines for corrective action as well as a penalty ($80,000 with the potential to have $35,000 waived). Compliance activities included annual monitoring system certification; obtaining a permit; secondary containment testing; and the submittal of information to the CUPA by March of 2015. The order indicated that a Hazardous Waste Specialist conducted a follow-up inspection of the facility and verified that the above corrective

actions were taken in relation to the UST. Site representatives provided copies of a Spill Bucket Testing Report Form (July 2014) and Secondary Containment Testing Report Form (January 2015). These reports indicated that the UST piping, pipe sump, fill sump spill bucket and piping sump passed testing in 2014/2015.

Given the age of the UST there is a potential for an unidentified release from this UST to have resulted in environmental impact to the site; however, releases from the UST were not identified in recent tank tightness tests conducted.

Aside from the USTs discussed in Section 3, site representatives were not aware of other historical USTs, and no evidence of additional historical USTs was identified through RPS GaiaTech's review of available historical information or during the site inspection.

b) Aboveground Storage Tanks (ASTs)

One approximately 1,500-gallon propane AST (empty) was located on the southern portion of the site. Site representativeness indicated that the AST had been out of service and empty since at least 2012. No staining was observed on the concrete beneath or surrounding the AST.

Several historical ASTs were identified in connection with site operations, primarily ASTs formerly containing inks and printing-related materials. Site representatives indicated that the ASTs were removed in 2012 and 2013. RPS GaiaTech observed minor areas of staining in indoor secondary containment areas for ASTs. Some of the secondary containment areas were equipped with floor drains. Site representatives indicated that the drains were in line with an oil water separator, discussed in Section 5.5). Otherwise, the concrete floors within the AST storage areas were observed to be in good condition with no indications of significant cracking or deterioration.

In addition, according to site representatives a secondary containment area for former ink storage ASTs (also removed from the site) to the east of the building is equipped with underground piping that was used to move ink from the ASTs indoors. The age and integrity of associated subgrade piping could not be confirmed by RPS GaiaTech.

5.3 Hazardous Waste

Based on RPS GaiaTech's observations and information from site representatives, hazardous waste is not currently generated at the site. Historical hazardous waste generation is discussed in Section 3.3.

RPS GaiaTech did not identify evidence of on-site disposal of hazardous wastes.

5.4 Non-Hazardous Waste

Based on RPS GaiaTech's observations and information from site representatives, waste is not currently generated at the site. RPS GaiaTech did not identify evidence of on-site waste disposal.

5.5 Wastewater Discharges

Sanitary wastewater is discharged to the municipal sewer system. No process wastewater discharges are currently generated at the site.

Historical wastewater discharges are discussed further in Section 3.1.

5.6 Storm Water Discharges

Storm water runoff sheet flows to paved parking areas outside the building and then to adjacent properties. No stained or distressed vegetation was noted and no indication of impact to storm water was identified.

5.7 Air Emissions

RPS GaiaTech did not identify obvious air emission sources with a potential to physically impact the site.

5.8 Polychlorinated Biphenyls (PCBs)

Two pad-mounted transformers were observed at the site. According to site representatives, the transformers are owned by the local utility company. The transformers were not labeled as to PCB content but appeared in good condition with no evidence of leaks or spills. In addition, one passenger and two freight elevators are located at the site. The elevator reservoir, located in a closet within the building, was not labelled but appeared in good condition with no evidence of releases/staining. RPS GaiaTech did not observe other equipment likely to contain PCBs.

5.9 Asbestos-Containing Materials (ACMs)

Site representatives were not aware of asbestos surveys for the site and none were identified in available site records. RPS GaiaTech identified suspect ACMs in the form of drywall and associated joint compound, vinyl floor tile and associated mastic, and drop ceiling tiles in the building. It should be noted that additional suspect ACMs may be present in inaccessible areas of the site structure, such as above fixed ceilings, behind

walls or in roofing systems, and were therefore not observed during the site reconnaissance. The suspect ACMs that were observed were in good condition. The building was constructed before asbestos stopped being commonly used in the construction industry; therefore, there is a potential for these materials to contain asbestos.

Because the original portions of the building were constructed before 1981, and due to the presence of vinyl flooring in the shop area, the OSHA regulations regarding management of presumed ACM (PACM) in building materials applies. The Former Los Angeles Times Facility does have a management program in place to address these regulations.

6.0 FINDINGS AND CONCLUSIONS

Environmental and other conditions associated with the site are characterized as RECs, CRECs, HRECs, de minimis conditions, noteworthy issues, or other issues as defined in Section 1.1 of this report. Any exceptions to, or deletions from, this practice are described in Section 1.2 and 1.3 of this report if not identified below.

This assessment revealed evidence of the following REC in connection with the site:

- **Current Leaking Underground Storage Tank (LUST) Incident:** A petroleum release from USTs in a fueling area on the central western portion of the site was discovered in the early 1990s that resulted in the removal of three 12,000-gallon gasoline USTs and the opening of a LUST case. This release is known as the Los Angeles Times – Northern Tank Release (NTR). Investigations and remediation in relation to the NTR is ongoing and soil and groundwater impact from the release has been determined to extend beyond the western site boundary to properties adjacent to the west and southwest of the site. The most recent analytical data available for the NTR (4th Quarter 2014 Groundwater Monitoring and Remedial Progress Report) identified maximum concentration of total petroleum hydrocarbons – gasoline range (TVPH) at 9,700 micrograms per liter (ug/L); benzene at 1,800 ug/L; toluene at 290 ug/L; ethylbenzene at 1,100 ug/L and other petroleum constituents at elevated concentrations in groundwater. Remediation including soil vapor extraction and quarterly groundwater sampling continues in relation to the NTR.

This assessment identified the following CREC in connection with the site:

- **Historical LUST Incidents:** Two additional petroleum LUST incidents have occurred at the site, one was identified in 1988 resulting in the excavation of soil (date unknown). This release received regulatory closure in September of 1990. Little additional information regarding this release was identified in available records reviewed. The other closed LUST incident was discovered in September of 1990 on the southern portion of the site in the area of three 12,000-gallon petroleum USTs and a dispenser island (separate USTs from the NTR release discussed above). These USTs were removed from the ground in November 1995 and this release is identified as the Los Angeles Times – South Tank Release (STR). Investigation and remediation in relation to this incident continued through the 2000s. The most recent analytical data for the STR identified residual impact to soil at a maximum concentration of 850 milligrams per kilogram (mg/kg) for TVPH; 0.900 mg/kg for benzene; 2.1 mg/kg for toluene; 66 mg/kg for xylenes; and 18 mg/kg for ethylbenzene, among others. The most recent groundwater analytical data (2011) detected elevated concentrations of petroleum constituents including TPVH at a maximum concentration of 1,800 micrograms per liter (ug/L); benzene at 280 ug/L; toluene at 7.7 ug/L; xylenes at 52 ug/L; ethylbenzene at 62 ug/L, among others. In 2013, the OCHCA issued closure for the STR citing that the extent of the release had been delineated (impacts were limited to the site) and the potential for

impact to human health appeared unlikely. Residual impact as a result of these releases likely remains at the site; however, these releases have been closed and the potential for further regulatory scrutiny appears low.

7.0 ENVIRONMENTAL PROFESSIONAL STATEMENT

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in 40 CFR Part 312, and I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Prepared by:

Jennifer Xavier
Senior Environmental Consultant

Technical Review and Concurrence by:

Kristen M. Magee
Principal Consultant
Environmental Professional

8.0 REFERENCES

The following sources were used in conducting the Phase I ESA detailed in this report. Where information obtained from these sources was determined to be useful by the Environmental Professional, it is summarized in the body of this report.

Agency/Company	Person Contacted	Telephone	Regarding
Former Los Angeles Times Facility Property Manager	Loraine Drown	Not provided	General site information
Tribune Real Estate (user representative	Mr. Carl Cade	323.717.8148	General site information
Orange County Assessor Office 625 North Ross Street Santa Ana, CA	Office representative On-line records database	714.834.2727	Property information
Orange County Clerk – Recorder 12 Civic Center Plaza Santa Ana, CA	Office representative	714.834.2500	Deed information
City of Costa Mesa Building Department 77 Fair Drive Costa Mesa, CA 92626	Counter Representative	714.754.5273	Historical building permits, certificates of occupancy, utility connection information
Costa Mesa Fire Department 77 Fair Drive Costa Mesa, CA 92626	FOIA Officer	714.327.7402	USTs, AST, hazardous material storage,
Orange County Health Agency Environmental Health 1241 East Dyer Road Santa Ana, CA	Office representative	714.433.6000	Hazardous Materials, USTs, ASTs, Spills, and Responses requests for the site.
California Department of Toxic Substances Control 5796 Corporate Avenue Cypress, CA 90630-4732	DTSC online information search	714.484.5300	USTs, spills, hazardous material releases
Regional Water Quality Control Board Santa Ana 3737 Main Street , Suite 500 Riverside, California	Online records	http://geotracker.waterboards.ca.gov	USTs, spills, hazardous material releases, water quality.
Environmental Data Resources 440 Wheelers Farms Road Milford, CT	Account representative	800.241.6497	Environmental Database Search Report, aerial photographs, city directory report.

Agency/Company	Person Contacted	Telephone	Regarding
Internet resources	N/A	N/A	Aerial photographs (Google Earth and historicaerials.com); environmental database searches (www.rtk.net, and www.epa.gov/echo/, and www.epa.gov/enviro)

9.0 LIMITATIONS, EXCEPTIONS, AND SIGNIFICANT ASSUMPTIONS

RPS GaiaTech performed this Phase I ESA on behalf of and exclusively for Tribune Media Company. This report and the findings shall not be relied upon, in whole or in part, by any other party, except by or with the express consent of RPS GaiaTech and an authorized representative of Tribune Media Company.

This assessment is subject to the stated limitations of ASTM-13 or the federal AAI standard, as applicable, and other qualifications as described within the report. Any reliance upon this report by third parties beyond its intended purpose shall be at the parties' sole risk. In the event reliance on this report is extended to additional parties, these parties may become "users" as defined by ASTM-13 and should independently confirm that they have addressed the User requirements outlined in ASTM-13.

This review was based on the time frame, budget and scope of the project. The review was intended to identify issues of relevance to the contemplated transaction that this report was prepared to support.

This assessment was conducted by or under the supervision of an individual(s) meeting the definition of an Environmental Professional under ASTM-13 and the federal AAI standard. Tasks not performed by an Environmental Professional were performed by individuals qualified based on education, training and experience to conduct such tasks for a property of the nature, history and setting of the site.

ASTM defines "data gaps" as an inability to obtain information required for the review despite good faith efforts (such as the lack of historical information back to 1940 or to the first developed use of the property [whichever is earlier]) or as an incompleteness in any of the activities required for the review (such as limited site accessibility or the inability to interview a key site representative). Unless otherwise described in the body of this report, if any one or more of the standard sources under ASTM-13 was not reviewed, this was due to information from the source not being readily available or a determination by the Environmental Professional that the standard source was not likely to be useful. Similarly, unless otherwise noted in this report, an incompleteness in connection with the review was determined not to affect the Environmental Professional's ability to form conclusions regarding the site.

Unless otherwise indicated herein, RPS GaiaTech was not made aware of any specialized knowledge of the landowner or client, any relationship of the purchase price to the fair market value of the site that may be indicative of an environmental concern, or any environmental liens or other activity and use limitations known by the client or user of the report. In the absence of this information, RPS GaiaTech is not able to form conclusions about the environmental condition of the site that may otherwise have been evident had any such information been made available. Unless otherwise indicated herein, the reason for performing this Phase I ESA is assumed to be (at least in part) to qualify for the innocent landowner, contiguous property owner,

or bona fide prospective purchaser liability defense under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

It should be noted that past agricultural use is considered a developed use under ASTM; any past use of the site for agricultural purposes suggests a potential for residual agricultural chemicals. Unless otherwise stated in this report, no evidence or reports of chemical spills or misuses of agricultural chemicals were identified.

During this Phase I ESA, RPS GaiaTech relied upon the information provided by site representatives, regulatory officials, and other informed individuals and reports and documents generated by other consultants. RPS GaiaTech has assumed, where reasonable, that the information reviewed is true and accurate but assumes no responsibility or liability for its accuracy or completeness.

RPS GaiaTech's site observations are of the conditions observed at the time of the assessment. RPS GaiaTech did not observe areas of the site or features of the site where that inspection would have interfered with operations. Additionally, RPS GaiaTech did not enter confined spaces. Pits, trenches or other subsurface features were inspected as thoroughly as possible from access points, vault openings, and through grated drains/lids. RPS GaiaTech did not test the integrity or engineering adequacy of subsurface pits, trenches, sewers, or containment features, aboveground containment systems or tanks. RPS GaiaTech's observation of such equipment/systems is limited to visual evidence of releases or significant deterioration.

RPS GaiaTech reviewed an environmental database search report. RPS GaiaTech's conclusions based on the search report are limited to the accuracy of that report. To the extent practicable, RPS GaiaTech's field observations were used to verify the information or identify errors and inconsistencies in the search report regarding the listed facilities in the immediate vicinity of the site, consistent with the federal AAI standard.

RPS GaiaTech evaluates environmental database listings and the potential for additional documentation maintained by regulatory agencies to materially alter the Environmental Professional's opinion with regard to the environmental condition of the site. Except where otherwise described in this report, the pursuit of additional documentation either through regulatory agency file reviews or requests for additional information from the site operator, site owner or the owners/operators of nearby properties, was determined to be unnecessary as it would not be expected to alter the findings of the assessment.

Conclusions provided with regard to subsurface soil and groundwater impacts are limited to those that can be formed based on a non-intrusive investigation. RPS GaiaTech has considered all the information collected during this assessment to ascertain the potential presence of a release or threatened release of hazardous substances at the property. Based on the totality of information, RPS GaiaTech has assessed whether or not an obvious conclusion may be drawn that there are conditions indicative of a release or threatened release, and considered whether the parties should be able to detect the release by conducting a subsurface investigation. Where RPS GaiaTech concludes that the potential for impact is present, it should be understood that such

impact can only be identified or ruled out through subsurface investigation. The absence of environmental hazards in the subsurface cannot be guaranteed based on conditions observed on the surface. The scope of this project did not include subsurface soil or groundwater sampling.

RPS GaiaTech evaluates the potential for the presence or likely presence of COC vapors in the subsurface of the site using our professional judgment and evaluation of the available information and may use portions of ASTM E2600-10 as a guide. Note that this evaluation is not a full Vapor Encroachment Screen (VES) pursuant to ASTM E2600-10. The vapor evaluation is not exhaustive and cannot wholly eliminate uncertainty regarding the presence or potential presence of COC vapors in the subsurface of the site.

The estimated groundwater gradients (flow directions) referenced throughout this report are based on field observations of the topography of the area, review of topographic map(s), information in the database search report, and other information as available. It should be noted that groundwater flow directions can be highly variable in neighboring areas, and can be influenced by factors such as water production wells or re-grading or development in the area.

The review of available wetlands information, if performed, was intended for purposes of evaluating risks associated with potential on-site impacts and does not represent a jurisdictional wetlands delineation. A certified wetlands delineation may be necessary prior to further site development.

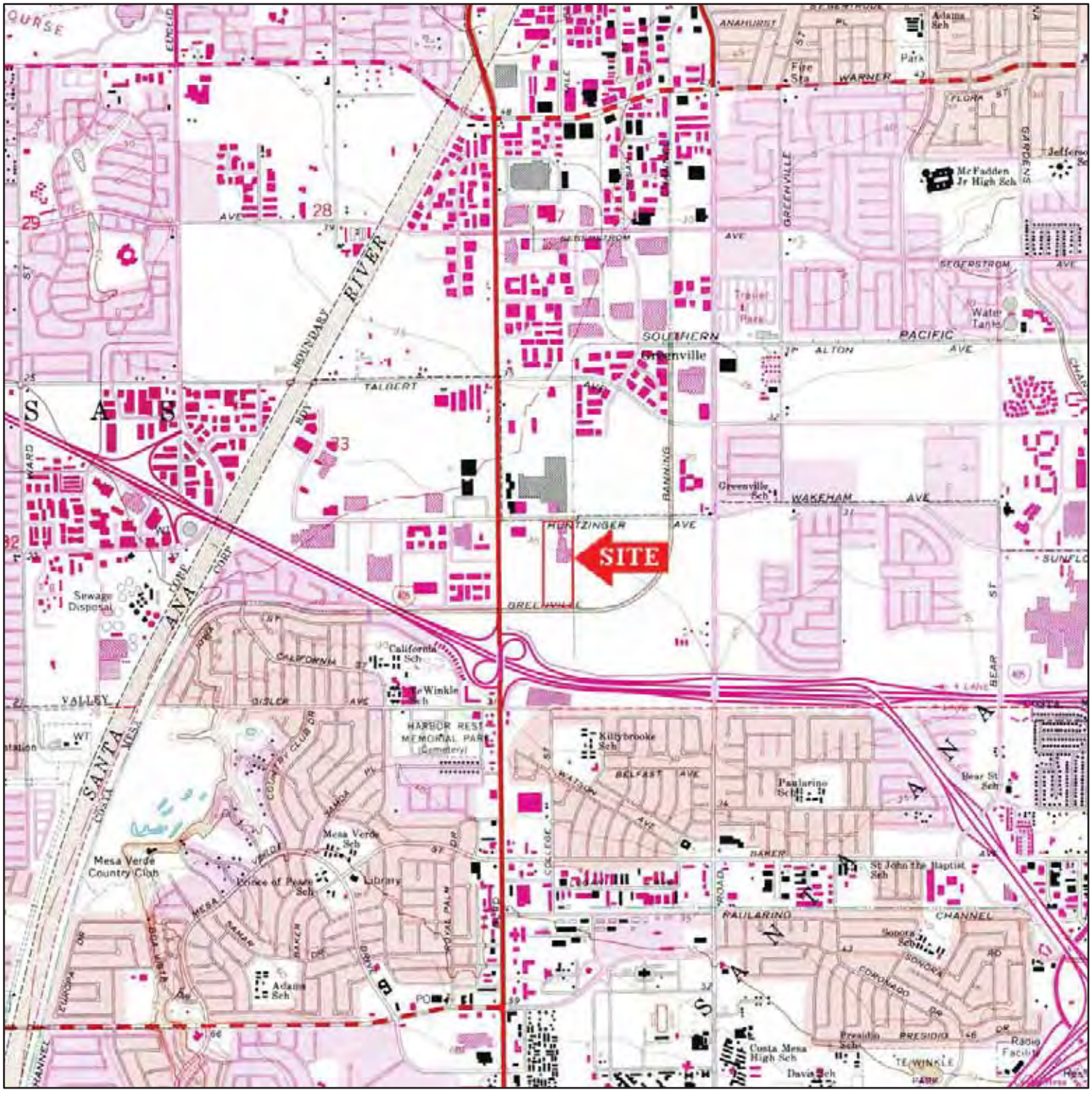
If conducted as part of this review, the visual inspection for potential ACM included materials that have historically been shown to have a potential to contain asbestos. Unless otherwise noted in this report, RPS GaiaTech's review of ACM is limited to interior building materials. The limited visual survey for potential ACM is intended to provide an indication of the potential for significant environmental issues associated with ACM and should not be regarded as a comprehensive survey for demolition or other purposes. Testing should generally be conducted to identify regulated ACM prior to remodeling or demolition of the site structures.

The scope of this report is limited to matters expressly covered. Implementation or use of the recommendations, findings or conclusions of this report does not preclude the potential for present or future environmental liability or ensure the fulfillment of a property owner's obligation to provide full environmental disclosure in accordance with any local, state or federal laws.

Appendix A

Site Maps and Diagrams

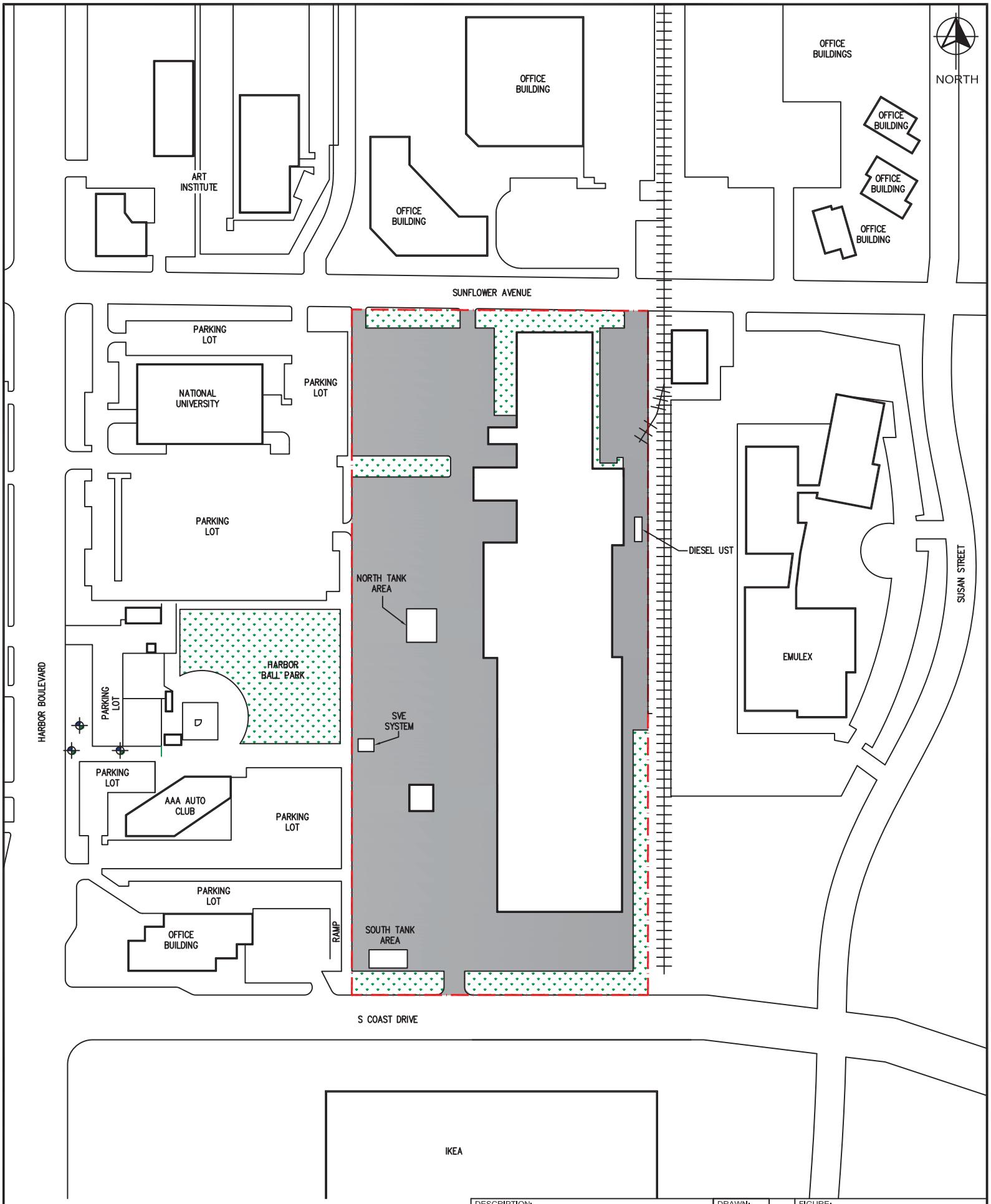
- Site Location Map
- Site Layout and Area Map



Former Los Angeles Times Facility
Costa Mesa, California
Project No. 158195.611.00

Site Location Map

RPS GaiaTech



LEGEND

SITE BOUNDARY

DESCRIPTION:	DRAWN:	FILE:	FIGURE:
FORMER LOS ANGELES TIMES FACILITY 1375 SUNFLOWER AVENUE COSTA MESA ,CA	JB	158195.611.00	SITE LAYOUT AND AREA MAP
	SCALE: NTS		RPS GaiaTech
	DATE: 06/23/15		

Appendix B

Site Photographs

Photo 1: General view of building

Photo 2: General view of grease trap access point

Photo 3: General view of area of UST

Photo 4: General view of rail spur and eastern side of building

Photo 5: General view of former AST containment area (east of building)

Photo 6: General view of boiler room

Photo 7: General view of former printing area

Photo 8: General view of former AST storage area in the building

Photo 9: General view of floor drain in former plating room

Photo 10: General view of canopy associated with former north tank area

Photo 11: General view of SVE system

Photo 12: General view of monitoring wells on central-western portion of site

Appendix C

Historical Documentation

- Aerial Photographs
- Previous Environmental Reports (text only)

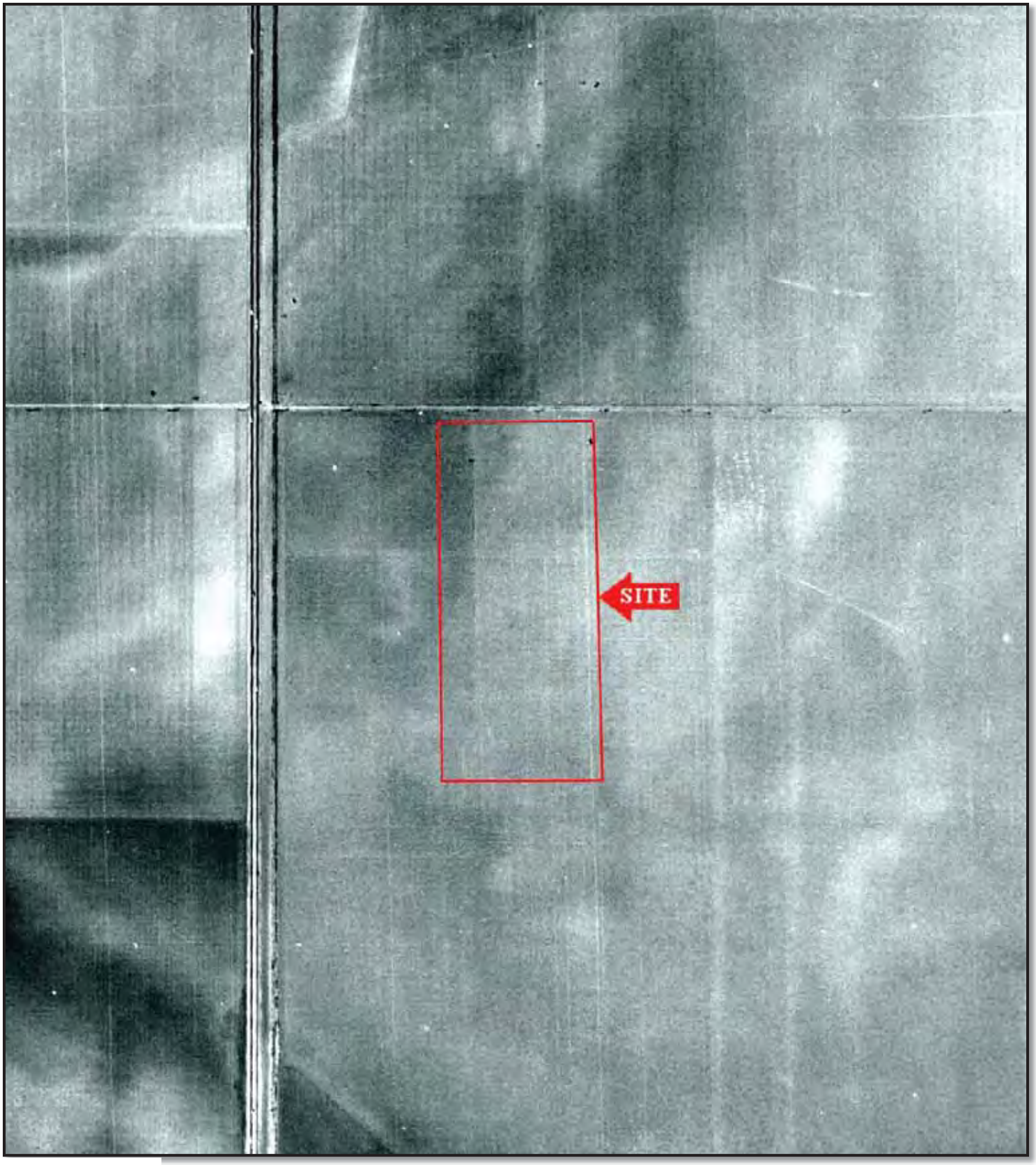
Scale: 1” = 500’

Aerial Photograph

1938

Former Los Angeles Times Facility
Costa Mesa, California
Project No. 158195.611.00

RPS GaiaTech



Scale: 1” = 500’

Aerial Photograph

1953

Former Los Angeles Times Facility
Costa Mesa, California
Project No. 158195.611.00

RPS GaiaTech

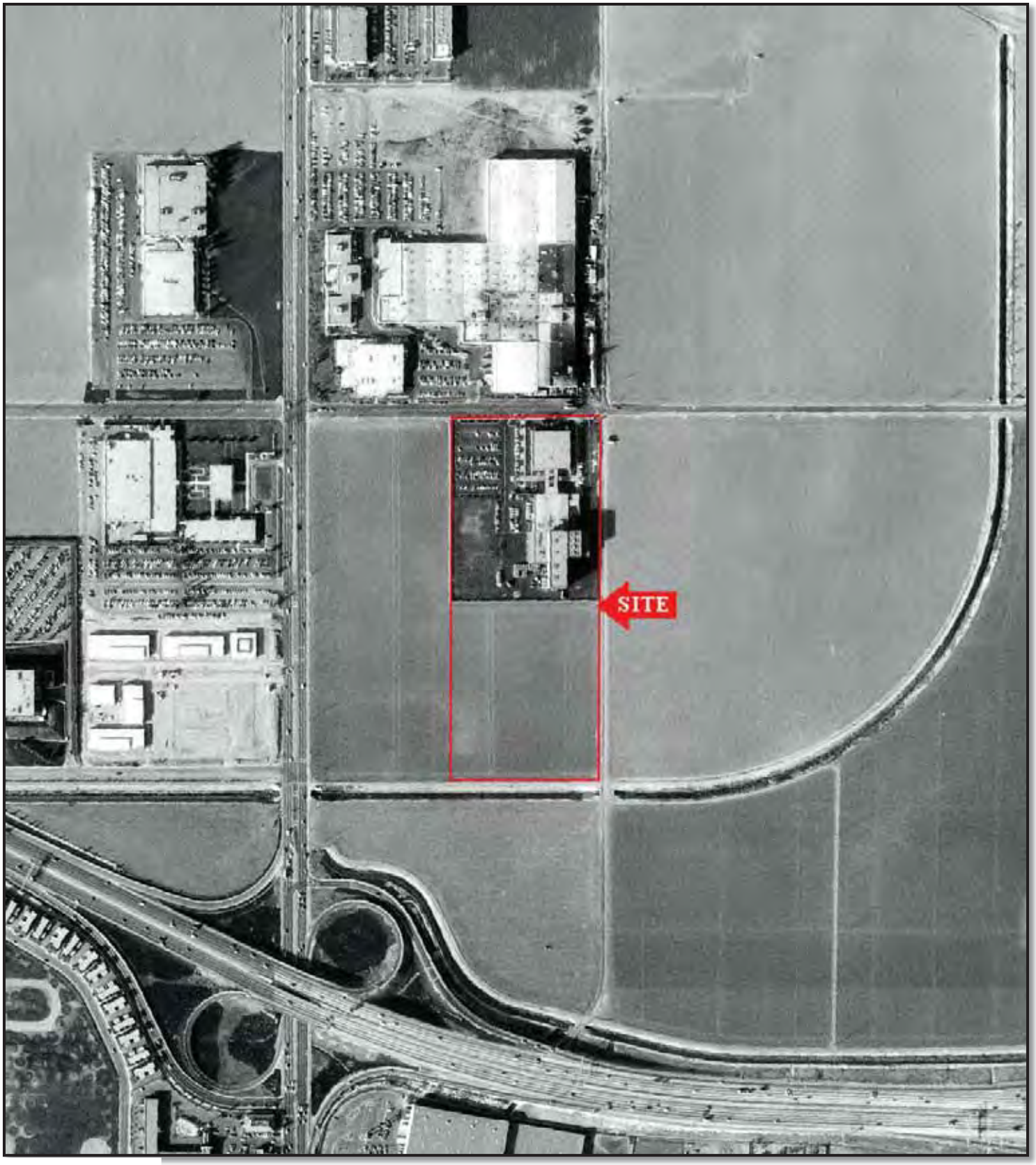
Scale: 1” = 500’

Aerial Photograph

1963

Former Los Angeles Times Facility
Costa Mesa, California
Project No. 158195.611.00

RPS GaiaTech



Scale: 1" = 500'

Aerial Photograph

1972

Former Los Angeles Times Facility
Costa Mesa, California
Project No. 158195.611.00

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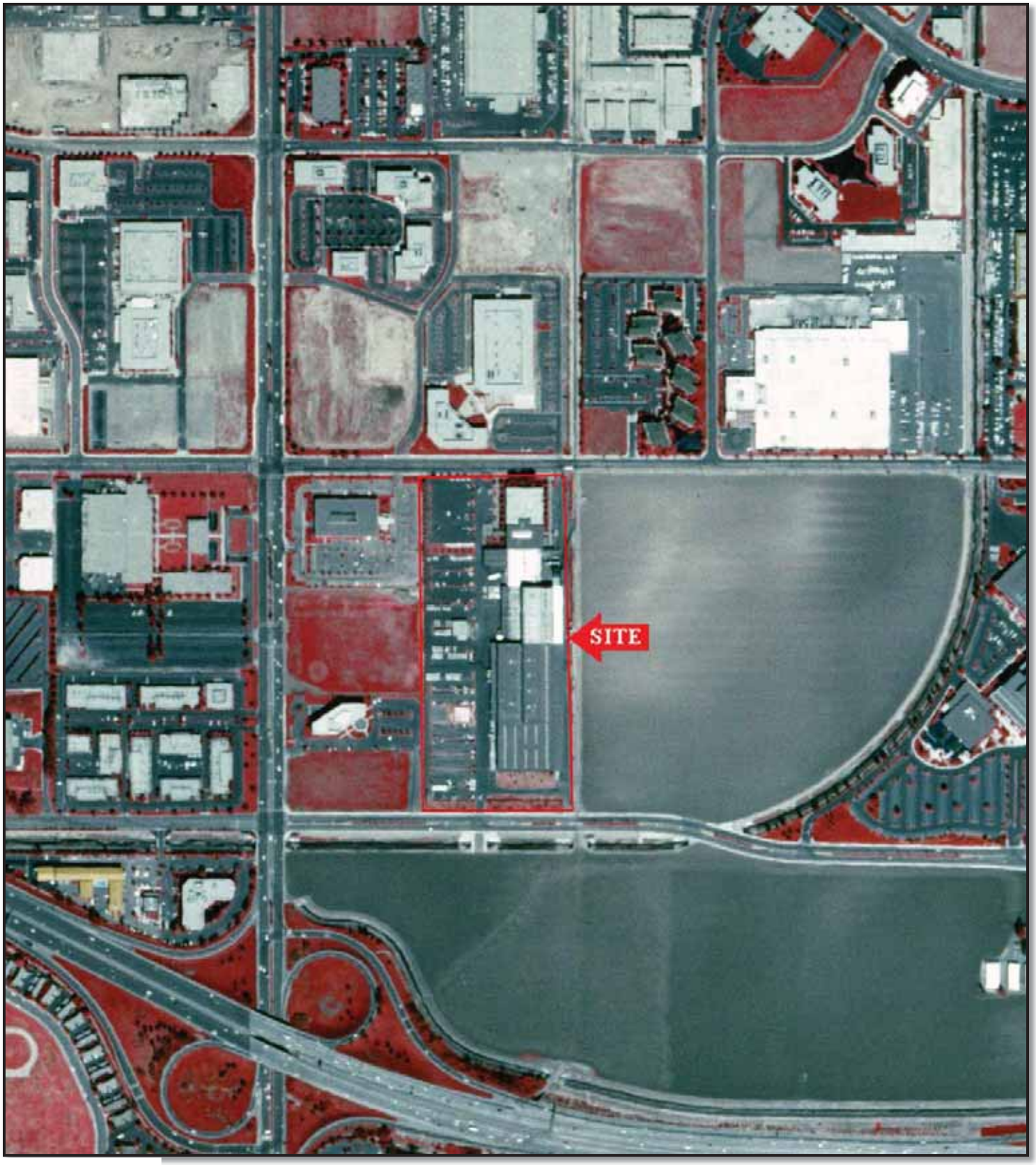
Scale: 1” = 500’

Aerial Photograph

1977

Former Los Angeles Times Facility
Costa Mesa, California
Project No. 158195.611.00

RPS GaiaTech



Scale: 1" = 500'

Aerial Photograph

1987

Former Los Angeles Times Facility
Costa Mesa, California
Project No. 158195.611.00

RPS GaiaTech

Scale: 1" = 500'

Aerial Photograph

1990

Former Los Angeles Times Facility
Costa Mesa, California
Project No. 158195.611.00

RPS GaiaTech

Scale: 1" = 500'

Aerial Photograph

1995

Former Los Angeles Times Facility
Costa Mesa, California
Project No. 158195.611.00

RPS GaiaTech

Scale: 1" = 500'

Aerial Photograph

2012

Former Los Angeles Times Facility
Costa Mesa, California
Project No. 158195.611.00

RPS GaiaTech

COUNTY OF ORANGE
HEALTH CARE AGENCY

PUBLIC HEALTH SERVICES
ENVIRONMENTAL HEALTH

MARK A. REFOWITZ
DIRECTOR

DAVID M. SOULELES, MPH
DEPUTY AGENCY DIRECTOR

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TELEPHONE: (714) 433-6000
FAX: (714) 754-1732
E-MAIL: ehealth@ochca.com

Excellence
Integrity
Service

February 11, 2013

Mark Anderson
Los Angeles Times
202 West First Street
Los Angeles, CA 90012

Subject: Remedial Action Completion Certification

Re: Los Angeles Times – South Tank Area
1375 Sunflower Avenue
Costa Mesa, California
OCHCA Case #91UT064

Dear Mr. Anderson:

This letter confirms the completion of site investigation and corrective action for the underground storage tank(s) formerly located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tank(s) are greatly appreciated.

Based on information in the above-referenced file and with the provision that the information provided to this Agency was accurate and representative of site conditions, this Agency finds that the site investigation and corrective action carried out at your underground storage tank(s) site is in compliance with the requirements of subdivisions (a) and (b) of Section 25296.10 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.3 of the Health and Safety Code and that no further action related to the petroleum release(s) at the site is required. This notice is issued pursuant to subdivision (h) of Section 25296.10 of the Health and Safety Code.

Claims for reimbursement of corrective action costs submitted to the Underground Storage Tank Cleanup Fund more than 365 days after the date of this letter or issuance or activation of the Fund's Letter of Commitment, whichever occurs later, will not be reimbursed unless one of the following exceptions applies:

- Claims are submitted pursuant to Section 25299.57, subdivision (k) (reopened UST case); or,

- Submission within the timeframe was beyond the claimant's reasonable control, ongoing work is required for closure that will result in the submission of claims beyond that time period, or that under the circumstances of the case, it would be unreasonable or inequitable to impose the 365-day time period.

Please contact Denamarie Baker at (714) 433-6255 if you have any questions regarding this matter.

Sincerely,

Richard Sanchez, REHS, MPH
Director
Environmental Health

Attachment: Case Closure Summary

cc: Carl Bernhardt, Santa Ana Regional Water Quality Control Board (electronic copy)
Larry Honeybourne, Water Quality Section, Environmental Health (electronic copy)
UST Cleanup Fund Manger, State Water Resources Control Board (electronic copy)
Mohammad Estiri, Eco & Associates (electronic copy)

Case Closure Summary

Leaking Underground Fuel Tank Program

I. Agency Information

Date: **Aug. 10, 2012**

Agency Name: **Orange County Health Care Agency**	Address: **1241 Dyer Road, Ste. 120**
City/State/Zip: **Santa Ana, CA 92705**	Phone: **(714) 433-6254**
Responsible staff person: **Denamarie Baker**	Title: **Hazardous Waste Specialist**

II. Case Information

Site Facility Name: **Los Angeles Times – South UST Area**		
Site Facility Address: **1375 Sunflower Avenue, Costa Mesa, CA**		
Geotracker Case No.: **T0605999595**	Local Case No.: **91UT064**	RO Case No.: **RO0002469**
URF Filing Date:	SWEEPS No.	
Responsible Party	Address	Phone Number
Mark Anderson **Los Angeles Times**	**202 West First Street** **Los Angeles, CA 90012**	**(213) 237-5068**

Tank No	Size in Gal.	Contents	Closed in-Place/Removed?	Date
1, 2, 3	**12,000**	**Gasoline**	**Removed**	**November 1995**

III. Release and Site Characterization Information

Cause and type of release: **Underground storage tank system**		
Site characterization complete? **Yes**	Date approved by oversight agency: **June 12, 2007**	
Monitoring wells Installed? **Yes**	Number: **14**	Proper screened interval? **Yes**
Highest GW depth BGS: **13.82**	Lowest depth: **23.77**	Flow direction: **southwest**
Most sensitive current use: **Municipal, Agricultural, and Industrial**		
Are drinking water wells affected? **No**	Aquifer name:	
Is surface water affected? **No**	Nearest/affected SW name: **N/A**	
Off-site beneficial use impacts (addresses/locations): **None**		
Report(s) on file? **Yes**	Where is report(s) filed? **OCHCA and Geotracker**	

Treatment and Disposal of Affected Material

Material	Amount (include Units)	Action (treatment or disposal/destination)	Date
Tanks	**3, 12,000-gallon**	**Glenn F. Barton in Long Beach, CA**	**11-15-95**
Liquid (Oil & Water)	**250 gallons**	**Demenno/Kerdoon in Compton, CA**	**11-13-95**

This document and the related CASE CLOSURE LETTER, shall be retained by the lead agency as part of the official file.

Case Closure Summary

Leaking Underground Fuel Storage Tank Program

Date: **Aug. 10, 2012** Case #: **91UT064**

III. Release and Site Characterization Information (Continued)

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (mg/kg)		Water (µg/L)		Contaminant	Soil (mg/kg)		Water (µg/L)	
	Before	After	Before	After		Before	After	Before	After
TPHd	NA	NA	NA	NA	Ethylbenzene	270	16	2,400	62
TPHg	13,000	850	77,000	1,800	MTBE	NA	NA	97	13
TRPH	92	NA	NA	NA	TBA	NA	NA	83	29
Benzene	210	0.900	16,000	280	Naphthalene	NA	NA	NA	400
Toluene	1,000	2.1	9,700	7.7	1,2,4-TMB	NA	NA	NA	16
Xylenes	1,500	66	7,500	52	1,3,5-TMB	NA	NA	NA	9.7

Comments (Depth of Remediation, etc.):

The Site is used for newspaper publishing and distribution and there are no plans that indicate any change in land use. The Site consists of a large distribution (and formerly printing) warehouse located on the eastern portion of the property, paved parking lots on the western portion of the property and several smaller buildings such as storage facilities and guard shacks.

In June 1990, five hand auger borings (HA-1 through HA-5) were advanced near the southwestern corner of the storage building located on the southwestern portion of the site to investigate the potential dumping of waste oil in that area. Soil sample analytical results indicated a maximum of 92 milligrams per kilogram (mg/kg) of total recoverable petroleum hydrocarbons (TRPH) and 820 mg/kg of total petroleum hydrocarbons as gasoline (TPHg). The samples were not analyzed for benzene, toluene, ethylbenzene and total xylenes (BTEX, collectively).

In September 1990, three borings (BH-1, BH-3, and BH-4) were drilled and four groundwater monitoring wells (MW-2, MW-5, MW-5A, and MW-6) were installed at the site. TPHg was not detected in the samples collected from the borings. Only one of the soil samples was analyzed for BTEX constituents. Soil samples collected during the well installation indicated maximum TPHg and benzene concentrations of 810 and 1.2 mg/kg, respectively.

To further assess the lateral and vertical extents of impacted groundwater, six additional groundwater monitoring wells (MW-7 through MW-12) were installed in October 1991. The maximum TPHg and benzene concentrations detected were: 13,000 and 210 mg/kg, respectively.

In August 1992, six additional borings were advanced (MW-13, MW-13A, MW-14, MW-15, MW-16, and EB-2). Four of the borings were subsequently converted to groundwater monitoring wells (MW-13A, MW-14, MW-15 and MW-16). A well was not installed in MW-13, despite the use of the MW designation. The maximum TPHg and benzene concentrations detected were 200 and 1.30 mg/kg, respectively.

Three, 12,000-gallon gasoline underground storage tanks (UST's), dispenser island and associated piping were removed from the site on November 13, 1995. A two-foot thick concrete tank tie-down pad was present at approximately 12 feet below ground surface (bgs). Consequently, soil samples were not collected from the bottom of the tank excavation. One soil sample (PI1-3') was collected from approximately three feet beneath the former dispenser and one soil sample (PP1-3') was collected from approximately three feet beneath the former product piping. The maximum TPHg concentration, 3.3 mg/kg, and the maximum benzene concentration, 0.0375 mg/kg, were detected in sample PP1-3'.

In February 1996, two additional groundwater monitoring wells (MW-30 and MW-7A) were installed at the site. MW-7A was installed to replace MW-7 which was destroyed prior to removal of the UST's in 1995. Petroleum hydrocarbons were not detected in soil samples collected from MW-30. MW-7A had maximum TPHg and benzene concentrations of 9.5 and 0.820 mg/kg, respectively.

Case Closure Summary

Leaking Underground Fuel Storage Tank Program

Date: **Aug. 10, 2012** Case #: **91UT064**

During 1995 and 1996, soil vapor extraction was conducted as an interim remedial action. An estimated 26,800 pounds of petroleum hydrocarbons were removed during this period. In February 1998, construction was completed on the permanent high-vacuum, dual-phase extraction (HVDPE) system using a thermal/catalytic oxidizer to treat hydrocarbon vapors. The HVDPE system operated from February 1998 through August 28, 2001 and from December 17, 2001 through March 1, 2002.

In response to a closure request dated December 13, 2002, the Orange County Local Oversight Program (OCLOP) requested verification borings to assess the effectiveness of remediation efforts. On May 12, 2003, four verification borings (VB-1 through VB-4) were drilled and sampled. The maximum TPHg and benzene concentrations were 2,800 and 35.8 mg/kg in a soil sample collected from boring VB-2 at 25 feet bgs. Methyl tertiary-butyl ether (MTBE), tertiary-butyl alcohol (TBA) and other fuel oxygenates were not detected in any of the soil samples collected.

Based on the results of the verification borings, the OCLOP requested additional remediation in the vicinity of VB-1 and VB-2. In December 2004, two additional soil vapor extraction (SVE) wells (HVS-8 and HVS-9) were installed at the site. The maximum TPHg concentration was 850 mg/kg in a sample collected from HVS-8 at a depth of approximately 16.5 feet bgs. The maximum benzene concentration was 0.900 mg/kg in a sample collected from HVS-9 at 21.5 feet bgs. MTBE, TBA, and other fuel oxygenates were not detected in any of the soil samples collected.

Additional vapor extraction activities were conducted in the South Tank area from December 15, 2005 to April 5, 2006. An estimated 82 additional pounds of hydrocarbons were removed from the South Tank area during this period. Since 1995, a total of approximately 28,800 pounds of hydrocarbons has been removed from the subsurface.

Quarterly groundwater monitoring has been conducted at the site since November 1991 and was most recently conducted on August 5 and 6, 2011 (3Q11). Free product has been observed at the site at a maximum apparent thickness of 0.70 foot and was last observed as a sheen in April 1996. Third quarter 2011 groundwater samples contained the following maximum concentrations: 1,800 micrograms per liter (µg/L) TPHg, 280 µg/L benzene, 7.7 µg/L toluene, 62 µg/L ethylbenzene, 52 µg/L total xylenes, 13 µg/L MTBE, 29 µg/L TBA, 400 µg/L naphthalene, 16 µg/L 1,2,4-trimethylbenzene, and 9.7 µg/L 1,3,5-trimethylbenzene. Post-remedial groundwater monitoring was conducted to monitor rebound and/or stability of remaining hydrocarbon concentrations in groundwater. Analytical results showed that overall dissolved phase hydrocarbon and fuel oxygenate concentrations in groundwater continued to decrease and were stable, without any further down gradient migration.

According to the Orange County Water District, the nearest groundwater production well is approximately 1000 feet upgradient from the site.

This site is recommended for closure based on the following:

- The former USTs have been removed from the site.
- Based on distance to the nearest receptors (greater than 100 feet), residual benzene in soil and groundwater do not appear to present a risk to human health.
- The most recent MTBE and TBA concentrations in groundwater are 13 µg/L and 29 µg/L, respectively.
- The site is located in a light industrial area and there are no plans for redevelopment.
- The nearest groundwater production well is approximately 1000 feet upgradient from the site.

Case Closure Summary

Leaking Underground Fuel Storage Tank Program

Date: **Aug. 10, 2012** Case #: **91UT064**

IV. Closure

Does completed corrective action protect *existing* beneficial uses per the Regional Board Basin Plan? **Yes**		
Does completed corrective action protect *potential* beneficial uses per the Regional Board Basin Plan? **Yes**		
Does corrective action protect public health for current land use? **Yes**		
Site management requirements: **Land-use change and handling contaminated soil properly.**		
Should corrective action be reviewed if land use changes? **Yes**		
Monitoring wells decommissioned: **No**	Number decommissioned: **0**	Number Retained: **13**
List enforcement actions taken:		
List enforcement actions rescinded:		

V. Local Agency Representative Data

Name: **Osman Taban, PG #5986**	Title: **Geologist**
Signature: Osman Taban	Date: 8/10/2012
Name: **Geniece Higgins**	Title: **Supervising Hazardous Waste Specialist**
Signature:	Date: 8/10/12
Name: **Anthony Martinez, CEG #2255**	Title: **LOP Program Manager**
Signature:	Date: 8-14-12

VI. RWQCB Notification

Date Submitted to RB:	RB Response:
Name: **Kenneth R. Williams**	Title: **Chief, UST Section**
Signature:	Date:

This document and the related CASE CLOSURE LETTER, shall be retained by the lead agency as part of the official file.

Case Closure Summary

Leaking Underground Fuel Storage Tank Program

Date: **Aug. 10, 2012** Case #: **91UT064**

IV. Closure

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Does completed corrective action protect *potential* beneficial uses per the Regional Board Basin Plan? **Yes**		
Does corrective action protect public health for current land use? **Yes**		
Site management requirements: **Land-use change and handling contaminated soil properly.**		
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Signature: Osman Taban	Date: 8/10/2012
Name: **Geniece Higgins**	Title: **Supervising Hazardous Waste Specialist**
Signature:	Date: 8/10/12
Name: **Anthony Martinez, CEG #2258**	Title: **LOP Program Manager**
Signature:	Date: 8.14.12

VI. RWQCB Notification

Date Submitted to RB:	RB Response:
Name: **Kenneth R. Williams**	Title: **Chief, UST Section**
Signature: Kenneth R. Williams	Date: 8/28/2012

This document and the related CASE CLOSURE LETTER, shall be retained by the lead agency as part of the official file.

Eco & Associates, Inc. ▪ 1855 W. Katella Ave. ▪ Suite 340 ▪ Orange ▪ CA ▪ 92867 ▪ phone (714) 289-0995 ▪ fax (714) 289-0965

March 16, 2015 via FedEx

Ms. Denamarie Baker
Orange County Health Care Agency
Hazardous Materials Management Section
1241 E. Dyer Road, #120
Santa Ana, California 92705

SUBJECT: SUBMITTAL OF FINAL 4TH QUARTER 2014 – GROUNDWATER MONITORING AND REMEDIAL PROGRESS REPORT FOR THE LOS ANGELES TIMES, COSTA MESA FACILITY, NORTH TANKS SITE IN COSTA MESA, CALIFORNIA

Dear Ms. Baker:

Please find enclosed one paper-bound copy and one copy on CD-ROM of the Final 4TH Quarter 2014 – Groundwater Monitoring and Remedial Progress Report for the subject site located in Costa Mesa, California, prepared by Eco & Associates, Inc. for your records.

We appreciate the opportunity to work with you and your colleagues on this project. If you have any questions, please do not hesitate to contact us at (714) 289-0995.

Sincerely,
Eco & Associates, Inc.

Mohammad Estiri, Ph.D.
Project Director

cc: One hard copy with one copy on CD to:
Ms. Racine Watts, Los Angeles Times Environmental Affairs
Mr. Carl Bernhardt, Santa Ana Regional Water Quality Control Board
Ms. Jennifer Ruddy, ACSC
Mr. Jon Lovegreen, Tetra Tech
Mr. Steve Bonham or Ms. Heather Castner, Brinderson Holdings Company

Enclosure

4TH QUARTER 2014 – QUARTERLY GROUNDWATER MONITORING

AND

REMEDIAL PROGRESS REPORT

March 16, 2015

Los Angeles Times, Costa Mesa Facility
North Tanks Site
1375 Sunflower Avenue
Costa Mesa, California

Prepared for:
Los Angeles Times
Environmental Affairs
2000 East 8th Street
Los Angeles, California 90021

Prepared by:
Eco & Associates, Inc.
1855 W. Katella Avenue, Suite 340
Orange, California 92867
Phone: (714) 289-0995
Fax: (714) 289-0965

Environmental Excellence

4TH QUARTER 2014 – QUARTERLY GROUNDWATER MONITORING

AND

REMEDIAL PROGRESS REPORT

Los Angeles Times, Costa Mesa Facility
North Tanks Site
1375 Sunflower Avenue
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Prepared for:

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2000 East 8th Street
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Mohammad Estiri, PhD
Project Director

Quin Kinnebrew, P.G.
Project Geologist

March 16, 2015

Project No. Eco-12-516

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ABBREVIATIONS, ACRONYMS, & SYMBOLS

µg/L	micrograms per liter
ACSC	Automobile Club of Southern California
AMEC	AMEC, plc
BTEX	benzene, toluene, ethylbenzene, and xylenes
bgs	below ground surface
DO	dissolved oxygen
DPVE	dual-phase vapor extraction
EC	electrical conductivity
Eco	Eco & Associates, Inc.
ETBE	ethyl tertiary butyl ether
GAC	granular activated carbon
IAW	in accordance with
ICE	Internal Combustion Engine
LA Times	Los Angeles Times
lb	pound
LOP	Local Oversight Program
MDL	method detection limit
mg/L	milligrams per liter
mL	milliliter
msl	mean sea level
MTBE	methyl tertiary butyl ether
NPDES	National Pollutant Discharge Elimination System
OCHCA	Orange County Health Care Agency
ORP	oxidation-reduction potential
PID	photoionization detector
RWQCB	Regional Water Quality Control Board
SCAQMD	South Coast Air Quality Management District
scfm	standard cubic feet per minute
TBA	tertiary butyl alcohol
TestAmerica	TestAmerica Laboratories, Inc.
TPH	total petroleum hydrocarbons
TPH-g	total petroleum hydrocarbons as gasoline
TVPH	total volatile petroleum hydrocarbons
USEPA	U.S. Environmental Protection Agency
UST	underground storage tank
VOC	volatile organic compound

EXECUTIVE SUMMARY

Eco & Associates, Inc. (Eco) was contracted to provide environmental services at the LA Times Orange County Facility, North Tanks Site, in Costa Mesa, California (hereafter, "Site"). This document describes the fourth quarter 2014 groundwater monitoring and remediation activities (i.e., monitoring, operation, and maintenance) performed between October 1, 2014 and December 31, 2014.

ACTIVITIES

During this quarter, 21 wells were monitored for groundwater levels and 14 groundwater wells were sampled based on current Orange County Health Care Agency (OCHCA) monitoring requirements. Collected groundwater samples were submitted to a State of California certified laboratory and analyzed for total volatile petroleum hydrocarbons (TVPH) and volatile organic compounds (VOCs). The remedial extraction system was nonoperational during the entire three months of 2014-Q4.

FINDINGS

Groundwater Level Measurement

The depth to groundwater was measured at all 21 wells on August 20, 2014. The depths to groundwater in the wells were measured from 16.04 to 21.55 feet below ground surface. Groundwater elevations ranged from 11.89 to 14.33 feet above mean sea level.

In comparison to the previous quarter, groundwater elevations were observed to decrease in all wells except for well MW-31, where the elevation increased by 0.28 feet. Groundwater elevation decreased an average of 1 foot over the Site.

Based on data collected during this quarter, the groundwater flows toward the southwest with a gradient of approximately 0.0028 feet per foot. This is consistent with the previously interpreted groundwater gradient at the Site.

Groundwater Sampling and Analysis

Fourteen groundwater monitoring wells were sampled and analyzed during this groundwater monitoring period.

Total Volatile Petroleum Hydrocarbons

Groundwater samples collected from thirteen of the fourteen wells sampled this quarter were reported with TVPH concentrations above the method detection limit (MDL). TVPH concentrations decreased in two of the sampled wells (MW-24 and MW-28) and increased in four of the sampled wells (MW-27, MW-29, MW-33, and MW-35) since the previous sampling event.

The greatest TVPH concentration increases were observed in groundwater samples collected from well MW-33 (from 6,100 micrograms per liter [µg/L] to 9,700 µg/L) and in well MW-35 (from ND<50 to 3,400 µg/L). The sample collected from MW-33 was reported with the highest concentration of TVPH (9,700 µg/L). The groundwater sample collected from MW-33 has been reported to contain the highest TVPH concentration in most of the recent sampling events. The concentrations of TVPH over time are graphed for each well (see Appendix C).

Benzene

Groundwater samples collected from eight of the fourteen wells sampled this quarter were reported with benzene concentrations above the MDL. Increases and decreases in benzene concentrations since the previous sampling event were comparable to those changes described above for TVPH, in both direction and magnitude.

The sample collected from well MW-38 was reported with the highest concentration of benzene (1,800 µg/L).

Methyl Tertiary Butyl Ether

Groundwater samples collected from six of the fourteen wells sampled this quarter were reported with methyl tertiary butyl ether (MTBE) concentrations above the MDL. The sample collected from well MW-17 was reported with the highest concentration of MTBE (35 µg/L).

Tertiary Butyl Alcohol

Only three of the samples collected from the fourteen wells sampled this quarter were reported to contain tertiary butyl alcohol (TBA) concentrations above the MDL. The sample collected from MW-38 was reported with the highest TBA concentration (180 µg/L).

4TH QUARTER 2014 – QUARTERLY GROUNDWATER MONITORING *AND* REMEDIAL PROGRESS REPORT

Los Angeles Times, Costa Mesa Facility
North Tanks Site
1375 Sunflower Avenue
Costa Mesa, California

1.0 INTRODUCTION

In April 2012, Eco & Associates, Inc. (Eco) was contracted to provide environmental services at the LA Times Orange County Facility, North Tanks Site, located at 1375 Sunflower Avenue in Costa Mesa, California (hereafter, referred to as the "Site") (Figure 1). The Site remediation and monitoring activities were previously administered by AMEC, plc (AMEC). This report describes monitoring and remediation activities performed during the fourth quarter of 2014. It contains the following sections:

- Site Description and Background
- Summary of Field Activities
- Current Quarterly Monitoring Results
- Data Evaluation and Recommendations

The purpose of the monitoring and remediation program is to operate, maintain, and modify the existing remediation systems, as well as to provide chemical data useful for contaminant concentration trend analysis to be utilized in the evaluation of Site closure.

2.0 SITE DESCRIPTION

The Site is located on approximately 31 acres of flat land comprised of buildings and asphalt parking areas. It is located approximately 0.23 mile north of the San Diego Freeway (Interstate 405) and approximately 1 mile east of the Santa Ana River Trail (Figure 1).

2.1 SITE HISTORY

The Site's subsurface soil and groundwater were impacted by leaking underground storage tanks (USTs). The contamination was detected in September 1990, and a case was opened with the Regional Water Quality Control Board (RWQCB) at that time. In 1992, three USTs in

the northern portion of the Site were removed and the LA Times was directed by the Orange County Health Care Agency (OCHCA) Local Oversight Program (LOP) to initiate a subsurface investigation adjacent to the USTs.

ENSR Consulting and Engineering conducted onsite investigations between 1992 and 1995, including the installation of 29 groundwater monitoring wells. Soil and groundwater within the vicinity of the tank areas were noted to contain elevated concentrations of total petroleum hydrocarbons (TPH) and benzene. The concentration of benzene exceeded 3,000 micrograms per liter (µg/L). As part of the corrective action, a vapor extraction system and an Internal Combustion Engine (ICE) system were used to remediate the Site.

Groundwater Technology, Inc. reported in March 1996 that almost 27,000 pounds (lbs) of hydrocarbons had been removed by the remedial system between August 1994 and July 1995. In October 1995, three USTs in the southern portion of the Site and the ICE system were removed.

Impacts at the Site have been separated into two separate cases by the RWQCB and OCHCA: the North Tank Site and the South Tank Site. The South Tank Site was determined to be eligible for case closure on September 17, 2012. All wells in the South Tank Area were abandoned on November 21, 2012. The South Tank Site case has been closed as of February 11, 2013.

2.2 REMEDIATION SYSTEM HISTORY

The construction of the first on-site Dual-Phase Vapor Extraction (DPVE) system, identified as the 'Stealth' system, was initiated in October 1997 in accordance with (IAW) the Remedial Action Plan approved by the OCHCA on May 21, 1997. The system was constructed and connected to the North Tank area wells and began operation in February 1998. In 2003, additional wells were installed; those wells were also connected to the Stealth DPVE system. In 2005, another DPVE system, the 'Baker' system, was added next to the existing system and connected to the newly installed wells on the nearby Automobile Club of Southern California (ACSC) property.

2.3 SITE GEOLOGY AND HYDROGEOLOGY

The hydrogeology information in this report was taken from the 1996 report by Groundwater Technology, Inc. The Site is located in the southernmost coastal plain physiographic province of Orange County, approximately 1 mile north of Newport Mesa. The freshwater-bearing materials within the coastal plain consist of unconsolidated sand, gravel, and conglomerates with some silt and clay. Geologic and geophysical logging indicates this freshwater-bearing stratum occurs in three separate groundwater systems. These systems are referred to as the upper, middle, and lower aquifer systems.

The Upper Aquifer System consists of all water-bearing strata above the main aquifer (the uppermost aquifer of the Middle Aquifer System) and has an average thickness of 800 feet. The principal shallow aquifers in this zone are the Talbert Aquifer and the 80-foot gravel aquifer. In addition, numerous semi-perched aquifers of limited extent are also present in the shallow portion of the Upper Aquifer System. The Upper Aquifer System occurs in recent

alluvial deposits and the semi-consolidated gravels, sands, and silts of the Upper Pleistocene Lakewood and La Habra formations.

Aquifers of the Middle Aquifer System are of greater thickness and areal extent than those of the upper and lower systems. The total thickness of the Middle Aquifer System ranges from a maximum of 1,600 feet in the center of the plain to less than 50 feet in the Coyote Hills. The uppermost aquifer of the Middle Aquifer System occurs in the lower Pleistocene sands, gravels, and silts of the Coyote Hills and San Pedro Formations.

The Lower Aquifer System consists of numerous interconnected aquifers of varying thickness. This system was declined on the basis of an extensive low permeability cap. The thickest aquifer in the Orange County Coastal Plain occurs at the base of the Lower Aquifer System and ranges in thickness from 350 to greater than 500 feet. Geologic data suggests that the Lower Aquifer System occurs within the semi-consolidated gravels and sands of the upper member of the Late Pliocene Fernando Group.

The soils beneath the LA Times facility consist of fluvial deposits composed of interbedded clay, silt, and sand with minor gravel. The fine-grained clays and silts typically occur from approximately 10 to 25 feet below ground surface (bgs). Stringers of sandy material occur within the clay/silt at depths ranging from 10 to 20 feet bgs. The clays and silts occur directly above a reddish-brown silty sand at approximately 25 feet bgs. This silty sand is typically saturated and grades into a medium-grained sand at approximately 30 feet bgs. The sand/silty sand is usually underlain by a silt layer that occurs between 30 to 35 feet bgs.

During this monitoring event, groundwater depths ranged from 16.04 feet bgs in well MW-26 to 21.55 feet bgs in well MW-33. Groundwater elevations were calculated to be between 11.89 feet above mean sea level (msl) in well MW-36 and 14.33 feet msl in well MW-23 with a general flow toward the southwest (see Figure 3). The hydraulic gradient is approximately 0.27 percent (0.0027 feet per foot).

3.0 SUMMARY OF GROUNDWATER MONITORING ACTIVITIES

The fourth quarter 2014 sampling event included the collection of groundwater samples from fourteen wells. Field documents related to this activity are presented in Appendix A. A summary of the field activities are described in the following sections.

3.1 GROUNDWATER MONITORING

The following groundwater monitoring activities were conducted IAW a memorandum prepared by Eco and sent to LA Times and OCHCA describing the planned low-flow sampling procedures (see Appendix D) and IAW RWQCB and OCHCA groundwater monitoring requirements. The following activities were performed in addition to the activities described in the above-referenced documents:

- Each monitoring well was inspected for integrity and deficiencies before sampling.

- All wells were sounded for depth to water from the top of the casing with accuracy of ±0.01 foot.
- Samples from groundwater wells were obtained and sent to a State of California certified laboratory for analysis.
- Field parameters (pH, temperature, electrical conductivity [EC], oxidation-reduction potential [ORP], dissolved oxygen [DO], and turbidity) were measured and recorded on sampling logs for sampled wells.
- The sampling flow rate was maintained at or less than 500 milliliters (mL) per minute for samples to be analyzed for volatile organic compounds (VOCs) to minimize volatilization.
- One laboratory-supplied trip blank was carried in the ice chest throughout the day and submitted with the field samples from each area for analysis.
- Decontamination of sampling equipment was conducted IAW the United States Environmental Protection Agency (USEPA) standards to ensure the quality of samples collected.
- Disposable equipment intended for one-time use was packaged for appropriate disposal.
- The sampled water bottles were kept on ice and transferred to the lab for analysis immediately upon completion of sampling.
- The generated data was utilized to create contaminant concentration trends and to evaluate if Site closure could be granted, or if additional remedial actions were necessary.
- Per discussion with the OCHCA on March 6, 2014, there is no longer a requirement to collect duplicate samples during groundwater monitoring activities.

3.2 INVESTIGATION-DERIVED WASTE

Groundwater purge water and decontamination wastewater was placed in the water storage tank associated with dual-phase extraction activities conducted at the Site for subsequent treatment and discharge.

3.3 GROUNDWATER MONITORING RESULTS

Groundwater sampling for the fourth quarter 2014 groundwater monitoring period was conducted on November 25, 2014. During this event, groundwater samples were collected from fourteen monitoring wells.

The samples were submitted to TestAmerica Laboratories, Inc. (TestAmerica), a State of California certified laboratory for analysis. The following subsections summarize the groundwater monitoring results.

3.3.1 DEPTH TO GROUNDWATER

The depth to groundwater was measured in each well on November 25, 2014. The depths to groundwater in the wells ranged from 16.04 to 21.55 feet. The groundwater elevations for each well were calculated using the measured groundwater depth and the surveyed casing elevation. The groundwater elevations ranged from 11.89 to 14.33 feet above msl.

In comparison to the previous quarter, groundwater elevations were observed to decrease in all wells except for well MW-31, where the elevation increased by 0.28 feet. Groundwater elevation decreased an average of 1 foot over the Site.

Details and the depth to groundwater measured during this sampling event are provided in Table 1. Groundwater elevation contours are shown in Figure 3. These contours are based on elevations calculated from monitoring wells with available survey data. Based on these groundwater contours, the groundwater flows toward the southwest with a gradient of approximately 0.0027 feet per foot. This is consistent with the previously interpreted groundwater gradient at the Site.

3.3.2 GROUNDWATER ANALYTICAL RESULTS AND FINDINGS

Fourteen groundwater monitoring wells were sampled and analyzed during this groundwater monitoring event. A summary of groundwater analytical results from all sampled monitoring wells is provided in Table 2. The laboratory analytical results for groundwater are provided in Appendix B.

3.3.2.1 Total Volatile Petroleum Hydrocarbons

Thirteen of the fourteen wells sampled during this sampling event were reported to contain total volatile petroleum hydrocarbons (TVPH) concentrations above the method detection limit (MDL). TVPH concentrations decreased in two of the sampled wells (MW-24 and MW-28) and increased in five of the sampled wells (MW-27, MW 29, MW-33, MW-35, and MW-38) since the previous sampling event. The greatest increases were observed in well MW-33 (from 6,100 micrograms per liter [µg/L] to 9,700 µg/L) and in well MW-35 (from <50 µg/L to 3,400 µg/L).

There is no apparent spatial correlation between those wells that showed decreases or increases in TVPH concentrations. The sample from well MW-33 was reported with the highest concentration of TVPH (9,700 µg/L). Groundwater collected from MW-33 has been reported to contain the highest TVPH concentration in the majority of recent sampling events. The concentrations of TVPH over time are graphed for each well (see Appendix C).

3.3.2.2 Benzene

Eight of the fourteen wells sampled this quarter were reported to contain benzene concentrations above the MDL. Increases and decreases in benzene concentrations since the previous sampling event were comparable to those changes described above for TVPH, in both direction and magnitude. The sample from well MW-38 was reported with the highest concentration of benzene (1,800 µg/L).

3.3.2.3 Methyl Tertiary Butyl Ether

Six of the fourteen wells sampled this quarter were reported to contain methyl tertiary butyl ether (MTBE) concentrations above the MDL. The sample from well MW-17 was reported with the highest concentration of MTBE (35 µg/L).

3.3.2.4 Tertiary Butyl Alcohol

Only three of the fourteen wells sampled this quarter were reported to contain tertiary butyl alcohol (TBA) concentrations above the MDL. The sample collected from MW-38 was reported with the highest TBA concentration (180 µg/L).

3.4 UPCOMING GROUNDWATER SAMPLING

The next quarterly groundwater sampling event is scheduled for the 1st quarter of 2015. The wells sampled will be based on current OCHCA monitoring requirements.

4.0 SUMMARY OF REMEDIAL ACTIVITIES

4.1 DUAL-PHASE EXTRACTION SYSTEM

There are two extraction systems located in the central portion of the LA Times property (see Figure 2) that are secured with walls and fences, which have locked entry gates. One system, operating under catalytic oxidation conditions, is referred to as the “Baker” system; the other system operating under thermal oxidation conditions, is referred to as the “Stealth” system. Both systems have been named and are referred to by Eco after their respective manufacturers.

When in operation, each system generally runs 24 hours per day, 7 days per week. The two systems had previously been connected to separate wells: the Baker system connected to ACSC wells, and the Stealth system connected to Former Farm Property and North Tank wells.

However, during the fourth quarter of 2012, the systems were connected so that any well might be connected to either of the two systems in order to have more control over remedial activities, as well as to maintain backup in case of the shutdown of one of the systems.

The wells are connected to the systems via piping that can be opened or closed with in-line valves. This allows for sampling of individual wells, rebound testing, and the closing of certain wells to extraction. Wells chosen to be opened to extraction are typically chosen based on VOC readings collected using a photoionization detector (PID) as well as vapor sample analytical results, when applicable.

As is shown in the schematic (Figure 7), vapor extracted from each well enters into a 4-inch manifold and is sent to a phase separator (water knockout vessel) where the liquid and vapor is separated.

The liquid phase is treated with granular activated carbon (GAC) and released to the stormwater conveyance system under a National Pollutant Discharge Elimination System (NPDES) permit. The vapor is sent to a furnace for thermal or catalytic oxidation.

The influent and effluent gas is monitored on a weekly basis with a PID. In addition, influent and effluent samples of water and vapor are collected monthly for laboratory analysis.

The remedial extraction system was non-operational during the 4th Quarter of 2014.

During system operation, the concentrations of VOCs at the inlet and outlet of the system are monitored on a weekly basis using a PID. Since the system was not operational during this reporting period, no influent or effluent vapor samples were collected from the systems.

Monthly sampling was also not conducted, as the system was not in operation during this reporting period. Table 3 provides the contamination mass removal up to present.

Remedial activities were not conducted at the Site during this quarter.

4.2 WEEKLY AND MONTHLY ACTIVITIES

4.2.1 WEEKLY ACTIVITIES

Each system is being operated under a South Coast Air Quality Management District (SCAQMD) Permit to Operate. As per the requirements of the permit, weekly readings of the following parameters are collected for each system (when operating):

- Total flow rate, measured in standard cubic feet per minute (scfm)
- Temperature measured in degrees Fahrenheit at the outlet of the combustion chamber (for thermal oxidation mode) or at the inlet of the catalytic chamber (for catalytic oxidation mode)
- VOC influent and effluent concentrations, measured with a PID calibrated in parts per million by volume as isobutylene (corrected for hexane)

4.2.2 MONTHLY ACTIVITIES

4.2.2.1 Influent/Effluent Vapor Sampling

Vapor sampling did not take place in this quarter because the system was non-operational.

4.2.2.2 Influent/Effluent Water Sampling

Monthly water samples from inlet and outlet of the GAC reactor were collected once this quarter. The system was non-operational and water was not discharged during the quarter. In December 2014, storm water which had collected in the secondary containment for the system was pumped into the water storage tank. The water was treated and discharged in the beginning of January.

4.3 UPCOMING ACTIVITIES / ACTION ITEMS

- Continue quarterly groundwater monitoring

5.0 RECOMMENDATIONS

The following recommendation is based on observed field conditions and measured contaminant concentrations during the fourth quarter groundwater monitoring and remediation activities in 2014.

- It is recommended that groundwater monitoring continue until OCHCA finds that the Site meets the criteria of the Low Threat UST Case Closure Policy

6.0 BIBLIOGRAPHY

AMEC, 2011. *Work Plan for In-Situ Chemical Oxidation and Enhanced Bioremediation at Building 244*. Joint Forces Training Base, Los Alamitos, CA, California Army National Guard; September 26, 2011.

Groundwater Technology, Inc., 1996. *Remediation Alternatives Evaluation.* For Los Angeles Times; March 1996.

Appendix D

Environmental Database Search Report

LA Times
1375 Sunflower Avenue
Costa Mesa, CA 92626

Inquiry Number: 4310748.2s
June 01, 2015

The EDR Radius Map™ Report with GeoCheck®

EDR® Environmental Data Resources Inc

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

1375 SUNFLOWER AVENUE
COSTA MESA, CA 92626

COORDINATES

Latitude (North):	33.6937000 - 33˚ 41' 37.32''
Longitude (West):	117.9161000 - 117˚ 54' 57.96''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	415094.4
UTM Y (Meters):	3728378.0
Elevation:	31 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	33117-F8 NEWPORT BEACH (DIGITAL), CA
Most Recent Revision:	0

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20120505
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
1375 SUNFLOWER AVENUE
COSTA MESA, CA 92626

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1		1375 SUNFLOWER AVE	AST		TP
A2	TIMES MIRROR COMPANY	1375 SUNFLOWER AVENU	RCRA-SQG		TP
A3	LOS ANGELES TIMES CO	1375 SUNFLOWER AVE	SWEEPS UST, EMI		TP
A4	L A TIMES	1375 SUNFLOWER	RGA LUST		TP
A5	LOS ANGELES TIMES-NO	1375 SUNFLOWER AVE	RGA LUST		TP
A6	LOS ANGELES TIMES-NO	1375 SUNFLOWER	RGA LUST		TP
A7	LOS ANGELES TIMES CO	1375 SUNFLOWER	RCRA-SQG, FINDS, NPDES, HIST CORTESE, LUST, CA FID...		TP
A8	L.A. TIMES	1375 SUNFLOWER AVENU	RGA LUST		TP
A9	LOS ANGELES TIMES CO	1375 SUNFLOWER AVE	HAZNET		TP
A10		LOS ANGELES TIMES BL	ERNS		TP
A11		1375 SUNFLOWER	ERNS		TP
A12	LOS ANGELES TIMES	1375 SUNFLOWER AVENU	RGA LUST		TP
A13	LOS ANGELES TIMES	1375	RGA LUST		TP
A14	LOS ANGELES TIMES-SO	1375 SUNFLOWER	RGA LUST		TP
A15	L A TIMES	1375 SUNFLOWER AVE	RGA LUST		TP
A16	LOS ANGELES TIMES-SO	1375 SUNFLOWER AVE	RGA LUST		TP
A17	LOS ANGELES TIMES	1375 SUNFLOWER AVE.	EMI		TP
A18	LOS ANGELES TIMES	1375 SUNFLOWER AVE	RGA LUST		TP
19	BABCOCK ELECTRO-MECH	3501 HARBOR BLVD	RCRA-SQG, FINDS	Higher	502, 0.095, NW
20	BRUNSWICK CORPORATIO	3333 HARBOR BOULEVAR	RCRA-LQG	Lower	661, 0.125, West
B21	COSTA MESA COMMERCE	3303 S HARBOR BLVD	RCRA-SQG	Lower	671, 0.127, SW
B22	ON SITE PHOTO GRAPHI	1410 3303 E6 HARBOR	RCRA-SQG, FINDS	Lower	671, 0.127, SW
B23	PERFECT PRINTING	3303 HARBOR BLVD	RCRA-SQG, FINDS	Lower	671, 0.127, SW
C24	AMF VOIT INC	3801 S HARBOR BLVD	LUST, ENVIROSTOR, HWP	Higher	743, 0.141, NW
C25	MINSTAR (AMF-VOIT)	3801 HARBOR	HIST CORTESE, LUST	Higher	743, 0.141, NW
C26	A M F VOIT INC	3801 S HARBOR BLVD	RCRA-TSDF, CERC-NFRAP, CORRACTS, RCRA NonGen /...	Higher	743, 0.141, NW
27	DRY CLEAN USA	3701 S HARBOR BLVD E	RCRA-SQG, FINDS	Higher	988, 0.187, NW
D28	SOUTH COAST CIRCUITS	3506 W LAKE CENTER D	RCRA-LQG	Higher	1083, 0.205, North
D29	SOUTH COAST CIRCUITS	3506 WEST LAKE CENTE	ENVIROSTOR	Higher	1083, 0.205, North
E30		3611 S HARBOR BLVD	EDR US Hist Auto Stat	Higher	1312, 0.248, NNW
E31		3621 S HARBOR BLVD	EDR US Hist Auto Stat	Higher	1312, 0.248, NNW
F32	ARCO#6131	3201 HARBOR BLVD	LUST	Higher	1852, 0.351, SSW
F33	MOBIL #18-HDR	3195 HARBOR BLVD	HIST CORTESE, LUST, CA FID UST, SWEEPS UST	Higher	1905, 0.361, SSW
F34	CHEVRON 94660	3190 HARBOR BLVD.	RCRA-LQG, FINDS, HIST CORTESE, LUST, CA FID UST,...	Higher	1935, 0.366, SSW
G35	SHELL SERVICE STATIO	3820	HIST CORTESE	Lower	2247, 0.426, ENE
36	ICN PHARMACEUTICALS	3300 HYLAND AVE	HIST CORTESE, LUST	Lower	2256, 0.427, West
37	STATE FARM INSURANCE	3333 HYLAND AVE	RCRA-SQG, FINDS, HIST CORTESE, LUST, CA FID UST,...	Lower	2280, 0.432, West
38	AUTOMOBILE CLUB OF S	3333 FAIRVIEW RD	HIST CORTESE, LUST, CA FID UST, SWEEPS UST, HAZNET	Lower	2302, 0.436, ESE
G39	SHELL SERVICE STATIO	3820 S FAIRVIEW / SU	RCRA-SQG, LUST	Lower	2347, 0.445, ENE

MAPPED SITES SUMMARY

Target Property Address:
1375 SUNFLOWER AVENUE
COSTA MESA, CA 92626

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
G40	SHELL #3820	3820 FAIRVIEW AVE	LUST	Lower	2347, 0.445, ENE
41	C J SEGERSTROM & SON	3315 FAIRVIEW RD	HIST CORTESE, LUST, CA FID UST, CHMIRS	Higher	2356, 0.446, ESE
G42	ARCO #3083	3470 FAIRVIEW	HIST CORTESE	Lower	2393, 0.453, ENE
G43	MOBIL #18-JMY	3470 FAIRVIEW RD	HIST CORTESE, LUST, CA FID UST, SWEEPS UST	Lower	2393, 0.453, ENE
H44	UNOCAL #5404	3599 HARBOR BLVD	HIST CORTESE, LUST	Higher	2425, 0.459, NNW
H45	UNION CAR WASH/BEACO	1501 MACARTHUR BLVD	LUST	Higher	2452, 0.464, NNW
46	AVIATION EQUIPMENT	1571 MACARTHUR BLVD	NPDES, Orange Co. Industrial Site, ENVIROSTOR	Higher	2618, 0.496, NNW
47	ARMSTRONG RANCH HIGH	3529 SOUTH GREENVILL	SCH, HIST CORTESE, LUST, ENVIROSTOR	Higher	3918, 0.742, NE
48	PIONEER CIRCUITS INC	3000 SOUTH SHANNON S	RCRA-LQG, ENVIROSTOR	Higher	4619, 0.875, NNW
49	SELECT CIRCUITS	3700 WEST SGERSTROM	RCRA-LQG, ENVIROSTOR	Higher	4801, 0.909, North
50	METROPOLITAN CIRCUIT	1267 LOGAN AVENUE	HIST Cal-Sites, CA BOND EXP. PLAN, HIST CORTESE,...	Higher	4875, 0.923, SSE
51	RBC TRANSPORT DYNAMI	3131 W SEGERSTROM AV	NPDES, EMI, ENVIROSTOR, WDS	Higher	4944, 0.936, NNE
52	TRICO (FMR. UNITED C	18101-18111 MOUNT WA	ENVIROSTOR	Higher	5007, 0.948, WNW

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 8 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
1375 SUNFLOWER AVE 1375 SUNFLOWER AVE COSTA MESA, CA 92626	AST	N/A
TIMES MIRROR COMPANY 1375 SUNFLOWER AVENU COSTA MESA, CA 92626	RCRA-SQG EPA ID:: CAT080011901	CAT080011901
LOS ANGELES TIMES CO 1375 SUNFLOWER AVE COSTA MESA, CA 92626	SWEEPS UST Comp Number: 161 Status: A Tank Status: A EMI Facility Id: 124906	N/A
L A TIMES 1375 SUNFLOWER COSTA MESA, CA	RGA LUST	N/A
LOS ANGELES TIMES-NO 1375 SUNFLOWER AVE COSTA MESA, CA	RGA LUST	N/A
LOS ANGELES TIMES-NO 1375 SUNFLOWER COSTA MESA, CA	RGA LUST	N/A
LOS ANGELES TIMES CO 1375 SUNFLOWER COSTA MESA, CA 92626	RCRA-SQG EPA ID:: CAD043644236 FINDS Registry ID:: 110001152984 NPDES Facility Status: Active HIST CORTESE Reg Id: 083001520T LUST Global Id: T0605901160 Global Id: T0605979014 Global Id: T0605999595 Current Status: 9 Current Status: 7 Global ID: T0605901160 Global ID: T0605979014 Global ID: T0605999595 Status: Open - Remediation Status: Completed - Case Closed Facility Id: 88UT115 Facility Id: 91UT064 Facility Id: 92UT073 Facility Status: Remedial action (cleanup) Underway Facility Status: Post remedial action monitoring Facility Status: Case Closed CA FID LUST	CAD043644236

EXECUTIVE SUMMARY

L.A. TIMES 1375 SUNFLOWER AVENU COSTA MESA, CA	RGA LUST	N/A
LOS ANGELES TIMES CO 1375 SUNFLOWER AVE COSTA MESA, CA 92626	HAZNET GEPAID: CAD043644236	N/A
LOS ANGELES TIMES BL LOS ANGELES TIMES BL COSTA MESA, CA 92626	ERNS EDR ID:: 00171223	N/A
1375 SUNFLOWER 1375 SUNFLOWER COSTA MESA, CA 92626	ERNS EDR ID:: 00238303	N/A
LOS ANGELES TIMES 1375 SUNFLOWER AVENU COSTA MESA, CA	RGA LUST	N/A
LOS ANGELES TIMES 1375 COSTA MESA, CA	RGA LUST	N/A
LOS ANGELES TIMES-SO 1375 SUNFLOWER COSTA MESA, CA	RGA LUST	N/A
L A TIMES 1375 SUNFLOWER AVE COSTA MESA, CA	RGA LUST	N/A
LOS ANGELES TIMES-SO 1375 SUNFLOWER AVE COSTA MESA, CA	RGA LUST	N/A
LOS ANGELES TIMES 1375 SUNFLOWER AVE. COSTA MESA, CA 92626	EMI Facility Id: 124906	N/A
LOS ANGELES TIMES 1375 SUNFLOWER AVE COSTA MESA, CA	RGA LUST	N/A

EXECUTIVE SUMMARY

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ..... National Priority List
Proposed NPL ..... Proposed National Priority List Sites
NPL LIENS ..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ..... National Priority List Deletions

Federal CERCLIS list

CERCLIS ..... Comprehensive Environmental Response, Compensation, and Liability Information System
FEDERAL FACILITY ..... Federal Facility Site Information listing

Federal RCRA generators list

RCRA-CESQG ..... RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

US ENG CONTROLS ..... Engineering Controls Sites List
US INST CONTROL ..... Sites with Institutional Controls
LUCIS ..... Land Use Control Information System

State and tribal landfill and/or solid waste disposal site lists

SWF/LF ..... Solid Waste Information System

State and tribal leaking storage tank lists

INDIAN LUST ..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

INDIAN UST ..... Underground Storage Tanks on Indian Land
FEMA UST ..... Underground Storage Tank Listing

State and tribal voluntary cleanup sites

INDIAN VCP ..... Voluntary Cleanup Priority Listing
VCP ..... Voluntary Cleanup Program Properties

EXECUTIVE SUMMARY

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

DEBRIS REGION 9 ..... Torres Martinez Reservation Illegal Dump Site Locations
ODI ..... Open Dump Inventory
SWRCY ..... Recycler Database
HAULERS ..... Registered Waste Tire Haulers Listing
INDIAN ODI ..... Report on the Status of Open Dumps on Indian Lands
WMUDS/SWAT ..... Waste Management Unit Database

Local Lists of Hazardous waste / Contaminated Sites

US CDL ..... Clandestine Drug Labs
SCH ..... School Property Evaluation Program
Toxic Pits ..... Toxic Pits Cleanup Act Sites
CDL ..... Clandestine Drug Labs
US HIST CDL ..... National Clandestine Laboratory Register

Local Land Records

LIENS 2 ..... CERCLA Lien Information
LIENS ..... Environmental Liens Listing
DEED ..... Deed Restriction Listing

Records of Emergency Release Reports

HMIRS ..... Hazardous Materials Information Reporting System
CHMIRS ..... California Hazardous Material Incident Report System
LDS ..... Land Disposal Sites Listing
MCS ..... Military Cleanup Sites Listing
SPILLS 90 ..... SPILLS 90 data from FirstSearch

Other Ascertainable Records

DOT OPS ..... Incident and Accident Data
DOD ..... Department of Defense Sites
FUDS ..... Formerly Used Defense Sites
CONSENT ..... Superfund (CERCLA) Consent Decrees
ROD ..... Records Of Decision
UMTRA ..... Uranium Mill Tailings Sites
US MINES ..... Mines Master Index File
TRIS ..... Toxic Chemical Release Inventory System
TSCA ..... Toxic Substances Control Act
FTTS ..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS ..... FIFRA/TSCA Tracking System Administrative Case Listing
SSTS ..... Section 7 Tracking Systems
ICIS ..... Integrated Compliance Information System

EXECUTIVE SUMMARY

PADS	PCB Activity Database System
MLTS	Material Licensing Tracking System
RADINFO	Radiation Information Database
RAATS	RCRA Administrative Action Tracking System
RMP	Risk Management Plans
UIC	UIC Listing
Cortese	"Cortese" Hazardous Waste & Substances Sites List
CUPA Listings	CUPA Resources List
Notify 65	Proposition 65 Records
DRYCLEANERS	Cleaner Facilities
WIP	Well Investigation Program Case List
INDIAN RESERV	Indian Reservations
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
Financial Assurance	Financial Assurance Information Listing
PROC	Certified Processors Database
HWT	Registered Hazardous Waste Transporter Database
MWMP	Medical Waste Management Program Listing
LEAD SMELTERS	Lead Smelter Sites
EPA WATCH LIST	EPA WATCH LIST
US FIN ASSUR	Financial Assurance Information
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
COAL ASH DOE	Steam-Electric Plant Operation Data
2020 COR ACTION	2020 Corrective Action Program List
PRP	Potentially Responsible Parties

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	EDR Proprietary Manufactured Gas Plants
EDR US Hist Cleaners	EDR Exclusive Historic Dry Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF	Recovered Government Archive Solid Waste Facilities List

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

EXECUTIVE SUMMARY

STANDARD ENVIRONMENTAL RECORDS

Federal CERCLIS NFRAP site List

CERC-NFRAP: Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

A review of the CERC-NFRAP list, as provided by EDR, and dated 10/25/2013 has revealed that there is 1 CERC-NFRAP site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
A M F VOIT INC	*3801 S HARBOR BLVD*	*NW 1/8 - 1/4 (0.141 mi.)*	*C26*	*62*

Federal RCRA CORRACTS facilities list

CORRACTS: CORRACTS is a list of handlers with RCRA Corrective Action Activity. This report shows which nationally-defined corrective action core events have occurred for every handler that has had corrective action activity.

A review of the CORRACTS list, as provided by EDR, and dated 12/09/2014 has revealed that there is 1 CORRACTS site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
A M F VOIT INC	*3801 S HARBOR BLVD*	*NW 1/8 - 1/4 (0.141 mi.)*	*C26*	*62*

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRA-TSDF list, as provided by EDR, and dated 12/09/2014 has revealed that there is 1 RCRA-TSDF site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
A M F VOIT INC	*3801 S HARBOR BLVD*	*NW 1/8 - 1/4 (0.141 mi.)*	*C26*	*62*

EXECUTIVE SUMMARY

Federal RCRA generators list

RCRA-LQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

A review of the RCRA-LQG list, as provided by EDR, and dated 12/09/2014 has revealed that there are 2 RCRA-LQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SOUTH COAST CIRCUITS	3506 W LAKE CENTER D	N 1/8 - 1/4 (0.205 mi.)	D28	66

Lower Elevation	Address	Direction / Distance	Map ID	Page
BRUNSWICK CORPORATIO	3333 HARBOR BOULEVAR	W 1/8 - 1/4 (0.125 mi.)	20	52

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 12/09/2014 has revealed that there are 5 RCRA-SQG sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
BABCOCK ELECTRO-MECH	***3501 HARBOR BLVD***	***NW 0 - 1/8 (0.095 mi.)***	***19***	***51***
DRY CLEAN USA	***3701 S HARBOR BLVD E***	***NW 1/8 - 1/4 (0.187 mi.)***	***27***	***65***

Lower Elevation	Address	Direction / Distance	Map ID	Page
COSTA MESA COMMERCE	3303 S HARBOR BLVD	SW 1/8 - 1/4 (0.127 mi.)	B21	53
ON SITE PHOTO GRAPHI	***1410 3303 E6 HARBOR***	***SW 1/8 - 1/4 (0.127 mi.)***	***B22***	***55***
PERFECT PRINTING	***3303 HARBOR BLVD***	***SW 1/8 - 1/4 (0.127 mi.)***	***B23***	***56***

State- and tribal - equivalent NPL

RESPONSE: Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

A review of the RESPONSE list, as provided by EDR, and dated 05/04/2015 has revealed that there is 1 RESPONSE site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
METROPOLITAN CIRCUIT Status: Certified Facility Id: 30360008	***1267 LOGAN AVENUE***	***SSE 1/2 - 1 (0.923 mi.)***	***50***	***172***

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 05/04/2015 has revealed that there are 9 ENVIROSTOR sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
AMF VOIT INC Facility Id: 80001572 Status: Refer: RWQCB	***3801 S HARBOR BLVD***	***NW 1/8 - 1/4 (0.141 mi.)***	***C24***	***57***
SOUTH COAST CIRCUITS Facility Id: 71003634 Status: Inactive - Needs Evaluation	3506 WEST LAKE CENTE	N 1/8 - 1/4 (0.205 mi.)	D29	73
AVIATION EQUIPMENT Facility Id: 71003283 Facility Id: 30370195 Status: Inactive - Needs Evaluation Status: Refer: 1248 Local Agency	***1571 MACARTHUR BLVD***	***NNW 1/4 - 1/2 (0.496 mi.)***	***46***	***149***
ARMSTRONG RANCH HIGH Facility Id: 30010009 Status: No Further Action	***3529 SOUTH GREENVILL***	***NE 1/2 - 1 (0.742 mi.)***	***47***	***153***
PIONEER CIRCUITS INC Facility Id: 71003564 Status: Inactive - Needs Evaluation	***3000 SOUTH SHANNON S***	***NNW 1/2 - 1 (0.875 mi.)***	***48***	***157***
SELECT CIRCUITS Facility Id: 71003772 Status: Inactive - Needs Evaluation	***3700 WEST SGERSTROM***	***N 1/2 - 1 (0.909 mi.)***	***49***	***167***
METROPOLITAN CIRCUIT Facility Id: 30360008 Status: Certified	***1267 LOGAN AVENUE***	***SSE 1/2 - 1 (0.923 mi.)***	***50***	***172***
RBC TRANSPORT DYNAMI Facility Id: 71002407 Status: Inactive - Needs Evaluation	***3131 W SEGERSTROM AV***	***NNE 1/2 - 1 (0.936 mi.)***	***51***	***191***
TRICO (FMR. UNITED C Facility Id: 60002073 Status: Active	18101-18111 MOUNT WA	WNW 1/2 - 1 (0.948 mi.)	52	199

EXECUTIVE SUMMARY

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the LUST list, as provided by EDR, and dated 03/13/2015 has revealed that there are 14 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
AMF VOIT INC Global Id: T0605900473 Status: Completed - Case Closed	***3801 S HARBOR BLVD***	***NW 1/8 - 1/4 (0.141 mi.)***	***C24***	***57***
MINSTAR (AMF-VOIT) Global ID: T0605900473 Facility Status: Case Closed	***3801 HARBOR***	***NW 1/8 - 1/4 (0.141 mi.)***	***C25***	***60***
ARCO#6131 Global Id: T0605901336 Current Status: 9 Global ID: T0605901336 Status: Completed - Case Closed Facility Id: 92UT012 Facility Status: Remedial action (cleanup) Underway	3201 HARBOR BLVD	SSW 1/4 - 1/2 (0.351 mi.)	F32	75
MOBIL #18-HDR Global Id: T0605900556 Current Status: 7 Global ID: T0605900556 Status: Open - Eligible for Closure Facility Id: 87UT226 Facility Status: Remedial action (cleanup) Underway	***3195 HARBOR BLVD***	***SSW 1/4 - 1/2 (0.361 mi.)***	***F33***	***78***
CHEVRON 94660 Global Id: T0605998652 Global Id: T0605900914 Current Status: 9 Global ID: T0605900914 Status: Completed - Case Closed Facility Id: 98UT111 Facility Id: 89UT031 Facility Status: Case Closed	***3190 HARBOR BLVD.***	***SSW 1/4 - 1/2 (0.366 mi.)***	***F34***	***86***
C J SEGERSTROM & SON Global Id: T0605901920 Current Status: 9 Global ID: T0605901920 Status: Completed - Case Closed Facility Id: 95UT073 Facility Status: Case Closed	***3315 FAIRVIEW RD***	***ESE 1/4 - 1/2 (0.446 mi.)***	***41***	***129***
UNOCAL #5404 Global Id: T0605901461 Current Status: 8 Global ID: T0605901461 Status: Open - Remediation Facility Id: 91UT134 Facility Status: Post remedial action monitoring	***3599 HARBOR BLVD***	***NNW 1/4 - 1/2 (0.459 mi.)***	***H44***	***142***
UNION CAR WASH/BEACO Global ID: T0605900458 Facility Status: Case Closed	1501 MACARTHUR BLVD	NNW 1/4 - 1/2 (0.464 mi.)	H45	147

EXECUTIVE SUMMARY

Lower Elevation	Address	Direction / Distance	Map ID	Page
ICN PHARMACEUTICALS	***3300 HYLAND AVE***	***W 1/4 - 1/2 (0.427 mi.)***	***36***	***101***
Global Id: T0605900064 Current Status: 9 Global ID: T0605900064 Status: Completed - Case Closed Facility Id: 89UT150 Facility Status: Case Closed				
STATE FARM INSURANCE	***3333 HYLAND AVE***	***W 1/4 - 1/2 (0.432 mi.)***	***37***	***104***
Global Id: T0605957851 Global Id: T0605901167 Current Status: 9 Global ID: T0605901167 Status: Completed - Case Closed Facility Id: 93UT001 Facility Id: 90UT111 Facility Status: Case Closed				
AUTOMOBILE CLUB OF S	***3333 FAIRVIEW RD***	***ESE 1/4 - 1/2 (0.436 mi.)***	***38***	***114***
Global Id: T0605902033 Current Status: 9 Global ID: T0605902033 Status: Completed - Case Closed Facility Id: 97UT003 Facility Status: Case Closed				
SHELL SERVICE STATIO	***3820 S FAIRVIEW / SU***	***ENE 1/4 - 1/2 (0.445 mi.)***	***G39***	***118***
Global Id: T0605902158 Status: Open - Remediation				
SHELL #3820	3820 FAIRVIEW AVE	ENE 1/4 - 1/2 (0.445 mi.)	G40	128
Global ID: T0605902158 Facility Status: Pollution Characterization				
MOBIL #18-JMY	***3470 FAIRVIEW RD***	***ENE 1/4 - 1/2 (0.453 mi.)***	***G43***	***134***
Global Id: T0605900040 Global Id: T0605901818 Current Status: 7 Current Status: 9 Global ID: T0605900040 Global ID: T0605901818 Status: Open - Remediation Status: Completed - Case Closed Facility Id: 94UT055 Facility Id: 86UT174 Facility Status: Remedial action (cleanup) Underway Facility Status: Case Closed				

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

EXECUTIVE SUMMARY

HIST Cal-Sites: Formerly known as ASPIS, this database contains both known and potential hazardous substance sites. The source is the California Department of Toxic Substance Control. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

A review of the HIST Cal-Sites list, as provided by EDR, and dated 08/08/2005 has revealed that there is 1 HIST Cal-Sites site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
METROPOLITAN CIRCUIT	***1267 LOGAN AVENUE***	***SSE 1/2 - 1 (0.923 mi.)***	***50***	***172***

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 12/09/2014 has revealed that there is 1 RCRA NonGen / NLR site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
A M F VOIT INC	***3801 S HARBOR BLVD***	***NW 1/8 - 1/4 (0.141 mi.)***	***C26***	***62***

CA BOND EXP. PLAN: Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

A review of the CA BOND EXP. PLAN list, as provided by EDR, and dated 01/01/1989 has revealed that there is 1 CA BOND EXP. PLAN site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
METROPOLITAN CIRCUIT	***1267 LOGAN AVENUE***	***SSE 1/2 - 1 (0.923 mi.)***	***50***	***172***

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 11 HIST CORTESE sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
MINSTAR (AMF-VOIT) Reg Id: 083000587T	***3801 HARBOR***	***NW 1/8 - 1/4 (0.141 mi.)***	***C25***	***60***
MOBIL #18-HDR Reg Id: 083000703T	***3195 HARBOR BLVD***	***SSW 1/4 - 1/2 (0.361 mi.)***	***F33***	***78***
CHEVRON 94660 Reg Id: 083001156T	***3190 HARBOR BLVD.***	***SSW 1/4 - 1/2 (0.366 mi.)***	***F34***	***86***
C J SEGERSTROM & SON Reg Id: 083002787T	***3315 FAIRVIEW RD***	***ESE 1/4 - 1/2 (0.446 mi.)***	***41***	***129***
UNOCAL #5404 Reg Id: 083001957T	***3599 HARBOR BLVD***	***NNW 1/4 - 1/2 (0.459 mi.)***	***H44***	***142***

Lower Elevation	Address	Direction / Distance	Map ID	Page
SHELL SERVICE STATIO Reg Id: 083003174T	3820	ENE 1/4 - 1/2 (0.426 mi.)	G35	101
ICN PHARMACEUTICALS Reg Id: 083000081T	***3300 HYLAND AVE***	***W 1/4 - 1/2 (0.427 mi.)***	***36***	***101***
STATE FARM INSURANCE Reg Id: 083001527T	***3333 HYLAND AVE***	***W 1/4 - 1/2 (0.432 mi.)***	***37***	***104***
AUTOMOBILE CLUB OF S Reg Id: 083000754T Reg Id: 083002970T	***3333 FAIRVIEW RD***	***ESE 1/4 - 1/2 (0.436 mi.)***	***38***	***114***
ARCO #3083 Reg Id: 083000049T	3470 FAIRVIEW	ENE 1/4 - 1/2 (0.453 mi.)	G42	133
MOBIL #18-JMY Reg Id: 083002609T	***3470 FAIRVIEW RD***	***ENE 1/4 - 1/2 (0.453 mi.)***	***G43***	***134***

HWP: Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

A review of the HWP list, as provided by EDR, and dated 02/23/2015 has revealed that there is 1 HWP site within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
AMF VOIT INC EPA Id: CAD008369753 Cleanup Status: CLOSED	***3801 S HARBOR BLVD***	***NW 1/8 - 1/4 (0.141 mi.)***	***C24***	***57***

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR US Hist Auto Stat: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR US Hist Auto Stat list, as provided by EDR, has revealed that there are 2 EDR US Hist Auto Stat sites within approximately 0.25 miles of the target property.

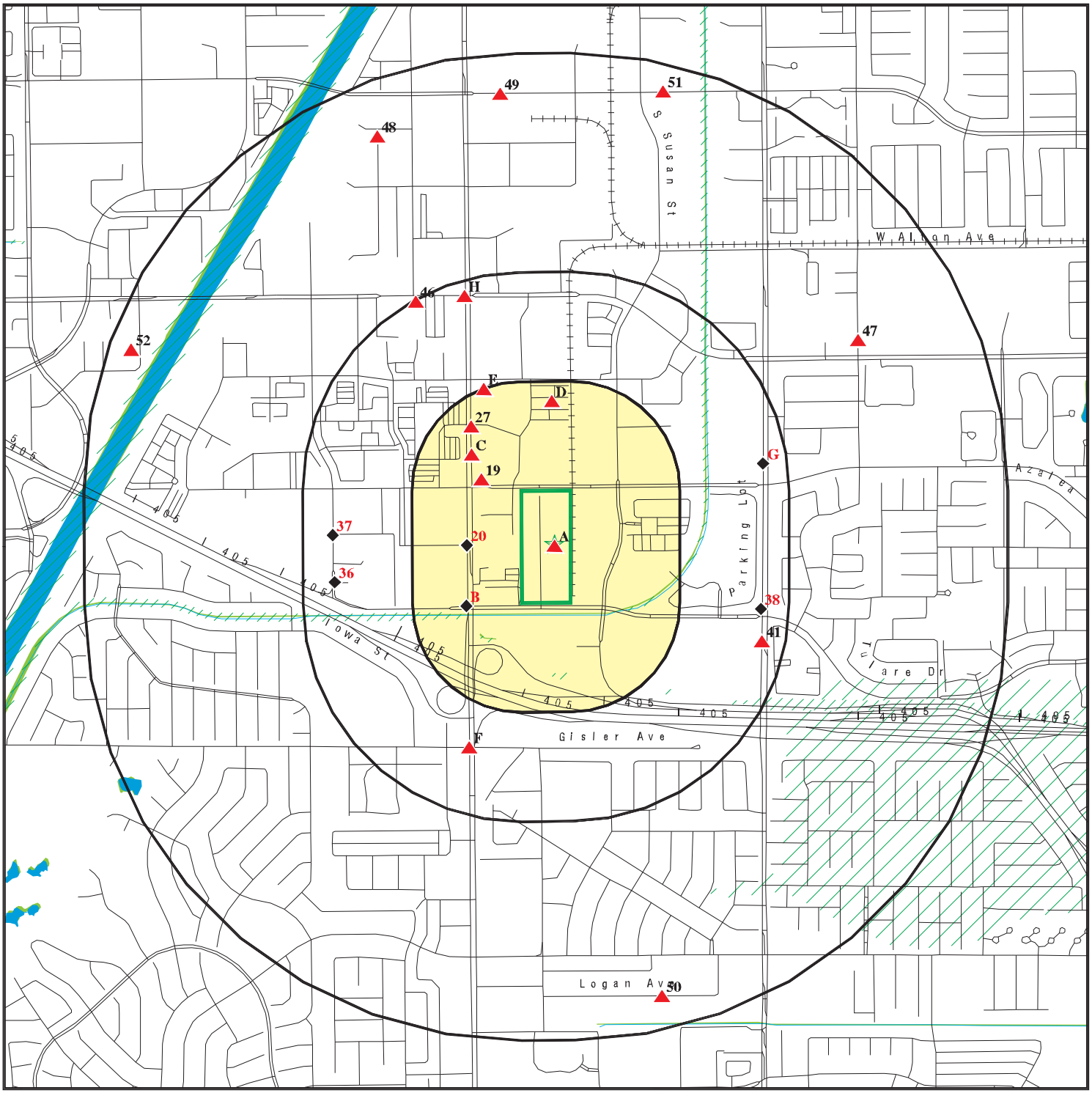
Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
Not reported	3611 S HARBOR BLVD	NNW 1/8 - 1/4 (0.248 mi.)	E30	74
Not reported	3621 S HARBOR BLVD	NNW 1/8 - 1/4 (0.248 mi.)	E31	74

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 3 records.

Site Name	Database(s)
LA QUINTA HOTEL	HAZNET
SAKIOKA FARMS	SLIC
SUNFLOWER PLAZA METRO CLEANERS	SLIC

OVERVIEW MAP - 4310748.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

0 1/4 1/2 1 Miles

Indian Reservations BIA

Oil & Gas pipelines from USGS

100-year flood zone

500-year flood zone

National Wetland Inventory

Areas of Concern

N

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: LA Times	CLIENT: GaiaTech Inc.
ADDRESS: 1375 Sunflower Avenue Costa Mesa CA 92626	CONTACT: Jen Xavier INQUIRY #: 4310748.2s
LAT/LONG: 33.6937 / 117.9161	DATE: June 01, 2015 12:58 pm

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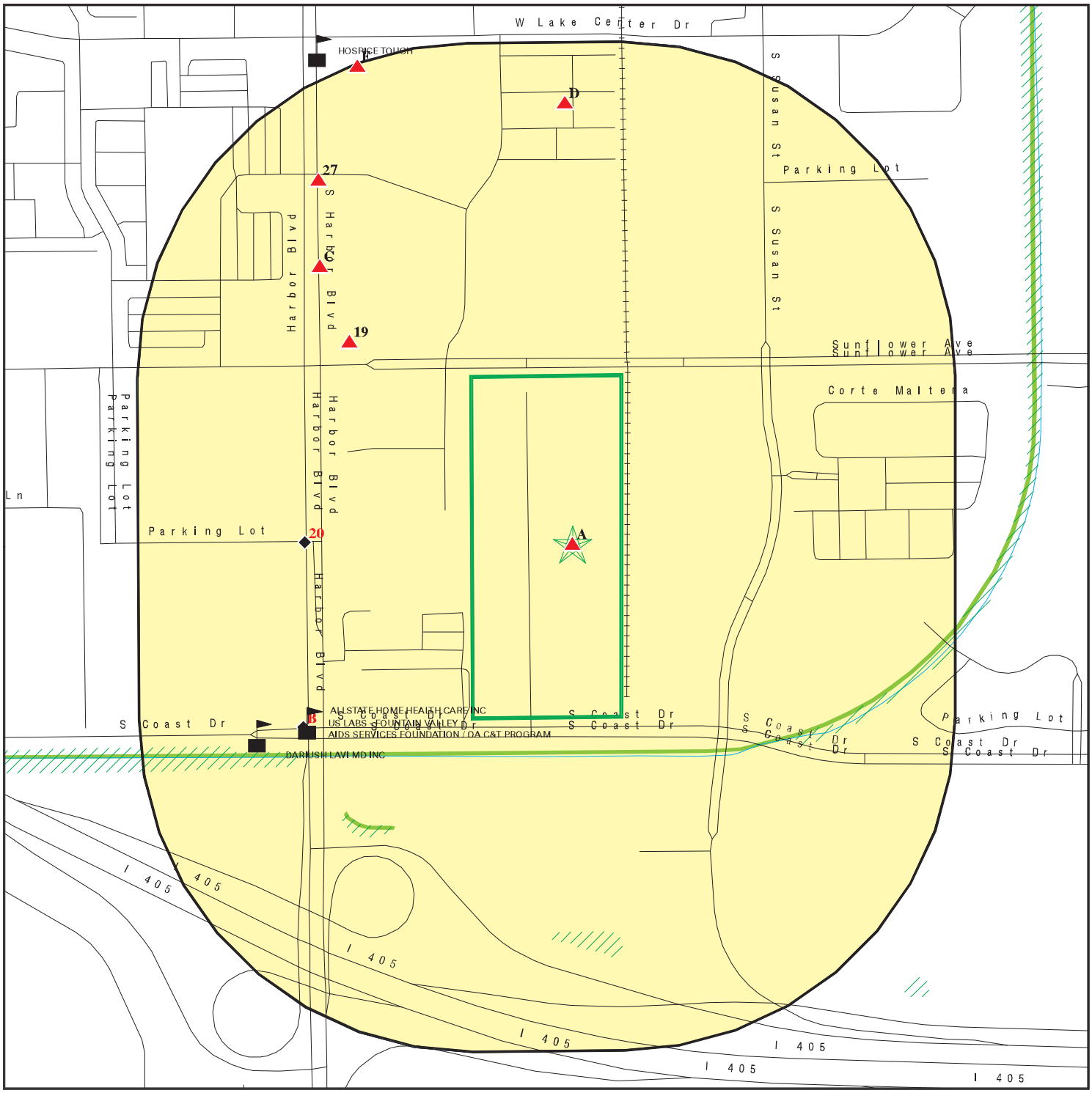
DETAIL MAP - 4310748.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

0 1/16 1/8 1/4 Miles

Indian Reservations BIA

Oil & Gas pipelines from USGS

100-year flood zone

500-year flood zone

National Wetland Inventory

Areas of Concern

N

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: LA Times	CLIENT: GaiaTech Inc.
ADDRESS: 1375 Sunflower Avenue Costa Mesa CA 92626	CONTACT: Jen Xavier INQUIRY #: 4310748.2s
LAT/LONG: 33.6937 / 117.9161	DATE: June 01, 2015 1:01 pm

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	TP		NR	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
CERCLIS	0.500		0	0	0	NR	NR	0
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site List								
CERC-NFRAP	0.500		0	1	0	NR	NR	1
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	1	0	0	NR	1
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	1	0	NR	NR	1
Federal RCRA generators list								
RCRA-LQG	0.250		0	2	NR	NR	NR	2
RCRA-SQG	0.250	2	1	4	NR	NR	NR	7
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
LUCIS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP	2	NR	NR	NR	NR	NR	2
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	1	NR	1
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000	1	0	2	1	6	NR	10
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500	1	0	2	12	NR	NR	15

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
SLIC	0.500	1	0	0	0	NR	NR	1
INDIAN LUST	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
UST	0.250	1	0	0	NR	NR	NR	1
AST	0.250	1	0	0	NR	NR	NR	1
INDIAN UST	0.250		0	0	NR	NR	NR	0
FEMA UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	TP		NR	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US CDL	TP		NR	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	1	NR	1
SCH	0.250		0	0	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
US HIST CDL	TP		NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
CA FID UST	0.250	1	0	0	NR	NR	NR	1
HIST UST	0.250	1	0	0	NR	NR	NR	1
SWEEPS UST	0.250	1	0	0	NR	NR	NR	1
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
LIENS	TP		NR	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0
CHMIRS	TP		NR	NR	NR	NR	NR	0
LDS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
MCS	TP		NR	NR	NR	NR	NR	0
Orange Co. Industrial Site	TP	1	NR	NR	NR	NR	NR	1
SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	1	NR	NR	NR	1
DOT OPS	TP		NR	NR	NR	NR	NR	0
DOD	1.000		0	0	0	0	NR	0
FUDS	1.000		0	0	0	0	NR	0
CONSENT	1.000		0	0	0	0	NR	0
ROD	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
FINDS	TP	1	NR	NR	NR	NR	NR	1
RAATS	TP		NR	NR	NR	NR	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	1	NR	1
NPDES	TP	1	NR	NR	NR	NR	NR	1
UIC	TP		NR	NR	NR	NR	NR	0
Cortese	0.500		0	0	0	NR	NR	0
HIST CORTESE	0.500	1	0	1	10	NR	NR	12
CUPA Listings	0.250		0	0	NR	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
ENF	TP	1	NR	NR	NR	NR	NR	1
HAZNET	TP	1	NR	NR	NR	NR	NR	1
EMI	TP	3	NR	NR	NR	NR	NR	3
INDIAN RESERV	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
WDS	TP	1	NR	NR	NR	NR	NR	1
Financial Assurance	TP		NR	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
HWT	0.250		0	0	NR	NR	NR	0
HWP	1.000		0	1	0	0	NR	1
MWMP	0.250		0	0	NR	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP	1	NR	NR	NR	NR	NR	1
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR US Hist Auto Stat	0.250		0	2	NR	NR	NR	2
EDR US Hist Cleaners	0.250		0	0	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LUST	TP	10	NR	NR	NR	NR	NR	10
RGA LF	TP		NR	NR	NR	NR	NR	0
- Totals --		33	1	18	23	9	0	84

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1
Target Property
1375 SUNFLOWER AVE
COSTA MESA, CA 92626

AST **A100336716**
N/A

Site 1 of 18 in cluster A

Actual: 31 ft.

AST:

Certified Unified Program Agencies:	Orange
Owner:	LOS ANGELES TIMES
Total Gallons:	1,320

A2
Target Property
TIMES MIRROR COMPANY THE
1375 SUNFLOWER AVENUE
COSTA MESA, CA 92626

RCRA-SQG **1000221231**
CAT080011901

Site 2 of 18 in cluster A

Actual: 31 ft.

RCRA-SQG:

Date form received by agency:	09/01/1996
Facility name:	TIMES MIRROR COMPANY THE
Facility address:	1375 SUNFLOWER AVENUE COSTA MESA, CA 92626
EPA ID:	CAT080011901
Mailing address:	220 W FIRST ST LOS ANGELES, CA 90053
Contact:	Not reported
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	THE TIMES MIRROR COMPANY
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

TIMES MIRROR COMPANY THE (Continued) **1000221231**

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Historical Generators:

Date form received by agency:	10/27/1980
Site name:	TIMES MIRROR COMPANY THE
Classification:	Large Quantity Generator
Violation Status:	No violations found

A3 Target Property | **LOS ANGELES TIMES COMMUNICATIONS LLC** | **SWEEPS UST** | **1005584961**
1375 SUNFLOWER AVE | **EMI** | **N/A**
COSTA MESA, CA 92626

Site 3 of 18 in cluster A

Actual: 31 ft.

SWEEPS UST:

Status:	Not reported
Comp Number:	161
Number:	Not reported
Board Of Equalization:	44-015752
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	30-000-000161-000004
Tank Status:	Not reported
Capacity:	6000
Active Date:	Not reported
Tank Use:	UNKNOWN
STG:	PRODUCT
Content:	Not reported
Number Of Tanks:	7

Status:	Not reported
Comp Number:	161
Number:	Not reported
Board Of Equalization:	44-015752
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	30-000-000161-000007
Tank Status:	Not reported

LOS ANGELES TIMES COMMUNICATIONS LLC (Continued) **1005584961**

Capacity:	1000
Active Date:	Not reported
Tank Use:	UNKNOWN
STG:	PRODUCT
Content:	Not reported
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	161
Number:	Not reported
Board Of Equalization:	44-015752
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	30-000-000161-000009
Tank Status:	Not reported
Capacity:	12000
Active Date:	Not reported
Tank Use:	UNKNOWN
STG:	PRODUCT
Content:	Not reported
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	161
Number:	Not reported
Board Of Equalization:	44-015752
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	30-000-000161-000010
Tank Status:	Not reported
Capacity:	12000
Active Date:	Not reported
Tank Use:	UNKNOWN
STG:	PRODUCT
Content:	Not reported
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	161
Number:	Not reported
Board Of Equalization:	44-015752
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	30-000-000161-000012
Tank Status:	Not reported
Capacity:	12000
Active Date:	Not reported
Tank Use:	UNKNOWN
STG:	PRODUCT
Content:	Not reported
Number Of Tanks:	Not reported

LOS ANGELES TIMES COMMUNICATIONS LLC (Continued) **1005584961**

Status:	Not reported
Comp Number:	161
Number:	Not reported
Board Of Equalization:	44-015752
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	30-000-000161-000015
Tank Status:	Not reported
Capacity:	6000
Active Date:	Not reported
Tank Use:	UNKNOWN
STG:	PRODUCT
Content:	Not reported
Number Of Tanks:	Not reported

Status:	Not reported
Comp Number:	161
Number:	Not reported
Board Of Equalization:	44-015752
Referral Date:	Not reported
Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	30-000-000161-000017
Tank Status:	Not reported
Capacity:	100000
Active Date:	Not reported
Tank Use:	UNKNOWN
STG:	PRODUCT
Content:	Not reported
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	161
Number:	9
Board Of Equalization:	44-015752
Referral Date:	09-30-92
Action Date:	09-15-92
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	30-000-000161-000011
Tank Status:	A
Capacity:	12000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	P
Content:	DIESEL
Number Of Tanks:	6

Status:	Active
Comp Number:	161
Number:	9
Board Of Equalization:	44-015752
Referral Date:	09-30-92
Action Date:	09-15-92

LOS ANGELES TIMES COMMUNICATIONS LLC (Continued) **1005584961**

Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	30-000-000161-000013
Tank Status:	A
Capacity:	12000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	161
Number:	9
Board Of Equalization:	44-015752
Referral Date:	09-30-92
Action Date:	09-15-92
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	30-000-000161-000014
Tank Status:	A
Capacity:	12000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	161
Number:	9
Board Of Equalization:	44-015752
Referral Date:	09-30-92
Action Date:	09-15-92
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	30-000-000161-000016
Tank Status:	A
Capacity:	5000
Active Date:	Not reported
Tank Use:	UNKNOWN
STG:	P
Content:	Not reported
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	161
Number:	9
Board Of Equalization:	44-015752
Referral Date:	09-30-92
Action Date:	09-15-92
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	30-000-000161-000019
Tank Status:	A
Capacity:	100000
Active Date:	Not reported

LOS ANGELES TIMES COMMUNICATIONS LLC (Continued) **1005584961**

Tank Use:	UNKNOWN
STG:	P
Content:	Not reported
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	161
Number:	9
Board Of Equalization:	44-015752
Referral Date:	09-30-92
Action Date:	09-15-92
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	30-000-000161-000020
Tank Status:	A
Capacity:	12000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

EMI:

Year:	2002
County Code:	30
Air Basin:	SC
Facility ID:	124906
Air District Name:	SC
SIC Code:	2711
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	9
Reactive Organic Gases Tons/Yr:	9
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	1
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2003
County Code:	30
Air Basin:	SC
Facility ID:	124906
Air District Name:	SC
SIC Code:	2711
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	9
Reactive Organic Gases Tons/Yr:	9
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	1
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

LOS ANGELES TIMES COMMUNICATIONS LLC (Continued) **1005584961**

Year:	2004
County Code:	30
Air Basin:	SC
Facility ID:	124906
Air District Name:	SC
SIC Code:	2711
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Y
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	9.36473
Reactive Organic Gases Tons/Yr:	9.25
Carbon Monoxide Emissions Tons/Yr:	0.9073
NOX - Oxides of Nitrogen Tons/Yr:	0.743
SOX - Oxides of Sulphur Tons/Yr:	0.00931
Particulate Matter Tons/Yr:	0.09681
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0.09

Year:	2005
County Code:	30
Air Basin:	SC
Facility ID:	124906
Air District Name:	SC
SIC Code:	2711
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	7.67359
Reactive Organic Gases Tons/Yr:	6.14055049
Carbon Monoxide Emissions Tons/Yr:	.22865
NOX - Oxides of Nitrogen Tons/Yr:	.2306
SOX - Oxides of Sulphur Tons/Yr:	.00545
Particulate Matter Tons/Yr:	.05923
Part. Matter 10 Micrometers & Smllr Tons/Yr:	.05908936

Year:	2006
County Code:	30
Air Basin:	SC
Facility ID:	124906
Air District Name:	SC
SIC Code:	2711
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	3.930201051660002933
Reactive Organic Gases Tons/Yr:	3.808
Carbon Monoxide Emissions Tons/Yr:	.263
NOX - Oxides of Nitrogen Tons/Yr:	.673
SOX - Oxides of Sulphur Tons/Yr:	.008
Particulate Matter Tons/Yr:	.323
Part. Matter 10 Micrometers & Smllr Tons/Yr:	.2492

Year:	2007
County Code:	30
Air Basin:	SC
Facility ID:	124906
Air District Name:	SC
SIC Code:	2711

LOS ANGELES TIMES COMMUNICATIONS LLC (Continued) **1005584961**

Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	3.930201051660002933
Reactive Organic Gases Tons/Yr:	3.808
Carbon Monoxide Emissions Tons/Yr:	.263
NOX - Oxides of Nitrogen Tons/Yr:	.673
SOX - Oxides of Sulphur Tons/Yr:	.008
Particulate Matter Tons/Yr:	.323
Part. Matter 10 Micrometers & Smllr Tons/Yr:	.2492

Year:	2008
County Code:	30
Air Basin:	SC
Facility ID:	124906
Air District Name:	SC
SIC Code:	2711
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	4.186234629807863300
Reactive Organic Gases Tons/Yr:	4.08357208499
Carbon Monoxide Emissions Tons/Yr:	.93703
NOX - Oxides of Nitrogen Tons/Yr:	.62
SOX - Oxides of Sulphur Tons/Yr:	.009732958268
Particulate Matter Tons/Yr:	.343850090168
Part. Matter 10 Micrometers & Smllr Tons/Yr:	.271850090168

Year:	2012
County Code:	30
Air Basin:	SC
Facility ID:	124906
Air District Name:	SC
SIC Code:	2711
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.018805641504
Reactive Organic Gases Tons/Yr:	0.01491
Carbon Monoxide Emissions Tons/Yr:	0.0425
NOX - Oxides of Nitrogen Tons/Yr:	0.1917
SOX - Oxides of Sulphur Tons/Yr:	0.000140105
Particulate Matter Tons/Yr:	0.01347
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0.01312332

A4 **L A TIMES** **RGA LUST** **S114640937**
Target **1375 SUNFLOWER** **N/A**
Property **COSTA MESA, CA**

Site 4 of 18 in cluster A

Actual:
31 ft.

RGA LUST:

2012	L A TIMES	1375 SUNFLOWER
2011	L A TIMES	1375 SUNFLOWER
2010	L A TIMES	1375 SUNFLOWER
2009	L A TIMES	1375 SUNFLOWER
2008	L A TIMES	1375 SUNFLOWER
2007	L A TIMES	1375 SUNFLOWER

L A TIMES (Continued) **S114640937**

2006	L A TIMES	1375 SUNFLOWER
2005	L A TIMES	1375 SUNFLOWER

A5 Target Property **LOS ANGELES TIMES-NORTH TANKS** **RGA LUST** **S114645325**
1375 SUNFLOWER AVE **N/A**
COSTA MESA, CA

Site 5 of 18 in cluster A

Actual: 31 ft.

RGA LUST:

2003	LOS ANGELES TIMES-NORTH TANKS	1375 SUNFLOWER AVE

A6 Target Property **LOS ANGELES TIMES-NORTH TANKS** **RGA LUST** **S114645326**
1375 SUNFLOWER **N/A**
COSTA MESA, CA

Site 6 of 18 in cluster A

Actual: 31 ft.

RGA LUST:

2012	LOS ANGELES TIMES-NORTH TANKS	1375 SUNFLOWER
2011	LOS ANGELES TIMES-NORTH TANKS	1375 SUNFLOWER
2010	LOS ANGELES TIMES-NORTH TANKS	1375 SUNFLOWER
2009	LOS ANGELES TIMES-NORTH TANKS	1375 SUNFLOWER
2008	LOS ANGELES TIMES-NORTH TANKS	1375 SUNFLOWER
2007	LOS ANGELES TIMES-NORTH TANKS	1375 SUNFLOWER
2006	LOS ANGELES TIMES-NORTH TANKS	1375 SUNFLOWER
2005	LOS ANGELES TIMES-NORTH TANKS	1375 SUNFLOWER

A7 Target Property **LOS ANGELES TIMES COMMUNICATIONS L L C** **RCRA-SQG** **1000102036**
1375 SUNFLOWER **FINDS** **CAD043644236**
COSTA MESA, CA 92626 **NPDES**
HIST CORTESE

Site 7 of 18 in cluster A **LUST**
CA FID UST
SLIC

Actual: 31 ft. **UST**
HIST UST
Orange Co. Industrial Site
ENF
EMI
ENVIROSTOR
US AIRS
WDS

RCRA-SQG:

Date form received by agency:	10/12/2000
Facility name:	LOS ANGELES TIMES COMMUNICATIONS L L C
Site name:	LOS ANGELES TIMES ORANGE COUNTY FACILITY
Facility address:	1375 SUNFLOWER
	COSTA MESA, CA 92626
EPA ID:	CAD043644236
Contact:	MARY ELLEN VOJTEK
Contact address:	Not reported
	Not reported
Contact country:	US

LOS ANGELES TIMES COMMUNICATIONS L L C (Continued) **1000102036**

Contact telephone: (213) 237-5014
Contact email: Not reported
EPA Region: 09
Land type: Private
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: L A TIMES COMMUNICATIONS LLC
Owner/operator address: 202 W 1ST ST
LOS ANGELES, CA 90012
Owner/operator country: Not reported
Owner/operator telephone: (212) 237-5014
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 08/15/2000
Site name: LOS ANGELES TIMES COMMUNICATIONS L L C
Classification: Small Quantity Generator

Date form received by agency: 08/15/2000
Site name: LOS ANGELES TIMES COMMUNICATIONS L L C
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D011
. Waste name: SILVER

LOS ANGELES TIMES COMMUNICATIONS L L C (Continued) **1000102036**

. Waste code: D039
. Waste name: TETRACHLOROETHYLENE

Date form received by agency: 09/01/1996
Site name: LOS ANGELES TIMES COMMUNICATIONS L L C
Classification: Large Quantity Generator

Date form received by agency: 04/13/1990
Site name: LOS ANGELES TIMES
Classification: Large Quantity Generator

Facility Has Received Notices of Violations:
Regulation violated: FR - 262.10-12.A
Area of violation: Generators - General
Date violation determined: 02/04/1993
Date achieved compliance: 01/11/1994
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 06/16/2011
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/30/2010
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/18/2009
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 04/25/2006
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: Local

Evaluation date: 04/01/2005
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

LOS ANGELES TIMES COMMUNICATIONS L L C (Continued) **1000102036**

Evaluation date: 01/11/1994
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 02/04/1993
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 01/11/1994
Evaluation lead agency: State Contractor/Grantee

FINDS:

Registry ID: 110001152984

Environmental Interest/Information System

AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AIRS is the national repository for information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants. AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V of the Clean Air Act.

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

US National Pollutant Discharge Elimination System (NPDES) module of the Compliance Information System (ICIS) tracks surface water permits issued under the Clean Water Act. Under NPDES, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a permit. The permit will likely contain limits on what can be discharged, impose monitoring and reporting requirements, and include other provisions to ensure that the discharge does not adversely affect water quality.

AIR MAJOR

CRITERIA AND HAZARDOUS AIR POLLUTANT INVENTORY

NPDES:
Npdes Number: CAS000001

LOS ANGELES TIMES COMMUNICATIONS L L C (Continued) **1000102036**

Facility Status:	Active
Agency Id:	0
Region:	8
Regulatory Measure Id:	209028
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	8 30I016012
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	08/14/2000
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Los Angeles Times Communications LLC
Discharge Address:	2000 E 8th St
Discharge City:	Los Angeles
Discharge State:	California
Discharge Zip:	90021
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported

LOS ANGELES TIMES COMMUNICATIONS L L C (Continued) **1000102036**

CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	8
Regulatory Measure Id:	209028
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	8 30I016012
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	05/09/2008
PROCESSED DATE:	08/14/2000
STATUS CODE NAME:	Active
STATUS DATE:	08/14/2000
PLACE SIZE:	20
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Racine Watts
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	213-237-5680
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	racine.watts@latimes.com
OPERATOR NAME:	Los Angeles Times Communications LLC
OPERATOR ADDRESS:	2000 E 8th St
OPERATOR CITY:	Los Angeles
OPERATOR STATE:	California
OPERATOR ZIP:	90021
OPERATOR CONTACT NAME:	Racine Watts
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	213-237-5680
OPERATOR CONTACT PHONE EXT:	Not reported

LOS ANGELES TIMES COMMUNICATIONS L L C (Continued) **1000102036**

OPERATOR CONTACT EMAIL:	racine.watts@latimes.com
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	714-966-5645
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Pacific Ocean
CERTIFIER NAME:	Emerson Lego
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	06-APR-12
PRIMARY SIC:	2711-Newspapers: Publishing, or Publishing and Printing
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	CAG918001
Facility Status:	Active
Agency Id:	26204
Region:	8
Regulatory Measure Id:	206063
Order No:	R8-2012-0027
Regulatory Measure Type:	Enrollee
Place Id:	228229
WDID:	8 302818001
Program Type:	NPDNONMUNIPRCS
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	12/31/1996
Expiration Date Of Regulatory Measure:	07/01/2017
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Los Angeles Times Communications LLC
Discharge Address:	2000 East 8th Street
Discharge City:	Los Angeles
Discharge State:	CA
Discharge Zip:	90021
RECEIVED DATE:	Not reported

LOS ANGELES TIMES COMMUNICATIONS L L C (Continued) **1000102036**

PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

LOS ANGELES TIMES COMMUNICATIONS L L C (Continued) **1000102036**

HIST CORTESE:

Region:	CORTESE
Facility County Code:	30
Reg By:	LTNKA
Reg Id:	083001520T

LUST:

Region:	STATE
Global Id:	T0605901160
Latitude:	33.693822
Longitude:	-117.916868
Case Type:	LUST Cleanup Site
Status:	Open - Remediation
Status Date:	02/23/1998
Lead Agency:	ORANGE COUNTY LOP
Case Worker:	DB
Local Agency:	ORANGE COUNTY LOP
RB Case Number:	083001520T
LOC Case Number:	92UT073
File Location:	Local Agency
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Diesel, Gasoline
Site History:	Please refer to recent Site Documents or Monitoring Reports in GeoTracker for site history. Orange County is not responsible for the accuracy of any professional interpretations provided in reports submitted by consultants for the responsible party.

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0605901160
Contact Type:	Regional Board Caseworker
Contact Name:	CARL BERNHARDT
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	cbernhardt@waterboards.ca.gov
Phone Number:	9517824495

Global Id:	T0605901160
Contact Type:	Local Agency Caseworker
Contact Name:	DENAMARIE BAKER
Organization Name:	ORANGE COUNTY LOP
Address:	1241 E. DYER ROAD, STE. 120
City:	SANTA ANA
Email:	dbaker@ochca.com
Phone Number:	7144336255

Status History:

Global Id:	T0605901160
Status:	Open - Case Begin Date
Status Date:	05/22/1992

Global Id:	T0605901160
Status:	Open - Remediation
Status Date:	02/23/1998

LOS ANGELES TIMES COMMUNICATIONS L L C (Continued) **1000102036**

Regulatory Activities:

Global Id:	T0605901160
Action Type:	RESPONSE
Date:	10/15/2013
Action:	Other Workplan - Regulator Responded
Global Id:	T0605901160
Action Type:	RESPONSE
Date:	03/14/2014
Action:	Other Workplan - Regulator Responded
Global Id:	T0605901160
Action Type:	ENFORCEMENT
Date:	08/12/2010
Action:	File review
Global Id:	T0605901160
Action Type:	ENFORCEMENT
Date:	04/07/2011
Action:	File review
Global Id:	T0605901160
Action Type:	ENFORCEMENT
Date:	06/01/2011
Action:	Staff Letter
Global Id:	T0605901160
Action Type:	ENFORCEMENT
Date:	12/16/2010
Action:	File review
Global Id:	T0605901160
Action Type:	Other
Date:	05/22/1992
Action:	Leak Discovery
Global Id:	T0605901160
Action Type:	REMEDIATION
Date:	02/23/1998
Action:	In Situ Physical/Chemical Treatment (other than SVE)
Global Id:	T0605901160
Action Type:	REMEDIATION
Date:	02/01/2003
Action:	Free Product Removal
Global Id:	T0605901160
Action Type:	ENFORCEMENT
Date:	07/15/2011
Action:	Staff Letter
Global Id:	T0605901160
Action Type:	ENFORCEMENT
Date:	06/02/1992
Action:	Notice of Responsibility
Global Id:	T0605901160

LOS ANGELES TIMES COMMUNICATIONS L L C (Continued) **1000102036**

Action Type: ENFORCEMENT
Date: 07/25/2003
Action: Staff Letter

Global Id: T0605901160
Action Type: ENFORCEMENT
Date: 06/20/2007
Action: Staff Letter

Global Id: T0605901160
Action Type: ENFORCEMENT
Date: 06/21/2007
Action: Staff Letter

Global Id: T0605901160
Action Type: ENFORCEMENT
Date: 09/26/2005
Action: Staff Letter

Global Id: T0605901160
Action Type: ENFORCEMENT
Date: 03/30/2005
Action: Staff Letter

Global Id: T0605901160
Action Type: ENFORCEMENT
Date: 03/27/2006
Action: Staff Letter

Global Id: T0605901160
Action Type: ENFORCEMENT
Date: 06/18/2007
Action: Staff Letter

Global Id: T0605901160
Action Type: ENFORCEMENT
Date: 12/20/2011
Action: Staff Letter

Global Id: T0605901160
Action Type: ENFORCEMENT
Date: 09/18/2012
Action: Staff Letter

Global Id: T0605901160
Action Type: ENFORCEMENT
Date: 03/15/2006
Action: Staff Letter

Global Id: T0605901160
Action Type: ENFORCEMENT
Date: 04/29/2008
Action: Staff Letter

Global Id: T0605901160
Action Type: ENFORCEMENT
Date: 11/04/2013

LOS ANGELES TIMES COMMUNICATIONS L L C (Continued) **1000102036**

Action:	Staff Letter

Global Id:	T0605901160
Action Type:	ENFORCEMENT
Date:	07/31/2013
Action:	Staff Letter

Global Id:	T0605901160
Action Type:	Other
Date:	05/22/1992
Action:	Leak Reported

Global Id:	T0605901160
Action Type:	ENFORCEMENT
Date:	10/01/2008
Action:	Staff Letter

Global Id:	T0605901160
Action Type:	ENFORCEMENT
Date:	12/22/2008
Action:	Staff Letter

Global Id:	T0605901160
Action Type:	ENFORCEMENT
Date:	11/02/2012
Action:	Staff Letter

Global Id:	T0605901160
Action Type:	ENFORCEMENT
Date:	07/13/2009
Action:	Staff Letter

Global Id:	T0605901160
Action Type:	ENFORCEMENT
Date:	12/31/2009
Action:	Staff Letter

Region:	STATE
Global Id:	T0605979014
Latitude:	33.694511
Longitude:	-117.916361
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	09/26/1990
Lead Agency:	ORANGE COUNTY LOP
Case Worker:	DB
Local Agency:	ORANGE COUNTY LOP
RB Case Number:	Not reported
LOC Case Number:	88UT115
File Location:	Local Agency
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Diesel
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

LOS ANGELES TIMES COMMUNICATIONS L L C (Continued) **1000102036**

Contact:

Global Id:	T0605979014
Contact Type:	Regional Board Caseworker
Contact Name:	CARL BERNHARDT
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	cbernhardt@waterboards.ca.gov
Phone Number:	9517824495

Global Id:	T0605979014
Contact Type:	Local Agency Caseworker
Contact Name:	DENAMARIE BAKER
Organization Name:	ORANGE COUNTY LOP
Address:	1241 E. DYER ROAD, STE. 120
City:	SANTA ANA
Email:	dbaker@ochca.com
Phone Number:	7144336255

Status History:

Global Id:	T0605979014
Status:	Open - Case Begin Date
Status Date:	05/21/1988

Global Id:	T0605979014
Status:	Completed - Case Closed
Status Date:	09/26/1990

Regulatory Activities:

Global Id:	T0605979014
Action Type:	Other
Date:	05/21/1988
Action:	Leak Discovery

Global Id:	T0605979014
Action Type:	Other
Date:	05/21/1988
Action:	Leak Reported

Region:	STATE
Global Id:	T0605999595
Latitude:	33.692277
Longitude:	-117.916434
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	02/11/2013
Lead Agency:	ORANGE COUNTY LOP
Case Worker:	DB
Local Agency:	ORANGE COUNTY LOP
RB Case Number:	SL8R156
LOC Case Number:	91UT064
File Location:	Local Agency
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Gasoline
Site History:	Please refer to recent Site Documents or Monitoring Reports in

LOS ANGELES TIMES COMMUNICATIONS L L C (Continued) **1000102036**

GeoTracker for site history. Orange County is not responsible for the accuracy of any professional interpretations provided in reports submitted by consultants for the responsible party.

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0605999595
Contact Type:	Local Agency Caseworker
Contact Name:	DENAMARIE BAKER
Organization Name:	ORANGE COUNTY LOP
Address:	1241 E. DYER ROAD, STE. 120
City:	SANTA ANA
Email:	dbaker@ochca.com
Phone Number:	7144336255

Global Id:	T0605999595
Contact Type:	Regional Board Caseworker
Contact Name:	CARL BERNHARDT
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	cbernhardt@waterboards.ca.gov
Phone Number:	9517824495

Status History:

Global Id:	T0605999595
Status:	Completed - Case Closed
Status Date:	02/11/2013

Global Id:	T0605999595
Status:	Open - Verification Monitoring
Status Date:	02/28/2002

Global Id:	T0605999595
Status:	Open - Case Begin Date
Status Date:	09/26/1990

Global Id:	T0605999595
Status:	Open - Eligible for Closure
Status Date:	01/08/2013

Regulatory Activities:

Global Id:	T0605999595
Action Type:	ENFORCEMENT
Date:	04/28/2010
Action:	Staff Letter

Global Id:	T0605999595
Action Type:	ENFORCEMENT
Date:	12/22/2010
Action:	Staff Letter

Global Id:	T0605999595
Action Type:	Other
Date:	09/26/1990
Action:	Leak Discovery

LOS ANGELES TIMES COMMUNICATIONS L L C (Continued) **1000102036**

Global Id: T0605999595
Action Type: REMEDIATION
Date: 01/01/1995
Action: Soil Vapor Extraction (SVE)

Global Id: T0605999595
Action Type: REMEDIATION
Date: 12/15/2005
Action: Soil Vapor Extraction (SVE)

Global Id: T0605999595
Action Type: REMEDIATION
Date: 02/01/2001
Action: Soil Vapor Extraction (SVE)

Global Id: T0605999595
Action Type: REMEDIATION
Date: 12/17/2001
Action: Soil Vapor Extraction (SVE)

Global Id: T0605999595
Action Type: ENFORCEMENT
Date: 02/27/1991
Action: Notice of Responsibility

Global Id: T0605999595
Action Type: ENFORCEMENT
Date: 04/18/2003
Action: Staff Letter

Global Id: T0605999595
Action Type: ENFORCEMENT
Date: 09/22/2003
Action: Staff Letter

Global Id: T0605999595
Action Type: ENFORCEMENT
Date: 03/30/2005
Action: Staff Letter

Global Id: T0605999595
Action Type: ENFORCEMENT
Date: 06/21/2007
Action: Staff Letter

Global Id: T0605999595
Action Type: ENFORCEMENT
Date: 03/15/2006
Action: Staff Letter

Global Id: T0605999595
Action Type: ENFORCEMENT
Date: 04/17/2012
Action: Staff Letter

Global Id: T0605999595
Action Type: ENFORCEMENT

LOS ANGELES TIMES COMMUNICATIONS L L C (Continued) **1000102036**

Date: 02/11/2013
Action: Closure/No Further Action Letter

Global Id: T0605999595
Action Type: ENFORCEMENT
Date: 08/10/2012
Action: Notification - Preclosure

Global Id: T0605999595
Action Type: ENFORCEMENT
Date: 08/10/2012
Action: Notification - Preclosure

Global Id: T0605999595
Action Type: ENFORCEMENT
Date: 08/10/2012
Action: Notification - Preclosure

Global Id: T0605999595
Action Type: Other
Date: 05/10/1991
Action: Leak Reported

Global Id: T0605999595
Action Type: ENFORCEMENT
Date: 03/26/2012
Action: Petition Submitted for Review

Global Id: T0605999595
Action Type: ENFORCEMENT
Date: 09/17/2012
Action: Staff Letter

Global Id: T0605999595
Action Type: ENFORCEMENT
Date: 07/15/2009
Action: Staff Letter

ORANGE CO. LUST:
Region: ORANGE
Facility Id: 88UT115
Current Status: Certification (Case Closed)
Released Substance: Diesel fuel oil and additives, Nos.1-D, 2-D, 2-4
Date Closed: 09/26/1990
Case Type: Soil Only
Record ID: RO0001604

Region: ORANGE
Facility Id: 91UT064
Current Status: Certification (Case Closed)
Released Substance: Gasoline-Automotive (motor gasoline and additives), leaded & unleaded
Date Closed: 02/11/2013
Case Type: Other Ground Water
Record ID: RO0002469

Region: ORANGE

LOS ANGELES TIMES COMMUNICATIONS L L C (Continued) **1000102036**

Facility Id:	92UT073
Current Status:	Remedial Action
Released Substance:	Diesel fuel oil and additives, Nos.1-D, 2-D, 2-4
Date Closed:	Not reported
Case Type:	Other Ground Water
Record ID:	RO0002698

Region:	ORANGE
Facility Id:	92UT073
Current Status:	Remedial Action
Released Substance:	Gasoline-Automotive (motor gasoline and additives), leaded & unleaded
Date Closed:	Not reported
Case Type:	Other Ground Water
Record ID:	RO0002698

LUST REG 8:

Region:	8
County:	Orange
Regional Board:	Santa Ana Region
Facility Status:	Remedial action (cleanup) Underway
Case Number:	083001520T
Local Case Num:	92UT073
Case Type:	Other ground water affected
Substance:	12034,800661
Qty Leaked:	0
Abate Method:	Not reported
Cross Street:	Not reported
Enf Type:	SEL
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Close Tank
Leak Cause:	Unknown
Leak Source:	Tank
Global ID:	T0605901160
How Stopped Date:	9/9/9999
Enter Date:	Not reported
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	Not reported
Discover Date:	5/22/1992
Enforcement Date:	Not reported
Close Date:	Not reported
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	2/23/1998
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	Not reported
GW Qualifies:	=
Soil Qualifies:	ND
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	33.6955108
Longitude:	-117.9137948
MTBE Date:	3/12/2002
Max MTBE GW:	3100

LOS ANGELES TIMES COMMUNICATIONS L L C (Continued) **1000102036**

MTBE Concentration:	0
Max MTBE Soil:	0
MTBE Fuel:	0
MTBE Tested:	MTBE Detected. Site tested for MTBE & MTBE detected
MTBE Class:	*
Staff:	CAB
Staff Initials:	AR
Lead Agency:	Local Agency
Local Agency:	30000L
Hydr Basin #:	Not reported
Beneficial:	MUN
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported
Summary:	Not reported

Region:	8
County:	Orange
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	Not reported
Local Case Num:	88UT115
Case Type:	Soil only
Substance:	Diesel
Qty Leaked:	0
Abate Method:	Not reported
Cross Street:	Not reported
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Close Tank
Leak Cause:	Unknown
Leak Source:	Unknown
Global ID:	T0605979014
How Stopped Date:	9/9/9999
Enter Date:	Not reported
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	Not reported
Discover Date:	5/21/1988
Enforcement Date:	Not reported
Close Date:	9/26/1990
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	Not reported
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	Not reported
Longitude:	Not reported
MTBE Date:	Not reported
Max MTBE GW:	Not reported

LOS ANGELES TIMES COMMUNICATIONS L L C (Continued) **1000102036**

MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	0
MTBE Tested:	Not Required to be Tested.
MTBE Class:	*
Staff:	CAB
Staff Initials:	AR
Lead Agency:	Local Agency
Local Agency:	30000L
Hydr Basin #:	Not reported
Beneficial:	MUN
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported
Summary: Not reported	

Region:	8
County:	Orange
Regional Board:	Santa Ana Region
Facility Status:	Post remedial action monitoring
Case Number:	SL8R156
Local Case Num:	91UT064
Case Type:	Other ground water affected
Substance:	Gasoline
Qty Leaked:	0
Abate Method:	Not reported
Cross Street:	Not reported
Enf Type:	SEL
Funding:	Not reported
How Discovered:	SA
How Stopped:	Close Tank
Leak Cause:	Unknown
Leak Source:	Tank
Global ID:	T0605999595
How Stopped Date:	9/9/9999
Enter Date:	Not reported
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	Not reported
Discover Date:	9/26/1990
Enforcement Date:	Not reported
Close Date:	Not reported
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	2/28/2002
Enter Date:	Not reported
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	Not reported
Longitude:	Not reported
MTBE Date:	Not reported
Max MTBE GW:	Not reported

LOS ANGELES TIMES COMMUNICATIONS L L C (Continued) **1000102036**

MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	1
MTBE Tested:	Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
MTBE Class:	*
Staff:	CAB
Staff Initials:	AR
Lead Agency:	Local Agency
Local Agency:	30000L
Hydr Basin #:	Not reported
Beneficial:	MUN
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported
Summary:	Not reported

CA FID UST:

Facility ID:	30001018
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	7149665645
Mail To:	Not reported
Mailing Address:	LOS ANGELES TIMES-OR
Mailing Address 2:	Not reported
Mailing City,St,Zip:	COSTA MESA 92626
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

SLIC REG 8:

Type:	Surface Water
Facility Status:	Closed
Staff:	XXX
Substance:	CHROMIUM
Lead Agency:	Local Agency
Location Code:	CM-9
Thomas Bros Code:	859-A3

ORANGE CO. UST:

Facility ID:	FA0067847

HIST UST:

Region:	STATE
Facility ID:	00000019406
Facility Type:	Other
Other Type:	NEWSPAPER
Contact Name:	Not reported
Telephone:	7149572000
Owner Name:	TIMES MIRROR CORPORATION

LOS ANGELES TIMES COMMUNICATIONS L L C (Continued) **1000102036**

Owner Address:	TIMES MIRROW SQUARE
Owner City,St,Zip:	LOS ANGELES, CA 90053
Total Tanks:	0010
Tank Num:	001
Container Num:	1
Year Installed:	1980
Tank Capacity:	00006000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor
Tank Num:	002
Container Num:	2
Year Installed:	1980
Tank Capacity:	00001000
Tank Used for:	WASTE
Type of Fuel:	WASTE OIL
Container Construction Thickness:	Not reported
Leak Detection:	None
Tank Num:	003
Container Num:	4
Year Installed:	1980
Tank Capacity:	00000000
Tank Used for:	WASTE
Type of Fuel:	Not reported
Container Construction Thickness:	Not reported
Leak Detection:	None
Tank Num:	004
Container Num:	5
Year Installed:	1980
Tank Capacity:	00012000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor
Tank Num:	005
Container Num:	6
Year Installed:	1980
Tank Capacity:	00012000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor
Tank Num:	006
Container Num:	7
Year Installed:	1980
Tank Capacity:	00012000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor

LOS ANGELES TIMES COMMUNICATIONS L L C (Continued) **1000102036**

Tank Num:	007
Container Num:	8
Year Installed:	1980
Tank Capacity:	00012000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor

Tank Num:	008
Container Num:	9
Year Installed:	1980
Tank Capacity:	00012000
Tank Used for:	PRODUCT
Type of Fuel:	UNLEADED
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor

Tank Num:	009
Container Num:	10
Year Installed:	1978
Tank Capacity:	00005000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor

Tank Num:	010
Container Num:	11
Year Installed:	Not reported
Tank Capacity:	00006000
Tank Used for:	WASTE
Type of Fuel:	Not reported
Container Construction Thickness:	Not reported
Leak Detection:	None

Orange Co. Industrial Site:

Case ID:	91IC005
Region:	ORANGE
Record ID:	RO0000337
Current Status:	CLOSED 5/15/1991
Closure Type:	Transferred to OCLOP Program
Released Chemical:	INK/SOLVENT

ENF:

Region:	8
Facility Id:	246123
Agency Name:	Los Angeles Times Communications LLC
Place Type:	Facility
Place Subtype:	Not reported
Facility Type:	Industrial
Agency Type:	Privately-Owned Business
# Of Agencies:	1
Place Latitude:	Not reported
Place Longitude:	Not reported
SIC Code 1:	2711

LOS ANGELES TIMES COMMUNICATIONS L L C (Continued) **1000102036**

SIC Desc 1:	Newspapers: Publishing, or Publishing and Printing
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	Not reported
Program Category1:	Not reported
Program Category2:	UNREGS
# Of Programs:	Not reported
WDID:	8 302600N01
Reg Measure Id:	158762
Reg Measure Type:	Unregulated
Region:	8
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Historical
Status Date:	06/17/2005
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	Not reported
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	224832
Region:	8
Order / Resolution Number:	89-031
Enforcement Action Type:	Admin Civil Liability
Effective Date:	02/24/1989

LOS ANGELES TIMES COMMUNICATIONS L L C (Continued) **1000102036**

Adoption/Issuance Date:	Not reported
Achieve Date:	3/6/1989
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 8 302600N01
Description:	SPILL OF COOLING WATER WITH CHROMATE SOLUTION.
Program:	UNREGS
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0.00
Initial Assessed Amount:	0.00
Liability $ Amount:	0.00
Project $ Amount:	0.00
Liability $ Paid:	0.00
Project $ Completed:	0.00
Total $ Paid/Completed Amount:	0.00

Region:	8
Facility Id:	246123
Agency Name:	Los Angeles Times Communications LLC
Place Type:	Facility
Place Subtype:	Not reported
Facility Type:	Industrial
Agency Type:	Privately-Owned Business
# Of Agencies:	1
Place Latitude:	Not reported
Place Longitude:	Not reported
SIC Code 1:	2711
SIC Desc 1:	Newspapers: Publishing, or Publishing and Printing
SIC Code 2:	Not reported
SIC Desc 2:	Not reported
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	Not reported
Program Category1:	Not reported
Program Category2:	UNREGS
# Of Programs:	Not reported
WDID:	8 302600N01
Reg Measure Id:	158762

LOS ANGELES TIMES COMMUNICATIONS L L C (Continued) **1000102036**

Reg Measure Type:	Unregulated
Region:	8
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Historical
Status Date:	06/17/2005
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	Not reported
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	223730
Region:	8
Order / Resolution Number:	90-039
Enforcement Action Type:	Admin Civil Liability
Effective Date:	02/05/1990
Adoption/Issuance Date:	Not reported
Achieve Date:	2/21/1990
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 8 302600N01
Description:	13383 - THREE SEPERATE DISCHARGES: 11/22/89 - 12/26/89, 11/27/89, AND 1/22/90
Program:	UNREGS
Latest Milestone Completion Date:	2/21/1990
# Of Programs1:	1
Total Assessment Amount:	30,000.00
Initial Assessed Amount:	0.00
Liability $ Amount:	30,000.00
Project $ Amount:	0.00
Liability $ Paid:	30,000.00
Project $ Completed:	0.00
Total $ Paid/Completed Amount:	30,000.00

EMI:

Year:	1987
County Code:	30
Air Basin:	SC
Facility ID:	4623
Air District Name:	SC
SIC Code:	2711

LOS ANGELES TIMES COMMUNICATIONS L L C (Continued) **1000102036**

Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	37
Reactive Organic Gases Tons/Yr:	37
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1990
County Code:	30
Air Basin:	SC
Facility ID:	4623
Air District Name:	SC
SIC Code:	2711
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	76
Reactive Organic Gases Tons/Yr:	76
Carbon Monoxide Emissions Tons/Yr:	1
NOX - Oxides of Nitrogen Tons/Yr:	2
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1995
County Code:	30
Air Basin:	SC
Facility ID:	4623
Air District Name:	SC
SIC Code:	2711
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	19
Reactive Organic Gases Tons/Yr:	18
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1996
County Code:	30
Air Basin:	SC
Facility ID:	4623
Air District Name:	SC
SIC Code:	2711
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	16
Reactive Organic Gases Tons/Yr:	12
Carbon Monoxide Emissions Tons/Yr:	0

LOS ANGELES TIMES COMMUNICATIONS L L C (Continued) **1000102036**

NOX - Oxides of Nitrogen Tons/Yr:	2
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1997
County Code:	30
Air Basin:	SC
Facility ID:	4623
Air District Name:	SC
SIC Code:	2711
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	18
Reactive Organic Gases Tons/Yr:	18
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	2
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1998
County Code:	30
Air Basin:	SC
Facility ID:	4623
Air District Name:	SC
SIC Code:	2711
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	18
Reactive Organic Gases Tons/Yr:	18
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	2
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1999
County Code:	30
Air Basin:	SC
Facility ID:	4623
Air District Name:	SC
SIC Code:	2711
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	18
Reactive Organic Gases Tons/Yr:	18
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	2
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	2000

LOS ANGELES TIMES COMMUNICATIONS L L C (Continued) **1000102036**

County Code:	30
Air Basin:	SC
Facility ID:	4623
Air District Name:	SC
SIC Code:	2711
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	18
Reactive Organic Gases Tons/Yr:	18
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	2
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

ENVIROSTOR:

Facility ID:	71003669
Status:	Inactive - Needs Evaluation
Status Date:	Not reported
Site Code:	Not reported
Site Type:	Tiered Permit
Site Type Detailed:	Tiered Permit
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	Not reported
Division Branch:	Cleanup Cypress
Assembly:	74
Senate:	37
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not reported
Latitude:	33.69555
Longitude:	-117.9158
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	CAD043644236
Alias Type:	EPA Identification Number
Alias Name:	110001152984
Alias Type:	EPA (FRS #)
Alias Name:	71003669
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	Not reported
Completed Sub Area Name:	Not reported
Completed Document Type:	Not reported
Completed Date:	Not reported
Comments:	Not reported

LOS ANGELES TIMES COMMUNICATIONS L L C (Continued) **1000102036**

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

AIRS (AFS):

Compliance and Violation Data Major Sources:

EPA plant ID:	110001152984
Plant name:	LOS ANGELES TIMES COMMUNICATIONS LLC
Plant address:	1375 SUNFLOWER AVE COSTA MESA, CA 92626
County:	ORANGE
Region code:	09
Dunn & Bradst #:	043644236
Air quality cntrl region:	024
Sic code:	2711
Sic code desc:	NEWSPAPERS
North Am. industrial classf:	511110
NAIC code description:	Newspaper Publishers
Default compliance status:	IN COMPLIANCE - INSPECTION
Default classification:	ACTUAL OR POTENTIAL EMISSIONS ARE ABOVE THE APPLICABLE MAJOR SOURCE THRESHOLDS
Govt facility:	ALL OTHER FACILITIES NOT OWNED OR OPERATED BY A FEDERAL, STATE, OR LOCAL GOVERNMENT
Current HPV:	Not reported

WDS:

Facility ID:	Santa Ana River 30I016012
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	8
Facility Telephone:	Not reported
Facility Contact:	Not reported
Agency Name:	LOS ANGELES TIMES
Agency Address:	202 W. 1ST STREET
Agency City,St,Zip:	LOS ANGELES 90012
Agency Contact:	MARY ELLEN VOJTEK
Agency Telephone:	2132375014
Agency Type:	Private
SIC Code:	0
SIC Code 2:	Not reported

LOS ANGELES TIMES COMMUNICATIONS L L C (Continued) **1000102036**

Primary Waste Type:	Not reported
Primary Waste:	Not reported
Waste Type2:	Not reported
Waste2:	Not reported
Primary Waste Type:	Not reported
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported
Design Flow:	0
Baseline Flow:	0
Reclamation:	Not reported
POTW:	Not reported
Treat To Water:	Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.
Complexity:	Category C - Facilities having no waste treatment systems, such as cooling water dischargers or thosewho must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.
Facility ID:	Santa Ana River 302818001
Facility Type:	Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.
Facility Status:	Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.
NPDES Number:	CAG918001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board
Subregion:	8
Facility Telephone:	2132375014
Facility Contact:	MARY ELLEN VOJTEK
Agency Name:	LOS ANGELES TIMES
Agency Address:	202 W. 1ST STREET
Agency City,St,Zip:	LOS ANGELES 90012
Agency Contact:	MARY ELLEN VOJTEK
Agency Telephone:	2132375014
Agency Type:	Private
SIC Code:	4959
SIC Code 2:	Not reported
Primary Waste Type:	Hazardous/Influent or Solid Wastes that contain toxic, corrosive, ignitable or reactive substances and must be managed according to applicable DOHS standards.
Primary Waste:	CNWTRS
Waste Type2:	Not reported
Waste2:	Contaminated Ground Water
Primary Waste Type:	Hazardous/Influent or Solid Wastes that contain toxic, corrosive, ignitable or reactive substances and must be managed according to applicable DOHS standards.
Secondary Waste:	Not reported
Secondary Waste Type:	Not reported

LOS ANGELES TIMES COMMUNICATIONS L L C (Continued) **1000102036**

Design Flow:	0
Baseline Flow:	0
Reclamation:	No reclamation requirements associated with this facility.
POTW:	The facility is not a POTW.
Treat To Water:	Moderate Threat to Water Quality. A violation could have a major adverse impact on receiving biota, can cause aesthetic impairment to a significant human population, or render unusable a potential domestic or municipal water supply. Awsthetic impairment would include nuisance from a waste treatment facility.
Complexity:	Category B - Any facility having a physical, chemical, or biological waste treatment system (except for septic systems with subsurface disposal), or any Class II or III disposal site, or facilities without treatment systems that are complex, such as marinas with petroleum products, solid wastes, and sewage pump out facilities.

A8 Target Property **L.A. TIMES** **RGA LUST** **S114641047**
1375 SUNFLOWER AVENUE **N/A**
COSTA MESA, CA

Site 8 of 18 in cluster A

Actual: 31 ft.

RGA LUST:

1992	L.A. TIMES	1375 SUNFLOWER AVENUE

A9 Target Property **LOS ANGELES TIMES COMMUNICATIONS LLC** **HAZNET** **S113000577**
1375 SUNFLOWER AVE **N/A**
COSTA MESA, CA 92626

Site 9 of 18 in cluster A

Actual: 31 ft.

HAZNET:

envid:	S113000577
Year:	2012
GEPAID:	CAD043644236
Contact:	EMERSON LEGO/MGR ENVMTL AFFAIR
Telephone:	2132373040
Mailing Name:	Not reported
Mailing Address:	2000 E 8TH ST
Mailing City,St,Zip:	LOS ANGELES, CA 900210000
Gen County:	Orange
TSD EPA ID:	NVT330010000
TSD County:	99
Waste Category:	Not reported
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.1
Facility County:	Orange

envid:	S113000577
Year:	2012
GEPAID:	CAD043644236
Contact:	EMERSON LEGO/MGR ENVMTL AFFAIR
Telephone:	2132373040
Mailing Name:	Not reported
Mailing Address:	2000 E 8TH ST
Mailing City,St,Zip:	LOS ANGELES, CA 900210000

LOS ANGELES TIMES COMMUNICATIONS LLC (Continued) **S113000577**

Gen County:	Orange
TSD EPA ID:	CAT080013352
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.38
Facility County:	Orange

envid:	S113000577
Year:	2012
GEPAID:	CAD043644236
Contact:	EMERSON LEGO/MGR ENVMTL AFFAIR
Telephone:	2132373040
Mailing Name:	Not reported
Mailing Address:	2000 E 8TH ST
Mailing City,St,Zip:	LOS ANGELES, CA 900210000
Gen County:	Orange
TSD EPA ID:	ARD981057870
TSD County:	99
Waste Category:	Not reported
Disposal Method:	Fuel Blending Prior To Energy Recovery At Another Site
Tons:	0.22101
Facility County:	Orange

envid:	S113000577
Year:	2011
GEPAID:	CAD043644236
Contact:	EMERSON LEGO/MGR ENVMTL AFFAIR
Telephone:	2132373040
Mailing Name:	Not reported
Mailing Address:	2000 E 8TH ST
Mailing City,St,Zip:	LOS ANGELES, CA 900210000
Gen County:	Not reported
TSD EPA ID:	TXD077603371
TSD County:	Not reported
Waste Category:	Unspecified solvent mixture
Disposal Method:	Fuel Blending Prior To Energy Recovery At Another Site
Tons:	0.06
Facility County:	Orange

envid:	S113000577
Year:	2011
GEPAID:	CAD043644236
Contact:	EMERSON LEGO/MGR ENVMTL AFFAIR
Telephone:	2132373040
Mailing Name:	Not reported
Mailing Address:	2000 E 8TH ST
Mailing City,St,Zip:	LOS ANGELES, CA 900210000
Gen County:	Not reported
TSD EPA ID:	NVT330010000
TSD County:	Not reported
Waste Category:	Other organic solids
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.6
Facility County:	Orange

LOS ANGELES TIMES COMMUNICATIONS LLC (Continued) **S113000577**

Click this hyperlink while viewing on your computer to access
255 additional CA_HAZNET: record(s) in the EDR Site Report.

A10
Target Property
Actual: 31 ft.

ERNS **90171223**
N/A

LOS ANGELES TIMES BLDG./1375 W.SUNFLOWER
COSTA MESA, CA 92626

Site 10 of 18 in cluster A

Click this hyperlink while viewing on your computer to access
additional ERNS detail in the EDR Site Report.

A11
Target Property
Actual: 31 ft.

ERNS **91238303**
N/A

1375 SUNFLOWER
COSTA MESA, CA 92626

Site 11 of 18 in cluster A

Click this hyperlink while viewing on your computer to access
additional ERNS detail in the EDR Site Report.

A12
Target Property
Actual: 31 ft.

RGA LUST **S114645331**
N/A

LOS ANGELES TIMES
1375 SUNFLOWER AVENUE
COSTA MESA, CA

Site 12 of 18 in cluster A

RGA LUST:

1998	LOS ANGELES TIMES	1375 SUNFLOWER AVENUE
1997	LOS ANGELES TIMES	1375 SUNFLOWER AVENUE
1996	LOS ANGELES TIMES	1375 SUNFLOWER AVENUE
1995	LOS ANGELES TIMES	1375 SUNFLOWER AVENUE
1994	LOS ANGELES TIMES	1375 SUNFLOWER AVENUE
1993	LOS ANGELES TIMES	1375 SUNFLOWER AVENUE

A13
Target Property
Actual: 31 ft.

RGA LUST **S114645332**
N/A

LOS ANGELES TIMES
1375
COSTA MESA, CA

Site 13 of 18 in cluster A

RGA LUST:

2000	LOS ANGELES TIMES	1375

A14 Target Property — **LOS ANGELES TIMES-SOUTH TANKS**, **1375 SUNFLOWER**, **COSTA MESA, CA** — **RGA LUST** — **S114645329**, **N/A**

Site 14 of 18 in cluster A

Actual: 31 ft.

RGA LUST:

2012	LOS ANGELES TIMES-SOUTH TANKS	1375 SUNFLOWER
2011	LOS ANGELES TIMES-SOUTH TANKS	1375 SUNFLOWER
2010	LOS ANGELES TIMES-SOUTH TANKS	1375 SUNFLOWER
2009	LOS ANGELES TIMES-SOUTH TANKS	1375 SUNFLOWER
2008	LOS ANGELES TIMES-SOUTH TANKS	1375 SUNFLOWER
2007	LOS ANGELES TIMES-SOUTH TANKS	1375 SUNFLOWER
2006	LOS ANGELES TIMES-SOUTH TANKS	1375 SUNFLOWER
2005	LOS ANGELES TIMES-SOUTH TANKS	1375 SUNFLOWER

A15 Target Property — **L A TIMES**, **1375 SUNFLOWER AVE**, **COSTA MESA, CA** — **RGA LUST** — **S114640936**, **N/A**

Site 15 of 18 in cluster A

Actual: 31 ft.

RGA LUST:

2003	L A TIMES	1375 SUNFLOWER AVE

A16 Target Property — **LOS ANGELES TIMES-SOUTH TANKS**, **1375 SUNFLOWER AVE**, **COSTA MESA, CA** — **RGA LUST** — **S114645328**, **N/A**

Site 16 of 18 in cluster A

Actual: 31 ft.

RGA LUST:

2003	LOS ANGELES TIMES-SOUTH TANKS	1375 SUNFLOWER AVE

A17 Target Property — **LOS ANGELES TIMES**, **1375 SUNFLOWER AVE.**, **COSTA MESA, CA 92626** — **EMI** — **S106834724**, **N/A**

Site 17 of 18 in cluster A

Actual: 31 ft.

EMI:

Year:	2001
County Code:	30
Air Basin:	SC
Facility ID:	124906
Air District Name:	SC
SIC Code:	2711
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Y
Consolidated Emission Reporting Rule:	B
Total Organic Hydrocarbon Gases Tons/Yr:	10
Reactive Organic Gases Tons/Yr:	10
Carbon Monoxide Emissions Tons/Yr:	3
NOX - Oxides of Nitrogen Tons/Yr:	11
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	1
Part. Matter 10 Micrometers & Smllr Tons/Yr:	1

LOS ANGELES TIMES (Continued) **S106834724**

Year:	2009
County Code:	30
Air Basin:	SC
Facility ID:	124906
Air District Name:	SC
SIC Code:	2711
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	3.1370514971565799
Reactive Organic Gases Tons/Yr:	3.023142
Carbon Monoxide Emissions Tons/Yr:	1.08412
NOX - Oxides of Nitrogen Tons/Yr:	0.48235
SOX - Oxides of Sulphur Tons/Yr:	0.0106245
Particulate Matter Tons/Yr:	0.350657
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0.27846675199999998

Year:	2010
County Code:	30
Air Basin:	SC
Facility ID:	124906
Air District Name:	SC
SIC Code:	2711
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.87149321585437101
Reactive Organic Gases Tons/Yr:	0.81301999999999996
Carbon Monoxide Emissions Tons/Yr:	0.44932
NOX - Oxides of Nitrogen Tons/Yr:	0.33898
SOX - Oxides of Sulphur Tons/Yr:	5.9699999999999996E-3
Particulate Matter Tons/Yr:	0.30769999999999997
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0.23409568

Year:	2011
County Code:	30
Air Basin:	SC
Facility ID:	124906
Air District Name:	SC
SIC Code:	2711
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.044681894431
Reactive Organic Gases Tons/Yr:	0.02583
Carbon Monoxide Emissions Tons/Yr:	0.18407
NOX - Oxides of Nitrogen Tons/Yr:	0.23958
SOX - Oxides of Sulphur Tons/Yr:	0.00389
Particulate Matter Tons/Yr:	0.02813
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0.02770856

A18 Target Property | **LOS ANGELES TIMES** | **RGA LUST** | **S114645330**
1375 SUNFLOWER AVE | **N/A**
COSTA MESA, CA

Site 18 of 18 in cluster A

Actual: 31 ft.

RGA LUST:

2002	LOS ANGELES TIMES	1375 SUNFLOWER AVE
2001	LOS ANGELES TIMES	1375 SUNFLOWER AVE

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19 NW < 1/8 0.095 mi. 502 ft. | **BABCOCK ELECTRO-MECHANICAL INC** | **RCRA-SQG FINDS** | **1000178702**
3501 HARBOR BLVD | **CAD087387759**
COSTA MESA, CA 92626

Relative: Higher

Actual: 32 ft.

RCRA-SQG:

Date form received by agency:	09/01/1996
Facility name:	BABCOCK ELECTRO-MECHANICAL INC
Facility address:	3501 HARBOR BLVD COSTA MESA, CA 92626
EPA ID:	CAD087387759
Mailing address:	3501 HARBOR BLVD. COSTA MESA, CA 92626
Contact:	Not reported
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	BABCOCK MECHANICAL,INC.
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	NOT REQUIRED
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

BABCOCK ELECTRO-MECHANICAL INC (Continued) **1000178702**

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Historical Generators:

Date form received by agency:	08/18/1980
Site name:	BABCOCK ELECTRO-MECHANICAL INC
Classification:	Large Quantity Generator
Violation Status:	No violations found

FINDS:

Registry ID: 110002662510

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

CRITERIA AND HAZARDOUS AIR POLLUTANT INVENTORY

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20 West 1/8-1/4 0.125 mi. 661 ft.

Relative: Lower

Actual: 27 ft.

BRUNSWICK CORPORATION DEFENSE DIVISION **RCRA-LQG** **1007199597**
3333 HARBOR BOULEVARD **CAD981683626**
COSTA MESA, CA 92626

RCRA-LQG:

Date form received by agency:	03/30/1994
Facility name:	BRUNSWICK CORPORATION DEFENSE DIVISION
Facility address:	3333 HARBOR BOULEVARD COSTA MESA, CA 926260000
EPA ID:	CAD981683626
Contact:	VIRGIL WENTZ
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	(714) 546-8030
Telephone ext.:	6333

BRUNSWICK CORPORATION DEFENSE DIVISION (Continued) **1007199597**

Contact email: Not reported
EPA Region: 09
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

B21 **COSTA MESA COMMERCE PARK** **RCRA-SQG** **1007569217**
SW **3303 S HARBOR BLVD** **CAR000157313**
1/8-1/4 **COSTA MESA, CA 92626**
0.127 mi.
671 ft. **Site 1 of 3 in cluster B**

Relative:
Lower

Actual:
18 ft.

RCRA-SQG:
Date form received by agency: 10/05/2004
Facility name: COSTA MESA COMMERCE PARK
Facility address: 3303 S HARBOR BLVD
STE F 8
COSTA MESA, CA 92626
EPA ID: CAR000157313
Contact: DELLA GABELSBERG
Contact address: 3303 S HARBOR BLVD STE F 8
COSTA MESA, CA 92626
Contact country: US
Contact telephone: 714-979-9997
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of

COSTA MESA COMMERCE PARK (Continued) **1007569217**

hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	RREEF AMERICA
Owner/operator address:	3303 S HARBOR BLVD STE F 8 COSTA MESA, CA 92626
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	07/01/2003
Owner/Op end date:	Not reported

Owner/operator name:	RREEF AMERICA RREEF MGMT
Owner/operator address:	Not reported Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	07/01/2003
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

Violation Status: No violations found

B22 SW 1/8-1/4 0.127 mi. 671 ft. | **ON SITE PHOTO GRAPHICS INC**
1410 3303 E6 HARBOR BLVD
COSTA MESA, CA 92626 | **RCRA-SQG FINDS** | **1000596182 CAD983601451**

Site 2 of 3 in cluster B

Relative: Lower

Actual: 18 ft.

RCRA-SQG:

Date form received by agency:	08/12/1991
Facility name:	ON SITE PHOTO GRAPHICS INC
Facility address:	1410 3303 E6 HARBOR BLVD COSTA MESA, CA 92626
EPA ID:	CAD983601451
Contact:	KAREN BENAVIDES
Contact address:	PO BOX 1410 3303 E6 HARBR BLVD COSTA MESA, CA 92628
Contact country:	US
Contact telephone:	(714) 540-0668
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	BERNARD BURRY
Owner/operator address:	PO BOX 1410 3033 E6 HARBR BLVD COSTA MESA, CA 92628
Owner/operator country:	Not reported
Owner/operator telephone:	(714) 540-0668
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Violation Status: No violations found

FINDS:

Registry ID: 110008282232

ON SITE PHOTO GRAPHICS INC (Continued) **1000596182**

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

B23
SW
1/8-1/4
0.127 mi.
671 ft.

PERFECT PRINTING
3303 HARBOR BLVD
COSTA MESA, CA 92626

RCRA-SQG **1000857894**
FINDS **CAD983673468**

Site 3 of 3 in cluster B

Relative:
Lower

Actual:
18 ft.

RCRA-SQG:

Date form received by agency:	08/27/1993
Facility name:	PERFECT PRINTING
Facility address:	3303 HARBOR BLVD STE B2 COSTA MESA, CA 92626
EPA ID:	CAD983673468
Mailing address:	HARBOR BLVD STE B2 COSTA MESA, CA 92626
Contact:	HIEN DINH
Contact address:	3303 HARBOR BLVD STE B2 COSTA MESA, CA 92626
Contact country:	US
Contact telephone:	(714) 434-2696
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	HIEN DINH
Owner/operator address:	3303 HARBOR BLVD STE B2 COSTA MESA, CA 92626
Owner/operator country:	Not reported
Owner/operator telephone:	(714) 434-2696
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No

PERFECT PRINTING (Continued) **1000857894**

On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002903010

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

C24
NW
1/8-1/4
0.141 mi.
743 ft.

Relative:
Higher

Actual:
33 ft.

AMF VOIT INC **LUST** **S109284193**
3801 S HARBOR BLVD **ENVIROSTOR** **N/A**
SANTA ANA, CA 92704 **HWP**

Site 1 of 3 in cluster C

LUST:

Region:	STATE
Global Id:	T0605900473
Latitude:	33.698940793
Longitude:	-117.9194035
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	06/21/1995
Lead Agency:	SANTA ANA RWQCB (REGION 8)
Case Worker:	CAB
Local Agency:	SANTA ANA, CITY OF
RB Case Number:	083000587T
LOC Case Number:	Not reported
File Location:	Not reported
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	* Solvents
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0605900473
Contact Type:	Local Agency Caseworker
Contact Name:	CHRISTOPHER CIRAULO
Organization Name:	SANTA ANA, CITY OF
Address:	1439 S. BROADWAY
City:	SANTA ANA
Email:	cciraulo@santa-ana.org

AMF VOIT INC (Continued) **S109284193**

Phone Number: Not reported

Global Id: T0605900473
Contact Type: Regional Board Caseworker
Contact Name: CARL BERNHARDT
Organization Name: SANTA ANA RWQCB (REGION 8)
Address: 3737 MAIN STREET, SUITE 500
City: RIVERSIDE
Email: cbernhardt@waterboards.ca.gov
Phone Number: 9517824495

Status History:
Global Id: T0605900473
Status: Open - Case Begin Date
Status Date: 04/01/1984

Global Id: T0605900473
Status: Completed - Case Closed
Status Date: 06/21/1995

Global Id: T0605900473
Status: Open - Remediation
Status Date: 12/14/1987

Global Id: T0605900473
Status: Open - Site Assessment
Status Date: 04/01/1984

Global Id: T0605900473
Status: Open - Site Assessment
Status Date: 08/06/1987

Regulatory Activities:
Global Id: T0605900473
Action Type: Other
Date: 07/12/1987
Action: Leak Reported

ENVIROSTOR:
Facility ID: 80001572
Status: Refer: RWQCB
Status Date: 01/01/2008
Site Code: Not reported
Site Type: Corrective Action
Site Type Detailed: Corrective Action
Acres: 0
NPL: NO
Regulatory Agencies: RWQCB
Lead Agency: WQC
Program Manager: Not reported
Supervisor: * Unknown
Division Branch: Cleanup Cypress
Assembly: 74
Senate: 37
Special Program: Not reported

AMF VOIT INC (Continued) **S109284193**

Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 33.69849
Longitude: -117.9197
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAD008369753
Alias Type: EPA Identification Number
Alias Name: 110002633446
Alias Type: EPA (FRS #)
Alias Name: 80001572
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 02/04/1991
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

HWP:
EPA Id: CAD008369753
Cleanup Status: CLOSED
Latitude: 33.69849
Longitude: -117.9197
Facility Type: Historical - Non-Operating
Facility Size: Not reported
Team: Not reported
Supervisor: Not reported
Site Code: Not reported
Assembly District: 74
Senate District: 37
Public Information Officer: Not reported

Activities:
EPA Id: CAD008369753
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1
Event Description: New Operating Permit - CALL-IN LETTER ISSUED
Actual Date: 11/29/1982

EPA Id: CAD008369753
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1

AMF VOIT INC (Continued) **S109284193**

Event Description: New Operating Permit - APPLICATION PART B RECEIVED
Actual Date: 04/08/1983

EPA Id: CAD008369753
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1
Event Description: New Operating Permit - FINAL PERMIT - WITHDRAWAL REQUEST RECEIVED
Actual Date: 04/08/1983

EPA Id: CAD008369753
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1
Event Description: New Operating Permit - APPLICATION PART A RECEIVED
Actual Date: 11/12/1980

Closure:
EPA Id: CAD008369753
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1
Event Description: Closure Final - RECEIVE CLOSURE CERTIFICATION
Actual Date: 06/05/1985

EPA Id: CAD008369753
Facility Type: Historical - Non-Operating
Unit Names: CONTAIN1
Event Description: Closure Final - ISSUE CLOSURE VERIFICATION
Actual Date: 06/05/1985

Alias:
EPA Id: CAD008369753
Facility Type: Historical - Non-Operating
Alias Type: FRS
Alias: 110002633446

C25 **MINSTAR (AMF-VOIT)** **HIST CORTESE** **S101300011**
NW **3801 HARBOR** **LUST** **N/A**
1/8-1/4 **SANTA ANA, CA 92704**
0.141 mi.
743 ft. **Site 2 of 3 in cluster C**

Relative:
Higher

Actual:
33 ft.

HIST CORTESE:
Region: CORTESE
Facility County Code: 30
Reg By: LTNKA
Reg Id: 083000587T

LUST REG 8:
Region: 8
County: Orange
Regional Board: Santa Ana Region
Facility Status: Case Closed
Case Number: 083000587T
Local Case Num: Not reported
Case Type: Aquifer affected
Substance: Solvents

MINSTAR (AMF-VOIT) (Continued) **S101300011**

Qty Leaked:	Not reported
Abate Method:	Not reported
Cross Street:	SUNFLOWER
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	Not reported
How Stopped:	Not reported
Leak Cause:	Not reported
Leak Source:	Not reported
Global ID:	T0605900473
How Stopped Date:	Not reported
Enter Date:	8/6/1987
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	4/1/1984
Discover Date:	Not reported
Enforcement Date:	Not reported
Close Date:	6/21/1995
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	8/6/1987
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	12/14/1987
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	8/6/1987
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	33.69894079
Longitude:	-117.9194035
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	0
MTBE Tested:	Not Required to be Tested.
MTBE Class:	*
Staff:	CAB
Staff Initials:	JB
Lead Agency:	Regional Board
Local Agency:	Santa Ana, Orange County
Hydr Basin #:	COASTAL PLAIN OF ORA
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported

Summary: 03-26-91 RESULTS OF LATEST INVESTIGATION DUE BY APRIL 18, 1991.
Not reported
CONSULTANT IS RITA LAVELLE, NUTECH (800) 722-8896.

C26	**A M F VOIT INC**	**RCRA-TSDF**	**1000135646**
NW	**3801 S HARBOR BLVD**	**CERC-NFRAP**	**CAD008369753**
1/8-1/4	**SANTA ANA, CA 92704**	**CORRACTS**	
0.141 mi.		**RCRA NonGen / NLR**	
743 ft.	**Site 3 of 3 in cluster C**	**FINDS**	

Relative:
Higher

Actual:
33 ft.

RCRA-TSDF:

Date form received by agency:	08/03/1992
Facility name:	A M F VOIT INC
Facility address:	3801 S HARBOR BLVD SANTA ANA, CA 92704
EPA ID:	CAD008369753
Contact:	Not reported
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	Not reported
Contact email:	Not reported
EPA Region:	09
Land type:	Facility is not located on Indian land. Additional information is not known.
Classification:	TSDF
Description:	Handler is engaged in the treatment, storage or disposal of hazardous waste
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	CHASE MANHATTAN BANK TRUSTEE
Owner/operator address:	1 CHASE MANHATTAN PLAZA NEW YORK CITY, NY 10015
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported
Owner/operator name:	AMF VOIT, INC
Owner/operator address:	3801 S HARBOR BLVD CITY NOT REPORTED, CA 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(714) 546-4220
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No

A M F VOIT INC (Continued) **1000135646**

User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 08/18/1980
Site name: A M F VOIT INC
Classification: Not a generator, verified

Corrective Action Summary:
Event date: 02/04/1991
Event: CA029WQ

Event date: 02/04/1991
Event: CA049PA

Event date: 02/04/1991
Event: CA Prioritization, Facility or area was assigned a medium corrective action priority.

Event date: 02/04/1991
Event: CA074ME

Event date: Not reported
Event: CA03193

Violation Status: No violations found

Evaluation Action Summary:
Evaluation date: 02/10/1988
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 02/08/1988
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/30/1987
Evaluation: FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 01/16/1987
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 01/29/1985

A M F VOIT INC (Continued) **1000135646**

Evaluation: NON-FINANCIAL RECORD REVIEW
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

CERC-NFRAP:
Site ID: 0900367
Federal Facility: Not a Federal Facility
NPL Status: Not on the NPL
Non NPL Status: Deferred to RCRA

CERCLIS-NFRAP Site Contact Details:
Contact Sequence ID: 13288650.00000
Person ID: 13003854.00000

Contact Sequence ID: 13294245.00000
Person ID: 13003858.00000

Contact Sequence ID: 13300103.00000
Person ID: 13004003.00000

Program Priority:
Description: RCRA Deferral Audit

Description: RCRA Deferral - Lead Confirmed

Description: RCRA Deferral - Further Superfund Assessment

CERCLIS-NFRAP Assessment History:
Action: PRELIMINARY ASSESSMENT
Date Started: / /
Date Completed: 03/08/91
Priority Level: Deferred to RCRA (Subtitle C)

Action: ARCHIVE SITE
Date Started: / /
Date Completed: 01/23/96
Priority Level: Not reported

Action: DISCOVERY
Date Started: / /
Date Completed: 08/24/90
Priority Level: Not reported

CORRACTS:

EPA ID: CAD008369753
EPA Region: 09
Area Name: ENTIRE FACILITY
Actual Date: 19910204
Action: CA075ME - CA Prioritization, Facility or area was assigned a medium corrective action priority
NAICS Code(s): 326211 33992
Tire Manufacturing (except Retreading)
Sporting and Athletic Goods Manufacturing

A M F VOIT INC (Continued) **1000135646**

Original schedule date: Not reported
Schedule end date: Not reported

FINDS:

Registry ID: 110002633446

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

27
NW
1/8-1/4
0.187 mi.
988 ft.

Relative:
Higher

Actual:
33 ft.

DRY CLEAN USA
3701 S HARBOR BLVD E
SANTA ANA, CA 92704

RCRA-SQG **1000594830**
FINDS **CAD983587148**

RCRA-SQG:
Date form received by agency: 06/27/1991
Facility name: DRY CLEAN USA
Facility address: 3701 S HARBOR BLVD E
SANTA ANA, CA 92704
EPA ID: CAD983587148
Mailing address: S HARBOR BLVD E
SANTA ANA, CA 92704
Contact: RON CAMBARE
Contact address: 3701 S HARBOR BLVD E
SANTA ANA, CA 92704
Contact country: US
Contact telephone: (714) 846-3761
Contact email: Not reported
EPA Region: 09
Classification: Small Small Quantity Generator
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:
Owner/operator name: RON VANGIE CAMBARE ENTERPRISE
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED

DRY CLEAN USA (Continued) **1000594830**

NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002847625

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

D28 **SOUTH COAST CIRCUITS INC** **RCRA-LQG** **1001126718**
North **3506 W LAKE CENTER DR - A** **CAR000018010**
1/8-1/4 **SANTA ANA, CA 92704**
0.205 mi.
1083 ft. **Site 1 of 2 in cluster D**

Relative:
Higher

Actual:
34 ft.

RCRA-LQG:
Date form received by agency: 03/01/2014
Facility name: SOUTH COAST CIRCUITS INC
Facility address: 3506 W LAKE CENTER DR - A
SANTA ANA, CA 92704
EPA ID: CAR000018010
Mailing address: W LAKE CENTER DR - A
SANTA ANA, CA 92704
Contact: NHAN T TRAN
Contact address: W LAKE CENTER DR - A
SANTA ANA, CA 92704
Contact country: Not reported

SOUTH COAST CIRCUITS INC (Continued) **1001126718**

Contact telephone: (714) 966-2018
Telephone ext.: 28
Contact email: NHAN@SCCIRCUITS.COM
EPA Region: 09
Land type: Private
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name: CHUCK BENSON
Owner/operator address: Not reported
Not reported
Owner/operator country: Not reported
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 05/01/1985
Owner/Op end date: Not reported

Owner/operator name: CHUCK BENSON
Owner/operator address: 3506 W. LAKE CENTER DR., "A"
SANTA ANA, CA 92704
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 05/01/1985
Owner/Op end date: Not reported

Owner/operator name: CHUCK BENSON
Owner/operator address: W LAKE CENTER DR - A
SANTA ANA, CA 92704
Owner/operator country: Not reported
Owner/operator telephone: (714) 966-2108
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 05/01/1985
Owner/Op end date: Not reported

Owner/operator name: CHUCK BENSON
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator

SOUTH COAST CIRCUITS INC (Continued) **1001126718**

Owner/Op start date: 05/01/1985
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: 132
. Waste name: 132

. Waste code: 171
. Waste name: 171

. Waste code: 181
. Waste name: 181

. Waste code: 792
. Waste name: 792

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D004
. Waste name: ARSENIC

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: F006
. Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS, EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC, AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.

Historical Generators:
Date form received by agency: 03/13/2012
Site name: SOUTH COAST CIRCUITS,INC.

SOUTH COAST CIRCUITS INC (Continued) **1001126718**

Classification: Large Quantity Generator

. Waste code: 132
. Waste name: 132

. Waste code: 171
. Waste name: 171

. Waste code: 181
. Waste name: 181

. Waste code: 792
. Waste name: 792

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D004
. Waste name: ARSENIC

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: F006
. Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS, EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC, AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.

Date form received by agency: 02/25/2010
Site name: SOUTH COAST CIRCUITS, INC
Classification: Large Quantity Generator

. Waste code: 132
. Waste name: 132

. Waste code: 171
. Waste name: 171

. Waste code: 181
. Waste name: 181

. Waste code: 352
. Waste name: 352

. Waste code: 792
. Waste name: 792

. Waste code: D002
. Waste name: CORROSIVE WASTE

SOUTH COAST CIRCUITS INC (Continued) **1001126718**

. Waste code: D004
. Waste name: ARSENIC

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: F006
. Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS, EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC, AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.

Date form received by agency: 02/06/2008
Site name: SOUTH COAST CIRCUITS, INC
Classification: Large Quantity Generator

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: F006
. Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS, EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC, AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.

Date form received by agency: 02/27/2006
Site name: SOUTH COAST CIRCUITS, INC
Classification: Large Quantity Generator

. Waste code: 132
. Waste name: 132

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: F006
. Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS, EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC, AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.

Date form received by agency: 01/30/2004
Site name: SOUTH COAST CIRCUITS, INC
Classification: Large Quantity Generator

SOUTH COAST CIRCUITS INC (Continued) **1001126718**

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D004
. Waste name: ARSENIC

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: F006
. Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS, EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC, AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.

Date form received by agency: 02/15/2002
Site name: SOUTH COAST CIRCUITS
Classification: Large Quantity Generator

Date form received by agency: 10/12/2000
Site name: SOUTH COAST CIRCUITS
Classification: Large Quantity Generator

Date form received by agency: 02/21/1997
Site name: SOUTH COAST CIRCUITS
Classification: Large Quantity Generator

Biennial Reports:

Last Biennial Reporting Year: 2013

Annual Waste Handled:
Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.
Amount (Lbs): 38073.4

Waste code: D004
Waste name: ARSENIC
Amount (Lbs): 16513.8

Waste code: D007
Waste name: CHROMIUM
Amount (Lbs): 16513.8

Waste code: D008
Waste name: LEAD

SOUTH COAST CIRCUITS INC (Continued) **1001126718**

Amount (Lbs): 16513.8

Waste code: F006
Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.
Amount (Lbs): 40500

Facility Has Received Notices of Violations:
Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 06/21/2010
Date achieved compliance: Not reported
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 05/11/2006
Date achieved compliance: Not reported
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 05/11/2006
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 05/25/2012
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/30/2011
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/21/2010

SOUTH COAST CIRCUITS INC (Continued) **1001126718**

Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Generators - General
Date achieved compliance:	Not reported
Evaluation lead agency:	State
Evaluation date:	05/22/2009
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Not reported
Date achieved compliance:	Not reported
Evaluation lead agency:	State
Evaluation date:	05/11/2006
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Generators - General
Date achieved compliance:	Not reported
Evaluation lead agency:	Local
Evaluation date:	03/08/2005
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Generators - General
Date achieved compliance:	Not reported
Evaluation lead agency:	State Contractor/Grantee
Evaluation date:	10/02/2003
Evaluation:	COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation:	Not reported
Date achieved compliance:	Not reported
Evaluation lead agency:	State Contractor/Grantee

D29 **SOUTH COAST CIRCUITS** **ENVIROSTOR** **S110494315**
North **3506 WEST LAKE CENTER DRIVE, SUITE A** **N/A**
1/8-1/4 **SANTA ANA, CA 92704**
0.205 mi.
1083 ft. **Site 2 of 2 in cluster D**

Relative:
Higher

Actual:
34 ft.

ENVIROSTOR:

Facility ID:	71003634
Status:	Inactive - Needs Evaluation
Status Date:	Not reported
Site Code:	Not reported
Site Type:	Tiered Permit
Site Type Detailed:	Tiered Permit
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	Not reported
Division Branch:	Cleanup Cypress
Assembly:	69
Senate:	34
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not reported
Latitude:	33.69879
Longitude:	-117.9166
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED

SOUTH COAST CIRCUITS (Continued) **S110494315**

Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAR000018010
Alias Type: EPA Identification Number
Alias Name: 110002916097
Alias Type: EPA (FRS #)
Alias Name: 71003634
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

E30 **EDR US Hist Auto Stat** **1015449334**
NNW **3611 S HARBOR BLVD** **N/A**
1/8-1/4 **SANTA ANA, CA 92704**
0.248 mi.
1312 ft. **Site 1 of 2 in cluster E**

Relative:
Higher

Actual:
34 ft.

EDR Historical Auto Stations:
Name: CONOCOPHILLIPS
Year: 2004
Address: 3611 S HARBOR BLVD

Name: CONOCOPHILLIPS
Year: 2005
Address: 3611 S HARBOR BLVD

E31 **EDR US Hist Auto Stat** **1015449968**
NNW **3621 S HARBOR BLVD** **N/A**
1/8-1/4 **SANTA ANA, CA 92704**
0.248 mi.
1312 ft. **Site 2 of 2 in cluster E**

Relative:
Higher

Actual:
34 ft.

EDR Historical Auto Stations:
Name: E Z LUBE
Year: 2010
Address: 3621 S HARBOR BLVD

F32 SSW 1/4-1/2 0.351 mi. 1852 ft. | **ARCO#6131**
3201 HARBOR BLVD
COSTA MESA, CA 92626

Site 1 of 3 in cluster F | **LUST** | **S103988307**
N/A

Relative: Higher

Actual: 33 ft.

LUST:

Region:	STATE
Global Id:	T0605901336
Latitude:	33.686964
Longitude:	-117.919628
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	03/08/2006
Lead Agency:	ORANGE COUNTY LOP
Case Worker:	DB
Local Agency:	ORANGE COUNTY LOP
RB Case Number:	083001784T
LOC Case Number:	92UT012
File Location:	Local Agency Warehouse
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Waste Oil / Motor / Hydraulic / Lubricating, Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0605901336
Contact Type:	Regional Board Caseworker
Contact Name:	VALERIE JAHN-BULL
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	vjahn-bull@waterboards.ca.gov
Phone Number:	9517824903

Global Id:	T0605901336
Contact Type:	Local Agency Caseworker
Contact Name:	DENAMARIE BAKER
Organization Name:	ORANGE COUNTY LOP
Address:	1241 E. DYER ROAD, STE. 120
City:	SANTA ANA
Email:	dbaker@ochca.com
Phone Number:	7144336255

Status History:

Global Id:	T0605901336
Status:	Completed - Case Closed
Status Date:	03/08/2006

Global Id:	T0605901336
Status:	Open - Verification Monitoring
Status Date:	02/28/2005

Global Id:	T0605901336
Status:	Open - Case Begin Date
Status Date:	12/27/1990

Global Id:	T0605901336

ARCO#6131 (Continued) **S103988307**

Status: Open - Remediation
Status Date: 08/13/1998

Regulatory Activities:

Global Id: T0605901336
Action Type: Other
Date: 12/27/1990
Action: Leak Discovery

Global Id: T0605901336
Action Type: REMEDIATION
Date: 08/13/1998
Action: Soil Vapor Extraction (SVE)

Global Id: T0605901336
Action Type: REMEDIATION
Date: 11/06/2000
Action: In Situ Physical/Chemical Treatment (other than SVE)

Global Id: T0605901336
Action Type: REMEDIATION
Date: 12/11/2000
Action: In Situ Physical/Chemical Treatment (other than SVE)

Global Id: T0605901336
Action Type: ENFORCEMENT
Date: 03/08/2006
Action: Closure/No Further Action Letter

Global Id: T0605901336
Action Type: ENFORCEMENT
Date: 02/05/1992
Action: Notice of Responsibility

Global Id: T0605901336
Action Type: ENFORCEMENT
Date: 07/14/2003
Action: Staff Letter

Global Id: T0605901336
Action Type: ENFORCEMENT
Date: 01/11/2005
Action: Staff Letter

Global Id: T0605901336
Action Type: ENFORCEMENT
Date: 04/12/2005
Action: Staff Letter

Global Id: T0605901336
Action Type: ENFORCEMENT
Date: 03/08/2004
Action: Staff Letter

Global Id: T0605901336
Action Type: ENFORCEMENT
Date: 06/27/2005

ARCO#6131 (Continued) **S103988307**

Action:	Staff Letter
Global Id:	T0605901336
Action Type:	Other
Date:	01/28/1992
Action:	Leak Reported

ORANGE CO. LUST:

Region:	ORANGE
Facility Id:	92UT012
Current Status:	Certification (Case Closed)
Released Substance:	Waste oil/Used oil
Date Closed:	03/08/2006
Case Type:	Other Ground Water
Record ID:	RO0001148

Region:	ORANGE
Facility Id:	92UT012
Current Status:	Certification (Case Closed)
Released Substance:	Gasoline-Automotive (motor gasoline and additives), leaded & unleaded
Date Closed:	03/08/2006
Case Type:	Other Ground Water
Record ID:	RO0001148

LUST REG 8:

Region:	8
County:	Orange
Regional Board:	Santa Ana Region
Facility Status:	Remedial action (cleanup) Underway
Case Number:	083001784T
Local Case Num:	92UT012
Case Type:	Other ground water affected
Substance:	12035,800661
Qty Leaked:	0
Abate Method:	Not reported
Cross Street:	Not reported
Enf Type:	SEL
Funding:	Not reported
How Discovered:	SA
How Stopped:	New Tank
Leak Cause:	Unknown
Leak Source:	Tank
Global ID:	T0605901336
How Stopped Date:	9/9/9999
Enter Date:	Not reported
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	Not reported
Discover Date:	12/27/1990
Enforcement Date:	Not reported
Close Date:	Not reported
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	8/13/1998
Date Post Remedial Action Monitoring:	Not reported

ARCO#6131 (Continued) **S103988307**

Enter Date:	Not reported
GW Qualifies:	=
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	33.686964
Longitude:	-117.919628
MTBE Date:	12/13/2001
Max MTBE GW:	8900
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	0
MTBE Tested:	MTBE Detected. Site tested for MTBE & MTBE detected
MTBE Class:	*
Staff:	VJJ
Staff Initials:	AR
Lead Agency:	Local Agency
Local Agency:	30000L
Hydr Basin #:	Not reported
Beneficial:	MUN
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported

Summary: Not reported

F33
SSW
1/4-1/2
0.361 mi.
1905 ft.

MOBIL #18-HDR
3195 HARBOR BLVD
COSTA MESA, CA 92626

Site 2 of 3 in cluster F

HIST CORTESE **S101631292**
LUST **N/A**
CA FID UST
SWEEPS UST

Relative:
Higher

Actual:
33 ft.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	30
Reg By:	LTNKA
Reg Id:	083000703T

LUST:

Region:	STATE
Global Id:	T0605900556
Latitude:	33.686694
Longitude:	-117.919622
Case Type:	LUST Cleanup Site
Status:	Open - Eligible for Closure
Status Date:	01/30/2012
Lead Agency:	ORANGE COUNTY LOP
Case Worker:	DB
Local Agency:	ORANGE COUNTY LOP
RB Case Number:	083000703T
LOC Case Number:	87UT226
File Location:	Local Agency
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Waste Oil / Motor / Hydraulic / Lubricating, Gasoline
Site History:	Please refer to recent Site Documents or Monitoring Reports in GeoTracker for site history. Orange County is not responsible for the

MOBIL #18-HDR (Continued) **S101631292**

accuracy of any professional interpretations provided in reports submitted by consultants for the responsible party.

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0605900556
Contact Type:	Regional Board Caseworker
Contact Name:	ROSE SCOTT
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	rscott@waterboards.ca.gov
Phone Number:	9513206375

Global Id:	T0605900556
Contact Type:	Local Agency Caseworker
Contact Name:	DENAMARIE BAKER
Organization Name:	ORANGE COUNTY LOP
Address:	1241 E. DYER ROAD, STE. 120
City:	SANTA ANA
Email:	dbaker@ochca.com
Phone Number:	7144336255

Status History:

Global Id:	T0605900556
Status:	Open - Verification Monitoring
Status Date:	01/15/2010

Global Id:	T0605900556
Status:	Open - Case Begin Date
Status Date:	11/04/1987

Global Id:	T0605900556
Status:	Open - Eligible for Closure
Status Date:	01/30/2012

Global Id:	T0605900556
Status:	Open - Remediation
Status Date:	11/04/1987

Regulatory Activities:

Global Id:	T0605900556
Action Type:	ENFORCEMENT
Date:	03/25/2011
Action:	File review

Global Id:	T0605900556
Action Type:	ENFORCEMENT
Date:	12/17/2010
Action:	File review

Global Id:	T0605900556
Action Type:	ENFORCEMENT
Date:	07/01/2011
Action:	File review

MOBIL #18-HDR (Continued) **S101631292**

Global Id: T0605900556
Action Type: ENFORCEMENT
Date: 01/11/2011
Action: Staff Letter

Global Id: T0605900556
Action Type: ENFORCEMENT
Date: 09/15/2010
Action: File review

Global Id: T0605900556
Action Type: ENFORCEMENT
Date: 08/19/2010
Action: File review

Global Id: T0605900556
Action Type: Other
Date: 11/23/1987
Action: Leak Discovery

Global Id: T0605900556
Action Type: RESPONSE
Date: 03/25/2010
Action: Clean Up Fund - 5-Year Review Summary

Global Id: T0605900556
Action Type: REMEDIATION
Date: 05/31/1996
Action: Soil Vapor Extraction (SVE)

Global Id: T0605900556
Action Type: REMEDIATION
Date: 04/15/1999
Action: Soil Vapor Extraction (SVE)

Global Id: T0605900556
Action Type: REMEDIATION
Date: 04/06/2000
Action: In Situ Physical/Chemical Treatment (other than SVE)

Global Id: T0605900556
Action Type: REMEDIATION
Date: 06/02/2003
Action: In Situ Physical/Chemical Treatment (other than SVE)

Global Id: T0605900556
Action Type: REMEDIATION
Date: 10/29/1987
Action: Excavation

Global Id: T0605900556
Action Type: REMEDIATION
Date: 09/28/1994
Action: Excavation

Global Id: T0605900556
Action Type: REMEDIATION

MOBIL #18-HDR (Continued) **S101631292**

Date: 05/03/1995
Action: Pump & Treat (P&T) Groundwater

Global Id: T0605900556
Action Type: REMEDIATION
Date: 08/24/2006
Action: Soil Vapor Extraction (SVE)

Global Id: T0605900556
Action Type: ENFORCEMENT
Date: 05/24/2011
Action: File review

Global Id: T0605900556
Action Type: ENFORCEMENT
Date: 08/23/2010
Action: Staff Letter

Global Id: T0605900556
Action Type: REMEDIATION
Date: 08/01/2011
Action: Excavation

Global Id: T0605900556
Action Type: REMEDIATION
Date: 03/29/1999
Action: Pump & Treat (P&T) Groundwater

Global Id: T0605900556
Action Type: ENFORCEMENT
Date: 11/13/1987
Action: Notice of Responsibility

Global Id: T0605900556
Action Type: ENFORCEMENT
Date: 04/17/2003
Action: Staff Letter

Global Id: T0605900556
Action Type: ENFORCEMENT
Date: 08/06/2003
Action: Staff Letter

Global Id: T0605900556
Action Type: ENFORCEMENT
Date: 07/06/2004
Action: Staff Letter

Global Id: T0605900556
Action Type: ENFORCEMENT
Date: 02/06/2006
Action: Staff Letter

Global Id: T0605900556
Action Type: ENFORCEMENT
Date: 08/13/2007
Action: Staff Letter

MOBIL #18-HDR (Continued) **S101631292**

Global Id: T0605900556
Action Type: ENFORCEMENT
Date: 11/27/2006
Action: Staff Letter

Global Id: T0605900556
Action Type: ENFORCEMENT
Date: 12/10/2007
Action: Staff Letter

Global Id: T0605900556
Action Type: ENFORCEMENT
Date: 12/29/2003
Action: Staff Letter

Global Id: T0605900556
Action Type: ENFORCEMENT
Date: 01/06/2006
Action: Staff Letter

Global Id: T0605900556
Action Type: ENFORCEMENT
Date: 03/21/2008
Action: Staff Letter

Global Id: T0605900556
Action Type: ENFORCEMENT
Date: 01/30/2012
Action: Staff Letter

Global Id: T0605900556
Action Type: ENFORCEMENT
Date: 07/06/2013
Action: File review

Global Id: T0605900556
Action Type: Other
Date: 11/23/1987
Action: Leak Reported

Global Id: T0605900556
Action Type: ENFORCEMENT
Date: 10/31/2008
Action: Staff Letter

Global Id: T0605900556
Action Type: ENFORCEMENT
Date: 07/21/2008
Action: Staff Letter

Global Id: T0605900556
Action Type: ENFORCEMENT
Date: 11/04/2010
Action: Staff Letter

Global Id: T0605900556
Action Type: ENFORCEMENT

MOBIL #18-HDR (Continued) **S101631292**

Date: 02/24/2009
Action: Staff Letter

Global Id: T0605900556
Action Type: ENFORCEMENT
Date: 06/22/2011
Action: Staff Letter

Global Id: T0605900556
Action Type: ENFORCEMENT
Date: 11/06/2013
Action: Clean Up Fund - Letter to RP

Global Id: T0605900556
Action Type: ENFORCEMENT
Date: 11/06/2013
Action: Clean Up Fund - Case Closure Review Summary Report (RSR)

Global Id: T0605900556
Action Type: RESPONSE
Date: 01/14/2014
Action: Correspondence

Global Id: T0605900556
Action Type: ENFORCEMENT
Date: 04/21/2009
Action: Staff Letter

Global Id: T0605900556
Action Type: ENFORCEMENT
Date: 07/10/2009
Action: Staff Letter

Global Id: T0605900556
Action Type: ENFORCEMENT
Date: 07/27/2009
Action: Staff Letter

Global Id: T0605900556
Action Type: ENFORCEMENT
Date: 09/21/2009
Action: Staff Letter

ORANGE CO. LUST:
Region: ORANGE
Facility Id: 87UT226
Current Status: Remedial Action
Released Substance: Waste oil/Used oil
Date Closed: Not reported
Case Type: Other Ground Water
Record ID: RO0001598

Region: ORANGE
Facility Id: 87UT226
Current Status: Remedial Action
Released Substance: Gasoline-Automotive (motor gasoline and additives), leaded & unleaded

MOBIL #18-HDR (Continued) **S101631292**

Date Closed:	Not reported
Case Type:	Other Ground Water
Record ID:	RO0001598

LUST REG 8:

Region:	8
County:	Orange
Regional Board:	Santa Ana Region
Facility Status:	Remedial action (cleanup) Underway
Case Number:	083000703T
Local Case Num:	87UT226
Case Type:	Other ground water affected
Substance:	12035,800661
Qty Leaked:	0
Abate Method:	Not reported
Cross Street:	Not reported
Enf Type:	SEL
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	New Tank
Leak Cause:	Unknown
Leak Source:	Tank
Global ID:	T0605900556
How Stopped Date:	9/9/9999
Enter Date:	Not reported
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	Not reported
Discover Date:	11/23/1987
Enforcement Date:	Not reported
Close Date:	Not reported
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	11/4/1987
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	Not reported
GW Qualifies:	=
Soil Qualifies:	=
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	33.686694
Longitude:	-117.919622
MTBE Date:	5/20/2004
Max MTBE GW:	1520
MTBE Concentration:	0
Max MTBE Soil:	169
MTBE Fuel:	0
MTBE Tested:	MTBE Detected. Site tested for MTBE & MTBE detected
MTBE Class:	*
Staff:	RS
Staff Initials:	AR
Lead Agency:	Local Agency
Local Agency:	30000L
Hydr Basin #:	Not reported
Beneficial:	MUN

MOBIL #18-HDR (Continued) **S101631292**

Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Summary: Not reported

CA FID UST:
Facility ID: 30000717
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 7145459268
Mail To: Not reported
Mailing Address: 3225 GALLOWS RD ATTN: EAR
Mailing Address 2: Not reported
Mailing City,St,Zip: COSTA MESA 92626
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

SWEEPS UST:
Status: Active
Comp Number: 2069
Number: 9
Board Of Equalization: 44-000400
Referral Date: 09-30-92
Action Date: 09-15-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 30-000-002069-000001
Tank Status: A
Capacity: 1000
Active Date: Not reported
Tank Use: PETROLEUM
STG: P
Content: Not reported
Number Of Tanks: 4

Status: Active
Comp Number: 2069
Number: 9
Board Of Equalization: 44-000400
Referral Date: 09-30-92
Action Date: 09-15-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 30-000-002069-000004
Tank Status: A
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P

MOBIL #18-HDR (Continued) **S101631292**

Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	2069
Number:	9
Board Of Equalization:	44-000400
Referral Date:	09-30-92
Action Date:	09-15-92
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	30-000-002069-000005
Tank Status:	A
Capacity:	12000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	2069
Number:	9
Board Of Equalization:	44-000400
Referral Date:	09-30-92
Action Date:	09-15-92
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	30-000-002069-000006
Tank Status:	A
Capacity:	10000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	P
Content:	DIESEL
Number Of Tanks:	Not reported

F34 **CHEVRON 94660** **RCRA-LQG** **1000595747**
SSW **3190 HARBOR BLVD.** **FINDS** **CAD983597014**
1/4-1/2 **COSTA MESA, CA 92626** **HIST CORTESE**
0.366 mi. **LUST**
1935 ft. **Site 3 of 3 in cluster F** **CA FID UST**
CHMIRS

Relative:
Higher

Actual:
32 ft.

RCRA-LQG:

Date form received by agency:	02/17/2008
Facility name:	CHEVRON 94660
Facility address:	3190 HARBOR BLVD. COSTA MESA, CA 92626
EPA ID:	CAD983597014
Mailing address:	PO BOX 6004 SAN RAMON, CA 94583
Contact:	KATHY L NORRIS
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	(925) 842-5931
Contact email:	NAWTDESK@CHEVRON.COM

CHEVRON 94660 (Continued) **1000595747**

EPA Region: 09
Classification: Large Quantity Generator
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:
Owner/operator name: CHEVRON PRODUCTS CO.
Owner/operator address: PO BOX 6004
SAN RAMON, CA 94583
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Owner
Owner/Op start date: 11/13/1967
Owner/Op end date: Not reported

Owner/operator name: CHEVRON PRODUCTS CO.
Owner/operator address: Not reported
Not reported
Owner/operator country: US
Owner/operator telephone: Not reported
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: 11/13/1967
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: D001
. Waste name: IGNITABLE WASTE

CHEVRON 94660 (Continued) **1000595747**

. Waste code: D018
. Waste name: BENZENE

Historical Generators:
Date form received by agency: 05/14/2002
Site name: CHEVRON STATION NO 94660
Classification: Small Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D008
. Waste name: LEAD

. Waste code: D018
. Waste name: BENZENE

Date form received by agency: 10/12/2000
Site name: CHEVRON 94660
Classification: Large Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110057106457

Environmental Interest/Information System
STATE MASTER

Registry ID: 110002854536

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS WASTE BIENNIAL REPORTER

HIST CORTESE:
Region: CORTESE
Facility County Code: 30
Reg By: LTNKA
Reg Id: 083001156T

LUST:
Region: STATE
Global Id: T0605998652
Latitude: 33.686734
Longitude: -117.918989
Case Type: LUST Cleanup Site
Status: Completed - Case Closed

CHEVRON 94660 (Continued) **1000595747**

Status Date:	10/04/2002
Lead Agency:	ORANGE COUNTY LOP
Case Worker:	DB
Local Agency:	ORANGE COUNTY LOP
RB Case Number:	Not reported
LOC Case Number:	98UT111
File Location:	Local Agency
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0605998652
Contact Type:	Regional Board Caseworker
Contact Name:	TOM E. MBEKE-EKANEM
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	tmbeke-ekanem@waterboards.ca.gov
Phone Number:	9513202007

Global Id:	T0605998652
Contact Type:	Local Agency Caseworker
Contact Name:	DENAMARIE BAKER
Organization Name:	ORANGE COUNTY LOP
Address:	1241 E. DYER ROAD, STE. 120
City:	SANTA ANA
Email:	dbaker@ochca.com
Phone Number:	7144336255

Status History:

Global Id:	T0605998652
Status:	Completed - Case Closed
Status Date:	10/04/2002

Global Id:	T0605998652
Status:	Open - Case Begin Date
Status Date:	07/17/1998

Regulatory Activities:

Global Id:	T0605998652
Action Type:	Other
Date:	07/17/1998
Action:	Leak Discovery

Global Id:	T0605998652
Action Type:	Other
Date:	07/17/1998
Action:	Leak Reported

Global Id:	T0605998652
Action Type:	ENFORCEMENT
Date:	07/15/2002
Action:	LOP Case Closure Summary to RB

CHEVRON 94660 (Continued) **1000595747**

Region:	STATE
Global Id:	T0605900914
Latitude:	33.6865971
Longitude:	-117.919197
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	03/27/1997
Lead Agency:	ORANGE COUNTY LOP
Case Worker:	DB
Local Agency:	ORANGE COUNTY LOP
RB Case Number:	083001156T
LOC Case Number:	89UT031
File Location:	Local Agency
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0605900914
Contact Type:	Regional Board Caseworker
Contact Name:	ROSE SCOTT
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	rscott@waterboards.ca.gov
Phone Number:	9513206375

Global Id:	T0605900914
Contact Type:	Local Agency Caseworker
Contact Name:	DENAMARIE BAKER
Organization Name:	ORANGE COUNTY LOP
Address:	1241 E. DYER ROAD, STE. 120
City:	SANTA ANA
Email:	dbaker@ochca.com
Phone Number:	7144336255

Status History:

Global Id:	T0605900914
Status:	Completed - Case Closed
Status Date:	03/27/1997

Global Id:	T0605900914
Status:	Open - Case Begin Date
Status Date:	01/20/1989

Regulatory Activities:

Global Id:	T0605900914
Action Type:	Other
Date:	01/20/1989
Action:	Leak Discovery

Global Id:	T0605900914
Action Type:	Other
Date:	01/20/1989
Action:	Leak Reported

CHEVRON 94660 (Continued) **1000595747**

Global Id:	T0605900914
Action Type:	ENFORCEMENT
Date:	03/20/1997
Action:	LOP Case Closure Summary to RB

ORANGE CO. LUST:

Region:	ORANGE
Facility Id:	98UT111
Current Status:	Certification (Case Closed)
Released Substance:	Gasoline-Automotive (motor gasoline and additives), leaded & unleaded
Date Closed:	10/04/2002
Case Type:	Soil Only
Record ID:	RO0001456

Region:	ORANGE
Facility Id:	89UT031
Current Status:	Certification (Case Closed)
Released Substance:	Gasoline-Automotive (motor gasoline and additives), leaded & unleaded
Date Closed:	03/27/1997
Case Type:	Other Ground Water
Record ID:	RO0001570

LUST REG 8:

Region:	8
County:	Orange
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	083001156T
Local Case Num:	89UT031
Case Type:	Other ground water affected
Substance:	Gasoline
Qty Leaked:	0
Abate Method:	Not reported
Cross Street:	Not reported
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Close Tank
Leak Cause:	Unknown
Leak Source:	Unknown
Global ID:	T0605900914
How Stopped Date:	9/9/9999
Enter Date:	Not reported
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	Not reported
Discover Date:	1/20/1989
Enforcement Date:	Not reported
Close Date:	3/27/1997
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	Not reported
GW Qualifies:	=

CHEVRON 94660 (Continued) **1000595747**

Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	33.6865971
Longitude:	-117.919197
MTBE Date:	11/21/2001
Max MTBE GW:	32
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	1
MTBE Tested:	MTBE Detected. Site tested for MTBE & MTBE detected
MTBE Class:	*
Staff:	RS
Staff Initials:	AR
Lead Agency:	Local Agency
Local Agency:	30000L
Hydr Basin #:	Not reported
Beneficial:	MUN
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported

Summary: Not reported

Region:	8
County:	Orange
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	Not reported
Local Case Num:	98UT111
Case Type:	Soil only
Substance:	Gasoline
Qty Leaked:	0
Abate Method:	Not reported
Cross Street:	Not reported
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Close Tank
Leak Cause:	Unknown
Leak Source:	Unknown
Global ID:	T0605998652
How Stopped Date:	9/9/9999
Enter Date:	Not reported
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	Not reported
Discover Date:	7/17/1998
Enforcement Date:	Not reported
Close Date:	10/4/2002
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	Not reported
GW Qualifies:	Not reported

CHEVRON 94660 (Continued) **1000595747**

Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	Not reported
Longitude:	Not reported
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	1
MTBE Tested:	Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
MTBE Class:	*
Staff:	TME
Staff Initials:	AR
Lead Agency:	Local Agency
Local Agency:	30000L
Hydr Basin #:	Not reported
Beneficial:	MUN
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported
Summary:	Not reported

CA FID UST:

Facility ID:	30000903
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	7145409560
Mail To:	Not reported
Mailing Address:	P O BOX 2833 1300 S
Mailing Address 2:	Not reported
Mailing City,St,Zip:	COSTA MESA 92626
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

CHMIRS:

OES Incident Number:	15-1629
OES notification:	03/21/2015
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported

CHEVRON 94660 (Continued) **1000595747**

Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Service Station
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Type:	PETROLEUM
Measure:	Oz.
Other:	Not reported
Date/Time:	648
Year:	2015
Agency:	Chevron Corp.
Incident Date:	3/21/2015
Admin Agency:	Orange County Emergency Management Division
Amount:	Not reported
Contained:	Yes
Site Type:	Not reported
E Date:	Not reported
Substance:	Gasoline, Unleaded
Quantity Released:	14
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
#1 Pipeline:	No
#2 Pipeline:	No
#3 Pipeline:	No
#1 Vessel >= 300 Tons:	No
#2 Vessel >= 300 Tons:	No
#3 Vessel >= 300 Tons:	No
Evacs:	No
Injuries:	No
Fatals:	No

CHEVRON 94660 (Continued) **1000595747**

Comments:	Not reported
Description:	RP states that a customer overfilled their vehicle causing the release. Cleanup was completed by onsite station personnel.
OES Incident Number:	15-1681
OES notification:	03/24/2015
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Merchant/Business
Cleanup By:	Responsible Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Type:	PETROLEUM
Measure:	Oz.
Other:	Not reported
Date/Time:	1350
Year:	2015
Agency:	NRC
Incident Date:	3/24/2015
Admin Agency:	Orange County Emergency Management Division
Amount:	Not reported
Contained:	Yes
Site Type:	Not reported
E Date:	Not reported
Substance:	GASOLINE
Quantity Released:	12

CHEVRON 94660 (Continued) **1000595747**

Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
#1 Pipeline:	No
#2 Pipeline:	No
#3 Pipeline:	No
#1 Vessel >= 300 Tons:	No
#2 Vessel >= 300 Tons:	No
#3 Vessel >= 300 Tons:	No
Evacs:	No
Injuries:	No
Fatals:	No
Comments:	Not reported
Description:	Per NRC#1111628: "CALLER IS REPORTING THAT CUSTOMER WAS PUMPING GASOLINE AND OVERFILLED THEIR VEHICLE. CONTAINED AND CLEANED BY STATION PERSONNEL"
OES Incident Number:	14-4679
OES notification:	08/20/2014
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Service Station
Cleanup By:	No
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported

CHEVRON 94660 (Continued) **1000595747**

Measure:	Not reported
Other:	Not reported
Type:	PETROLEUM
Measure:	Oz.
Other:	Not reported
Date/Time:	1848
Year:	2014
Agency:	NRC
Incident Date:	8/20/2014
Admin Agency:	Not reported
Amount:	Not reported
Contained:	Yes
Site Type:	Not reported
E Date:	Not reported
Substance:	Gasoline
Quantity Released:	24
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
#1 Pipeline:	No
#2 Pipeline:	No
#3 Pipeline:	No
#1 Vessel >= 300 Tons:	No
#2 Vessel >= 300 Tons:	No
#3 Vessel >= 300 Tons:	No
Evacs:	No
Injuries:	Human Error
Fatals:	No
Comments:	Not reported
Description:	Per NRC Fax: the caller reported that 24 ounces of gasoline discharged from the nozzle due to customer overfill. REMEDIAL ACTIONS, Clean-up was completed by store personnel.
OES Incident Number:	15-1831
OES notification:	04/02/2015
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported

CHEVRON 94660 (Continued) **1000595747**

Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Service Station
Cleanup By:	Reporting Party
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Type:	PETROLEUM
Measure:	Oz.
Other:	Not reported
Type:	PETROLEUM
Measure:	Oz.
Other:	Not reported
Date/Time:	0615 and 0940
Year:	2015
Agency:	Chevron
Incident Date:	4/2/2015
Admin Agency:	Orange County Emergency Management Division
Amount:	Not reported
Contained:	Yes
Site Type:	Not reported
E Date:	Not reported
Substance:	Gasoline
Quantity Released:	8
Unknown:	Not reported
Substance #2:	Gasoline 8
Substance #3:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
#1 Pipeline:	No
#2 Pipeline:	No
#3 Pipeline:	No
#1 Vessel >= 300 Tons:	No
#2 Vessel >= 300 Tons:	No
#3 Vessel >= 300 Tons:	No
Evacs:	No
Injuries:	No
Fatals:	No
Comments:	Not reported
Description:	Two spills occurred at this location by two different customers topping off their vehicles. First release occurred at 0615 and the second release occurred at 0915 today 4/2/15. The releases were to asphalt only and no waterways were affected by these two releases. The releases were cleaned by the service station attendant.

CHEVRON 94660 (Continued) **1000595747**

OES Incident Number:	14-7457
OES notification:	12/31/2014
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Service Station
Cleanup By:	No
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Type:	PETROLEUM
Measure:	Oz.
Other:	Not reported
Date/Time:	1624
Year:	2014
Agency:	NRC
Incident Date:	12/30/2014
Admin Agency:	Not reported
Amount:	Not reported
Contained:	Yes
Site Type:	Not reported
E Date:	Not reported
Substance:	Gasoline; Automotive Unleaded
Quantity Released:	20
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	Not reported

CHEVRON 94660 (Continued) **1000595747**

Number of Injuries:	Not reported
Number of Fatalities:	Not reported
#1 Pipeline:	No
#2 Pipeline:	No
#3 Pipeline:	No
#1 Vessel >= 300 Tons:	No
#2 Vessel >= 300 Tons:	No
#3 Vessel >= 300 Tons:	No
Evacs:	No
Injuries:	Human Error
Fatals:	No
Comments:	Not reported
Description:	Per NRC: "Caller stated a customer was not attentive to what they were doing and spilled gasoline onto the ground while fueling their vehicle at a gas station. Remedial Actions: caller stated the spill was contained and cleaned up."

OES Incident Number:	15-0244
OES notification:	01/13/2015
OES Date:	Not reported
OES Time:	Not reported
Incident Date:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Service Station
Cleanup By:	on site personnel
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Type:	PETROLEUM

CHEVRON 94660 (Continued) **1000595747**

Measure:	Oz.
Other:	Not reported
Date/Time:	2120
Year:	2015
Agency:	NRC
Incident Date:	1/13/2015
Admin Agency:	Orange County Emergency Management Division
Amount:	Not reported
Contained:	Yes
Site Type:	Not reported
E Date:	Not reported
Substance:	Fuel - Gasoline
Quantity Released:	16
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
#1 Pipeline:	No
#2 Pipeline:	No
#3 Pipeline:	No
#1 Vessel >= 300 Tons:	No
#2 Vessel >= 300 Tons:	No
#3 Vessel >= 300 Tons:	No
Evacs:	No
Injuries:	No
Fatals:	No
Comments:	Not reported
Description:	Per NRC report: The caller is reporting a gasoline discharge onto concrete pad at a gas station, the caller stated that the spill was due to customer negligence when the tank was overfilled as the subject talked on his cell phone.

G35
ENE
1/4-1/2
0.426 mi.
2247 ft.

SHELL SERVICE STATION
3820
SANTA ANA, CA 92704

HIST CORTESE **S104758583**
N/A

Site 1 of 5 in cluster G

Relative:
Lower

Actual:
24 ft.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	30
Reg By:	LTNKA
Reg Id:	083003174T

36
West
1/4-1/2
0.427 mi.
2256 ft.

ICN PHARMACEUTICALS
3300 HYLAND AVE
COSTA MESA, CA 92626

HIST CORTESE **S100869272**
LUST **N/A**

Relative:
Lower

Actual:
20 ft.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	30
Reg By:	LTNKA

ICN PHARMACEUTICALS (Continued) **S100869272**

Reg Id: 083000081T

LUST:

Region:	STATE
Global Id:	T0605900064
Latitude:	33.692939
Longitude:	-117.923536
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	01/22/1991
Lead Agency:	ORANGE COUNTY LOP
Case Worker:	DB
Local Agency:	ORANGE COUNTY LOP
RB Case Number:	083000081T
LOC Case Number:	89UT150
File Location:	Local Agency
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0605900064
Contact Type:	Regional Board Caseworker
Contact Name:	PATRICIA HANNON
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	phannon@waterboards.ca.gov
Phone Number:	Not reported

Global Id:	T0605900064
Contact Type:	Local Agency Caseworker
Contact Name:	DENAMARIE BAKER
Organization Name:	ORANGE COUNTY LOP
Address:	1241 E. DYER ROAD, STE. 120
City:	SANTA ANA
Email:	dbaker@ochca.com
Phone Number:	7144336255

Status History:

Global Id:	T0605900064
Status:	Open - Case Begin Date
Status Date:	08/07/1989

Global Id:	T0605900064
Status:	Completed - Case Closed
Status Date:	01/22/1991

Regulatory Activities:

Global Id:	T0605900064
Action Type:	Other
Date:	08/07/1989
Action:	Leak Discovery

ICN PHARMACEUTICALS (Continued) **S100869272**

Global Id:	T0605900064
Action Type:	Other
Date:	08/07/1989
Action:	Leak Reported

ORANGE CO. LUST:

Region:	ORANGE
Facility Id:	89UT150
Current Status:	Certification (Case Closed)
Released Substance:	Gasoline-Automotive (motor gasoline and additives), leaded & unleaded
Date Closed:	01/22/1991
Case Type:	Soil Only
Record ID:	RO0002724

LUST REG 8:

Region:	8
County:	Orange
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	083000081T
Local Case Num:	89UT150
Case Type:	Soil only
Substance:	Gasoline
Qty Leaked:	0
Abate Method:	Not reported
Cross Street:	Not reported
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Close Tank
Leak Cause:	Unknown
Leak Source:	Unknown
Global ID:	T0605900064
How Stopped Date:	9/9/9999
Enter Date:	Not reported
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	Not reported
Discover Date:	8/7/1989
Enforcement Date:	Not reported
Close Date:	1/22/1991
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	Not reported
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	33.6933248
Longitude:	-117.9247702
MTBE Date:	Not reported

ICN PHARMACEUTICALS (Continued) **S100869272**

Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	1
MTBE Tested:	Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
MTBE Class:	*
Staff:	PAH
Staff Initials:	AR
Lead Agency:	Local Agency
Local Agency:	30000L
Hydr Basin #:	Not reported
Beneficial:	MUN
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported
Summary:	Not reported

37
West
1/4-1/2
0.432 mi.
2280 ft.

Relative:
Lower

Actual:
25 ft.

STATE FARM INSURANCE
3333 HYLAND AVE
COSTA MESA, CA 92626

RCRA-SQG **1000397159**
FINDS **CAD982020851**
HIST CORTESE
LUST
CA FID UST
HIST UST
SWEEPS UST
HAZNET
EMI

RCRA-SQG:

Date form received by agency:	08/05/1987
Facility name:	STATE FARM INSURANCE
Facility address:	3333 HYLAND AVE COSTA MESA, CA 92626
EPA ID:	CAD982020851
Mailing address:	HYLAND AVE COSTA MESA, CA 92626
Contact:	ENVIRONMENTAL MANAGER
Contact address:	3333 HYLAND AVE COSTA MESA, CA 92626
Contact country:	US
Contact telephone:	(714) 241-2141
Contact email:	Not reported
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	STATE FARM INSURANCE
Owner/operator address:	NOT REQUIRED NOT REQUIRED, ME 99999
Owner/operator country:	Not reported
Owner/operator telephone:	(415) 555-1212
Legal status:	Private
Owner/Operator Type:	Owner

STATE FARM INSURANCE (Continued) **1000397159**

Owner/Op start date: Not reported
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
Owner/operator address: NOT REQUIRED
NOT REQUIRED, ME 99999
Owner/operator country: Not reported
Owner/operator telephone: (415) 555-1212
Legal status: Private
Owner/Operator Type: Operator
Owner/Op start date: Not reported
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): No
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002778414

Environmental Interest/Information System
RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HIST CORTESE:
Region: CORTESE
Facility County Code: 30
Reg By: LTNKA
Reg Id: 083001527T

LUST:
Region: STATE
Global Id: T0605957851
Latitude: 33.694007
Longitude: -117.926398

STATE FARM INSURANCE (Continued) **1000397159**

Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	11/07/1990
Lead Agency:	ORANGE COUNTY LOP
Case Worker:	DB
Local Agency:	ORANGE COUNTY LOP
RB Case Number:	Not reported
LOC Case Number:	90UT111
File Location:	Local Agency
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0605957851
Contact Type:	Regional Board Caseworker
Contact Name:	NANCY OLSON-MARTIN
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	nolson-martin@waterboards.ca.gov
Phone Number:	Not reported

Global Id:	T0605957851
Contact Type:	Local Agency Caseworker
Contact Name:	DENAMARIE BAKER
Organization Name:	ORANGE COUNTY LOP
Address:	1241 E. DYER ROAD, STE. 120
City:	SANTA ANA
Email:	dbaker@ochca.com
Phone Number:	7144336255

Status History:

Global Id:	T0605957851
Status:	Open - Case Begin Date
Status Date:	04/18/1990

Global Id:	T0605957851
Status:	Completed - Case Closed
Status Date:	11/07/1990

Regulatory Activities:

Global Id:	T0605957851
Action Type:	Other
Date:	04/18/1990
Action:	Leak Discovery

Global Id:	T0605957851
Action Type:	Other
Date:	04/18/1990
Action:	Leak Reported

Region:	STATE
Global Id:	T0605901167

STATE FARM INSURANCE (Continued) **1000397159**

Latitude:	33.6924891
Longitude:	-117.9248468
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	08/21/1996
Lead Agency:	ORANGE COUNTY LOP
Case Worker:	DB
Local Agency:	ORANGE COUNTY LOP
RB Case Number:	083001527T
LOC Case Number:	93UT001
File Location:	Local Agency
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Diesel
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0605901167
Contact Type:	Regional Board Caseworker
Contact Name:	NANCY OLSON-MARTIN
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	nolson-martin@waterboards.ca.gov
Phone Number:	Not reported

Global Id:	T0605901167
Contact Type:	Local Agency Caseworker
Contact Name:	DENAMARIE BAKER
Organization Name:	ORANGE COUNTY LOP
Address:	1241 E. DYER ROAD, STE. 120
City:	SANTA ANA
Email:	dbaker@ochca.com
Phone Number:	7144336255

Status History:

Global Id:	T0605901167
Status:	Open - Case Begin Date
Status Date:	12/23/1992

Global Id:	T0605901167
Status:	Completed - Case Closed
Status Date:	08/21/1996

Regulatory Activities:

Global Id:	T0605901167
Action Type:	Other
Date:	12/23/1992
Action:	Leak Discovery

Global Id:	T0605901167
Action Type:	Other
Date:	12/23/1992
Action:	Leak Reported

Global Id:	T0605901167

STATE FARM INSURANCE (Continued) **1000397159**

Action Type:	ENFORCEMENT
Date:	08/21/1996
Action:	Closure/No Further Action Letter

ORANGE CO. LUST:

Region:	ORANGE
Facility Id:	93UT001
Current Status:	Certification (Case Closed)
Released Substance:	Diesel fuel oil and additives, Nos.1-D, 2-D, 2-4
Date Closed:	08/21/1996
Case Type:	Other Ground Water
Record ID:	RO0001800

Region:	ORANGE
Facility Id:	90UT111
Current Status:	Certification (Case Closed)
Released Substance:	Gasoline-Automotive (motor gasoline and additives), leaded & unleaded
Date Closed:	11/07/1990
Case Type:	Soil Only
Record ID:	RO0002021

LUST REG 8:

Region:	8
County:	Orange
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	083001527T
Local Case Num:	93UT001
Case Type:	Other ground water affected
Substance:	Gasoline
Qty Leaked:	0
Abate Method:	Not reported
Cross Street:	Not reported
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Close Tank
Leak Cause:	Unknown
Leak Source:	Unknown
Global ID:	T0605901167
How Stopped Date:	9/9/9999
Enter Date:	Not reported
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	Not reported
Discover Date:	12/23/1992
Enforcement Date:	Not reported
Close Date:	8/21/1996
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	Not reported
GW Qualifies:	Not reported
Soil Qualifies:	Not reported

STATE FARM INSURANCE (Continued) **1000397159**

Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	33.6937858
Longitude:	-117.9250382
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	1
MTBE Tested:	Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
MTBE Class:	*
Staff:	NOM
Staff Initials:	AR
Lead Agency:	Local Agency
Local Agency:	30000L
Hydr Basin #:	Not reported
Beneficial:	MUN
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported
Summary:	Not reported

Region:	8
County:	Orange
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	Not reported
Local Case Num:	90UT111
Case Type:	Soil only
Substance:	Gasoline
Qty Leaked:	0
Abate Method:	Not reported
Cross Street:	Not reported
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Close Tank
Leak Cause:	Unknown
Leak Source:	Unknown
Global ID:	T0605957851
How Stopped Date:	9/9/9999
Enter Date:	Not reported
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	Not reported
Discover Date:	4/18/1990
Enforcement Date:	Not reported
Close Date:	11/7/1990
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	Not reported
GW Qualifies:	Not reported
Soil Qualifies:	Not reported

STATE FARM INSURANCE (Continued) **1000397159**

Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	Not reported
Longitude:	Not reported
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	1
MTBE Tested:	Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
MTBE Class:	*
Staff:	NOM
Staff Initials:	AR
Lead Agency:	Local Agency
Local Agency:	30000L
Hydr Basin #:	Not reported
Beneficial:	MUN
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported
Summary:	Not reported

CA FID UST:

Facility ID:	30003171
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	7142412141
Mail To:	Not reported
Mailing Address:	1 STATE FARM PLZ
Mailing Address 2:	Not reported
Mailing City,St,Zip:	COSTA MESA 92626
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

HIST UST:

Region:	STATE
Facility ID:	00000000631
Facility Type:	Other
Other Type:	INSURANCE
Contact Name:	Not reported
Telephone:	7142412137
Owner Name:	STATE FARM INSURANCE COMPANY
Owner Address:	3333 HYLAND AVENUE
Owner City,St,Zip:	COSTA MESA, CA 92626
Total Tanks:	0002
Tank Num:	001

STATE FARM INSURANCE (Continued) **1000397159**

Container Num: 2
Year Installed: 1980
Tank Capacity: 00005000
Tank Used for: PRODUCT
Type of Fuel: UNLEADED
Container Construction Thickness: Not reported
Leak Detection: Stock Inventor, Vapor Sniff Well

Tank Num: 002
Container Num: 1
Year Installed: 1983
Tank Capacity: 00005000
Tank Used for: PRODUCT
Type of Fuel: DIESEL
Container Construction Thickness: Not reported
Leak Detection: Visual, Stock Inventor, Vapor Sniff Well, Pressure Test

SWEEPS UST:
Status: Not reported
Comp Number: 6376
Number: Not reported
Board Of Equalization: 44-008105
Referral Date: Not reported
Action Date: Not reported
Created Date: Not reported
Owner Tank Id: Not reported
SWRCB Tank Id: 30-000-006376-000003
Tank Status: Not reported
Capacity: 6000
Active Date: Not reported
Tank Use: UNKNOWN
STG: PRODUCT
Content: Not reported
Number Of Tanks: 1

Status: Active
Comp Number: 6376
Number: 9
Board Of Equalization: 44-008105
Referral Date: 09-30-92
Action Date: 09-15-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 30-000-006376-000001
Tank Status: A
Capacity: 6000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: DIESEL
Number Of Tanks: 2

Status: Active
Comp Number: 6376
Number: 9
Board Of Equalization: 44-008105
Referral Date: 09-30-92

STATE FARM INSURANCE (Continued) **1000397159**

Action Date:	09-15-92
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	30-000-006376-000002
Tank Status:	A
Capacity:	12000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

HAZNET:

envid:	1000397159
Year:	2005
GEPAID:	CAD982020851
Contact:	JOHN HINKLE
Telephone:	6616631951
Mailing Name:	Not reported
Mailing Address:	3333 HYLAND AVE
Mailing City,St,Zip:	COSTA MESA, CA 926261507
Gen County:	Not reported
TSD EPA ID:	CAD050806850
TSD County:	Not reported
Waste Category:	Liquids with polychloronated biphenyls >= 50 Mg./L
Disposal Method:	Not reported
Tons:	Not reported
Facility County:	Orange

envid:	1000397159
Year:	2004
GEPAID:	CAD982020851
Contact:	JOHN HINKLE
Telephone:	6616631951
Mailing Name:	Not reported
Mailing Address:	3333 HYLAND AVE
Mailing City,St,Zip:	COSTA MESA, CA 926261507
Gen County:	Not reported
TSD EPA ID:	CAD008364432
TSD County:	Not reported
Waste Category:	Off-specification, aged or surplus organics
Disposal Method:	Transfer Station
Tons:	0.15
Facility County:	Orange

envid:	1000397159
Year:	2004
GEPAID:	CAD982020851
Contact:	JOHN HINKLE
Telephone:	6616631951
Mailing Name:	Not reported
Mailing Address:	3333 HYLAND AVE
Mailing City,St,Zip:	COSTA MESA, CA 926261507
Gen County:	Not reported
TSD EPA ID:	CAT080033681
TSD County:	Not reported
Waste Category:	Latex waste

STATE FARM INSURANCE (Continued) **1000397159**

Disposal Method: Disposal, Land Fill
Tons: 1
Facility County: Orange

envid: 1000397159
Year: 2004
GEPAID: CAD982020851
Contact: JOHN HINKLE
Telephone: 6616631951
Mailing Name: Not reported
Mailing Address: 3333 HYLAND AVE
Mailing City,St,Zip: COSTA MESA, CA 926261507
Gen County: Not reported
TSD EPA ID: CAT080033681
TSD County: Not reported
Waste Category: Waste oil and mixed oil
Disposal Method: Recycler
Tons: 0.91
Facility County: Orange

envid: 1000397159
Year: 2004
GEPAID: CAD982020851
Contact: JOHN HINKLE
Telephone: 6616631951
Mailing Name: Not reported
Mailing Address: 3333 HYLAND AVE
Mailing City,St,Zip: COSTA MESA, CA 926261507
Gen County: Not reported
TSD EPA ID: CAT080033681
TSD County: Not reported
Waste Category: Off-specification, aged or surplus inorganics
Disposal Method: Recycler
Tons: 0.25
Facility County: Orange

Click this hyperlink while viewing on your computer to access
20 additional CA_HAZNET: record(s) in the EDR Site Report.

EMI:
Year: 1987
County Code: 30
Air Basin: SC
Facility ID: 6898
Air District Name: SC
SIC Code: 5311
Air District Name: SOUTH COAST AQMD
Community Health Air Pollution Info System: Not reported
Consolidated Emission Reporting Rule: Not reported
Total Organic Hydrocarbon Gases Tons/Yr: 0
Reactive Organic Gases Tons/Yr: 0
Carbon Monoxide Emissions Tons/Yr: 0
NOX - Oxides of Nitrogen Tons/Yr: 5
SOX - Oxides of Sulphur Tons/Yr: 0
Particulate Matter Tons/Yr: 0
Part. Matter 10 Micrometers & Smllr Tons/Yr: 0

STATE FARM INSURANCE (Continued) **1000397159**

Year:	1990
County Code:	30
Air Basin:	SC
Facility ID:	6898
Air District Name:	SC
SIC Code:	6411
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0
Reactive Organic Gases Tons/Yr:	0
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	1
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

Year:	1995
County Code:	30
Air Basin:	SC
Facility ID:	6898
Air District Name:	SC
SIC Code:	6411
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers & Smllr Tons/Yr:	0

38
ESE
1/4-1/2
0.436 mi.
2302 ft.

AUTOMOBILE CLUB OF SO CALIFORN
3333 FAIRVIEW RD
COSTA MESA, CA 92626

HIST CORTESE **S101609497**
LUST **N/A**
CA FID UST
SWEEPS UST
HAZNET

Relative:
Lower

Actual:
30 ft.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	30
Reg By:	LTNKA
Reg Id:	083000754T

Region:	CORTESE
Facility County Code:	30
Reg By:	LTNKA
Reg Id:	083002970T

LUST:

Region:	STATE
Global Id:	T0605902033
Latitude:	33.691495
Longitude:	-117.909485
Case Type:	LUST Cleanup Site

AUTOMOBILE CLUB OF SO CALIFORN (Continued) **S101609497**

Status:	Completed - Case Closed
Status Date:	06/05/1998
Lead Agency:	ORANGE COUNTY LOP
Case Worker:	DB
Local Agency:	ORANGE COUNTY LOP
RB Case Number:	083002970T
LOC Case Number:	97UT003
File Location:	Local Agency
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Diesel, Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0605902033
Contact Type:	Regional Board Caseworker
Contact Name:	VALERIE JAHN-BULL
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	vjahn-bull@waterboards.ca.gov
Phone Number:	9517824903

Global Id:	T0605902033
Contact Type:	Local Agency Caseworker
Contact Name:	DENAMARIE BAKER
Organization Name:	ORANGE COUNTY LOP
Address:	1241 E. DYER ROAD, STE. 120
City:	SANTA ANA
Email:	dbaker@ochca.com
Phone Number:	7144336255

Status History:

Global Id:	T0605902033
Status:	Completed - Case Closed
Status Date:	06/05/1998

Global Id:	T0605902033
Status:	Open - Case Begin Date
Status Date:	01/27/1997

Regulatory Activities:

Global Id:	T0605902033
Action Type:	Other
Date:	01/27/1997
Action:	Leak Discovery

Global Id:	T0605902033
Action Type:	Other
Date:	01/27/1997
Action:	Leak Reported

ORANGE CO. LUST:

Region: ORANGE

AUTOMOBILE CLUB OF SO CALIFORN (Continued) **S101609497**

Facility Id:	97UT003
Current Status:	Certification (Case Closed)
Released Substance:	Diesel fuel oil and additives, Nos.1-D, 2-D, 2-4
Date Closed:	06/05/1998
Case Type:	Other Ground Water
Record ID:	RO0000920

Region:	ORANGE
Facility Id:	97UT003
Current Status:	Certification (Case Closed)
Released Substance:	Gasoline-Automotive (motor gasoline and additives), leaded & unleaded
Date Closed:	06/05/1998
Case Type:	Other Ground Water
Record ID:	RO0000920

LUST REG 8:

Region:	8
County:	Orange
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	083002970T
Local Case Num:	97UT003
Case Type:	Other ground water affected
Substance:	12034,800661
Qty Leaked:	0
Abate Method:	Not reported
Cross Street:	Not reported
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Close Tank
Leak Cause:	Unknown
Leak Source:	Unknown
Global ID:	T0605902033
How Stopped Date:	9/9/9999
Enter Date:	Not reported
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	Not reported
Discover Date:	1/27/1997
Enforcement Date:	Not reported
Close Date:	6/5/1998
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	Not reported
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	33.6887871
Longitude:	-117.9081267
MTBE Date:	Not reported
Max MTBE GW:	Not reported

AUTOMOBILE CLUB OF SO CALIFORN (Continued) **S101609497**

MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	0
MTBE Tested:	Not Required to be Tested.
MTBE Class:	*
Staff:	VJJ
Staff Initials:	AR
Lead Agency:	Local Agency
Local Agency:	30000L
Hydr Basin #:	Not reported
Beneficial:	MUN
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported
Summary:	Not reported

CA FID UST:

Facility ID:	30000171
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	7148505034
Mail To:	Not reported
Mailing Address:	2601 S FIGUEROA ST
Mailing Address 2:	Not reported
Mailing City,St,Zip:	COSTA MESA 92626
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

SWEEPS UST:

Status:	Active
Comp Number:	5305
Number:	9
Board Of Equalization:	44-016356
Referral Date:	09-30-92
Action Date:	09-15-92
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	30-000-005305-000001
Tank Status:	A
Capacity:	12000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	2

Status:	Active
Comp Number:	5305
Number:	9

AUTOMOBILE CLUB OF SO CALIFORN (Continued) **S101609497**

Board Of Equalization:	44-016356
Referral Date:	09-30-92
Action Date:	09-15-92
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	30-000-005305-000002
Tank Status:	A
Capacity:	12000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	P
Content:	DIESEL
Number Of Tanks:	Not reported

HAZNET:

envid:	S101609497
Year:	2013
GEPAID:	CAC002735435
Contact:	STEVE EVANS
Telephone:	9516846006
Mailing Name:	Not reported
Mailing Address:	3333 FAIRVIEW RD
Mailing City,St,Zip:	COSTA MESA, CA 926261610
Gen County:	Orange
TSD EPA ID:	CAD028409019
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	5.0568
Facility County:	Not reported

G39 **SHELL SERVICE STATION** **RCRA-SQG** **1001967437**
ENE **3820 S FAIRVIEW / SUNFLOWER** **LUST** **CAR000069021**
1/4-1/2 **SANTA ANA, CA 92704**
0.445 mi.
2347 ft. **Site 2 of 5 in cluster G**

Relative:
Lower

Actual:
25 ft.

RCRA-SQG:

Date form received by agency:	02/26/2004
Facility name:	SHELL SERVICE STATION
Facility address:	3820 S FAIRVIEW / SUNFLOWER SAP #136060 SANTA ANA, CA 92704
EPA ID:	CAR000069021
Mailing address:	SHELL OIL PRODUCTS US 12700 NORTHBOROUGH DR MFT240G HOUSTON, TX 770672508
Contact:	GARY V WING
Contact address:	Not reported Not reported
Contact country:	US
Contact telephone:	(714) 731-8337
Contact email:	GVWING@SHELLOPUS.COM
EPA Region:	09
Classification:	Small Small Quantity Generator
Description:	Handler: generates more than 100 and less than 1000 kg of hazardous

SHELL SERVICE STATION (Continued) **1001967437**

waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name:	EQUILON ENTERPRISES LLC
Owner/operator address:	P O BOX 2099 RM 1241 HOUSTON, TX 77252
Owner/operator country:	Not reported
Owner/operator telephone:	(713) 241-2258
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	Not reported
Owner/Op end date:	Not reported

Owner/operator name:	SHELL OIL PRODUCTS US
Owner/operator address:	Not reported Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	08/01/1998
Owner/Op end date:	Not reported

Owner/operator name:	EQUILON ENTERPRISES LLC DBA SHELL OIL PR
Owner/operator address:	PO BOX 2648 HOUSTON, TX 77252
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	08/01/1998
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No
Used oil fuel burner:	No
Used oil processor:	No
User oil refiner:	No
Used oil fuel marketer to burner:	No
Used oil Specification marketer:	No
Used oil transfer facility:	No
Used oil transporter:	No

Historical Generators:

Date form received by agency:	02/26/2004
Site name:	SHELL SERVICE STATION

SHELL SERVICE STATION (Continued) **1001967437**

Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D018
. Waste name: BENZENE

Date form received by agency: 03/30/2000
Site name: SHELL SERVICE STATION
Classification: Small Quantity Generator

. Waste code: D000
. Waste name: Not Defined

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D018
. Waste name: BENZENE

Violation Status: No violations found

LUST:

Region:	STATE
Global Id:	T0605902158
Latitude:	33.69595539
Longitude:	-117.9080182
Case Type:	LUST Cleanup Site
Status:	Open - Remediation
Status Date:	12/27/2005
Lead Agency:	SANTA ANA RWQCB (REGION 8)
Case Worker:	CAB
Local Agency:	SANTA ANA, CITY OF
RB Case Number:	083003174T
LOC Case Number:	Not reported
File Location:	Regional Board
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0605902158
Contact Type:	Local Agency Caseworker
Contact Name:	CHRISTOPHER CIRAULO
Organization Name:	SANTA ANA, CITY OF
Address:	1439 S. BROADWAY
City:	SANTA ANA
Email:	cciraulo@santa-ana.org
Phone Number:	Not reported

Global Id:	T0605902158
Contact Type:	Regional Board Caseworker
Contact Name:	CARL BERNHARDT
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500

SHELL SERVICE STATION (Continued) **1001967437**

City: RIVERSIDE
Email: cbernhardt@waterboards.ca.gov
Phone Number: 9517824495

Status History:

Global Id: T0605902158
Status: Open - Case Begin Date
Status Date: 04/29/1998

Global Id: T0605902158
Status: Open - Remediation
Status Date: 12/23/2005

Global Id: T0605902158
Status: Open - Remediation
Status Date: 12/27/2005

Global Id: T0605902158
Status: Open - Site Assessment
Status Date: 04/29/1998

Global Id: T0605902158
Status: Open - Site Assessment
Status Date: 10/29/1999

Global Id: T0605902158
Status: Open - Site Assessment
Status Date: 03/23/2000

Global Id: T0605902158
Status: Open - Site Assessment
Status Date: 01/20/2002

Global Id: T0605902158
Status: Open - Site Assessment
Status Date: 01/22/2002

Global Id: T0605902158
Status: Open - Site Assessment
Status Date: 06/19/2003

Global Id: T0605902158
Status: Open - Site Assessment
Status Date: 07/09/2004

Regulatory Activities:

Global Id: T0605902158
Action Type: ENFORCEMENT
Date: 01/12/2015
Action: Technical Correspondence / Assistance / Other

Global Id: T0605902158
Action Type: RESPONSE
Date: 11/02/2002
Action: Monitoring Report - Quarterly

SHELL SERVICE STATION (Continued) **1001967437**

Global Id: T0605902158
Action Type: RESPONSE
Date: 05/10/2004
Action: Soil and Water Investigation Report

Global Id: T0605902158
Action Type: RESPONSE
Date: 02/21/2003
Action: Soil and Water Investigation Workplan

Global Id: T0605902158
Action Type: RESPONSE
Date: 11/04/2002
Action: Soil and Water Investigation Workplan

Global Id: T0605902158
Action Type: RESPONSE
Date: 03/06/2003
Action: Interim Remedial Action Report

Global Id: T0605902158
Action Type: RESPONSE
Date: 09/30/2003
Action: Soil and Water Investigation Report

Global Id: T0605902158
Action Type: RESPONSE
Date: 02/21/2003
Action: Soil and Water Investigation Report

Global Id: T0605902158
Action Type: RESPONSE
Date: 02/28/2005
Action: Soil and Water Investigation Report

Global Id: T0605902158
Action Type: RESPONSE
Date: 04/30/2004
Action: Soil and Water Investigation Report

Global Id: T0605902158
Action Type: RESPONSE
Date: 06/19/2003
Action: Soil and Water Investigation Workplan

Global Id: T0605902158
Action Type: RESPONSE
Date: 12/01/2014
Action: Email Correspondence - Regulator Responded

Global Id: T0605902158
Action Type: ENFORCEMENT
Date: 07/08/2003
Action: Staff Letter

Global Id: T0605902158
Action Type: ENFORCEMENT

SHELL SERVICE STATION (Continued) **1001967437**

Date: 09/15/2004
Action: Staff Letter

Global Id: T0605902158
Action Type: ENFORCEMENT
Date: 04/13/2005
Action: Staff Letter

Global Id: T0605902158
Action Type: ENFORCEMENT
Date: 05/19/2005
Action: Staff Letter

Global Id: T0605902158
Action Type: ENFORCEMENT
Date: 10/07/2011
Action: Staff Letter

Global Id: T0605902158
Action Type: Other
Date: 04/29/1998
Action: Leak Discovery

Global Id: T0605902158
Action Type: RESPONSE
Date: 02/14/2003
Action: Monitoring Report - Quarterly

Global Id: T0605902158
Action Type: RESPONSE
Date: 07/30/2003
Action: Monitoring Report - Quarterly

Global Id: T0605902158
Action Type: RESPONSE
Date: 01/30/2004
Action: Monitoring Report - Quarterly

Global Id: T0605902158
Action Type: RESPONSE
Date: 05/15/2003
Action: Soil and Water Investigation Report

Global Id: T0605902158
Action Type: RESPONSE
Date: 04/30/2003
Action: Monitoring Report - Quarterly

Global Id: T0605902158
Action Type: RESPONSE
Date: 01/30/2005
Action: Monitoring Report - Quarterly

Global Id: T0605902158
Action Type: REMEDIATION
Date: 08/08/2008
Action: In Situ Biological Treatment

SHELL SERVICE STATION (Continued) **1001967437**

Global Id: T0605902158
Action Type: RESPONSE
Date: 07/30/2004
Action: Soil and Water Investigation Workplan

Global Id: T0605902158
Action Type: RESPONSE
Date: 04/30/2005
Action: Monitoring Report - Quarterly

Global Id: T0605902158
Action Type: RESPONSE
Date: 07/30/2004
Action: Monitoring Report - Quarterly

Global Id: T0605902158
Action Type: RESPONSE
Date: 04/30/2004
Action: Monitoring Report - Quarterly

Global Id: T0605902158
Action Type: RESPONSE
Date: 10/30/2004
Action: Monitoring Report - Quarterly

Global Id: T0605902158
Action Type: RESPONSE
Date: 04/30/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0605902158
Action Type: RESPONSE
Date: 01/30/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0605902158
Action Type: RESPONSE
Date: 04/30/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0605902158
Action Type: REMEDIATION
Date: 02/09/2012
Action: Monitored Natural Attenuation

Global Id: T0605902158
Action Type: ENFORCEMENT
Date: 01/10/2008
Action: Staff Letter

Global Id: T0605902158
Action Type: RESPONSE
Date: 04/29/2005
Action: Soil and Water Investigation Workplan

Global Id: T0605902158
Action Type: RESPONSE

SHELL SERVICE STATION (Continued) **1001967437**

Date: 12/31/2005
Action: Corrective Action Plan / Remedial Action Plan

Global Id: T0605902158
Action Type: RESPONSE
Date: 08/01/2005
Action: Soil and Water Investigation Report

Global Id: T0605902158
Action Type: RESPONSE
Date: 08/01/2005
Action: Soil and Water Investigation Workplan

Global Id: T0605902158
Action Type: ENFORCEMENT
Date: 02/09/2012
Action: Staff Letter

Global Id: T0605902158
Action Type: RESPONSE
Date: 07/30/2005
Action: Monitoring Report - Quarterly

Global Id: T0605902158
Action Type: RESPONSE
Date: 10/30/2005
Action: Monitoring Report - Quarterly

Global Id: T0605902158
Action Type: RESPONSE
Date: 12/14/2007
Action: Unknown

Global Id: T0605902158
Action Type: RESPONSE
Date: 04/30/2006
Action: Monitoring Report - Quarterly

Global Id: T0605902158
Action Type: ENFORCEMENT
Date: 11/21/2002
Action: * Verbal Communication

Global Id: T0605902158
Action Type: ENFORCEMENT
Date: 11/20/2002
Action: Staff Letter

Global Id: T0605902158
Action Type: Other
Date: 05/06/1998
Action: Leak Reported

Global Id: T0605902158
Action Type: RESPONSE
Date: 01/30/2007
Action: Monitoring Report - Quarterly

SHELL SERVICE STATION (Continued) **1001967437**

Global Id: T0605902158
Action Type: RESPONSE
Date: 07/30/2006
Action: Monitoring Report - Quarterly

Global Id: T0605902158
Action Type: RESPONSE
Date: 10/30/2006
Action: Monitoring Report - Quarterly

Global Id: T0605902158
Action Type: RESPONSE
Date: 04/30/2007
Action: Monitoring Report - Quarterly

Global Id: T0605902158
Action Type: RESPONSE
Date: 10/24/2012
Action: Request for Closure

Global Id: T0605902158
Action Type: ENFORCEMENT
Date: 02/04/2013
Action: Verbal Enforcement

Global Id: T0605902158
Action Type: RESPONSE
Date: 04/30/2009
Action: Monitoring Report - Quarterly

Global Id: T0605902158
Action Type: RESPONSE
Date: 07/30/2009
Action: Monitoring Report - Quarterly

Global Id: T0605902158
Action Type: RESPONSE
Date: 02/04/2008
Action: Other Workplan

Global Id: T0605902158
Action Type: RESPONSE
Date: 07/30/2007
Action: Monitoring Report - Quarterly

Global Id: T0605902158
Action Type: RESPONSE
Date: 10/30/2007
Action: Monitoring Report - Quarterly

Global Id: T0605902158
Action Type: RESPONSE
Date: 01/30/2008
Action: Monitoring Report - Quarterly

Global Id: T0605902158
Action Type: RESPONSE

SHELL SERVICE STATION (Continued) **1001967437**

Date: 04/30/2008
Action: Monitoring Report - Quarterly

Global Id: T0605902158
Action Type: RESPONSE
Date: 07/30/2008
Action: Monitoring Report - Quarterly

Global Id: T0605902158
Action Type: RESPONSE
Date: 10/30/2008
Action: Monitoring Report - Quarterly

Global Id: T0605902158
Action Type: RESPONSE
Date: 01/20/2002
Action: Preliminary Site Assessment Workplan

Global Id: T0605902158
Action Type: RESPONSE
Date: 01/30/2009
Action: Monitoring Report - Quarterly

Global Id: T0605902158
Action Type: RESPONSE
Date: 10/06/2003
Action: Soil and Water Investigation Report

Global Id: T0605902158
Action Type: RESPONSE
Date: 10/30/2003
Action: Monitoring Report - Quarterly

Global Id: T0605902158
Action Type: RESPONSE
Date: 01/30/2006
Action: Monitoring Report - Quarterly

Global Id: T0605902158
Action Type: RESPONSE
Date: 06/11/2014
Action: Monitoring Report - Semi-Annually

Global Id: T0605902158
Action Type: ENFORCEMENT
Date: 01/22/2002
Action: Staff Letter

Global Id: T0605902158
Action Type: ENFORCEMENT
Date: 08/30/2002
Action: Site Visit / Inspection / Sampling

Global Id: T0605902158
Action Type: ENFORCEMENT
Date: 09/20/2002
Action: Staff Letter

SHELL SERVICE STATION (Continued) **1001967437**

Global Id:	T0605902158
Action Type:	ENFORCEMENT
Date:	01/28/2003
Action:	Staff Letter
Global Id:	T0605902158
Action Type:	ENFORCEMENT
Date:	07/29/2009
Action:	Staff Letter
Global Id:	T0605902158
Action Type:	RESPONSE
Date:	12/30/2009
Action:	Other Report / Document
Global Id:	T0605902158
Action Type:	RESPONSE
Date:	06/30/2002
Action:	Soil and Water Investigation Report
Global Id:	T0605902158
Action Type:	RESPONSE
Date:	04/30/2010
Action:	Monitoring Report - Quarterly
Global Id:	T0605902158
Action Type:	RESPONSE
Date:	12/30/2013
Action:	Monitoring Report - Semi-Annually

G40 **SHELL #3820** **LUST** **S104791867**
ENE **3820 FAIRVIEW AVE** **N/A**
1/4-1/2 **SANTA ANA, CA 92704**
0.445 mi.
2347 ft. **Site 3 of 5 in cluster G**

Relative:
Lower

Actual:
25 ft.

LUST REG 8:

Region:	8
County:	Orange
Regional Board:	Santa Ana Region
Facility Status:	Pollution Characterization
Case Number:	083003174T
Local Case Num:	Not reported
Case Type:	Aquifer affected
Substance:	Gasoline
Qty Leaked:	Not reported
Abate Method:	Not reported
Cross Street:	SUNFLOWERE
Enf Type:	SEL
Funding:	Not reported
How Discovered:	Not reported
How Stopped:	Not reported
Leak Cause:	Not reported
Leak Source:	Not reported
Global ID:	T0605902158
How Stopped Date:	Not reported
Enter Date:	6/29/1998

SHELL #3820 (Continued) **S104791867**

Date Confirmation of Leak Began:	4/29/1998
Date Preliminary Assessment Began:	1/22/2002
Discover Date:	4/29/1998
Enforcement Date:	Not reported
Close Date:	Not reported
Date Prelim Assessment Workplan Submitted:	1/20/2002
Date Pollution Characterization Began:	7/9/2004
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	6/29/1998
GW Qualifies:	=
Soil Qualifies:	=
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	33.69595539
Longitude:	-117.9080182
MTBE Date:	5/22/2002
Max MTBE GW:	11000
MTBE Concentration:	1
Max MTBE Soil:	1300
MTBE Fuel:	1
MTBE Tested:	MTBE Detected. Site tested for MTBE & MTBE detected
MTBE Class:	A
Staff:	CAB
Staff Initials:	JB
Lead Agency:	Regional Board
Local Agency:	Santa Ana, Orange County
Hydr Basin #:	COASTAL PLAIN OF ORA
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported

Summary: Not reported

41
ESE
1/4-1/2
0.446 mi.
2356 ft.

C J SEGERSTROM & SONS
3315 FAIRVIEW RD
COSTA MESA, CA 92626

HIST CORTESE **S101631288**
LUST **N/A**
CA FID UST
CHMIRS

Relative:
Higher

Actual:
31 ft.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	30
Reg By:	LTNKA
Reg Id:	083002787T

LUST:

Region:	STATE
Global Id:	T0605901920
Latitude:	33.6882811
Longitude:	-117.9081407
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	06/19/1997

C J SEGERSTROM & SONS (Continued) **S101631288**

Lead Agency:	ORANGE COUNTY LOP
Case Worker:	DB
Local Agency:	ORANGE COUNTY LOP
RB Case Number:	083002787T
LOC Case Number:	95UT073
File Location:	Local Agency
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Diesel
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0605901920
Contact Type:	Regional Board Caseworker
Contact Name:	VALERIE JAHN-BULL
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	vjahn-bull@waterboards.ca.gov
Phone Number:	9517824903

Global Id:	T0605901920
Contact Type:	Local Agency Caseworker
Contact Name:	DENAMARIE BAKER
Organization Name:	ORANGE COUNTY LOP
Address:	1241 E. DYER ROAD, STE. 120
City:	SANTA ANA
Email:	dbaker@ochca.com
Phone Number:	7144336255

Status History:

Global Id:	T0605901920
Status:	Completed - Case Closed
Status Date:	06/19/1997

Global Id:	T0605901920
Status:	Open - Case Begin Date
Status Date:	12/06/1995

Regulatory Activities:

Global Id:	T0605901920
Action Type:	Other
Date:	12/06/1995
Action:	Leak Discovery

Global Id:	T0605901920
Action Type:	Other
Date:	12/06/1995
Action:	Leak Reported

ORANGE CO. LUST:

Region:	ORANGE
Facility Id:	95UT073
Current Status:	Certification (Case Closed)

C J SEGERSTROM & SONS (Continued) **S101631288**

Released Substance: Gasoline-Automotive (motor gasoline and additives), leaded & unleaded
Date Closed: 06/19/1997
Case Type: Other Ground Water
Record ID: RO0002763

LUST REG 8:

Region:	8
County:	Orange
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	083002787T
Local Case Num:	95UT073
Case Type:	Other ground water affected
Substance:	Diesel
Qty Leaked:	0
Abate Method:	Not reported
Cross Street:	Not reported
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Close Tank
Leak Cause:	Unknown
Leak Source:	Unknown
Global ID:	T0605901920
How Stopped Date:	9/9/9999
Enter Date:	Not reported
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	Not reported
Discover Date:	12/6/1995
Enforcement Date:	Not reported
Close Date:	6/19/1997
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	Not reported
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	33.6882811
Longitude:	-117.9081407
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	0
MTBE Tested:	Not Required to be Tested.
MTBE Class:	*
Staff:	VJJ
Staff Initials:	AR
Lead Agency:	Local Agency
Local Agency:	30000L
Hydr Basin #:	Not reported

C J SEGERSTROM & SONS (Continued) **S101631288**

Beneficial: MUN
Priority: Not reported
Cleanup Fund Id: Not reported
Work Suspended: Not reported
Summary: Not reported

CA FID UST:
Facility ID: 30005405
Regulated By: UTNKA
Regulated ID: Not reported
Cortese Code: Not reported
SIC Code: Not reported
Facility Phone: 7145460110
Mail To: Not reported
Mailing Address: 3315 FAIRVIEW RD
Mailing Address 2: Not reported
Mailing City,St,Zip: COSTA MESA 92626
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

CHMIRS:
OES Incident Number: '12-5273
OES notification: 09/03/2012
OES Date: Not reported
OES Time: Not reported
Incident Date: Not reported
Date Completed: Not reported
Property Use: Not reported
Agency Id Number: Not reported
Agency Incident Number: Not reported
Time Notified: Not reported
Time Completed: Not reported
Surrounding Area: Not reported
Estimated Temperature: Not reported
Property Management: Not reported
More Than Two Substances Involved?: Not reported
Resp Agncy Personel # Of Decontaminated: Not reported
Responding Agency Personel # Of Injuries: Not reported
Responding Agency Personel # Of Fatalities: Not reported
Others Number Of Decontaminated: Not reported
Others Number Of Injuries: Not reported
Others Number Of Fatalities: Not reported
Vehicle Make/year: Not reported
Vehicle License Number: Not reported
Vehicle State: Not reported
Vehicle Id Number: Not reported
CA DOT PUC/ICC Number: Not reported
Company Name: Not reported
Reporting Officer Name/ID: Not reported
Report Date: Not reported
Facility Telephone: Not reported

C J SEGERSTROM & SONS (Continued) **S101631288**

Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Merchant/Business,Residence
Cleanup By:	Unrecoverable
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Unknown
Other:	Not reported
Date/Time:	1904
Year:	2012
Agency:	Southern California Gas Company
Incident Date:	9/2/2012
Admin Agency:	Orange County Emergency Management Division
Amount:	Not reported
Contained:	Yes
Site Type:	Not reported
E Date:	Not reported
Substance:	Natural Gas
Quantity Released:	Unkown
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	Not reported
Number of Injuries:	Not reported
Number of Fatalities:	Not reported
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	Caller states: A vehicle accident damaged a 1" plastic service line causing the release. The release was securred shortly after the accident at 2140.

G42 **ARCO #3083** **HIST CORTESE** **S102433835**
ENE **3470 FAIRVIEW** **N/A**
1/4-1/2 **COSTA MESA, CA 92626**
0.453 mi.
2393 ft. **Site 4 of 5 in cluster G**

Relative:
Lower

Actual:
25 ft.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	30
Reg By:	LTNKA
Reg Id:	083000049T

G43 ENE 1/4-1/2 0.453 mi. 2393 ft.

MOBIL #18-JMY
3470 FAIRVIEW RD
COSTA MESA, CA 92626

Site 5 of 5 in cluster G

HIST CORTESE
LUST
CA FID UST
SWEEPS UST

U002096210
N/A

Relative: Lower

Actual: 25 ft.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	30
Reg By:	LTNKA
Reg Id:	083002609T

LUST:

Region:	STATE
Global Id:	T0605900040
Latitude:	33.695891828
Longitude:	-117.9074977
Case Type:	LUST Cleanup Site
Status:	Open - Remediation
Status Date:	03/07/2000
Lead Agency:	ORANGE COUNTY LOP
Case Worker:	DB
Local Agency:	ORANGE COUNTY LOP
RB Case Number:	083000049T
LOC Case Number:	94UT055
File Location:	Local Agency
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Gasoline
Site History:	Please refer to recent Site Documents or Monitoring Reports in GeoTracker for site history. Orange County is not responsible for the accuracy of any professional interpretations provided in reports submitted by consultants for the responsible party.

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0605900040
Contact Type:	Regional Board Caseworker
Contact Name:	ROSE SCOTT
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	rscott@waterboards.ca.gov
Phone Number:	9513206375

Global Id:	T0605900040
Contact Type:	Local Agency Caseworker
Contact Name:	DENAMARIE BAKER
Organization Name:	ORANGE COUNTY LOP
Address:	1241 E. DYER ROAD, STE. 120
City:	SANTA ANA
Email:	dbaker@ochca.com
Phone Number:	7144336255

Status History:

Global Id:	T0605900040
Status:	Open - Case Begin Date
Status Date:	04/21/1993

MOBIL #18-JMY (Continued) **U002096210**

Global Id: T0605900040
Status: Open - Remediation
Status Date: 03/07/2000

Regulatory Activities:

Global Id: T0605900040
Action Type: ENFORCEMENT
Date: 04/28/2010
Action: Staff Letter

Global Id: T0605900040
Action Type: RESPONSE
Date: 02/08/2013
Action: Other Workplan - Regulator Responded

Global Id: T0605900040
Action Type: RESPONSE
Date: 10/21/2014
Action: Interim Remedial Action Plan - Regulator Responded

Global Id: T0605900040
Action Type: ENFORCEMENT
Date: 01/20/2011
Action: File review

Global Id: T0605900040
Action Type: Other
Date: 04/21/1993
Action: Leak Discovery

Global Id: T0605900040
Action Type: REMEDIATION
Date: 03/07/2000
Action: Pump & Treat (P&T) Groundwater

Global Id: T0605900040
Action Type: ENFORCEMENT
Date: 04/05/2011
Action: File review

Global Id: T0605900040
Action Type: ENFORCEMENT
Date: 07/12/2010
Action: File review

Global Id: T0605900040
Action Type: ENFORCEMENT
Date: 09/23/2010
Action: File review

Global Id: T0605900040
Action Type: ENFORCEMENT
Date: 11/07/1994
Action: Notice of Responsibility

Global Id: T0605900040
Action Type: ENFORCEMENT

MOBIL #18-JMY (Continued) **U002096210**

Date: 03/03/2003
Action: Staff Letter

Global Id: T0605900040
Action Type: ENFORCEMENT
Date: 05/30/2003
Action: Staff Letter

Global Id: T0605900040
Action Type: ENFORCEMENT
Date: 08/07/2003
Action: Staff Letter

Global Id: T0605900040
Action Type: ENFORCEMENT
Date: 12/01/2003
Action: Staff Letter

Global Id: T0605900040
Action Type: ENFORCEMENT
Date: 12/17/2003
Action: Staff Letter

Global Id: T0605900040
Action Type: ENFORCEMENT
Date: 01/23/2004
Action: Staff Letter

Global Id: T0605900040
Action Type: ENFORCEMENT
Date: 06/02/2004
Action: Staff Letter

Global Id: T0605900040
Action Type: ENFORCEMENT
Date: 09/25/2007
Action: Staff Letter

Global Id: T0605900040
Action Type: ENFORCEMENT
Date: 12/03/2007
Action: Staff Letter

Global Id: T0605900040
Action Type: ENFORCEMENT
Date: 11/14/2011
Action: Notice of Responsibility

Global Id: T0605900040
Action Type: ENFORCEMENT
Date: 04/25/2012
Action: Staff Letter

Global Id: T0605900040
Action Type: Other
Date: 04/21/1993
Action: Leak Reported

MOBIL #18-JMY (Continued) **U002096210**

Global Id:	T0605900040
Action Type:	ENFORCEMENT
Date:	11/02/2012
Action:	Staff Letter

Global Id:	T0605900040
Action Type:	ENFORCEMENT
Date:	04/20/2009
Action:	Staff Letter

Global Id:	T0605900040
Action Type:	ENFORCEMENT
Date:	07/13/2009
Action:	Staff Letter

Global Id:	T0605900040
Action Type:	ENFORCEMENT
Date:	09/21/2009
Action:	Staff Letter

Region:	STATE
Global Id:	T0605901818
Latitude:	33.6960369
Longitude:	-117.907253
Case Type:	LUST Cleanup Site
Status:	Completed - Case Closed
Status Date:	12/28/1994
Lead Agency:	ORANGE COUNTY LOP
Case Worker:	DB
Local Agency:	ORANGE COUNTY LOP
RB Case Number:	083002609T
LOC Case Number:	86UT174
File Location:	Local Agency
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0605901818
Contact Type:	Regional Board Caseworker
Contact Name:	ROSE SCOTT
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	rscott@waterboards.ca.gov
Phone Number:	9513206375

Global Id:	T0605901818
Contact Type:	Local Agency Caseworker
Contact Name:	DENAMARIE BAKER
Organization Name:	ORANGE COUNTY LOP
Address:	1241 E. DYER ROAD, STE. 120
City:	SANTA ANA
Email:	dbaker@ochca.com
Phone Number:	7144336255

MOBIL #18-JMY (Continued) **U002096210**

Status History:

Global Id:	T0605901818
Status:	Open - Case Begin Date
Status Date:	10/08/1986
Global Id:	T0605901818
Status:	Completed - Case Closed
Status Date:	12/28/1994

Regulatory Activities:

Global Id:	T0605901818
Action Type:	Other
Date:	10/08/1986
Action:	Leak Discovery
Global Id:	T0605901818
Action Type:	REMEDIATION
Date:	10/08/1986
Action:	Excavation
Global Id:	T0605901818
Action Type:	Other
Date:	10/08/1986
Action:	Leak Reported
Global Id:	T0605901818
Action Type:	ENFORCEMENT
Date:	12/28/1994
Action:	Closure/No Further Action Letter

ORANGE CO. LUST:

Region:	ORANGE
Facility Id:	94UT055
Current Status:	Remedial Action
Released Substance:	Gasoline-Automotive (motor gasoline and additives), leaded & unleaded
Date Closed:	Not reported
Case Type:	Other Ground Water
Record ID:	RO0002329
Region:	ORANGE
Facility Id:	86UT174
Current Status:	Certification (Case Closed)
Released Substance:	Gasoline-Automotive (motor gasoline and additives), leaded & unleaded
Date Closed:	12/28/1994
Case Type:	Other Ground Water
Record ID:	RO0002594

LUST REG 8:

Region:	8
County:	Orange
Regional Board:	Santa Ana Region
Facility Status:	Remedial action (cleanup) Underway
Case Number:	083000049T
Local Case Num:	94UT055

MOBIL #18-JMY (Continued) **U002096210**

Case Type:	Other ground water affected
Substance:	Gasoline
Qty Leaked:	0
Abate Method:	Not reported
Cross Street:	Not reported
Enf Type:	SEL
Funding:	Not reported
How Discovered:	OM
How Stopped:	Other Means
Leak Cause:	Unknown
Leak Source:	D
Global ID:	T0605900040
How Stopped Date:	9/9/9999
Enter Date:	Not reported
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	Not reported
Discover Date:	4/21/1993
Enforcement Date:	Not reported
Close Date:	Not reported
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	3/7/2000
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	Not reported
GW Qualifies:	=
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	33.6932099
Longitude:	-117.9075477
MTBE Date:	6/13/2002
Max MTBE GW:	354000
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	1
MTBE Tested:	MTBE Detected. Site tested for MTBE & MTBE detected
MTBE Class:	*
Staff:	RS
Staff Initials:	AR
Lead Agency:	Local Agency
Local Agency:	30000L
Hydr Basin #:	Not reported
Beneficial:	MUN
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported
Summary: Not reported	

Region:	8
County:	Orange
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	083002609T
Local Case Num:	86UT174

MOBIL #18-JMY (Continued) **U002096210**

Case Type:	Other ground water affected
Substance:	Gasoline
Qty Leaked:	0
Abate Method:	Not reported
Cross Street:	Not reported
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	Tank Closure
How Stopped:	Close Tank
Leak Cause:	Unknown
Leak Source:	Unknown
Global ID:	T0605901818
How Stopped Date:	9/9/9999
Enter Date:	Not reported
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	Not reported
Discover Date:	10/8/1986
Enforcement Date:	Not reported
Close Date:	12/28/1994
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	Not reported
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	33.69595297
Longitude:	-117.9074727
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	1
MTBE Tested:	Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
MTBE Class:	*
Staff:	RS
Staff Initials:	AR
Lead Agency:	Local Agency
Local Agency:	30000L
Hydr Basin #:	Not reported
Beneficial:	MUN
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported
Summary:	Not reported

CA FID UST:

Facility ID:	30000423
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported

MOBIL #18-JMY (Continued) **U002096210**

Facility Phone: 7149797118
Mail To: Not reported
Mailing Address: 3225 GALLOWS RD ATTN: EAR
Mailing Address 2: Not reported
Mailing City,St,Zip: COSTA MESA 92626
Contact: Not reported
Contact Phone: Not reported
DUNs Number: Not reported
NPDES Number: Not reported
EPA ID: Not reported
Comments: Not reported
Status: Active

SWEEPS UST:
Status: Active
Comp Number: 2078
Number: 9
Board Of Equalization: Not reported
Referral Date: 09-30-92
Action Date: 09-15-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 30-000-002078-000001
Tank Status: A
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: 4

Status: Active
Comp Number: 2078
Number: 9
Board Of Equalization: Not reported
Referral Date: 09-30-92
Action Date: 09-15-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 30-000-002078-000002
Tank Status: A
Capacity: 10000
Active Date: Not reported
Tank Use: M.V. FUEL
STG: P
Content: REG UNLEADED
Number Of Tanks: Not reported

Status: Active
Comp Number: 2078
Number: 9
Board Of Equalization: Not reported
Referral Date: 09-30-92
Action Date: 09-15-92
Created Date: 02-29-88
Owner Tank Id: Not reported
SWRCB Tank Id: 30-000-002078-000003

MOBIL #18-JMY (Continued) **U002096210**

Tank Status:	A
Capacity:	10000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	P
Content:	REG UNLEADED
Number Of Tanks:	Not reported

Status:	Active
Comp Number:	2078
Number:	9
Board Of Equalization:	Not reported
Referral Date:	09-30-92
Action Date:	09-15-92
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	30-000-002078-000004
Tank Status:	A
Capacity:	10000
Active Date:	Not reported
Tank Use:	M.V. FUEL
STG:	P
Content:	DIESEL
Number Of Tanks:	Not reported

H44 **UNOCAL #5404** **HIST CORTESE** **S103065416**
NNW **3599 HARBOR BLVD** **LUST** **N/A**
1/4-1/2 **COSTA MESA, CA 92626**
0.459 mi.
2425 ft. **Site 1 of 2 in cluster H**

Relative:
Higher

Actual:
37 ft.

HIST CORTESE:

Region:	CORTESE
Facility County Code:	30
Reg By:	LTNKA
Reg Id:	083001957T

LUST:

Region:	STATE
Global Id:	T0605901461
Latitude:	33.701893548
Longitude:	-117.919946928
Case Type:	LUST Cleanup Site
Status:	Open - Remediation
Status Date:	11/01/2004
Lead Agency:	ORANGE COUNTY LOP
Case Worker:	DB
Local Agency:	ORANGE COUNTY LOP
RB Case Number:	083001957T
LOC Case Number:	91UT134
File Location:	Local Agency
Potential Media Affect:	Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern:	Waste Oil / Motor / Hydraulic / Lubricating, Gasoline
Site History:	Please refer to recent Site Documents or Monitoring Reports in GeoTracker for site history. Orange County is not responsible for the accuracy of any professional interpretations provided in reports submitted by consultants for the responsible party.

UNOCAL #5404 (Continued) **S103065416**

Click here to access the California GeoTracker records for this facility:

Contact:

Global Id:	T0605901461
Contact Type:	Regional Board Caseworker
Contact Name:	NANCY OLSON-MARTIN
Organization Name:	SANTA ANA RWQCB (REGION 8)
Address:	3737 MAIN STREET, SUITE 500
City:	RIVERSIDE
Email:	nolson-martin@waterboards.ca.gov
Phone Number:	Not reported

Global Id:	T0605901461
Contact Type:	Local Agency Caseworker
Contact Name:	DENAMARIE BAKER
Organization Name:	ORANGE COUNTY LOP
Address:	1241 E. DYER ROAD, STE. 120
City:	SANTA ANA
Email:	dbaker@ochca.com
Phone Number:	7144336255

Status History:

Global Id:	T0605901461
Status:	Open - Verification Monitoring
Status Date:	12/22/1995

Global Id:	T0605901461
Status:	Open - Case Begin Date
Status Date:	10/31/1991

Global Id:	T0605901461
Status:	Open - Remediation
Status Date:	11/01/2004

Regulatory Activities:

Global Id:	T0605901461
Action Type:	ENFORCEMENT
Date:	12/30/2010
Action:	File review

Global Id:	T0605901461
Action Type:	Other
Date:	10/31/1991
Action:	Leak Discovery

Global Id:	T0605901461
Action Type:	REMEDIATION
Date:	11/28/1995
Action:	Excavation

Global Id:	T0605901461
Action Type:	REMEDIATION
Date:	11/28/1995
Action:	Pump & Treat (P&T) Groundwater

Global Id:	T0605901461

UNOCAL #5404 (Continued) **S103065416**

Action Type: REMEDIATION
Date: 11/01/2004
Action: In Situ Physical/Chemical Treatment (other than SVE)

Global Id: T0605901461
Action Type: ENFORCEMENT
Date: 01/07/2011
Action: Staff Letter

Global Id: T0605901461
Action Type: ENFORCEMENT
Date: 08/11/2010
Action: File review

Global Id: T0605901461
Action Type: REMEDIATION
Date: 10/29/1991
Action: Excavation

Global Id: T0605901461
Action Type: ENFORCEMENT
Date: 09/21/2010
Action: File review

Global Id: T0605901461
Action Type: ENFORCEMENT
Date: 10/13/2010
Action: Staff Letter

Global Id: T0605901461
Action Type: ENFORCEMENT
Date: 04/06/2011
Action: File review

Global Id: T0605901461
Action Type: ENFORCEMENT
Date: 06/04/2011
Action: File review

Global Id: T0605901461
Action Type: ENFORCEMENT
Date: 10/17/2003
Action: Staff Letter

Global Id: T0605901461
Action Type: ENFORCEMENT
Date: 03/09/2004
Action: Staff Letter

Global Id: T0605901461
Action Type: ENFORCEMENT
Date: 03/14/2005
Action: Staff Letter

Global Id: T0605901461
Action Type: ENFORCEMENT
Date: 06/05/2007

UNOCAL #5404 (Continued) **S103065416**

Action: Staff Letter

Global Id: T0605901461
Action Type: ENFORCEMENT
Date: 03/05/2008
Action: Staff Letter

Global Id: T0605901461
Action Type: ENFORCEMENT
Date: 10/24/2007
Action: Staff Letter

Global Id: T0605901461
Action Type: ENFORCEMENT
Date: 04/27/2007
Action: Staff Letter

Global Id: T0605901461
Action Type: ENFORCEMENT
Date: 05/08/2007
Action: Staff Letter

Global Id: T0605901461
Action Type: ENFORCEMENT
Date: 01/05/2006
Action: Staff Letter

Global Id: T0605901461
Action Type: Other
Date: 10/31/1991
Action: Leak Reported

Global Id: T0605901461
Action Type: ENFORCEMENT
Date: 11/21/1991
Action: Notice of Responsibility

Global Id: T0605901461
Action Type: ENFORCEMENT
Date: 05/26/2004
Action: Staff Letter

Global Id: T0605901461
Action Type: ENFORCEMENT
Date: 08/20/2007
Action: Staff Letter

Global Id: T0605901461
Action Type: ENFORCEMENT
Date: 07/11/2008
Action: Staff Letter

Global Id: T0605901461
Action Type: ENFORCEMENT
Date: 09/04/2008
Action: Staff Letter

UNOCAL #5404 (Continued) **S103065416**

Global Id: T0605901461
Action Type: ENFORCEMENT
Date: 04/17/2012
Action: Staff Letter

Global Id: T0605901461
Action Type: ENFORCEMENT
Date: 02/11/2009
Action: Staff Letter

Global Id: T0605901461
Action Type: ENFORCEMENT
Date: 09/26/2012
Action: Staff Letter

Global Id: T0605901461
Action Type: ENFORCEMENT
Date: 07/13/2009
Action: Staff Letter

ORANGE CO. LUST:
Region: ORANGE
Facility Id: 91UT134
Current Status: Post Remedial Action
Released Substance: Waste oil/Used oil
Date Closed: Not reported
Case Type: Other Ground Water
Record ID: RO0002801

Region: ORANGE
Facility Id: 91UT134
Current Status: Post Remedial Action
Released Substance: Gasoline-Automotive (motor gasoline and additives), leaded & unleaded
Date Closed: Not reported
Case Type: Other Ground Water
Record ID: RO0002801

LUST REG 8:
Region: 8
County: Orange
Regional Board: Santa Ana Region
Facility Status: Post remedial action monitoring
Case Number: 083001957T
Local Case Num: 91UT134
Case Type: Other ground water affected
Substance: 12035,800661
Qty Leaked: 0
Abate Method: Not reported
Cross Street: Not reported
Enf Type: SEL
Funding: Not reported
How Discovered: Tank Closure
How Stopped: Close Tank
Leak Cause: Unknown
Leak Source: Tank

UNOCAL #5404 (Continued) **S103065416**

Global ID:	T0605901461
How Stopped Date:	9/9/9999
Enter Date:	Not reported
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	Not reported
Discover Date:	10/31/1991
Enforcement Date:	Not reported
Close Date:	Not reported
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	12/22/1995
Enter Date:	Not reported
GW Qualifies:	=
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	33.6956138
Longitude:	-117.919625
MTBE Date:	10/18/2001
Max MTBE GW:	430
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	0
MTBE Tested:	MTBE Detected. Site tested for MTBE & MTBE detected
MTBE Class:	*
Staff:	NOM
Staff Initials:	AR
Lead Agency:	Local Agency
Local Agency:	30000L
Hydr Basin #:	Not reported
Beneficial:	MUN
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported

Summary: Not reported

H45
NNW
1/4-1/2
0.464 mi.
2452 ft.

UNION CAR WASH/BEACON BAY **LUST** **S106784800**
1501 MACARTHUR BLVD **N/A**
SANTA ANA, CA 92704

Site 2 of 2 in cluster H

Relative:
Higher

Actual:
37 ft.

LUST REG 8:

Region:	8
County:	Orange
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	083000572T
Local Case Num:	Not reported
Case Type:	Aquifer affected
Substance:	Gasoline
Qty Leaked:	Not reported
Abate Method:	EDFPGT
Cross Street:	BRISTOL

UNION CAR WASH/BEACON BAY (Continued) **S106784800**

Enf Type:	CLOS
Funding:	Not reported
How Discovered:	OM
How Stopped:	Not reported
Leak Cause:	Overfill
Leak Source:	Other Source
Global ID:	T0605900458
How Stopped Date:	11/29/1983
Enter Date:	7/20/1987
Date Confirmation of Leak Began:	11/29/1983
Date Preliminary Assessment Began:	Not reported
Discover Date:	11/29/1983
Enforcement Date:	6/16/2000
Close Date:	2/11/2004
Date Prelim Assessment Workplan Submitted:	Not reported
Date Pollution Characterization Began:	9/1/1987
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	1/11/2002
Date Post Remedial Action Monitoring:	6/29/2001
Enter Date:	7/20/1987
GW Qualifies:	=
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Yes
Oversite Program:	LUST
Latitude:	33.70038461
Longitude:	-117.8884491
MTBE Date:	1/9/1997
Max MTBE GW:	51000
MTBE Concentration:	8
Max MTBE Soil:	Not reported
MTBE Fuel:	1
MTBE Tested:	MTBE Detected. Site tested for MTBE & MTBE detected
MTBE Class:	Not reported
Staff:	NOM
Staff Initials:	JB
Lead Agency:	Regional Board
Local Agency:	Santa Ana, Orange County
Hydr Basin #:	COASTAL PLAIN OF ORA
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported

Summary: SINCE SIGNIFICANT DISSOLVED PHASE CONTAM IS PRESENT, FURTHER INVEST (RESAMPLING, GRADIENT) IS REQ'D. HOWEVER, FP WAS REMOVED FROM 1983-1985. A REPORT SAMPLING RESULTS PENDING. VES ACTIVATED ON 8/19/96. ALSO, GW TREAT SYS OPERATING @ SITE.

46 NNW 1/4-1/2 0.496 mi. 2618 ft.

AVIATION EQUIPMENT
1571 MACARTHUR BLVD
COSTA MESA, CA 92626

NPDES **S110493658**
Orange Co. Industrial Site **N/A**
ENVIROSTOR

Relative: Higher

Actual: 36 ft.

NPDES:

Npdes Number:	CAS000001
Facility Status:	Active
Agency Id:	0
Region:	8
Regulatory Measure Id:	406827
Order No:	97-03-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	8 30I022813
Program Type:	Industrial
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	09/01/2010
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Aviation Equipment Processing
Discharge Address:	1571 MacArthur Blvd
Discharge City:	Costa Mesa
Discharge State:	California
Discharge Zip:	92626
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported

AVIATION EQUIPMENT (Continued) **S110493658**

CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported
Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	8
Regulatory Measure Id:	406827
Order No:	Not reported
Regulatory Measure Type:	Industrial
Place Id:	Not reported
WDID:	8 30I022813
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	Not reported
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported
Discharge Zip:	Not reported
RECEIVED DATE:	09/01/2010
PROCESSED DATE:	09/01/2010
STATUS CODE NAME:	Active
STATUS DATE:	09/01/2010
PLACE SIZE:	4000
PLACE SIZE UNIT:	SqFt
FACILITY CONTACT NAME:	Dennis Heider
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	714-850-2080
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	dennis@aveprocessing.com
OPERATOR NAME:	Aviation Equipment Processing
OPERATOR ADDRESS:	1571 MacArthur Blvd
OPERATOR CITY:	Costa Mesa

AVIATION EQUIPMENT (Continued) **S110493658**

OPERATOR STATE:	California
OPERATOR ZIP:	92626
OPERATOR CONTACT NAME:	Dennis Heider
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	714-850-2080
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	dennis@aveprocessing.com
OPERATOR TYPE:	Private Business
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	California
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	Pacific Ocean
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	347-Metal Services, nec
SECONDARY SIC:	3728-Aircraft Parts and Auxiliary Equipment, NEC
TERTIARY SIC:	Not reported

Orange Co. Industrial Site:

Case ID:	01IC037
Region:	ORANGE
Record ID:	RO0003019
Current Status:	CLOSED 2/18/2009
Closure Type:	Closure certification issued
Released Chemical:	SOLVENTS-HALOGENATED; ORGANIC COMPOUNDS

ENVIROSTOR:

Facility ID:	71003283
Status:	Inactive - Needs Evaluation
Status Date:	Not reported
Site Code:	Not reported

AVIATION EQUIPMENT (Continued) **S110493658**

Site Type: Tiered Permit
Site Type Detailed: Tiered Permit
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Not reported
Division Branch: Cleanup Cypress
Assembly: 69
Senate: 34
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not reported
Latitude: 33.70011
Longitude: -117.8885
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAR000046433
Alias Type: EPA Identification Number
Alias Name: 110002925452
Alias Type: EPA (FRS #)
Alias Name: 71003283
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Phase 1 Non-Submittal
Completed Date: 01/11/2001
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

Facility ID: 30370195
Status: Refer: 1248 Local Agency
Status Date: 12/21/2001
Site Code: Not reported
Site Type: Evaluation
Site Type Detailed: Evaluation
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Referred - Not Assigned

AVIATION EQUIPMENT (Continued) **S110493658**

Division Branch: Cleanup Cypress
Assembly: 68
Senate: Not reported
Special Program: Not reported
Restricted Use: NO
Site Mgmt Req: NONE SPECIFIED
Funding: Not Applicable
Latitude: 0
Longitude: 0
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: 30370195
Alias Type: Envirostor ID Number

Completed Info:
Completed Area Name: Not reported
Completed Sub Area Name: Not reported
Completed Document Type: Not reported
Completed Date: Not reported
Comments: Not reported

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

47
NE
1/2-1
0.742 mi.
3918 ft.

ARMSTRONG RANCH HIGH SCHOOL
3529 SOUTH GREENVILLE STREET
SANTA ANA, CA 92704

SCH **S101300007**
HIST CORTESE **N/A**
LUST
ENVIROSTOR

Relative:
Higher

Actual:
36 ft.

SCH:

Facility ID: 30010009
Site Type: School Investigation
Site Type Detail: School
Site Mgmt. Req.: NONE SPECIFIED
Acres: 40
National Priorities List: NO
Cleanup Oversight Agencies: DTSC
Lead Agency: DTSC
Lead Agency Description: * DTSC
Project Manager: Not reported
Supervisor: Javier Hinojosa
Division Branch: Southern California Schools & Brownfields Outreach
Site Code: 404203
Assembly: 69
Senate: 34
Special Program Status: Not reported

ARMSTRONG RANCH HIGH SCHOOL (Continued) **S101300007**

Status:	No Further Action
Status Date:	02/04/2002
Restricted Use:	NO
Funding:	School District
Latitude:	33.70222
Longitude:	-117.8997
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - ROW CROPS
Potential COC:	NONE SPECIFIED, No Contaminants found
Confirmed COC:	NONE SPECIFIED
Potential Description:	SOIL
Alias Name:	ARMSTRONG RANCH HIGH SCHOOL #6
Alias Type:	Alternate Name
Alias Name:	SANTA ANA UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	SANTA ANA USD-NEW H.S. #6 @ARMSTRONG RCH
Alias Type:	Alternate Name
Alias Name:	404203
Alias Type:	Project Code (Site Code)
Alias Name:	30010009
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	02/15/2002
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	03/15/2001
Comments:	Environmental Oversight Agreement
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	02/04/2002
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Other Report
Completed Date:	01/22/2001
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Workplan
Completed Date:	07/16/2001
Comments:	Not reported
Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Inspections/Visit (Non LUR)
Completed Date:	04/10/2001
Comments:	Not reported

ARMSTRONG RANCH HIGH SCHOOL (Continued) **S101300007**

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

HIST CORTESE:

Region:	CORTESE
Facility County Code:	30
Reg By:	LTNKA
Reg Id:	083002421T

LUST REG 8:

Region:	8
County:	Orange
Regional Board:	Santa Ana Region
Facility Status:	Case Closed
Case Number:	083002421T
Local Case Num:	Not reported
Case Type:	Soil only
Substance:	Gasoline
Qty Leaked:	Not reported
Abate Method:	Excavate and Dispose - remove contaminated soil and dispose in approved site
Cross Street:	MACARTHUR
Enf Type:	Not reported
Funding:	Not reported
How Discovered:	OM
How Stopped:	Not reported
Leak Cause:	UNK
Leak Source:	UNK
Global ID:	T0605901732
How Stopped Date:	Not reported
Enter Date:	4/13/1994
Date Confirmation of Leak Began:	Not reported
Date Preliminary Assessment Began:	Not reported
Discover Date:	3/7/1994
Enforcement Date:	Not reported
Close Date:	7/5/1995
Date Prelim Assessment Workplan Submitted:	3/7/1994
Date Pollution Characterization Began:	Not reported
Date Remediation Plan Submitted:	Not reported
Date Remedial Action Underway:	Not reported
Date Post Remedial Action Monitoring:	Not reported
Enter Date:	4/13/1994
GW Qualifies:	Not reported
Soil Qualifies:	Not reported
Operator:	Not reported
Facility Contact:	Not reported
Interim:	Not reported
Oversite Program:	LUST
Latitude:	33.7014987

ARMSTRONG RANCH HIGH SCHOOL (Continued) **S101300007**

Longitude:	-117.9037516
MTBE Date:	Not reported
Max MTBE GW:	Not reported
MTBE Concentration:	0
Max MTBE Soil:	Not reported
MTBE Fuel:	1
MTBE Tested:	Site NOT Tested for MTBE.Includes Unknown and Not Analyzed.
MTBE Class:	*
Staff:	NOM
Staff Initials:	JB
Lead Agency:	Regional Board
Local Agency:	Santa Ana, Orange County
Hydr Basin #:	COASTAL PLAIN OF ORA
Beneficial:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Work Suspended:	Not reported
Summary:	WILL INVESTIGATE GROUNDWATER

ENVIROSTOR:

Facility ID:	30010009
Status:	No Further Action
Status Date:	02/04/2002
Site Code:	404203
Site Type:	School Investigation
Site Type Detailed:	School
Acres:	40
NPL:	NO
Regulatory Agencies:	DTSC
Lead Agency:	DTSC
Program Manager:	Not reported
Supervisor:	Javier Hinojosa
Division Branch:	Southern California Schools & Brownfields Outreach
Assembly:	69
Senate:	34
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	School District
Latitude:	33.70222
Longitude:	-117.8997
APN:	NONE SPECIFIED
Past Use:	AGRICULTURAL - ROW CROPS
Potential COC:	NONE SPECIFIED No Contaminants found
Confirmed COC:	NONE SPECIFIED
Potential Description:	SOIL
Alias Name:	ARMSTRONG RANCH HIGH SCHOOL #6
Alias Type:	Alternate Name
Alias Name:	SANTA ANA UNIFIED SCHOOL DISTRICT
Alias Type:	Alternate Name
Alias Name:	SANTA ANA USD-NEW H.S. #6 @ARMSTRONG RCH
Alias Type:	Alternate Name
Alias Name:	404203
Alias Type:	Project Code (Site Code)
Alias Name:	30010009
Alias Type:	Envirostor ID Number

ARMSTRONG RANCH HIGH SCHOOL (Continued) **S101300007**

Completed Info:

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Cost Recovery Closeout Memo
Completed Date:	02/15/2002
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Environmental Oversight Agreement
Completed Date:	03/15/2001
Comments:	Environmental Oversight Agreement

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Report
Completed Date:	02/04/2002
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Other Report
Completed Date:	01/22/2001
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Preliminary Endangerment Assessment Workplan
Completed Date:	07/16/2001
Comments:	Not reported

Completed Area Name:	PROJECT WIDE
Completed Sub Area Name:	Not reported
Completed Document Type:	Site Inspections/Visit (Non LUR)
Completed Date:	04/10/2001
Comments:	Not reported

Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

48
NNW
1/2-1
0.875 mi.
4619 ft.

PIONEER CIRCUITS INCORPORATED **RCRA-LQG** **1000886191**
3000 SOUTH SHANNON STREET **ENVIROSTOR** **CA0000132613**
SANTA ANA, CA 92704

Relative:
Higher

Actual:
40 ft.

RCRA-LQG:

Date form received by agency:	03/01/2014
Facility name:	PIONEER CIRCUITS INCORPORATED
Facility address:	3000 SOUTH SHANNON STREET

PIONEER CIRCUITS INCORPORATED (Continued) **1000886191**

	SANTA ANA, CA 927046387
EPA ID:	CA0000132613
Mailing address:	SOUTH SHANNON STREET SANTA ANA, CA 927046387
Contact:	BYUNG PARK
Contact address:	SOUTH SHANNON STREET SANTA ANA, CA 927046387
Contact country:	Not reported
Contact telephone:	(714) 641-3132
Contact email:	BPARK@PIONEERCIRCUITS.COM
EPA Region:	09
Land type:	Private
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	JAMES LEE
Owner/operator address:	SOUTH SHANNON STREET SANTA ANA, CA 92704
Owner/operator country:	Not reported
Owner/operator telephone:	(714) 641-3132
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	01/01/1988
Owner/Op end date:	Not reported
Owner/operator name:	JAME LEE
Owner/operator address:	Not reported Not reported
Owner/operator country:	Not reported
Owner/operator telephone:	Not reported
Legal status:	Private
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/1988
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No
Recycler of hazardous waste:	No
Transporter of hazardous waste:	No
Treater, storer or disposer of HW:	No
Underground injection activity:	No
On-site burner exemption:	No
Furnace exemption:	No

PIONEER CIRCUITS INCORPORATED (Continued) **1000886191**

Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: 132
. Waste name: 132

. Waste code: 141
. Waste name: 141

. Waste code: 171
. Waste name: 171

. Waste code: 221
. Waste name: 221

. Waste code: 331
. Waste name: 331

. Waste code: 792
. Waste name: 792

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D003
. Waste name: REACTIVE WASTE

. Waste code: D004
. Waste name: ARSENIC

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: F006
. Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS, EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC, AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.

Historical Generators:
Date form received by agency: 03/14/2012
Site name: PIONEER CIRCUITS, INC
Classification: Large Quantity Generator

PIONEER CIRCUITS INCORPORATED (Continued) **1000886191**

. Waste code: 132
. Waste name: 132

. Waste code: 171
. Waste name: 171

. Waste code: 181
. Waste name: 181

. Waste code: 214
. Waste name: 214

. Waste code: 221
. Waste name: 221

. Waste code: 791
. Waste name: 791

. Waste code: 792
. Waste name: 792

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D004
. Waste name: ARSENIC

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: F006
. Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS, EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC, AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.

Date form received by agency: 06/01/2010
Site name: PIONEER CIRCUITS, INC.
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D004
. Waste name: ARSENIC

PIONEER CIRCUITS INCORPORATED (Continued) **1000886191**

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: F006
. Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS, EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC, AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.

Date form received by agency: 02/21/2008
Site name: PIONEER CIRCUITS, INC.
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D004
. Waste name: ARSENIC

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: F006
. Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS, EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC, AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.

Date form received by agency: 02/21/2005
Site name: PIONEER CIRCUITS, INC.
Classification: Large Quantity Generator

. Waste code: 131
. Waste name: 131

. Waste code: 132
. Waste name: 132

. Waste code: 171

PIONEER CIRCUITS INCORPORATED (Continued) **1000886191**

. Waste name: 171

. Waste code: 181
. Waste name: 181

. Waste code: 214
. Waste name: 214

. Waste code: 791
. Waste name: 791

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D004
. Waste name: ARSENIC

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: F006
. Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS, EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC, AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.

Date form received by agency: 02/20/2004
Site name: PIONEER CIRCUITS, INC.
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D004
. Waste name: ARSENIC

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

PIONEER CIRCUITS INCORPORATED (Continued) **1000886191**

. Waste code: D008
. Waste name: LEAD

. Waste code: F006
. Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS, EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC, AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.

Date form received by agency: 02/22/2002
Site name: PIONEER CIRCUITS, INC.
Classification: Large Quantity Generator

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D004
. Waste name: ARSENIC

. Waste code: D006
. Waste name: CADMIUM

. Waste code: D007
. Waste name: CHROMIUM

. Waste code: D008
. Waste name: LEAD

. Waste code: F006
. Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS, EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC, AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.

. Waste code: F007
. Waste name: SPENT CYANIDE PLATING BATH SOLUTIONS FROM ELECTROPLATING OPERATIONS.

Date form received by agency: 10/12/2000
Site name: PIONEER CIRCUITS, INC.
Classification: Large Quantity Generator

Date form received by agency: 03/04/1999
Site name: PIONEER CIRCUITS, INC.
Classification: Large Quantity Generator

Date form received by agency: 09/01/1996
Site name: PIONEER CIRCUITS INC
Classification: Small Quantity Generator

PIONEER CIRCUITS INCORPORATED (Continued) **1000886191**

Biennial Reports:

Last Biennial Reporting Year: 2013

Annual Waste Handled:

Waste code: D001
Waste name: IGNITABLE HAZARDOUS WASTES ARE THOSE WASTES WHICH HAVE A FLASHPOINT OF LESS THAN 140 DEGREES FAHRENHEIT AS DETERMINED BY A PENSKY-MARTENS CLOSED CUP FLASH POINT TESTER. ANOTHER METHOD OF DETERMINING THE FLASH POINT OF A WASTE IS TO REVIEW THE MATERIAL SAFETY DATA SHEET, WHICH CAN BE OBTAINED FROM THE MANUFACTURER OR DISTRIBUTOR OF THE MATERIAL. LACQUER THINNER IS AN EXAMPLE OF A COMMONLY USED SOLVENT WHICH WOULD BE CONSIDERED AS IGNITABLE HAZARDOUS WASTE.
Amount (Lbs): 412.8

Waste code: D002
Waste name: A WASTE WHICH HAS A PH OF LESS THAN 2 OR GREATER THAN 12.5 IS CONSIDERED TO BE A CORROSIVE HAZARDOUS WASTE. SODIUM HYDROXIDE, A CAUSTIC SOLUTION WITH A HIGH PH, IS OFTEN USED BY INDUSTRIES TO CLEAN OR DEGREASE PARTS. HYDROCHLORIC ACID, A SOLUTION WITH A LOW PH, IS USED BY MANY INDUSTRIES TO CLEAN METAL PARTS PRIOR TO PAINTING. WHEN THESE CAUSTIC OR ACID SOLUTIONS BECOME CONTAMINATED AND MUST BE DISPOSED, THE WASTE WOULD BE A CORROSIVE HAZARDOUS WASTE.
Amount (Lbs): 216325.3

Waste code: D004
Waste name: ARSENIC
Amount (Lbs): 185612.2

Waste code: D007
Waste name: CHROMIUM
Amount (Lbs): 135200.2

Waste code: D008
Waste name: LEAD
Amount (Lbs): 137723.1

Waste code: F006
Waste name: WASTEWATER TREATMENT SLUDGES FROM ELECTROPLATING OPERATIONS EXCEPT FROM THE FOLLOWING PROCESSES: (1) SULFURIC ACID ANODIZING OF ALUMINUM; (2) TIN PLATING ON CARBON STEEL; (3) ZINC PLATING (SEGREGATED BASIS) ON CARBON STEEL; (4) ALUMINUM OR ZINC-ALUMINUM PLATING ON CARBON STEEL; (5) CLEANING/STRIPPING ASSOCIATED WITH TIN, ZINC AND ALUMINUM PLATING ON CARBON STEEL; AND (6) CHEMICAL ETCHING AND MILLING OF ALUMINUM.
Amount (Lbs): 47475

Facility Has Received Notices of Violations:

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 06/14/2010
Date achieved compliance: Not reported
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported

PIONEER CIRCUITS INCORPORATED (Continued) **1000886191**

Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 09/28/2006
Date achieved compliance: Not reported
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 09/28/2006
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 09/28/2006
Date achieved compliance: Not reported
Violation lead agency: State
Enforcement action: Not reported
Enforcement action date: Not reported
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: Not reported
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Regulation violated: Not reported
Area of violation: Generators - General
Date violation determined: 06/26/2006
Date achieved compliance: 07/14/2006
Violation lead agency: State
Enforcement action: WRITTEN INFORMAL
Enforcement action date: 06/26/2006
Enf. disposition status: Not reported
Enf. disp. status date: Not reported
Enforcement lead agency: State
Proposed penalty amount: Not reported
Final penalty amount: Not reported
Paid penalty amount: Not reported

Evaluation Action Summary:
Evaluation date: 06/06/2012
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 05/11/2011
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

PIONEER CIRCUITS INCORPORATED (Continued) **1000886191**

Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 06/14/2010
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 04/21/2009
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State

Evaluation date: 09/28/2006
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: Not reported
Evaluation lead agency: Local

Evaluation date: 06/26/2006
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 07/14/2006
Evaluation lead agency: Local

Evaluation date: 01/10/2005
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Generators - General
Date achieved compliance: 07/14/2006
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 08/13/2003
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE
Area of violation: Not reported
Date achieved compliance: Not reported
Evaluation lead agency: State Contractor/Grantee

ENVIROSTOR:
Facility ID: 71003564
Status: Inactive - Needs Evaluation
Status Date: Not reported
Site Code: Not reported
Site Type: Tiered Permit
Site Type Detailed: Tiered Permit
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Not reported
Division Branch: Cleanup Cypress
Assembly: 69
Senate: 34
Special Program: Not reported
Restricted Use: NO

Appendix E

Resumes of Environmental Professionals

KRISTEN M. MAGEE
PRINCIPAL CONSULTANT
CHICAGO, ILLINOIS

SUMMARY

- 9+ years due diligence experience
- Completed or managed 500+ Phase I ESAs and compliance audits for commercial, residential, and industrial sites
- Coordinated and managed multi-site industrial portfolios throughout the US, Asia, Europe and South America
- Performed Corporate Environmental Reviews

EDUCATION

Bachelor of Science in Biology, Secondary Major in Art History, University of Notre Dame, Notre Dame, Indiana, 2005

PROFILE

Ms. Magee is a Principal Environmental Consultant and a member of the Transaction Advisory Service group in RPS GaiaTech's Chicago office. In this role, she is responsible for coordinating environmental due diligence efforts in association with global transactions for a variety of clients. She objectively evaluates, prioritizes and estimates environmental liabilities and provides technical support for managing liabilities.

Ms. Magee is also responsible for completing and reviewing Phase I Environmental Site Assessments (ESAs) and regulatory compliance audits for transactions involving refinancing, insurance, property transfers, and mergers and acquisitions. She has prepared operating budgets to address the compliance or remedial concerns identified during the assessment or audit process. Ms. Magee subjectively evaluates and estimates environmental liabilities, and provides recommendations for managing these risks. She is experienced in determining the site's compliance status with applicable federal, state, and local regulations. Ms. Magee completes risk-based analyses, identifies areas of concern, prioritizes potential liabilities, and provides Phase II recommendations.

EXAMPLE PROJECT EXPERIENCE

Phase I ESAs and Compliance Audits

- Performed and managed Phase I ESAs and environmental compliance audits throughout the United States, Europe, South America, and Asia in fields including, but not limited to: plastics manufacturing, bulk petroleum, metal foundries, printing, industrial cleaning, packaging, aerospace engineering, and food manufacturing.
- Completed environmental regulatory compliance reviews and environmental permitting requirements.

Deal Coordination

- Coordinated the day-to-day activities involved in running multi-site or multi-phase projects.
- Ensured consistency of approach and format between various offices or various Project Managers (PMs) and Technical Leaders (TLs) on a multi-project deal.

Transaction Advisory Services

- Performed Corporate Environmental Reviews that included analyzing and estimating the financial implications of environmental liabilities associated with current and historical operations.
- Completed desktop reviews of large portfolio companies to provide high-level environmental risk analysis for clients without conducting site inspections.

JENNIFER XAVIER
SENIOR PROJECT MANAGER, TRANSACTION ADVISORY SERVICES
DALLAS, TEXAS

SUMMARY

- Conducted 120+ Phase I ESAs in accordance with ASTM E1527-05, All Appropriate Inquiry (AAI) and compliance guidelines.

EDUCATION

Bachelor of Applied Arts and Sciences in Public Affairs and Community Service, University of North Texas, Denton, Texas, 2007.

ADDITIONAL TRAINING

40-Hour HAZWOPER

Field and in-house industry related training

PROFILE

Mrs. Xavier is an Environmental Consultant in the Transaction Advisory Services Group in RPS GaiaTech's Dallas office. In this role, she completes and reviews Phase I Environmental Site Assessments (ESAs), Phase II Site Investigations, regulatory compliance audits, corporate reviews and desktop audits for transactions involving refinancing, insurance, property transfers, and mergers and acquisitions. She conducts site inspections, compliance reviews, historical research, liability reviews, and completes reports for clients. In addition, Mrs. Xavier completes risk-based analyses, identifies areas of concern, prioritizes potential liabilities, and provides risk management recommendations.

EXAMPLE PROJECT EXPERIENCE

Phase I ESAs, Phase II Investigations and Compliance Audits

- Conducted over one hundred Phase I ESAs in accordance with ASTM E1527-05, All Appropriate Inquiry (AAI) guidelines and compliance elements for commercial and industrial facilities in the United Stated.
- Conducted international Phase I ESAs in accordance with applicable regional standards which included international compliance evaluations per applicable regulations.
- Managed and performed Phase II subsurface investigations at commercial, industrial, and manufacturing facilities for source area assessment, delineation, and characterization.
- Conducted air quality and soil vapor sampling at residential and commercial facilities.
- Conducted evaluations as part of a Phase I ESA to determine a facility's compliance with hazardous materials, solid waste, hazardous waste, PCB-containing equipment, storm water, waste water, wetlands, radon gas, air emissions, dry cleaning operations and mold regulations.
- Conducted limited health and safety evaluations for commercial and industrial facilities.
- Researched environmental claims or enforcement actions formerly or currently filed against the company or its facilities.
- Researched and reviewed State and Federal environmental databases for former and current facilities to identify environmental impact or compliance concerns.
- Identified and assessed liabilities and allocated costs of meeting environmental obligations.
- Considered requirements for financial reporting and liability disclosure.

Eco & Associates, Inc. ▪ 1855 W. Katella Ave. ▪ Suite 340 ▪ Orange ▪ CA ▪ 92867 ▪ phone (714) 289-0995 ▪ fax (714) 289-0965

June 30, 2016 via FedEx

Ms. Denamarie Baker
Orange County Health Care Agency
Hazardous Materials Management Section
1241 E. Dyer Road, #120
Santa Ana, California 92705

Subject: Submittal of Final 2nd Quarter 2016 – Groundwater Monitoring and Remedial Progress Report for the Los Angeles Times, Costa Mesa Facility, North Tanks Site, Costa Mesa, CA

Dear Ms. Baker:

Please find enclosed one hard copy and one copy in PDF on CD-ROM of the Final 2nd Quarter 2016 – Groundwater Monitoring and Remedial Progress Report for the subject site located at the Los Angeles Times Costa Mesa Facility, North Tanks Site, Costa Mesa, CA. This report was prepared by Eco & Associates, Inc. for your records.

We appreciate the opportunity to work with you and your colleagues on this project. If you have any questions, please do not hesitate to contact us at (714) 289-0995.

Sincerely,
Eco & Associates, Inc.

Mohammad Estiri, Ph.D.
Project Director

cc: Ms. Racine Watts, LA Times Environmental Affairs (1 HC with CD)
Mr. Carl Bernhardt, SARWQCB (1 HC with CD)
Ms. Jennifer Ruddy, ACSC (1 HC with CD)
Mr. Jon Lovegreen, TetraTech (1 HC with CD)
Mr. Brian Benoit, Brinderson Holdings Co. (1 HC with CD)
Mr. Carl Cade, Tribune Real Estate Holdings (1 HC with CD)
Mr. Hoonie Kang, Kearny Real Estate Co. (1 HC with CD)

Enclosure

2ND QUARTER 2016 – QUARTERLY GROUNDWATER MONITORING

AND

REMEDIAL PROGRESS REPORT

June 29, 2016

Los Angeles Times, Costa Mesa Facility
North Tanks Site
1375 Sunflower Avenue
Costa Mesa, California

Prepared for:
Los Angeles Times
Environmental Affairs
2000 East 8th Street
Los Angeles, California 90021

Prepared by:
Eco & Associates, Inc.
1855 W. Katella Avenue, Suite 340
Orange, California 92867
Phone: (714) 289-0995
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Environmental Excellence

2ND QUARTER 2016 – QUARTERLY GROUNDWATER MONITORING

AND

REMEDIAL PROGRESS REPORT

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Mohammad Estiri, PhD
Project Director

Taylor Waters, PG #8978
Project Geologist

PROFESSIONAL GEOLOGIST
TAYLOR A. WATERS
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STATE OF CALIFORNIA

June 29, 2016

Project No. Eco-12-516

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ABBREVIATIONS, ACRONYMS, & SYMBOLS

µg/L	micrograms per liter
ACSC	Automobile Club of Southern California
AMEC	AMEC, Plc
BTEX	benzene, toluene, ethylbenzene, and xylenes
bgs	below ground surface
DO	dissolved oxygen
DPVE	dual-phase vapor extraction
EC	electrical conductivity
Eco	Eco & Associates, Inc.
EPA	United States Environmental Protection Agency
ETBE	ethyl tertiary butyl ether
F1	Matrix Spike and/or Matrix Spike Duplicate recovery is outside acceptance limits.
GAC	granular activated carbon
GC/MS	gas chromatograph/mass spectrometer
ICE	Internal Combustion Engine
ID	Analyte identified by RT and presence of single mass ion.
LA	Los Angeles
LCS	laboratory control sample
LOP	Local Oversight Program
MDL	method detection limit
mg/L	milligrams per liter
mL	milliliter
MS	matrix spike
msl	mean sea level
MS/MSD	matrix spike/matrix spike duplicate
MTBE	methyl tertiary butyl ether
NFA	no further action
NPDES	National Pollutant Discharge Elimination System
OCHCA	Orange County Health Care Agency
ORP	oxidation-reduction potential
PID	photoionization detector
Q1	first quarter
QC	quality control
RWQCB	Regional Water Quality Control Board
SARWQCB	Santa Ana Regional Water Quality Control Board
SCAQMD	South Coast Air Quality Management District

scfm	standard cubic feet per minute
TAME	tertiary amyl methyl ether
TBA	tertiary butyl alcohol
TestAmerica	TestAmerica Laboratories, Inc.
TPH	total petroleum hydrocarbons
TVPH	total volatile petroleum hydrocarbons
USEPA	United States Environmental Protection Agency
UST	underground storage tank
VOC	volatile organic compound

EXECUTIVE SUMMARY

Eco & Associates, Inc. (Eco) was contracted to provide environmental services at the Los Angeles (LA) Times Facility, North Tanks Site, in Costa Mesa, Orange County, California (hereafter, the "Site"). This document describes the groundwater monitoring and remediation activities (i.e., monitoring, operation, and maintenance) performed during the second quarter (Q2) of 2016 (April 1 through June 31, 2016).

ACTIVITIES

During 2016-Q2, 21 wells were monitored for groundwater levels and sampled based on current Orange County Health Care Agency (OCHCA) monitoring requirements. Collected groundwater samples were submitted to a State of California certified laboratory and analyzed for total volatile petroleum hydrocarbons (TVPH) and volatile organic compounds (VOCs). The remedial extraction system has been nonoperational since April, 2014. The on-site groundwater treatment system was last turned on during 2016-Q1 (March 22, 2016) to discharge rainwater accumulation in the secondary containment area.

FINDINGS

Groundwater Level Measurement

The depth to groundwater was measured at all 21 wells within a 24-hour period on May 26, 2016. The depths to groundwater in the wells ranged from 15.20 to 20.60 feet below the top of the well casings. Groundwater elevations range from 12.95 to 15.07 feet above mean sea level.

Groundwater elevations have decreased by an average of 0.10 feet with respect to measurements made in 2016-Q1.

Based on data collected during this quarter, the groundwater flows toward the southwest with a gradient of approximately 0.003 feet per foot, consistent with previously interpreted groundwater gradients at the Site.

Groundwater Sampling and Analysis

Twenty-one groundwater monitoring wells were sampled during this groundwater monitoring period. The collected samples were sent to TestAmerica Laboratories, Inc. (TestAmerica) and analyzed for TVPH and VOCs.

Total Volatile Petroleum Hydrocarbons

Groundwater samples collected from 13 of the 21 wells sampled this quarter were reported with TVPH concentrations above the method detection limit (MDL). TVPH concentrations have decreased in five of the ten wells with respect to the 2016-Q1 sampling event. TVPH concentrations have increased in the remaining eight wells with respect to the 2016-Q1 sampling event. The largest increase in TVPH concentration (from 2,100 micrograms per liter

(µg/L) to 4,000 µg/L) was measured in well MW-33. The highest concentration of TVPH during this sampling event was detected in well MW-33 (4,000 µg/L). The largest decrease in TVPH concentration (from 3,400 µg/L to 2,400 µg/L) was in well MW-28.

TVPH concentrations in well MW-29 have increased since the 2016-Q1 sampling. Historically, TVPH concentrations in well MW-29 have fluctuated between <25 and 2,900 µg/L over the previous two years. The recent increase is considered to be attributed to this recurring fluctuation.

Benzene

Benzene was detected above the MDL in eight of the 21 sampled wells. Benzene concentrations have decreased in four wells (MW-18, MW-27, MW-28, and MW-38) compared to the 2016-Q1 sampling event. The benzene concentration has increased in wells MW-24, MW-25R, MW-29, MW-33, and MW-35. The greatest increase in benzene concentrations was in MW-33, from 430 µg/L (2016-Q1) to 610 µg/L. The sample collected from well MW-38 was reported with the highest concentration of benzene (1,600 µg/L). Benzene was detected at concentrations greater than 100 µg/L in wells MW-28, MW-29, MW-33, and MW-38.

Benzene concentrations in well MW-29 have increased compared to the 2016-Q1 sampling and have fluctuated between 0.46J and 570 µg/L over the previous two years. The recent increase is considered to be attributed to this recurring fluctuation (Appendix D).

Methyl Tertiary Butyl Ether

Groundwater samples collected from seven wells this quarter were reported with methyl tertiary butyl ether (MTBE) concentrations above the MDL, ranging from 1.1 µg/L to 34 µg/L. The sample collected from well MW-17 was reported with the highest concentration of MTBE (34 µg/L).

Historically, MTBE concentrations continue to appear in the same five to seven wells at similar concentrations.

In comparison to the 2016-Q1 sampling, MTBE concentrations have increased in wells MW-17, MW-18, MW-21, and MW-24. The concentration of MTBE in well MW-17 (previously 26 µg/L in 2015-Q4 and 31 µg/L in 2016-Q1) has increased to 34 µg/L in 2016-Q2. However, the MTBE concentration in well MW-17 has maintained a value between 26 and 35 µg/L over the previous two years. Isoconcentration contours for MTBE are shown in Figure 6. Historical concentrations of MTBE in each well are presented in Appendix C.

Tertiary Butyl Alcohol

Samples collected from four wells (MW-18, MW-24, MW-27, and MW-38) this quarter were reported to contain tertiary butyl alcohol (TBA) concentrations above the MDL. The sample collected from MW-38 was reported with the highest TBA concentration (150 µg/L). During 2016-Q1 sampling event, the highest concentration was reported in well MW-27 (27 µg/L). This value has since increased to 35 µg/L during the 2016-Q2 sampling event.

Historical Analytical Results

Historical data for benzene and TVPH concentrations in sampled wells over the previous five years are presented graphically in Appendix D. Sampled wells generally exhibit relatively high concentrations of benzene and TVPH from the period of June 2010 through January 2012. Concentrations of these contaminants generally decrease, or stabilize at lower values, from January 2012 through to the present day. Two exceptions are the TVPH concentration in MW-27 and MW-28, which have been on an increasing trend from February 2014 to August 2015. This increasing trend continued at MW-28 until 2016-Q1. The most recent data (2016-Q2) have revealed significantly lower concentrations of benzene and TVPH with respect to the previous three sampling events. Benzene and TVPH concentrations have decreased in well MW-38 with respect to the 2016-Q1 sampling event, after a small increase in concentration from the 2015-Q4 event to the 2016-Q1 event.

Shutdown of the remedial extraction system on April 21, 2014 coincides with minor TVPH concentration increases in wells MW-17, MW-19, MW-23, MW-24, MW-25/MW-25R, MW-27, MW-28, MW-29, and MW-36. TVPH concentrations in seven of these nine wells are currently on a downward trend, or have stabilized at lower concentrations with respect to historical data presented in Appendices C and D.

All other benzene concentrations in sampled wells are currently on a decreasing trend, or have stabilized at relatively low values. Benzene concentrations in MW-29 have increased from the 2016-Q1 sampling event (ND<0.5 µg/L) to the Q2-2016 sampling event (120 µg/L). The 2016-Q2 data also show that benzene concentration has decreased from 2,600 µg/L (2016-Q1) to 950 µg/L in well MW-28.

Site Closure

OCHCA is reviewing the data collected to date in order to determine if the site meets the criteria for site closure. Groundwater sampling will continue until the OCHCA finds that the site meets the requirements for no further action (NFA).

2ND QUARTER 2016 – QUARTERLY GROUNDWATER MONITORING *AND* REMEDIAL PROGRESS REPORT

Los Angeles Times, Costa Mesa Facility
North Tanks Site
1375 Sunflower Avenue
Costa Mesa, California

1.0 INTRODUCTION

In April 2012, Eco & Associates, Inc. (Eco) was contracted to provide environmental services at the Los Angeles (LA) Times, Costa Mesa Facility, North Tanks Site, located at 1375 Sunflower Avenue in Costa Mesa, Orange County, California (hereafter, referred to as the "Site") (Figures 1 and 2). The Site remediation and monitoring activities were previously administered by AMEC, Plc (AMEC). This report describes monitoring and remediation activities performed during the second quarter (Q2) of 2016 (April 1 through June 1, 2016), and contains the following sections:

- Site Description and Background
- Summary of Field Activities
- Current Quarterly Monitoring Results
- Data Evaluation and Recommendations

The purpose of the monitoring and remediation program is to operate, maintain, and modify the existing remediation systems, as well as to provide chemical data useful for contaminant concentration trend analysis to be utilized in the evaluation of site closure.

2.0 SITE DESCRIPTION

The Site is located on approximately 31 acres of flat land comprised of buildings and asphalt parking areas. It is located approximately 0.23 mile north of the San Diego Freeway (Interstate 405) and approximately 1 mile east of the Santa Ana River Trail (Figure 1).

2.1 SITE HISTORY

The Site's subsurface soil and groundwater were impacted by gasoline that leaked from underground storage tanks (USTs). The gasoline contamination was detected in September 1990, and a case was opened with the Regional Water Quality Control Board (RWQCB) at that time. In 1992, three USTs in the northern portion of the Site were removed and the LA Times was directed by the Orange County Health Care Agency (OCHCA) Local Oversight Program (LOP) to initiate a subsurface investigation adjacent to the USTs.

ENSR Consulting and Engineering conducted on-site investigations between 1992 and 1995 that included the installation of 29 groundwater monitoring wells. Soil and groundwater within the vicinity of the tank areas were noted to contain elevated concentrations of total petroleum hydrocarbons (TPH) and benzene. The concentration of benzene exceeded 3,000 micrograms per liter (µg/L). As part of the corrective action, a vapor extraction system and an Internal Combustion Engine (ICE) system were used to remediate the Site.

Groundwater Technology, Inc. reported in March 1996 that almost 27,000 pounds of hydrocarbons had been removed by the remedial system between August 1994 and July 1995. In October 1995, three USTs in the southern portion of the Site and the ICE system were removed.

Impacts at the Site have been separated into two separate cases by the RWQCB and OCHCA: The North Tank Site and the South Tank Site. The South Tank Site was determined to be eligible for case closure on September 17, 2012. All wells in the South Tank Area were abandoned on November 21, 2012. The South Tank Site case has been closed as of February 11, 2013.

2.2 REMEDIATION SYSTEM HISTORY

The construction of the first on-site Dual-Phase Vapor Extraction (DPVE) system, identified as the 'Stealth' system, was initiated in October 1997 in accordance with the Remedial Action Plan approved by the OCHCA on May 21, 1997. The system was constructed and connected to the North Tank area wells and began operation in February 1998. In 2003, additional wells were installed; those wells were also connected to the Stealth DPVE system. In 2005, another DPVE system, the 'Baker' system, was added next to the existing system and connected to the newly installed wells on the nearby Automobile Club of Southern California (ACSC) property.

2.3 SITE GEOLOGY

The hydrogeology information in this report was taken from the 1996 report by Groundwater Technology, Inc. The Site is located in the southernmost coastal plain physiographic province of Orange County, approximately 1 mile north of Newport Mesa. The freshwater-bearing materials within the coastal plain consist of unconsolidated sand, gravel, and conglomerates with some silt and clay. Geologic and geophysical logging indicates this freshwater-bearing stratum occurs in three separate groundwater systems. These systems are referred to as the upper, middle, and lower aquifer systems.

The Upper Aquifer System consists of all water-bearing strata above the main aquifer (the uppermost aquifer of the Middle Aquifer System) and has an average thickness of 800 feet. The principal shallow aquifers in this zone are the Talbert Aquifer and the 80-foot gravel aquifer. In addition, numerous semi-perched aquifers of limited extent are also present in the shallow portion of the Upper Aquifer System. The Upper Aquifer System occurs in recent alluvial deposits and the semi-consolidated gravels, sands, and silts of the Upper Pleistocene Lakewood and La Habra formations.

Aquifers of the Middle Aquifer System are of greater thickness and areal extent than those of the upper and lower systems. The total thickness of the Middle Aquifer System ranges from a maximum of 1,600 feet in the center of the plain to less than 50 feet in the Coyote Hills. The uppermost aquifer of the Middle Aquifer System occurs in the lower Pleistocene sands, gravels, and silts of the Coyote Hills and San Pedro Formations.

The Lower Aquifer System consists of numerous interconnected aquifers of varying thickness. This system was declined on the basis of an extensive low permeability cap. The thickest aquifer in the Orange County Coastal Plain occurs at the base of the Lower Aquifer System and ranges in thickness from 350 to greater than 500 feet. Geologic data suggests that the Lower Aquifer System occurs within the semi-consolidated gravels and sands of the upper member of the Late Pliocene Fernando Group.

The soils beneath the LA Times facility consist of fluvial deposits composed of interbedded clay, silt, and sand with minor gravel. The fine-grained clays and silts typically occur from approximately 10 to 25 feet below ground surface (bgs). Stringers of sandy material occur within the clay/silt at depths ranging from 10 to 20 feet bgs. The clays and silts occur directly above a reddish-brown silty sand at approximately 25 feet bgs. This silty sand is typically saturated and grades into a medium-grained sand at approximately 30 feet bgs. The sand/silty sand is usually underlain by a silt layer that occurs between 30 to 35 feet bgs.

3.0 SUMMARY OF GROUNDWATER MONITORING ACTIVITIES

The 2016-Q2 sampling event included the collection of groundwater samples from 21 wells. Field documents related to this activity are presented in Appendix A. A summary of the field activities are described in the following sections.

3.1 GROUNDWATER MONITORING

The following groundwater monitoring activities were conducted in accordance with a memorandum prepared by Eco and sent to LA Times and OCHCA describing the planned low-flow sampling procedures and in accordance with the RWQCB and OCHCA groundwater monitoring requirements. The following activities were performed in addition to the activities described in the above-referenced documents:

- Each monitoring well was inspected for integrity and deficiencies before sampling.

- All wells were sounded for depth to water from the top of the casing with a precision of ±0.01 foot using a Geotech Environmental Services brand interface probe.
- Samples from groundwater wells were obtained and sent to a State of California certified laboratory for analysis.
- Field parameters (pH, temperature, electrical conductivity [EC], oxidation-reduction potential [ORP], dissolved oxygen [DO], and turbidity) were measured (using a Horiba U-5000 Water Quality Monitor) and recorded on sampling logs for sampled wells.
- The sampling flow rate was maintained at or less than 500 milliliters (mL) per minute for samples to be analyzed for VOCs to minimize volatilization.
- One laboratory-supplied trip blank was carried in the ice chest throughout the day and submitted with the field samples from each area for analysis.
- Decontamination of sampling equipment was conducted in accordance with the United States Environmental Protection Agency (USEPA) and approved Work Plan standards to ensure the quality of samples collected.
- Disposable equipment intended for one-time use was packaged for appropriate disposal.
- The sample bottles were kept on ice and transferred to the lab for analysis immediately upon collection of each sample.
- The generated data was utilized to create contaminant concentration trends and to evaluate if site closure could be granted, or if additional remedial actions were necessary.
- Per discussion with the OCHCA on March 6, 2014, there is no longer a requirement to collect duplicate samples during groundwater monitoring activities.

3.2 INVESTIGATION-DERIVED WASTE

Groundwater purge water and decontamination wastewater was placed in the water storage tank associated with the dual-phase extraction system at the Site for subsequent treatment and discharge.

3.3 GROUNDWATER MONITORING RESULTS

Groundwater sampling for the 2016-Q2 groundwater monitoring period was conducted during a 24-hour period on May 26, 2016. During this event, groundwater samples were collected from 21 monitoring wells.

The samples were submitted to TestAmerica Laboratories, Inc. (TestAmerica), a State of California certified laboratory for analysis. The following subsections summarize the groundwater monitoring results.

3.3.1 DEPTH TO GROUNDWATER

The depth to groundwater was measured at all 21 wells on May 26, 2016. The depths to groundwater in the wells ranged from 15.20 to 20.60 feet below the top of the well casings.

Groundwater elevations have decreased by an average of 0.10 feet with respect to measurements made in 2016-Q1.

Groundwater elevations were calculated to be between 12.95 to 15.07 feet above mean sea level (msl) with a general flow toward the southwest with a gradient of approximately 0.003 feet per foot. This is consistent with the previously interpreted groundwater gradient of the Site.

Details and the depth to groundwater measured during this sampling event are provided in Table 1. Groundwater elevation contours are shown in Figure 3. These contours are based on elevations calculated from monitoring wells with available survey data.

3.3.2 GROUNDWATER ANALYTICAL RESULTS AND FINDINGS

Twenty-one groundwater monitoring wells were sampled and analyzed during this groundwater monitoring event. One qualifier noted in the laboratory report from TestAmerica is described below:

- ID – Analyte identified by RT and presence of single mass ion.

According to the TestAmerica project manager for LA Times groundwater samples, the ID qualifier on sample results for small compounds detected in low concentrations (e.g., tertiary butyl alcohol [TBA]) is used. The gas chromatograph/mass spectrometer (GC/MS) instruments separate the compounds and then use the matrix spike (MS) detector to see at least two ions per compound in order to confirm we are reporting the correct compound. When there are small compounds and low concentrations, the MS detector sometimes only sees one ion instead of two. This adds a small level of uncertainty to the compound identification. Although TestAmerica is confident enough of the compound identification to report it, they suggest that the end user understands there is a small chance the analyte was mis-identified.

A summary of groundwater analytical results from all sampled monitoring wells is provided in Table 2. The laboratory analytical results for groundwater are provided in Appendix B.

3.3.2.1 Total Volatile Petroleum Hydrocarbons

Groundwater samples collected from 13 of the 21 wells sampled this quarter were reported with TVPH concentrations above the method detection limit (MDL). TVPH concentrations have decreased in five of the ten wells with respect to the 2016-Q1 sampling event. TVPH concentrations have increased in the remaining eight wells with respect to the 2016-Q1 sampling event. The largest increase in TVPH concentration (from 2,100 micrograms per liter (µg/L) to 4,000 µg/L) was measured in well MW-33. The highest concentration of TVPH during this sampling event was detected in well MW-33 (4,000 µg/L). The largest decrease in TVPH concentration (from 3,400 µg/L to 2,400 µg/L) was in well MW-28. Concentrations for TVPH

are depicted on Figure 4. Historical concentrations of TVPH in each well are presented in Appendix C and graphically in Appendix D.

TVPH concentrations in well MW-29 have been increasing since sampling occurred in Q1 of 2016. Historically, TVPH concentrations in well MW-29 have fluctuated between <25 and 2,900 µg/L over the previous two years. The recent increase is considered to be attributed to this recurring fluctuation. TVPH isoconcentration contours are shown in Figure 4. Historical concentrations of benzene in each well are presented in Appendix C and graphically in Appendix D.

3.3.2.2 Benzene

Benzene was detected above the MDL in eight of the 21 sampled wells.

- Benzene concentrations have decreased in four wells (MW-18, MW-27, MW-28, and MW-38) with respect to the 2016-Q1 sampling event.
- The benzene concentration has increased in wells MW-24, MW-25R, MW-29, MW-33, and MW-35.
- The greatest increase in benzene concentrations was in MW-33, from 430 µg/L (2016-Q1) to 610 µg/L.
- The sample collected from well MW-38 was reported with the highest concentration of benzene (1,600 µg/L).
- Benzene was detected at concentrations greater than 100 µg/L in wells MW-28, MW-29, MW-33, and MW-38.

Benzene concentrations in well MW-29 have been increasing since 2016-Q1. Historically, benzene concentrations in well MW-29 have fluctuated between 0.46J and 570 µg/L over the previous two years. The recent increase is considered to be attributed to this recurring fluctuation (Appendix D). The reason for this fluctuation is unclear. Benzene isoconcentration contours are shown in Figure 5. Historical concentrations of benzene in each well are presented in Appendix C and graphically in Appendix D.

3.3.2.3 Methyl Tertiary Butyl Ether

Groundwater samples collected from seven wells this quarter were reported with methyl tertiary butyl ether (MTBE) concentrations above the MDL, ranging from 1.1 µg/L to 34 µg/L. The sample collected from well MW-17 was reported with the highest concentration of MTBE (34 µg/L).

Historically, MTBE concentrations continue to appear in the same five to seven wells at similar concentrations.

In comparison to the 2016-Q1 sampling, MTBE concentrations have increased in wells MW-17, MW-18, MW-21, and MW-24. The concentration of MTBE in well MW-17 (previously 26 µg/L in 2015-Q4 and 31 µg/L in Q1-2016) has increased to 34 µg/L in 2016-Q2. However, the MTBE concentration in well MW-17 has maintained a value between 26 and 35 µg/L over the previous two years. Isoconcentration contours for MTBE are shown in Figure 6. Historical concentrations of MTBE in each well are presented in Appendix C.

3.3.2.4 Tertiary Butyl Alcohol

Samples collected from four wells (MW-18, MW-24, MW-27, and MW-38) this quarter were reported to contain tertiary butyl alcohol (TBA) concentrations above the MDL. The sample from MW-38 was reported with the highest TBA concentration (150 µg/L). During the 2016-Q1 sampling event, the highest concentration was reported in well MW-27 (27 µg/L) compared to 35 µg/L during the Q2-2016 sampling event. Historical concentrations of TBA in each well are presented in Appendix C.

3.3.2.5 Historical Analytical Results

Historical data for benzene and TVPH concentrations in sampled wells over the previous five years are presented graphically in Appendix D. Sampled wells generally exhibit relatively high concentrations of benzene and TVPH from the period of June 2010 through January 2012. Concentrations of these contaminants generally decrease, or stabilize at lower values, from January 2012 through to the present day. Two exceptions are the TVPH concentration in MW-27 and MW-28, which have been on an increasing trend from February 2014 to August 2015. This increasing trend continued at MW-28 until 2016-Q1. The 2016-Q2 data have revealed significantly lower concentrations of benzene and TVPH with respect to the previous three sampling events. Benzene and TVPH concentrations have decreased in well MW-38 with respect to the 2016-Q1 sampling event.

Shutdown of the remedial extraction system on April 21, 2014 coincides with minor TVPH concentration increases in wells MW-17, MW-19, MW-23, MW-24, MW-25/MW-25R, MW-27, MW-28, MW-29, and MW-36. TVPH concentrations in seven of these nine wells are currently on a downward trend, or have stabilized at lower concentrations with respect to historical data presented in Appendices C and D.

Benzene concentration increases coincide with extraction system shutdown in wells MW-27, MW-28, and MW-29. All other benzene concentrations in sampled wells are currently on a decreasing trend, or have stabilized at relatively low values. Benzene concentrations in MW-29 have increased from the 2016-Q1 sampling event (ND<0.5 µg/L) to the 2016-Q2 sampling event (120 µg/L). The 2016-Q2 data show that benzene concentration has decreased from 2,600 µg/L (Q1-2016) to 950 µg/L in well MW-28.

4.0 SUMMARY OF REMEDIAL ACTIVITIES

4.1 DUAL-PHASE EXTRACTION SYSTEM

There are two extraction systems located in the central portion of the LA Times property that are secured with walls and fences, which have locked entry gates. One system, operating under catalytic oxidation conditions, is referred to as the “Baker” system; the other system operating under thermal oxidation conditions, is referred to as the “Stealth” system. Both systems have been named and are referred to by Eco after their respective manufacturers.

The remedial extraction system was shut down in April 2014 and has been non-operational since that time.

When in operation, each system generally runs 24 hours per day, 7 days per week. The two systems had previously been connected to separate wells: the Baker system connected to ACSC wells, and the Stealth system connected to Former Farm Property and North Tank wells.

However, during the fourth quarter of 2012, the systems were connected so that any well might be connected to either of the two systems in order to have more control over remedial activities, as well as to maintain backup in case of the shutdown of one of the systems.

The wells are connected to the systems via piping that can be opened or closed with in-line valves. This allows for sampling of individual wells, rebound testing, and the closing of certain wells to extraction. Wells chosen to be opened to extraction are typically chosen based on VOC readings collected using a photoionization detector (PID) as well as vapor sample analytical results, when applicable.

As is shown in the schematic (Figure 7), vapor extracted from each well enters into a 4-inch manifold and is sent to a phase separator (water knockout vessel) where the liquid and vapor is separated.

The liquid phase is treated with granular activated carbon (GAC) and released to the stormwater conveyance system under a National Pollutant Discharge Elimination System (NPDES) permit. The vapor is sent to a furnace for thermal or catalytic oxidation.

When in operation, the influent and effluent gas is monitored on a weekly basis with a PID. In addition, influent and effluent samples of water and vapor are collected monthly for laboratory analysis.

During system operation, the concentrations of VOCs at the inlet and outlet of the system are monitored on a weekly basis using a PID. Since the system was not operational during this reporting period, no influent or effluent vapor samples were collected from the systems.

Monthly sampling was also not conducted, as the system was not in operation during this reporting period. Tables 3A and 3B provide the contamination mass removal up to and including the date of system shut down in April 2014.

Remedial activities were not conducted at the Site during this quarter.

4.2 WEEKLY AND MONTHLY ACTIVITIES

4.2.1 WEEKLY ACTIVITIES

Each system is operated under a South Coast Air Quality Management District (SCAQMD) Permit to Operate. As per the requirements of the permit, weekly readings of the following parameters are collected for each system (when operating):

- Total flow rate, measured in standard cubic feet per minute (scfm)
- Temperature measured in degrees Fahrenheit at the outlet of the combustion chamber (for thermal oxidation mode) or at the inlet of the catalytic chamber (for catalytic oxidation mode)

- VOC influent and effluent concentrations, measured with a PID calibrated in parts per million by volume as isobutylene (corrected for hexane)

The Site is allowed to discharge up to 2,000 gallons of treated groundwater per day under Monitoring and Reporting Program No. R8-2012-0027 (Santa Ana Regional Water Quality Control Board [SARWQCB] 2012). This order will expire on July 1, 2017. The Dual Phase Vapor Extraction (DPVE) system was nonoperational for the three months of the quarter.

4.2.2 MONTHLY ACTIVITIES

4.2.2.1 Influent/Effluent Vapor Sampling

Vapor sampling did not take place in this quarter because the system was non-operational.

4.2.2.2 Influent/Effluent Water Sampling

When the groundwater treatment system is in operation, monthly groundwater samples are collected and tested by the following methods:

- Total petroleum hydrocarbons (TPH) by United States Environmental Protection Agency (EPA) Method 8015B
- Volatile organic compounds (VOCs), specifically: benzene, toluene, ethyl-benzene, and xylenes (BTEX); MTBE; tertiary amyl methyl ether (TAME); and TBA by EPA Method 8260B.

The groundwater treatment system was no turned on during 2016-Q2.

4.3 UPCOMING GROUNDWATER SAMPLING

The next quarterly groundwater sampling event is scheduled for the 3rd quarter of 2016 (2016-Q3).

5.0 RECOMMENDATIONS

The following recommendation is based on observed field conditions and measured contaminant concentrations during 2016-Q2 groundwater monitoring and remediation activities.

- Contaminant concentrations in monitoring wells sampled this quarter are generally on a decreasing trend, with the exception of TVPH and benzene in well MW-29, which is consistent with typical contaminant fluctuations in that well (noted in Sections 3.3.2.1 and 3.3.2.2). Groundwater monitoring will continue until OCHCA finds that the Site meets the criteria of the Low Threat UST Case Closure Policy.

6.0 BIBLIOGRAPHY

SARWQCB, 2012. *Discharge Authorization and Monitoring and Reporting Program No. R8-2012-0027-006, Under General Permit No. R8-2012-0027, NPDES No. CAG918001, Groundwater Cleanup Project,* Los Angeles Times, 1375 Sunflower Avenue, Costa Mesa; August 24, 2012.

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FIGURES

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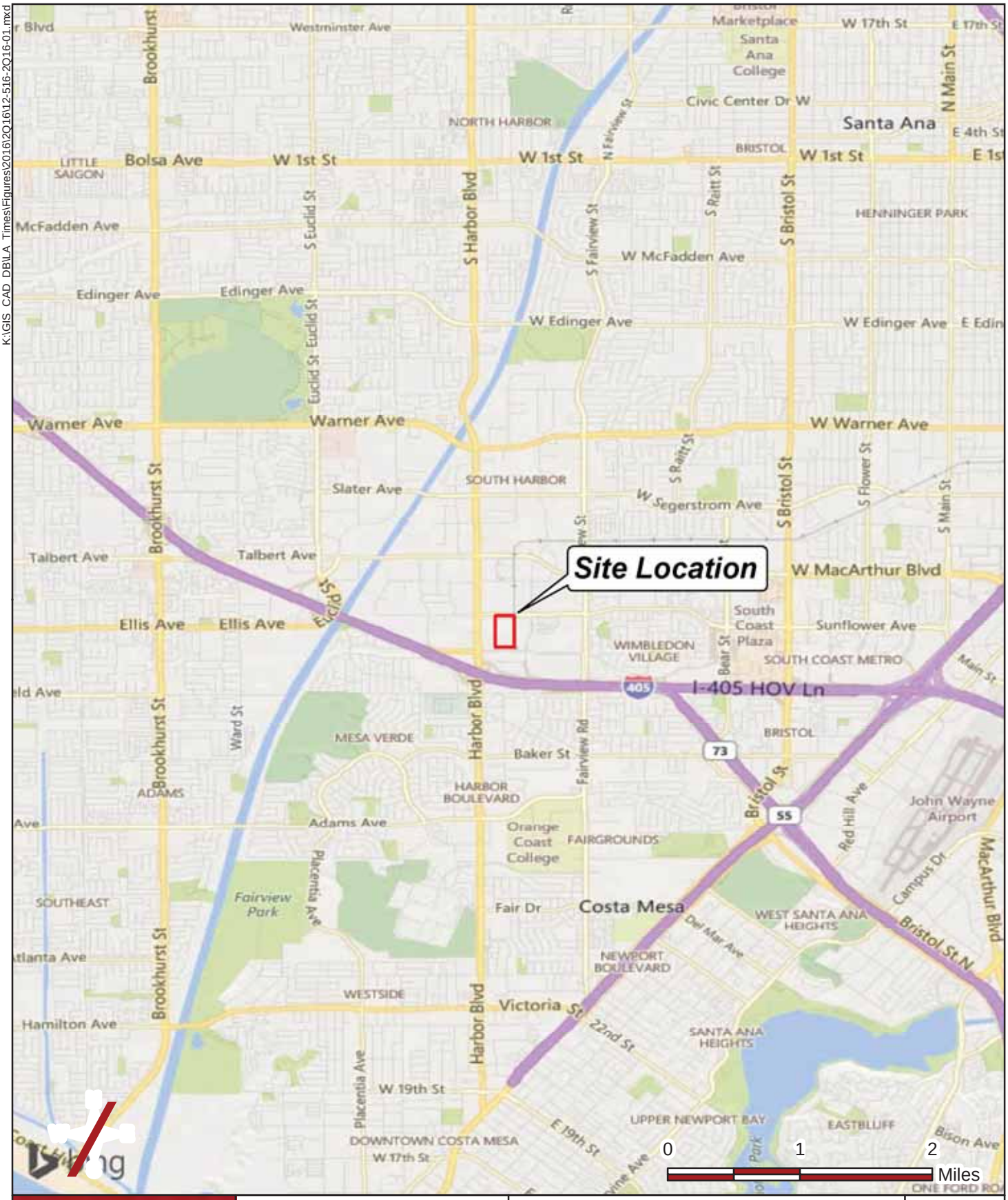

Environmental Excellence	Eco & Associates, Inc. 1855 W. Katella Avenue, Suite 340 Orange, California 92867 Phone: 714.289.0995 Fax: 714.289.0965	**REGIONAL LOCATION MAP** **Los Angeles Times Costa Mesa Facility** **1375 Sunflower Avenue** **Costa Mesa, California**	FIGURE 1
		Project No. Eco-12-516 / Dated June 2016	

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SITE VICINITY

Los Angeles Times, Costa Mesa Facility
1375 Sunflower Avenue
Costa Mesa, California

Project No. Eco-12-516 | Dated June 2016

FIGURE

2

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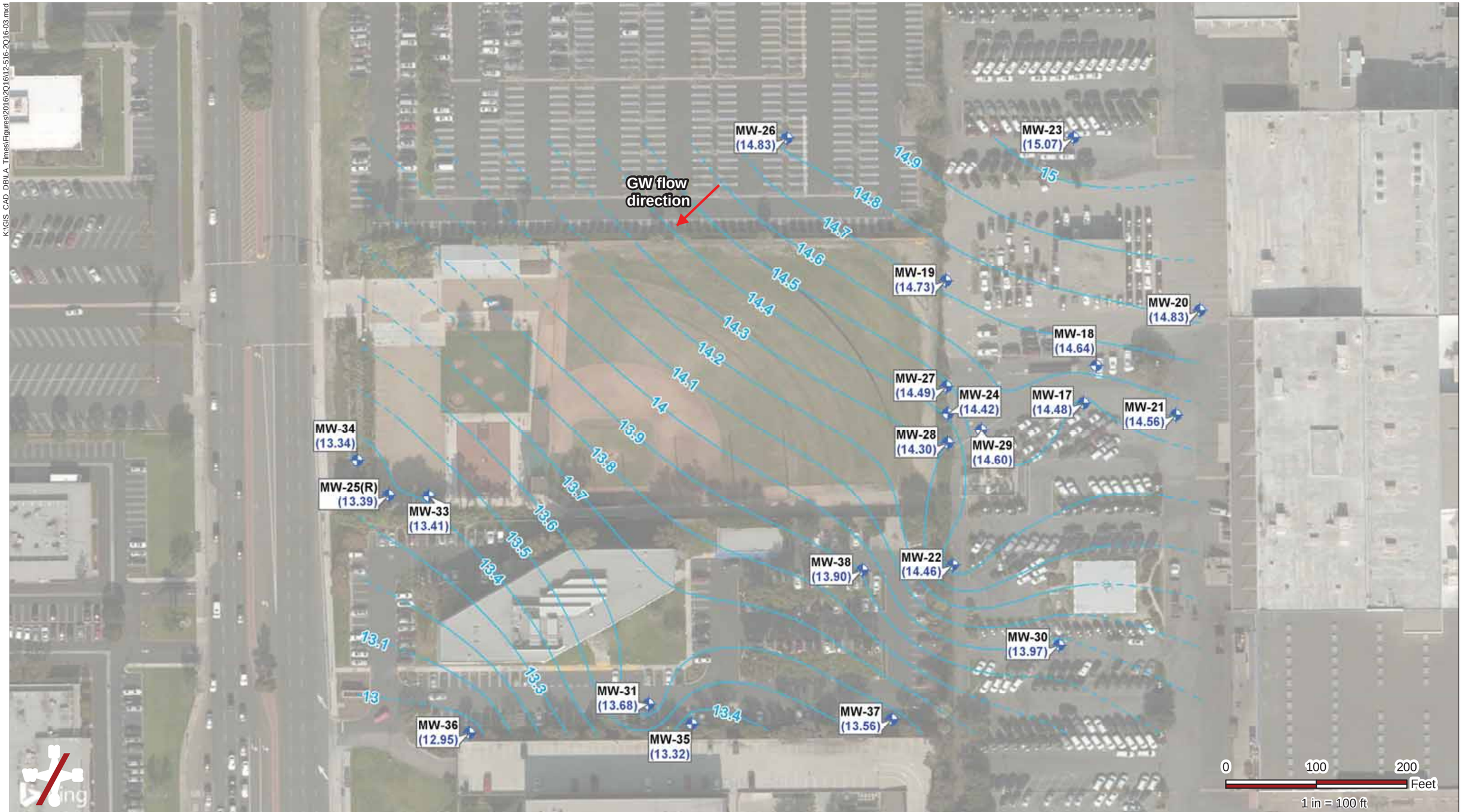

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LEGEND & NOTES:

A Groundwater Monitoring Well
Groundwater elevation contours (feet above mean sea level)
Dashed Where Inferred
Direction of groundwater flow

GROUNDWATER ELEVATION CONTOURS (2nd Quarter 2016)

Los Angeles Times Costa Mesa Facility
1375 Sunflower Avenue
Costa Mesa, CA 92626

Project No. Eco-12-516

Dated June 2016

FIGURE 3

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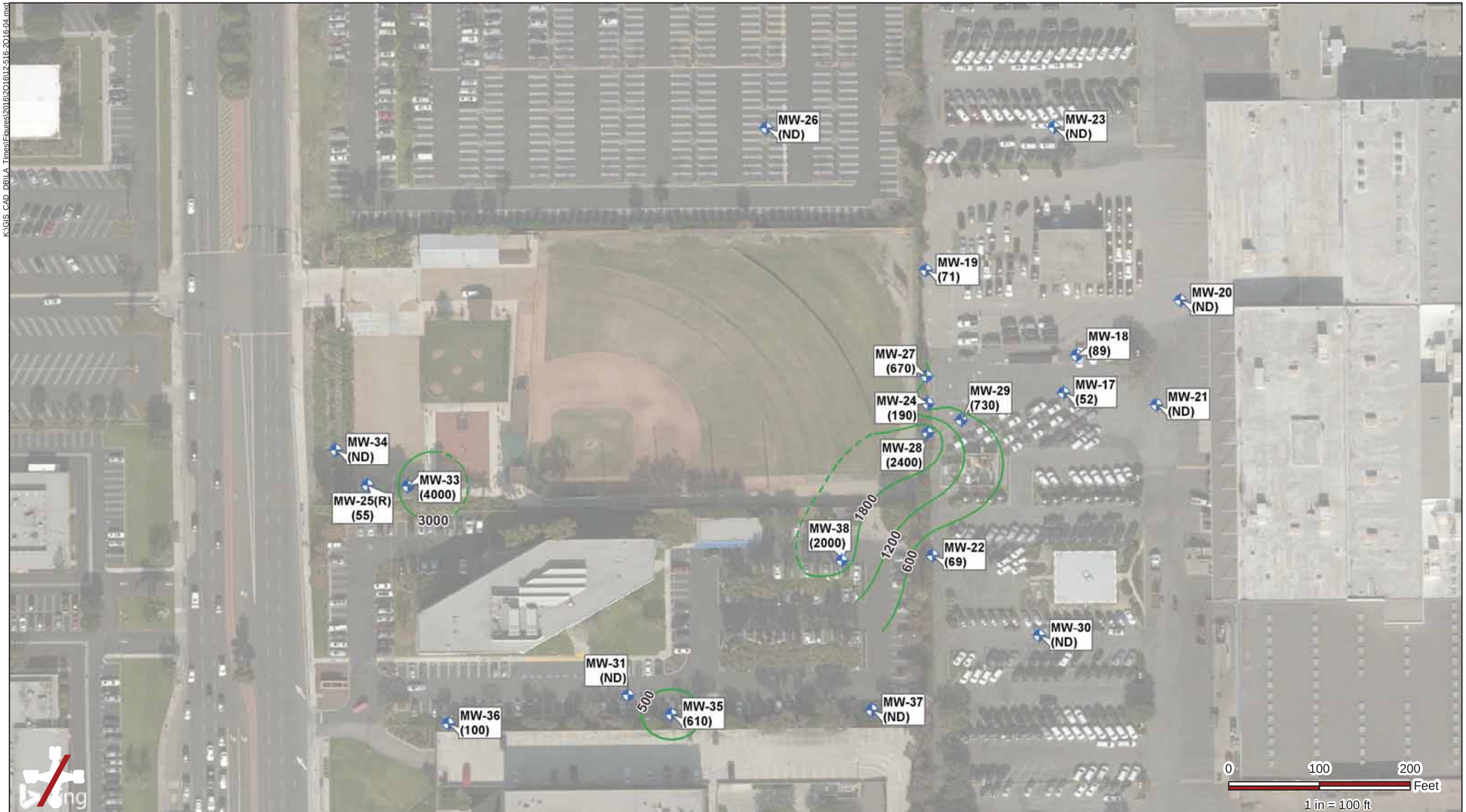

Environmental Excellence

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LEGEND & NOTES:

A Groundwater Monitoring Well Sampled in Q2-2016

TVPH Isoconcentration Contours (ug/L) - Q2-2016 results
Dashed where inferred

TVPH CONCENTRATIONS IN GROUNDWATER (2nd Quarter 2016)

Los Angeles Times Costa Mesa Facility
1375 Sunflower Avenue
Costa Mesa, CA 92626

Project No. Eco-12-516

Dated June 2016

FIGURE
4

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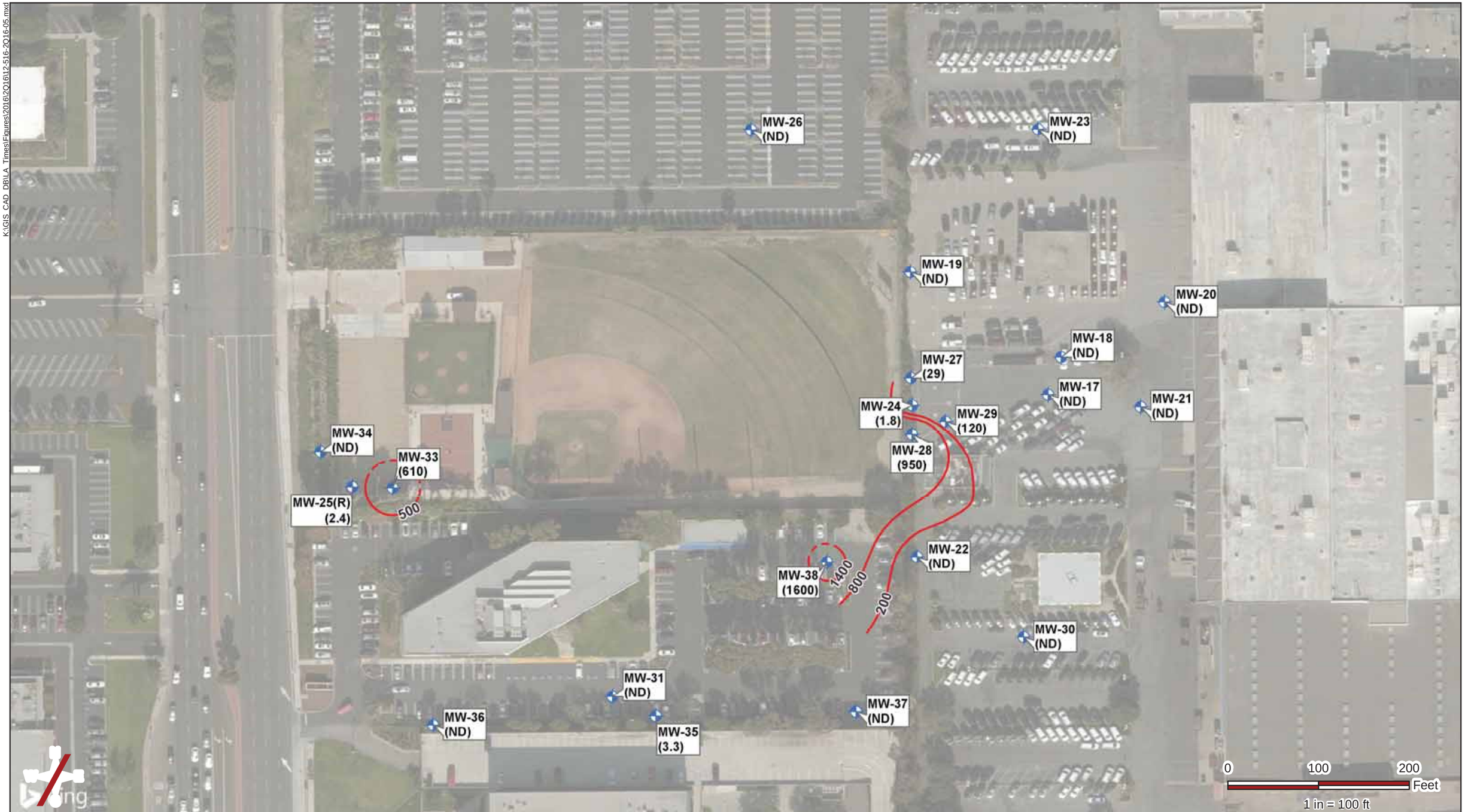

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LEGEND & NOTES:

A Groundwater Monitoring Well Sampled in Q2-2016

Benzene Isoconcentration Contours (ug/L) - Q2-2016 results
Dashed Where Inferred

BENZENE CONCENTRATIONS IN GROUNDWATER
(2nd Quarter 2016)
Los Angeles Times Costa Mesa Facility
1375 Sunflower Avenue
Costa Mesa, CA 92626

Project No. Eco-12-516

Dated June 2016

FIGURE
5

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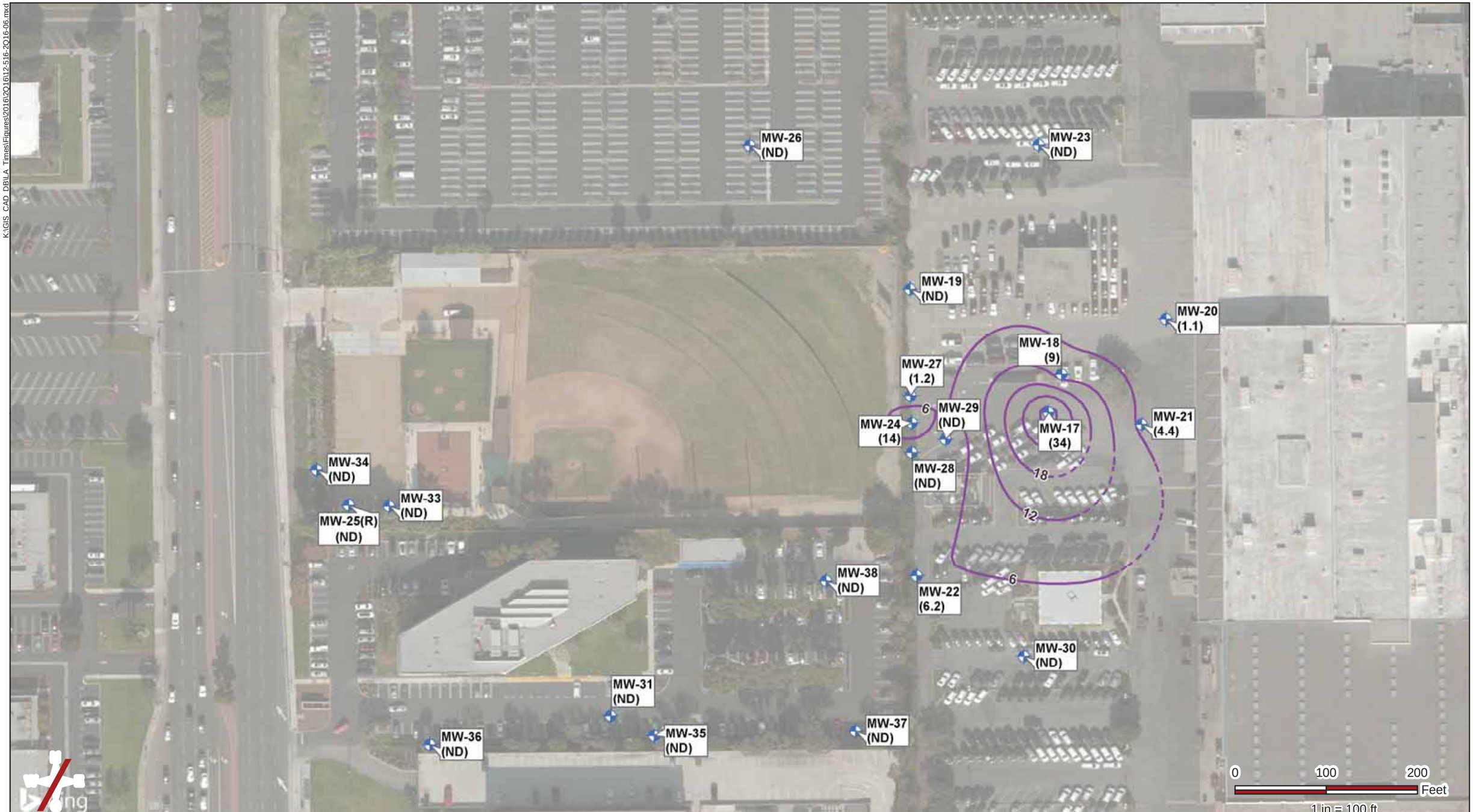

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LEGEND & NOTES:

A Groundwater Monitoring Well Sampled in Q2-2016

MTBE Isoconcentration Contours (ug/L) - Q2-2016
Dashed Where Inferred

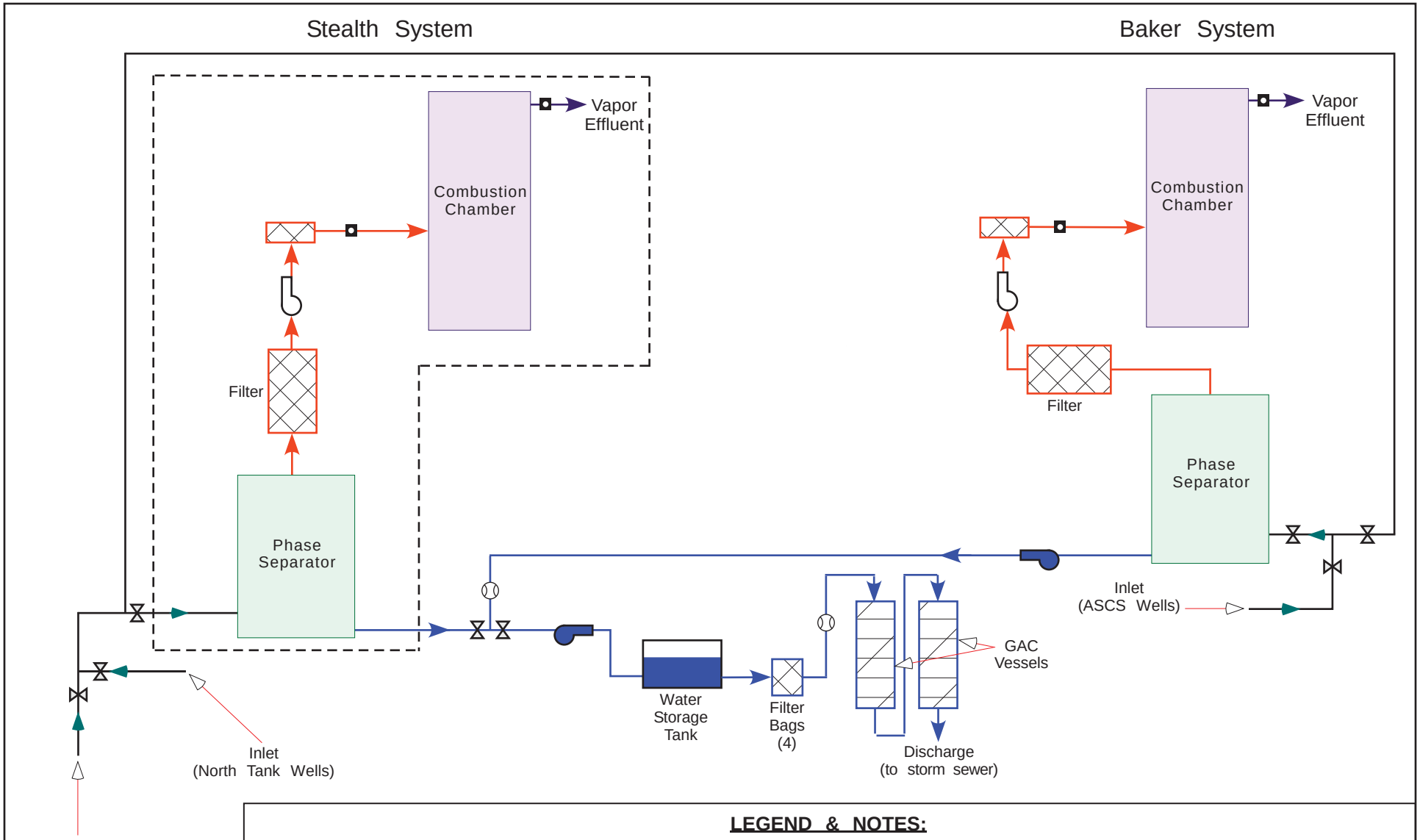
MTBE CONCENTRATIONS IN GROUNDWATER (2nd Quarter 2016)

Los Angeles Times Costa Mesa Facility
1375 Sunflower Avenue
Costa Mesa, CA 92626

Project No. Eco-12-516

Dated June 2016

FIGURE
6



LEGEND & NOTES:

- Dual Phase Flow
- Vapor Flow
- Water Flow
- Vacuum Pump
- Water Pump
- Valve
- Vapor Sampling Port
- Flow Meter

ACSC - Automobile Club of Southern California
GAC - Granular Activated Carbon
FFP - Former Farm Property

Environmental Excellence

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EXTRACTION SYSTEM SCHEMATIC

Los Angeles Times Costa Mesa Facility
1375 Sunflower Avenue
Costa Mesa, California

PROJECT NO. Eco-12-516

DATED June 2016

FIGURE 7

Tables

TABLE 1: SUMMARY OF GROUNDWATER ELEVATIONS
2016 - 2ND QUARTER

Los Angeles Times Costa Mesa Facility
North Tanks Site

Measurement Date: May 26, 2016

Well No.	Time	Well Elevation (feet msl)	Depth to Water (feet btoc)	Groundwater Elevation (feet msl)
MW-17	1506	32.60	18.12	14.48
MW-18	1510	32.77	18.13	14.64
MW-19	1400	33.84	19.11	14.73
MW-20	1519	31.58	16.75	14.83
MW-21	1536	31.41	16.85	14.56
MW-22	1405	34.41	19.95	14.46
MW-23	1541	32.75	17.68	15.07
MW-24	1420	33.92	19.50	14.42
MW-25R	0940	32.42	19.03	13.39
MW-26	1554	30.03	15.20	14.83
MW-27	1415	33.81	19.32	14.49
MW-28	1430	34.00	19.70	14.30
MW-29	1425	33.53	18.93	14.60
MW-30	1450	32.97	19.00	13.97
MW-31	0830	31.24	17.56	13.68
MW-33	0928	34.01	20.60	13.41
MW-34	0913	32.97	19.63	13.34
MW-35	0814	31.01	17.69	13.32
MW-36	0835	30.20	17.25	12.95
MW-37	0825	30.97	17.41	13.56
MW-38	0842	31.00	17.10	13.90

NOTES:
msl above mean sea level
(measured using Solinst Water Level Meter; Model: 101; Serial No.: 235973)
btoc below top of casing

TABLE 2: SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
2016 - 2ND QUARTER

Los Angeles Times Costa Mesa Facility
North Tanks Site

Sample Date: May 26-27, 2016

Well No.	TVPH	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA	DIPE	TAME	ETBE
	µg/L									
MW-17	**52**	ND < 0.50	ND < 0.50	ND < 0.50	ND < 1.5	**34**	ND < 10	**9.0**	ND < 1.0	ND < 1.0
MW-18	**89**	ND < 0.50	ND < 0.50	ND < 0.50	ND < 1.5	**9.0**	**12 ID**	**3.6**	ND < 1.0	ND < 1.0
MW-19	**71**	ND < 0.50	ND < 0.50	ND < 0.50	ND < 1.5	ND < 1.0	ND < 10	**46**	ND < 1.0	ND < 1.0
MW-20	ND < 50	ND < 0.50	ND < 0.50	ND < 0.50	ND < 1.5	**1.1**	ND < 10	**5.2**	ND < 1.0	ND < 1.0
MW-21	ND < 50	ND < 0.50	ND < 0.50	ND < 0.50	ND < 1.5	**4.4**	ND < 10	**8.6**	ND < 1.0	ND < 1.0
MW-22	**69**	ND < 0.50	ND < 0.50	ND < 0.50	ND < 1.5	**6.2**	ND < 10	**45**	ND < 1.0	ND < 1.0
MW-23	ND < 50	ND < 0.50	ND < 0.50	ND < 0.50	ND < 1.5	ND < 1.0	ND < 10	**2.5**	ND < 1.0	ND < 1.0
MW-24	**190**	**1.8**	ND < 0.50	**0.51**	ND < 1.5	**14**	**11 ID**	**51**	ND < 1.0	ND < 1.0
MW-25R	**55**	**2.4**	ND < 0.50	ND < 0.50	ND < 1.5	ND < 1.0	ND < 10	ND < 10	ND < 1.0	ND < 1.0
MW-26	ND < 50	ND < 0.50	ND < 0.50	ND < 0.50	ND < 1.5	ND < 1.0	ND < 10	ND < 1.0	ND < 1.0	ND < 1.0
MW-27	**670**	**29**	ND < 1.3	**1.0**	ND < 3.8	**1.2**	**35**	**56**	ND < 2.5	ND < 2.5
MW-28	**2,400**	**950**	ND < 25	ND < 25	ND < 75	ND < 50	ND < 500	**36**	ND < 50	ND < 50
MW-29	**730**	**120**	**2.0**	**4.7**	**5.0**	ND < 1.0	ND < 10	**3.6**	ND < 1.0	ND < 1.0
MW-30	ND < 10	ND < 0.50	ND < 0.50	ND < 0.50	ND < 1.5	ND < 1.0	ND < 10	ND < 1.0	ND < 1.0	ND < 1.0
MW-31	ND < 50	ND < 0.50	ND < 0.50	ND < 0.50	ND < 1.5	ND < 1.0	ND < 10	ND < 1.0	ND < 1.0	ND < 1.0
MW-33	**4,000**	**610**	**99**	**320**	**18**	ND < 5.0	ND < 50	**66**	ND < 5.0	ND < 5.0
MW-34	ND < 50	ND < 0.50	ND < 0.50	ND < 0.50	ND < 1.5	ND < 1.0	ND < 10	ND < 1.0	ND < 1.0	ND < 1.0
MW-35	**610**	**3.3**	ND < 0.50	ND < 0.50	ND < 1.5	ND < 1.0	ND < 10	**2.7**	ND < 1.0	ND < 1.0
MW-36	**100**	ND < 0.50	ND < 0.50	ND < 0.50	ND < 1.5	ND < 1.0	ND < 10	ND < 1.0	ND < 1.0	ND < 1.0
MW-37	ND < 50	ND < 0.50	ND < 0.50	ND < 0.50	ND < 1.5	ND < 1.0	ND < 10	**5.6**	ND < 1.0	ND < 1.0
MW-38	**2,000**	**1,600**	**2.2**	**4.3**	ND < 38	ND < 1.0	**150**	**110**	ND < 25	ND < 25

NOTES:

µg/L	micrograms per liter
ND <	indicates analyte was not detected above reporting limit (RL) indicated or method detection limit (MDL), if available.
DIPE	di-isopropyl ether
ETBE	ethyl tertiary butyl ether
MTBE	methyl tertiary butyl ether
TAME	tertiary-amyl methyl ether
TBA	tertiary butyl alcohol
TVPH	total volatile petroleum hydrocarbons. Analyzed using CA LUFT Method 8260B.
NS	Not sampled.
J	Result is less than the RL but greater than or equal to the MDL and the concetration is an approximate value.
ID	Analyte identified by RT and presence of single mass ion.
F1	MS and/or MSD recovery is outside acceptance limits.

TABLE 3A: BAKER SYSTEM MASS REMOVAL CALCULATIONS

2016 - 2ND QUARTER

LA Times Costa Mesa Facility
North Tanks Site

Month	Operational Mode (Catalytic/ Thermal)	Total Operating Time (hr)	Operating Time In Period (hr)	Flow Rate (cfm)	Contaminant Mass Removed * (lb)				
					TVPH	Benzene	Toluene	Ethyl-benzene	Xylenes
March 2012	Thermal	46,249.0	NA	126	NA	NA	NA	NA	NA
June 2012	Catalytic	47,119.5	871	138	NA	NA	NA	NA	NA
July 2012	Catalytic	47,507.0	388	141	0.00	0.17	0.00	0.00	0.00
August 2012	Catalytic	47,837.0	330	151	289.12	0.13	4.70	1.63	32.53
September 2012	Catalytic	48,133.0	296	151	0.00	0.00	0.00	0.00	0.00
October 2012	Catalytic	48,530.0	397	156	29.71	0.00	0.00	0.00	1.60
November 2012	Catalytic				NA	NA	NA	NA	NA
December 2012	Catalytic				NA	NA	NA	NA	NA
January 2013	Catalytic	49,075.0	545	147	NA	NA	NA	NA	NA
February 2013	Catalytic	49,396.0	321	143	7	0.1	0	0	0
March 2013	Catalytic	49,869.0	473	142	10	0.1	0	0	0
April 2013	Catalytic	49,922.7	54		NA	NA	NA	NA	NA
May 2013	Catalytic	50,782.5	860	158	10	0.1	0	0	0
June 2013	Catalytic	51,119.0	337	159	8	0.1	0	0	0
July 2013	Catalytic	51,119.0	0		NA	NA	NA	NA	NA
August 2013	Catalytic	51,119.0	0		NA	NA	NA	NA	NA
September 2013	Catalytic	51,119.0	0		NA	NA	NA	NA	NA
October 2013	Catalytic	51,119.0	0		NA	NA	NA	NA	NA
November 2013	Catalytic	51,119.0	0		NA	NA	NA	NA	NA
December 2013	Catalytic	51,119.0	0		NA	NA	NA	NA	NA
January 2014	Catalytic	51,119.0	0		NA	NA	NA	NA	NA
February 2014	Catalytic	51,119.0	0		NA	NA	NA	NA	NA
March 2014	Catalytic	51,503.0	384	185	81	2.1	1	1	5
April 2014	Catalytic	51,741.9	239	182	147	4.2	3	1	7
May 2014	Catalytic	51,741.9	0		0	0.0	0	0	0

System shut down in April 2014

Totals removed by Baker System (March 2012 to current):	**647.06**
Totals removed by Stealth System, see Table 4b (March 2012 to current):	**24.52**
Total removed by previous contractors (Feb 1998 to Mar 2012):	**175,357**
Cumulative Total (February 1998 to current):	**176,029**

NOTES:

*	Mass removal calculated using influent concentrations from respective month.
TVPH	total volatile petroleum hydrocarbons
cfm	cubic feet per minute
NA	not available
lb	pounds
hr	hours

TABLE 3B - STEALTH SYSTEM MASS REMOVAL CALCULATIONS
2016 - 2ND QUARTER

LA Times Costa Mesa Facility
North Tanks Site

Month	Operational Mode (Catalytic/ Thermal)	Total Operating Time (hr)	Operating time in period (hr)	Flow Rate (cfm)	Contaminant Mass Removed * (lb)				
					TVPH	Benzene	Toluene	Ethyl-benzene	Xylenes
June 2012	Thermal	59,465.9	NA	138	NA	NA	NA	NA	NA
July 2012	Thermal	60,112.7	647	138	21.09	0.00	0.00	0.00	0.00
February 2013	Thermal	61,124.0	1,011	138	0.00	0.00	0.00	0.00	0.00
July 2013	Thermal	61,180.0	56	138	0.00	0.00	0.00	0.01	0.03
October 2013	Thermal	61,565.7	386	155	3.39	0.00	0.00	0.00	0.00
November 2013	Thermal	61,565.7	0	-	-	-	-	-	-
December 2013	Thermal	61,565.7	0	-	-	-	-	-	-
January 2014	Thermal	61,565.7	0	-	-	-	-	-	-
February 2014	Thermal	61,565.7	0	-	-	-	-	-	-
March 2014	Thermal	61,565.7	0	-	-	-	-	-	-
April 2014	Thermal	61,565.7	0	-	-	-	-	-	-
May 2014	Thermal	61,565.7	0	-	-	-	-	-	-
June 2014	Thermal	61,565.7	0	-	-	-	-	-	-
July 2014	Thermal	61,565.7	0	-	-	-	-	-	-
August 2014	Thermal	61,565.7	0	-	-	-	-	-	-
September 2014	Thermal	61,565.7	0	-	-	-	-	-	-
October 2014	Thermal	61,565.7	0	-	-	-	-	-	-
November 2014	Thermal	61,565.7	0	-	-	-	-	-	-
December 2014	Thermal	61,565.7	0	-	-	-	-	-	-

System shut down in April 2014

Totals removed by Stealth System (March 2012 to current): 24.52

NOTES:

cfm	cubic feet per minute
TVPH	total volatile petroleum hydrocarbons
lb	pounds
hr	hours
*	Mass removal calculated using influent concentrations from respective month.
NA	not available

Appendix A

Field Documents

ECO & ASSOCIATES, INC. – QUALITY CONTROL REPORT

DAILY LOG OF PROJECT ACTIVITIES

ECO PROJECT:	Eco-12-516	**REPORT NO.:**	
PROJECT LOCATION:	LA Times, North Tanks, Costa Mesa, CA	**DATE:**	05 - 26 - 16
DESCRIPTION:	GW Sampling 2Q-2016	**CONTRACT NO.:** -	
ONSITE PERSONNEL:	HT ~~DM~~ FT	**TASK ORDER NO.:** -	
SIGNATURE:	Helen R Thomas	**WEATHER CONDITION:**	cloudy 70° F

1. ANY DELAYS IN WORK PROGRESS TODAY? ☒ No ☐ Yes If yes, explain:

2. ANY VERBAL INSTRUCTION GIVEN BY THE GOVERNMENT, REGULATOR, OR CLIENT? ☒ No ☐ Yes If yes, to whom and explain:

3. ANY CONDITION DEVELOPED WHICH MIGHT LEAD TO A CHANGE ORDER OR CLAIM OR FINDINGS OF FACTS?

☒ No ☐ Yes If yes, explain:

ANY POTENTIAL CHANGE ORDER OR CLAIM MUST BE REPORTED TO THE PROJECT DIRECTOR/MANAGER.

4. ANY DEFICIENCIES, ACTIONS TAKEN TO CORRECT THE DEFICIENCIES? ☒ No ☐ Yes If yes, explain:

5. SAFETY MEETING/TAILGATE MEETING HELD TODAY? ☐ No ☒ Yes

ANY LOST TIME ACCIDENT TODAY? ☒ No ☐ Yes If yes, attach an accident report.

6. PRIME CONTRACTOR AND SUBCONTRACTOR WORK FORCE SIGN IN AND OUT IN THE SPACE BELOW.

NAME	INITIAL	COMPANY	TRADE	IN	OUT	IN	OUT	TOTAL HOURS
Helen Thomas	HT	Eco & Associates	Geology	0745	1600			
~~David Manoukian~~	~~DM~~	~~Eco & Associates~~	~~Geology~~					
Filmon Tesfaslasie	FT	Eco + Assoc.	Geology	0745	1600			
Taylor Waters	TW	Eco + Assoc.	Manager	0645	0950			

7A. CUMULATIVE HOURS WORKED PREVIOUSLY: N/A	**7B. TOTAL HOURS WORKED TODAY: N/A**	**TOTAL HOURS WORKED TO DATE (7A+7B): N/A**

ECO & ASSOCIATES, INC. – QUALITY CONTROL REPORT

DAILY LOG OF PROJECT ACTIVITIES

8. VISITOR'S LOG

NAME	INITIAL	COMPANY	IN	OUT	IN	OUT	IN	OUT

9. MAJOR ITEMS OF EQUIPMENT.

TYPE / CAPACITY	NUMBER	STANDBY HOURS	OPERATING HOURS
~~Hor~~			

10. INSTRUMENT CALIBRATION

INSTRUMENT	DATE/TIME	METHOD	CALIBRATED?
Horiba U5000	5/26 @ 0800	autocal soln	yes
PID	5/26 @ 0800	hexane gas	yes

11. TIME AND ACTIVITY LOG

TIME	DESCRIPTION
0745	HT + FT arrive on site after getting ice and loading truck @ office
	TW is on site observing sampling methods. Make Trip Blank @ 0830
0815	Begin GW sampling at wells in AAA parking lot. Start @ MW-35.
0820	TW begins measuring depths to GW in AAA parking lot wells
0900	TW goes to baseball field area to measure depths to GW in that area.
~~11~~	HT + FT continue sampling AAA parking lot wells. TW leaves site @
1130	Complete sampling AAA parking lot. Break for lunch.
1200	Return from lunch. Begin sampling wells in Baseball field area:
	(MW-25R, MW-33, and MW-34)
1330	Go to LA Times facility parking lot to measure all depths to GW. All
	depths are measured within one 24 hour period
1340	Talk with Bita Klein on phone regarding new entry status of baseball
	field area. The fence we used to go through is now closed off and
	access is only possible through Harbor Blvd. In the future, we need
	to call Bita Klein @ 949-945-8083 a few days before sampling and
	arrange to have somebody come to open the gate for us.
1400	While sampling well MW-19 → try to measure wells (MW-24-29-28)
	These wells ~~are~~ have trucks parked over them. The trucks are being worked
	on, have dead batteries. We are told by workers on the site that they cannot be
	started.

(Use additional sheets as needed.)

11. TIME AND ACTIVITY LOG (Continued)

TIME	DESCRIPTION
1415	We got around the car problem by maneuvering tubing down well. The wells were measured and are also going to be able to be sampled.
1450	Sample last well of day (MW-27) and proceed to complete measurement to GW of all wells on site.
1550	Complete measurement of wells, final one is MW-26. Pack up and clean up.
1600	Leave site. Go to Test America to drop off samples. Drive back to office.

ECO & ASSOCIATES, INC. – QUALITY CONTROL REPORT

DAILY LOG OF PROJECT ACTIVITIES

ECO PROJECT:	Eco-12-516	**REPORT NO.:**	
PROJECT LOCATION:	LA Times, North Tanks, Costa Mesa, CA	**DATE:**	05 - 27 - 16
DESCRIPTION:	GW Sampling 2Q-2016	**CONTRACT NO.:** -	
ONSITE PERSONNEL:	HT ~~DM~~ FT	**TASK ORDER NO.:** -	
SIGNATURE:	Helen R Thomas	**WEATHER CONDITION:**	Overcast 70°F

1. ANY DELAYS IN WORK PROGRESS TODAY? ☒ No ☐ Yes If yes, explain:

2. ANY VERBAL INSTRUCTION GIVEN BY THE GOVERNMENT, REGULATOR, OR CLIENT? ☒ No ☐ Yes If yes, to whom and explain:

3. ANY CONDITION DEVELOPED WHICH MIGHT LEAD TO A CHANGE ORDER OR CLAIM OR FINDINGS OF FACTS?

☒ No ☐ Yes If yes, explain:

ANY POTENTIAL CHANGE ORDER OR CLAIM MUST BE REPORTED TO THE PROJECT DIRECTOR/MANAGER.

4. ANY DEFICIENCIES, ACTIONS TAKEN TO CORRECT THE DEFICIENCIES? ☒ No ☐ Yes If yes, explain:

5. SAFETY MEETING/TAILGATE MEETING HELD TODAY? ☐ No ☒ Yes

ANY LOST TIME ACCIDENT TODAY? ☒ No ☐ Yes If yes, attach an accident report.

6. PRIME CONTRACTOR AND SUBCONTRACTOR WORK FORCE SIGN IN AND OUT IN THE SPACE BELOW.

NAME	INITIAL	COMPANY	TRADE	IN	OUT	IN	OUT	TOTAL HOURS
Helen Thomas	HT	Eco & Associates	Geology	0730	1345			
~~David Manoukian~~	~~DM~~	~~Eco & Associates~~	~~Geology~~					
Filmon Tesfaslasie	FT	Eco + Associates	Geology	0730	1345			

7A. CUMULATIVE HOURS WORKED PREVIOUSLY: N/A	**7B. TOTAL HOURS WORKED TODAY: N/A**	**TOTAL HOURS WORKED TO DATE (7A+7B): N/A**

ECO & ASSOCIATES, INC. – QUALITY CONTROL REPORT

DAILY LOG OF PROJECT ACTIVITIES

8. VISITOR'S LOG

NAME	INITIAL	COMPANY	IN	OUT	IN	OUT	IN	OUT

9. MAJOR ITEMS OF EQUIPMENT.

TYPE / CAPACITY	NUMBER	STANDBY HOURS	OPERATING HOURS

10. INSTRUMENT CALIBRATION

INSTRUMENT	DATE/TIME	METHOD	CALIBRATED?
Horiba U5000	5/27 @ 0800	autocal soln	yes
PID	5/27 @ 0800	methane	yes

11. TIME AND ACTIVITY LOG

TIME	DESCRIPTION
0730	HT / FT arrive on site after packing up truck @ office and buying ice
0745	HT makes trip blank for day. Begin sampling wells in LA Times parking lot
	starting w/ Northern (Low contaminant) wells. MW-30, then southward.
1290	Complete wells in LA Times lot. All wells sampled. Move on to well located
	across Sunflower Ave (MW-26)
1240	Sample well MW-23 in Northern parking lot
1300	Return to LA times parking lot and sample final well, MW-26,
	b/c it was forgotten
1315	Well is very turbid - need to have extended purge time
1330	~~tea~~ HT / FT dump purge water + trash @ storage pen
1345	Leave site to drop off samples @ lab and unpack trucks @ office
1400	Drop samples (1 cooler w/ 11 samples + 1 trip blank) off @ Test America w/ no issues
1430	Return to office to unload truck

(Use additional sheets as needed.)

MONITORING WELL NO: **MW-17**

GROUNDWATER SAMPLING LOG

FIELD DATA

Date: **5/27/16**

Weather: Overcast

Sampling Crew: HT FT

Amb. Temp.: 72°F

WATER ELEVATION DATA

1) Well Reference Elevation: _____ ft. (above MSL)

2) Depth to Water Surface: 18.12 ft.

3) Static Water Elevation: _____ ft. (#1-#2)

4) Depth to Well Bottom: _____ ft.

5) Height of Water Column _____ ft. (#4-#2)

6) 80% ReQKarge _____ ft.

7) Water Volume in Well= _____ gal.

(__2" : h × 0.163 gal/ft, __ 4" : h × 653 gal/ft)

Total Water Volume = _____ gal. (#7×3)

Well Reference Point: BTOC

Well Sounding Method: SOLINST GW METER

PRODUCT OBSERVATION

Product observed: Yes: _____ No: X

Product Thickness (in): N/A

Method of measurement: _____

Product Appearance: N/A

PiD= 0.7 ppm

WELL PURGE DATA

Purge Method: PERISTALTIC PUMP / LOW FLOW / FLOW THROUGH CELL

Date: 5/27/16

Total Volume Purged (gallons): _____

Time	Temp (°C)	pH	ORP (mV)	Cond. (mS/cm)	Turbidity (NTU)	DO (mg/L)	Rate (mL/min)	Comments	Depth to water (ft.)
1046	BEGIN	PURGE							
1050	23.30	7.24	-116	10.1	0.2	2.36	100		
1054	23.74	7.26	-138	10.5	0.2	1.04	100		
1058	23.95	7.25	-145	10.6	0.0	0.73	100		
1102	23.93	7.25	-144	10.5	0.0	0.71	100		
1103	Collect	Sample							

Sampler Initials: HT DM

WATER SAMPLE DATA

Date: 5/27/16

Sample ID	Analysis	Container(s)	Preservative	Time	Depth (ft.)	Physical Appearance	Comments
MW-17		5 X 40 mL VOA	HCL	1103	20.0	CLEAR	

QUALITY CONTROL SAMPLE

Duplicate Samples		Blank Samples		Other Samples	
Original Sample ID	Duplicate Sample ID	Type	Sample ID	Type	Sample ID
	N/A		N/A		N/A

Eco & Associates, Inc. Project No: **Eco-12-516** Date: 5/27/16

MONITORING WELL NO: **MW-18**

GROUNDWATER SAMPLING LOG

FIELD DATA

Date: **5/27/16**

Weather: Overcast

Sampling Crew: HT FT

Amb. Temp.: 72°F

WATER ELEVATION DATA

1) Well Reference Elevation: _____ ft. (above MSL)

2) Depth to Water Surface: 18.13 ft.

3) Static Water Elevation: _____ ft. (#1-#2)

4) Depth to Well Bottom: _____ ft.

5) Height of Water Column _____ ft. (#4-#2)

6) 80% ReQKarge _____ ft.

7) Water Volume in Well= _____ gal.

(__2" : h × 0.163 gal/ft, __ 4" : h × 653 gal/ft)

Total Water Volume = _____ gal. (#7×3)

Well Reference Point: BTOC

Well Sounding Method: SOLINST GW METER

PRODUCT OBSERVATION

Product observed: Yes: _____ No: X

Product Thickness (in): N/A

Method of measurement: _____

Product Appearance: N/A

WELL PURGE DATA

Purge Method: PERISTALTIC PUMP / LOW FLOW / FLOW THROUGH CELL

Date: 5/27/16

Total Volume Purged (gallons): _____

Time	Temp (°C)	pH	ORP (mV)	Cond. (mS/cm)	Turbidity (NTU)	DO (mg/L)	Rate (mL/min)	Comments	Depth to water (ft.)
1106	BEGIN	PURGE							
1110	24.14	7.19	-190	6.67	1.7	3.16	100		
1114	23.98	7.17	-215	4.43	1.7	3.27	100		
1118	23.96	7.17	-224	4.40	1.8	3.02	100		
1119	Collect	sample						PID = 0.0 ppm	

Sampler Initials: HT FT

WATER SAMPLE DATA

Date: 5/27/16

Sample ID	Analysis	Container(s)	Preservative	Time	Depth (ft.)	Physical Appearance	Comments
MW-18		5 X 40 mL VOA	HCL	1119	20.0	CLEAR	

QUALITY CONTROL SAMPLE

Duplicate Samples		Blank Samples		Other Samples	
Original Sample ID	Duplicate Sample ID	Type	Sample ID	Type	Sample ID
	N/A		N/A		

Eco & Associates, Inc. Project No: **Eco-12-516** Date: 5/27/16

MONITORING WELL NO: **MW-19**

GROUNDWATER SAMPLING LOG

FIELD DATA

Date: **5/26/16**

Weather: SUNNY

Sampling Crew: HT FT

Amb. Temp.: 75°F

WATER ELEVATION DATA

1) Well Reference Elevation: _____ ft. (above MSL)

2) Depth to Water Surface: 19.11 ft.

3) Static Water Elevation: _____ ft. (#1-#2)

4) Depth to Well Bottom: _____ ft.

5) Height of Water Column _____ ft. (#4-#2)

6) 80% ReQKarge _____ ft.

7) Water Volume in Well= _____ gal.

(__2" : h × 0.163 gal/ft, __ 4" : h × 653 gal/ft)

Total Water Volume = _____ gal. (#7×3)

Well Reference Point: BTOC

Well Sounding Method: SOLINST GW METER

PRODUCT OBSERVATION

Product observed: Yes: _____ No: X

Product Thickness (in): N/A

Method of measurement: _____

Product Appearance: N/A

WELL PURGE DATA

Purge Method: PERISTALTIC PUMP / LOW FLOW / FLOW THROUGH CELL

Date: 5/26/16

Total Volume Purged (gallons): _____

Time	Temp (°C)	pH	ORP (mV)	Cond. (mS/cm)	Turbidity (NTU)	DO (mg/L)	Rate (mL/min)	Comments	Depth to water (ft.)
1405	BEGIN	PURGE							
1409	26.09	6.98	-96	3.25	0.0	10.33	100		
1413	25.70	6.99	-101	3.30	0.0	6.20	100		
1417	25.40	7.00	-106	3.36	0.0	5.19	100		
1421	25.28	7.00	-111	3.38	0.0	5.18	100		
1423	Collect	Sample							
								PID = 0.7 ppm	

Sampler Initials: HT FT

WATER SAMPLE DATA

Date: 5/26/16

Sample ID	Analysis	Container(s)	Preservative	Time	Depth (ft.)	Physical Appearance	Comments
MW-19		5 X 40 mL VOA	HCL	1423	21.0	CLEAR	

QUALITY CONTROL SAMPLE

Duplicate Samples		Blank Samples		Other Samples	
Original Sample ID	Duplicate Sample ID	Type	Sample ID	Type	Sample ID
	N/A		N/A		N/A

Eco & Associates, Inc. Project No: **Eco-12-516** Date: 5/26/16

MONITORING WELL NO: **MW-20**

GROUNDWATER SAMPLING LOG

FIELD DATA

Date: **5/27/16**

Weather: Overcast

Sampling Crew: HT FT

Amb. Temp.: 70°F

WATER ELEVATION DATA

1) Well Reference Elevation: _____ ft. (above MSL)

2) Depth to Water Surface: 16.75 ft.

3) Static Water Elevation: _____ ft. (#1-#2)

4) Depth to Well Bottom: _____ ft.

5) Height of Water Column _____ ft. (#4-#2)

6) 80% ReQKarge _____ ft.

7) Water Volume in Well= _____ gal.

(__2" : h × 0.163 gal/ft, __ 4" : h × 653 gal/ft)

Total Water Volume = _____ gal. (#7×3)

Well Reference Point: BTOC

Well Sounding Method: SOLINST GW METER

PRODUCT OBSERVATION

Product observed: Yes: _____ No: X

Product Thickness (in): N/A

Method of measurement: _____

Product Appearance: N/A

WELL PURGE DATA

Purge Method: PERISTALTIC PUMP / LOW FLOW / FLOW THROUGH CELL

Date: 2/24/16

Total Volume Purged (gallons): _____

Time	Temp (°C)	pH	ORP (mV)	Cond. (mS/cm)	Turbidity (NTU)	DO (mg/L)	Rate (mL/min)	Comments	Depth to water (ft.)
1022	BEGIN	PURGE							
1026	22.81	7.14	-125	5.49	0.0	3.83	100		
1030	22.86	7.15	-127	5.46	0.0	3.67	100		
1034	22.87	7.15	-128	5.45	0.0	3.37	100		
1035	Collect	Sample						PID = 0.5 ppm	

Sampler Initials: HT FT

WATER SAMPLE DATA

Date: 5/27/16

Sample ID	Analysis	Container(s)	Preservative	Time	Depth (ft.)	Physical Appearance	Comments
MW-20		5 X 40 mL VOA	HCL	1222	1035	CLEAR	

QUALITY CONTROL SAMPLE

Duplicate Samples		Blank Samples		Other Samples	
Original Sample ID	Duplicate Sample ID	Type	Sample ID	Type	Sample ID
	N/A		N/A		N/A

Eco & Associates, Inc. Project No: **Eco-12-516** Date: 5/27/16

MONITORING WELL NO: **MW-21**

GROUNDWATER SAMPLING LOG

FIELD DATA

Date: **5/27/16**

Weather: Overcast

Sampling Crew: HT FT

Amb. Temp.: 70°F

WATER ELEVATION DATA

1) Well Reference Elevation: _____ ft. (above MSL)

2) Depth to Water Surface: 16.85 ft.

3) Static Water Elevation: _____ ft. (#1-#2)

4) Depth to Well Bottom: _____ ft.

5) Height of Water Column _____ ft. (#4-#2)

6) 80% ReQKarge _____ ft.

7) Water Volume in Well= _____ gal.

(__2" : h × 0.163 gal/ft, __ 4" : h × 653 gal/ft)

Total Water Volume = _____ gal. (#7×3)

Well Reference Point: BTOC

Well Sounding Method: SOLINST GW METER

PRODUCT OBSERVATION

Product observed: Yes: _____ No: X

Product Thickness (in): _____

Method of measurement: _____

Product Appearance: _____

WELL PURGE DATA

Purge Method: PERISTALTIC PUMP / LOW FLOW / FLOW THROUGH CELL

Date: 5/27/16

Total Volume Purged (gallons): _____

Time	Temp (°C)	pH	ORP (mV)	Cond. (mS/cm)	Turbidity (NTU)	DO (mg/L)	Rate (mL/min)	Comments	Depth to water (ft.)
0946	BEGIN	PURGE							
0950	22.11	6.97	-249	4.74	0.2	1.91	100		
0954	22.60	7.14	-205	5.91	6.2	1.19	100		
0958	22.67	7.15	-195	5.91	6.3	1.07	100		
1002	22.67	7.15	-195	5.91	6.1	1.07	100	PID = 0.0 ppm	
1003	Collect	Sample							

Sampler Initials: HT FT

WATER SAMPLE DATA

Date: 5/27/16

Sample ID	Analysis	Container(s)	Preservative	Time	Depth (ft.)	Physical Appearance	Comments
MW-21		5 X 40 mL VOA	HCL	1003	19.0	CLEAR	

QUALITY CONTROL SAMPLE

Duplicate Samples		Blank Samples		Other Samples	
Original Sample ID	Duplicate Sample ID	Type	Sample ID	Type	Sample ID
	N/A		N/A		

Eco & Associates, Inc. Project No: **Eco-12-516** Date: 5/27/16

MONITORING WELL NO: **MW-22**

GROUNDWATER SAMPLING LOG

FIELD DATA

Date: **5/27/16**

Weather: Overcast

Sampling Crew: HT FT

Amb. Temp.: 70°F

WATER ELEVATION DATA

1) Well Reference Elevation: _____ ft. (above MSL)

2) Depth to Water Surface: 19.95 ft.

3) Static Water Elevation: _____ ft. (#1-#2)

4) Depth to Well Bottom: _____ ft.

5) Height of Water Column _____ ft. (#4-#2)

6) 80% ReQKarge _____ ft.

7) Water Volume in Well= _____ gal.

(__2" : h × 0.163 gal/ft, __ 4" : h × 653 gal/ft)

Total Water Volume = _____ gal. (#7×3)

Well Reference Point: BTOC

Well Sounding Method: SOLINST GW METER

PRODUCT OBSERVATION

Product observed: Yes: _____ No: X

Product Thickness (in): _____

Method of measurement: N/A

Product Appearance: N/A

WELL PURGE DATA

Purge Method: PERISTALTIC PUMP / LOW FLOW / FLOW THROUGH CELL

Date: 5/27/16

Total Volume Purged (gallons): _____

Time	Temp (°C)	pH	ORP (mV)	Cond. (mS/cm)	Turbidity (NTU)	DO (mg/L)	Rate (mL/min)	Comments	Depth to water (ft.)
0812	BEGIN	PURGE							
0816	21.20	7.06	-131	3.00	0.0	4.14	100		
0820	21.79	6.94	-189	2.68	0.0	1.32	100		
0824	21.78	6.94	-190	2.68	0.0	1.31	100		
0825	Collect	Sample							
								PID = 0.0 ppm	

Sampler Initials: HT FT

WATER SAMPLE DATA

Date: 5/27/16

Sample ID	Analysis	Container(s)	Preservative	Time	Depth (ft.)	Physical Appearance	Comments
MW-22		5 X 40 mL VOA	HCL	0825	22.0	CLEAR	

QUALITY CONTROL SAMPLE

Duplicate Samples		Blank Samples		Other Samples	
Original Sample ID	Duplicate Sample ID	Type	Sample ID	Type	Sample ID
	N/A		N/A		N/A

Eco & Associates, Inc. Project No: **Eco-12-516** Date: 5/27/16

MONITORING WELL NO: **MW-23**

GROUNDWATER SAMPLING LOG

FIELD DATA

Date: **5/27/16**

Weather: SUNNY

Sampling Crew: HT FT

Amb. Temp.: 75°F

WATER ELEVATION DATA

1) Well Reference Elevation: _____ ft. (above MSL)

2) Depth to Water Surface: 17.68 ft.

3) Static Water Elevation: _____ ft. (#1-#2)

4) Depth to Well Bottom: _____ ft.

5) Height of Water Column _____ ft. (#4-#2)

6) 80% ReQKarge _____ ft.

7) Water Volume in Well= _____ gal.

(__2" : h × 0.163 gal/ft, __ 4" : h × 653 gal/ft)

Total Water Volume = _____ gal. (#7×3)

Well Reference Point: BTOC

Well Sounding Method: SOLINST GW METER

PRODUCT OBSERVATION

Product observed: Yes: _____ No: X

Product Thickness (in): N/A

Method of measurement: _____

Product Appearance: N/A

WELL PURGE DATA

Purge Method: PERISTALTIC PUMP / LOW FLOW / FLOW THROUGH CELL

Date: 5/27/16

Total Volume Purged (gallons): _____

Time	Temp (°C)	pH	ORP (mV)	Cond. (mS/cm)	Turbidity (NTU)	DO (mg/L)	Rate (mL/min)	Comments	Depth to water (ft.)
1258	BEGIN	PURGE							
1302	26.07	6.86	46	3.48	0.0	6.19	100		
1306	25.82	6.86	89	3.57	0.0	3.98	100		
1310	25.79	6.86	77	3.59	0.0	3.75	100		
1314	25.77	6.86	72	3.58	0.0	3.55	100	PID = 0.0 ppm	
1315	Collect	Sample						No interior well cap	
								Reading not	
								Representative of	
								headspace	

Sampler Initials: HT FT

WATER SAMPLE DATA

Date: 5/27/16

Sample ID	Analysis	Container(s)	Preservative	Time	Depth (ft.)	Physical Appearance	Comments
MW-23		5 X 40 mL VOA	HCL	1315	19.5	CLEAR	

QUALITY CONTROL SAMPLE

Duplicate Samples		Blank Samples		Other Samples	
Original Sample ID	Duplicate Sample ID	Type	Sample ID	Type	Sample ID
	N/A		N/A		N/A

Eco & Associates, Inc. Project No: **Eco-12-516** Date: 5/27/16

MONITORING WELL NO: **MW-24**

GROUNDWATER SAMPLING LOG

FIELD DATA

Date: **5/27/16**

Weather: Overcast

Sampling Crew: HT FT

Amb. Temp.: 70°F

WATER ELEVATION DATA

1) Well Reference Elevation: _____ ft. (above MSL)

2) Depth to Water Surface: 19.50 ft.

3) Static Water Elevation: _____ ft. (#1-#2)

4) Depth to Well Bottom: _____ ft.

5) Height of Water Column _____ ft. (#4-#2)

6) 80% ReQKarge _____ ft.

7) Water Volume in Well= _____ gal.

(__2" : h × 0.163 gal/ft, __ 4" : h × 653 gal/ft)

Total Water Volume = _____ gal. (#7×3)

Well Reference Point: BTOC

Well Sounding Method: SOLINST GW METER

PRODUCT OBSERVATION

Product observed: Yes: _____ No: X

Product Thickness (in): N/A

Method of measurement: _____

Product Appearance: N/A

WELL PURGE DATA

Purge Method: PERISTALTIC PUMP / LOW FLOW / FLOW THROUGH CELL

Date: 5/27/16

Total Volume Purged (gallons): _____

Time	Temp (°C)	pH	ORP (mV)	Cond. (mS/cm)	Turbidity (NTU)	DO (mg/L)	Rate (mL/min)	Comments	Depth to water (ft.)
0920	BEGIN	PURGE							
0924	21.82	6.82	-225	2.10	0.6	1.78	100		
0928	22.01	6.90	-262	2.27	0.4	1.87	100		
0932	22.18	6.92	-271	2.29	0.0	1.85	100		
0933	Collect	Sample							
								PID = 0.1 ppm	

Sampler Initials: HT FT

WATER SAMPLE DATA

Date: 5/27/16

Sample ID	Analysis	Container(s)	Preservative	Time	Depth (ft.)	Physical Appearance	Comments
MW-24		5 X 40 mL VOA	HCL	0933	21.5	CLEAR	

QUALITY CONTROL SAMPLE

Duplicate Samples		Blank Samples		Other Samples	
Original Sample ID	Duplicate Sample ID	Type	Sample ID	Type	Sample ID
	N/A		N/A		N/A

Eco & Associates, Inc. Project No: **Eco-12-516** Date: 5/27/16

MONITORING WELL NO: **MW-25R**

GROUNDWATER SAMPLING LOG

FIELD DATA

Date: **5/26/16**

Weather: SUNNY

Sampling Crew: HT FT

Amb. Temp.: 72°F

WATER ELEVATION DATA

1) Well Reference Elevation: _____ ft. (above MSL)

2) Depth to Water Surface: 19.03 ft.

3) Static Water Elevation: _____ ft. (#1-#2)

4) Depth to Well Bottom: _____ ft.

5) Height of Water Column _____ ft. (#4-#2)

6) 80% ReQKarge _____ ft.

7) Water Volume in Well= _____ gal.

(__2" : h × 0.163 gal/ft, __ 4" : h × 653 gal/ft)

Total Water Volume = _____ gal. (#7×3)

Well Reference Point: BTOC

Well Sounding Method: SOLINST GW METER

PRODUCT OBSERVATION

Product observed: Yes: _____ No: X

Product Thickness (in): N/A

Method of measurement: _____

Product Appearance: N/A

WELL PURGE DATA

Purge Method: PERISTALTIC PUMP / LOW FLOW / FLOW THROUGH CELL

Date: 5/26/16

Total Volume Purged (gallons): _____

Time	Temp (°C)	pH	ORP (mV)	Cond. (mS/cm)	Turbidity (NTU)	DO (mg/L)	Rate (mL/min)	Comments	Depth to water (ft.)
1246	BEGIN	PURGE							
1250	24.09	6.63	-284	2.66	1.2	6.11	100		
1254	24.21	6.63	-258	2.88	1.5	5.65	100		
1258	24.27	6.63	-242	2.97	1.5	4.93	100		
1302	24.25	6.63	-240	2.98	1.5	4.91	100		
1303	Collect	Sample							
								PID = 0.3 ppm	

Sampler Initials: HT FT

WATER SAMPLE DATA

Date: 5/26/16

Sample ID	Analysis	Container(s)	Preservative	Time	Depth (ft.)	Physical Appearance	Comments
MW-25R		5 X 40 mL VOA	HCL	1303	21.0	CLEAR	

QUALITY CONTROL SAMPLE

Duplicate Samples		Blank Samples		Other Samples	
Original Sample ID	Duplicate Sample ID	Type	Sample ID	Type	Sample ID
	N/A		N/A		N/A

Eco & Associates, Inc. Project No: **Eco-12-516** Date: 5/26/16

MONITORING WELL NO: **MW-26**

GROUNDWATER SAMPLING LOG

FIELD DATA

Date: **5/27/16**

Weather: SUNNY

Sampling Crew: HT FT

Amb. Temp.: 72°F

WATER ELEVATION DATA

1) Well Reference Elevation: _____ ft. (above MSL)

2) Depth to Water Surface: 15.20 ft.

3) Static Water Elevation: _____ ft. (#1-#2)

4) Depth to Well Bottom: _____ ft.

5) Height of Water Column _____ ft. (#4-#2)

6) 80% ReQKarge _____ ft.

7) Water Volume in Well= _____ gal.

(__2" : h × 0.163 gal/ft, __ 4" : h × 653 gal/ft)

Total Water Volume = _____ gal. (#7×3)

Well Reference Point: BTOC

Well Sounding Method: SOLINST GW METER

PRODUCT OBSERVATION

Product observed: Yes: _____ No: X

Product Thickness (in): N/A

Method of measurement: _____

Product Appearance: N/A

WELL PURGE DATA

Purge Method: PERISTALTIC PUMP / LOW FLOW / FLOW THROUGH CELL

Date: 5/27/16

Total Volume Purged (gallons): _____

Time	Temp (°C)	pH	ORP (mV)	Cond. (mS/cm)	Turbidity (NTU)	DO (mg/L)	Rate (mL/min)	Comments	Depth to water (ft.)
1227	BEGIN	PURGE							
1231	25.53	7.03	-162	2.79	0.2	1.90	100		
1235	25.87	6.90	-132	2.16	0.0	1.08	100		
1239	25.94	6.87	-119	2.04	0.0	1.06	100		
1240	Collect	Sample							
								PID = 0.0 ppm	

Sampler Initials: HT FT

WATER SAMPLE DATA

Date: 5/27/16

Sample ID	Analysis	Container(s)	Preservative	Time	Depth (ft.)	Physical Appearance	Comments
MW-26		5 X 40 mL VOA	HCL	1240	17.0	CLEAR	

QUALITY CONTROL SAMPLE

Duplicate Samples		Blank Samples		Other Samples	
Original Sample ID	Duplicate Sample ID	Type	Sample ID	Type	Sample ID
	N/A		N/A		N/A

Eco & Associates, Inc. Project No: **Eco-12-516** Date: 5/27/16

MONITORING WELL NO: **MW-27**

GROUNDWATER SAMPLING LOG

FIELD DATA

Date: **5/26/16**

Weather: Sunny

Sampling Crew: HT FT

Amb. Temp.: 75°F

WATER ELEVATION DATA

1) Well Reference Elevation: _____ ft. (above MSL)

2) Depth to Water Surface: 19.32 ft.

3) Static Water Elevation: _____ ft. (#1-#2)

4) Depth to Well Bottom: _____ ft.

5) Height of Water Column _____ ft. (#4-#2)

6) 80% ReQKarge _____ ft.

7) Water Volume in Well= _____ gal.

(__2" : h × 0.163 gal/ft, __ 4" : h × 653 gal/ft)

Total Water Volume = _____ gal. (#7×3)

Well Reference Point: BTOC

Well Sounding Method: SOLINST GW METER

PRODUCT OBSERVATION

Product observed: Yes: _____ No: X

Product Thickness (in): N/A

Method of measurement: _____

Product Appearance: N/A

WELL PURGE DATA

Purge Method: PERISTALTIC PUMP / LOW FLOW / FLOW THROUGH CELL

Date: 5/26/16

Total Volume Purged (gallons): _____

Time	Temp (°C)	pH	ORP (mV)	Cond. (mS/cm)	Turbidity (NTU)	DO (mg/L)	Rate (mL/min)	Comments	Depth to water (ft.)
1438	BEGIN	PURGE							
1442	25.29	7.07	-188	2.62	0.1	5.37	100		
1446	24.89	7.10	-213	2.19	0.1	4.56	100		
1450	24.75	7.08	-212	2.18	0.0	4.21	100		
1451	Collect	Sample							
								PID = 0.0 ppm	

Sampler Initials: HT FT

WATER SAMPLE DATA

Date: 5/26/16

Sample ID	Analysis	Container(s)	Preservative	Time	Depth (ft.)	Physical Appearance	Comments
MW-27		5 X 40 mL VOA	HCL	1451	21.5	CLEAR	

QUALITY CONTROL SAMPLE

Duplicate Samples		Blank Samples		Other Samples	
Original Sample ID	Duplicate Sample ID	Type	Sample ID	Type	Sample ID
	N/A		N/A		N/A

Eco & Associates, Inc. Project No: **Eco-12-516** Date: 5/26/16

MONITORING WELL NO: **MW-28**

GROUNDWATER SAMPLING LOG

FIELD DATA

Date: **5/27/16**

Weather: Overcast

Sampling Crew: HT FT

Amb. Temp.: 70°F

WATER ELEVATION DATA

1) Well Reference Elevation: _____ ft. (above MSL)

2) Depth to Water Surface: 19.70 ft.

3) Static Water Elevation: _____ ft. (#1-#2)

4) Depth to Well Bottom: _____ ft.

5) Height of Water Column _____ ft. (#4-#2)

6) 80% ReQKarge _____ ft.

7) Water Volume in Well= _____ gal.

(__2" : h × 0.163 gal/ft, __ 4" : h × 653 gal/ft)

Total Water Volume = _____ gal. (#7×3)

Well Reference Point: BTOC

Well Sounding Method: SOLINST GW METER

PRODUCT OBSERVATION

Product observed: Yes: _____ No: X

Product Thickness (in): N/A

Method of measurement: _____

Product Appearance: N/A

WELL PURGE DATA

Purge Method: PERISTALTIC PUMP / LOW FLOW / FLOW THROUGH CELL

Date: 5/27/16

Total Volume Purged (gallons): _____

Time	Temp (°C)	pH	ORP (mV)	Cond. (mS/cm)	Turbidity (NTU)	DO (mg/L)	Rate (mL/min)	Comments	Depth to water (ft.)
0903	BEGIN	PURGE							
0907	22.36	6.78	-115	1.17	1.2	9.40	100		
0911	22.17	6.75	-158	1.50	0.0	8.29	100		
0915	22.15	6.74	-156	1.51	0.0	8.27	100		
0916	Collect	Sample							
								PID = 0.0 ppm	

Sampler Initials: HT FT

WATER SAMPLE DATA

Date: 5/27/16

Sample ID	Analysis	Container(s)	Preservative	Time	Depth (ft.)	Physical Appearance	Comments
MW-28		5 X 40 mL VOA	HCL	0916	22.0	CLEAR	

QUALITY CONTROL SAMPLE

Duplicate Samples		Blank Samples		Other Samples	
Original Sample ID	Duplicate Sample ID	Type	Sample ID	Type	Sample ID
	N/A		N/A		N/A

Eco & Associates, Inc. Project No: **Eco-12-516** Date: 5/27/16

MONITORING WELL NO: **MW-29**

GROUNDWATER SAMPLING LOG

FIELD DATA

Date: **5/27/16**

Weather: Overcast

Sampling Crew: HT FT

Amb. Temp.: 70°F

WATER ELEVATION DATA

1) Well Reference Elevation: _____ ft. (above MSL)

2) Depth to Water Surface: 18.93 ft.

3) Static Water Elevation: _____ ft. (#1-#2)

4) Depth to Well Bottom: _____ ft.

5) Height of Water Column _____ ft. (#4-#2)

6) 80% ReQKarge _____ ft.

7) Water Volume in Well= _____ gal.

(__2" : h × 0.163 gal/ft, __ 4" : h × 653 gal/ft)

Total Water Volume = _____ gal. (#7×3)

Well Reference Point: BTOC

Well Sounding Method: SOLINST GW METER

PRODUCT OBSERVATION

Product observed: Yes: _____ No: X

Product Thickness (in): N/A

Method of measurement: _____

Product Appearance: N/A

WELL PURGE DATA

Purge Method: PERISTALTIC PUMP / LOW FLOW / FLOW THROUGH CELL

Date: 5/27/16

Total Volume Purged (gallons): _____

Time	Temp (°C)	pH	ORP (mV)	Cond. (mS/cm)	Turbidity (NTU)	DO (mg/L)	Rate (mL/min)	Comments	Depth to water (ft.)
0842	BEGIN	PURGE							
0846	22.03	6.92	-165	1.77	0.4	1.48	100		
0850	22.70	6.85	-148	1.08	0.0	1.03	100		
0854	22.71	6.84	-148	1.06	0.0	1.04	100		
0855	Collect	Sample							
								PID = 0.0 ppm	

Sampler Initials: HT FT

WATER SAMPLE DATA

Date: 5/27/16

Sample ID	Analysis	Container(s)	Preservative	Time	Depth (ft.)	Physical Appearance	Comments
MW-29		5 X 40 mL VOA	HCL	0855	19.5	CLEAR	

QUALITY CONTROL SAMPLE

Duplicate Samples		Blank Samples		Other Samples	
Original Sample ID	Duplicate Sample ID	Type	Sample ID	Type	Sample ID
	N/A		N/A		N/A

Eco & Associates, Inc. Project No: **Eco-12-516** Date: 5/27/16

MONITORING WELL NO: **MW-30**

GROUNDWATER SAMPLING LOG

FIELD DATA

Date: **5/27/16**

Weather: Overcast

Sampling Crew: HT FT

Amb. Temp.: 70°F

WATER ELEVATION DATA

1) Well Reference Elevation: _____ ft. (above MSL)

2) Depth to Water Surface: 19.00 ft.

3) Static Water Elevation: _____ ft. (#1-#2)

4) Depth to Well Bottom: _____ ft.

5) Height of Water Column _____ ft. (#4-#2)

6) 80% ReQKarge _____ ft.

7) Water Volume in Well= _____ gal.

(__2" : h × 0.163 gal/ft, __ 4" : h × 653 gal/ft)

Total Water Volume = _____ gal. (#7×3)

Well Reference Point: BTOC

Well Sounding Method: SOLINST GW METER

PRODUCT OBSERVATION

Product observed: Yes: _____ No: X

Product Thickness (in): N/A

Method of measurement: _____

Product Appearance: N/A

WELL PURGE DATA

Purge Method: PERISTALTIC PUMP / LOW FLOW / FLOW THROUGH CELL

Date: 5/27/16

Total Volume Purged (gallons): _____

Time	Temp (°C)	pH	ORP (mV)	Cond. (mS/cm)	Turbidity (NTU)	DO (mg/L)	Rate (mL/min)	Comments	Depth to water (ft.)
0748	BEGIN	PURGE							
0752	19.97	6.08	41	3.60	0.1	3.63	100		
0756	20.87	6.76	-30	3.60	0.0	1.67	100		
0800	20.89	6.78	-32	3.60	0.0	1.64	100		
0801	Collect	Sample							
								PID = 0.0 ppm	

Sampler Initials: HT FT

WATER SAMPLE DATA

Date: 5/27/16

Sample ID	Analysis	Container(s)	Preservative	Time	Depth (ft.)	Physical Appearance	Comments
MW-30		5 X 40 mL VOA	HCL	0801	21.50	CLEAR	

QUALITY CONTROL SAMPLE

Duplicate Samples		Blank Samples		Other Samples	
Original Sample ID	Duplicate Sample ID	Type	Sample ID	Type	Sample ID
	N/A		N/A		N/A

Eco & Associates, Inc. Project No: **Eco-12-516** Date: 5/27/16

MONITORING WELL NO: **MW-31**

GROUNDWATER SAMPLING LOG

FIELD DATA

Date: **5/26/16**

Weather: Overcast

Sampling Crew: HT FT

Amb. Temp.: 70°F

WATER ELEVATION DATA

1) Well Reference Elevation: _____ ft. (above MSL)

2) Depth to Water Surface: 17.56 ft.

3) Static Water Elevation: _____ ft. (#1-#2)

4) Depth to Well Bottom: _____ ft.

5) Height of Water Column _____ ft. (#4-#2)

6) 80% ReQKarge _____ ft.

7) Water Volume in Well= _____ gal.

(__2" : h × 0.163 gal/ft, __ 4" : h × 653 gal/ft)

Total Water Volume = _____ gal. (#7×3)

Well Reference Point: BTOC

Well Sounding Method: SOLINST GW METER

PRODUCT OBSERVATION

Product observed: Yes: _____ No: X

Product Thickness (in): N/A

Method of measurement: _____

Product Appearance: N/A

WELL PURGE DATA

Purge Method: PERISTALTIC PUMP / LOW FLOW / FLOW THROUGH CELL

Date: 5/26/16

Total Volume Purged (gallons): _____

Time	Temp (°C)	pH	ORP (mV)	Cond. (mS/cm)	Turbidity (NTU)	DO (mg/L)	Rate (mL/min)	Comments	Depth to water (ft.)
0917	BEGIN	PURGE							
0921	22.97	6.59	-173	1.50	3.2	6.27	100		
0925	23.04	6.52	-150	1.40	3.5	4.25	100		
0929	23.13	6.45	-125	1.36	0.3	2.90	100		
0930	Collect	Sample							
								PID = 0.4 ppm	

Sampler Initials: HT FT

WATER SAMPLE DATA

Date: 5/26/16

Sample ID	Analysis	Container(s)	Preservative	Time	Depth (ft.)	Physical Appearance	Comments
MW-31		5 X 40 mL VOA	HCL	0930	20.0	CLEAR	

QUALITY CONTROL SAMPLE

Duplicate Samples		Blank Samples		Other Samples	
Original Sample ID	Duplicate Sample ID	Type	Sample ID	Type	Sample ID
	N/A		N/A		N/A

Eco & Associates, Inc. Project No: **Eco-12-516** Date: 5/26/16

MONITORING WELL NO: **MW-33**

GROUNDWATER SAMPLING LOG

FIELD DATA

Date: **5/26/16**

Weather: Sunny

Sampling Crew: HT FT

Amb. Temp.: 72°F

WATER ELEVATION DATA

1) Well Reference Elevation: _____ ft. (above MSL)

2) Depth to Water Surface: 20.60 ft.

3) Static Water Elevation: _____ ft. (#1-#2)

4) Depth to Well Bottom: _____ ft.

5) Height of Water Column _____ ft. (#4-#2)

6) 80% ReQKarge _____ ft.

7) Water Volume in Well= _____ gal.

(__2" : h × 0.163 gal/ft, __ 4" : h × 653 gal/ft)

Total Water Volume = _____ gal. (#7×3)

Well Reference Point: BTOC

Well Sounding Method: SOLINST GW METER

PRODUCT OBSERVATION

Product observed: Yes: _____ No: X

Product Thickness (in): _____

Method of measurement: N/A

Product Appearance: N/A

WELL PURGE DATA

Purge Method: PERISTALTIC PUMP / LOW FLOW / FLOW THROUGH CELL

Date: 5/26/16

Total Volume Purged (gallons): _____

Time	Temp (°C)	pH	ORP (mV)	Cond. (mS/cm)	Turbidity (NTU)	DO (mg/L)	Rate (mL/min)	Comments	Depth to water (ft.)
1219	BEGIN	PURGE							
1223	24.84	6.74	-172	1.99	2.6	4.13	100		
1227	24.84	6.60	-263	1.95	0.7	2.36	100		
1231	24.82	6.59	-264	2.00	0.4	2.01	100		
1232	Collect	Sample						PID = 0.0 ppm	
								No interior well	
								Cover. Reading not	
								Representative of	
								headspace	

Sampler Initials: HT FT

WATER SAMPLE DATA

Date: 5/26/16

Sample ID	Analysis	Container(s)	Preservative	Time	Depth (ft.)	Physical Appearance	Comments
MW-33		5 X 40 mL VOA	HCL	1232	21.5	CLEAR	

QUALITY CONTROL SAMPLE

Duplicate Samples		Blank Samples		Other Samples	
Original Sample ID	Duplicate Sample ID	Type	Sample ID	Type	Sample ID
	N/A		N/A		N/A

Eco & Associates, Inc. Project No: **Eco-12-516** Date: 5/26/16

MONITORING WELL NO: **MW-34**

GROUNDWATER SAMPLING LOG

FIELD DATA

Date: **5/26/16**

Weather: Sunny

Sampling Crew: HT FT

Amb. Temp.: 72°F

WATER ELEVATION DATA

1) Well Reference Elevation: _____ ft. (above MSL)

2) Depth to Water Surface: 19.63 ft.

3) Static Water Elevation: _____ ft. (#1-#2)

4) Depth to Well Bottom: _____ ft.

5) Height of Water Column _____ ft. (#4-#2)

6) 80% ReQKarge _____ ft.

7) Water Volume in Well= _____ gal.

(__2" : h × 0.163 gal/ft, __ 4" : h × 653 gal/ft)

Total Water Volume = _____ gal. (#7×3)

Well Reference Point: BTOC

Well Sounding Method: SOLINST GW METER

PRODUCT OBSERVATION

Product observed: Yes: _____ No: X

Product Thickness (in): N/A

Method of measurement: _____

Product Appearance: N/A

WELL PURGE DATA

Purge Method: PERISTALTIC PUMP / LOW FLOW / FLOW THROUGH CELL

Date: 5/26/16

Total Volume Purged (gallons): _____

Time	Temp (°C)	pH	ORP (mV)	Cond. (mS/cm)	Turbidity (NTU)	DO (mg/L)	Rate (mL/min)	Comments	Depth to water (ft.)
1304	BEGIN	PURGE							
1308	24.79	6.79	-195	2.63	0.2	7.21	100		
1312	24.85	6.80	-196	2.51	0.1	6.81	100		
1316	24.80	6.83	-206	2.01	0.0	5.49	100		
1320	24.81	6.83	-202	2.0	0.0	4.77	100		
1321	Collect	Sample						PID = 0.0 ppm	

Sampler Initials: HT FT

WATER SAMPLE DATA

Date: 5/26/16

Sample ID	Analysis	Container(s)	Preservative	Time	Depth (ft.)	Physical Appearance	Comments
MW-34		5 X 40 mL VOA	HCL	1321	21.5	CLEAR	

QUALITY CONTROL SAMPLE

Duplicate Samples		Blank Samples		Other Samples	
Original Sample ID	Duplicate Sample ID	Type	Sample ID	Type	Sample ID
	N/A		N/A		N/A

Eco & Associates, Inc. Project No: **Eco-12-516** Date: 5/26/16

MONITORING WELL NO: **MW-35**

GROUNDWATER SAMPLING LOG

FIELD DATA

Date: **5/26/16**

Weather: Cloudy

Sampling Crew: HT FT

Amb. Temp.: 70°F

WATER ELEVATION DATA

1) Well Reference Elevation: _____ ft. (above MSL)

2) Depth to Water Surface: 17.69 ft.

3) Static Water Elevation: _____ ft. (#1-#2)

4) Depth to Well Bottom: _____ ft.

5) Height of Water Column _____ ft. (#4-#2)

6) 80% ReQKarge _____ ft.

7) Water Volume in Well= _____ gal.

(__2" : h × 0.163 gal/ft, __ 4" : h × 653 gal/ft)

Total Water Volume = _____ gal. (#7×3)

Well Reference Point: BTOC

Well Sounding Method: SOLINST GW METER

PRODUCT OBSERVATION

Product observed: Yes: _____ No: X

Product Thickness (in): N/A

Method of measurement: _____

Product Appearance: N/A

WELL PURGE DATA

Purge Method: PERISTALTIC PUMP / LOW FLOW / FLOW THROUGH CELL

Date: 5/26/16

Total Volume Purged (gallons): _____

Time	Temp (°C)	pH	ORP (mV)	Cond. (mS/cm)	Turbidity (NTU)	DO (mg/L)	Rate (mL/min)	Comments	Depth to water (ft.)
0834	BEGIN	PURGE							
0838	20.92	6.49	-189	1.86	1.3	1.28	100		
0842	20.83	6.84	-179	1.83	1.5	2.68	100		
0846	22.15	6.63	-203	1.78	1.3	0.67	100		
0849	22.25	6.62	-209	1.78	0.3	1.01	100		
0852	22.27	6.63	-208	1.78	0.2	1.03	100		
0859	Collect	sample						PID = 0.0 ppm	

Sampler Initials: HT FT

WATER SAMPLE DATA

Date: 5/26/16

Sample ID	Analysis	Container(s)	Preservative	Time	Depth (ft.)	Physical Appearance	Comments
MW-35		5 X 40 mL VOA	HCL	0849	19.5	CLEAR	

QUALITY CONTROL SAMPLE

Duplicate Samples		Blank Samples		Other Samples	
Original Sample ID	Duplicate Sample ID	Type	Sample ID	Type	Sample ID
	N/A		N/A		N/A

Eco & Associates, Inc. Project No: **Eco-12-516** Date: 5/26/16

MONITORING WELL NO: **MW-36**

GROUNDWATER SAMPLING LOG

FIELD DATA

Date: **5/26/16**

Weather: Overcast

Sampling Crew: HT FT

Amb. Temp.: 70°F

WATER ELEVATION DATA

1) Well Reference Elevation: _____ ft. (above MSL)

2) Depth to Water Surface: 17.25 ft.

3) Static Water Elevation: _____ ft. (#1-#2)

4) Depth to Well Bottom: _____ ft.

5) Height of Water Column _____ ft. (#4-#2)

6) 80% ReQKarge _____ ft.

7) Water Volume in Well= _____ gal.

(__2" : h × 0.163 gal/ft, __ 4" : h × 653 gal/ft)

Total Water Volume = _____ gal. (#7×3)

Well Reference Point: BTOC

Well Sounding Method: SOLINST GW METER

PRODUCT OBSERVATION

Product observed: Yes: _____ No: X

Product Thickness (in): N/A

Method of measurement: _____

Product Appearance: N/A

WELL PURGE DATA

Purge Method: PERISTALTIC PUMP / LOW FLOW / FLOW THROUGH CELL

Date: 5/26/16

Total Volume Purged (gallons): _____

Time	Temp (°C)	pH	ORP (mV)	Cond. (mS/cm)	Turbidity (NTU)	DO (mg/L)	Rate (mL/min)	Comments	Depth to water (ft.)
0944	BEGIN	PURGE							
0948	23.71	6.39	-66	1.38	0.1	8.31	100		
0952	23.71	6.37	-77	1.38	0.1	5.33	100		
0956	23.72	6.35	-97	1.40	0.2	3.64	100		
1000	23.73	6.35	-99	1.40	0.2	3.68	100		
1001	Collect	Sample						PID = 0.0 ppm	
								No interior well cover.	
								Reading not	
								Representative of	
								headspace	

Sampler Initials: HT FT

WATER SAMPLE DATA

Date: 2/24/16

Sample ID	Analysis	Container(s)	Preservative	Time	Depth (ft.)	Physical Appearance	Comments
MW-36		5 X 40 mL VOA	HCL	1001	19.0	CLEAR	

QUALITY CONTROL SAMPLE

Duplicate Samples		Blank Samples		Other Samples	
Original Sample ID	Duplicate Sample ID	Type	Sample ID	Type	Sample ID
	N/A		N/A		N/A

Eco & Associates, Inc. Project No: **Eco-12-516** Date: 5/26/16

MONITORING WELL NO: **MW-37**

GROUNDWATER SAMPLING LOG

FIELD DATA

Date: **5/26/16**

Weather: Overcast

Sampling Crew: HT FT

Amb. Temp.: 70°F

WATER ELEVATION DATA

1) Well Reference Elevation: _____ ft. (above MSL)

2) Depth to Water Surface: 17.41 ft.

3) Static Water Elevation: _____ ft. (#1-#2)

4) Depth to Well Bottom: _____ ft.

5) Height of Water Column _____ ft. (#4-#2)

6) 80% ReQKarge _____ ft.

7) Water Volume in Well= _____ gal.

(__2" : h × 0.163 gal/ft, __ 4" : h × 653 gal/ft)

Total Water Volume = _____ gal. (#7×3)

Well Reference Point: BTOC

Well Sounding Method: SOLINST GW METER

PRODUCT OBSERVATION

Product observed: Yes: _____ No: X

Product Thickness (in): N/A

Method of measurement: _____

Product Appearance: N/A

WELL PURGE DATA

Purge Method: PERISTALTIC PUMP / LOW FLOW / FLOW THROUGH CELL

Date: 5/26/16

Total Volume Purged (gallons): _____

Time	Temp (°C)	pH	ORP (mV)	Cond. (mS/cm)	Turbidity (NTU)	DO (mg/L)	Rate (mL/min)	Comments	Depth to water (ft.)
1017	BEGIN	PURGE							
1021	24.01	6.35	-56	1.94	0.0	7.94	100		
1025	23.96	6.36	-24	2.34	0.0	5.68	100		
1029	23.87	6.36	12	2.36	0.0	5.07	100		
1033	23.81	6.36	33	2.37	0.0	4.45	100		
1035	Collect	Sample						PID = 2.8 ppm	

Sampler Initials: HT FT

WATER SAMPLE DATA

Date: 5/26/16

Sample ID	Analysis	Container(s)	Preservative	Time	Depth (ft.)	Physical Appearance	Comments
MW-37		5 X 40 mL VOA	HCL	1035	19.5	CLEAR	

QUALITY CONTROL SAMPLE

Duplicate Samples		Blank Samples		Other Samples	
Original Sample ID	Duplicate Sample ID	Type	Sample ID	Type	Sample ID
	N/A		N/A		N/A

Eco & Associates, Inc. Project No: **Eco-12-516** Date: 5/26/16

MONITORING WELL NO: **MW-38**

GROUNDWATER SAMPLING LOG

FIELD DATA

Date: **5/26/16**

Weather: Overcast

Sampling Crew: HT FT

Amb. Temp.: 70°F

WATER ELEVATION DATA

1) Well Reference Elevation: _____ ft. (above MSL)

2) Depth to Water Surface: 17.10 ft.

3) Static Water Elevation: _____ ft. (#1-#2)

4) Depth to Well Bottom: _____ ft.

5) Height of Water Column _____ ft. (#4-#2)

6) 80% ReQKarge _____ ft.

7) Water Volume in Well= _____ gal.

(__2" : h × 0.163 gal/ft, __ 4" : h × 653 gal/ft)

Total Water Volume = _____ gal. (#7×3)

Well Reference Point: BTOC

Well Sounding Method: SOLINST GW METER

PRODUCT OBSERVATION

Product observed: Yes: _____ No: X

Product Thickness (in): N/A

Method of measurement: _____

Product Appearance: N/A

WELL PURGE DATA

Purge Method: PERISTALTIC PUMP / LOW FLOW / FLOW THROUGH CELL

Date: 5/26/16

Total Volume Purged (gallons): _____

Time	Temp (°C)	pH	ORP (mV)	Cond. (mS/cm)	Turbidity (NTU)	DO (mg/L)	Rate (mL/min)	Comments	Depth to water (ft.)
1046	BEGIN	PURGE							
1050	24.73	6.56	-177	2.19	0.0	6.67	100		
1054	24.83	6.64	-210	2.11	11.5	5.20	100		
1058	24.93	6.65	-213	2.10	0.0	5.02	100		
1102	24.94	6.65	-214	2.10	0.0	4.98	100		
1103	Collect	Sample						PID = 324 ppm	

Sampler Initials: HT FT

WATER SAMPLE DATA

Date: 5/26/16

Sample ID	Analysis	Container(s)	Preservative	Time	Depth (ft.)	Physical Appearance	Comments
MW-38		5 X 40 mL VOA	HCL	1103	20.0	CLEAR	

QUALITY CONTROL SAMPLE

Duplicate Samples		Blank Samples		Other Samples	
Original Sample ID	Duplicate Sample ID	Type	Sample ID	Type	Sample ID
	N/A		N/A		N/A

Eco & Associates, Inc. Project No: **Eco-12-516** Date: 5/26/16

TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614
Phone: 949.261.1022 Fax:

Chain of Custody Record

079686

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Taylor Waters	Site Contact:	Date: 5/27/2016	COC No:
Company Name: Eco & Associates	Tel/Fax: 714.289.0995	Lab Contact:	Carrier:	1 of 1 COCs
Address: 1855 W Katella Ave Ste 340	Analysis Turnaround Time			Sampler:
City/State/Zip: Orange CA 92867	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 714.289.0995	TAT if different from Below STD			Walk-in Client:
Fax: 714.289.0965	☐ 2 weeks			Lab Sampling:
Project Name: LA TIMES QUARTERLY GW MON	☐ 1 week			
Site: LA TIMES FACILITY	☐ 2 days			Job / SDG No.:
PO# Eco-12-516	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Full VOCs + OXY (8260B)	TPHg (LA LUFT) (8260B)	Sample Specific Notes:
MW-30	5.27.16	0801	G	GW	5	N	N	X	X	
MW-22	"	0825	G	GW	5	N	N	X	X	
MW-29	"	0855	G	GW	5	N	N	X	X	
MW-28	"	0916	G	GW	5	N	N	X	X	
MW-24	"	0933	G	GW	5	N	N	X	X	
MW-21	"	1003	G	GW	5	N	N	X	X	
MW-20	"	1035	G	GW	5	N	N	X	X	
MW-17	"	1103	G	GW	5	N	N	X	X	
MW-18	"	1119	G	GW	5	N	N	X	X	
~~MW-23~~ MW-26	"	1240	G	GW	5	N	N	X	X	
~~MW-26~~ MW-23	"	1315	G	GW	5	N	N	X	X	
TB-2	"	0745	G	W	5	N	N	X	X	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other 1, 2

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 1.3 Corr'd: 1.0 | Therm ID No.: 77

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Helen Thomas	Eco + Associates	5/27/16 13:43			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614
Phone: 949.261.1022 Fax:

Chain of Custody Record

079687

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Taylor Waters	Site Contact:	Date: 5/26/2016	COC No:
Company Name: Eco & Associates, Inc	Tel/Fax: 714-289-0995	Lab Contact:	Carrier:	1 of 1 COCs
Address: 1855 W Katella Ave Ste 340	Analysis Turnaround Time			Sampler:
City/State/Zip: Orange CA 92867	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 714-289-0995	TAT if different from Below STD			Walk-in Client:
Fax: 714-289-0965	☐ 2 weeks			Lab Sampling:
Project Name: LA Times Quarterly GW Mon	☐ 1 week			
Site: LA Times Facility	☐ 2 days			Job / SDG No.:
PO# ECO-12-516	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Full VOCs + OXY (8260B)	Total Lead (CA LUFT) (8260B)	Sample Specific Notes:
MW-35	5-26-16	0859	G	GW	5	N	N	X	X	
MW-31	"	0930	G	GW	5	N	N	X	X	
MW-36	"	1001	G	GW	5	N	N	X	X	
MW-37	"	1035	G	GW	5	N	N	X	X	
MW-38	"	1103	G	GW	5	N	N	X	X	
MW-33	"	1232	G	GW	5	N	N	X	X	
MW-25R	"	1303	G	GW	5	N	N	X	X	
MW-34	"	1321	G	GW	5	N	N	X	X	
MW-19	"	1423	G	GW	5	N	N	X	X	
MW-27	"	1451	G	GW	5	N	N	X	X	
TB-1	"	0830	G	W	5	N	N	X	X	

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other 2, 1

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Helen Thomas	Eco & Associates	May 26, 2016 1620			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
				TAI	5/26/16 16.20

4.1/4.3.9 SCT

Appendix B

Laboratory Reports

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-148520-1
Client Project/Site: LA Times Quarterly GW, ECO-12-516 Mon

For:
Eco & Associates, Inc
1855 W. Katella Avenue
Suite 340
Orange, California 92867

Attn: David Manoukian

Authorized for release by:
6/8/2016 9:58:48 PM
Urvashi Patel, Manager of Project Management
urvashi.patel@testamericainc.com

Designee for

Patty Mata, Senior Project Manager
(949)261-1022
patty.mata@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516 Mon

TestAmerica Job ID: 440-148520-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-148520-1	MW-35	Water	05/26/16 08:59	05/26/16 16:20
440-148520-2	MW-31	Water	05/26/16 09:30	05/26/16 16:20
440-148520-3	MW-36	Water	05/26/16 10:01	05/26/16 16:20
440-148520-4	MW-37	Water	05/26/16 10:35	05/26/16 16:20
440-148520-5	MW-38	Water	05/26/16 11:03	05/26/16 16:20
440-148520-6	MW-33	Water	05/26/16 12:32	05/26/16 16:20
440-148520-7	MW-25R	Water	05/26/16 13:03	05/26/16 16:20
440-148520-8	MW-34	Water	05/26/16 13:21	05/26/16 16:20
440-148520-9	MW-19	Water	05/26/16 14:23	05/26/16 16:20
440-148520-10	MW-27	Water	05/26/16 14:51	05/26/16 16:20
440-148520-11	TB-1	Water	05/26/16 08:30	05/26/16 16:20

Case Narrative

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516 Mon

TestAmerica Job ID: 440-148520-1

Job ID: 440-148520-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-148520-1

Comments
No additional comments.

Receipt
The samples were received on 5/26/2016 4:20 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.9º C.

GC/MS VOA
Method(s) 8260B: The continuing calibration verification (CCV) associated with batch 440-333663 recovered above the upper control limit for Isopropyl Ether (DIPE), Tert-amyl-methyl ether (TAME) and Tert-butyl ethyl ether. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: MW-35 (440-148520-1), MW-31 (440-148520-2), MW-36 (440-148520-3), MW-37 (440-148520-4), MW-38 (440-148520-5), MW-33 (440-148520-6), MW-25R (440-148520-7), MW-34 (440-148520-8), MW-19 (440-148520-9), MW-27 (440-148520-10), TB-1 (440-148520-11).

Method(s) 8260B: The laboratory control sample (LCS) for analytical batch 440-333663 recovered outside control limits for the following analytes: Isopropyl Ether (DIPE) and Tert-butyl ethyl ether. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client Sample Results

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516 Mon

TestAmerica Job ID: 440-148520-1

Client Sample ID: MW-35

Date Collected: 05/26/16 08:59
Date Received: 05/26/16 16:20

Lab Sample ID: 440-148520-1

Matrix: Water

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	**610**		50		ug/L			05/31/16 21:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*96*		*76 - 132*		*05/31/16 21:33*	*1*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*05/31/16 21:33*	*1*
Toluene-d8 (Surr)	*104*		*80 - 128*		*05/31/16 21:33*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10		ug/L			05/31/16 21:33	1
Benzene	**3.3**		0.50		ug/L			05/31/16 21:33	1
Bromobenzene	ND		1.0		ug/L			05/31/16 21:33	1
Bromochloromethane	ND		1.0		ug/L			05/31/16 21:33	1
Bromodichloromethane	ND		1.0		ug/L			05/31/16 21:33	1
Bromoform	ND		1.0		ug/L			05/31/16 21:33	1
Bromomethane	ND		1.0		ug/L			05/31/16 21:33	1
2-Butanone (MEK)	ND		10		ug/L			05/31/16 21:33	1
Carbon tetrachloride	ND		0.50		ug/L			05/31/16 21:33	1
Chlorobenzene	ND		1.0		ug/L			05/31/16 21:33	1
Chloroethane	ND		1.0		ug/L			05/31/16 21:33	1
Chloroform	ND		1.0		ug/L			05/31/16 21:33	1
Chloromethane	ND		1.0		ug/L			05/31/16 21:33	1
2-Chlorotoluene	ND		1.0		ug/L			05/31/16 21:33	1
4-Chlorotoluene	ND		1.0		ug/L			05/31/16 21:33	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/31/16 21:33	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			05/31/16 21:33	1
Dibromochloromethane	ND		1.0		ug/L			05/31/16 21:33	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			05/31/16 21:33	1
1,2-Dibromoethane (EDB)	ND		1.0		ug/L			05/31/16 21:33	1
Dibromomethane	ND		1.0		ug/L			05/31/16 21:33	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/31/16 21:33	1
1,3-Dichlorobenzene	ND		1.0		ug/L			05/31/16 21:33	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/31/16 21:33	1
Dichlorodifluoromethane	ND		2.0		ug/L			05/31/16 21:33	1
1,1-Dichloroethane	ND		1.0		ug/L			05/31/16 21:33	1
1,2-Dichloroethane	ND		0.50		ug/L			05/31/16 21:33	1
1,1-Dichloroethene	ND		1.0		ug/L			05/31/16 21:33	1
1,2-Dichloropropane	ND		1.0		ug/L			05/31/16 21:33	1
1,3-Dichloropropane	ND		1.0		ug/L			05/31/16 21:33	1
2,2-Dichloropropane	ND		1.0		ug/L			05/31/16 21:33	1
1,1-Dichloropropene	ND		1.0		ug/L			05/31/16 21:33	1
Ethylbenzene	ND		0.50		ug/L			05/31/16 21:33	1
Ethyl-t-butyl ether (ETBE)	ND	*	1.0		ug/L			05/31/16 21:33	1
Hexachlorobutadiene	ND		1.0		ug/L			05/31/16 21:33	1
2-Hexanone	ND		10		ug/L			05/31/16 21:33	1
Isopropylbenzene	**4.5**		1.0		ug/L			05/31/16 21:33	1
Methylene Chloride	ND		5.0		ug/L			05/31/16 21:33	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			05/31/16 21:33	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0		ug/L			05/31/16 21:33	1

Client Sample Results

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516 Mon

TestAmerica Job ID: 440-148520-1

Client Sample ID: MW-35

Lab Sample ID: 440-148520-1
Date Collected: 05/26/16 08:59
Matrix: Water
Date Received: 05/26/16 16:20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
m,p-Xylene	ND		1.0	ug/L			05/31/16 21:33	1
Naphthalene	ND		1.0	ug/L			05/31/16 21:33	1
n-Butylbenzene	ND		1.0	ug/L			05/31/16 21:33	1
N-Propylbenzene	ND		1.0	ug/L			05/31/16 21:33	1
o-Xylene	ND		0.50	ug/L			05/31/16 21:33	1
p-Isopropyltoluene	ND		1.0	ug/L			05/31/16 21:33	1
sec-Butylbenzene	**4.0**		1.0	ug/L			05/31/16 21:33	1
Styrene	ND		1.0	ug/L			05/31/16 21:33	1
Tert-amyl-methyl ether (TAME)	ND		1.0	ug/L			05/31/16 21:33	1
tert-Butyl alcohol (TBA)	ND		10	ug/L			05/31/16 21:33	1
tert-Butylbenzene	ND		1.0	ug/L			05/31/16 21:33	1
1,1,1,2-Tetrachloroethane	ND		1.0	ug/L			05/31/16 21:33	1
1,1,2,2-Tetrachloroethane	ND		1.0	ug/L			05/31/16 21:33	1
Tetrachloroethene	ND		1.0	ug/L			05/31/16 21:33	1
Toluene	ND		0.50	ug/L			05/31/16 21:33	1
trans-1,2-Dichloroethene	ND		1.0	ug/L			05/31/16 21:33	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			05/31/16 21:33	1
1,2,3-Trichlorobenzene	ND		1.0	ug/L			05/31/16 21:33	1
1,2,4-Trichlorobenzene	ND		1.0	ug/L			05/31/16 21:33	1
1,1,1-Trichloroethane	ND		1.0	ug/L			05/31/16 21:33	1
1,1,2-Trichloroethane	ND		1.0	ug/L			05/31/16 21:33	1
Trichloroethene	ND		1.0	ug/L			05/31/16 21:33	1
Trichlorofluoromethane	ND		1.0	ug/L			05/31/16 21:33	1
1,2,3-Trichloropropane	ND		1.0	ug/L			05/31/16 21:33	1
1,2,4-Trimethylbenzene	ND		1.0	ug/L			05/31/16 21:33	1
1,3,5-Trimethylbenzene	ND		1.0	ug/L			05/31/16 21:33	1
Vinyl chloride	ND		0.50	ug/L			05/31/16 21:33	1
Xylenes, Total	ND		1.5	ug/L			05/31/16 21:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*05/31/16 21:33*	*1*
Dibromofluoromethane (Surr)	*96*		*76 - 132*		*05/31/16 21:33*	*1*
Toluene-d8 (Surr)	*104*		*80 - 128*		*05/31/16 21:33*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl Ether (DIPE)	**2.7**		1.0	ug/L			06/01/16 08:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*80 - 120*		*06/01/16 08:58*	*1*
Dibromofluoromethane (Surr)	*101*		*76 - 132*		*06/01/16 08:58*	*1*
Toluene-d8 (Surr)	*111*		*80 - 128*		*06/01/16 08:58*	*1*

Client Sample ID: MW-31

Lab Sample ID: 440-148520-2
Date Collected: 05/26/16 09:30
Matrix: Water
Date Received: 05/26/16 16:20

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		50	ug/L			05/31/16 23:04	1

Client Sample Results

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516 Mon

TestAmerica Job ID: 440-148520-1

Client Sample ID: MW-31

Date Collected: 05/26/16 09:30
Date Received: 05/26/16 16:20

Lab Sample ID: 440-148520-2

Matrix: Water

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*99*		*76 - 132*		*05/31/16 23:04*	*1*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*05/31/16 23:04*	*1*
Toluene-d8 (Surr)	*105*		*80 - 128*		*05/31/16 23:04*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	ug/L			05/31/16 23:04	1
Benzene	ND		0.50	ug/L			05/31/16 23:04	1
Bromobenzene	ND		1.0	ug/L			05/31/16 23:04	1
Bromochloromethane	ND		1.0	ug/L			05/31/16 23:04	1
Bromodichloromethane	ND		1.0	ug/L			05/31/16 23:04	1
Bromoform	ND		1.0	ug/L			05/31/16 23:04	1
Bromomethane	ND		1.0	ug/L			05/31/16 23:04	1
2-Butanone (MEK)	ND		10	ug/L			05/31/16 23:04	1
Carbon tetrachloride	ND		0.50	ug/L			05/31/16 23:04	1
Chlorobenzene	ND		1.0	ug/L			05/31/16 23:04	1
Chloroethane	ND		1.0	ug/L			05/31/16 23:04	1
Chloroform	ND		1.0	ug/L			05/31/16 23:04	1
Chloromethane	ND		1.0	ug/L			05/31/16 23:04	1
2-Chlorotoluene	ND		1.0	ug/L			05/31/16 23:04	1
4-Chlorotoluene	ND		1.0	ug/L			05/31/16 23:04	1
cis-1,2-Dichloroethene	ND		1.0	ug/L			05/31/16 23:04	1
cis-1,3-Dichloropropene	ND		0.50	ug/L			05/31/16 23:04	1
Dibromochloromethane	ND		1.0	ug/L			05/31/16 23:04	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			05/31/16 23:04	1
1,2-Dibromoethane (EDB)	ND		1.0	ug/L			05/31/16 23:04	1
Dibromomethane	ND		1.0	ug/L			05/31/16 23:04	1
1,2-Dichlorobenzene	ND		1.0	ug/L			05/31/16 23:04	1
1,3-Dichlorobenzene	ND		1.0	ug/L			05/31/16 23:04	1
1,4-Dichlorobenzene	ND		1.0	ug/L			05/31/16 23:04	1
Dichlorodifluoromethane	ND		2.0	ug/L			05/31/16 23:04	1
1,1-Dichloroethane	ND		1.0	ug/L			05/31/16 23:04	1
1,2-Dichloroethane	ND		0.50	ug/L			05/31/16 23:04	1
1,1-Dichloroethene	ND		1.0	ug/L			05/31/16 23:04	1
1,2-Dichloropropane	ND		1.0	ug/L			05/31/16 23:04	1
1,3-Dichloropropane	ND		1.0	ug/L			05/31/16 23:04	1
2,2-Dichloropropane	ND		1.0	ug/L			05/31/16 23:04	1
1,1-Dichloropropene	ND		1.0	ug/L			05/31/16 23:04	1
Ethylbenzene	ND		0.50	ug/L			05/31/16 23:04	1
Ethyl-t-butyl ether (ETBE)	ND	*	1.0	ug/L			05/31/16 23:04	1
Hexachlorobutadiene	ND		1.0	ug/L			05/31/16 23:04	1
2-Hexanone	ND		10	ug/L			05/31/16 23:04	1
Isopropylbenzene	ND		1.0	ug/L			05/31/16 23:04	1
Isopropyl Ether (DIPE)	ND	*	1.0	ug/L			05/31/16 23:04	1
Methylene Chloride	ND		5.0	ug/L			05/31/16 23:04	1
4-Methyl-2-pentanone (MIBK)	ND		10	ug/L			05/31/16 23:04	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	ug/L			05/31/16 23:04	1
m,p-Xylene	ND		1.0	ug/L			05/31/16 23:04	1
Naphthalene	ND		1.0	ug/L			05/31/16 23:04	1
n-Butylbenzene	ND		1.0	ug/L			05/31/16 23:04	1

Client Sample Results

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516 Mon

TestAmerica Job ID: 440-148520-1

Client Sample ID: MW-31

Lab Sample ID: 440-148520-2
Date Collected: 05/26/16 09:30
Matrix: Water
Date Received: 05/26/16 16:20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	ND		1.0	ug/L			05/31/16 23:04	1
o-Xylene	ND		0.50	ug/L			05/31/16 23:04	1
p-Isopropyltoluene	ND		1.0	ug/L			05/31/16 23:04	1
sec-Butylbenzene	ND		1.0	ug/L			05/31/16 23:04	1
Styrene	ND		1.0	ug/L			05/31/16 23:04	1
Tert-amyl-methyl ether (TAME)	ND		1.0	ug/L			05/31/16 23:04	1
tert-Butyl alcohol (TBA)	ND		10	ug/L			05/31/16 23:04	1
tert-Butylbenzene	ND		1.0	ug/L			05/31/16 23:04	1
1,1,1,2-Tetrachloroethane	ND		1.0	ug/L			05/31/16 23:04	1
1,1,2,2-Tetrachloroethane	ND		1.0	ug/L			05/31/16 23:04	1
Tetrachloroethene	ND		1.0	ug/L			05/31/16 23:04	1
Toluene	ND		0.50	ug/L			05/31/16 23:04	1
trans-1,2-Dichloroethene	ND		1.0	ug/L			05/31/16 23:04	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			05/31/16 23:04	1
1,2,3-Trichlorobenzene	ND		1.0	ug/L			05/31/16 23:04	1
1,2,4-Trichlorobenzene	ND		1.0	ug/L			05/31/16 23:04	1
1,1,1-Trichloroethane	ND		1.0	ug/L			05/31/16 23:04	1
1,1,2-Trichloroethane	ND		1.0	ug/L			05/31/16 23:04	1
Trichloroethene	ND		1.0	ug/L			05/31/16 23:04	1
Trichlorofluoromethane	ND		1.0	ug/L			05/31/16 23:04	1
1,2,3-Trichloropropane	ND		1.0	ug/L			05/31/16 23:04	1
1,2,4-Trimethylbenzene	ND		1.0	ug/L			05/31/16 23:04	1
1,3,5-Trimethylbenzene	ND		1.0	ug/L			05/31/16 23:04	1
Vinyl chloride	ND		0.50	ug/L			05/31/16 23:04	1
Xylenes, Total	ND		1.5	ug/L			05/31/16 23:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*05/31/16 23:04*	*1*
Dibromofluoromethane (Surr)	*99*		*76 - 132*		*05/31/16 23:04*	*1*
Toluene-d8 (Surr)	*105*		*80 - 128*		*05/31/16 23:04*	*1*

Client Sample ID: MW-36

Lab Sample ID: 440-148520-3
Date Collected: 05/26/16 10:01
Matrix: Water
Date Received: 05/26/16 16:20

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	**100**		50	ug/L			05/31/16 23:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*96*		*76 - 132*		*05/31/16 23:34*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*05/31/16 23:34*	*1*
Toluene-d8 (Surr)	*108*		*80 - 128*		*05/31/16 23:34*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	ug/L			05/31/16 23:34	1
Benzene	ND		0.50	ug/L			05/31/16 23:34	1
Bromobenzene	ND		1.0	ug/L			05/31/16 23:34	1
Bromochloromethane	ND		1.0	ug/L			05/31/16 23:34	1

Client Sample ID: MW-36

Date Collected: 05/26/16 10:01
Date Received: 05/26/16 16:20

Lab Sample ID: 440-148520-3

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	ND		1.0	ug/L			05/31/16 23:34	1
Bromoform	ND		1.0	ug/L			05/31/16 23:34	1
Bromomethane	ND		1.0	ug/L			05/31/16 23:34	1
2-Butanone (MEK)	ND		10	ug/L			05/31/16 23:34	1
Carbon tetrachloride	ND		0.50	ug/L			05/31/16 23:34	1
Chlorobenzene	ND		1.0	ug/L			05/31/16 23:34	1
Chloroethane	ND		1.0	ug/L			05/31/16 23:34	1
Chloroform	ND		1.0	ug/L			05/31/16 23:34	1
Chloromethane	ND		1.0	ug/L			05/31/16 23:34	1
2-Chlorotoluene	ND		1.0	ug/L			05/31/16 23:34	1
4-Chlorotoluene	ND		1.0	ug/L			05/31/16 23:34	1
cis-1,2-Dichloroethene	ND		1.0	ug/L			05/31/16 23:34	1
cis-1,3-Dichloropropene	ND		0.50	ug/L			05/31/16 23:34	1
Dibromochloromethane	ND		1.0	ug/L			05/31/16 23:34	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			05/31/16 23:34	1
1,2-Dibromoethane (EDB)	ND		1.0	ug/L			05/31/16 23:34	1
Dibromomethane	ND		1.0	ug/L			05/31/16 23:34	1
1,2-Dichlorobenzene	ND		1.0	ug/L			05/31/16 23:34	1
1,3-Dichlorobenzene	ND		1.0	ug/L			05/31/16 23:34	1
1,4-Dichlorobenzene	ND		1.0	ug/L			05/31/16 23:34	1
Dichlorodifluoromethane	ND		2.0	ug/L			05/31/16 23:34	1
1,1-Dichloroethane	ND		1.0	ug/L			05/31/16 23:34	1
1,2-Dichloroethane	ND		0.50	ug/L			05/31/16 23:34	1
1,1-Dichloroethene	ND		1.0	ug/L			05/31/16 23:34	1
1,2-Dichloropropane	ND		1.0	ug/L			05/31/16 23:34	1
1,3-Dichloropropane	ND		1.0	ug/L			05/31/16 23:34	1
2,2-Dichloropropane	ND		1.0	ug/L			05/31/16 23:34	1
1,1-Dichloropropene	ND		1.0	ug/L			05/31/16 23:34	1
Ethylbenzene	ND		0.50	ug/L			05/31/16 23:34	1
Ethyl-t-butyl ether (ETBE)	ND	*	1.0	ug/L			05/31/16 23:34	1
Hexachlorobutadiene	ND		1.0	ug/L			05/31/16 23:34	1
2-Hexanone	ND		10	ug/L			05/31/16 23:34	1
Isopropylbenzene	ND		1.0	ug/L			05/31/16 23:34	1
Isopropyl Ether (DIPE)	ND	*	1.0	ug/L			05/31/16 23:34	1
Methylene Chloride	ND		5.0	ug/L			05/31/16 23:34	1
4-Methyl-2-pentanone (MIBK)	ND		10	ug/L			05/31/16 23:34	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	ug/L			05/31/16 23:34	1
m,p-Xylene	ND		1.0	ug/L			05/31/16 23:34	1
Naphthalene	ND		1.0	ug/L			05/31/16 23:34	1
n-Butylbenzene	ND		1.0	ug/L			05/31/16 23:34	1
N-Propylbenzene	ND		1.0	ug/L			05/31/16 23:34	1
o-Xylene	ND		0.50	ug/L			05/31/16 23:34	1
p-Isopropyltoluene	ND		1.0	ug/L			05/31/16 23:34	1
sec-Butylbenzene	ND		1.0	ug/L			05/31/16 23:34	1
Styrene	ND		1.0	ug/L			05/31/16 23:34	1
Tert-amyl-methyl ether (TAME)	ND		1.0	ug/L			05/31/16 23:34	1
tert-Butyl alcohol (TBA)	ND		10	ug/L			05/31/16 23:34	1
tert-Butylbenzene	ND		1.0	ug/L			05/31/16 23:34	1
1,1,1,2-Tetrachloroethane	ND		1.0	ug/L			05/31/16 23:34	1

Client Sample Results

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516 Mon

TestAmerica Job ID: 440-148520-1

Client Sample ID: MW-36

Lab Sample ID: 440-148520-3
Date Collected: 05/26/16 10:01
Matrix: Water
Date Received: 05/26/16 16:20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		1.0	ug/L			05/31/16 23:34	1
Tetrachloroethene	ND		1.0	ug/L			05/31/16 23:34	1
Toluene	ND		0.50	ug/L			05/31/16 23:34	1
trans-1,2-Dichloroethene	ND		1.0	ug/L			05/31/16 23:34	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			05/31/16 23:34	1
1,2,3-Trichlorobenzene	ND		1.0	ug/L			05/31/16 23:34	1
1,2,4-Trichlorobenzene	ND		1.0	ug/L			05/31/16 23:34	1
1,1,1-Trichloroethane	ND		1.0	ug/L			05/31/16 23:34	1
1,1,2-Trichloroethane	ND		1.0	ug/L			05/31/16 23:34	1
Trichloroethene	ND		1.0	ug/L			05/31/16 23:34	1
Trichlorofluoromethane	ND		1.0	ug/L			05/31/16 23:34	1
1,2,3-Trichloropropane	ND		1.0	ug/L			05/31/16 23:34	1
1,2,4-Trimethylbenzene	ND		1.0	ug/L			05/31/16 23:34	1
1,3,5-Trimethylbenzene	ND		1.0	ug/L			05/31/16 23:34	1
Vinyl chloride	ND		0.50	ug/L			05/31/16 23:34	1
Xylenes, Total	ND		1.5	ug/L			05/31/16 23:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*05/31/16 23:34*	*1*
Dibromofluoromethane (Surr)	*96*		*76 - 132*		*05/31/16 23:34*	*1*
Toluene-d8 (Surr)	*108*		*80 - 128*		*05/31/16 23:34*	*1*

Client Sample ID: MW-37

Lab Sample ID: 440-148520-4
Date Collected: 05/26/16 10:35
Matrix: Water
Date Received: 05/26/16 16:20

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		50	ug/L			06/01/16 00:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*102*		*76 - 132*		*06/01/16 00:04*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*06/01/16 00:04*	*1*
Toluene-d8 (Surr)	*103*		*80 - 128*		*06/01/16 00:04*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	ug/L			06/01/16 00:04	1
Benzene	ND		0.50	ug/L			06/01/16 00:04	1
Bromobenzene	ND		1.0	ug/L			06/01/16 00:04	1
Bromochloromethane	ND		1.0	ug/L			06/01/16 00:04	1
Bromodichloromethane	ND		1.0	ug/L			06/01/16 00:04	1
Bromoform	ND		1.0	ug/L			06/01/16 00:04	1
Bromomethane	ND		1.0	ug/L			06/01/16 00:04	1
2-Butanone (MEK)	ND		10	ug/L			06/01/16 00:04	1
Carbon tetrachloride	ND		0.50	ug/L			06/01/16 00:04	1
Chlorobenzene	ND		1.0	ug/L			06/01/16 00:04	1
Chloroethane	ND		1.0	ug/L			06/01/16 00:04	1
Chloroform	ND		1.0	ug/L			06/01/16 00:04	1
Chloromethane	ND		1.0	ug/L			06/01/16 00:04	1

Client Sample ID: MW-37

Date Collected: 05/26/16 10:35
Date Received: 05/26/16 16:20

Lab Sample ID: 440-148520-4

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
2-Chlorotoluene	ND		1.0		ug/L			06/01/16 00:04	1
4-Chlorotoluene	ND		1.0		ug/L			06/01/16 00:04	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			06/01/16 00:04	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			06/01/16 00:04	1
Dibromochloromethane	ND		1.0		ug/L			06/01/16 00:04	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			06/01/16 00:04	1
1,2-Dibromoethane (EDB)	ND		1.0		ug/L			06/01/16 00:04	1
Dibromomethane	ND		1.0		ug/L			06/01/16 00:04	1
1,2-Dichlorobenzene	ND		1.0		ug/L			06/01/16 00:04	1
1,3-Dichlorobenzene	ND		1.0		ug/L			06/01/16 00:04	1
1,4-Dichlorobenzene	ND		1.0		ug/L			06/01/16 00:04	1
Dichlorodifluoromethane	ND		2.0		ug/L			06/01/16 00:04	1
1,1-Dichloroethane	ND		1.0		ug/L			06/01/16 00:04	1
1,2-Dichloroethane	ND		0.50		ug/L			06/01/16 00:04	1
1,1-Dichloroethene	ND		1.0		ug/L			06/01/16 00:04	1
1,2-Dichloropropane	ND		1.0		ug/L			06/01/16 00:04	1
1,3-Dichloropropane	ND		1.0		ug/L			06/01/16 00:04	1
2,2-Dichloropropane	ND		1.0		ug/L			06/01/16 00:04	1
1,1-Dichloropropene	ND		1.0		ug/L			06/01/16 00:04	1
Ethylbenzene	ND		0.50		ug/L			06/01/16 00:04	1
Ethyl-t-butyl ether (ETBE)	ND	*	1.0		ug/L			06/01/16 00:04	1
Hexachlorobutadiene	ND		1.0		ug/L			06/01/16 00:04	1
2-Hexanone	ND		10		ug/L			06/01/16 00:04	1
Isopropylbenzene	ND		1.0		ug/L			06/01/16 00:04	1
Methylene Chloride	ND		5.0		ug/L			06/01/16 00:04	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			06/01/16 00:04	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0		ug/L			06/01/16 00:04	1
m,p-Xylene	ND		1.0		ug/L			06/01/16 00:04	1
Naphthalene	ND		1.0		ug/L			06/01/16 00:04	1
n-Butylbenzene	ND		1.0		ug/L			06/01/16 00:04	1
N-Propylbenzene	ND		1.0		ug/L			06/01/16 00:04	1
o-Xylene	ND		0.50		ug/L			06/01/16 00:04	1
p-Isopropyltoluene	ND		1.0		ug/L			06/01/16 00:04	1
sec-Butylbenzene	ND		1.0		ug/L			06/01/16 00:04	1
Styrene	ND		1.0		ug/L			06/01/16 00:04	1
Tert-amyl-methyl ether (TAME)	ND		1.0		ug/L			06/01/16 00:04	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			06/01/16 00:04	1
tert-Butylbenzene	ND		1.0		ug/L			06/01/16 00:04	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			06/01/16 00:04	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/01/16 00:04	1
Tetrachloroethene	ND		1.0		ug/L			06/01/16 00:04	1
Toluene	ND		0.50		ug/L			06/01/16 00:04	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			06/01/16 00:04	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			06/01/16 00:04	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			06/01/16 00:04	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			06/01/16 00:04	1
1,1,1-Trichloroethane	ND		1.0		ug/L			06/01/16 00:04	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/01/16 00:04	1
Trichloroethene	ND		1.0		ug/L			06/01/16 00:04	1

Client Sample ID: MW-37

Lab Sample ID: 440-148520-4
Date Collected: 05/26/16 10:35
Matrix: Water
Date Received: 05/26/16 16:20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	ND		1.0	ug/L			06/01/16 00:04	1
1,2,3-Trichloropropane	ND		1.0	ug/L			06/01/16 00:04	1
1,2,4-Trimethylbenzene	ND		1.0	ug/L			06/01/16 00:04	1
1,3,5-Trimethylbenzene	ND		1.0	ug/L			06/01/16 00:04	1
Vinyl chloride	ND		0.50	ug/L			06/01/16 00:04	1
Xylenes, Total	ND		1.5	ug/L			06/01/16 00:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*06/01/16 00:04*	*1*
Dibromofluoromethane (Surr)	*102*		*76 - 132*		*06/01/16 00:04*	*1*
Toluene-d8 (Surr)	*103*		*80 - 128*		*06/01/16 00:04*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl Ether (DIPE)	**5.6**		1.0	ug/L			06/01/16 10:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*		*06/01/16 10:20*	*1*
Dibromofluoromethane (Surr)	*107*		*76 - 132*		*06/01/16 10:20*	*1*
Toluene-d8 (Surr)	*110*		*80 - 128*		*06/01/16 10:20*	*1*

Client Sample ID: MW-38

Lab Sample ID: 440-148520-5
Date Collected: 05/26/16 11:03
Matrix: Water
Date Received: 05/26/16 16:20

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	**2000**		130	ug/L			06/01/16 00:35	2.5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*97*		*76 - 132*		*06/01/16 00:35*	*2.5*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*06/01/16 00:35*	*2.5*
Toluene-d8 (Surr)	*106*		*80 - 128*		*06/01/16 00:35*	*2.5*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		25	ug/L			06/01/16 00:35	2.5
Bromobenzene	ND		2.5	ug/L			06/01/16 00:35	2.5
Bromochloromethane	ND		2.5	ug/L			06/01/16 00:35	2.5
Bromodichloromethane	ND		2.5	ug/L			06/01/16 00:35	2.5
Bromoform	ND		2.5	ug/L			06/01/16 00:35	2.5
Bromomethane	ND		2.5	ug/L			06/01/16 00:35	2.5
2-Butanone (MEK)	ND		25	ug/L			06/01/16 00:35	2.5
Carbon tetrachloride	ND		1.3	ug/L			06/01/16 00:35	2.5
Chlorobenzene	ND		2.5	ug/L			06/01/16 00:35	2.5
Chloroethane	ND		2.5	ug/L			06/01/16 00:35	2.5
Chloroform	ND		2.5	ug/L			06/01/16 00:35	2.5
Chloromethane	ND		2.5	ug/L			06/01/16 00:35	2.5
2-Chlorotoluene	ND		2.5	ug/L			06/01/16 00:35	2.5
4-Chlorotoluene	ND		2.5	ug/L			06/01/16 00:35	2.5

Client Sample ID: MW-38

Date Collected: 05/26/16 11:03
Date Received: 05/26/16 16:20

Lab Sample ID: 440-148520-5

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		2.5	ug/L			06/01/16 00:35	2.5
cis-1,3-Dichloropropene	ND		1.3	ug/L			06/01/16 00:35	2.5
Dibromochloromethane	ND		2.5	ug/L			06/01/16 00:35	2.5
1,2-Dibromo-3-Chloropropane	ND		13	ug/L			06/01/16 00:35	2.5
1,2-Dibromoethane (EDB)	ND		2.5	ug/L			06/01/16 00:35	2.5
Dibromomethane	ND		2.5	ug/L			06/01/16 00:35	2.5
1,2-Dichlorobenzene	ND		2.5	ug/L			06/01/16 00:35	2.5
1,3-Dichlorobenzene	ND		2.5	ug/L			06/01/16 00:35	2.5
1,4-Dichlorobenzene	ND		2.5	ug/L			06/01/16 00:35	2.5
Dichlorodifluoromethane	ND		5.0	ug/L			06/01/16 00:35	2.5
1,1-Dichloroethane	ND		2.5	ug/L			06/01/16 00:35	2.5
1,2-Dichloroethane	ND		1.3	ug/L			06/01/16 00:35	2.5
1,1-Dichloroethene	ND		2.5	ug/L			06/01/16 00:35	2.5
1,2-Dichloropropane	ND		2.5	ug/L			06/01/16 00:35	2.5
1,3-Dichloropropane	ND		2.5	ug/L			06/01/16 00:35	2.5
2,2-Dichloropropane	ND		2.5	ug/L			06/01/16 00:35	2.5
1,1-Dichloropropene	ND		2.5	ug/L			06/01/16 00:35	2.5
Ethylbenzene	**4.3**		1.3	ug/L			06/01/16 00:35	2.5
Ethyl-t-butyl ether (ETBE)	ND	*	2.5	ug/L			06/01/16 00:35	2.5
Hexachlorobutadiene	ND		2.5	ug/L			06/01/16 00:35	2.5
2-Hexanone	ND		25	ug/L			06/01/16 00:35	2.5
Isopropylbenzene	**9.5**		2.5	ug/L			06/01/16 00:35	2.5
Methylene Chloride	ND		13	ug/L			06/01/16 00:35	2.5
4-Methyl-2-pentanone (MIBK)	ND		25	ug/L			06/01/16 00:35	2.5
Methyl-t-Butyl Ether (MTBE)	ND		2.5	ug/L			06/01/16 00:35	2.5
m,p-Xylene	ND		2.5	ug/L			06/01/16 00:35	2.5
Naphthalene	ND		2.5	ug/L			06/01/16 00:35	2.5
n-Butylbenzene	ND		2.5	ug/L			06/01/16 00:35	2.5
N-Propylbenzene	**13**		2.5	ug/L			06/01/16 00:35	2.5
o-Xylene	ND		1.3	ug/L			06/01/16 00:35	2.5
p-Isopropyltoluene	ND		2.5	ug/L			06/01/16 00:35	2.5
sec-Butylbenzene	ND		2.5	ug/L			06/01/16 00:35	2.5
Styrene	ND		2.5	ug/L			06/01/16 00:35	2.5
Tert-amyl-methyl ether (TAME)	ND		2.5	ug/L			06/01/16 00:35	2.5
tert-Butyl alcohol (TBA)	**150**		25	ug/L			06/01/16 00:35	2.5
tert-Butylbenzene	ND		2.5	ug/L			06/01/16 00:35	2.5
1,1,1,2-Tetrachloroethane	ND		2.5	ug/L			06/01/16 00:35	2.5
1,1,2,2-Tetrachloroethane	ND		2.5	ug/L			06/01/16 00:35	2.5
Tetrachloroethene	ND		2.5	ug/L			06/01/16 00:35	2.5
Toluene	**2.2**		1.3	ug/L			06/01/16 00:35	2.5
trans-1,2-Dichloroethene	ND		2.5	ug/L			06/01/16 00:35	2.5
trans-1,3-Dichloropropene	ND		1.3	ug/L			06/01/16 00:35	2.5
1,2,3-Trichlorobenzene	ND		2.5	ug/L			06/01/16 00:35	2.5
1,2,4-Trichlorobenzene	ND		2.5	ug/L			06/01/16 00:35	2.5
1,1,1-Trichloroethane	ND		2.5	ug/L			06/01/16 00:35	2.5
1,1,2-Trichloroethane	ND		2.5	ug/L			06/01/16 00:35	2.5
Trichloroethene	ND		2.5	ug/L			06/01/16 00:35	2.5
Trichlorofluoromethane	ND		2.5	ug/L			06/01/16 00:35	2.5
1,2,3-Trichloropropane	ND		2.5	ug/L			06/01/16 00:35	2.5

Client Sample ID: MW-38

Lab Sample ID: 440-148520-5
Date Collected: 05/26/16 11:03
Matrix: Water
Date Received: 05/26/16 16:20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		2.5	ug/L			06/01/16 00:35	2.5
1,3,5-Trimethylbenzene	ND		2.5	ug/L			06/01/16 00:35	2.5
Vinyl chloride	ND		1.3	ug/L			06/01/16 00:35	2.5
Xylenes, Total	ND		3.8	ug/L			06/01/16 00:35	2.5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*06/01/16 00:35*	*2.5*
Dibromofluoromethane (Surr)	*97*		*76 - 132*		*06/01/16 00:35*	*2.5*
Toluene-d8 (Surr)	*106*		*80 - 128*		*06/01/16 00:35*	*2.5*

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**1600**		10	ug/L			06/01/16 11:15	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*109*		*80 - 120*		*06/01/16 11:15*	*20*
Dibromofluoromethane (Surr)	*104*		*76 - 132*		*06/01/16 11:15*	*20*
Toluene-d8 (Surr)	*111*		*80 - 128*		*06/01/16 11:15*	*20*

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl Ether (DIPE)	**110**		2.5	ug/L			06/01/16 10:48	2.5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*		*06/01/16 10:48*	*2.5*
Dibromofluoromethane (Surr)	*104*		*76 - 132*		*06/01/16 10:48*	*2.5*
Toluene-d8 (Surr)	*110*		*80 - 128*		*06/01/16 10:48*	*2.5*

Client Sample ID: MW-33

Lab Sample ID: 440-148520-6
Date Collected: 05/26/16 12:32
Matrix: Water
Date Received: 05/26/16 16:20

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	**4000**		500	ug/L			06/01/16 01:05	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*99*		*76 - 132*		*06/01/16 01:05*	*10*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*06/01/16 01:05*	*10*
Toluene-d8 (Surr)	*106*		*80 - 128*		*06/01/16 01:05*	*10*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		100	ug/L			06/01/16 01:05	10
Benzene	**610**		5.0	ug/L			06/01/16 01:05	10
Bromobenzene	ND		10	ug/L			06/01/16 01:05	10
Bromochloromethane	ND		10	ug/L			06/01/16 01:05	10
Bromodichloromethane	ND		10	ug/L			06/01/16 01:05	10
Bromoform	ND		10	ug/L			06/01/16 01:05	10
Bromomethane	ND		10	ug/L			06/01/16 01:05	10
2-Butanone (MEK)	ND		100	ug/L			06/01/16 01:05	10

Client Sample ID: MW-33

Date Collected: 05/26/16 12:32
Date Received: 05/26/16 16:20

Lab Sample ID: 440-148520-6

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	ND		5.0	ug/L			06/01/16 01:05	10
Chlorobenzene	ND		10	ug/L			06/01/16 01:05	10
Chloroethane	ND		10	ug/L			06/01/16 01:05	10
Chloroform	ND		10	ug/L			06/01/16 01:05	10
Chloromethane	ND		10	ug/L			06/01/16 01:05	10
2-Chlorotoluene	ND		10	ug/L			06/01/16 01:05	10
4-Chlorotoluene	ND		10	ug/L			06/01/16 01:05	10
cis-1,2-Dichloroethene	ND		10	ug/L			06/01/16 01:05	10
cis-1,3-Dichloropropene	ND		5.0	ug/L			06/01/16 01:05	10
Dibromochloromethane	ND		10	ug/L			06/01/16 01:05	10
1,2-Dibromo-3-Chloropropane	ND		50	ug/L			06/01/16 01:05	10
1,2-Dibromoethane (EDB)	ND		10	ug/L			06/01/16 01:05	10
Dibromomethane	ND		10	ug/L			06/01/16 01:05	10
1,2-Dichlorobenzene	ND		10	ug/L			06/01/16 01:05	10
1,3-Dichlorobenzene	ND		10	ug/L			06/01/16 01:05	10
1,4-Dichlorobenzene	ND		10	ug/L			06/01/16 01:05	10
Dichlorodifluoromethane	ND		20	ug/L			06/01/16 01:05	10
1,1-Dichloroethane	ND		10	ug/L			06/01/16 01:05	10
1,2-Dichloroethane	ND		5.0	ug/L			06/01/16 01:05	10
1,1-Dichloroethene	ND		10	ug/L			06/01/16 01:05	10
1,2-Dichloropropane	ND		10	ug/L			06/01/16 01:05	10
1,3-Dichloropropane	ND		10	ug/L			06/01/16 01:05	10
2,2-Dichloropropane	ND		10	ug/L			06/01/16 01:05	10
1,1-Dichloropropene	ND		10	ug/L			06/01/16 01:05	10
Ethylbenzene	**320**		5.0	ug/L			06/01/16 01:05	10
Ethyl-t-butyl ether (ETBE)	ND	*	10	ug/L			06/01/16 01:05	10
Hexachlorobutadiene	ND		10	ug/L			06/01/16 01:05	10
2-Hexanone	ND		100	ug/L			06/01/16 01:05	10
Isopropylbenzene	**15**		10	ug/L			06/01/16 01:05	10
Methylene Chloride	ND		50	ug/L			06/01/16 01:05	10
4-Methyl-2-pentanone (MIBK)	ND		100	ug/L			06/01/16 01:05	10
Methyl-t-Butyl Ether (MTBE)	ND		10	ug/L			06/01/16 01:05	10
m,p-Xylene	**18**		10	ug/L			06/01/16 01:05	10
Naphthalene	ND		10	ug/L			06/01/16 01:05	10
n-Butylbenzene	ND		10	ug/L			06/01/16 01:05	10
N-Propylbenzene	**48**		10	ug/L			06/01/16 01:05	10
o-Xylene	ND		5.0	ug/L			06/01/16 01:05	10
p-Isopropyltoluene	ND		10	ug/L			06/01/16 01:05	10
sec-Butylbenzene	ND		10	ug/L			06/01/16 01:05	10
Styrene	ND		10	ug/L			06/01/16 01:05	10
Tert-amyl-methyl ether (TAME)	ND		10	ug/L			06/01/16 01:05	10
tert-Butyl alcohol (TBA)	ND		100	ug/L			06/01/16 01:05	10
tert-Butylbenzene	ND		10	ug/L			06/01/16 01:05	10
1,1,1,2-Tetrachloroethane	ND		10	ug/L			06/01/16 01:05	10
1,1,2,2-Tetrachloroethane	ND		10	ug/L			06/01/16 01:05	10
Tetrachloroethene	ND		10	ug/L			06/01/16 01:05	10
Toluene	**99**		5.0	ug/L			06/01/16 01:05	10
trans-1,2-Dichloroethene	ND		10	ug/L			06/01/16 01:05	10
trans-1,3-Dichloropropene	ND		5.0	ug/L			06/01/16 01:05	10

Client Sample ID: MW-33

Lab Sample ID: 440-148520-6
Date Collected: 05/26/16 12:32
Matrix: Water
Date Received: 05/26/16 16:20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	ND		10	ug/L			06/01/16 01:05	10
1,2,4-Trichlorobenzene	ND		10	ug/L			06/01/16 01:05	10
1,1,1-Trichloroethane	ND		10	ug/L			06/01/16 01:05	10
1,1,2-Trichloroethane	ND		10	ug/L			06/01/16 01:05	10
Trichloroethene	ND		10	ug/L			06/01/16 01:05	10
Trichlorofluoromethane	ND		10	ug/L			06/01/16 01:05	10
1,2,3-Trichloropropane	ND		10	ug/L			06/01/16 01:05	10
1,2,4-Trimethylbenzene	**27**		10	ug/L			06/01/16 01:05	10
1,3,5-Trimethylbenzene	ND		10	ug/L			06/01/16 01:05	10
Vinyl chloride	ND		5.0	ug/L			06/01/16 01:05	10
Xylenes, Total	**18**		15	ug/L			06/01/16 01:05	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*06/01/16 01:05*	*10*
Dibromofluoromethane (Surr)	*99*		*76 - 132*		*06/01/16 01:05*	*10*
Toluene-d8 (Surr)	*106*		*80 - 128*		*06/01/16 01:05*	*10*

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl Ether (DIPE)	**66**		10	ug/L			06/01/16 11:42	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*06/01/16 11:42*	*10*
Dibromofluoromethane (Surr)	*103*		*76 - 132*		*06/01/16 11:42*	*10*
Toluene-d8 (Surr)	*112*		*80 - 128*		*06/01/16 11:42*	*10*

Client Sample ID: MW-25R

Lab Sample ID: 440-148520-7
Date Collected: 05/26/16 13:03
Matrix: Water
Date Received: 05/26/16 16:20

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	**55**		50	ug/L			06/01/16 01:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*100*		*76 - 132*		*06/01/16 01:36*	*1*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*		*06/01/16 01:36*	*1*
Toluene-d8 (Surr)	*106*		*80 - 128*		*06/01/16 01:36*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	ug/L			06/01/16 01:36	1
Benzene	**2.4**		0.50	ug/L			06/01/16 01:36	1
Bromobenzene	ND		1.0	ug/L			06/01/16 01:36	1
Bromochloromethane	ND		1.0	ug/L			06/01/16 01:36	1
Bromodichloromethane	ND		1.0	ug/L			06/01/16 01:36	1
Bromoform	ND		1.0	ug/L			06/01/16 01:36	1
Bromomethane	ND		1.0	ug/L			06/01/16 01:36	1
2-Butanone (MEK)	ND		10	ug/L			06/01/16 01:36	1
Carbon tetrachloride	ND		0.50	ug/L			06/01/16 01:36	1

Client Sample ID: MW-25R

Date Collected: 05/26/16 13:03
Date Received: 05/26/16 16:20

Lab Sample ID: 440-148520-7

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND		1.0	ug/L			06/01/16 01:36	1
Chloroethane	ND		1.0	ug/L			06/01/16 01:36	1
Chloroform	ND		1.0	ug/L			06/01/16 01:36	1
Chloromethane	ND		1.0	ug/L			06/01/16 01:36	1
2-Chlorotoluene	ND		1.0	ug/L			06/01/16 01:36	1
4-Chlorotoluene	ND		1.0	ug/L			06/01/16 01:36	1
cis-1,2-Dichloroethene	**2.9**		1.0	ug/L			06/01/16 01:36	1
cis-1,3-Dichloropropene	ND		0.50	ug/L			06/01/16 01:36	1
Dibromochloromethane	ND		1.0	ug/L			06/01/16 01:36	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			06/01/16 01:36	1
1,2-Dibromoethane (EDB)	ND		1.0	ug/L			06/01/16 01:36	1
Dibromomethane	ND		1.0	ug/L			06/01/16 01:36	1
1,2-Dichlorobenzene	ND		1.0	ug/L			06/01/16 01:36	1
1,3-Dichlorobenzene	ND		1.0	ug/L			06/01/16 01:36	1
1,4-Dichlorobenzene	ND		1.0	ug/L			06/01/16 01:36	1
Dichlorodifluoromethane	ND		2.0	ug/L			06/01/16 01:36	1
1,1-Dichloroethane	ND		1.0	ug/L			06/01/16 01:36	1
1,2-Dichloroethane	ND		0.50	ug/L			06/01/16 01:36	1
1,1-Dichloroethene	ND		1.0	ug/L			06/01/16 01:36	1
1,2-Dichloropropane	ND		1.0	ug/L			06/01/16 01:36	1
1,3-Dichloropropane	ND		1.0	ug/L			06/01/16 01:36	1
2,2-Dichloropropane	ND		1.0	ug/L			06/01/16 01:36	1
1,1-Dichloropropene	ND		1.0	ug/L			06/01/16 01:36	1
Ethylbenzene	ND		0.50	ug/L			06/01/16 01:36	1
Ethyl-t-butyl ether (ETBE)	ND	*	1.0	ug/L			06/01/16 01:36	1
Hexachlorobutadiene	ND		1.0	ug/L			06/01/16 01:36	1
2-Hexanone	ND		10	ug/L			06/01/16 01:36	1
Isopropylbenzene	ND		1.0	ug/L			06/01/16 01:36	1
Methylene Chloride	ND		5.0	ug/L			06/01/16 01:36	1
4-Methyl-2-pentanone (MIBK)	ND		10	ug/L			06/01/16 01:36	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	ug/L			06/01/16 01:36	1
m,p-Xylene	ND		1.0	ug/L			06/01/16 01:36	1
Naphthalene	ND		1.0	ug/L			06/01/16 01:36	1
n-Butylbenzene	ND		1.0	ug/L			06/01/16 01:36	1
N-Propylbenzene	ND		1.0	ug/L			06/01/16 01:36	1
o-Xylene	ND		0.50	ug/L			06/01/16 01:36	1
p-Isopropyltoluene	ND		1.0	ug/L			06/01/16 01:36	1
sec-Butylbenzene	ND		1.0	ug/L			06/01/16 01:36	1
Styrene	ND		1.0	ug/L			06/01/16 01:36	1
Tert-amyl-methyl ether (TAME)	ND		1.0	ug/L			06/01/16 01:36	1
tert-Butyl alcohol (TBA)	ND		10	ug/L			06/01/16 01:36	1
tert-Butylbenzene	ND		1.0	ug/L			06/01/16 01:36	1
1,1,1,2-Tetrachloroethane	ND		1.0	ug/L			06/01/16 01:36	1
1,1,2,2-Tetrachloroethane	ND		1.0	ug/L			06/01/16 01:36	1
Tetrachloroethene	ND		1.0	ug/L			06/01/16 01:36	1
Toluene	ND		0.50	ug/L			06/01/16 01:36	1
trans-1,2-Dichloroethene	ND		1.0	ug/L			06/01/16 01:36	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			06/01/16 01:36	1
1,2,3-Trichlorobenzene	ND		1.0	ug/L			06/01/16 01:36	1

Client Sample Results

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516 Mon

TestAmerica Job ID: 440-148520-1

Client Sample ID: MW-25R

Lab Sample ID: 440-148520-7
Date Collected: 05/26/16 13:03
Matrix: Water
Date Received: 05/26/16 16:20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.0	ug/L			06/01/16 01:36	1
1,1,1-Trichloroethane	ND		1.0	ug/L			06/01/16 01:36	1
1,1,2-Trichloroethane	ND		1.0	ug/L			06/01/16 01:36	1
Trichloroethene	ND		1.0	ug/L			06/01/16 01:36	1
Trichlorofluoromethane	ND		1.0	ug/L			06/01/16 01:36	1
1,2,3-Trichloropropane	ND		1.0	ug/L			06/01/16 01:36	1
1,2,4-Trimethylbenzene	ND		1.0	ug/L			06/01/16 01:36	1
1,3,5-Trimethylbenzene	ND		1.0	ug/L			06/01/16 01:36	1
Vinyl chloride	ND		0.50	ug/L			06/01/16 01:36	1
Xylenes, Total	ND		1.5	ug/L			06/01/16 01:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*		*06/01/16 01:36*	*1*
Dibromofluoromethane (Surr)	*100*		*76 - 132*		*06/01/16 01:36*	*1*
Toluene-d8 (Surr)	*106*		*80 - 128*		*06/01/16 01:36*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl Ether (DIPE)	ND		10	ug/L			06/01/16 12:10	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*106*		*80 - 120*		*06/01/16 12:10*	*10*
Dibromofluoromethane (Surr)	*106*		*76 - 132*		*06/01/16 12:10*	*10*
Toluene-d8 (Surr)	*111*		*80 - 128*		*06/01/16 12:10*	*10*

Client Sample ID: MW-34

Lab Sample ID: 440-148520-8
Date Collected: 05/26/16 13:21
Matrix: Water
Date Received: 05/26/16 16:20

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		50	ug/L			06/01/16 02:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*102*		*76 - 132*		*06/01/16 02:06*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*06/01/16 02:06*	*1*
Toluene-d8 (Surr)	*105*		*80 - 128*		*06/01/16 02:06*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	ug/L			06/01/16 02:06	1
Benzene	ND		0.50	ug/L			06/01/16 02:06	1
Bromobenzene	ND		1.0	ug/L			06/01/16 02:06	1
Bromochloromethane	ND		1.0	ug/L			06/01/16 02:06	1
Bromodichloromethane	ND		1.0	ug/L			06/01/16 02:06	1
Bromoform	ND		1.0	ug/L			06/01/16 02:06	1
Bromomethane	ND		1.0	ug/L			06/01/16 02:06	1
2-Butanone (MEK)	ND		10	ug/L			06/01/16 02:06	1
Carbon tetrachloride	ND		0.50	ug/L			06/01/16 02:06	1
Chlorobenzene	ND		1.0	ug/L			06/01/16 02:06	1
Chloroethane	ND		1.0	ug/L			06/01/16 02:06	1

Client Sample ID: MW-34

Date Collected: 05/26/16 13:21
Date Received: 05/26/16 16:20

Lab Sample ID: 440-148520-8

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	ND		1.0		ug/L			06/01/16 02:06	1
Chloromethane	ND		1.0		ug/L			06/01/16 02:06	1
2-Chlorotoluene	ND		1.0		ug/L			06/01/16 02:06	1
4-Chlorotoluene	ND		1.0		ug/L			06/01/16 02:06	1
cis-1,2-Dichloroethene	**4.3**		1.0		ug/L			06/01/16 02:06	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			06/01/16 02:06	1
Dibromochloromethane	ND		1.0		ug/L			06/01/16 02:06	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			06/01/16 02:06	1
1,2-Dibromoethane (EDB)	ND		1.0		ug/L			06/01/16 02:06	1
Dibromomethane	ND		1.0		ug/L			06/01/16 02:06	1
1,2-Dichlorobenzene	ND		1.0		ug/L			06/01/16 02:06	1
1,3-Dichlorobenzene	ND		1.0		ug/L			06/01/16 02:06	1
1,4-Dichlorobenzene	ND		1.0		ug/L			06/01/16 02:06	1
Dichlorodifluoromethane	ND		2.0		ug/L			06/01/16 02:06	1
1,1-Dichloroethane	ND		1.0		ug/L			06/01/16 02:06	1
1,2-Dichloroethane	ND		0.50		ug/L			06/01/16 02:06	1
1,1-Dichloroethene	ND		1.0		ug/L			06/01/16 02:06	1
1,2-Dichloropropane	ND		1.0		ug/L			06/01/16 02:06	1
1,3-Dichloropropane	ND		1.0		ug/L			06/01/16 02:06	1
2,2-Dichloropropane	ND		1.0		ug/L			06/01/16 02:06	1
1,1-Dichloropropene	ND		1.0		ug/L			06/01/16 02:06	1
Ethylbenzene	ND		0.50		ug/L			06/01/16 02:06	1
Ethyl-t-butyl ether (ETBE)	ND	*	1.0		ug/L			06/01/16 02:06	1
Hexachlorobutadiene	ND		1.0		ug/L			06/01/16 02:06	1
2-Hexanone	ND		10		ug/L			06/01/16 02:06	1
Isopropylbenzene	ND		1.0		ug/L			06/01/16 02:06	1
Isopropyl Ether (DIPE)	ND	*	1.0		ug/L			06/01/16 02:06	1
Methylene Chloride	ND		5.0		ug/L			06/01/16 02:06	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			06/01/16 02:06	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0		ug/L			06/01/16 02:06	1
m,p-Xylene	ND		1.0		ug/L			06/01/16 02:06	1
Naphthalene	ND		1.0		ug/L			06/01/16 02:06	1
n-Butylbenzene	ND		1.0		ug/L			06/01/16 02:06	1
N-Propylbenzene	ND		1.0		ug/L			06/01/16 02:06	1
o-Xylene	ND		0.50		ug/L			06/01/16 02:06	1
p-Isopropyltoluene	ND		1.0		ug/L			06/01/16 02:06	1
sec-Butylbenzene	ND		1.0		ug/L			06/01/16 02:06	1
Styrene	ND		1.0		ug/L			06/01/16 02:06	1
Tert-amyl-methyl ether (TAME)	ND		1.0		ug/L			06/01/16 02:06	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			06/01/16 02:06	1
tert-Butylbenzene	ND		1.0		ug/L			06/01/16 02:06	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			06/01/16 02:06	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/01/16 02:06	1
Tetrachloroethene	ND		1.0		ug/L			06/01/16 02:06	1
Toluene	ND		0.50		ug/L			06/01/16 02:06	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			06/01/16 02:06	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			06/01/16 02:06	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			06/01/16 02:06	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			06/01/16 02:06	1

Client Sample Results

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516 Mon

TestAmerica Job ID: 440-148520-1

Client Sample ID: MW-34

Lab Sample ID: 440-148520-8
Date Collected: 05/26/16 13:21
Matrix: Water
Date Received: 05/26/16 16:20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	ug/L			06/01/16 02:06	1
1,1,2-Trichloroethane	ND		1.0	ug/L			06/01/16 02:06	1
Trichloroethene	ND		1.0	ug/L			06/01/16 02:06	1
Trichlorofluoromethane	ND		1.0	ug/L			06/01/16 02:06	1
1,2,3-Trichloropropane	ND		1.0	ug/L			06/01/16 02:06	1
1,2,4-Trimethylbenzene	ND		1.0	ug/L			06/01/16 02:06	1
1,3,5-Trimethylbenzene	ND		1.0	ug/L			06/01/16 02:06	1
Vinyl chloride	ND		0.50	ug/L			06/01/16 02:06	1
Xylenes, Total	ND		1.5	ug/L			06/01/16 02:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*06/01/16 02:06*	*1*
Dibromofluoromethane (Surr)	*102*		*76 - 132*		*06/01/16 02:06*	*1*
Toluene-d8 (Surr)	*105*		*80 - 128*		*06/01/16 02:06*	*1*

Client Sample ID: MW-19

Lab Sample ID: 440-148520-9
Date Collected: 05/26/16 14:23
Matrix: Water
Date Received: 05/26/16 16:20

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	**71**		50	ug/L			06/01/16 02:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*103*		*76 - 132*		*06/01/16 02:37*	*1*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*06/01/16 02:37*	*1*
Toluene-d8 (Surr)	*104*		*80 - 128*		*06/01/16 02:37*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	ug/L			06/01/16 02:37	1
Benzene	ND		0.50	ug/L			06/01/16 02:37	1
Bromobenzene	ND		1.0	ug/L			06/01/16 02:37	1
Bromochloromethane	ND		1.0	ug/L			06/01/16 02:37	1
Bromodichloromethane	ND		1.0	ug/L			06/01/16 02:37	1
Bromoform	ND		1.0	ug/L			06/01/16 02:37	1
Bromomethane	ND		1.0	ug/L			06/01/16 02:37	1
2-Butanone (MEK)	ND		10	ug/L			06/01/16 02:37	1
Carbon tetrachloride	ND		0.50	ug/L			06/01/16 02:37	1
Chlorobenzene	ND		1.0	ug/L			06/01/16 02:37	1
Chloroethane	ND		1.0	ug/L			06/01/16 02:37	1
Chloroform	ND		1.0	ug/L			06/01/16 02:37	1
Chloromethane	ND		1.0	ug/L			06/01/16 02:37	1
2-Chlorotoluene	ND		1.0	ug/L			06/01/16 02:37	1
4-Chlorotoluene	ND		1.0	ug/L			06/01/16 02:37	1
cis-1,2-Dichloroethene	ND		1.0	ug/L			06/01/16 02:37	1
cis-1,3-Dichloropropene	ND		0.50	ug/L			06/01/16 02:37	1
Dibromochloromethane	ND		1.0	ug/L			06/01/16 02:37	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			06/01/16 02:37	1
1,2-Dibromoethane (EDB)	ND		1.0	ug/L			06/01/16 02:37	1

Client Sample Results

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516 Mon

TestAmerica Job ID: 440-148520-1

Client Sample ID: MW-19

Date Collected: 05/26/16 14:23
Date Received: 05/26/16 16:20

Lab Sample ID: 440-148520-9

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Dibromomethane	ND		1.0		ug/L			06/01/16 02:37	1
1,2-Dichlorobenzene	ND		1.0		ug/L			06/01/16 02:37	1
1,3-Dichlorobenzene	ND		1.0		ug/L			06/01/16 02:37	1
1,4-Dichlorobenzene	ND		1.0		ug/L			06/01/16 02:37	1
Dichlorodifluoromethane	ND		2.0		ug/L			06/01/16 02:37	1
1,1-Dichloroethane	ND		1.0		ug/L			06/01/16 02:37	1
1,2-Dichloroethane	ND		0.50		ug/L			06/01/16 02:37	1
1,1-Dichloroethene	ND		1.0		ug/L			06/01/16 02:37	1
1,2-Dichloropropane	ND		1.0		ug/L			06/01/16 02:37	1
1,3-Dichloropropane	ND		1.0		ug/L			06/01/16 02:37	1
2,2-Dichloropropane	ND		1.0		ug/L			06/01/16 02:37	1
1,1-Dichloropropene	ND		1.0		ug/L			06/01/16 02:37	1
Ethylbenzene	ND		0.50		ug/L			06/01/16 02:37	1
Ethyl-t-butyl ether (ETBE)	ND	*	1.0		ug/L			06/01/16 02:37	1
Hexachlorobutadiene	ND		1.0		ug/L			06/01/16 02:37	1
2-Hexanone	ND		10		ug/L			06/01/16 02:37	1
Isopropylbenzene	ND		1.0		ug/L			06/01/16 02:37	1
Methylene Chloride	ND		5.0		ug/L			06/01/16 02:37	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			06/01/16 02:37	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0		ug/L			06/01/16 02:37	1
m,p-Xylene	ND		1.0		ug/L			06/01/16 02:37	1
Naphthalene	ND		1.0		ug/L			06/01/16 02:37	1
n-Butylbenzene	ND		1.0		ug/L			06/01/16 02:37	1
N-Propylbenzene	ND		1.0		ug/L			06/01/16 02:37	1
o-Xylene	ND		0.50		ug/L			06/01/16 02:37	1
p-Isopropyltoluene	ND		1.0		ug/L			06/01/16 02:37	1
sec-Butylbenzene	ND		1.0		ug/L			06/01/16 02:37	1
Styrene	ND		1.0		ug/L			06/01/16 02:37	1
Tert-amyl-methyl ether (TAME)	ND		1.0		ug/L			06/01/16 02:37	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			06/01/16 02:37	1
tert-Butylbenzene	ND		1.0		ug/L			06/01/16 02:37	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			06/01/16 02:37	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/01/16 02:37	1
Tetrachloroethene	ND		1.0		ug/L			06/01/16 02:37	1
Toluene	ND		0.50		ug/L			06/01/16 02:37	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			06/01/16 02:37	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			06/01/16 02:37	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			06/01/16 02:37	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			06/01/16 02:37	1
1,1,1-Trichloroethane	ND		1.0		ug/L			06/01/16 02:37	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/01/16 02:37	1
Trichloroethene	ND		1.0		ug/L			06/01/16 02:37	1
Trichlorofluoromethane	ND		1.0		ug/L			06/01/16 02:37	1
1,2,3-Trichloropropane	ND		1.0		ug/L			06/01/16 02:37	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			06/01/16 02:37	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			06/01/16 02:37	1
Vinyl chloride	ND		0.50		ug/L			06/01/16 02:37	1
Xylenes, Total	ND		1.5		ug/L			06/01/16 02:37	1

Client Sample Results

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516 Mon

TestAmerica Job ID: 440-148520-1

Client Sample ID: MW-19

Lab Sample ID: 440-148520-9
Date Collected: 05/26/16 14:23
Matrix: Water
Date Received: 05/26/16 16:20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		80 - 120		06/01/16 02:37	1
Dibromofluoromethane (Surr)	103		76 - 132		06/01/16 02:37	1
Toluene-d8 (Surr)	104		80 - 128		06/01/16 02:37	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl Ether (DIPE)	**46**		1.0	ug/L			06/01/16 12:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		80 - 120		06/01/16 12:37	1
Dibromofluoromethane (Surr)	107		76 - 132		06/01/16 12:37	1
Toluene-d8 (Surr)	110		80 - 128		06/01/16 12:37	1

Client Sample ID: MW-27

Lab Sample ID: 440-148520-10
Date Collected: 05/26/16 14:51
Matrix: Water
Date Received: 05/26/16 16:20

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	**670**		50	ug/L			06/01/16 03:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	98		76 - 132		06/01/16 03:07	1
4-Bromofluorobenzene (Surr)	107		80 - 120		06/01/16 03:07	1
Toluene-d8 (Surr)	104		80 - 128		06/01/16 03:07	1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	ug/L			06/01/16 03:07	1
Benzene	**29**		0.50	ug/L			06/01/16 03:07	1
Bromobenzene	ND		1.0	ug/L			06/01/16 03:07	1
Bromochloromethane	ND		1.0	ug/L			06/01/16 03:07	1
Bromodichloromethane	ND		1.0	ug/L			06/01/16 03:07	1
Bromoform	ND		1.0	ug/L			06/01/16 03:07	1
Bromomethane	ND		1.0	ug/L			06/01/16 03:07	1
2-Butanone (MEK)	ND		10	ug/L			06/01/16 03:07	1
Carbon tetrachloride	ND		0.50	ug/L			06/01/16 03:07	1
Chlorobenzene	ND		1.0	ug/L			06/01/16 03:07	1
Chloroethane	ND		1.0	ug/L			06/01/16 03:07	1
Chloroform	ND		1.0	ug/L			06/01/16 03:07	1
Chloromethane	ND		1.0	ug/L			06/01/16 03:07	1
2-Chlorotoluene	ND		1.0	ug/L			06/01/16 03:07	1
4-Chlorotoluene	ND		1.0	ug/L			06/01/16 03:07	1
cis-1,2-Dichloroethene	ND		1.0	ug/L			06/01/16 03:07	1
cis-1,3-Dichloropropene	ND		0.50	ug/L			06/01/16 03:07	1
Dibromochloromethane	ND		1.0	ug/L			06/01/16 03:07	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			06/01/16 03:07	1
1,2-Dibromoethane (EDB)	ND		1.0	ug/L			06/01/16 03:07	1
Dibromomethane	ND		1.0	ug/L			06/01/16 03:07	1
1,2-Dichlorobenzene	ND		1.0	ug/L			06/01/16 03:07	1

Client Sample ID: MW-27

Date Collected: 05/26/16 14:51
Date Received: 05/26/16 16:20

Lab Sample ID: 440-148520-10

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		1.0	ug/L			06/01/16 03:07	1
1,4-Dichlorobenzene	ND		1.0	ug/L			06/01/16 03:07	1
Dichlorodifluoromethane	ND		2.0	ug/L			06/01/16 03:07	1
1,1-Dichloroethane	ND		1.0	ug/L			06/01/16 03:07	1
1,2-Dichloroethane	ND		0.50	ug/L			06/01/16 03:07	1
1,1-Dichloroethene	ND		1.0	ug/L			06/01/16 03:07	1
1,2-Dichloropropane	ND		1.0	ug/L			06/01/16 03:07	1
1,3-Dichloropropane	ND		1.0	ug/L			06/01/16 03:07	1
2,2-Dichloropropane	ND		1.0	ug/L			06/01/16 03:07	1
1,1-Dichloropropene	ND		1.0	ug/L			06/01/16 03:07	1
Ethylbenzene	**1.0**		0.50	ug/L			06/01/16 03:07	1
Ethyl-t-butyl ether (ETBE)	ND	*	1.0	ug/L			06/01/16 03:07	1
Hexachlorobutadiene	ND		1.0	ug/L			06/01/16 03:07	1
2-Hexanone	ND		10	ug/L			06/01/16 03:07	1
Isopropylbenzene	**10**		1.0	ug/L			06/01/16 03:07	1
Methylene Chloride	ND		5.0	ug/L			06/01/16 03:07	1
4-Methyl-2-pentanone (MIBK)	ND		10	ug/L			06/01/16 03:07	1
Methyl-t-Butyl Ether (MTBE)	**1.2**		1.0	ug/L			06/01/16 03:07	1
m,p-Xylene	ND		1.0	ug/L			06/01/16 03:07	1
Naphthalene	ND		1.0	ug/L			06/01/16 03:07	1
n-Butylbenzene	**1.1**		1.0	ug/L			06/01/16 03:07	1
N-Propylbenzene	**5.3**		1.0	ug/L			06/01/16 03:07	1
o-Xylene	ND		0.50	ug/L			06/01/16 03:07	1
p-Isopropyltoluene	ND		1.0	ug/L			06/01/16 03:07	1
sec-Butylbenzene	**2.2**		1.0	ug/L			06/01/16 03:07	1
Styrene	ND		1.0	ug/L			06/01/16 03:07	1
Tert-amyl-methyl ether (TAME)	ND		1.0	ug/L			06/01/16 03:07	1
tert-Butyl alcohol (TBA)	**35**		10	ug/L			06/01/16 03:07	1
tert-Butylbenzene	ND		1.0	ug/L			06/01/16 03:07	1
1,1,1,2-Tetrachloroethane	ND		1.0	ug/L			06/01/16 03:07	1
1,1,2,2-Tetrachloroethane	ND		1.0	ug/L			06/01/16 03:07	1
Tetrachloroethene	ND		1.0	ug/L			06/01/16 03:07	1
Toluene	ND		0.50	ug/L			06/01/16 03:07	1
trans-1,2-Dichloroethene	ND		1.0	ug/L			06/01/16 03:07	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			06/01/16 03:07	1
1,2,3-Trichlorobenzene	ND		1.0	ug/L			06/01/16 03:07	1
1,2,4-Trichlorobenzene	ND		1.0	ug/L			06/01/16 03:07	1
1,1,1-Trichloroethane	ND		1.0	ug/L			06/01/16 03:07	1
1,1,2-Trichloroethane	ND		1.0	ug/L			06/01/16 03:07	1
Trichloroethene	ND		1.0	ug/L			06/01/16 03:07	1
Trichlorofluoromethane	ND		1.0	ug/L			06/01/16 03:07	1
1,2,3-Trichloropropane	ND		1.0	ug/L			06/01/16 03:07	1
1,2,4-Trimethylbenzene	ND		1.0	ug/L			06/01/16 03:07	1
1,3,5-Trimethylbenzene	ND		1.0	ug/L			06/01/16 03:07	1
Vinyl chloride	ND		0.50	ug/L			06/01/16 03:07	1
Xylenes, Total	ND		1.5	ug/L			06/01/16 03:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*80 - 120*		*06/01/16 03:07*	*1*
Dibromofluoromethane (Surr)	*98*		*76 - 132*		*06/01/16 03:07*	*1*

Client Sample Results

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516 Mon

TestAmerica Job ID: 440-148520-1

Client Sample ID: MW-27

Lab Sample ID: 440-148520-10
Date Collected: 05/26/16 14:51
Matrix: Water
Date Received: 05/26/16 16:20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*104*		*80 - 128*		*06/01/16 03:07*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS) - RA

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropyl Ether (DIPE)	**56**		1.0	ug/L			06/01/16 13:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*107*		*80 - 120*		*06/01/16 13:05*	*1*
Dibromofluoromethane (Surr)	*104*		*76 - 132*		*06/01/16 13:05*	*1*
Toluene-d8 (Surr)	*110*		*80 - 128*		*06/01/16 13:05*	*1*

Client Sample ID: TB-1

Lab Sample ID: 440-148520-11
Date Collected: 05/26/16 08:30
Matrix: Water
Date Received: 05/26/16 16:20

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		50	ug/L			06/01/16 03:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*105*		*76 - 132*		*06/01/16 03:38*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*06/01/16 03:38*	*1*
Toluene-d8 (Surr)	*104*		*80 - 128*		*06/01/16 03:38*	*1*

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	ug/L			06/01/16 03:38	1
Benzene	ND		0.50	ug/L			06/01/16 03:38	1
Bromobenzene	ND		1.0	ug/L			06/01/16 03:38	1
Bromochloromethane	ND		1.0	ug/L			06/01/16 03:38	1
Bromodichloromethane	ND		1.0	ug/L			06/01/16 03:38	1
Bromoform	ND		1.0	ug/L			06/01/16 03:38	1
Bromomethane	ND		1.0	ug/L			06/01/16 03:38	1
2-Butanone (MEK)	ND		10	ug/L			06/01/16 03:38	1
Carbon tetrachloride	ND		0.50	ug/L			06/01/16 03:38	1
Chlorobenzene	ND		1.0	ug/L			06/01/16 03:38	1
Chloroethane	ND		1.0	ug/L			06/01/16 03:38	1
Chloroform	ND		1.0	ug/L			06/01/16 03:38	1
Chloromethane	ND		1.0	ug/L			06/01/16 03:38	1
2-Chlorotoluene	ND		1.0	ug/L			06/01/16 03:38	1
4-Chlorotoluene	ND		1.0	ug/L			06/01/16 03:38	1
cis-1,2-Dichloroethene	ND		1.0	ug/L			06/01/16 03:38	1
cis-1,3-Dichloropropene	ND		0.50	ug/L			06/01/16 03:38	1
Dibromochloromethane	ND		1.0	ug/L			06/01/16 03:38	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			06/01/16 03:38	1
1,2-Dibromoethane (EDB)	ND		1.0	ug/L			06/01/16 03:38	1
Dibromomethane	ND		1.0	ug/L			06/01/16 03:38	1
1,2-Dichlorobenzene	ND		1.0	ug/L			06/01/16 03:38	1
1,3-Dichlorobenzene	ND		1.0	ug/L			06/01/16 03:38	1
1,4-Dichlorobenzene	ND		1.0	ug/L			06/01/16 03:38	1

Client Sample Results

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516 Mon

TestAmerica Job ID: 440-148520-1

Client Sample ID: TB-1

Date Collected: 05/26/16 08:30
Date Received: 05/26/16 16:20

Lab Sample ID: 440-148520-11

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		2.0	ug/L			06/01/16 03:38	1
1,1-Dichloroethane	ND		1.0	ug/L			06/01/16 03:38	1
1,2-Dichloroethane	ND		0.50	ug/L			06/01/16 03:38	1
1,1-Dichloroethene	ND		1.0	ug/L			06/01/16 03:38	1
1,2-Dichloropropane	ND		1.0	ug/L			06/01/16 03:38	1
1,3-Dichloropropane	ND		1.0	ug/L			06/01/16 03:38	1
2,2-Dichloropropane	ND		1.0	ug/L			06/01/16 03:38	1
1,1-Dichloropropene	ND		1.0	ug/L			06/01/16 03:38	1
Ethylbenzene	ND		0.50	ug/L			06/01/16 03:38	1
Ethyl-t-butyl ether (ETBE)	ND	*	1.0	ug/L			06/01/16 03:38	1
Hexachlorobutadiene	ND		1.0	ug/L			06/01/16 03:38	1
2-Hexanone	ND		10	ug/L			06/01/16 03:38	1
Isopropylbenzene	ND		1.0	ug/L			06/01/16 03:38	1
Isopropyl Ether (DIPE)	ND	*	1.0	ug/L			06/01/16 03:38	1
Methylene Chloride	ND		5.0	ug/L			06/01/16 03:38	1
4-Methyl-2-pentanone (MIBK)	ND		10	ug/L			06/01/16 03:38	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0	ug/L			06/01/16 03:38	1
m,p-Xylene	ND		1.0	ug/L			06/01/16 03:38	1
Naphthalene	ND		1.0	ug/L			06/01/16 03:38	1
n-Butylbenzene	ND		1.0	ug/L			06/01/16 03:38	1
N-Propylbenzene	ND		1.0	ug/L			06/01/16 03:38	1
o-Xylene	ND		0.50	ug/L			06/01/16 03:38	1
p-Isopropyltoluene	ND		1.0	ug/L			06/01/16 03:38	1
sec-Butylbenzene	ND		1.0	ug/L			06/01/16 03:38	1
Styrene	ND		1.0	ug/L			06/01/16 03:38	1
Tert-amyl-methyl ether (TAME)	ND		1.0	ug/L			06/01/16 03:38	1
tert-Butyl alcohol (TBA)	ND		10	ug/L			06/01/16 03:38	1
tert-Butylbenzene	ND		1.0	ug/L			06/01/16 03:38	1
1,1,1,2-Tetrachloroethane	ND		1.0	ug/L			06/01/16 03:38	1
1,1,2,2-Tetrachloroethane	ND		1.0	ug/L			06/01/16 03:38	1
Tetrachloroethene	ND		1.0	ug/L			06/01/16 03:38	1
Toluene	ND		0.50	ug/L			06/01/16 03:38	1
trans-1,2-Dichloroethene	ND		1.0	ug/L			06/01/16 03:38	1
trans-1,3-Dichloropropene	ND		0.50	ug/L			06/01/16 03:38	1
1,2,3-Trichlorobenzene	ND		1.0	ug/L			06/01/16 03:38	1
1,2,4-Trichlorobenzene	ND		1.0	ug/L			06/01/16 03:38	1
1,1,1-Trichloroethane	ND		1.0	ug/L			06/01/16 03:38	1
1,1,2-Trichloroethane	ND		1.0	ug/L			06/01/16 03:38	1
Trichloroethene	ND		1.0	ug/L			06/01/16 03:38	1
Trichlorofluoromethane	ND		1.0	ug/L			06/01/16 03:38	1
1,2,3-Trichloropropane	ND		1.0	ug/L			06/01/16 03:38	1
1,2,4-Trimethylbenzene	ND		1.0	ug/L			06/01/16 03:38	1
1,3,5-Trimethylbenzene	ND		1.0	ug/L			06/01/16 03:38	1
Vinyl chloride	ND		0.50	ug/L			06/01/16 03:38	1
Xylenes, Total	ND		1.5	ug/L			06/01/16 03:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*06/01/16 03:38*	*1*
Dibromofluoromethane (Surr)	*105*		*76 - 132*		*06/01/16 03:38*	*1*
Toluene-d8 (Surr)	*104*		*80 - 128*		*06/01/16 03:38*	*1*

Method Summary

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516 Mon

TestAmerica Job ID: 440-148520-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL IRV
8260B/CA_LUFTMS	Volatile Organic Compounds by GC/MS	SW846	TAL IRV

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Lab Chronicle

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516 Mon

TestAmerica Job ID: 440-148520-1

Client Sample ID: MW-35
Date Collected: 05/26/16 08:59
Date Received: 05/26/16 16:20

Lab Sample ID: 440-148520-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	333663	05/31/16 21:33	WC	TAL IRV
Total/NA	Analysis	8260B	RA	1	10 mL	10 mL	333710	06/01/16 08:58	MM1	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	10 mL	10 mL	333664	05/31/16 21:33	WC	TAL IRV

Client Sample ID: MW-31
Date Collected: 05/26/16 09:30
Date Received: 05/26/16 16:20

Lab Sample ID: 440-148520-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	333663	05/31/16 23:04	WC	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	10 mL	10 mL	333664	05/31/16 23:04	WC	TAL IRV

Client Sample ID: MW-36
Date Collected: 05/26/16 10:01
Date Received: 05/26/16 16:20

Lab Sample ID: 440-148520-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	333663	05/31/16 23:34	WC	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	10 mL	10 mL	333664	05/31/16 23:34	WC	TAL IRV

Client Sample ID: MW-37
Date Collected: 05/26/16 10:35
Date Received: 05/26/16 16:20

Lab Sample ID: 440-148520-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	333663	06/01/16 00:04	WC	TAL IRV
Total/NA	Analysis	8260B	RA	1	10 mL	10 mL	333710	06/01/16 10:20	MM1	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	10 mL	10 mL	333664	06/01/16 00:04	WC	TAL IRV

Client Sample ID: MW-38
Date Collected: 05/26/16 11:03
Date Received: 05/26/16 16:20

Lab Sample ID: 440-148520-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2.5	10 mL	10 mL	333663	06/01/16 00:35	WC	TAL IRV
Total/NA	Analysis	8260B	RA	2.5	10 mL	10 mL	333710	06/01/16 10:48	MM1	TAL IRV
Total/NA	Analysis	8260B	DL	20	10 mL	10 mL	333710	06/01/16 11:15	MM1	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		2.5	10 mL	10 mL	333664	06/01/16 00:35	WC	TAL IRV

Lab Chronicle

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516 Mon

TestAmerica Job ID: 440-148520-1

Client Sample ID: MW-33
Date Collected: 05/26/16 12:32
Date Received: 05/26/16 16:20

Lab Sample ID: 440-148520-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	10 mL	10 mL	333663	06/01/16 01:05	WC	TAL IRV
Total/NA	Analysis	8260B	RA	10	10 mL	10 mL	333710	06/01/16 11:42	MM1	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		10	10 mL	10 mL	333664	06/01/16 01:05	WC	TAL IRV

Client Sample ID: MW-25R
Date Collected: 05/26/16 13:03
Date Received: 05/26/16 16:20

Lab Sample ID: 440-148520-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	333663	06/01/16 01:36	WC	TAL IRV
Total/NA	Analysis	8260B	RA	10	10 mL	10 mL	333710	06/01/16 12:10	MM1	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	10 mL	10 mL	333664	06/01/16 01:36	WC	TAL IRV

Client Sample ID: MW-34
Date Collected: 05/26/16 13:21
Date Received: 05/26/16 16:20

Lab Sample ID: 440-148520-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	333663	06/01/16 02:06	WC	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	10 mL	10 mL	333664	06/01/16 02:06	WC	TAL IRV

Client Sample ID: MW-19
Date Collected: 05/26/16 14:23
Date Received: 05/26/16 16:20

Lab Sample ID: 440-148520-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	333663	06/01/16 02:37	WC	TAL IRV
Total/NA	Analysis	8260B	RA	1	10 mL	10 mL	333710	06/01/16 12:37	MM1	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	10 mL	10 mL	333664	06/01/16 02:37	WC	TAL IRV

Client Sample ID: MW-27
Date Collected: 05/26/16 14:51
Date Received: 05/26/16 16:20

Lab Sample ID: 440-148520-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	333663	06/01/16 03:07	WC	TAL IRV
Total/NA	Analysis	8260B	RA	1	10 mL	10 mL	333710	06/01/16 13:05	MM1	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	10 mL	10 mL	333664	06/01/16 03:07	WC	TAL IRV

Lab Chronicle

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516 Mon

TestAmerica Job ID: 440-148520-1

Client Sample ID: TB-1

Date Collected: 05/26/16 08:30
Date Received: 05/26/16 16:20

Lab Sample ID: 440-148520-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	333663	06/01/16 03:38	WC	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	10 mL	10 mL	333664	06/01/16 03:38	WC	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-333663/4
Matrix: Water
Analysis Batch: 333663

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10		ug/L			05/31/16 19:20	1
Benzene	ND		0.50		ug/L			05/31/16 19:20	1
Bromobenzene	ND		1.0		ug/L			05/31/16 19:20	1
Bromochloromethane	ND		1.0		ug/L			05/31/16 19:20	1
Bromodichloromethane	ND		1.0		ug/L			05/31/16 19:20	1
Bromoform	ND		1.0		ug/L			05/31/16 19:20	1
Bromomethane	ND		1.0		ug/L			05/31/16 19:20	1
2-Butanone (MEK)	ND		10		ug/L			05/31/16 19:20	1
Carbon tetrachloride	ND		0.50		ug/L			05/31/16 19:20	1
Chlorobenzene	ND		1.0		ug/L			05/31/16 19:20	1
Chloroethane	ND		1.0		ug/L			05/31/16 19:20	1
Chloroform	ND		1.0		ug/L			05/31/16 19:20	1
Chloromethane	ND		1.0		ug/L			05/31/16 19:20	1
2-Chlorotoluene	ND		1.0		ug/L			05/31/16 19:20	1
4-Chlorotoluene	ND		1.0		ug/L			05/31/16 19:20	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			05/31/16 19:20	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			05/31/16 19:20	1
Dibromochloromethane	ND		1.0		ug/L			05/31/16 19:20	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			05/31/16 19:20	1
1,2-Dibromoethane (EDB)	ND		1.0		ug/L			05/31/16 19:20	1
Dibromomethane	ND		1.0		ug/L			05/31/16 19:20	1
1,2-Dichlorobenzene	ND		1.0		ug/L			05/31/16 19:20	1
1,3-Dichlorobenzene	ND		1.0		ug/L			05/31/16 19:20	1
1,4-Dichlorobenzene	ND		1.0		ug/L			05/31/16 19:20	1
Dichlorodifluoromethane	ND		2.0		ug/L			05/31/16 19:20	1
1,1-Dichloroethane	ND		1.0		ug/L			05/31/16 19:20	1
1,2-Dichloroethane	ND		0.50		ug/L			05/31/16 19:20	1
1,1-Dichloroethene	ND		1.0		ug/L			05/31/16 19:20	1
1,2-Dichloropropane	ND		1.0		ug/L			05/31/16 19:20	1
1,3-Dichloropropane	ND		1.0		ug/L			05/31/16 19:20	1
2,2-Dichloropropane	ND		1.0		ug/L			05/31/16 19:20	1
1,1-Dichloropropene	ND		1.0		ug/L			05/31/16 19:20	1
Ethylbenzene	ND		0.50		ug/L			05/31/16 19:20	1
Ethyl-t-butyl ether (ETBE)	ND		1.0		ug/L			05/31/16 19:20	1
Hexachlorobutadiene	ND		1.0		ug/L			05/31/16 19:20	1
2-Hexanone	ND		10		ug/L			05/31/16 19:20	1
Isopropylbenzene	ND		1.0		ug/L			05/31/16 19:20	1
Isopropyl Ether (DIPE)	ND		1.0		ug/L			05/31/16 19:20	1
Methylene Chloride	ND		5.0		ug/L			05/31/16 19:20	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			05/31/16 19:20	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0		ug/L			05/31/16 19:20	1
m,p-Xylene	ND		1.0		ug/L			05/31/16 19:20	1
Naphthalene	ND		1.0		ug/L			05/31/16 19:20	1
n-Butylbenzene	ND		1.0		ug/L			05/31/16 19:20	1
N-Propylbenzene	ND		1.0		ug/L			05/31/16 19:20	1
o-Xylene	ND		0.50		ug/L			05/31/16 19:20	1
p-Isopropyltoluene	ND		1.0		ug/L			05/31/16 19:20	1
sec-Butylbenzene	ND		1.0		ug/L			05/31/16 19:20	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-333663/4
Matrix: Water
Analysis Batch: 333663

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0		ug/L			05/31/16 19:20	1
Tert-amyl-methyl ether (TAME)	ND		1.0		ug/L			05/31/16 19:20	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			05/31/16 19:20	1
tert-Butylbenzene	ND		1.0		ug/L			05/31/16 19:20	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			05/31/16 19:20	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			05/31/16 19:20	1
Tetrachloroethene	ND		1.0		ug/L			05/31/16 19:20	1
Toluene	ND		0.50		ug/L			05/31/16 19:20	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			05/31/16 19:20	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			05/31/16 19:20	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			05/31/16 19:20	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			05/31/16 19:20	1
1,1,1-Trichloroethane	ND		1.0		ug/L			05/31/16 19:20	1
1,1,2-Trichloroethane	ND		1.0		ug/L			05/31/16 19:20	1
Trichloroethene	ND		1.0		ug/L			05/31/16 19:20	1
Trichlorofluoromethane	ND		1.0		ug/L			05/31/16 19:20	1
1,2,3-Trichloropropane	ND		1.0		ug/L			05/31/16 19:20	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			05/31/16 19:20	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			05/31/16 19:20	1
Vinyl chloride	ND		0.50		ug/L			05/31/16 19:20	1
Xylenes, Total	ND		1.5		ug/L			05/31/16 19:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*05/31/16 19:20*	*1*
Dibromofluoromethane (Surr)	*98*		*76 - 132*		*05/31/16 19:20*	*1*
Toluene-d8 (Surr)	*106*		*80 - 128*		*05/31/16 19:20*	*1*

Lab Sample ID: LCS 440-333663/5
Matrix: Water
Analysis Batch: 333663

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	26.2		ug/L		105	10 - 150
Benzene	25.0	23.4		ug/L		94	68 - 130
Bromobenzene	25.0	25.1		ug/L		101	70 - 130
Bromochloromethane	25.0	25.0		ug/L		100	70 - 130
Bromodichloromethane	25.0	26.9		ug/L		108	70 - 132
Bromoform	25.0	31.2		ug/L		125	60 - 148
Bromomethane	25.0	24.6		ug/L		98	64 - 139
2-Butanone (MEK)	25.0	25.5		ug/L		102	44 - 150
Carbon tetrachloride	25.0	28.6		ug/L		114	60 - 150
Chlorobenzene	25.0	23.5		ug/L		94	70 - 130
Chloroethane	25.0	26.3		ug/L		105	64 - 135
Chloroform	25.0	24.1		ug/L		96	70 - 130
Chloromethane	25.0	27.4		ug/L		110	47 - 140
2-Chlorotoluene	25.0	24.0		ug/L		96	70 - 130
4-Chlorotoluene	25.0	23.6		ug/L		95	70 - 130
cis-1,2-Dichloroethene	25.0	24.9		ug/L		100	70 - 133

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-333663/5
Matrix: Water
Analysis Batch: 333663

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,3-Dichloropropene	25.0	28.4		ug/L		114	70 - 133
Dibromochloromethane	25.0	26.0		ug/L		104	69 - 145
1,2-Dibromo-3-Chloropropane	25.0	28.8		ug/L		115	52 - 140
1,2-Dibromoethane (EDB)	25.0	26.0		ug/L		104	70 - 130
Dibromomethane	25.0	25.5		ug/L		102	70 - 130
1,2-Dichlorobenzene	25.0	25.0		ug/L		100	70 - 130
1,3-Dichlorobenzene	25.0	23.9		ug/L		95	70 - 130
1,4-Dichlorobenzene	25.0	24.4		ug/L		98	70 - 130
Dichlorodifluoromethane	25.0	19.1		ug/L		76	29 - 150
1,1-Dichloroethane	25.0	26.3		ug/L		105	64 - 130
1,2-Dichloroethane	25.0	25.4		ug/L		102	57 - 138
1,1-Dichloroethene	25.0	25.1		ug/L		100	70 - 130
1,2-Dichloropropane	25.0	29.1		ug/L		116	67 - 130
1,3-Dichloropropane	25.0	25.2		ug/L		101	70 - 130
2,2-Dichloropropane	25.0	30.6		ug/L		123	68 - 141
1,1-Dichloropropene	25.0	24.0		ug/L		96	70 - 130
Ethylbenzene	25.0	23.7		ug/L		95	70 - 130
Ethyl-t-butyl ether (ETBE)	25.0	40.6	*	ug/L		162	60 - 136
Hexachlorobutadiene	25.0	28.0		ug/L		112	10 - 150
2-Hexanone	25.0	29.5		ug/L		118	10 - 150
Isopropylbenzene	25.0	23.4		ug/L		94	70 - 136
Isopropyl Ether (DIPE)	25.0	37.8	*	ug/L		151	58 - 139
Methylene Chloride	25.0	26.3		ug/L		105	52 - 130
4-Methyl-2-pentanone (MIBK)	25.0	30.0		ug/L		120	59 - 149
Methyl-t-Butyl Ether (MTBE)	25.0	27.3		ug/L		109	63 - 131
m,p-Xylene	25.0	24.1		ug/L		96	70 - 130
Naphthalene	25.0	26.9		ug/L		107	60 - 140
n-Butylbenzene	25.0	24.8		ug/L		99	65 - 150
N-Propylbenzene	25.0	23.7		ug/L		95	67 - 139
o-Xylene	25.0	23.6		ug/L		94	70 - 130
p-Isopropyltoluene	25.0	24.5		ug/L		98	70 - 132
sec-Butylbenzene	25.0	24.0		ug/L		96	70 - 138
Styrene	25.0	25.1		ug/L		100	70 - 134
Tert-amyl-methyl ether (TAME)	25.0	33.0		ug/L		132	57 - 139
tert-Butyl alcohol (TBA)	250	275		ug/L		110	70 - 130
tert-Butylbenzene	25.0	23.8		ug/L		95	70 - 130
1,1,1,2-Tetrachloroethane	25.0	27.5		ug/L		110	60 - 141
1,1,2,2-Tetrachloroethane	25.0	26.6		ug/L		106	63 - 130
Tetrachloroethene	25.0	26.6		ug/L		107	70 - 130
Toluene	25.0	24.5		ug/L		98	70 - 130
trans-1,2-Dichloroethene	25.0	26.2		ug/L		105	70 - 130
trans-1,3-Dichloropropene	25.0	28.4		ug/L		114	70 - 132
1,2,3-Trichlorobenzene	25.0	27.2		ug/L		109	60 - 140
1,2,4-Trichlorobenzene	25.0	27.5		ug/L		110	60 - 140
1,1,1-Trichloroethane	25.0	25.3		ug/L		101	70 - 130
1,1,2-Trichloroethane	25.0	24.6		ug/L		99	70 - 130
Trichloroethene	25.0	24.8		ug/L		99	70 - 130
Trichlorofluoromethane	25.0	24.6		ug/L		98	60 - 150

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-333663/5
Matrix: Water
Analysis Batch: 333663

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3-Trichloropropane	25.0	28.8		ug/L		115	63 - 130
1,2,4-Trimethylbenzene	25.0	24.6		ug/L		98	70 - 135
1,3,5-Trimethylbenzene	25.0	24.4		ug/L		98	70 - 136
Vinyl chloride	25.0	25.4		ug/L		101	59 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*97*		*76 - 132*
Toluene-d8 (Surr)	*106*		*80 - 128*

Lab Sample ID: 440-148520-1 MS
Matrix: Water
Analysis Batch: 333663

Client Sample ID: MW-35
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	ND		25.0	29.8		ug/L		119	10 - 150
Benzene	3.3		25.0	26.9		ug/L		94	66 - 130
Bromobenzene	ND		25.0	25.4		ug/L		102	70 - 130
Bromochloromethane	ND		25.0	25.1		ug/L		100	70 - 130
Bromodichloromethane	ND		25.0	27.4		ug/L		110	70 - 138
Bromoform	ND		25.0	31.3		ug/L		125	59 - 150
Bromomethane	ND		25.0	20.5		ug/L		82	62 - 131
2-Butanone (MEK)	ND		25.0	26.8		ug/L		107	48 - 140
Carbon tetrachloride	ND		25.0	29.2		ug/L		117	60 - 150
Chlorobenzene	ND		25.0	23.7		ug/L		95	70 - 130
Chloroethane	ND		25.0	23.5		ug/L		94	68 - 130
Chloroform	ND		25.0	24.7		ug/L		99	70 - 130
Chloromethane	ND		25.0	19.7		ug/L		79	39 - 144
2-Chlorotoluene	ND		25.0	25.0		ug/L		100	70 - 130
4-Chlorotoluene	ND		25.0	24.7		ug/L		99	70 - 130
cis-1,2-Dichloroethene	ND		25.0	25.1		ug/L		100	70 - 130
cis-1,3-Dichloropropene	ND		25.0	27.7		ug/L		111	70 - 133
Dibromochloromethane	ND		25.0	26.5		ug/L		106	70 - 148
1,2-Dibromo-3-Chloropropane	ND		25.0	32.0		ug/L		128	48 - 140
1,2-Dibromoethane (EDB)	ND		25.0	27.8		ug/L		111	70 - 131
Dibromomethane	ND		25.0	26.2		ug/L		105	70 - 130
1,2-Dichlorobenzene	ND		25.0	25.4		ug/L		102	70 - 130
1,3-Dichlorobenzene	ND		25.0	24.6		ug/L		98	70 - 130
1,4-Dichlorobenzene	ND		25.0	24.8		ug/L		99	70 - 130
Dichlorodifluoromethane	ND		25.0	11.4		ug/L		46	25 - 142
1,1-Dichloroethane	ND		25.0	26.8		ug/L		107	65 - 130
1,2-Dichloroethane	ND		25.0	25.5		ug/L		102	56 - 146
1,1-Dichloroethene	ND		25.0	24.8		ug/L		99	70 - 130
1,2-Dichloropropane	ND		25.0	28.9		ug/L		116	69 - 130
1,3-Dichloropropane	ND		25.0	25.4		ug/L		102	70 - 130
2,2-Dichloropropane	ND		25.0	30.7		ug/L		123	69 - 138
1,1-Dichloropropene	ND		25.0	26.2		ug/L		105	64 - 130
Ethylbenzene	ND		25.0	24.8		ug/L		99	70 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-148520-1 MS
Matrix: Water
Analysis Batch: 333663

Client Sample ID: MW-35
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethyl-t-butyl ether (ETBE)	ND	*	25.0	30.5		ug/L		122	70 - 130
Hexachlorobutadiene	ND		25.0	30.5		ug/L		122	10 - 150
2-Hexanone	ND		25.0	30.7		ug/L		123	10 - 150
Isopropylbenzene	4.5		25.0	28.0		ug/L		94	70 - 132
Isopropyl Ether (DIPE)	3.4	F1 *	25.0	41.5	F1	ug/L		152	64 - 138
Methylene Chloride	ND		25.0	25.0		ug/L		100	52 - 130
4-Methyl-2-pentanone (MIBK)	ND		25.0	34.6		ug/L		138	52 - 150
Methyl-t-Butyl Ether (MTBE)	ND		25.0	24.8		ug/L		99	70 - 130
m,p-Xylene	ND		25.0	25.4		ug/L		101	70 - 133
Naphthalene	ND		25.0	30.2		ug/L		121	60 - 140
n-Butylbenzene	ND		25.0	28.2		ug/L		113	61 - 149
N-Propylbenzene	ND		25.0	26.4		ug/L		102	66 - 135
o-Xylene	ND		25.0	23.7		ug/L		95	70 - 133
p-Isopropyltoluene	ND		25.0	25.9		ug/L		104	70 - 130
sec-Butylbenzene	4.0		25.0	28.9		ug/L		99	67 - 134
Styrene	ND		25.0	25.7		ug/L		103	29 - 150
Tert-amyl-methyl ether (TAME)	ND		25.0	23.3		ug/L		93	68 - 133
tert-Butyl alcohol (TBA)	ND		250	281		ug/L		112	70 - 130
tert-Butylbenzene	ND		25.0	25.6		ug/L		102	70 - 130
1,1,1,2-Tetrachloroethane	ND		25.0	27.7		ug/L		111	60 - 149
1,1,2,2-Tetrachloroethane	ND		25.0	28.6		ug/L		115	63 - 130
Tetrachloroethene	ND		25.0	28.0		ug/L		112	70 - 137
Toluene	ND		25.0	24.8		ug/L		99	70 - 130
trans-1,2-Dichloroethene	ND		25.0	25.6		ug/L		102	70 - 130
trans-1,3-Dichloropropene	ND		25.0	27.7		ug/L		111	70 - 138
1,2,3-Trichlorobenzene	ND		25.0	29.0		ug/L		116	60 - 140
1,2,4-Trichlorobenzene	ND		25.0	30.5		ug/L		122	60 - 140
1,1,1-Trichloroethane	ND		25.0	26.9		ug/L		107	70 - 130
1,1,2-Trichloroethane	ND		25.0	26.9		ug/L		108	70 - 130
Trichloroethene	ND		25.0	25.8		ug/L		103	70 - 130
Trichlorofluoromethane	ND		25.0	25.3		ug/L		101	60 - 150
1,2,3-Trichloropropane	ND		25.0	28.8		ug/L		115	60 - 130
1,2,4-Trimethylbenzene	ND		25.0	25.5		ug/L		102	70 - 130
1,3,5-Trimethylbenzene	ND		25.0	25.3		ug/L		101	70 - 130
Vinyl chloride	ND		25.0	20.8		ug/L		83	50 - 137

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*98*		*76 - 132*
Toluene-d8 (Surr)	*103*		*80 - 128*

Lab Sample ID: 440-148520-1 MSD
Matrix: Water
Analysis Batch: 333663

Client Sample ID: MW-35
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND		25.0	27.9		ug/L		112	10 - 150	6	35
Benzene	3.3		25.0	26.6		ug/L		93	66 - 130	1	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-148520-1 MSD
Matrix: Water
Analysis Batch: 333663

Client Sample ID: MW-35
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromobenzene	ND		25.0	26.9		ug/L		107	70 - 130	5	20
Bromochloromethane	ND		25.0	24.8		ug/L		99	70 - 130	1	25
Bromodichloromethane	ND		25.0	28.0		ug/L		112	70 - 138	2	20
Bromoform	ND		25.0	31.6		ug/L		126	59 - 150	1	25
Bromomethane	ND		25.0	19.9		ug/L		80	62 - 131	3	25
2-Butanone (MEK)	ND		25.0	24.5		ug/L		98	48 - 140	9	40
Carbon tetrachloride	ND		25.0	29.3		ug/L		117	60 - 150	1	25
Chlorobenzene	ND		25.0	24.0		ug/L		96	70 - 130	1	20
Chloroethane	ND		25.0	23.7		ug/L		95	68 - 130	1	25
Chloroform	ND		25.0	24.4		ug/L		98	70 - 130	1	20
Chloromethane	ND		25.0	19.8		ug/L		79	39 - 144	1	25
2-Chlorotoluene	ND		25.0	26.0		ug/L		104	70 - 130	4	20
4-Chlorotoluene	ND		25.0	25.5		ug/L		102	70 - 130	3	20
cis-1,2-Dichloroethene	ND		25.0	25.3		ug/L		101	70 - 130	1	20
cis-1,3-Dichloropropene	ND		25.0	28.1		ug/L		113	70 - 133	2	20
Dibromochloromethane	ND		25.0	26.6		ug/L		106	70 - 148	0	25
1,2-Dibromo-3-Chloropropane	ND		25.0	30.2		ug/L		121	48 - 140	6	30
1,2-Dibromoethane (EDB)	ND		25.0	27.8		ug/L		111	70 - 131	0	25
Dibromomethane	ND		25.0	25.4		ug/L		102	70 - 130	3	25
1,2-Dichlorobenzene	ND		25.0	25.8		ug/L		103	70 - 130	1	20
1,3-Dichlorobenzene	ND		25.0	25.4		ug/L		102	70 - 130	3	20
1,4-Dichlorobenzene	ND		25.0	25.0		ug/L		100	70 - 130	1	20
Dichlorodifluoromethane	ND		25.0	11.3		ug/L		45	25 - 142	1	30
1,1-Dichloroethane	ND		25.0	26.5		ug/L		106	65 - 130	1	20
1,2-Dichloroethane	ND		25.0	25.3		ug/L		101	56 - 146	1	20
1,1-Dichloroethene	ND		25.0	24.5		ug/L		98	70 - 130	1	20
1,2-Dichloropropane	ND		25.0	28.7		ug/L		115	69 - 130	1	20
1,3-Dichloropropane	ND		25.0	25.9		ug/L		103	70 - 130	2	25
2,2-Dichloropropane	ND		25.0	29.4		ug/L		117	69 - 138	4	25
1,1-Dichloropropene	ND		25.0	26.0		ug/L		104	64 - 130	1	20
Ethylbenzene	ND		25.0	25.2		ug/L		101	70 - 130	2	20
Ethyl-t-butyl ether (ETBE)	ND	*	25.0	31.1		ug/L		124	70 - 130	2	25
Hexachlorobutadiene	ND		25.0	31.5		ug/L		126	10 - 150	3	20
2-Hexanone	ND		25.0	30.2		ug/L		121	10 - 150	1	35
Isopropylbenzene	4.5		25.0	28.9		ug/L		98	70 - 132	3	20
Isopropyl Ether (DIPE)	3.4	F1 *	25.0	41.4	F1	ug/L		152	64 - 138	0	25
Methylene Chloride	ND		25.0	24.5		ug/L		98	52 - 130	2	20
4-Methyl-2-pentanone (MIBK)	ND		25.0	33.9		ug/L		135	52 - 150	2	35
Methyl-t-Butyl Ether (MTBE)	ND		25.0	24.3		ug/L		97	70 - 130	2	25
m,p-Xylene	ND		25.0	26.1		ug/L		104	70 - 133	3	25
Naphthalene	ND		25.0	30.2		ug/L		121	60 - 140	0	30
n-Butylbenzene	ND		25.0	28.9		ug/L		116	61 - 149	3	20
N-Propylbenzene	ND		25.0	27.6		ug/L		106	66 - 135	4	20
o-Xylene	ND		25.0	24.1		ug/L		96	70 - 133	2	20
p-Isopropyltoluene	ND		25.0	26.7		ug/L		107	70 - 130	3	20
sec-Butylbenzene	4.0		25.0	29.9		ug/L		104	67 - 134	4	20
Styrene	ND		25.0	26.0		ug/L		104	29 - 150	1	35
Tert-amyl-methyl ether (TAME)	ND		25.0	23.5		ug/L		94	68 - 133	1	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-148520-1 MSD
Matrix: Water
Analysis Batch: 333663

Client Sample ID: MW-35
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
tert-Butyl alcohol (TBA)	ND		250	285		ug/L		114	70 - 130	1	25
tert-Butylbenzene	ND		25.0	26.5		ug/L		106	70 - 130	3	20
1,1,1,2-Tetrachloroethane	ND		25.0	28.2		ug/L		113	60 - 149	2	20
1,1,2,2-Tetrachloroethane	ND		25.0	28.6		ug/L		114	63 - 130	0	30
Tetrachloroethene	ND		25.0	29.4		ug/L		117	70 - 137	5	20
Toluene	ND		25.0	25.4		ug/L		102	70 - 130	2	20
trans-1,2-Dichloroethene	ND		25.0	25.7		ug/L		103	70 - 130	0	20
trans-1,3-Dichloropropene	ND		25.0	28.1		ug/L		112	70 - 138	1	25
1,2,3-Trichlorobenzene	ND		25.0	30.2		ug/L		121	60 - 140	4	20
1,2,4-Trichlorobenzene	ND		25.0	30.5		ug/L		122	60 - 140	0	20
1,1,1-Trichloroethane	ND		25.0	26.4		ug/L		106	70 - 130	2	20
1,1,2-Trichloroethane	ND		25.0	27.0		ug/L		108	70 - 130	0	25
Trichloroethene	ND		25.0	25.6		ug/L		102	70 - 130	1	20
Trichlorofluoromethane	ND		25.0	24.1		ug/L		96	60 - 150	5	25
1,2,3-Trichloropropane	ND		25.0	28.1		ug/L		112	60 - 130	3	30
1,2,4-Trimethylbenzene	ND		25.0	26.3		ug/L		105	70 - 130	3	25
1,3,5-Trimethylbenzene	ND		25.0	26.1		ug/L		105	70 - 130	3	20
Vinyl chloride	ND		25.0	21.2		ug/L		85	50 - 137	2	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*76 - 132*
Toluene-d8 (Surr)	*104*		*80 - 128*

Lab Sample ID: MB 440-333710/4
Matrix: Water
Analysis Batch: 333710

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.50	ug/L			06/01/16 08:02	1
Isopropyl Ether (DIPE)	ND		1.0	ug/L			06/01/16 08:02	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*06/01/16 08:02*	*1*
Dibromofluoromethane (Surr)	*101*		*76 - 132*		*06/01/16 08:02*	*1*
Toluene-d8 (Surr)	*112*		*80 - 128*		*06/01/16 08:02*	*1*

Lab Sample ID: LCS 440-333710/5
Matrix: Water
Analysis Batch: 333710

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	25.0	22.2		ug/L		89	68 - 130
Isopropyl Ether (DIPE)	25.0	23.5		ug/L		94	58 - 139

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-333710/5
Matrix: Water
Analysis Batch: 333710

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*104*		*76 - 132*
Toluene-d8 (Surr)	*108*		*80 - 128*

Lab Sample ID: 440-148520-1 MS
Matrix: Water
Analysis Batch: 333710

Client Sample ID: MW-35
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Benzene	3.6		25.0	31.4		ug/L		111	66 - 130		
Isopropyl Ether (DIPE)	2.7		25.0	32.3		ug/L		118	64 - 138		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*
Dibromofluoromethane (Surr)	*106*		*76 - 132*
Toluene-d8 (Surr)	*106*		*80 - 128*

Lab Sample ID: 440-148520-1 MSD
Matrix: Water
Analysis Batch: 333710

Client Sample ID: MW-35
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	3.6		25.0	30.0		ug/L		106	66 - 130	5	20
Isopropyl Ether (DIPE)	2.7		25.0	30.9		ug/L		113	64 - 138	4	25

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*
Dibromofluoromethane (Surr)	*107*		*76 - 132*
Toluene-d8 (Surr)	*107*		*80 - 128*

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 440-333664/4
Matrix: Water
Analysis Batch: 333664

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		50		ug/L			05/31/16 19:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*98*		*76 - 132*		*05/31/16 19:20*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*05/31/16 19:20*	*1*
Toluene-d8 (Surr)	*106*		*80 - 128*		*05/31/16 19:20*	*1*

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 440-333664/6
Matrix: Water
Analysis Batch: 333664

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Volatile Fuel Hydrocarbons (C4-C12)			500	479		ug/L		96	55 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*95*		*76 - 132*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Toluene-d8 (Surr)	*105*		*80 - 128*

Lab Sample ID: 440-148520-1 MS
Matrix: Water
Analysis Batch: 333664

Client Sample ID: MW-35
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Volatile Fuel Hydrocarbons (C4-C12)	610		1730	2500		ug/L		110	50 - 145		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*98*		*76 - 132*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Toluene-d8 (Surr)	*103*		*80 - 128*

Lab Sample ID: 440-148520-1 MSD
Matrix: Water
Analysis Batch: 333664

Client Sample ID: MW-35
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Volatile Fuel Hydrocarbons (C4-C12)	610		1730	2450		ug/L		107	50 - 145	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*96*		*76 - 132*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*
Toluene-d8 (Surr)	*104*		*80 - 128*

QC Association Summary

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516 Mon

TestAmerica Job ID: 440-148520-1

GC/MS VOA

Analysis Batch: 333663

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-148520-1	MW-35	Total/NA	Water	8260B	
440-148520-1 MS	MW-35	Total/NA	Water	8260B	
440-148520-1 MSD	MW-35	Total/NA	Water	8260B	
440-148520-2	MW-31	Total/NA	Water	8260B	
440-148520-3	MW-36	Total/NA	Water	8260B	
440-148520-4	MW-37	Total/NA	Water	8260B	
440-148520-5	MW-38	Total/NA	Water	8260B	
440-148520-6	MW-33	Total/NA	Water	8260B	
440-148520-7	MW-25R	Total/NA	Water	8260B	
440-148520-8	MW-34	Total/NA	Water	8260B	
440-148520-9	MW-19	Total/NA	Water	8260B	
440-148520-10	MW-27	Total/NA	Water	8260B	
440-148520-11	TB-1	Total/NA	Water	8260B	
LCS 440-333663/5	Lab Control Sample	Total/NA	Water	8260B	
MB 440-333663/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 333664

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-148520-1	MW-35	Total/NA	Water	8260B/CA_LUFT MS	
440-148520-1 MS	MW-35	Total/NA	Water	8260B/CA_LUFT MS	
440-148520-1 MSD	MW-35	Total/NA	Water	8260B/CA_LUFT MS	
440-148520-2	MW-31	Total/NA	Water	8260B/CA_LUFT MS	
440-148520-3	MW-36	Total/NA	Water	8260B/CA_LUFT MS	
440-148520-4	MW-37	Total/NA	Water	8260B/CA_LUFT MS	
440-148520-5	MW-38	Total/NA	Water	8260B/CA_LUFT MS	
440-148520-6	MW-33	Total/NA	Water	8260B/CA_LUFT MS	
440-148520-7	MW-25R	Total/NA	Water	8260B/CA_LUFT MS	
440-148520-8	MW-34	Total/NA	Water	8260B/CA_LUFT MS	
440-148520-9	MW-19	Total/NA	Water	8260B/CA_LUFT MS	
440-148520-10	MW-27	Total/NA	Water	8260B/CA_LUFT MS	
440-148520-11	TB-1	Total/NA	Water	8260B/CA_LUFT MS	
LCS 440-333664/6	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
MB 440-333664/4	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

Analysis Batch: 333710

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-148520-1 - RA	MW-35	Total/NA	Water	8260B	
440-148520-1 MS	MW-35	Total/NA	Water	8260B	
440-148520-1 MSD	MW-35	Total/NA	Water	8260B	

GC/MS VOA (Continued)

Analysis Batch: 333710 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-148520-4 - RA	MW-37	Total/NA	Water	8260B	
440-148520-5 - RA	MW-38	Total/NA	Water	8260B	
440-148520-5 - DL	MW-38	Total/NA	Water	8260B	
440-148520-6 - RA	MW-33	Total/NA	Water	8260B	
440-148520-7 - RA	MW-25R	Total/NA	Water	8260B	
440-148520-9 - RA	MW-19	Total/NA	Water	8260B	
440-148520-10 - RA	MW-27	Total/NA	Water	8260B	
LCS 440-333710/5	Lab Control Sample	Total/NA	Water	8260B	
MB 440-333710/4	Method Blank	Total/NA	Water	8260B	

Definitions/Glossary

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516 Mon

TestAmerica Job ID: 440-148520-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
F1	MS and/or MSD Recovery is outside acceptance limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516 Mon

TestAmerica Job ID: 440-148520-1

Laboratory: TestAmerica Irvine

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	CA01531	06-30-16
Arizona	State Program	9	AZ0671	10-13-16
California	LA Cty Sanitation Districts	9	10256	01-31-17 *
California	State Program	9	CA ELAP 2706	06-30-16
Guam	State Program	9	Cert. No. 12.002r	01-23-17
Hawaii	State Program	9	N/A	01-29-17
Kansas	NELAP Secondary AB	7	E-10420	07-31-16
Nevada	State Program	9	CA015312016-2	07-31-16
New Mexico	State Program	6	N/A	01-29-17
Northern Mariana Islands	State Program	9	MP0002	01-29-17
Oregon	NELAP	10	4028	01-29-17
USDA	Federal		P330-09-00080	07-08-18
Washington	State Program	10	C900	09-03-16

* Certification renewal pending - certification considered valid.

TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614
Phone: 949.261.1022 Fax:

Chain of Custody Record

079687

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Taylor Waters	Site Contact:	Date: 5/26/2016	COC No:
Company Name: Eco & Associates, Inc	Tel/Fax: 714-289-0995	Lab Contact:	Carrier:	1 of 1 COCs
Address: 1855 W Katella Ave Ste 340	Analysis Turnaround Time			Sampler:
City/State/Zip: Orange CA 92867	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 714-289-0995	TAT if different from Below STD			Walk-in Client:
Fax: 714-289-0965	☐ 2 weeks			Lab Sampling:
Project Name: LA Times Quarterly GW Mon	☐ 1 week			
Site: LA Times Facility	☐ 2 days			Job / SDG No.:
PO # ECO-12-516	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Full VOCs + oxy (8260B)	TPHg (LA LUFT)(8260B)	Sample Specific Notes:
MW-35	5-26-16	0859	G	GW	5	N	N	X	X	
MW-31	"	0930	G	GW	5	N	N	X	X	
MW-36	"	1001	G	GW	5	N	N	X	X	
MW-37	"	1035	G	GW	5	N	N	X	X	
MW-38	"	1103	G	GW	5	N	N	X	X	
MW-33	"	1232	G	GW	5	N	N	X	X	
MW-25R	"	1303	G	GW	5	N	N	X	X	
MW-34	"	1321	G	GW	5	N	N	X	X	
MW-19	"	1423	G	GW	5	N	N	X	X	
MW-27	"	1451	G	GW	5	N	N	X	X	
TB-1	"	0830	G	W	5	N	N	X	X	

440-148520 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other 2, 1

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Helen Thomas	Eco + Associates	May 26, 2016 1620			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
			4.1/4.3.9	TAI	5/26/16 16:20

1278

Login Sample Receipt Checklist

Client: Eco & Associates, Inc

Job Number: 440-148520-1

Login Number: 148520
List Number: 1
Creator: Schulze, Julon S

List Source: TestAmerica Irvine

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	False	Field on COC is blank.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

TestAmerica Job ID: 440-148602-1
Client Project/Site: LA Times Quarterly GW, ECO-12-516

For:
Eco & Associates, Inc
1855 W. Katella Avenue
Suite 340
Orange, California 92867

Attn: David Manoukian

Authorized for release by:
6/8/2016 10:19:08 PM
Urvashi Patel, Manager of Project Management
urvashi.patel@testamericainc.com

Designee for

Patty Mata, Senior Project Manager
(949)261-1022
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LINKS

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Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Sample Summary

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516

TestAmerica Job ID: 440-148602-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
440-148602-1	MW-30	Water	05/27/16 08:01	05/27/16 13:43
440-148602-2	MW-22	Water	05/27/16 08:25	05/27/16 13:43
440-148602-3	MW-29	Water	05/27/16 08:55	05/27/16 13:43
440-148602-4	MW-28	Water	05/27/16 09:16	05/27/16 13:43
440-148602-5	MW-24	Water	05/27/16 09:33	05/27/16 13:43
440-148602-6	MW-21	Water	05/27/16 10:03	05/27/16 13:43
440-148602-7	MW-20	Water	05/27/16 10:35	05/27/16 13:43
440-148602-8	MW-17	Water	05/27/16 11:03	05/27/16 13:43
440-148602-9	MW-18	Water	05/27/16 11:19	05/27/16 13:43
440-148602-10	MW-26	Water	05/27/16 12:40	05/27/16 13:43
440-148602-11	MW-23	Water	05/27/16 13:15	05/27/16 13:43
440-148602-12	TB-2	Water	05/27/16 07:45	05/27/16 13:43

Job ID: 440-148602-1

Laboratory: TestAmerica Irvine

Narrative

Job Narrative
440-148602-1

Comments
No additional comments.

Receipt
The samples were received on 5/27/2016 1:43 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 6.0º C.

GC/MS VOA
Method(s) 8260B: The continuing calibration verification (CCV) associated with batch 440-334192 recovered above the upper control limit for Dibromochloromethane. The samples associated with this CCV were non-detects for the affected analyte; therefore, the data have been reported. The following samples are impacted: MW-29 (440-148602-3), MW-28 (440-148602-4), MW-24 (440-148602-5) and TB-2 (440-148602-12).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Client Sample Results

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516

TestAmerica Job ID: 440-148602-1

Client Sample ID: MW-30

Date Collected: 0/ 6/2016 15 08:01
Date Received: 0/ 6/2016 15 13:43

Lab Sample ID: 440-148502-1

Matrix: Water

Method: 8250B6CA_LUFTMS - Volatile Organic Compounds by GC6MS

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		50		ug/L			06/02/16 02:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*111*		*76 - 132*		*06/02/16 02:30*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*06/02/16 02:30*	*1*
Toluene-d8 (Surr)	*108*		*80 - 128*		*06/02/16 02:30*	*1*

Method: 8250B - Volatile Organic Compounds RGC6MSQ

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
Acetone	ND		10		ug/L			06/02/16 02:30	1
Benzene	ND		0.50		ug/L			06/02/16 02:30	1
Bromobenzene	ND		1.0		ug/L			06/02/16 02:30	1
Bromochloromethane	ND		1.0		ug/L			06/02/16 02:30	1
Bromodichloromethane	ND		1.0		ug/L			06/02/16 02:30	1
Bromoform	ND		1.0		ug/L			06/02/16 02:30	1
Bromomethane	ND		1.0		ug/L			06/02/16 02:30	1
2-Butanone (MEK)	ND		10		ug/L			06/02/16 02:30	1
Carbon tetrachloride	ND		0.50		ug/L			06/02/16 02:30	1
Chlorobenzene	ND		1.0		ug/L			06/02/16 02:30	1
Chloroethane	ND		1.0		ug/L			06/02/16 02:30	1
Chloroform	ND		1.0		ug/L			06/02/16 02:30	1
Chloromethane	ND		1.0		ug/L			06/02/16 02:30	1
2-Chlorotoluene	ND		1.0		ug/L			06/02/16 02:30	1
4-Chlorotoluene	ND		1.0		ug/L			06/02/16 02:30	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			06/02/16 02:30	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			06/02/16 02:30	1
Dibromochloromethane	ND		1.0		ug/L			06/02/16 02:30	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			06/02/16 02:30	1
1,2-Dibromoethane (EDB)	ND		1.0		ug/L			06/02/16 02:30	1
Dibromomethane	ND		1.0		ug/L			06/02/16 02:30	1
1,2-Dichlorobenzene	ND		1.0		ug/L			06/02/16 02:30	1
1,3-Dichlorobenzene	ND		1.0		ug/L			06/02/16 02:30	1
1,4-Dichlorobenzene	ND		1.0		ug/L			06/02/16 02:30	1
Dichlorodifluoromethane	ND		2.0		ug/L			06/02/16 02:30	1
1,1-Dichloroethane	ND		1.0		ug/L			06/02/16 02:30	1
1,2-Dichloroethane	ND		0.50		ug/L			06/02/16 02:30	1
1,1-Dichloroethene	ND		1.0		ug/L			06/02/16 02:30	1
1,2-Dichloropropane	ND		1.0		ug/L			06/02/16 02:30	1
1,3-Dichloropropane	ND		1.0		ug/L			06/02/16 02:30	1
2,2-Dichloropropane	ND		1.0		ug/L			06/02/16 02:30	1
1,1-Dichloropropene	ND		1.0		ug/L			06/02/16 02:30	1
Ethylbenzene	ND		0.50		ug/L			06/02/16 02:30	1
Ethyl-t-butyl ether (ETBE)	ND		1.0		ug/L			06/02/16 02:30	1
Hexachlorobutadiene	ND		1.0		ug/L			06/02/16 02:30	1
2-Hexanone	ND		10		ug/L			06/02/16 02:30	1
Isopropylbenzene	ND		1.0		ug/L			06/02/16 02:30	1
Isopropyl Ether (DIPE)	ND		1.0		ug/L			06/02/16 02:30	1
Methylene Chloride	ND		5.0		ug/L			06/02/16 02:30	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			06/02/16 02:30	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0		ug/L			06/02/16 02:30	1

Client Sample Results

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516

TestAmerica Job ID: 440-148602-1

Client Sample ID: MW-30

Lab Sample ID: 440-148502-1
Date Collected: 0/ 6296 15 08:01
Matrix: Water
Date Received: 0/ 6296 15 13:43

Method: 8250B - Volatile Organic Compounds PGC6MSQPContinuedQ

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
m,p-Xylene	ND		1.0		ug/L			06/02/16 02:30	1
Naphthalene	ND		1.0		ug/L			06/02/16 02:30	1
n-Butylbenzene	ND		1.0		ug/L			06/02/16 02:30	1
N-Propylbenzene	ND		1.0		ug/L			06/02/16 02:30	1
o-Xylene	ND		0.50		ug/L			06/02/16 02:30	1
p-Isopropyltoluene	ND		1.0		ug/L			06/02/16 02:30	1
sec-Butylbenzene	ND		1.0		ug/L			06/02/16 02:30	1
Styrene	ND		1.0		ug/L			06/02/16 02:30	1
Tert-amyl-methyl ether (TAME)	ND		1.0		ug/L			06/02/16 02:30	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			06/02/16 02:30	1
tert-Butylbenzene	ND		1.0		ug/L			06/02/16 02:30	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			06/02/16 02:30	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/02/16 02:30	1
Tetrachloroethene	ND		1.0		ug/L			06/02/16 02:30	1
Toluene	ND		0.50		ug/L			06/02/16 02:30	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			06/02/16 02:30	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			06/02/16 02:30	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			06/02/16 02:30	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			06/02/16 02:30	1
1,1,1-Trichloroethane	ND		1.0		ug/L			06/02/16 02:30	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/02/16 02:30	1
Trichloroethene	ND		1.0		ug/L			06/02/16 02:30	1
Trichlorofluoromethane	ND		1.0		ug/L			06/02/16 02:30	1
1,2,3-Trichloropropane	ND		1.0		ug/L			06/02/16 02:30	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			06/02/16 02:30	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			06/02/16 02:30	1
Vinyl chloride	ND		0.50		ug/L			06/02/16 02:30	1
Xylenes, Total	ND		1.5		ug/L			06/02/16 02:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*06/02/16 02:30*	*1*
Dibromofluoromethane (Surr)	*111*		*76 - 132*		*06/02/16 02:30*	*1*
Toluene-d8 (Surr)	*108*		*80 - 128*		*06/02/16 02:30*	*1*

Client Sample ID: MW-22

Lab Sample ID: 440-148502-2
Date Collected: 0/ 6296 15 08:2/
Matrix: Water
Date Received: 0/ 6296 15 13:43

Method: 8250B6CA_LUFTMS - Volatile Organic Compounds by GC6MS

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
Volatile Fuel f ydrocarbons PC4-C12Q	**5.**		50		ug/L			06/02/16 03:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*112*		*76 - 132*		*06/02/16 03:00*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*06/02/16 03:00*	*1*
Toluene-d8 (Surr)	*108*		*80 - 128*		*06/02/16 03:00*	*1*

Method: 8250B - Volatile Organic Compounds PGC6MSQ

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
Acetone	ND		10		ug/L			06/02/16 03:00	1

Client Sample Results

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516

TestAmerica Job ID: 440-148602-1

Client Sample ID: MW-22

Date Collected: 0/ 6296 15 08:2/
Date Received: 0/ 6296 15 13:43

Lab Sample ID: 440-148502-2

Matrix: Water

Method: 8250B - Volatile Organic Compounds PGC6MSQPContinuedQ

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
Benzene	ND		0.50		ug/L			06/02/16 03:00	1
Bromobenzene	ND		1.0		ug/L			06/02/16 03:00	1
Bromochloromethane	ND		1.0		ug/L			06/02/16 03:00	1
Bromodichloromethane	ND		1.0		ug/L			06/02/16 03:00	1
Bromoform	ND		1.0		ug/L			06/02/16 03:00	1
Bromomethane	ND		1.0		ug/L			06/02/16 03:00	1
2-Butanone (MEK)	ND		10		ug/L			06/02/16 03:00	1
Carbon tetrachloride	ND		0.50		ug/L			06/02/16 03:00	1
Chlorobenzene	ND		1.0		ug/L			06/02/16 03:00	1
Chloroethane	ND		1.0		ug/L			06/02/16 03:00	1
Chloroform	ND		1.0		ug/L			06/02/16 03:00	1
Chloromethane	ND		1.0		ug/L			06/02/16 03:00	1
2-Chlorotoluene	ND		1.0		ug/L			06/02/16 03:00	1
4-Chlorotoluene	ND		1.0		ug/L			06/02/16 03:00	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			06/02/16 03:00	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			06/02/16 03:00	1
Dibromochloromethane	ND		1.0		ug/L			06/02/16 03:00	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			06/02/16 03:00	1
1,2-Dibromoethane (EDB)	ND		1.0		ug/L			06/02/16 03:00	1
Dibromomethane	ND		1.0		ug/L			06/02/16 03:00	1
1,2-Dichlorobenzene	ND		1.0		ug/L			06/02/16 03:00	1
1,3-Dichlorobenzene	ND		1.0		ug/L			06/02/16 03:00	1
1,4-Dichlorobenzene	ND		1.0		ug/L			06/02/16 03:00	1
Dichlorodifluoromethane	ND		2.0		ug/L			06/02/16 03:00	1
1,1-Dichloroethane	ND		1.0		ug/L			06/02/16 03:00	1
1,2-Dichloroethane	ND		0.50		ug/L			06/02/16 03:00	1
1,1-Dichloroethene	ND		1.0		ug/L			06/02/16 03:00	1
1,2-Dichloropropane	ND		1.0		ug/L			06/02/16 03:00	1
1,3-Dichloropropane	ND		1.0		ug/L			06/02/16 03:00	1
2,2-Dichloropropane	ND		1.0		ug/L			06/02/16 03:00	1
1,1-Dichloropropene	ND		1.0		ug/L			06/02/16 03:00	1
Ethylbenzene	ND		0.50		ug/L			06/02/16 03:00	1
Ethyl-t-butyl ether (ETBE)	ND		1.0		ug/L			06/02/16 03:00	1
Hexachlorobutadiene	ND		1.0		ug/L			06/02/16 03:00	1
2-Hexanone	ND		10		ug/L			06/02/16 03:00	1
Isopropylbenzene	ND		1.0		ug/L			06/02/16 03:00	1
Isopropyl Ether PDI(EQ	**4/**		1.0		ug/L			06/02/16 03:00	1
Methylene Chloride	ND		5.0		ug/L			06/02/16 03:00	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			06/02/16 03:00	1
Methyl-t-Butyl Ether PMTBEQ	**572**		1.0		ug/L			06/02/16 03:00	1
m,p-Xylene	ND		1.0		ug/L			06/02/16 03:00	1
Naphthalene	ND		1.0		ug/L			06/02/16 03:00	1
n-Butylbenzene	ND		1.0		ug/L			06/02/16 03:00	1
N-Propylbenzene	ND		1.0		ug/L			06/02/16 03:00	1
o-Xylene	ND		0.50		ug/L			06/02/16 03:00	1
p-Isopropyltoluene	ND		1.0		ug/L			06/02/16 03:00	1
sec-Butylbenzene	ND		1.0		ug/L			06/02/16 03:00	1
Styrene	ND		1.0		ug/L			06/02/16 03:00	1
Tert-amyl-methyl ether (TAME)	ND		1.0		ug/L			06/02/16 03:00	1

Client Sample Results

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516

TestAmerica Job ID: 440-148602-1

Client Sample ID: MW-22

Lab Sample ID: 440-148502-2
Matrix: Water

Date Collected: 0/ 6296 15 08:2/
Date Received: 0/ 6296 15 13:43

Method: 8250B - Volatile Organic Compounds PGC6MSQPContinuedQ

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
tert-Butyl alcohol (TBA)	ND		10		ug/L			06/02/16 03:00	1
tert-Butylbenzene	ND		1.0		ug/L			06/02/16 03:00	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			06/02/16 03:00	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/02/16 03:00	1
Tetrachloroethene	ND		1.0		ug/L			06/02/16 03:00	1
Toluene	ND		0.50		ug/L			06/02/16 03:00	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			06/02/16 03:00	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			06/02/16 03:00	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			06/02/16 03:00	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			06/02/16 03:00	1
1,1,1-Trichloroethane	ND		1.0		ug/L			06/02/16 03:00	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/02/16 03:00	1
Trichloroethene	ND		1.0		ug/L			06/02/16 03:00	1
Trichlorofluoromethane	ND		1.0		ug/L			06/02/16 03:00	1
1,2,3-Trichloropropane	ND		1.0		ug/L			06/02/16 03:00	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			06/02/16 03:00	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			06/02/16 03:00	1
Vinyl chloride	ND		0.50		ug/L			06/02/16 03:00	1
Xylenes, Total	ND		1.5		ug/L			06/02/16 03:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*06/02/16 03:00*	*1*
Dibromofluoromethane (Surr)	*112*		*76 - 132*		*06/02/16 03:00*	*1*
Toluene-d8 (Surr)	*108*		*80 - 128*		*06/02/16 03:00*	*1*

Client Sample ID: MW-2.

Lab Sample ID: 440-148502-3
Matrix: Water

Date Collected: 0/ 6296 15 08:/ /
Date Received: 0/ 6296 15 13:43

Method: 8250B6CA_LUFTMS - Volatile Organic Compounds by GC6MS

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
Volatile Fuel f ydrocarbons PC4-C12Q	**930**		100		ug/L			06/02/16 22:29	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*113*		*76 - 132*		*06/02/16 22:29*	*2*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*06/02/16 22:29*	*2*
Toluene-d8 (Surr)	*106*		*80 - 128*		*06/02/16 22:29*	*2*

Method: 8250B - Volatile Organic Compounds PGC6MSQ

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
Acetone	ND		20		ug/L			06/02/16 22:29	2
BenHene	**120**		1.0		ug/L			06/02/16 22:29	2
Bromobenzene	ND		2.0		ug/L			06/02/16 22:29	2
Bromochloromethane	ND		2.0		ug/L			06/02/16 22:29	2
Bromodichloromethane	ND		2.0		ug/L			06/02/16 22:29	2
Bromoform	ND		2.0		ug/L			06/02/16 22:29	2
Bromomethane	ND		2.0		ug/L			06/02/16 22:29	2
2-Butanone (MEK)	ND		20		ug/L			06/02/16 22:29	2
Carbon tetrachloride	ND		1.0		ug/L			06/02/16 22:29	2
Chlorobenzene	ND		2.0		ug/L			06/02/16 22:29	2

Client Sample Results

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516

TestAmerica Job ID: 440-148602-1

Client Sample ID: MW-2.

Date Collected: 0/ 6296 15 08:/ /
Date Received: 0/ 6296 15 13:43

Lab Sample ID: 440-148502-3

Matrix: Water

Method: 8250B - Volatile Organic Compounds PGC6MSQPContinuedQ

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
Chloroethane	ND		2.0		ug/L			06/02/16 22:29	2
Chloroform	ND		2.0		ug/L			06/02/16 22:29	2
Chloromethane	ND		2.0		ug/L			06/02/16 22:29	2
2-Chlorotoluene	ND		2.0		ug/L			06/02/16 22:29	2
4-Chlorotoluene	ND		2.0		ug/L			06/02/16 22:29	2
cis-1,2-Dichloroethene	ND		2.0		ug/L			06/02/16 22:29	2
cis-1,3-Dichloropropene	ND		1.0		ug/L			06/02/16 22:29	2
Dibromochloromethane	ND		2.0		ug/L			06/02/16 22:29	2
1,2-Dibromo-3-Chloropropane	ND		10		ug/L			06/02/16 22:29	2
1,2-Dibromoethane (EDB)	ND		2.0		ug/L			06/02/16 22:29	2
Dibromomethane	ND		2.0		ug/L			06/02/16 22:29	2
1,2-Dichlorobenzene	ND		2.0		ug/L			06/02/16 22:29	2
1,3-Dichlorobenzene	ND		2.0		ug/L			06/02/16 22:29	2
1,4-Dichlorobenzene	ND		2.0		ug/L			06/02/16 22:29	2
Dichlorodifluoromethane	ND		4.0		ug/L			06/02/16 22:29	2
1,1-Dichloroethane	ND		2.0		ug/L			06/02/16 22:29	2
1,2-Dichloroethane	ND		1.0		ug/L			06/02/16 22:29	2
1,1-Dichloroethene	ND		2.0		ug/L			06/02/16 22:29	2
1,2-Dichloropropane	ND		2.0		ug/L			06/02/16 22:29	2
1,3-Dichloropropane	ND		2.0		ug/L			06/02/16 22:29	2
2,2-Dichloropropane	ND		2.0		ug/L			06/02/16 22:29	2
1,1-Dichloropropene	ND		2.0		ug/L			06/02/16 22:29	2
EthylbenHene	**479**		1.0		ug/L			06/02/16 22:29	2
Ethyl-t-butyl ether (ETBE)	ND		2.0		ug/L			06/02/16 22:29	2
Hexachlorobutadiene	ND		2.0		ug/L			06/02/16 22:29	2
2-Hexanone	ND		20		ug/L			06/02/16 22:29	2
IsopropylbenHene	**378**		2.0		ug/L			06/02/16 22:29	2
Isopropyl Ether PDI(EQ	**375**		2.0		ug/L			06/02/16 22:29	2
Methylene Chloride	ND		10		ug/L			06/02/16 22:29	2
4-Methyl-2-pentanone (MIBK)	ND		20		ug/L			06/02/16 22:29	2
Methyl-t-Butyl Ether (MTBE)	ND		2.0		ug/L			06/02/16 22:29	2
mhp-, ylene	**/ 70**		2.0		ug/L			06/02/16 22:29	2
Xaphthalene	**14**		2.0		ug/L			06/02/16 22:29	2
n-ButylbenHene	**271**		2.0		ug/L			06/02/16 22:29	2
X-(ropylbenHene	**970**		2.0		ug/L			06/02/16 22:29	2
o-Xylene	ND		1.0		ug/L			06/02/16 22:29	2
p-Isopropyltoluene	ND		2.0		ug/L			06/02/16 22:29	2
sec-Butylbenzene	ND		2.0		ug/L			06/02/16 22:29	2
Styrene	ND		2.0		ug/L			06/02/16 22:29	2
Tert-amyl-methyl ether (TAME)	ND		2.0		ug/L			06/02/16 22:29	2
tert-Butyl alcohol (TBA)	ND		20		ug/L			06/02/16 22:29	2
tert-Butylbenzene	ND		2.0		ug/L			06/02/16 22:29	2
1,1,1,2-Tetrachloroethane	ND		2.0		ug/L			06/02/16 22:29	2
1,1,2,2-Tetrachloroethane	ND		2.0		ug/L			06/02/16 22:29	2
Tetrachloroethene	ND		2.0		ug/L			06/02/16 22:29	2
Toluene	**270**		1.0		ug/L			06/02/16 22:29	2
trans-1,2-Dichloroethene	ND		2.0		ug/L			06/02/16 22:29	2
trans-1,3-Dichloropropene	ND		1.0		ug/L			06/02/16 22:29	2
1,2,3-Trichlorobenzene	ND		2.0		ug/L			06/02/16 22:29	2

Client Sample Results

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516

TestAmerica Job ID: 440-148602-1

Client Sample ID: MW-2.

Lab Sample ID: 440-148502-3
Matrix: Water

Date Collected: 0/ 6296 15 08:/ /
Date Received: 0/ 6296 15 13:43

Method: 8250B - Volatile Organic Compounds PGC6MSQPContinuedQ

Analyte	Result	) ualizier	RL	Unit	D	(repared	AnalyHed	Dil Fac
1,2,4-Trichlorobenzene	ND		2.0	ug/L			06/02/16 22:29	2
1,1,1-Trichloroethane	ND		2.0	ug/L			06/02/16 22:29	2
1,1,2-Trichloroethane	ND		2.0	ug/L			06/02/16 22:29	2
Trichloroethene	ND		2.0	ug/L			06/02/16 22:29	2
Trichlorofluoromethane	ND		2.0	ug/L			06/02/16 22:29	2
1,2,3-Trichloropropane	ND		2.0	ug/L			06/02/16 22:29	2
1N2N4-TrimethylbenHene	**971**		2.0	ug/L			06/02/16 22:29	2
1,3,5-Trimethylbenzene	ND		2.0	ug/L			06/02/16 22:29	2
Vinyl chloride	ND		1.0	ug/L			06/02/16 22:29	2
, ylenesNTotal	**/ 70**		3.0	ug/L			06/02/16 22:29	2

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*06/02/16 22:29*	*2*
Dibromofluoromethane (Surr)	*113*		*76 - 132*		*06/02/16 22:29*	*2*
Toluene-d8 (Surr)	*106*		*80 - 128*		*06/02/16 22:29*	*2*

Client Sample ID: MW-28

Lab Sample ID: 440-148502-4
Matrix: Water

Date Collected: 0/ 6296 15 0. :15
Date Received: 0/ 6296 15 13:43

Method: 8250B6CA_LUFTMS - Volatile Organic Compounds by GC6MS

Analyte	Result	) ualizier	RL	Unit	D	(repared	AnalyHed	Dil Fac
Volatile Fuel f ydrocarbons PC4-C12Q	**2400**		1000	ug/L			06/02/16 22:57	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*112*		*76 - 132*		*06/02/16 22:57*	*20*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*06/02/16 22:57*	*20*
Toluene-d8 (Surr)	*106*		*80 - 128*		*06/02/16 22:57*	*20*

Method: 8250B - Volatile Organic Compounds PGC6MSQ

Analyte	Result	) ualizier	RL	Unit	D	(repared	AnalyHed	Dil Fac
Acetone	ND		200	ug/L			06/02/16 22:57	20
BenHene	**. / 0**		10	ug/L			06/02/16 22:57	20
Bromobenzene	ND		20	ug/L			06/02/16 22:57	20
Bromochloromethane	ND		20	ug/L			06/02/16 22:57	20
Bromodichloromethane	ND		20	ug/L			06/02/16 22:57	20
Bromoform	ND		20	ug/L			06/02/16 22:57	20
Bromomethane	ND		20	ug/L			06/02/16 22:57	20
2-Butanone (MEK)	ND		200	ug/L			06/02/16 22:57	20
Carbon tetrachloride	ND		10	ug/L			06/02/16 22:57	20
Chlorobenzene	ND		20	ug/L			06/02/16 22:57	20
Chloroethane	ND		20	ug/L			06/02/16 22:57	20
Chloroform	ND		20	ug/L			06/02/16 22:57	20
Chloromethane	ND		20	ug/L			06/02/16 22:57	20
2-Chlorotoluene	ND		20	ug/L			06/02/16 22:57	20
4-Chlorotoluene	ND		20	ug/L			06/02/16 22:57	20
cis-1,2-Dichloroethene	ND		20	ug/L			06/02/16 22:57	20
cis-1,3-Dichloropropene	ND		10	ug/L			06/02/16 22:57	20
Dibromochloromethane	ND		20	ug/L			06/02/16 22:57	20
1,2-Dibromo-3-Chloropropane	ND		100	ug/L			06/02/16 22:57	20

Client Sample Results

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516

TestAmerica Job ID: 440-148602-1

Client Sample ID: MW-28

Date Collected: 0/ 6296 15 0. :15
Date Received: 0/ 6296 15 13:43

Lab Sample ID: 440-148502-4

Matrix: Water

Method: 8250B - Volatile Organic Compounds PGC6MSQPContinuedQ

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
1,2-Dibromoethane (EDB)	ND		20		ug/L			06/02/16 22:57	20
Dibromomethane	ND		20		ug/L			06/02/16 22:57	20
1,2-Dichlorobenzene	ND		20		ug/L			06/02/16 22:57	20
1,3-Dichlorobenzene	ND		20		ug/L			06/02/16 22:57	20
1,4-Dichlorobenzene	ND		20		ug/L			06/02/16 22:57	20
Dichlorodifluoromethane	ND		40		ug/L			06/02/16 22:57	20
1,1-Dichloroethane	ND		20		ug/L			06/02/16 22:57	20
1,2-Dichloroethane	ND		10		ug/L			06/02/16 22:57	20
1,1-Dichloroethene	ND		20		ug/L			06/02/16 22:57	20
1,2-Dichloropropane	ND		20		ug/L			06/02/16 22:57	20
1,3-Dichloropropane	ND		20		ug/L			06/02/16 22:57	20
2,2-Dichloropropane	ND		20		ug/L			06/02/16 22:57	20
1,1-Dichloropropene	ND		20		ug/L			06/02/16 22:57	20
Ethylbenzene	ND		10		ug/L			06/02/16 22:57	20
Ethyl-t-butyl ether (ETBE)	ND		20		ug/L			06/02/16 22:57	20
Hexachlorobutadiene	ND		20		ug/L			06/02/16 22:57	20
2-Hexanone	ND		200		ug/L			06/02/16 22:57	20
Isopropylbenzene	ND		20		ug/L			06/02/16 22:57	20
Isopropyl Ether PDI(EQ	**35**		20		ug/L			06/02/16 22:57	20
Methylene Chloride	ND		100		ug/L			06/02/16 22:57	20
4-Methyl-2-pentanone (MIBK)	ND		200		ug/L			06/02/16 22:57	20
Methyl-t-Butyl Ether (MTBE)	ND		20		ug/L			06/02/16 22:57	20
m,p-Xylene	ND		20		ug/L			06/02/16 22:57	20
Naphthalene	ND		20		ug/L			06/02/16 22:57	20
n-Butylbenzene	ND		20		ug/L			06/02/16 22:57	20
X-(ropylbenHene	**22**		20		ug/L			06/02/16 22:57	20
o-Xylene	ND		10		ug/L			06/02/16 22:57	20
p-Isopropyltoluene	ND		20		ug/L			06/02/16 22:57	20
sec-Butylbenzene	ND		20		ug/L			06/02/16 22:57	20
Styrene	ND		20		ug/L			06/02/16 22:57	20
Tert-amyl-methyl ether (TAME)	ND		20		ug/L			06/02/16 22:57	20
tert-Butyl alcohol (TBA)	ND		200		ug/L			06/02/16 22:57	20
tert-Butylbenzene	ND		20		ug/L			06/02/16 22:57	20
1,1,1,2-Tetrachloroethane	ND		20		ug/L			06/02/16 22:57	20
1,1,2,2-Tetrachloroethane	ND		20		ug/L			06/02/16 22:57	20
Tetrachloroethene	ND		20		ug/L			06/02/16 22:57	20
Toluene	ND		10		ug/L			06/02/16 22:57	20
trans-1,2-Dichloroethene	ND		20		ug/L			06/02/16 22:57	20
trans-1,3-Dichloropropene	ND		10		ug/L			06/02/16 22:57	20
1,2,3-Trichlorobenzene	ND		20		ug/L			06/02/16 22:57	20
1,2,4-Trichlorobenzene	ND		20		ug/L			06/02/16 22:57	20
1,1,1-Trichloroethane	ND		20		ug/L			06/02/16 22:57	20
1,1,2-Trichloroethane	ND		20		ug/L			06/02/16 22:57	20
Trichloroethene	ND		20		ug/L			06/02/16 22:57	20
Trichlorofluoromethane	ND		20		ug/L			06/02/16 22:57	20
1,2,3-Trichloropropane	ND		20		ug/L			06/02/16 22:57	20
1,2,4-Trimethylbenzene	ND		20		ug/L			06/02/16 22:57	20
1,3,5-Trimethylbenzene	ND		20		ug/L			06/02/16 22:57	20
Vinyl chloride	ND		10		ug/L			06/02/16 22:57	20

Client Sample ID: MW-28

Lab Sample ID: 440-148502-4
Date Collected: 0/ 6296 15 0. :15
Matrix: Water
Date Received: 0/ 6296 15 13:43

Method: 8250B - Volatile Organic Compounds PGC6MSQ PContinuedQ

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
Xylenes, Total	ND		30		ug/L			06/02/16 22:57	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*06/02/16 22:57*	*20*
Dibromofluoromethane (Surr)	*112*		*76 - 132*		*06/02/16 22:57*	*20*
Toluene-d8 (Surr)	*106*		*80 - 128*		*06/02/16 22:57*	*20*

Client Sample ID: MW-24

Lab Sample ID: 440-148502-/
Date Collected: 0/ 6296 15 0. :33
Matrix: Water
Date Received: 0/ 6296 15 13:43

Method: 8250B6CA_LUFTMS - Volatile Organic Compounds by GC6MS

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
Volatile Fuel f ydrocarbons PC4-C12Q	**1. 0**		50		ug/L			06/02/16 23:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*114*		*76 - 132*		*06/02/16 23:25*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*06/02/16 23:25*	*1*
Toluene-d8 (Surr)	*107*		*80 - 128*		*06/02/16 23:25*	*1*

Method: 8250B - Volatile Organic Compounds PGC6MSQ

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
Acetone	ND		10		ug/L			06/02/16 23:25	1
BenHene	**178**		0.50		ug/L			06/02/16 23:25	1
Bromobenzene	ND		1.0		ug/L			06/02/16 23:25	1
Bromochloromethane	ND		1.0		ug/L			06/02/16 23:25	1
Bromodichloromethane	ND		1.0		ug/L			06/02/16 23:25	1
Bromoform	ND		1.0		ug/L			06/02/16 23:25	1
Bromomethane	ND		1.0		ug/L			06/02/16 23:25	1
2-Butanone (MEK)	ND		10		ug/L			06/02/16 23:25	1
Carbon tetrachloride	ND		0.50		ug/L			06/02/16 23:25	1
Chlorobenzene	ND		1.0		ug/L			06/02/16 23:25	1
Chloroethane	ND		1.0		ug/L			06/02/16 23:25	1
Chloroform	ND		1.0		ug/L			06/02/16 23:25	1
Chloromethane	ND		1.0		ug/L			06/02/16 23:25	1
2-Chlorotoluene	ND		1.0		ug/L			06/02/16 23:25	1
4-Chlorotoluene	ND		1.0		ug/L			06/02/16 23:25	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			06/02/16 23:25	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			06/02/16 23:25	1
Dibromochloromethane	ND		1.0		ug/L			06/02/16 23:25	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			06/02/16 23:25	1
1,2-Dibromoethane (EDB)	ND		1.0		ug/L			06/02/16 23:25	1
Dibromomethane	ND		1.0		ug/L			06/02/16 23:25	1
1,2-Dichlorobenzene	ND		1.0		ug/L			06/02/16 23:25	1
1,3-Dichlorobenzene	ND		1.0		ug/L			06/02/16 23:25	1
1,4-Dichlorobenzene	ND		1.0		ug/L			06/02/16 23:25	1
Dichlorodifluoromethane	ND		2.0		ug/L			06/02/16 23:25	1
1,1-Dichloroethane	ND		1.0		ug/L			06/02/16 23:25	1
1,2-Dichloroethane	ND		0.50		ug/L			06/02/16 23:25	1
1,1-Dichloroethene	ND		1.0		ug/L			06/02/16 23:25	1

Client Sample Results

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516

TestAmerica Job ID: 440-148602-1

Client Sample ID: MW-24

Date Collected: 0/ 6296 15 0. :33
Date Received: 0/ 6296 15 13:43

Lab Sample ID: 440-148502-/

Matrix: Water

Method: 8250B - Volatile Organic Compounds PGC6MSQPContinuedQ

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
1,2-Dichloropropane	ND		1.0		ug/L			06/02/16 23:25	1
1,3-Dichloropropane	ND		1.0		ug/L			06/02/16 23:25	1
2,2-Dichloropropane	ND		1.0		ug/L			06/02/16 23:25	1
1,1-Dichloropropene	ND		1.0		ug/L			06/02/16 23:25	1
Ethylbenzene	ND		0.50		ug/L			06/02/16 23:25	1
Ethyl-t-butyl ether (ETBE)	ND		1.0		ug/L			06/02/16 23:25	1
Hexachlorobutadiene	ND		1.0		ug/L			06/02/16 23:25	1
2-Hexanone	ND		10		ug/L			06/02/16 23:25	1
Isopropylbenzene	ND		1.0		ug/L			06/02/16 23:25	1
Isopropyl Ether PDI(EQ	**/ 1**		1.0		ug/L			06/02/16 23:25	1
Methylene Chloride	ND		5.0		ug/L			06/02/16 23:25	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			06/02/16 23:25	1
Methyl-t-Butyl Ether PMTBEQ	**14**		1.0		ug/L			06/02/16 23:25	1
m,p-Xylene	ND		1.0		ug/L			06/02/16 23:25	1
Naphthalene	ND		1.0		ug/L			06/02/16 23:25	1
n-Butylbenzene	ND		1.0		ug/L			06/02/16 23:25	1
N-Propylbenzene	ND		1.0		ug/L			06/02/16 23:25	1
o-Xylene	ND		0.50		ug/L			06/02/16 23:25	1
p-Isopropyltoluene	ND		1.0		ug/L			06/02/16 23:25	1
sec-Butylbenzene	ND		1.0		ug/L			06/02/16 23:25	1
Styrene	ND		1.0		ug/L			06/02/16 23:25	1
Tert-amyl-methyl ether (TAME)	ND		1.0		ug/L			06/02/16 23:25	1
tert-Butyl alcohol PTBAQ	**11**	**ID**	10		ug/L			06/02/16 23:25	1
tert-Butylbenzene	ND		1.0		ug/L			06/02/16 23:25	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			06/02/16 23:25	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/02/16 23:25	1
Tetrachloroethene	ND		1.0		ug/L			06/02/16 23:25	1
Toluene	ND		0.50		ug/L			06/02/16 23:25	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			06/02/16 23:25	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			06/02/16 23:25	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			06/02/16 23:25	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			06/02/16 23:25	1
1,1,1-Trichloroethane	ND		1.0		ug/L			06/02/16 23:25	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/02/16 23:25	1
Trichloroethene	ND		1.0		ug/L			06/02/16 23:25	1
Trichlorofluoromethane	ND		1.0		ug/L			06/02/16 23:25	1
1,2,3-Trichloropropane	ND		1.0		ug/L			06/02/16 23:25	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			06/02/16 23:25	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			06/02/16 23:25	1
Vinyl chloride	ND		0.50		ug/L			06/02/16 23:25	1
Xylenes, Total	ND		1.5		ug/L			06/02/16 23:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*		*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*			*06/02/16 23:25*	*1*
Dibromofluoromethane (Surr)	*114*		*76 - 132*			*06/02/16 23:25*	*1*
Toluene-d8 (Surr)	*107*		*80 - 128*			*06/02/16 23:25*	*1*

Client Sample Results

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516

TestAmerica Job ID: 440-148602-1

Client Sample ID: MW-21

Date Collected: 0/ 6296 15 10:03
Date Received: 0/ 6296 15 13:43

Lab Sample ID: 440-148502-5

Matrix: Water

Method: 8250B6CA_LUFTMS - Volatile Organic Compounds by GC6MS

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		50		ug/L			06/02/16 03:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*113*		*76 - 132*		*06/02/16 03:29*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*06/02/16 03:29*	*1*
Toluene-d8 (Surr)	*108*		*80 - 128*		*06/02/16 03:29*	*1*

Method: 8250B - Volatile Organic Compounds RGC6MSQ

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
Acetone	ND		10		ug/L			06/02/16 03:29	1
Benzene	ND		0.50		ug/L			06/02/16 03:29	1
Bromobenzene	ND		1.0		ug/L			06/02/16 03:29	1
Bromochloromethane	ND		1.0		ug/L			06/02/16 03:29	1
Bromodichloromethane	ND		1.0		ug/L			06/02/16 03:29	1
Bromoform	ND		1.0		ug/L			06/02/16 03:29	1
Bromomethane	ND		1.0		ug/L			06/02/16 03:29	1
2-Butanone (MEK)	ND		10		ug/L			06/02/16 03:29	1
Carbon tetrachloride	ND		0.50		ug/L			06/02/16 03:29	1
Chlorobenzene	ND		1.0		ug/L			06/02/16 03:29	1
Chloroethane	ND		1.0		ug/L			06/02/16 03:29	1
Chloroform	ND		1.0		ug/L			06/02/16 03:29	1
Chloromethane	ND		1.0		ug/L			06/02/16 03:29	1
2-Chlorotoluene	ND		1.0		ug/L			06/02/16 03:29	1
4-Chlorotoluene	ND		1.0		ug/L			06/02/16 03:29	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			06/02/16 03:29	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			06/02/16 03:29	1
Dibromochloromethane	ND		1.0		ug/L			06/02/16 03:29	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			06/02/16 03:29	1
1,2-Dibromoethane (EDB)	ND		1.0		ug/L			06/02/16 03:29	1
Dibromomethane	ND		1.0		ug/L			06/02/16 03:29	1
1,2-Dichlorobenzene	ND		1.0		ug/L			06/02/16 03:29	1
1,3-Dichlorobenzene	ND		1.0		ug/L			06/02/16 03:29	1
1,4-Dichlorobenzene	ND		1.0		ug/L			06/02/16 03:29	1
Dichlorodifluoromethane	ND		2.0		ug/L			06/02/16 03:29	1
1,1-Dichloroethane	ND		1.0		ug/L			06/02/16 03:29	1
1,2-Dichloroethane	ND		0.50		ug/L			06/02/16 03:29	1
1,1-Dichloroethene	ND		1.0		ug/L			06/02/16 03:29	1
1,2-Dichloropropane	ND		1.0		ug/L			06/02/16 03:29	1
1,3-Dichloropropane	ND		1.0		ug/L			06/02/16 03:29	1
2,2-Dichloropropane	ND		1.0		ug/L			06/02/16 03:29	1
1,1-Dichloropropene	ND		1.0		ug/L			06/02/16 03:29	1
Ethylbenzene	ND		0.50		ug/L			06/02/16 03:29	1
Ethyl-t-butyl ether (ETBE)	ND		1.0		ug/L			06/02/16 03:29	1
Hexachlorobutadiene	ND		1.0		ug/L			06/02/16 03:29	1
2-Hexanone	ND		10		ug/L			06/02/16 03:29	1
Isopropylbenzene	ND		1.0		ug/L			06/02/16 03:29	1
Isopropyl Ether PDI(EQ	**875**		1.0		ug/L			06/02/16 03:29	1
Methylene Chloride	ND		5.0		ug/L			06/02/16 03:29	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			06/02/16 03:29	1
Methyl-t-Butyl Ether PMTBEQ	**474**		1.0		ug/L			06/02/16 03:29	1

Client Sample Results

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516

TestAmerica Job ID: 440-148602-1

Client Sample ID: MW-21

Lab Sample ID: 440-148502-5
Date Collected: 0/ 6296 15 10:03
Matrix: Water
Date Received: 0/ 6296 15 13:43

Method: 8250B - Volatile Organic Compounds PGC6MSQPContinuedQ

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
m,p-Xylene	ND		1.0		ug/L			06/02/16 03:29	1
Naphthalene	ND		1.0		ug/L			06/02/16 03:29	1
n-Butylbenzene	ND		1.0		ug/L			06/02/16 03:29	1
N-Propylbenzene	ND		1.0		ug/L			06/02/16 03:29	1
o-Xylene	ND		0.50		ug/L			06/02/16 03:29	1
p-Isopropyltoluene	ND		1.0		ug/L			06/02/16 03:29	1
sec-Butylbenzene	ND		1.0		ug/L			06/02/16 03:29	1
Styrene	ND		1.0		ug/L			06/02/16 03:29	1
Tert-amyl-methyl ether (TAME)	ND		1.0		ug/L			06/02/16 03:29	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			06/02/16 03:29	1
tert-Butylbenzene	ND		1.0		ug/L			06/02/16 03:29	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			06/02/16 03:29	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/02/16 03:29	1
Tetrachloroethene	ND		1.0		ug/L			06/02/16 03:29	1
Toluene	ND		0.50		ug/L			06/02/16 03:29	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			06/02/16 03:29	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			06/02/16 03:29	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			06/02/16 03:29	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			06/02/16 03:29	1
1,1,1-Trichloroethane	ND		1.0		ug/L			06/02/16 03:29	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/02/16 03:29	1
Trichloroethene	ND		1.0		ug/L			06/02/16 03:29	1
Trichlorofluoromethane	ND		1.0		ug/L			06/02/16 03:29	1
1,2,3-Trichloropropane	ND		1.0		ug/L			06/02/16 03:29	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			06/02/16 03:29	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			06/02/16 03:29	1
Vinyl chloride	ND		0.50		ug/L			06/02/16 03:29	1
Xylenes, Total	ND		1.5		ug/L			06/02/16 03:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*06/02/16 03:29*	*1*
Dibromofluoromethane (Surr)	*113*		*76 - 132*		*06/02/16 03:29*	*1*
Toluene-d8 (Surr)	*108*		*80 - 128*		*06/02/16 03:29*	*1*

Client Sample ID: MW-20

Lab Sample ID: 440-148502-9
Date Collected: 0/ 6296 15 10:3/
Matrix: Water
Date Received: 0/ 6296 15 13:43

Method: 8250B6CA_LUFTMS - Volatile Organic Compounds by GC6MS

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		50		ug/L			06/02/16 03:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*115*		*76 - 132*		*06/02/16 03:59*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*06/02/16 03:59*	*1*
Toluene-d8 (Surr)	*108*		*80 - 128*		*06/02/16 03:59*	*1*

Method: 8250B - Volatile Organic Compounds PGC6MSQ

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
Acetone	ND		10		ug/L			06/02/16 03:59	1

Client Sample Results

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516

TestAmerica Job ID: 440-148602-1

Client Sample ID: MW-20

Date Collected: 0/ 6296 15 10:3/
Date Received: 0/ 6296 15 13:43

Lab Sample ID: 440-148502-9

Matrix: Water

Method: 8250B - Volatile Organic Compounds PGC6MSQPContinuedQ

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
Benzene	ND		0.50		ug/L			06/02/16 03:59	1
Bromobenzene	ND		1.0		ug/L			06/02/16 03:59	1
Bromochloromethane	ND		1.0		ug/L			06/02/16 03:59	1
Bromodichloromethane	ND		1.0		ug/L			06/02/16 03:59	1
Bromoform	ND		1.0		ug/L			06/02/16 03:59	1
Bromomethane	ND		1.0		ug/L			06/02/16 03:59	1
2-Butanone (MEK)	ND		10		ug/L			06/02/16 03:59	1
Carbon tetrachloride	ND		0.50		ug/L			06/02/16 03:59	1
Chlorobenzene	ND		1.0		ug/L			06/02/16 03:59	1
Chloroethane	ND		1.0		ug/L			06/02/16 03:59	1
Chloroform	ND		1.0		ug/L			06/02/16 03:59	1
Chloromethane	ND		1.0		ug/L			06/02/16 03:59	1
2-Chlorotoluene	ND		1.0		ug/L			06/02/16 03:59	1
4-Chlorotoluene	ND		1.0		ug/L			06/02/16 03:59	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			06/02/16 03:59	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			06/02/16 03:59	1
Dibromochloromethane	ND		1.0		ug/L			06/02/16 03:59	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			06/02/16 03:59	1
1,2-Dibromoethane (EDB)	ND		1.0		ug/L			06/02/16 03:59	1
Dibromomethane	ND		1.0		ug/L			06/02/16 03:59	1
1,2-Dichlorobenzene	ND		1.0		ug/L			06/02/16 03:59	1
1,3-Dichlorobenzene	ND		1.0		ug/L			06/02/16 03:59	1
1,4-Dichlorobenzene	ND		1.0		ug/L			06/02/16 03:59	1
Dichlorodifluoromethane	ND		2.0		ug/L			06/02/16 03:59	1
1,1-Dichloroethane	ND		1.0		ug/L			06/02/16 03:59	1
1,2-Dichloroethane	ND		0.50		ug/L			06/02/16 03:59	1
1,1-Dichloroethene	ND		1.0		ug/L			06/02/16 03:59	1
1,2-Dichloropropane	ND		1.0		ug/L			06/02/16 03:59	1
1,3-Dichloropropane	ND		1.0		ug/L			06/02/16 03:59	1
2,2-Dichloropropane	ND		1.0		ug/L			06/02/16 03:59	1
1,1-Dichloropropene	ND		1.0		ug/L			06/02/16 03:59	1
Ethylbenzene	ND		0.50		ug/L			06/02/16 03:59	1
Ethyl-t-butyl ether (ETBE)	ND		1.0		ug/L			06/02/16 03:59	1
Hexachlorobutadiene	ND		1.0		ug/L			06/02/16 03:59	1
2-Hexanone	ND		10		ug/L			06/02/16 03:59	1
Isopropylbenzene	ND		1.0		ug/L			06/02/16 03:59	1
Isopropyl Ether PDI(EQ	**/ 72**		1.0		ug/L			06/02/16 03:59	1
Methylene Chloride	ND		5.0		ug/L			06/02/16 03:59	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			06/02/16 03:59	1
Methyl-t-Butyl Ether PMTBEQ	**171**		1.0		ug/L			06/02/16 03:59	1
m,p-Xylene	ND		1.0		ug/L			06/02/16 03:59	1
Naphthalene	ND		1.0		ug/L			06/02/16 03:59	1
n-Butylbenzene	ND		1.0		ug/L			06/02/16 03:59	1
N-Propylbenzene	ND		1.0		ug/L			06/02/16 03:59	1
o-Xylene	ND		0.50		ug/L			06/02/16 03:59	1
p-Isopropyltoluene	ND		1.0		ug/L			06/02/16 03:59	1
sec-Butylbenzene	ND		1.0		ug/L			06/02/16 03:59	1
Styrene	ND		1.0		ug/L			06/02/16 03:59	1
Tert-amyl-methyl ether (TAME)	ND		1.0		ug/L			06/02/16 03:59	1

Client Sample Results

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516

TestAmerica Job ID: 440-148602-1

Client Sample ID: MW-20

Lab Sample ID: 440-148502-9
Matrix: Water

Date Collected: 0/ 6296 15 10:3/
Date Received: 0/ 6296 15 13:43

Method: 8250B - Volatile Organic Compounds PGC6MSQPContinuedQ

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
tert-Butyl alcohol (TBA)	ND		10		ug/L			06/02/16 03:59	1
tert-Butylbenzene	ND		1.0		ug/L			06/02/16 03:59	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			06/02/16 03:59	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/02/16 03:59	1
Tetrachloroethene	ND		1.0		ug/L			06/02/16 03:59	1
Toluene	ND		0.50		ug/L			06/02/16 03:59	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			06/02/16 03:59	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			06/02/16 03:59	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			06/02/16 03:59	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			06/02/16 03:59	1
1,1,1-Trichloroethane	ND		1.0		ug/L			06/02/16 03:59	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/02/16 03:59	1
Trichloroethene	ND		1.0		ug/L			06/02/16 03:59	1
Trichlorofluoromethane	ND		1.0		ug/L			06/02/16 03:59	1
1,2,3-Trichloropropane	ND		1.0		ug/L			06/02/16 03:59	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			06/02/16 03:59	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			06/02/16 03:59	1
Vinyl chloride	ND		0.50		ug/L			06/02/16 03:59	1
Xylenes, Total	ND		1.5		ug/L			06/02/16 03:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*06/02/16 03:59*	*1*
Dibromofluoromethane (Surr)	*115*		*76 - 132*		*06/02/16 03:59*	*1*
Toluene-d8 (Surr)	*108*		*80 - 128*		*06/02/16 03:59*	*1*

Client Sample ID: MW-19

Lab Sample ID: 440-148502-8
Matrix: Water

Date Collected: 0/ 6296 15 11:03
Date Received: 0/ 6296 15 13:43

Method: 8250B6CA_LUFTMS - Volatile Organic Compounds by GC6MS

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
Volatile Fuel f ydrocarbons PC4-C12Q	/ 2		50		ug/L			06/02/16 04:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*111*		*76 - 132*		*06/02/16 04:29*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*06/02/16 04:29*	*1*
Toluene-d8 (Surr)	*107*		*80 - 128*		*06/02/16 04:29*	*1*

Method: 8250B - Volatile Organic Compounds PGC6MSQ

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
Acetone	ND		10		ug/L			06/02/16 04:29	1
Benzene	ND		0.50		ug/L			06/02/16 04:29	1
Bromobenzene	ND		1.0		ug/L			06/02/16 04:29	1
Bromochloromethane	ND		1.0		ug/L			06/02/16 04:29	1
Bromodichloromethane	ND		1.0		ug/L			06/02/16 04:29	1
Bromoform	ND		1.0		ug/L			06/02/16 04:29	1
Bromomethane	ND		1.0		ug/L			06/02/16 04:29	1
2-Butanone (MEK)	ND		10		ug/L			06/02/16 04:29	1
Carbon tetrachloride	ND		0.50		ug/L			06/02/16 04:29	1
Chlorobenzene	ND		1.0		ug/L			06/02/16 04:29	1

Client Sample Results

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516

TestAmerica Job ID: 440-148602-1

Client Sample ID: MW-19

Date Collected: 0/ 6296 15 11:03
Date Received: 0/ 6296 15 13:43

Lab Sample ID: 440-148502-8

Matrix: Water

Method: 8250B - Volatile Organic Compounds PGC6MSQPContinuedQ

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
Chloroethane	ND		1.0		ug/L			06/02/16 04:29	1
Chloroform	ND		1.0		ug/L			06/02/16 04:29	1
Chloromethane	ND		1.0		ug/L			06/02/16 04:29	1
2-Chlorotoluene	ND		1.0		ug/L			06/02/16 04:29	1
4-Chlorotoluene	ND		1.0		ug/L			06/02/16 04:29	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			06/02/16 04:29	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			06/02/16 04:29	1
Dibromochloromethane	ND		1.0		ug/L			06/02/16 04:29	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			06/02/16 04:29	1
1,2-Dibromoethane (EDB)	ND		1.0		ug/L			06/02/16 04:29	1
Dibromomethane	ND		1.0		ug/L			06/02/16 04:29	1
1,2-Dichlorobenzene	ND		1.0		ug/L			06/02/16 04:29	1
1,3-Dichlorobenzene	ND		1.0		ug/L			06/02/16 04:29	1
1,4-Dichlorobenzene	ND		1.0		ug/L			06/02/16 04:29	1
Dichlorodifluoromethane	ND		2.0		ug/L			06/02/16 04:29	1
1,1-Dichloroethane	ND		1.0		ug/L			06/02/16 04:29	1
1,2-Dichloroethane	ND		0.50		ug/L			06/02/16 04:29	1
1,1-Dichloroethene	ND		1.0		ug/L			06/02/16 04:29	1
1,2-Dichloropropane	ND		1.0		ug/L			06/02/16 04:29	1
1,3-Dichloropropane	ND		1.0		ug/L			06/02/16 04:29	1
2,2-Dichloropropane	ND		1.0		ug/L			06/02/16 04:29	1
1,1-Dichloropropene	ND		1.0		ug/L			06/02/16 04:29	1
Ethylbenzene	ND		0.50		ug/L			06/02/16 04:29	1
Ethyl-t-butyl ether (ETBE)	ND		1.0		ug/L			06/02/16 04:29	1
Hexachlorobutadiene	ND		1.0		ug/L			06/02/16 04:29	1
2-Hexanone	ND		10		ug/L			06/02/16 04:29	1
Isopropylbenzene	ND		1.0		ug/L			06/02/16 04:29	1
Isopropyl Ether PDI(EQ	**. 70**		1.0		ug/L			06/02/16 04:29	1
Methylene Chloride	ND		5.0		ug/L			06/02/16 04:29	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			06/02/16 04:29	1
Methyl-t-Butyl Ether PMTBEQ	**34**		1.0		ug/L			06/02/16 04:29	1
m,p-Xylene	ND		1.0		ug/L			06/02/16 04:29	1
Naphthalene	ND		1.0		ug/L			06/02/16 04:29	1
n-Butylbenzene	ND		1.0		ug/L			06/02/16 04:29	1
N-Propylbenzene	ND		1.0		ug/L			06/02/16 04:29	1
o-Xylene	ND		0.50		ug/L			06/02/16 04:29	1
p-Isopropyltoluene	ND		1.0		ug/L			06/02/16 04:29	1
sec-Butylbenzene	ND		1.0		ug/L			06/02/16 04:29	1
Styrene	ND		1.0		ug/L			06/02/16 04:29	1
Tert-amyl-methyl ether (TAME)	ND		1.0		ug/L			06/02/16 04:29	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			06/02/16 04:29	1
tert-Butylbenzene	ND		1.0		ug/L			06/02/16 04:29	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			06/02/16 04:29	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/02/16 04:29	1
Tetrachloroethene	ND		1.0		ug/L			06/02/16 04:29	1
Toluene	ND		0.50		ug/L			06/02/16 04:29	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			06/02/16 04:29	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			06/02/16 04:29	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			06/02/16 04:29	1

Client Sample Results

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516

TestAmerica Job ID: 440-148602-1

Client Sample ID: MW-19

Lab Sample ID: 440-148502-8
Date Collected: 0/ 6296 15 11:03
Matrix: Water
Date Received: 0/ 6296 15 13:43

Method: 8250B - Volatile Organic Compounds PGC6MSQPContinuedQ

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
1,2,4-Trichlorobenzene	ND		1.0		ug/L			06/02/16 04:29	1
1,1,1-Trichloroethane	ND		1.0		ug/L			06/02/16 04:29	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/02/16 04:29	1
Trichloroethene	ND		1.0		ug/L			06/02/16 04:29	1
Trichlorofluoromethane	ND		1.0		ug/L			06/02/16 04:29	1
1,2,3-Trichloropropane	ND		1.0		ug/L			06/02/16 04:29	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			06/02/16 04:29	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			06/02/16 04:29	1
Vinyl chloride	ND		0.50		ug/L			06/02/16 04:29	1
Xylenes, Total	ND		1.5		ug/L			06/02/16 04:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*06/02/16 04:29*	*1*
Dibromofluoromethane (Surr)	*111*		*76 - 132*		*06/02/16 04:29*	*1*
Toluene-d8 (Surr)	*107*		*80 - 128*		*06/02/16 04:29*	*1*

Client Sample ID: MW-18

Lab Sample ID: 440-148502-.
Date Collected: 0/ 6296 15 11:1.
Matrix: Water
Date Received: 0/ 6296 15 13:43

Method: 8250B6CA_LUFTMS - Volatile Organic Compounds by GC6MS

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
Volatile Fuel f ydrocarbons PC4-C12Q	**8.**		50		ug/L			06/02/16 04:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*109*		*76 - 132*		*06/02/16 04:58*	*1*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*06/02/16 04:58*	*1*
Toluene-d8 (Surr)	*110*		*80 - 128*		*06/02/16 04:58*	*1*

Method: 8250B - Volatile Organic Compounds PGC6MSQ

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
Acetone	ND		10		ug/L			06/02/16 04:58	1
Benzene	ND		0.50		ug/L			06/02/16 04:58	1
Bromobenzene	ND		1.0		ug/L			06/02/16 04:58	1
Bromochloromethane	ND		1.0		ug/L			06/02/16 04:58	1
Bromodichloromethane	ND		1.0		ug/L			06/02/16 04:58	1
Bromoform	ND		1.0		ug/L			06/02/16 04:58	1
Bromomethane	ND		1.0		ug/L			06/02/16 04:58	1
2-Butanone (MEK)	ND		10		ug/L			06/02/16 04:58	1
Carbon tetrachloride	ND		0.50		ug/L			06/02/16 04:58	1
Chlorobenzene	ND		1.0		ug/L			06/02/16 04:58	1
Chloroethane	ND		1.0		ug/L			06/02/16 04:58	1
Chloroform	ND		1.0		ug/L			06/02/16 04:58	1
Chloromethane	ND		1.0		ug/L			06/02/16 04:58	1
2-Chlorotoluene	ND		1.0		ug/L			06/02/16 04:58	1
4-Chlorotoluene	ND		1.0		ug/L			06/02/16 04:58	1
cis-1N2-Dichloroethene	**578**		1.0		ug/L			06/02/16 04:58	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			06/02/16 04:58	1
Dibromochloromethane	ND		1.0		ug/L			06/02/16 04:58	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			06/02/16 04:58	1

Client Sample Results

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516

TestAmerica Job ID: 440-148602-1

Client Sample ID: MW-18

Date Collected: 0/ 6296 15 11:1.
Date Received: 0/ 6296 15 13:43

Lab Sample ID: 440-148502-.

Matrix: Water

Method: 8250B - Volatile Organic Compounds PGC6MSQPContinuedQ

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
1,2-Dibromoethane (EDB)	ND		1.0		ug/L			06/02/16 04:58	1
Dibromomethane	ND		1.0		ug/L			06/02/16 04:58	1
1,2-Dichlorobenzene	ND		1.0		ug/L			06/02/16 04:58	1
1,3-Dichlorobenzene	ND		1.0		ug/L			06/02/16 04:58	1
1,4-Dichlorobenzene	ND		1.0		ug/L			06/02/16 04:58	1
Dichlorodifluoromethane	ND		2.0		ug/L			06/02/16 04:58	1
1,1-Dichloroethane	ND		1.0		ug/L			06/02/16 04:58	1
1,2-Dichloroethane	ND		0.50		ug/L			06/02/16 04:58	1
1,1-Dichloroethene	ND		1.0		ug/L			06/02/16 04:58	1
1,2-Dichloropropane	ND		1.0		ug/L			06/02/16 04:58	1
1,3-Dichloropropane	ND		1.0		ug/L			06/02/16 04:58	1
2,2-Dichloropropane	ND		1.0		ug/L			06/02/16 04:58	1
1,1-Dichloropropene	ND		1.0		ug/L			06/02/16 04:58	1
Ethylbenzene	ND		0.50		ug/L			06/02/16 04:58	1
Ethyl-t-butyl ether (ETBE)	ND		1.0		ug/L			06/02/16 04:58	1
Hexachlorobutadiene	ND		1.0		ug/L			06/02/16 04:58	1
2-Hexanone	ND		10		ug/L			06/02/16 04:58	1
Isopropylbenzene	ND		1.0		ug/L			06/02/16 04:58	1
Isopropyl Ether PDI(EQ	**375**		1.0		ug/L			06/02/16 04:58	1
Methylene Chloride	ND		5.0		ug/L			06/02/16 04:58	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			06/02/16 04:58	1
Methyl-t-Butyl Ether PMTBEQ	**. 70**		1.0		ug/L			06/02/16 04:58	1
m,p-Xylene	ND		1.0		ug/L			06/02/16 04:58	1
Naphthalene	ND		1.0		ug/L			06/02/16 04:58	1
n-Butylbenzene	ND		1.0		ug/L			06/02/16 04:58	1
N-Propylbenzene	ND		1.0		ug/L			06/02/16 04:58	1
o-Xylene	ND		0.50		ug/L			06/02/16 04:58	1
p-Isopropyltoluene	ND		1.0		ug/L			06/02/16 04:58	1
sec-Butylbenzene	ND		1.0		ug/L			06/02/16 04:58	1
Styrene	ND		1.0		ug/L			06/02/16 04:58	1
Tert-amyl-methyl ether (TAME)	ND		1.0		ug/L			06/02/16 04:58	1
tert-Butyl alcohol PTBAQ	**12**	**ID**	10		ug/L			06/02/16 04:58	1
tert-Butylbenzene	ND		1.0		ug/L			06/02/16 04:58	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			06/02/16 04:58	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/02/16 04:58	1
Tetrachloroethene	ND		1.0		ug/L			06/02/16 04:58	1
Toluene	ND		0.50		ug/L			06/02/16 04:58	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			06/02/16 04:58	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			06/02/16 04:58	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			06/02/16 04:58	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			06/02/16 04:58	1
1,1,1-Trichloroethane	ND		1.0		ug/L			06/02/16 04:58	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/02/16 04:58	1
Trichloroethene	ND		1.0		ug/L			06/02/16 04:58	1
Trichlorofluoromethane	ND		1.0		ug/L			06/02/16 04:58	1
1,2,3-Trichloropropane	ND		1.0		ug/L			06/02/16 04:58	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			06/02/16 04:58	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			06/02/16 04:58	1
Vinyl chloride	ND		0.50		ug/L			06/02/16 04:58	1

Client Sample Results

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516

TestAmerica Job ID: 440-148602-1

Client Sample ID: MW-18

Lab Sample ID: 440-148502-.

Date Collected: 0/ 6296 15 11:1.
Date Received: 0/ 6296 15 13:43

Matrix: Water

Method: 8250B - Volatile Organic Compounds PGC6MSQPContinuedQ

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
Xylenes, Total	ND		1.5		ug/L			06/02/16 04:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*06/02/16 04:58*	*1*
Dibromofluoromethane (Surr)	*109*		*76 - 132*		*06/02/16 04:58*	*1*
Toluene-d8 (Surr)	*110*		*80 - 128*		*06/02/16 04:58*	*1*

Client Sample ID: MW-25

Lab Sample ID: 440-148502-10

Date Collected: 0/ 6296 15 12:40
Date Received: 0/ 6296 15 13:43

Matrix: Water

Method: 8250B6CA_LUFTMS - Volatile Organic Compounds by GC6MS

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		50		ug/L			06/02/16 05:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*113*		*76 - 132*		*06/02/16 05:28*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*06/02/16 05:28*	*1*
Toluene-d8 (Surr)	*109*		*80 - 128*		*06/02/16 05:28*	*1*

Method: 8250B - Volatile Organic Compounds PGC6MSQ

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
Acetone	ND		10		ug/L			06/02/16 05:28	1
Benzene	ND		0.50		ug/L			06/02/16 05:28	1
Bromobenzene	ND		1.0		ug/L			06/02/16 05:28	1
Bromochloromethane	ND		1.0		ug/L			06/02/16 05:28	1
Bromodichloromethane	ND		1.0		ug/L			06/02/16 05:28	1
Bromoform	ND		1.0		ug/L			06/02/16 05:28	1
Bromomethane	ND		1.0		ug/L			06/02/16 05:28	1
2-Butanone (MEK)	ND		10		ug/L			06/02/16 05:28	1
Carbon tetrachloride	ND		0.50		ug/L			06/02/16 05:28	1
Chlorobenzene	ND		1.0		ug/L			06/02/16 05:28	1
Chloroethane	ND		1.0		ug/L			06/02/16 05:28	1
Chloroform	ND		1.0		ug/L			06/02/16 05:28	1
Chloromethane	ND		1.0		ug/L			06/02/16 05:28	1
2-Chlorotoluene	ND		1.0		ug/L			06/02/16 05:28	1
4-Chlorotoluene	ND		1.0		ug/L			06/02/16 05:28	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			06/02/16 05:28	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			06/02/16 05:28	1
Dibromochloromethane	ND		1.0		ug/L			06/02/16 05:28	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			06/02/16 05:28	1
1,2-Dibromoethane (EDB)	ND		1.0		ug/L			06/02/16 05:28	1
Dibromomethane	ND		1.0		ug/L			06/02/16 05:28	1
1,2-Dichlorobenzene	ND		1.0		ug/L			06/02/16 05:28	1
1,3-Dichlorobenzene	ND		1.0		ug/L			06/02/16 05:28	1
1,4-Dichlorobenzene	ND		1.0		ug/L			06/02/16 05:28	1
Dichlorodifluoromethane	ND		2.0		ug/L			06/02/16 05:28	1
1,1-Dichloroethane	ND		1.0		ug/L			06/02/16 05:28	1
1,2-Dichloroethane	ND		0.50		ug/L			06/02/16 05:28	1
1,1-Dichloroethene	ND		1.0		ug/L			06/02/16 05:28	1

Client Sample Results

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516

TestAmerica Job ID: 440-148602-1

Client Sample ID: MW-25

Date Collected: 0/ 6296 15 12:40
Date Received: 0/ 6296 15 13:43

Lab Sample ID: 440-148502-10

Matrix: Water

Method: 8250B - Volatile Organic Compounds PGC6MSQ PContinuedQ

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
1,2-Dichloropropane	ND		1.0		ug/L			06/02/16 05:28	1
1,3-Dichloropropane	ND		1.0		ug/L			06/02/16 05:28	1
2,2-Dichloropropane	ND		1.0		ug/L			06/02/16 05:28	1
1,1-Dichloropropene	ND		1.0		ug/L			06/02/16 05:28	1
Ethylbenzene	ND		0.50		ug/L			06/02/16 05:28	1
Ethyl-t-butyl ether (ETBE)	ND		1.0		ug/L			06/02/16 05:28	1
Hexachlorobutadiene	ND		1.0		ug/L			06/02/16 05:28	1
2-Hexanone	ND		10		ug/L			06/02/16 05:28	1
Isopropylbenzene	ND		1.0		ug/L			06/02/16 05:28	1
Isopropyl Ether (DIPE)	ND		1.0		ug/L			06/02/16 05:28	1
Methylene Chloride	ND		5.0		ug/L			06/02/16 05:28	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			06/02/16 05:28	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0		ug/L			06/02/16 05:28	1
m,p-Xylene	ND		1.0		ug/L			06/02/16 05:28	1
Naphthalene	ND		1.0		ug/L			06/02/16 05:28	1
n-Butylbenzene	ND		1.0		ug/L			06/02/16 05:28	1
N-Propylbenzene	ND		1.0		ug/L			06/02/16 05:28	1
o-Xylene	ND		0.50		ug/L			06/02/16 05:28	1
p-Isopropyltoluene	ND		1.0		ug/L			06/02/16 05:28	1
sec-Butylbenzene	ND		1.0		ug/L			06/02/16 05:28	1
Styrene	ND		1.0		ug/L			06/02/16 05:28	1
Tert-amyl-methyl ether (TAME)	ND		1.0		ug/L			06/02/16 05:28	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			06/02/16 05:28	1
tert-Butylbenzene	ND		1.0		ug/L			06/02/16 05:28	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			06/02/16 05:28	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/02/16 05:28	1
Tetrachloroethene	ND		1.0		ug/L			06/02/16 05:28	1
Toluene	ND		0.50		ug/L			06/02/16 05:28	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			06/02/16 05:28	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			06/02/16 05:28	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			06/02/16 05:28	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			06/02/16 05:28	1
1,1,1-Trichloroethane	ND		1.0		ug/L			06/02/16 05:28	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/02/16 05:28	1
Trichloroethene	ND		1.0		ug/L			06/02/16 05:28	1
Trichlorofluoromethane	ND		1.0		ug/L			06/02/16 05:28	1
1,2,3-Trichloropropane	ND		1.0		ug/L			06/02/16 05:28	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			06/02/16 05:28	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			06/02/16 05:28	1
Vinyl chloride	ND		0.50		ug/L			06/02/16 05:28	1
Xylenes, Total	ND		1.5		ug/L			06/02/16 05:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*06/02/16 05:28*	*1*
Dibromofluoromethane (Surr)	*113*		*76 - 132*		*06/02/16 05:28*	*1*
Toluene-d8 (Surr)	*109*		*80 - 128*		*06/02/16 05:28*	*1*

Client Sample Results

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516

TestAmerica Job ID: 440-148602-1

Client Sample ID: MW-23

Date Collected: 0/ 6296 15 13:1/
Date Received: 0/ 6296 15 13:43

Lab Sample ID: 440-148502-11

Matrix: Water

Method: 8250B6CA_LUFTMS - Volatile Organic Compounds by GC6MS

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		50		ug/L			06/02/16 05:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*115*		*76 - 132*		*06/02/16 05:58*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*06/02/16 05:58*	*1*
Toluene-d8 (Surr)	*110*		*80 - 128*		*06/02/16 05:58*	*1*

Method: 8250B - Volatile Organic Compounds PGC6MSQ

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
Acetone	ND		10		ug/L			06/02/16 05:58	1
Benzene	ND		0.50		ug/L			06/02/16 05:58	1
Bromobenzene	ND		1.0		ug/L			06/02/16 05:58	1
Bromochloromethane	ND		1.0		ug/L			06/02/16 05:58	1
Bromodichloromethane	ND		1.0		ug/L			06/02/16 05:58	1
Bromoform	ND		1.0		ug/L			06/02/16 05:58	1
Bromomethane	ND		1.0		ug/L			06/02/16 05:58	1
2-Butanone (MEK)	ND		10		ug/L			06/02/16 05:58	1
Carbon tetrachloride	ND		0.50		ug/L			06/02/16 05:58	1
Chlorobenzene	ND		1.0		ug/L			06/02/16 05:58	1
Chloroethane	ND		1.0		ug/L			06/02/16 05:58	1
Chloroform	ND		1.0		ug/L			06/02/16 05:58	1
Chloromethane	ND		1.0		ug/L			06/02/16 05:58	1
2-Chlorotoluene	ND		1.0		ug/L			06/02/16 05:58	1
4-Chlorotoluene	ND		1.0		ug/L			06/02/16 05:58	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			06/02/16 05:58	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			06/02/16 05:58	1
Dibromochloromethane	ND		1.0		ug/L			06/02/16 05:58	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			06/02/16 05:58	1
1,2-Dibromoethane (EDB)	ND		1.0		ug/L			06/02/16 05:58	1
Dibromomethane	ND		1.0		ug/L			06/02/16 05:58	1
1,2-Dichlorobenzene	ND		1.0		ug/L			06/02/16 05:58	1
1,3-Dichlorobenzene	ND		1.0		ug/L			06/02/16 05:58	1
1,4-Dichlorobenzene	ND		1.0		ug/L			06/02/16 05:58	1
Dichlorodifluoromethane	ND		2.0		ug/L			06/02/16 05:58	1
1,1-Dichloroethane	ND		1.0		ug/L			06/02/16 05:58	1
1,2-Dichloroethane	ND		0.50		ug/L			06/02/16 05:58	1
1,1-Dichloroethene	ND		1.0		ug/L			06/02/16 05:58	1
1,2-Dichloropropane	ND		1.0		ug/L			06/02/16 05:58	1
1,3-Dichloropropane	ND		1.0		ug/L			06/02/16 05:58	1
2,2-Dichloropropane	ND		1.0		ug/L			06/02/16 05:58	1
1,1-Dichloropropene	ND		1.0		ug/L			06/02/16 05:58	1
Ethylbenzene	ND		0.50		ug/L			06/02/16 05:58	1
Ethyl-t-butyl ether (ETBE)	ND		1.0		ug/L			06/02/16 05:58	1
Hexachlorobutadiene	ND		1.0		ug/L			06/02/16 05:58	1
2-Hexanone	ND		10		ug/L			06/02/16 05:58	1
Isopropylbenzene	ND		1.0		ug/L			06/02/16 05:58	1
Isopropyl Ether PDI(EQ	**27**		1.0		ug/L			06/02/16 05:58	1
Methylene Chloride	ND		5.0		ug/L			06/02/16 05:58	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			06/02/16 05:58	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0		ug/L			06/02/16 05:58	1

Client Sample Results

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516

TestAmerica Job ID: 440-148602-1

Client Sample ID: MW-23

Lab Sample ID: 440-148502-11

Date Collected: 0/ 6296 15 13:1/
Date Received: 0/ 6296 15 13:43

Matrix: Water

Method: 8250B - Volatile Organic Compounds PGC6MSQ PContinuedQ

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
m,p-Xylene	ND		1.0		ug/L			06/02/16 05:58	1
Naphthalene	ND		1.0		ug/L			06/02/16 05:58	1
n-Butylbenzene	ND		1.0		ug/L			06/02/16 05:58	1
N-Propylbenzene	ND		1.0		ug/L			06/02/16 05:58	1
o-Xylene	ND		0.50		ug/L			06/02/16 05:58	1
p-Isopropyltoluene	ND		1.0		ug/L			06/02/16 05:58	1
sec-Butylbenzene	ND		1.0		ug/L			06/02/16 05:58	1
Styrene	ND		1.0		ug/L			06/02/16 05:58	1
Tert-amyl-methyl ether (TAME)	ND		1.0		ug/L			06/02/16 05:58	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			06/02/16 05:58	1
tert-Butylbenzene	ND		1.0		ug/L			06/02/16 05:58	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			06/02/16 05:58	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/02/16 05:58	1
Tetrachloroethene	ND		1.0		ug/L			06/02/16 05:58	1
Toluene	ND		0.50		ug/L			06/02/16 05:58	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			06/02/16 05:58	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			06/02/16 05:58	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			06/02/16 05:58	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			06/02/16 05:58	1
1,1,1-Trichloroethane	ND		1.0		ug/L			06/02/16 05:58	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/02/16 05:58	1
Trichloroethene	ND		1.0		ug/L			06/02/16 05:58	1
Trichlorofluoromethane	ND		1.0		ug/L			06/02/16 05:58	1
1,2,3-Trichloropropane	ND		1.0		ug/L			06/02/16 05:58	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			06/02/16 05:58	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			06/02/16 05:58	1
Vinyl chloride	ND		0.50		ug/L			06/02/16 05:58	1
Xylenes, Total	ND		1.5		ug/L			06/02/16 05:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*06/02/16 05:58*	*1*
Dibromofluoromethane (Surr)	*115*		*76 - 132*		*06/02/16 05:58*	*1*
Toluene-d8 (Surr)	*110*		*80 - 128*		*06/02/16 05:58*	*1*

Client Sample ID: TB-2

Lab Sample ID: 440-148502-12

Date Collected: 0/ 6296 15 09:4/
Date Received: 0/ 6296 15 13:43

Matrix: Water

Method: 8250B6CA_LUFTMS - Volatile Organic Compounds by GC6MS

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		50		ug/L			06/02/16 23:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*117*		*76 - 132*		*06/02/16 23:52*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*06/02/16 23:52*	*1*
Toluene-d8 (Surr)	*107*		*80 - 128*		*06/02/16 23:52*	*1*

Method: 8250B - Volatile Organic Compounds PGC6MSQ

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
Acetone	ND		10		ug/L			06/02/16 23:52	1

Client Sample Results

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516

TestAmerica Job ID: 440-148602-1

Client Sample ID: TB-2

Date Collected: 0/ 6296 15 09:4/
Date Received: 0/ 6296 15 13:43

Lab Sample ID: 440-148502-12

Matrix: Water

Method: 8250B - Volatile Organic Compounds PGC6MSQPContinuedQ

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
Benzene	ND		0.50		ug/L			06/02/16 23:52	1
Bromobenzene	ND		1.0		ug/L			06/02/16 23:52	1
Bromochloromethane	ND		1.0		ug/L			06/02/16 23:52	1
Bromodichloromethane	ND		1.0		ug/L			06/02/16 23:52	1
Bromoform	ND		1.0		ug/L			06/02/16 23:52	1
Bromomethane	ND		1.0		ug/L			06/02/16 23:52	1
2-Butanone (MEK)	ND		10		ug/L			06/02/16 23:52	1
Carbon tetrachloride	ND		0.50		ug/L			06/02/16 23:52	1
Chlorobenzene	ND		1.0		ug/L			06/02/16 23:52	1
Chloroethane	ND		1.0		ug/L			06/02/16 23:52	1
Chloroform	ND		1.0		ug/L			06/02/16 23:52	1
Chloromethane	ND		1.0		ug/L			06/02/16 23:52	1
2-Chlorotoluene	ND		1.0		ug/L			06/02/16 23:52	1
4-Chlorotoluene	ND		1.0		ug/L			06/02/16 23:52	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			06/02/16 23:52	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			06/02/16 23:52	1
Dibromochloromethane	ND		1.0		ug/L			06/02/16 23:52	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			06/02/16 23:52	1
1,2-Dibromoethane (EDB)	ND		1.0		ug/L			06/02/16 23:52	1
Dibromomethane	ND		1.0		ug/L			06/02/16 23:52	1
1,2-Dichlorobenzene	ND		1.0		ug/L			06/02/16 23:52	1
1,3-Dichlorobenzene	ND		1.0		ug/L			06/02/16 23:52	1
1,4-Dichlorobenzene	ND		1.0		ug/L			06/02/16 23:52	1
Dichlorodifluoromethane	ND		2.0		ug/L			06/02/16 23:52	1
1,1-Dichloroethane	ND		1.0		ug/L			06/02/16 23:52	1
1,2-Dichloroethane	ND		0.50		ug/L			06/02/16 23:52	1
1,1-Dichloroethene	ND		1.0		ug/L			06/02/16 23:52	1
1,2-Dichloropropane	ND		1.0		ug/L			06/02/16 23:52	1
1,3-Dichloropropane	ND		1.0		ug/L			06/02/16 23:52	1
2,2-Dichloropropane	ND		1.0		ug/L			06/02/16 23:52	1
1,1-Dichloropropene	ND		1.0		ug/L			06/02/16 23:52	1
Ethylbenzene	ND		0.50		ug/L			06/02/16 23:52	1
Ethyl-t-butyl ether (ETBE)	ND		1.0		ug/L			06/02/16 23:52	1
Hexachlorobutadiene	ND		1.0		ug/L			06/02/16 23:52	1
2-Hexanone	ND		10		ug/L			06/02/16 23:52	1
Isopropylbenzene	ND		1.0		ug/L			06/02/16 23:52	1
Isopropyl Ether (DIPE)	ND		1.0		ug/L			06/02/16 23:52	1
Methylene Chloride	ND		5.0		ug/L			06/02/16 23:52	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			06/02/16 23:52	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0		ug/L			06/02/16 23:52	1
m,p-Xylene	ND		1.0		ug/L			06/02/16 23:52	1
Naphthalene	ND		1.0		ug/L			06/02/16 23:52	1
n-Butylbenzene	ND		1.0		ug/L			06/02/16 23:52	1
N-Propylbenzene	ND		1.0		ug/L			06/02/16 23:52	1
o-Xylene	ND		0.50		ug/L			06/02/16 23:52	1
p-Isopropyltoluene	ND		1.0		ug/L			06/02/16 23:52	1
sec-Butylbenzene	ND		1.0		ug/L			06/02/16 23:52	1
Styrene	ND		1.0		ug/L			06/02/16 23:52	1
Tert-amyl-methyl ether (TAME)	ND		1.0		ug/L			06/02/16 23:52	1

Client Sample Results

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516

TestAmerica Job ID: 440-148602-1

Client Sample ID: TB-2

Date Collected: 0/ 6296 15 09:4/
Date Received: 0/ 6296 15 13:43

Lab Sample ID: 440-148502-12

Matrix: Water

Method: 8250B - Volatile Organic Compounds PGC6MSQPContinuedQ

Analyte	Result	) ualizier	RL		Unit	D	(repared	AnalyHed	Dil Fac
tert-Butyl alcohol (TBA)	ND		10		ug/L			06/02/16 23:52	1
tert-Butylbenzene	ND		1.0		ug/L			06/02/16 23:52	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			06/02/16 23:52	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/02/16 23:52	1
Tetrachloroethene	ND		1.0		ug/L			06/02/16 23:52	1
Toluene	ND		0.50		ug/L			06/02/16 23:52	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			06/02/16 23:52	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			06/02/16 23:52	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			06/02/16 23:52	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			06/02/16 23:52	1
1,1,1-Trichloroethane	ND		1.0		ug/L			06/02/16 23:52	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/02/16 23:52	1
Trichloroethene	ND		1.0		ug/L			06/02/16 23:52	1
Trichlorofluoromethane	ND		1.0		ug/L			06/02/16 23:52	1
1,2,3-Trichloropropane	ND		1.0		ug/L			06/02/16 23:52	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			06/02/16 23:52	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			06/02/16 23:52	1
Vinyl chloride	ND		0.50		ug/L			06/02/16 23:52	1
Xylenes, Total	ND		1.5		ug/L			06/02/16 23:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*06/02/16 23:52*	*1*
Dibromofluoromethane (Surr)	*117*		*76 - 132*		*06/02/16 23:52*	*1*
Toluene-d8 (Surr)	*107*		*80 - 128*		*06/02/16 23:52*	*1*

Method Summary

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-615

TestAmerica Job ID: 440-148502-1

Method	Method Description	Protocol	Laboratory
8250M	Bolatile OrVanic Comgounps dGC/(S)	SW845	TAL IRB
8250M/CA_LUFT(S	Bolatile OrVanic Comgounps by GC/(S	SW845	TAL IRB

Protocol References:

SW845 = "Test (ethops For EvaluatinV Solip Waste, Physical/Chemical (ethops", Thirp Epition, November 1985 Anp Its Ugpates.

Laboratory References:

TAL IRB = TestAmerica Irvine, 17451 Derian Ave, Suite 100, Irvine, CA 92514-6817, TEL d949)251-1022

Lab Chronicle

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516

TestAmerica Job ID: 440-148602-1

Client Sample ID: MW-35
Date Collected: 5/ 6296 08 51:50
Date Received: 5/ 6296 08 03:43

Lab Sample ID: 445-041852-0
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	333947	06/02/16 02:30	AA	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	10 mL	10 mL	333948	06/02/16 02:30	AA	TAL IRV

Client Sample ID: MW-22
Date Collected: 5/ 6296 08 51:2/
Date Received: 5/ 6296 08 03:43

Lab Sample ID: 445-041852-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	333947	06/02/16 03:00	AA	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	10 mL	10 mL	333948	06/02/16 03:00	AA	TAL IRV

Client Sample ID: MW-27
Date Collected: 5/ 6296 08 51:/ /
Date Received: 5/ 6296 08 03:43

Lab Sample ID: 445-041852-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		2	10 mL	10 mL	334192	06/02/16 22:29	AA	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		2	10 mL	10 mL	334193	06/02/16 22:29	AA	TAL IRV

Client Sample ID: MW-21
Date Collected: 5/ 6296 08 57:08
Date Received: 5/ 6296 08 03:43

Lab Sample ID: 445-041852-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		20	10 mL	10 mL	334192	06/02/16 22:57	AA	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		20	10 mL	10 mL	334193	06/02/16 22:57	AA	TAL IRV

Client Sample ID: MW-24
Date Collected: 5/ 6296 08 57:33
Date Received: 5/ 6296 08 03:43

Lab Sample ID: 445-041852-/
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	334192	06/02/16 23:25	AA	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	10 mL	10 mL	334193	06/02/16 23:25	AA	TAL IRV

Lab Chronicle

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516

TestAmerica Job ID: 440-148602-1

Client Sample ID: MW-20
Date Collected: 5/ 6/2016 08 05:53
Date Received: 5/ 6/2016 08 03:43

Lab Sample ID: 445-041852-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	333947	06/02/16 03:29	AA	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	10 mL	10 mL	333948	06/02/16 03:29	AA	TAL IRV

Client Sample ID: MW-25
Date Collected: 5/ 6/2016 08 05:3/
Date Received: 5/ 6/2016 08 03:43

Lab Sample ID: 445-041852-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	333947	06/02/16 03:59	AA	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	10 mL	10 mL	333948	06/02/16 03:59	AA	TAL IRV

Client Sample ID: MW-09
Date Collected: 5/ 6/2016 08 00:53
Date Received: 5/ 6/2016 08 03:43

Lab Sample ID: 445-041852-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	333947	06/02/16 04:29	AA	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	10 mL	10 mL	333948	06/02/16 04:29	AA	TAL IRV

Client Sample ID: MW-01
Date Collected: 5/ 6/2016 08 00:07
Date Received: 5/ 6/2016 08 03:43

Lab Sample ID: 445-041852-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	333947	06/02/16 04:58	AA	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	10 mL	10 mL	333948	06/02/16 04:58	AA	TAL IRV

Client Sample ID: MW-28
Date Collected: 5/ 6/2016 08 02:45
Date Received: 5/ 6/2016 08 03:43

Lab Sample ID: 445-041852-05
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	333947	06/02/16 05:28	AA	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	10 mL	10 mL	333948	06/02/16 05:28	AA	TAL IRV

Lab Chronicle

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516

TestAmerica Job ID: 440-148602-1

Client Sample ID: MW-23

Lab Sample ID: 445-041852-00
Date Collected: 5/ 6296 08 03:0/
Matrix: Water
Date Received: 5/ 6296 08 03:43

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	333947	06/02/16 05:58	AA	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	10 mL	10 mL	333948	06/02/16 05:58	AA	TAL IRV

Client Sample ID: TB-2

Lab Sample ID: 445-041852-02
Date Collected: 5/ 6296 08 59:4/
Matrix: Water
Date Received: 5/ 6296 08 03:43

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	10 mL	10 mL	334192	06/02/16 23:52	AA	TAL IRV
Total/NA	Analysis	8260B/CA_LUFTMS		1	10 mL	10 mL	334193	06/02/16 23:52	AA	TAL IRV

Laboratory References:

TAL IRV = TestAmerica Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 440-333947/5
Matrix: Water
Analysis Batch: 333947

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10		ug/L			06/01/16 20:33	1
Benzene	ND		0.50		ug/L			06/01/16 20:33	1
Bromobenzene	ND		1.0		ug/L			06/01/16 20:33	1
Bromochloromethane	ND		1.0		ug/L			06/01/16 20:33	1
Bromodichloromethane	ND		1.0		ug/L			06/01/16 20:33	1
Bromoform	ND		1.0		ug/L			06/01/16 20:33	1
Bromomethane	ND		1.0		ug/L			06/01/16 20:33	1
2-Butanone (MEK)	ND		10		ug/L			06/01/16 20:33	1
Carbon tetrachloride	ND		0.50		ug/L			06/01/16 20:33	1
Chlorobenzene	ND		1.0		ug/L			06/01/16 20:33	1
Chloroethane	ND		1.0		ug/L			06/01/16 20:33	1
Chloroform	ND		1.0		ug/L			06/01/16 20:33	1
Chloromethane	ND		1.0		ug/L			06/01/16 20:33	1
2-Chlorotoluene	ND		1.0		ug/L			06/01/16 20:33	1
4-Chlorotoluene	ND		1.0		ug/L			06/01/16 20:33	1
cis-1,2-Dichloroethene	ND		1.0		ug/L			06/01/16 20:33	1
cis-1,3-Dichloropropene	ND		0.50		ug/L			06/01/16 20:33	1
Dibromochloromethane	ND		1.0		ug/L			06/01/16 20:33	1
1,2-Dibromo-3-Chloropropane	ND		5.0		ug/L			06/01/16 20:33	1
1,2-Dibromoethane (EDB)	ND		1.0		ug/L			06/01/16 20:33	1
Dibromomethane	ND		1.0		ug/L			06/01/16 20:33	1
1,2-Dichlorobenzene	ND		1.0		ug/L			06/01/16 20:33	1
1,3-Dichlorobenzene	ND		1.0		ug/L			06/01/16 20:33	1
1,4-Dichlorobenzene	ND		1.0		ug/L			06/01/16 20:33	1
Dichlorodifluoromethane	ND		2.0		ug/L			06/01/16 20:33	1
1,1-Dichloroethane	ND		1.0		ug/L			06/01/16 20:33	1
1,2-Dichloroethane	ND		0.50		ug/L			06/01/16 20:33	1
1,1-Dichloroethene	ND		1.0		ug/L			06/01/16 20:33	1
1,2-Dichloropropane	ND		1.0		ug/L			06/01/16 20:33	1
1,3-Dichloropropane	ND		1.0		ug/L			06/01/16 20:33	1
2,2-Dichloropropane	ND		1.0		ug/L			06/01/16 20:33	1
1,1-Dichloropropene	ND		1.0		ug/L			06/01/16 20:33	1
Ethylbenzene	ND		0.50		ug/L			06/01/16 20:33	1
Ethyl-t-butyl ether (ETBE)	ND		1.0		ug/L			06/01/16 20:33	1
Hexachlorobutadiene	ND		1.0		ug/L			06/01/16 20:33	1
2-Hexanone	ND		10		ug/L			06/01/16 20:33	1
Isopropylbenzene	ND		1.0		ug/L			06/01/16 20:33	1
Isopropyl Ether (DIPE)	ND		1.0		ug/L			06/01/16 20:33	1
Methylene Chloride	ND		5.0		ug/L			06/01/16 20:33	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			06/01/16 20:33	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0		ug/L			06/01/16 20:33	1
m,p-Xylene	ND		1.0		ug/L			06/01/16 20:33	1
Naphthalene	ND		1.0		ug/L			06/01/16 20:33	1
n-Butylbenzene	ND		1.0		ug/L			06/01/16 20:33	1
N-Propylbenzene	ND		1.0		ug/L			06/01/16 20:33	1
o-Xylene	ND		0.50		ug/L			06/01/16 20:33	1
p-Isopropyltoluene	ND		1.0		ug/L			06/01/16 20:33	1
sec-Butylbenzene	ND		1.0		ug/L			06/01/16 20:33	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-333947/5
Matrix: Water
Analysis Batch: 333947

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		1.0		ug/L			06/01/16 20:33	1
Tert-amyl-methyl ether (TAME)	ND		1.0		ug/L			06/01/16 20:33	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			06/01/16 20:33	1
tert-Butylbenzene	ND		1.0		ug/L			06/01/16 20:33	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			06/01/16 20:33	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/01/16 20:33	1
Tetrachloroethene	ND		1.0		ug/L			06/01/16 20:33	1
Toluene	ND		0.50		ug/L			06/01/16 20:33	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			06/01/16 20:33	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			06/01/16 20:33	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			06/01/16 20:33	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			06/01/16 20:33	1
1,1,1-Trichloroethane	ND		1.0		ug/L			06/01/16 20:33	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/01/16 20:33	1
Trichloroethene	ND		1.0		ug/L			06/01/16 20:33	1
Trichlorofluoromethane	ND		1.0		ug/L			06/01/16 20:33	1
1,2,3-Trichloropropane	ND		1.0		ug/L			06/01/16 20:33	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			06/01/16 20:33	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			06/01/16 20:33	1
Vinyl chloride	ND		0.50		ug/L			06/01/16 20:33	1
Xylenes, Total	ND		1.5		ug/L			06/01/16 20:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*06/01/16 20:33*	*1*
Dibromofluoromethane (Surr)	*99*		*76 - 132*		*06/01/16 20:33*	*1*
Toluene-d8 (Surr)	*108*		*80 - 128*		*06/01/16 20:33*	*1*

Lab Sample ID: LCS 440-333947/6
Matrix: Water
Analysis Batch: 333947

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	18.8		ug/L		75	10 - 150
Benzene	25.0	29.0		ug/L		116	68 - 130
Bromobenzene	25.0	28.9		ug/L		116	70 - 130
Bromochloromethane	25.0	28.4		ug/L		114	70 - 130
Bromodichloromethane	25.0	27.5		ug/L		110	70 - 132
Bromoform	25.0	29.3		ug/L		117	60 - 148
Bromomethane	25.0	25.3		ug/L		101	64 - 139
2-Butanone (MEK)	25.0	19.7		ug/L		79	44 - 150
Carbon tetrachloride	25.0	24.8		ug/L		99	60 - 150
Chlorobenzene	25.0	25.5		ug/L		102	70 - 130
Chloroethane	25.0	25.5		ug/L		102	64 - 135
Chloroform	25.0	25.7		ug/L		103	70 - 130
Chloromethane	25.0	23.2		ug/L		93	47 - 140
2-Chlorotoluene	25.0	26.2		ug/L		105	70 - 130
4-Chlorotoluene	25.0	26.2		ug/L		105	70 - 130
cis-1,2-Dichloroethene	25.0	27.7		ug/L		111	70 - 133

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-333947/6
Matrix: Water
Analysis Batch: 333947

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,3-Dichloropropene	25.0	30.5		ug/L		122	70 - 133
Dibromochloromethane	25.0	28.3		ug/L		113	69 - 145
1,2-Dibromo-3-Chloropropane	25.0	26.4		ug/L		106	52 - 140
1,2-Dibromoethane (EDB)	25.0	29.1		ug/L		116	70 - 130
Dibromomethane	25.0	26.6		ug/L		107	70 - 130
1,2-Dichlorobenzene	25.0	28.7		ug/L		115	70 - 130
1,3-Dichlorobenzene	25.0	28.1		ug/L		112	70 - 130
1,4-Dichlorobenzene	25.0	25.9		ug/L		104	70 - 130
Dichlorodifluoromethane	25.0	19.2		ug/L		77	29 - 150
1,1-Dichloroethane	25.0	27.0		ug/L		108	64 - 130
1,2-Dichloroethane	25.0	25.7		ug/L		103	57 - 138
1,1-Dichloroethene	25.0	27.0		ug/L		108	70 - 130
1,2-Dichloropropane	25.0	28.8		ug/L		115	67 - 130
1,3-Dichloropropane	25.0	26.7		ug/L		107	70 - 130
2,2-Dichloropropane	25.0	24.3		ug/L		97	68 - 141
1,1-Dichloropropene	25.0	26.6		ug/L		106	70 - 130
Ethylbenzene	25.0	27.6		ug/L		110	70 - 130
Ethyl-t-butyl ether (ETBE)	25.0	27.9		ug/L		112	60 - 136
Hexachlorobutadiene	25.0	26.2		ug/L		105	10 - 150
2-Hexanone	25.0	22.4		ug/L		90	10 - 150
Isopropylbenzene	25.0	27.0		ug/L		108	70 - 136
Isopropyl Ether (DIPE)	25.0	28.4		ug/L		114	58 - 139
Methylene Chloride	25.0	28.3		ug/L		113	52 - 130
4-Methyl-2-pentanone (MIBK)	25.0	25.7		ug/L		103	59 - 149
Methyl-t-Butyl Ether (MTBE)	25.0	27.0		ug/L		108	63 - 131
m,p-Xylene	25.0	27.9		ug/L		111	70 - 130
Naphthalene	25.0	28.1		ug/L		112	60 - 140
n-Butylbenzene	25.0	25.1		ug/L		100	65 - 150
N-Propylbenzene	25.0	27.2		ug/L		109	67 - 139
o-Xylene	25.0	25.7		ug/L		103	70 - 130
p-Isopropyltoluene	25.0	27.2		ug/L		109	70 - 132
sec-Butylbenzene	25.0	25.6		ug/L		102	70 - 138
Styrene	25.0	27.0		ug/L		108	70 - 134
Tert-amyl-methyl ether (TAME)	25.0	27.4		ug/L		110	57 - 139
tert-Butyl alcohol (TBA)	250	285		ug/L		114	70 - 130
tert-Butylbenzene	25.0	26.5		ug/L		106	70 - 130
1,1,1,2-Tetrachloroethane	25.0	25.8		ug/L		103	60 - 141
1,1,2,2-Tetrachloroethane	25.0	26.6		ug/L		107	63 - 130
Tetrachloroethene	25.0	27.2		ug/L		109	70 - 130
Toluene	25.0	29.2		ug/L		117	70 - 130
trans-1,2-Dichloroethene	25.0	29.4		ug/L		118	70 - 130
trans-1,3-Dichloropropene	25.0	27.0		ug/L		108	70 - 132
1,2,3-Trichlorobenzene	25.0	28.6		ug/L		114	60 - 140
1,2,4-Trichlorobenzene	25.0	30.3		ug/L		121	60 - 140
1,1,1-Trichloroethane	25.0	25.1		ug/L		100	70 - 130
1,1,2-Trichloroethane	25.0	27.1		ug/L		108	70 - 130
Trichloroethene	25.0	27.9		ug/L		112	70 - 130
Trichlorofluoromethane	25.0	21.3		ug/L		85	60 - 150

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-333947/6
Matrix: Water
Analysis Batch: 333947

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,3-Trichloropropane	25.0	27.9		ug/L		112	63 - 130
1,2,4-Trimethylbenzene	25.0	26.9		ug/L		108	70 - 135
1,3,5-Trimethylbenzene	25.0	26.9		ug/L		108	70 - 136
Vinyl chloride	25.0	22.6		ug/L		90	59 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*98*		*76 - 132*
Toluene-d8 (Surr)	*105*		*80 - 128*

Lab Sample ID: 440-148345-D-1 MS
Matrix: Water
Analysis Batch: 333947

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	ND		25.0	23.0		ug/L		92	10 - 150
Benzene	3.1		25.0	31.2		ug/L		112	66 - 130
Bromobenzene	ND		25.0	27.8		ug/L		111	70 - 130
Bromochloromethane	ND		25.0	26.9		ug/L		107	70 - 130
Bromodichloromethane	ND		25.0	26.2		ug/L		105	70 - 138
Bromoform	ND		25.0	27.6		ug/L		111	59 - 150
Bromomethane	ND		25.0	22.3		ug/L		89	62 - 131
2-Butanone (MEK)	ND		25.0	21.0		ug/L		84	48 - 140
Carbon tetrachloride	ND		25.0	23.8		ug/L		95	60 - 150
Chlorobenzene	7.6		25.0	31.3		ug/L		95	70 - 130
Chloroethane	ND		25.0	23.1		ug/L		92	68 - 130
Chloroform	ND		25.0	24.6		ug/L		98	70 - 130
Chloromethane	ND		25.0	21.9		ug/L		88	39 - 144
2-Chlorotoluene	ND		25.0	25.5		ug/L		102	70 - 130
4-Chlorotoluene	ND		25.0	25.1		ug/L		101	70 - 130
cis-1,2-Dichloroethene	18		25.0	44.0		ug/L		104	70 - 130
cis-1,3-Dichloropropene	ND		25.0	29.3		ug/L		117	70 - 133
Dibromochloromethane	ND		25.0	26.4		ug/L		105	70 - 148
1,2-Dibromo-3-Chloropropane	ND		25.0	22.3		ug/L		89	48 - 140
1,2-Dibromoethane (EDB)	ND		25.0	27.5		ug/L		110	70 - 131
Dibromomethane	ND		25.0	25.3		ug/L		101	70 - 130
1,2-Dichlorobenzene	ND		25.0	28.1		ug/L		112	70 - 130
1,3-Dichlorobenzene	2.3		25.0	27.0		ug/L		99	70 - 130
1,4-Dichlorobenzene	2.1		25.0	27.2		ug/L		100	70 - 130
Dichlorodifluoromethane	ND		25.0	15.6		ug/L		62	25 - 142
1,1-Dichloroethane	ND		25.0	26.6		ug/L		106	65 - 130
1,2-Dichloroethane	ND		25.0	24.7		ug/L		99	56 - 146
1,1-Dichloroethene	ND		25.0	26.3		ug/L		105	70 - 130
1,2-Dichloropropane	4.7		25.0	32.4		ug/L		111	69 - 130
1,3-Dichloropropane	ND		25.0	25.0		ug/L		100	70 - 130
2,2-Dichloropropane	ND		25.0	24.7		ug/L		99	69 - 138
1,1-Dichloropropene	ND		25.0	26.4		ug/L		106	64 - 130
Ethylbenzene	ND		25.0	26.8		ug/L		107	70 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-148345-D-1 MS
Matrix: Water
Analysis Batch: 333947

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Ethyl-t-butyl ether (ETBE)	ND		25.0	26.5		ug/L		106	70 - 130
Hexachlorobutadiene	ND		25.0	25.8		ug/L		103	10 - 150
2-Hexanone	ND		25.0	20.5		ug/L		82	10 - 150
Isopropylbenzene	ND		25.0	26.9		ug/L		107	70 - 132
Isopropyl Ether (DIPE)	ND		25.0	28.0		ug/L		110	64 - 138
Methylene Chloride	ND		25.0	26.4		ug/L		106	52 - 130
4-Methyl-2-pentanone (MIBK)	ND		25.0	23.4		ug/L		93	52 - 150
Methyl-t-Butyl Ether (MTBE)	4.7		25.0	30.4		ug/L		103	70 - 130
m,p-Xylene	ND		25.0	27.8		ug/L		111	70 - 133
Naphthalene	ND		25.0	26.5		ug/L		106	60 - 140
n-Butylbenzene	ND		25.0	25.5		ug/L		99	61 - 149
N-Propylbenzene	ND		25.0	26.4		ug/L		106	66 - 135
o-Xylene	ND		25.0	24.9		ug/L		100	70 - 133
p-Isopropyltoluene	ND		25.0	26.7		ug/L		107	70 - 130
sec-Butylbenzene	ND		25.0	25.5		ug/L		100	67 - 134
Styrene	ND		25.0	26.4		ug/L		106	29 - 150
Tert-amyl-methyl ether (TAME)	ND		25.0	26.5		ug/L		106	68 - 133
tert-Butyl alcohol (TBA)	24		250	304		ug/L		112	70 - 130
tert-Butylbenzene	ND		25.0	26.0		ug/L		103	70 - 130
1,1,1,2-Tetrachloroethane	ND		25.0	25.0		ug/L		100	60 - 149
1,1,2,2-Tetrachloroethane	ND		25.0	25.0		ug/L		100	63 - 130
Tetrachloroethene	ND		25.0	26.7		ug/L		107	70 - 137
Toluene	ND		25.0	28.2		ug/L		113	70 - 130
trans-1,2-Dichloroethene	1.9		25.0	31.0		ug/L		116	70 - 130
trans-1,3-Dichloropropene	ND		25.0	26.6		ug/L		106	70 - 138
1,2,3-Trichlorobenzene	ND		25.0	27.6		ug/L		110	60 - 140
1,2,4-Trichlorobenzene	ND		25.0	30.0		ug/L		120	60 - 140
1,1,1-Trichloroethane	ND		25.0	24.5		ug/L		98	70 - 130
1,1,2-Trichloroethane	ND		25.0	26.9		ug/L		105	70 - 130
Trichloroethene	16		25.0	42.9		ug/L		106	70 - 130
Trichlorofluoromethane	ND		25.0	20.3		ug/L		81	60 - 150
1,2,3-Trichloropropane	ND		25.0	25.3		ug/L		101	60 - 130
1,2,4-Trimethylbenzene	ND		25.0	26.1		ug/L		105	70 - 130
1,3,5-Trimethylbenzene	ND		25.0	26.3		ug/L		105	70 - 130
Vinyl chloride	ND		25.0	21.9		ug/L		88	50 - 137

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*95*		*76 - 132*
Toluene-d8 (Surr)	*104*		*80 - 128*

Lab Sample ID: 440-148345-D-1 MSD
Matrix: Water
Analysis Batch: 333947

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND		25.0	23.5		ug/L		94	10 - 150	2	35
Benzene	3.1		25.0	31.2		ug/L		112	66 - 130	0	20

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-148345-D-1 MSD
Matrix: Water
Analysis Batch: 333947

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bromobenzene	ND		25.0	28.7		ug/L		115	70 - 130	3	20
Bromochloromethane	ND		25.0	26.9		ug/L		108	70 - 130	0	25
Bromodichloromethane	ND		25.0	26.5		ug/L		106	70 - 138	1	20
Bromoform	ND		25.0	28.7		ug/L		115	59 - 150	4	25
Bromomethane	ND		25.0	23.1		ug/L		92	62 - 131	3	25
2-Butanone (MEK)	ND		25.0	22.0		ug/L		88	48 - 140	5	40
Carbon tetrachloride	ND		25.0	23.9		ug/L		95	60 - 150	0	25
Chlorobenzene	7.6		25.0	32.1		ug/L		98	70 - 130	3	20
Chloroethane	ND		25.0	23.4		ug/L		93	68 - 130	1	25
Chloroform	ND		25.0	24.9		ug/L		99	70 - 130	1	20
Chloromethane	ND		25.0	22.1		ug/L		88	39 - 144	1	25
2-Chlorotoluene	ND		25.0	26.4		ug/L		106	70 - 130	4	20
4-Chlorotoluene	ND		25.0	25.9		ug/L		104	70 - 130	3	20
cis-1,2-Dichloroethene	18		25.0	44.9		ug/L		108	70 - 130	2	20
cis-1,3-Dichloropropene	ND		25.0	29.8		ug/L		119	70 - 133	2	20
Dibromochloromethane	ND		25.0	27.7		ug/L		111	70 - 148	5	25
1,2-Dibromo-3-Chloropropane	ND		25.0	24.0		ug/L		96	48 - 140	8	30
1,2-Dibromoethane (EDB)	ND		25.0	28.7		ug/L		115	70 - 131	4	25
Dibromomethane	ND		25.0	25.3		ug/L		101	70 - 130	0	25
1,2-Dichlorobenzene	ND		25.0	28.8		ug/L		115	70 - 130	3	20
1,3-Dichlorobenzene	2.3		25.0	27.3		ug/L		100	70 - 130	1	20
1,4-Dichlorobenzene	2.1		25.0	28.1		ug/L		104	70 - 130	3	20
Dichlorodifluoromethane	ND		25.0	15.6		ug/L		62	25 - 142	0	30
1,1-Dichloroethane	ND		25.0	26.7		ug/L		107	65 - 130	0	20
1,2-Dichloroethane	ND		25.0	25.1		ug/L		100	56 - 146	1	20
1,1-Dichloroethene	ND		25.0	26.0		ug/L		104	70 - 130	1	20
1,2-Dichloropropane	4.7		25.0	33.0		ug/L		113	69 - 130	2	20
1,3-Dichloropropane	ND		25.0	26.1		ug/L		104	70 - 130	4	25
2,2-Dichloropropane	ND		25.0	24.7		ug/L		99	69 - 138	0	25
1,1-Dichloropropene	ND		25.0	26.5		ug/L		106	64 - 130	1	20
Ethylbenzene	ND		25.0	27.5		ug/L		110	70 - 130	3	20
Ethyl-t-butyl ether (ETBE)	ND		25.0	26.7		ug/L		107	70 - 130	1	25
Hexachlorobutadiene	ND		25.0	26.2		ug/L		105	10 - 150	1	20
2-Hexanone	ND		25.0	20.1		ug/L		80	10 - 150	2	35
Isopropylbenzene	ND		25.0	27.4		ug/L		110	70 - 132	2	20
Isopropyl Ether (DIPE)	ND		25.0	27.8		ug/L		109	64 - 138	1	25
Methylene Chloride	ND		25.0	26.3		ug/L		105	52 - 130	0	20
4-Methyl-2-pentanone (MIBK)	ND		25.0	24.4		ug/L		98	52 - 150	4	35
Methyl-t-Butyl Ether (MTBE)	4.7		25.0	31.4		ug/L		107	70 - 130	3	25
m,p-Xylene	ND		25.0	29.2		ug/L		117	70 - 133	5	25
Naphthalene	ND		25.0	27.8		ug/L		111	60 - 140	5	30
n-Butylbenzene	ND		25.0	26.1		ug/L		102	61 - 149	2	20
N-Propylbenzene	ND		25.0	27.2		ug/L		109	66 - 135	3	20
o-Xylene	ND		25.0	26.1		ug/L		104	70 - 133	5	20
p-Isopropyltoluene	ND		25.0	27.6		ug/L		110	70 - 130	3	20
sec-Butylbenzene	ND		25.0	26.2		ug/L		102	67 - 134	3	20
Styrene	ND		25.0	27.3		ug/L		109	29 - 150	3	35
Tert-amyl-methyl ether (TAME)	ND		25.0	27.0		ug/L		108	68 - 133	2	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-148345-D-1 MSD
Matrix: Water
Analysis Batch: 333947

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
tert-Butyl alcohol (TBA)	24		250	299		ug/L		110	70 - 130	2	25
tert-Butylbenzene	ND		25.0	26.8		ug/L		106	70 - 130	3	20
1,1,1,2-Tetrachloroethane	ND		25.0	25.4		ug/L		102	60 - 149	2	20
1,1,2,2-Tetrachloroethane	ND		25.0	25.8		ug/L		103	63 - 130	3	30
Tetrachloroethene	ND		25.0	27.6		ug/L		110	70 - 137	3	20
Toluene	ND		25.0	29.1		ug/L		116	70 - 130	3	20
trans-1,2-Dichloroethene	1.9		25.0	31.6		ug/L		119	70 - 130	2	20
trans-1,3-Dichloropropene	ND		25.0	27.2		ug/L		109	70 - 138	2	25
1,2,3-Trichlorobenzene	ND		25.0	28.4		ug/L		113	60 - 140	3	20
1,2,4-Trichlorobenzene	ND		25.0	30.6		ug/L		123	60 - 140	2	20
1,1,1-Trichloroethane	ND		25.0	24.4		ug/L		98	70 - 130	0	20
1,1,2-Trichloroethane	ND		25.0	27.4		ug/L		107	70 - 130	2	25
Trichloroethene	16		25.0	43.1		ug/L		107	70 - 130	1	20
Trichlorofluoromethane	ND		25.0	20.1		ug/L		81	60 - 150	1	25
1,2,3-Trichloropropane	ND		25.0	26.3		ug/L		105	60 - 130	4	30
1,2,4-Trimethylbenzene	ND		25.0	26.9		ug/L		108	70 - 130	3	25
1,3,5-Trimethylbenzene	ND		25.0	26.9		ug/L		108	70 - 130	2	20
Vinyl chloride	ND		25.0	22.0		ug/L		88	50 - 137	0	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*94*		*76 - 132*
Toluene-d8 (Surr)	*103*		*80 - 128*

Lab Sample ID: MB 440-334192/4
Matrix: Water
Analysis Batch: 334192

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	ND		10	ug/L			06/02/16 19:42	1
Benzene	ND		0.50	ug/L			06/02/16 19:42	1
Bromobenzene	ND		1.0	ug/L			06/02/16 19:42	1
Bromochloromethane	ND		1.0	ug/L			06/02/16 19:42	1
Bromodichloromethane	ND		1.0	ug/L			06/02/16 19:42	1
Bromoform	ND		1.0	ug/L			06/02/16 19:42	1
Bromomethane	ND		1.0	ug/L			06/02/16 19:42	1
2-Butanone (MEK)	ND		10	ug/L			06/02/16 19:42	1
Carbon tetrachloride	ND		0.50	ug/L			06/02/16 19:42	1
Chlorobenzene	ND		1.0	ug/L			06/02/16 19:42	1
Chloroethane	ND		1.0	ug/L			06/02/16 19:42	1
Chloroform	ND		1.0	ug/L			06/02/16 19:42	1
Chloromethane	ND		1.0	ug/L			06/02/16 19:42	1
2-Chlorotoluene	ND		1.0	ug/L			06/02/16 19:42	1
4-Chlorotoluene	ND		1.0	ug/L			06/02/16 19:42	1
cis-1,2-Dichloroethene	ND		1.0	ug/L			06/02/16 19:42	1
cis-1,3-Dichloropropene	ND		0.50	ug/L			06/02/16 19:42	1
Dibromochloromethane	ND		1.0	ug/L			06/02/16 19:42	1
1,2-Dibromo-3-Chloropropane	ND		5.0	ug/L			06/02/16 19:42	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-334192/4
Matrix: Water
Analysis Batch: 334192

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane (EDB)	ND		1.0		ug/L			06/02/16 19:42	1
Dibromomethane	ND		1.0		ug/L			06/02/16 19:42	1
1,2-Dichlorobenzene	ND		1.0		ug/L			06/02/16 19:42	1
1,3-Dichlorobenzene	ND		1.0		ug/L			06/02/16 19:42	1
1,4-Dichlorobenzene	ND		1.0		ug/L			06/02/16 19:42	1
Dichlorodifluoromethane	ND		2.0		ug/L			06/02/16 19:42	1
1,1-Dichloroethane	ND		1.0		ug/L			06/02/16 19:42	1
1,2-Dichloroethane	ND		0.50		ug/L			06/02/16 19:42	1
1,1-Dichloroethene	ND		1.0		ug/L			06/02/16 19:42	1
1,2-Dichloropropane	ND		1.0		ug/L			06/02/16 19:42	1
1,3-Dichloropropane	ND		1.0		ug/L			06/02/16 19:42	1
2,2-Dichloropropane	ND		1.0		ug/L			06/02/16 19:42	1
1,1-Dichloropropene	ND		1.0		ug/L			06/02/16 19:42	1
Ethylbenzene	ND		0.50		ug/L			06/02/16 19:42	1
Ethyl-t-butyl ether (ETBE)	ND		1.0		ug/L			06/02/16 19:42	1
Hexachlorobutadiene	ND		1.0		ug/L			06/02/16 19:42	1
2-Hexanone	ND		10		ug/L			06/02/16 19:42	1
Isopropylbenzene	ND		1.0		ug/L			06/02/16 19:42	1
Isopropyl Ether (DIPE)	ND		1.0		ug/L			06/02/16 19:42	1
Methylene Chloride	ND		5.0		ug/L			06/02/16 19:42	1
4-Methyl-2-pentanone (MIBK)	ND		10		ug/L			06/02/16 19:42	1
Methyl-t-Butyl Ether (MTBE)	ND		1.0		ug/L			06/02/16 19:42	1
m,p-Xylene	ND		1.0		ug/L			06/02/16 19:42	1
Naphthalene	ND		1.0		ug/L			06/02/16 19:42	1
n-Butylbenzene	ND		1.0		ug/L			06/02/16 19:42	1
N-Propylbenzene	ND		1.0		ug/L			06/02/16 19:42	1
o-Xylene	ND		0.50		ug/L			06/02/16 19:42	1
p-Isopropyltoluene	ND		1.0		ug/L			06/02/16 19:42	1
sec-Butylbenzene	ND		1.0		ug/L			06/02/16 19:42	1
Styrene	ND		1.0		ug/L			06/02/16 19:42	1
Tert-amyl-methyl ether (TAME)	ND		1.0		ug/L			06/02/16 19:42	1
tert-Butyl alcohol (TBA)	ND		10		ug/L			06/02/16 19:42	1
tert-Butylbenzene	ND		1.0		ug/L			06/02/16 19:42	1
1,1,1,2-Tetrachloroethane	ND		1.0		ug/L			06/02/16 19:42	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			06/02/16 19:42	1
Tetrachloroethene	ND		1.0		ug/L			06/02/16 19:42	1
Toluene	ND		0.50		ug/L			06/02/16 19:42	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			06/02/16 19:42	1
trans-1,3-Dichloropropene	ND		0.50		ug/L			06/02/16 19:42	1
1,2,3-Trichlorobenzene	ND		1.0		ug/L			06/02/16 19:42	1
1,2,4-Trichlorobenzene	ND		1.0		ug/L			06/02/16 19:42	1
1,1,1-Trichloroethane	ND		1.0		ug/L			06/02/16 19:42	1
1,1,2-Trichloroethane	ND		1.0		ug/L			06/02/16 19:42	1
Trichloroethene	ND		1.0		ug/L			06/02/16 19:42	1
Trichlorofluoromethane	ND		1.0		ug/L			06/02/16 19:42	1
1,2,3-Trichloropropane	ND		1.0		ug/L			06/02/16 19:42	1
1,2,4-Trimethylbenzene	ND		1.0		ug/L			06/02/16 19:42	1
1,3,5-Trimethylbenzene	ND		1.0		ug/L			06/02/16 19:42	1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 440-334192/4
Matrix: Water
Analysis Batch: 334192

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		0.50	ug/L			06/02/16 19:42	1
Xylenes, Total	ND		1.5	ug/L			06/02/16 19:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*06/02/16 19:42*	*1*
Dibromofluoromethane (Surr)	*117*		*76 - 132*		*06/02/16 19:42*	*1*
Toluene-d8 (Surr)	*109*		*80 - 128*		*06/02/16 19:42*	*1*

Lab Sample ID: LCS 440-334192/5
Matrix: Water
Analysis Batch: 334192

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	25.0	22.3		ug/L		89	10 - 150
Benzene	25.0	26.5		ug/L		106	68 - 130
Bromobenzene	25.0	26.4		ug/L		106	70 - 130
Bromochloromethane	25.0	30.1		ug/L		120	70 - 130
Bromodichloromethane	25.0	31.6		ug/L		126	70 - 132
Bromoform	25.0	34.9		ug/L		140	60 - 148
Bromomethane	25.0	24.4		ug/L		97	64 - 139
2-Butanone (MEK)	25.0	25.7		ug/L		103	44 - 150
Carbon tetrachloride	25.0	29.6		ug/L		118	60 - 150
Chlorobenzene	25.0	25.7		ug/L		103	70 - 130
Chloroethane	25.0	26.4		ug/L		106	64 - 135
Chloroform	25.0	27.9		ug/L		111	70 - 130
Chloromethane	25.0	22.4		ug/L		89	47 - 140
2-Chlorotoluene	25.0	25.2		ug/L		101	70 - 130
4-Chlorotoluene	25.0	26.0		ug/L		104	70 - 130
cis-1,2-Dichloroethene	25.0	28.5		ug/L		114	70 - 133
cis-1,3-Dichloropropene	25.0	29.8		ug/L		119	70 - 133
Dibromochloromethane	25.0	32.5		ug/L		130	69 - 145
1,2-Dibromo-3-Chloropropane	25.0	26.9		ug/L		108	52 - 140
1,2-Dibromoethane (EDB)	25.0	28.8		ug/L		115	70 - 130
Dibromomethane	25.0	30.1		ug/L		120	70 - 130
1,2-Dichlorobenzene	25.0	26.3		ug/L		105	70 - 130
1,3-Dichlorobenzene	25.0	25.5		ug/L		102	70 - 130
1,4-Dichlorobenzene	25.0	25.0		ug/L		100	70 - 130
Dichlorodifluoromethane	25.0	21.6		ug/L		86	29 - 150
1,1-Dichloroethane	25.0	27.2		ug/L		109	64 - 130
1,2-Dichloroethane	25.0	29.5		ug/L		118	57 - 138
1,1-Dichloroethene	25.0	27.1		ug/L		108	70 - 130
1,2-Dichloropropane	25.0	29.0		ug/L		116	67 - 130
1,3-Dichloropropane	25.0	28.1		ug/L		113	70 - 130
2,2-Dichloropropane	25.0	23.8		ug/L		95	68 - 141
1,1-Dichloropropene	25.0	28.4		ug/L		114	70 - 130
Ethylbenzene	25.0	25.6		ug/L		102	70 - 130
Ethyl-t-butyl ether (ETBE)	25.0	23.1		ug/L		93	60 - 136
Hexachlorobutadiene	25.0	23.4		ug/L		93	10 - 150

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 440-334192/5
Matrix: Water
Analysis Batch: 334192

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Hexanone	25.0	23.1		ug/L		92	10 - 150
Isopropylbenzene	25.0	27.2		ug/L		109	70 - 136
Isopropyl Ether (DIPE)	25.0	28.1		ug/L		112	58 - 139
Methylene Chloride	25.0	29.7		ug/L		119	52 - 130
4-Methyl-2-pentanone (MIBK)	25.0	25.3		ug/L		101	59 - 149
Methyl-t-Butyl Ether (MTBE)	25.0	25.2		ug/L		101	63 - 131
m,p-Xylene	25.0	27.0		ug/L		108	70 - 130
Naphthalene	25.0	27.2		ug/L		109	60 - 140
n-Butylbenzene	25.0	25.2		ug/L		101	65 - 150
N-Propylbenzene	25.0	25.2		ug/L		101	67 - 139
o-Xylene	25.0	26.6		ug/L		106	70 - 130
p-Isopropyltoluene	25.0	26.2		ug/L		105	70 - 132
sec-Butylbenzene	25.0	25.4		ug/L		102	70 - 138
Styrene	25.0	28.2		ug/L		113	70 - 134
Tert-amyl-methyl ether (TAME)	25.0	24.2		ug/L		97	57 - 139
tert-Butyl alcohol (TBA)	250	288		ug/L		115	70 - 130
tert-Butylbenzene	25.0	26.4		ug/L		106	70 - 130
1,1,1,2-Tetrachloroethane	25.0	28.8		ug/L		115	60 - 141
1,1,2,2-Tetrachloroethane	25.0	24.4		ug/L		98	63 - 130
Tetrachloroethene	25.0	26.0		ug/L		104	70 - 130
Toluene	25.0	25.7		ug/L		103	70 - 130
trans-1,2-Dichloroethene	25.0	27.8		ug/L		111	70 - 130
trans-1,3-Dichloropropene	25.0	30.8		ug/L		123	70 - 132
1,2,3-Trichlorobenzene	25.0	25.8		ug/L		103	60 - 140
1,2,4-Trichlorobenzene	25.0	26.2		ug/L		105	60 - 140
1,1,1-Trichloroethane	25.0	26.6		ug/L		106	70 - 130
1,1,2-Trichloroethane	25.0	25.8		ug/L		103	70 - 130
Trichloroethene	25.0	29.4		ug/L		117	70 - 130
Trichlorofluoromethane	25.0	25.5		ug/L		102	60 - 150
1,2,3-Trichloropropane	25.0	26.9		ug/L		108	63 - 130
1,2,4-Trimethylbenzene	25.0	26.7		ug/L		107	70 - 135
1,3,5-Trimethylbenzene	25.0	26.9		ug/L		108	70 - 136
Vinyl chloride	25.0	28.5		ug/L		114	59 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*118*		*76 - 132*
Toluene-d8 (Surr)	*104*		*80 - 128*

Lab Sample ID: 440-148489-C-2 MS
Matrix: Water
Analysis Batch: 334192

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acetone	ND		25.0	18.4		ug/L		73	10 - 150
Benzene	ND		25.0	25.7		ug/L		103	66 - 130
Bromobenzene	ND		25.0	25.9		ug/L		104	70 - 130
Bromochloromethane	ND		25.0	29.4		ug/L		118	70 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-148489-C-2 MS
Matrix: Water
Analysis Batch: 334192

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromodichloromethane	ND		25.0	30.5		ug/L		122	70 - 138
Bromoform	ND		25.0	30.7		ug/L		123	59 - 150
Bromomethane	ND		25.0	22.8		ug/L		91	62 - 131
2-Butanone (MEK)	ND		25.0	18.9		ug/L		76	48 - 140
Carbon tetrachloride	ND		25.0	27.1		ug/L		108	60 - 150
Chlorobenzene	ND		25.0	24.4		ug/L		98	70 - 130
Chloroethane	ND		25.0	24.2		ug/L		97	68 - 130
Chloroform	ND		25.0	26.7		ug/L		107	70 - 130
Chloromethane	ND		25.0	21.9		ug/L		87	39 - 144
2-Chlorotoluene	ND		25.0	23.7		ug/L		95	70 - 130
4-Chlorotoluene	ND		25.0	24.7		ug/L		99	70 - 130
cis-1,2-Dichloroethene	ND		25.0	27.6		ug/L		110	70 - 130
cis-1,3-Dichloropropene	ND		25.0	29.8		ug/L		119	70 - 133
Dibromochloromethane	ND		25.0	30.3		ug/L		121	70 - 148
1,2-Dibromo-3-Chloropropane	ND		25.0	22.5		ug/L		90	48 - 140
1,2-Dibromoethane (EDB)	ND		25.0	26.4		ug/L		106	70 - 131
Dibromomethane	ND		25.0	28.8		ug/L		115	70 - 130
1,2-Dichlorobenzene	ND		25.0	25.0		ug/L		100	70 - 130
1,3-Dichlorobenzene	ND		25.0	24.7		ug/L		99	70 - 130
1,4-Dichlorobenzene	ND		25.0	23.8		ug/L		95	70 - 130
Dichlorodifluoromethane	ND		25.0	19.5		ug/L		78	25 - 142
1,1-Dichloroethane	ND		25.0	26.7		ug/L		107	65 - 130
1,2-Dichloroethane	ND		25.0	28.4		ug/L		114	56 - 146
1,1-Dichloroethene	ND		25.0	24.1		ug/L		96	70 - 130
1,2-Dichloropropane	ND		25.0	28.5		ug/L		114	69 - 130
1,3-Dichloropropane	ND		25.0	26.5		ug/L		106	70 - 130
2,2-Dichloropropane	ND		25.0	23.4		ug/L		94	69 - 138
1,1-Dichloropropene	ND		25.0	27.6		ug/L		110	64 - 130
Ethylbenzene	ND		25.0	23.7		ug/L		95	70 - 130
Ethyl-t-butyl ether (ETBE)	ND		25.0	23.7		ug/L		95	70 - 130
Hexachlorobutadiene	ND		25.0	21.4		ug/L		86	10 - 150
2-Hexanone	ND		25.0	19.3		ug/L		77	10 - 150
Isopropylbenzene	ND		25.0	24.9		ug/L		100	70 - 132
Isopropyl Ether (DIPE)	ND		25.0	27.4		ug/L		110	64 - 138
Methylene Chloride	ND		25.0	28.1		ug/L		112	52 - 130
4-Methyl-2-pentanone (MIBK)	ND		25.0	21.3		ug/L		85	52 - 150
Methyl-t-Butyl Ether (MTBE)	ND		25.0	25.5		ug/L		102	70 - 130
m,p-Xylene	ND		25.0	26.2		ug/L		105	70 - 133
Naphthalene	ND		25.0	24.4		ug/L		98	60 - 140
n-Butylbenzene	ND		25.0	23.8		ug/L		95	61 - 149
N-Propylbenzene	ND		25.0	23.4		ug/L		94	66 - 135
o-Xylene	ND		25.0	25.1		ug/L		101	70 - 133
p-Isopropyltoluene	ND		25.0	24.2		ug/L		97	70 - 130
sec-Butylbenzene	ND		25.0	23.4		ug/L		94	67 - 134
Styrene	ND		25.0	27.2		ug/L		109	29 - 150
Tert-amyl-methyl ether (TAME)	ND		25.0	24.6		ug/L		98	68 - 133
tert-Butyl alcohol (TBA)	ND		250	269		ug/L		107	70 - 130
tert-Butylbenzene	ND		25.0	24.6		ug/L		98	70 - 130

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-148489-C-2 MS
Matrix: Water
Analysis Batch: 334192

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	ND		25.0	27.7		ug/L		111	60 - 149
1,1,2,2-Tetrachloroethane	ND		25.0	22.7		ug/L		91	63 - 130
Tetrachloroethene	ND		25.0	24.8		ug/L		99	70 - 137
Toluene	ND		25.0	24.3		ug/L		97	70 - 130
trans-1,2-Dichloroethene	ND		25.0	25.8		ug/L		103	70 - 130
trans-1,3-Dichloropropene	ND		25.0	29.4		ug/L		117	70 - 138
1,2,3-Trichlorobenzene	ND		25.0	24.7		ug/L		99	60 - 140
1,2,4-Trichlorobenzene	ND		25.0	26.2		ug/L		105	60 - 140
1,1,1-Trichloroethane	ND		25.0	24.7		ug/L		99	70 - 130
1,1,2-Trichloroethane	ND		25.0	24.9		ug/L		100	70 - 130
Trichloroethene	ND		25.0	27.7		ug/L		111	70 - 130
Trichlorofluoromethane	ND		25.0	24.4		ug/L		98	60 - 150
1,2,3-Trichloropropane	ND		25.0	23.3		ug/L		93	60 - 130
1,2,4-Trimethylbenzene	ND		25.0	25.1		ug/L		100	70 - 130
1,3,5-Trimethylbenzene	ND		25.0	25.1		ug/L		101	70 - 130
Vinyl chloride	ND		25.0	26.5		ug/L		106	50 - 137

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*
Dibromofluoromethane (Surr)	*119*		*76 - 132*
Toluene-d8 (Surr)	*103*		*80 - 128*

Lab Sample ID: 440-148489-C-2 MSD
Matrix: Water
Analysis Batch: 334192

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	ND		25.0	20.1		ug/L		80	10 - 150	9	35
Benzene	ND		25.0	26.0		ug/L		104	66 - 130	1	20
Bromobenzene	ND		25.0	26.5		ug/L		106	70 - 130	2	20
Bromochloromethane	ND		25.0	30.4		ug/L		122	70 - 130	3	25
Bromodichloromethane	ND		25.0	30.3		ug/L		121	70 - 138	0	20
Bromoform	ND		25.0	32.3		ug/L		129	59 - 150	5	25
Bromomethane	ND		25.0	22.6		ug/L		90	62 - 131	1	25
2-Butanone (MEK)	ND		25.0	23.5		ug/L		94	48 - 140	21	40
Carbon tetrachloride	ND		25.0	26.9		ug/L		108	60 - 150	1	25
Chlorobenzene	ND		25.0	24.9		ug/L		100	70 - 130	2	20
Chloroethane	ND		25.0	24.4		ug/L		98	68 - 130	1	25
Chloroform	ND		25.0	26.4		ug/L		106	70 - 130	1	20
Chloromethane	ND		25.0	21.2		ug/L		85	39 - 144	3	25
2-Chlorotoluene	ND		25.0	24.1		ug/L		96	70 - 130	2	20
4-Chlorotoluene	ND		25.0	25.2		ug/L		101	70 - 130	2	20
cis-1,2-Dichloroethene	ND		25.0	27.5		ug/L		110	70 - 130	0	20
cis-1,3-Dichloropropene	ND		25.0	29.6		ug/L		119	70 - 133	0	20
Dibromochloromethane	ND		25.0	31.2		ug/L		125	70 - 148	3	25
1,2-Dibromo-3-Chloropropane	ND		25.0	25.4		ug/L		102	48 - 140	12	30
1,2-Dibromoethane (EDB)	ND		25.0	27.7		ug/L		111	70 - 131	5	25
Dibromomethane	ND		25.0	29.5		ug/L		118	70 - 130	2	25

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-148489-C-2 MSD
Matrix: Water
Analysis Batch: 334192

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dichlorobenzene	ND		25.0	25.8		ug/L		103	70 - 130	3	20
1,3-Dichlorobenzene	ND		25.0	25.5		ug/L		102	70 - 130	3	20
1,4-Dichlorobenzene	ND		25.0	24.9		ug/L		99	70 - 130	4	20
Dichlorodifluoromethane	ND		25.0	19.0		ug/L		76	25 - 142	3	30
1,1-Dichloroethane	ND		25.0	26.4		ug/L		106	65 - 130	1	20
1,2-Dichloroethane	ND		25.0	28.1		ug/L		112	56 - 146	1	20
1,1-Dichloroethene	ND		25.0	25.5		ug/L		102	70 - 130	6	20
1,2-Dichloropropane	ND		25.0	28.7		ug/L		115	69 - 130	1	20
1,3-Dichloropropane	ND		25.0	27.6		ug/L		111	70 - 130	4	25
2,2-Dichloropropane	ND		25.0	22.3		ug/L		89	69 - 138	5	25
1,1-Dichloropropene	ND		25.0	27.3		ug/L		109	64 - 130	1	20
Ethylbenzene	ND		25.0	24.1		ug/L		97	70 - 130	2	20
Ethyl-t-butyl ether (ETBE)	ND		25.0	23.8		ug/L		95	70 - 130	1	25
Hexachlorobutadiene	ND		25.0	22.9		ug/L		91	10 - 150	6	20
2-Hexanone	ND		25.0	22.3		ug/L		89	10 - 150	14	35
Isopropylbenzene	ND		25.0	25.0		ug/L		100	70 - 132	0	20
Isopropyl Ether (DIPE)	ND		25.0	28.4		ug/L		113	64 - 138	3	25
Methylene Chloride	ND		25.0	28.1		ug/L		112	52 - 130	0	20
4-Methyl-2-pentanone (MIBK)	ND		25.0	23.6		ug/L		94	52 - 150	10	35
Methyl-t-Butyl Ether (MTBE)	ND		25.0	26.5		ug/L		106	70 - 130	4	25
m,p-Xylene	ND		25.0	26.6		ug/L		106	70 - 133	1	25
Naphthalene	ND		25.0	27.6		ug/L		110	60 - 140	12	30
n-Butylbenzene	ND		25.0	24.4		ug/L		98	61 - 149	3	20
N-Propylbenzene	ND		25.0	24.2		ug/L		97	66 - 135	3	20
o-Xylene	ND		25.0	25.2		ug/L		101	70 - 133	0	20
p-Isopropyltoluene	ND		25.0	25.0		ug/L		100	70 - 130	4	20
sec-Butylbenzene	ND		25.0	24.3		ug/L		97	67 - 134	4	20
Styrene	ND		25.0	27.2		ug/L		109	29 - 150	0	35
Tert-amyl-methyl ether (TAME)	ND		25.0	25.2		ug/L		101	68 - 133	2	30
tert-Butyl alcohol (TBA)	ND		250	275		ug/L		110	70 - 130	3	25
tert-Butylbenzene	ND		25.0	25.2		ug/L		101	70 - 130	3	20
1,1,1,2-Tetrachloroethane	ND		25.0	27.8		ug/L		111	60 - 149	1	20
1,1,2,2-Tetrachloroethane	ND		25.0	25.2		ug/L		101	63 - 130	11	30
Tetrachloroethene	ND		25.0	25.2		ug/L		101	70 - 137	1	20
Toluene	ND		25.0	24.3		ug/L		97	70 - 130	0	20
trans-1,2-Dichloroethene	ND		25.0	27.4		ug/L		110	70 - 130	6	20
trans-1,3-Dichloropropene	ND		25.0	30.0		ug/L		120	70 - 138	2	25
1,2,3-Trichlorobenzene	ND		25.0	27.3		ug/L		109	60 - 140	10	20
1,2,4-Trichlorobenzene	ND		25.0	27.8		ug/L		111	60 - 140	6	20
1,1,1-Trichloroethane	ND		25.0	24.0		ug/L		96	70 - 130	3	20
1,1,2-Trichloroethane	ND		25.0	25.8		ug/L		103	70 - 130	4	25
Trichloroethene	ND		25.0	27.7		ug/L		111	70 - 130	0	20
Trichlorofluoromethane	ND		25.0	23.6		ug/L		94	60 - 150	4	25
1,2,3-Trichloropropane	ND		25.0	26.0		ug/L		104	60 - 130	11	30
1,2,4-Trimethylbenzene	ND		25.0	25.9		ug/L		104	70 - 130	3	25
1,3,5-Trimethylbenzene	ND		25.0	25.7		ug/L		103	70 - 130	2	20
Vinyl chloride	ND		25.0	25.8		ug/L		103	50 - 137	3	30

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 440-148489-C-2 MSD
Matrix: Water
Analysis Batch: 334192

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*114*		*76 - 132*
Toluene-d8 (Surr)	*100*		*80 - 128*

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 440-333948/5
Matrix: Water
Analysis Batch: 333948

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		50		ug/L			06/01/16 20:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*99*		*76 - 132*		*06/01/16 20:33*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*06/01/16 20:33*	*1*
Toluene-d8 (Surr)	*108*		*80 - 128*		*06/01/16 20:33*	*1*

Lab Sample ID: LCS 440-333948/7
Matrix: Water
Analysis Batch: 333948

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Volatile Fuel Hydrocarbons (C4-C12)			500	406		ug/L		81	55 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*97*		*76 - 132*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*
Toluene-d8 (Surr)	*107*		*80 - 128*

Lab Sample ID: 440-148345-D-1 MS
Matrix: Water
Analysis Batch: 333948

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Volatile Fuel Hydrocarbons (C4-C12)	250		1730	1930		ug/L		98	50 - 145		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*95*		*76 - 132*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Toluene-d8 (Surr)	*104*		*80 - 128*

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 440-148345-D-1 MSD
Matrix: Water
Analysis Batch: 333948

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Volatile Fuel Hydrocarbons (C4-C12)	250		1730	1950		ug/L		98	50 - 145	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*94*		*76 - 132*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Toluene-d8 (Surr)	*103*		*80 - 128*

Lab Sample ID: MB 440-334193/4
Matrix: Water
Analysis Batch: 334193

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Volatile Fuel Hydrocarbons (C4-C12)	ND		50		ug/L			06/02/16 19:42	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Dibromofluoromethane (Surr)	*117*		*76 - 132*		*06/02/16 19:42*	*1*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*		*06/02/16 19:42*	*1*
Toluene-d8 (Surr)	*109*		*80 - 128*		*06/02/16 19:42*	*1*

Lab Sample ID: LCS 440-334193/6
Matrix: Water
Analysis Batch: 334193

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Volatile Fuel Hydrocarbons (C4-C12)			500	475		ug/L		95	55 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*112*		*76 - 132*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Toluene-d8 (Surr)	*105*		*80 - 128*

Lab Sample ID: 440-148489-C-2 MS
Matrix: Water
Analysis Batch: 334193

Client Sample ID: Matrix Spike
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Volatile Fuel Hydrocarbons (C4-C12)	ND		1730	2290		ug/L		133	50 - 145		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*119*		*76 - 132*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*
Toluene-d8 (Surr)	*103*		*80 - 128*

Method: 8260B/CA_LUFTMS - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 440-148489-C-2 MSD
Matrix: Water
Analysis Batch: 334193

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Volatile Fuel Hydrocarbons (C4-C12)	ND		1730	2300		ug/L		133	50 - 145	0	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Dibromofluoromethane (Surr)	*114*		*76 - 132*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 128*

QC Association Summary

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516

TestAmerica Job ID: 440-148602-1

GC/MS VOA

Analysis Batch: 333947

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-148345-D-1 MS	Matrix Spike	Total/NA	Water	8260B	
440-148345-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
440-148602-1	MW-30	Total/NA	Water	8260B	
440-148602-2	MW-22	Total/NA	Water	8260B	
440-148602-6	MW-21	Total/NA	Water	8260B	
440-148602-7	MW-20	Total/NA	Water	8260B	
440-148602-8	MW-17	Total/NA	Water	8260B	
440-148602-9	MW-18	Total/NA	Water	8260B	
440-148602-10	MW-26	Total/NA	Water	8260B	
440-148602-11	MW-23	Total/NA	Water	8260B	
LCS 440-333947/6	Lab Control Sample	Total/NA	Water	8260B	
MB 440-333947/5	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 333948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-148345-D-1 MS	Matrix Spike	Total/NA	Water	8260B/CA_LUFT MS	
440-148345-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B/CA_LUFT MS	
440-148602-1	MW-30	Total/NA	Water	8260B/CA_LUFT MS	
440-148602-2	MW-22	Total/NA	Water	8260B/CA_LUFT MS	
440-148602-6	MW-21	Total/NA	Water	8260B/CA_LUFT MS	
440-148602-7	MW-20	Total/NA	Water	8260B/CA_LUFT MS	
440-148602-8	MW-17	Total/NA	Water	8260B/CA_LUFT MS	
440-148602-9	MW-18	Total/NA	Water	8260B/CA_LUFT MS	
440-148602-10	MW-26	Total/NA	Water	8260B/CA_LUFT MS	
440-148602-11	MW-23	Total/NA	Water	8260B/CA_LUFT MS	
LCS 440-333948/7	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
MB 440-333948/5	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

Analysis Batch: 334192

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-148489-C-2 MS	Matrix Spike	Total/NA	Water	8260B	
440-148489-C-2 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B	
440-148602-3	MW-29	Total/NA	Water	8260B	
440-148602-4	MW-28	Total/NA	Water	8260B	
440-148602-5	MW-24	Total/NA	Water	8260B	
440-148602-12	TB-2	Total/NA	Water	8260B	
LCS 440-334192/5	Lab Control Sample	Total/NA	Water	8260B	
MB 440-334192/4	Method Blank	Total/NA	Water	8260B	

GC/MS VOA (Continued)

Analysis Batch: 334193

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-148489-C-2 MS	Matrix Spike	Total/NA	Water	8260B/CA_LUFT MS	
440-148489-C-2 MSD	Matrix Spike Duplicate	Total/NA	Water	8260B/CA_LUFT MS	
440-148602-3	MW-29	Total/NA	Water	8260B/CA_LUFT MS	
440-148602-4	MW-28	Total/NA	Water	8260B/CA_LUFT MS	
440-148602-5	MW-24	Total/NA	Water	8260B/CA_LUFT MS	
440-148602-12	TB-2	Total/NA	Water	8260B/CA_LUFT MS	
LCS 440-334193/6	Lab Control Sample	Total/NA	Water	8260B/CA_LUFT MS	
MB 440-334193/4	Method Blank	Total/NA	Water	8260B/CA_LUFT MS	

Definitions/Glossary

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-516

TestAmerica Job ID: 440-148602-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
ID	Analyte identified by RT & presence of single mass ion

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Certification Summary

Client: Eco & Associates, Inc
Project/Site: LA Times Quarterly GW, ECO-12-615

TestAmerica Job ID: 440-148502-1

Laboratory: TestAmerica Irvine

All certification f elh by tf is laboratory are listehd . ot all certification are aNNicable to tf is reNortd

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaspa	State Pro3ram	10	CA016k1	05-k0-15
Arigona	State Pro3ram	z	A905Z1	10-1k-15
CaliMrnia	LA Cty Sanitation Districts	z	10265	01-k1-1Z 7
CaliMrnia	State Pro3ram	z	CA ELAP 2Z05	05-k0-15
Guam	State Pro3ram	z	Certd. od12d002r	01-2k-1Z
* aHaii	State Pro3ram	z	. /A	01-2z-1Z
wansas	. ELAP Seconhary AK	Z	E-10420	0Z-k1-15
. eBaha	State Pro3ram	z	CA016k12015-2	0Z-k1-15
. eH v exico	State Pro3ram	5	. /A	01-2z-1Z
. ortf ern v ariana Islanhs	State Pro3ram	z	v P0002	01-2z-1Z
Ore3on	. ELAP	10	4028	01-2z-1Z
USDA	Feheral		Pkk0-0z-00080	0Z-08-18
Wasf in3ton	State Pro3ram	10	Cz00	0z-0k-15

7 CertiNcation reneHal Nenhin3 - certiNcation consihereh Balihd

TestAmerica Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614
Phone: 949.261.1022 Fax:

Chain of Custody Record

079686

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.
TAL-8210 (0713)

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Taylor Waters	Site Contact:	Date: 5/27/2016	COC No:
Company Name: Eco & Associates	Tel/Fax: 714.289.0985	Lab Contact:	Carrier:	1 of 1 COCs
Address: 1855 W Katella Ave Ste 340	Analysis Turnaround Time			Sampler:
City/State/Zip: Orange CA 92867	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
Phone: 714.289.0985	TAT if different from Below STD			Walk-in Client:
Fax: 714.289.0965	☐ 2 weeks			Lab Sampling:
Project Name: LA TIMES QUARTERLY GW MON	☐ 1 week			
Site: LA TIMES FACILITY	☐ 2 days			Job / SDG No.:
PO# Eco-12-516	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	Full VOCs +oxy (8260B)	TPHg (CA LUFT)(8260B)	Sample Specific Notes:
MW-30	5.27.16	0801	G	GW	5	N	N	X	X	
MW-22	"	0825	G	GW	5	N	N	X	X	
MW-29	"	0855	G	GW	5	N	N	X	X	
MW-28	"	0916	G	GW	5	N	N	X	X	
MW-24	"	0933	G	GW	5	N	N	X	X	
MW-21	"	1003	G	GW	5	N	N	X	X	
MW-20	"	1035	G	GW	5	N	N	X	X	
MW-17	"	1103	G	GW	5	N	N	X	X	
MW-18	"	1119	G	GW	5	N	N	X	X	
~~MW-23~~ MW-26	"	1240	G	GW	5	N	N	X	X	
~~MW-26~~ MW-23	"	1315	G	GW	5	N	N	X	X	
TB-2	"	0745	G	W	5	N	N	X	X	

440-148602 Chain of Custody

OO 5/27/16 15:15

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other 1, 2

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 6.3 Corr'd: 6.0 Therm ID No.: #77

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Helen Thomas	Eco-Associates	5/27/16 13:43			
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
				TA-I	05/27/16 13:43

Login Sample Receipt Checklist

Client: Eco & Associates, Inc

Job Number: 440-148602-1

Login Number: 148602
List Number: 1
Creator: Garcia, Veronica G

List Source: TestAmerica Irvine

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

APPENDIX C

SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS

SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS
LA Times Costa Mesa Facility - North Tanks Site

Well No. (Elevation)	Date	Depth to Water ft btoc	GW Elevation ft msl	TVPH	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA	DIPE	TAME	ETBE
				µg/L									
MW-17 (32.60)	Apr-04			<50	8.6	<0.30UJ	<0.30	<0.60	22	<25	17J	<5.0	<5.0
	Oct-04			<50	10	<0.30UJ	<0.30	<0.60	25	<25	14	<5.0	<5.0
	Apr-05			130	2.2	2.2	<0.30	<0.60	83	150	75	<5.0	<5.0
	Oct-05			67	0.6	0.31	<0.30	<0.60	100	140	75	<5.0	<5.0
	May-06			84	0.49	0.51	<0.30	<0.60	56	50	55	<5.0	<5.0
	Dec-06			<50	<0.30	<0.30	<0.30	<0.60	53	<25	42	<5.0	<5.0
	May-07			<50	<0.30	<0.30	<0.30	<0.60	63	<25	45	<5.0	<5.0
	Nov-07			<100	7.5	<0.50	<0.50	<1.0	24	<10	8.1	<0.50	<0.50
	May-08			<100	7.4	<0.50	<0.50	<1.0	27	<10	8.6	<0.50	<0.50
	Dec-08			<100	4.8	<0.50	<0.50	<1.0	24	<10	9.0	<1.0	<1.0
	May-09			<100	4.6	<0.50	<0.50	<1.0	29	<10	10	<1.0	<1.0
	Oct-09			<100	3.0	<0.50	<0.50	<1.0	29	<10	7.8	<0.50	<0.50
	Jun-10			<100	0.55	<0.50	<0.50	<1.5	33	22	17	<1.0	<1.0
	Oct-10			230	<0.50	<0.50	9.0	3.8	8.7	51	4.5	<0.50	<0.50
	May-11			1200	1.8	<0.50	4.7	<1.5	11	91	6.3	<1.0	<1.0
	Nov-11			280	0.53	<0.50	<0.50	<1.0	24	110	20	<0.50	<0.50
	Jun-12	13.88	18.72	<50	<0.50	<0.50	<0.50	<1.5	25	<10	7.8	<1.0	<1.0
	Aug-12	14.79	17.81	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Dec-12	15.13	17.47	66	<0.5	<0.5	<0.5	<1.5	43	15	15	<1.0	<1.0
	Feb-13	NM	NM	170	15	<0.5	0.71	<1.5	<1.0	<10	3.2	<1.0	<1.0
	Jun-13	15.40	17.20	110	<0.5	<0.5	<0.5	<1.5	42	26	26	<1.0	<1.0
	Aug-13	15.78	16.82	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-13	16.20	16.40	52	<0.5	<0.5	<0.5	<1.5	28	<10	14	<1.0	<1.0
	Feb-14	16.42	16.18	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-14	16.71	15.89	<50	<0.50	<0.50	<0.50	<1.5	35	<10	11	<1.0	<1.0
	Aug-14	18.31	14.29	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-14	19.01	13.59	56	<.50	<0.50	<.50	<1.5	35	<10	10	<1.0	<1.0
	Feb-15	18.02	14.58	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Jun-15	18.07	14.53	58	<0.50	<0.50	<0.50	<1.5	30	16	10	<1.0	<1.0
	Aug-15	18.28	14.32	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-15	18.45	14.15	44J	<0.50	<0.50	<0.50	<1.5	26	11 ID	9.4	<1.0	<1.0
	Feb-16	18.10	14.50	52	<0.50	<0.50	<0.50	<1.5	31	<10	12	<1.0	<1.0
	May-16	18.12	14.48	52	<0.50	<0.50	<0.50	<1.5	34	<10	9.00	<1.0	<1.0
MW-18 (32.77)	Apr-04			340	24	6.3J	0.80	2.5	20	58	14	<5.0	<5.0
	Apr-04			370	21	4.3J	<0.30	0.60	21	57	14	<5.0	<5.0
	Oct-04			410	19	0.45J	<0.30	<0.60	27	55	21	<5.0	<5.0
	Apr-05			330	5.9	5.7	<0.30	2.1	<5.0	<25	<5.0	<5.0	<5.0
	Oct-05			210	0.67	4.1	<0.30	<0.60	11	<25	<5.0	<5.0	<5.0
	May-06			<50	0.74	0.43	<0.30	0.60	<5.0	<25	<5.0	<5.0	<5.0
	Dec-06			<50UJ	<0.30	0.57	<0.30	<0.60	<5.0	<25	<5.0	<5.0	<5.0
	May-07			120	1.3	2.3	<0.30	<0.60	<5.0	<25	<5.0	<5.0	<5.0
	Nov-07			<100	0.53	<0.50	<0.50	<1.0	1.0	<10	0.64	<0.50	<0.50
	May-08			610	8.6	<0.50	<0.50	<1.0	23	37	15	<0.50	<0.50
	Dec-08			460	28	<0.50	<0.50	<1.0	14	40	11	<1.0	<1.0
	May-09			290	11	<0.50	<0.50	<1.0	16	29	11	<1.0	<1.0
	Oct-09			270	5.8	<0.50	<0.50	<1.0	16	23	7.8	<0.50	<0.50
	Jun-10			160	0.54	<0.50	<0.50	<1.5	6.9	<10	2.1	<1.0	<1.0
	Oct-10			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50
	May-11			360	8.0	0.52	<0.50	31	<1.0	<10	<1.0	<1.0	<1.0
	Nov-11			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50
	Jun-12	13.86	18.91	53	<0.50	<0.50	<0.50	<1.5	4.90	<10	1.90	<1.0	<1.0
	Aug-12	14.80	17.97	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Dec-12	15.09	17.68	<50	<0.5	<0.5	<0.5	<1.5	4.8	<10	1.1	<1.0	<1.0
	Jun-13	15.42	17.35	<50	<0.5	<0.5	<0.5	<1.5	3.1	<10	<1.0	<1.0	<1.0
	Aug-13	15.79	16.98	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-13	16.20	16.57	100	2.4	<0.5	<0.5	<1.5	10	15	5.3	<1.0	<1.0
	Feb-14	16.43	16.34	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-14	16.66	16.11	120	<0.50	<0.50	<0.50	<1.5	11	13	5.3	<1.0	<1.0
	Aug-14	18.24	14.53	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-14	18.97	13.80	150	2	<0.50	<.50	<1.5	9.7	16	4.6	<1.0	<1.0
	Feb-15	17.94	14.83	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Jun-15	18.04	14.73	69	<0.50	<0.50	<0.50	<1.5	8.8	14	4.2	<1.0	<1.0
	Aug-15	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-15	18.41	14.36	85	4.6	<0.50	<0.50	<1.5	9.1	13 ID	4.2	<1.0	<1.0
	Feb-16	18.05	14.72	56	1.7	<0.50	<0.50	<1.5	4.9	10 ID	5.2	<1.0	<1.0
	May-16	18.13	14.64	89	<0.50	<0.50	<0.50	<1.5	9.00	12 ID	3.60	<1.0	<1.0

SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS
LA Times Costa Mesa Facility - North Tanks Site

Well No. (Elevation)	Date	Depth to Water ft btoc	GW Elevation ft msl	TVPH	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA	DIPE	TAME	ETBE
				µg/L									
MW-19 (33.84)	Apr-04			69	0.38	<0.30UJ	<0.30	<0.60	<5.0	<25	59	<5.0	<5.0
	Oct-04			110	<0.30	1.8J	<0.30	0.78	<5.0	<25	77	<5.0	<5.0
	Apr-05			52	<0.30	1.4	<0.30	<0.60	<5.0	<25UJ	89	<5.0	<5.0
	Oct-05			55	<0.30	1.5	<0.30	<0.60	<10	<50	190	<10	<10
	May-06			190J	<0.30	<0.30	<0.30	<0.60	<5.0	<25	140	<5.0	<5.0
	Dec-06			80	<0.30	<0.30	<0.30	<0.60	<5.0	<25	130	<5.0	<5.0
	Mar-07			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-07			<50	<0.30	<0.30	<0.30	<0.60	<20	<100	180	<20	<20
	Aug-07			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-07			230	<0.50	<0.50	<0.50	<1.0	<0.50	26	190	<0.50	<0.50
	Feb-08			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-08			200 QP1	<1.0	<1.0	<1.0	<2.0	<1.0	<20	210	<1.0	<1.0
	Aug-08			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Dec-08			240 QP1	<0.50	<0.50	<0.50	<1.0	<1.0	31	240	<1.0	<1.0
	Mar-09			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-09			160	<0.50	<0.50	<0.50	<1.0	<1.0	14	200	<1.0	<1.0
	Aug-09			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Oct-09			<200	<1.0	<1.0	<1.0	<2.0	<1.0	<20	180	<1.0	<1.0
	Feb-10			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Jun-10			<200	<1.0	<1.0	<1.0	<3.0	<2.0	<20	150	<2.0	<2.0
	Aug-10			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Oct-10			<100	29	0.69	<0.50	1.6	<0.50	<10	10	<0.50	<0.50
	Feb-11			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-11			<100	2.4	0.75	<0.50	5.3	<1.0	<10	4.5	<1.0	<1.0
	Aug-11			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-11			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	3.2	<0.50	<0.50
	Feb-12			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Jun-12	14.79	19.05	<50	<0.50	<0.50	<0.50	<1.5	<1.0	ND	3.6	<1.0	<1.0
	Aug-12	15.70	18.14	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Dec-12	15.95	17.89	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Jun-13	16.37	17.47	51	<0.5	<0.5	<0.5	<1.5	<1.0	<10	5	<1.0	<1.0
	Aug-13	16.70	17.14	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-13	17.12	16.72	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Feb-14	17.34	16.50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-14	17.65	16.19	57	<0.50	<0.50	<0.50	<1.5	<1.0	<10	53	<1.0	<1.0
	Aug-14	19.25	14.59	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-14	19.94	13.90	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Feb-15	18.93	14.91	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Jun-15	19.02	14.82	80	<0.50	<0.50	<0.50	<1.5	<1.0	<10	53	<1.0	<1.0
	Aug-15	19.21	14.63	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-15	19.40	14.44	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Feb-16	19.02	14.82	<50	<0.50	<0.50	<0.50	<1.5	<1.0	<10	49	<1.0 F1	<1.0 F1
	May-16	19.11	14.73	71	<0.50	<0.50	<0.50	<1.5	<1.0	<10	46	<1.0	<1.0

SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS
LA Times Costa Mesa Facility - North Tanks Site

Well No. (Elevation)	Date	Depth to Water	GW Elevation	TVPH	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA	DIPE	TAME	ETBE
		ft btoc	ft msl	µg/L									
MW-20 (31.58)	Jan-04			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Apr-04			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Jul-04			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oct-04			<50	<0.30	<0.30UJ	<0.30	<0.60	<5.0	<25	7.4	<5.0	<5.0
	Jan-05			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Apr-05			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Jul-05			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oct-05			<50	<0.30	<0.30	<0.30	<0.60	<5.0	<25	19	<5.0	<5.0
	Feb-06			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	May-06			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Sep-06			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dec-06			<50	<0.30	<0.30	<0.30	<0.60	<5.0	<25	17	<5.0	<5.0
	Mar-07			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-07			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Aug-07			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-07			<100	<0.50	<0.50	<0.50	<1.0	0.63	<10	5.5	<0.50	<0.50
	Feb-08			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-08			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Aug-08			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Dec-08			<100	<0.50	<0.50	<0.50	<1.0	<1.0	<10	5.2	<1.0	<1.0
	Mar-09			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-09			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Aug-09			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Oct-09			<100	<0.50	<0.50	<0.50	<1.0	0.87	<10	6.0	<0.50	<0.50
	Feb-10			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Jun-10			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Aug-10			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Oct-10			<100	<0.50	<0.50	<0.50	<1.0	1.8	<10	23	<0.50	<0.50
	Feb-11			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-11			<100	<0.50	<0.50	<0.50	<1.5	2.3	<10	32	<1.0	<1.0
	Aug-11			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-11			<100	<0.50	<0.50	<0.50	<1.0	3.7	<10	24	<0.50	<0.50
	Feb-12			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Jun-12	12.41	19.17	<50	<0.50	<0.50	<0.50	<1.5	1.3	<10	12	<1.0	<1.0
	Aug-12	13.36	18.22	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Dec-12	13.68	17.90	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Jun-13	14.00	17.58	<50	<0.5	<0.5	<0.5	<1.5	1.7	<10	11	<1.0	<1.0
	Aug-13	14.32	17.26	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-13	14.76	16.82	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Feb-14	14.99	16.59	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-14	15.26	16.32	<50	<0.50	<0.50	<0.50	<1.5	1.2	<10	7.2	<1.0	<1.0
	Aug-14	16.81	14.77	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-14	17.54	14.04	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Feb-15	16.53	15.05	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Jun-15	16.65	14.93	<50	<0.50	<0.50	<0.50	<1.5	<1.0	<10	3.9	<1.0	<1.0
	Aug-15	16.82	14.76	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-15	17.01	14.57	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Feb-16	16.68	14.90	<50	<0.50	<0.50	<0.50	<1.5	<1.0	<10	5.7	<1.0	<1.0
	May-16	16.75	14.83	<50	<0.50	<0.50	<0.50	<1.5	1.10	<10	5.20	<1.0	<1.0

SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS
LA Times Costa Mesa Facility - North Tanks Site

Well No. (Elevation)	Date	Depth to Water ft btoc	GW Elevation ft msl	TVPH	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA	DIPE	TAME	ETBE
				µg/L									
MW-21 (31.21)	Jan-04			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Apr-04			<50	<0.30	<0.30UJ	<0.30	<0.60	<5.0	<25	<5.0	<5.0	<5.0
	Jul-04			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oct-04			<50	<0.30	<0.30UJ	<0.30	<0.60	<5.0	<25	19	<5.0	<5.0
	Jan-05			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Apr-05			<50	<0.30	<0.30	<0.30	<0.60	<5.0	<25	14	<5.0	<5.0
	Jul-05			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oct-05			<50	<0.30	<0.30	<0.30	<0.60	<5.0	<25	15	<5.0	<5.0
	Feb-06			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	May-06			<50	<0.30	<0.30	<0.30	<0.60	<5.0	<25	16	<5.0	<5.0
	Sep-06			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dec-06			<50	<0.30	<0.30	<0.30	<0.60	<5.0	<25	13	<5.0	<5.0
	Mar-07			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-07			<50	<0.30	<0.30	<0.30	<0.60	<5.0	<25	9.8	<5.0	<5.0
	Aug-07			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-07			<100	<0.50	<0.50	<0.50	<1.0	3.1	<10	21	<0.50	<0.50
	Feb-08			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-08			<100	<0.50	<0.50	<0.50	<1.0	4.4	<10	25	<0.50	<0.50
	Aug-08			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Dec-08			<100	<0.50	<0.50	<0.50	<1.0	2.6	<10	9.7	<1.0	<1.0
	Mar-09			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-09			<100	<0.50	<0.50	<0.50	<1.0	3.8	<10	11	<1.0	<1.0
	Aug-09			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Oct-09			<100	<0.50	<0.50	<0.50	<1.0	4.9	<10	25	<0.50	<0.50
	Feb-10			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Jun-10			<100	<0.50	<0.50	<0.50	<1.5	2.7	<10	13	<1.0	<1.0
	Aug-10			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Oct-10			130	<0.50	<0.50	0.53	<1.0	1.8	23	24	<0.50	<0.50
	Feb-11			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-11			160	<0.50	<0.50	<0.50	<1.5	1.0	24	19	<1.0	<1.0
	Aug-11			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-11			<100	<0.50	<0.50	<0.50	<1.0	2.1	16 ID	20	<0.50	<0.50
	Feb-12			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Jun-12	12.54	18.87	<50	<0.50	<0.50	<0.50	<1.5	2.5	<10	13	<1.0	<1.0
	Aug-12	13.50	17.91	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Dec-12	13.81	17.60	<50	<0.5	<0.5	<0.5	<1.5	6.6	<10	24	<1.0	<1.0
	Jun-13	14.15	17.26	62	<0.5	<0.5	<0.5	<1.5	4.3	<10	12	<1.0	<1.0
	Aug--13	14.18	16.93	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-13	14.95	16.46	<50	<0.5	<0.5	<0.5	<1.5	6.7	<10	21	<1.0	<1.0
	Feb-14	15.13	16.28	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-14	15.38	16.03	<50	<0.50	<0.50	<0.50	<1.5	3.5	<10	11	<1.0	<1.0
	Aug-14	16.90	14.51	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-14	17.67	13.74	<50	<.50	<0.50	<.50	<1.5	7.1	<10	26	<1.0	<1.0
	Feb-15	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Jun-15	16.75	14.66	<50	<0.50	<0.50	<0.50	<1.5	5.4	<10	18	<1.0	<1.0
	Aug-15	16.94	14.47	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-15	17.13	14.28	<50	<0.50	<0.50	<0.50	<1.5	5.3	10	9.2	<1.0	<1.0
	Feb-16	16.75	14.66	<50	<0.50	<0.50	<0.50	<1.5	3.4	<10	11	<1.0	<1.0
	May-16	16.85	14.56	<50	<0.50	<0.50	<0.50	<1.5	4.40	<10	8.60	<1.0	<1.0

SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS
LA Times Costa Mesa Facility - North Tanks Site

Well No. (Elevation)	Date	Depth to Water ft btoc	GW Elevation ft msl	TVPH	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA	DIPE	TAME	ETBE
				µg/L									
MW-22 (34.41)	Jan-04			12,000	3,200	190	1,000	210	<50	<250	<50	<50	<50
	Apr-04			8,600	2,100	280J	700	300	<5.0	25	7.9	<5.0	<5.0
	Jul-04			4,200	660	59	410	80	<5.0	25	<5.0	<5.0	<5.0
	Oct-04			53	2.6	1.7	2.5	5.0	<5.0	<25	<5.0	<5.0	<5.0
	Oct-04			72	2.5	2.4J	2.7	5.8	<5.0	<25	<5.0	<5.0	<5.0
	Jan-05			<50	2.6J	1.7J	0.49	2.5	<5.0	<25	<5.0	<5.0	<5.0
	Jan-05			<50	0.94J	0.55J	<0.30	0.79	<5.0	<25	<5.0	<5.0	<5.0
	Apr-05			2,000J	270J	3.3	280	<3.0	<5.0	<25	13	<5.0	<5.0
	Jul-05			1,600	120	11	18	<12	<5.0	<25	6.1	<5.0	<5.0
	Jul-05			1,300	100	8.0	16	<6.0	<5.0	<25	10	<5.0	<5.0
	Oct-05			3,100J	330	25	56	35	<50	<250	<50	<50	<50
	Feb-06			1,200	54J	6.8J	<3.0UJ	<6.0	<50	<25	30J	<5.0	<5.0
	May-06			220	8.5	1.8	<0.30	<0.60	6.7	<25	54	<5.0	<5.0
	May-06			230	8.9J	1.9J	<0.30UJ	<0.60UJ	6.6	<25	52	<5.0	<5.0
	Sep-06			210	17	3.1	<0.30	<0.60	5.6	<25	32	<5.0	<25
	Sep-06			200	17	3.0	<0.30	<0.60	5.4	<25	32	<5.0	<25
	Dec-06			140	4.5	0.90	<0.30	<0.60	<5.0	<25	34	<5.0	<5.0
	Dec-06			120	3.8	0.68	<0.30	<0.60	<5.0	<25	32	<5.0	<5.0
	Mar-07			67	2.9	0.45	<0.30	<0.60	<5.0	<25	32	<5.0	<5.0
	May-07			130	8.5	1.3	<0.30	<0.60	<5.0	<25	31	<5.0	<5.0
	Aug-07			540	63	<0.50	<0.50	<1.0	4.4	<10	33	<0.50	<0.50
	Nov-07			930	52	0.52	<0.50	<1.0	5.6	<10	51	<0.50	<0.50
	Nov-07			880	50	<0.50	<0.50	<1.0	5.7	<10	50	<0.50	<0.50
	Feb-08			1,200	11	<0.50	1.3	<1.0	5.2	<10	56	<0.50	<0.50
	May-08			1,100	16	1.4	26	<1.0	4.1	<10	45	<0.50	<0.50
	Aug-08			1,100	<0.50	<0.50	<0.50	<1.0	7.2	<10	92	<1.0	<1.0
	Dec-08			840	3.5	<0.50	2.1	<1.0	5.0	<10 C	72	<1.0	<1.0
	Mar-09			930	<0.50	<0.50	<0.50	<1.0	5.2	<10	74	<0.50	<0.50
	May-09			820	<0.50	<0.50	<0.50	<1.0	4.9	<10	85	<1.0	<1.0
	May-09			670	<0.50	<0.50	<0.50	<1.0	4.5	<10	78	<1.0	<1.0
	Aug-09			270	<0.50	<0.50	<0.50	<1.5	4.9	<10	71	<1.0	<1.0
	Aug-09			270	<0.50	<0.50	<0.50	<1.5	5.0	<10	73	<1.0	<1.0
	Oct-09			250	1.4	<0.50	<0.50	<1.0	3.7	<10	67	<0.50	<0.50
	Feb-10			630	3.6	<1.0	1.4	<2.0	3.7	<20	62	<1.0	<1.0
	Jun-10			200	0.63	<0.50	<0.50	<1.5	4.2	<10	66	<1.0	<1.0
	Jun-10			180	0.56	<0.50	<0.50	<1.5	4.0	<10	62	<1.0	<1.0
	Aug-10			200	1.0	<0.50	<0.50	<1.0	3.7	<10	47	<0.50	<0.50
	Oct-10			110	<0.50	<0.50	<0.50	<1.0	3.3	<10	46	<0.50	<0.50
	Oct-10			110	<0.50	<0.50	<0.50	<1.0	3.2	<10	46	<0.50	<0.50
	Feb-11			140	0.90	<0.50	<0.50	<1.0	5.4	<10	48	<0.50	<0.50
	Feb-11			140	0.89	<0.50	<0.50	<1.0	5.5	<10	48	<0.50	<0.50
	May-11			120	0.88	<0.50	<0.50	<1.5	6.2	<10	65	<1.0	<1.0
	May-11			120	0.64	<0.50	<0.50	<1.5	5.8	<10	59	<1.0	<1.0
	Aug-11			<100	<0.50	<0.50	<0.50	<1.0	6.9	<10	49	<0.50	<0.50
	Nov-11			100	<0.50	<0.50	<0.50	<1.0	8.7	<10	59	<0.50	<0.50
	Feb-12			100	<0.50	<0.50	<0.50	<1.0	8.8	<10	49	<0.50	<0.50
	Jun-12	16.11	18.30	55	<0.50	<0.50	<0.50	<1.5	6	<10	30	<1.0	<1.0
	Aug-12	17.00	17.41	64	< 0.28	< 0.36	< 0.25	< 0.9	6.5	<6.5	36	<0.33	<0.28
	Dec-12	16.88	17.53	64	<0.5	<0.5	<0.5	<1.5	8.7	<10	42	<1.0	<1.0
	Jun-13	17.24	17.17	87	<0.5	<0.5	<0.5	<1.5	7.6	<10	39	<1.0	<1.0
	Aug-13	17.59	16.82	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-13	18.06	16.35	58	<0.5	<0.5	<0.5	<1.5	8.5	<10	40	<1.0	<1.0
	Feb-14	18.20	16.21	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-14	18.46	15.95	61	<0.50	<0.50	<0.50	<1.5	9.3	<10	52	<1.0	<1.0
	Aug-14	19.15	15.26	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-14	20.75	13.66	72	<.50	<0.50	<.50	<1.5	6.5	<10	42	<1.0	<1.0
	Feb-15	19.82	14.59	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Jun-15	19.86	14.55	79	<0.50	<0.50	<0.50	<1.5	6.1	<10	45	<1.0	<1.0
	Aug-15	20.06	14.35	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-15	20.21	14.20	67	<0.50	<0.50	<0.50	<1.5	5.2	<10	41	<1.0	<1.0
	Feb-16	19.92	14.49	73	<0.50	<0.50	<0.50	<1.5	7.3	<10	52	<1.0	<1.0
	May-16	19.95	14.46	69	<0.50	<0.50	<0.50	<1.5	6.20	<10	45	<1.0	<1.0

SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS
LA Times Costa Mesa Facility - North Tanks Site

Well No. (Elevation)	Date	Depth to Water	GW Elevation	TVPH	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA	DIPE	TAME	ETBE
		ft btoc	ft msl	µg/L									
MW-23 (32.75)	Jan-04			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Apr-04			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Jul-04			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oct-04			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Jan-05			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Apr-05			<50	<0.30UJ	<0.30	<0.30	<0.60	<5.0	<25	9.4	<5.0	<5.0
	Jul-05			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oct-05			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Feb-06			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	May-06			59	<0.30	0.65	<0.30	<0.60	<5.0	<25	9.7	<5.0	<5.0
	Sep-06			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dec-06			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Mar-07			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-07			<50	<0.30	1.0	<0.30	<0.60	<5.0	<25	20	<5.0	<5.0
	Aug-07			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-07			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	38	<0.50	<0.50
	Feb-08			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-08			180	<0.50	<0.50	<0.50	<1.0	<0.50	<10	41	<0.50	<0.50
	Aug-08			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Dec-08			<100	<0.50	<0.50	<0.50	<1.0	<1.0	<10	30	<1.0	<1.0
	Mar-09			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-09			<100	<0.50	<0.50	<0.50	<1.0	<1.0	<10	39	<1.0	<1.0
	Aug-09			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Oct-09			110	<0.50	<0.50	<0.50	<1.0	<0.50	<10	38	<0.50	<0.50
	Feb-10			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Jun-10			<100	<0.50	<0.50	<0.50	<1.5	<1.0	<10	21	<1.0	<1.0
	Aug-10			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Oct-10			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	15	<0.50	<0.50
	Feb-11			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-11			<100	<0.50	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Aug-11			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-11			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	0.69	<0.50	<0.50
	Feb-12			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Jun-12	13.32	19.43	<50	<0.50	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Aug-12	14.25	18.50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Dec-12	14.50	18.25	<50	<0.5	<0.5	<0.5	<1.5	<1.0	<10	2.8	<1.0	<1.0
	Jun-13	14.86	17.89	<50	<0.5	<0.5	<0.5	<1.5	<1.0	<10	1	<1.0	<1.0
	Aug-13	15.20	17.55	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-13	15.70	17.05	<50	<0.5	<0.5	<0.5	<1.5	<1.0	<10	2.7	<1.0	<1.0
	Feb-14	15.86	16.89	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-14	16.17	16.58	<50	<0.50	<0.50	<0.50	<1.5	<1.0	<10	3	<1.0	<1.0
	Aug-14	17.75	15.00	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-14	18.42	14.33	55	<.50	<0.50	<.50	<1.5	<1.0	<10	15	<1.0	<1.0
	Feb-15	17.42	15.33	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Jun-15	17.55	15.20	<50	<0.50	<0.50	<0.50	<1.5	<1.0	<10	4.3	<1.0	<1.0
	Aug-15	17.74	15.01	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-15	17.95	14.80	<50	<0.50	<0.50	<0.50	<1.5	<1.0	<10	6.1	<1.0	<1.0
	Feb-16	17.59	15.16	<50	<0.50	<0.50	<0.50	<1.5	<1.0	<10	2.6	<1.0	<1.0
	May-16	17.68	15.07	<50	<0.50	<0.50	<0.50	<1.5	<1.0	<10	2.50	<1.0	<1.0

SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS
LA Times Costa Mesa Facility - North Tanks Site

Well No. (Elevation)	Date	Depth to Water ft btoc	GW Elevation ft msl	TVPH	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA	DIPE	TAME	ETBE
				µg/L									
MW-24 (33.92)	Jan-04			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Apr-04			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Jul-04			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oct-04			11,000	1,300	1,700J	540	2,500	9.0	<25	67.0	<5.0	<5.0
	Jan-05			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Apr-05			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Jul-05			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oct-05			140,000J	7,100J	17,000J	3,400J	24,000J	<250	<1,200	<250	<250	<250
	Feb-06			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	May-06			92,000	7,200	11,000	2,500	16,000	<20	<100	160	<20	<20
	Sep-06			260,000J	11,000J	13,000J	3,400J	17,000J	<5.0UJ	60J	96J	<5.0UJ	<5.0UJ
	Dec-06			130,000J	9,200	13,000	2,500	18,000	<100	<500	130	<100	<100
	Mar-07			120,000	7,700	11,000	2,300	15,000	<120	<620	120	<120	<120
	May-07			77,000	5,000	6,500	2,300[21]	15,000	<20	<100	60	<20	<20
	Aug-07			55,000	9,000	9,100	4,000	19,000	<100	<2,000	<100	<100	<100
	Nov-07			68,000	7,600	7,500	3,800	17,000	<50	<1,000	110	<50	<50
	Feb-08			54,000	2,100	3,400	2,800	15,000	<50	<1,000	<50	<50	<50
	May-08			56,000	4,700	4,900 M2	3,100	16,000	<50	<1,000	65	<50	<50
	Aug-08			56,000 M2	6,200	4,600	2,700	12,000	<100	<1,000	<100	<100	<100
	Dec-08			39,000	3,300	3,700	2,300	12,500	<100	<1,000	<100	<100	<100
	Mar-09			16,000	780	790	700	3,400	<2.5	<50	<2.5	<2.5	<2.5
	May-09			26,000	1,500	1,100	720	4,400	<50	<500	<50	<50	<50
	Aug-09			49,000	6,500	4,800	2,400	10,000	<50	<500	58	<50	<50
	Oct-09			65,000	7,200	6,900	2,900	11,000	<50	<1000	74	<50	<50
	Feb-10			6,700	280	270	200	810	8.5	60	<2.0	<2.0	<2.0
	Jun-10			14,000	1,400	710	690	1,700	<20	<200	<20	<20	<20
	Aug-10			19,000	1,700	770	690	2,400	<5.0	<100	19	<5.0	<5.0
	Aug-10			17,000	1,600	670	610	2,200	<5.0	<100	16	<5.0	<5.0
	Oct-10			2,700	210	25	6.7	340	<1.0	<20	1.7	<1.0	<1.0
	Feb-11			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50
	May-11			7,300	670	160	350	440	<10	<100	<10	<10	<10
	Aug-11			7,100	1,800	72	430	<25	<12	<250	17	<12	<12
	Aug-11			7,100	1,800	48	430	<25	<12	<250	17	<12	<12
	Nov-11			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50
	Feb-12			3,200	370	54	220	85	<5.0	<100	11	<5.0	<5.0
	Jun-12	15.20	18.72	3,100	500	48	240	46	<10	<100	19	<10	<10
	Aug-12	16.07	17.85	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Dec-12	16.38	17.54	5800	1600	68	190	78	<10	<100	44	<10	<10
	Feb-13	15.92	18.00	6100	810	180	550	240	<10	<100	19	<10	<10
	Jun-13	16.73	17.19	2000	380	19	110	<15	<10	<100	20	<10	<10
	Aug-13	17.11	16.81	670	3	0.7	4.2	<1.5	5.5	<10	27	<1.0	<1.0
	Nov-13	17.55	16.37	400	49	<0.5	<0.5	<1.5	1.8	15	14	<1.0	<1.0
	Feb-14	17.69	16.23	2400	380	42	160	9.0	<4.0	<40	30	<4.0	<4.0
	May-14	18.03	15.89	4000	670	91	320	79	<10	<100	15	<10	<10
	Aug-14	19.61	14.31	3100	640	72	160	140	<10	<100	14	<10	<10
	Nov-14	20.32	13.60	150	2.4	<0.50	1.5	<1.5	8.2	<10	32	<1.0	<1.0
	Feb-15	19.34	14.58	430	97	1.5	4.1	0.70J	7.9	6.0JD	43	>0.25	>0.25
	Jun-15	19.40	14.52	170	0.97	<0.50	0.77	<1.5	14	<10	49	<1.0	<1.0
	Aug-15	19.58	14.34	180	3.2	<0.5	0.91	<1.5	13	<10	47	<1.0	<1.0
	Nov-15	19.30	14.62	620	140	6	7.5	1.3J	7.3	<25	24	<2.5	<2.5
	Feb-16	19.45	14.47	88	<0.50	<0.50	0.51	<1.5	11	<10	36	<1.0	<1.0
	May-16	19.50	14.42	190	1.80	<0.50	0.51	<1.5	14	11 ID	51	<1.0	<1.0

SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS
LA Times Costa Mesa Facility - North Tanks Site

Well No. (Elevation)	Date	Depth to Water ft btoc	GW Elevation ft msl	TVPH	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA	DIPE	TAME	ETBE
				µg/L									
MW-25R * (32.42)	Jan-04			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Apr-04			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Jul-04			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oct-04			15,000	620	1,000J	790	3,400	<5.0	<25	<5.0UJ	<5.0	<5.0
	Jan-05			38,000	630J	3,000J	1,200	8,500	<5.0	<250	<50	<50	<50
	Apr-05			170,000J	2,400J	7,000J	2,900J	15,000J	<5.0	30J	6.6	<5.0	<5.0
	Jul-05			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oct-05			64,000	3,400	6,600	2,200	8,200	<5.0	<25	16	<5.0	<5.0
	Feb-06			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	May-06			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oct-06			21,000	1,800	1,700	210	2,300	<50	<250	<50	<50	<50
	Dec-06			4,500J	500	<15	80	<30	<5.0	<25	13	<5.0	<5.0
	Mar-07			1,400	230	6.0	66	<6.0	<5.0	<25	17	<5.0	<5.0
	May-07			430	46	3.8	1.5	<3.0	<5.0	<25	9.6	<5.0	<5.0
	May-07			450	49	4.1	<1.5	<3.0	<5.0	<25	9.3	<5.0	<5.0
	Aug-07			830	58	<1.0	2.7	<2.0	<1.0	<20	11	<1.0	<1.0
	Nov-07			1,000 M2	12	1.2	2.8	1.1	<0.50	<10	15	<0.50	<0.50
	Feb-08			3,400	690	80	310	38	<2.5	<50	22	<2.5	<2.5
	May-08			3,200	1,300	5.8	37	11	<5.0	<100	25	<5.0	<5.0
	Aug-08			850 QP1, ZX	210	<1.2	<1.2	<2.5	<2.5	<25	19	<2.5	<2.5
	Dec-08			150	7.4	<0.50	<0.50	<1.0	<1.0	<10	8.0	<1.0	<1.0
	Mar-09			270	11	<0.50	<0.50	<1.0	<0.50	<10	10	<0.50	<0.50
	May-09			380	4.2	<0.50	<0.50	<1.0	<1.0	<10	13	<1.0	<1.0
	May-09			450	4.8	<0.50	<0.50	<1.0	<1.0	<10	13	<1.0	<1.0
	Aug-09			200	2.0	<0.50	<0.50	<1.5	<1.0	<10	5.7	<1.0	<1.0
	Oct-09			280	7.4	<0.50	1.1	<1.0	<0.50	<10	5.0	<0.50	<0.50
	Oct-09			220	8.2	<0.50	1.4	<1.0	<0.50	<10	5.6	<0.50	<0.50
	Feb-10			270	3.6	<0.50	<0.50	<1.0	<0.50	<10	5.3	<0.50	<0.50
	Jun-10			130	4.5	<0.50	<0.50	<1.5	<1.0	<10	5.6	<1.0	<1.0
	Aug-10			<100	1.8	<0.50	<0.50	<1.0	<0.50	<10	2.9	<0.50	<0.50
	Oct-10			<100	1.3	<0.50	<0.50	<1.0	<0.50	<10	1.9	<0.50	<0.50
	Feb-11			120	21	<0.50	<0.50	<1.0	<0.50	<10	4.3	<0.50	<0.50
	May-11			<100	0.85	<0.50	<0.50	<1.5	<1.0	<10	4.6	<1.0	<1.0
	Aug-11			<100	1.2	<0.50	<0.50	<1.0	<0.50	<10	3.5	<0.50	<0.50
	Nov-11			<100	0.86	<0.50	<0.50	<1.0	<0.50	<10	1.0	<0.50	<0.50
	Feb-12			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	0.64	<0.50	<0.50
	Jun-12	14.69	17.73	<50	1.2	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Aug-12	15.67	16.75	61	2.3	< 0.36	< 0.25	< 0.9	<0.32	<6.5	3.4	<0.33	<0.28
	Dec-12	15.95	16.47	<50	<0.5	<0.5	<0.5	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Jun-13	16.33	16.09	<50	<0.5	<0.5	<0.5	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Aug-13	16.65	15.77	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-13	17.07	15.35	<50	0.67	<0.5	<0.5	<1.5	<1.0	<10	1.5	<1.0	<1.0
	Feb-14	17.29	15.13	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-14	17.69	14.73	58	0.62	<0.50	<0.50	<1.5	<1.0	<10	2.4	<1.0	<1.0
	Aug-14	19.40	13.02	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-14	19.98	12.44	64	<.50	<0.50	<.50	<1.5	<1.0	<10	2.7	<1.0	<1.0
	Feb-15	19.01	13.41	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Jun-15	19.01	13.41	110	0.76	<0.50	<0.50	<1.5	<1.0	<10	4.2	<1.0	<1.0
	Aug-15	19.19	13.23	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-15	19.33	13.09	56	1.6	<0.50	<0.50	<1.5	<1.0	<10	2.8	<1.0	<1.0
	Feb-16	18.91	13.51	<50	1.6	<0.50	<0.50	<1.5	<1.0	<10	3.5	<1.0	<1.0
	May-16	19.03	13.39	55	2.40	<0.50	<0.50	<1.5	<1.0	<10	<10	<1.0	<1.0

SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS
LA Times Costa Mesa Facility - North Tanks Site

Well No. (Elevation)	Date	Depth to Water	GW Elevation	TVPH	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA	DIPE	TAME	ETBE
		ft btoc	ft msl	µg/L									
MW-26 (30.03)	Jan-04			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Apr-04			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Jul-04			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oct-04			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Jan-05			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Apr-05			<50	<0.30	<0.30	<0.30	<0.60	<5.0	<25	<5.0	<5.0	<5.0
	Jul-05			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oct-05			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Feb-06			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	May-06			<50	<0.30UJ	<0.30UJ	<0.30UJ	<0.60UJ	<5.0	<25	<5.0	<5.0	<5.0
	Sep-06			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dec-06			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Mar-07			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-07			<50	<0.30	<0.30	<0.30	<0.60	<5.0	<25	<5.0	<5.0	<5.0
	Aug-07			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-07			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Feb-08			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-08			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50
	Aug-08			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Dec-08			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Mar-09			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-09			<100	<0.50	<0.50	<0.50	<1.0	<1.0	<10	<1.0	<1.0	<1.0
	Aug-09			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Oct-09			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Feb-10			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Jun-10			<100	<0.50	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Aug-10			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Oct-10			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Feb-11			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-11			<100	<0.50	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Aug-11			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-11			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Feb-12			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Jun-12	10.84	19.19	<50	<0.50	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Aug-12	11.79	18.24	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Dec-12	12.12	17.91	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Jun-13	12.43	17.16	<50	<0.5	<0.5	<0.5	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Aug-13	12.74	17.29	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-13	13.21	16.82	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Feb-14	13.37	16.66	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-14	13.78	16.25	<50	<0.50	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Aug-14	15.36	14.67	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-14	16.04	13.99	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Feb-15	14.99	15.04	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Jun-15	15.11	14.92	<50	<0.50	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Aug-15	15.30	14.73	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-15	15.49	14.54	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Feb-16	15.11	14.92	<50	<0.50	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	May-16	15.20	14.83	<50	<0.50	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0

SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS
LA Times Costa Mesa Facility - North Tanks Site

Well No. (Elevation)	Date	Depth to Water	GW Elevation	TVPH	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA	DIPE	TAME	ETBE
		ft btoc	ft msl	µg/L									
MW-27 (33.81)	Jan-04			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Apr-04			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Jul-04			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oct-04			46,000	2,600	11,000J	2,200	11,000	<25	<120	340	<25	<25
	Jan-05			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Apr-05			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Jul-05			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oct-05			78,000	2,100	4,700	3,500	19,000	<25	<120	170	<25	<25
	Feb-06			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	May-06			24,000	1,400	480	1,300	3,300	<5.0	27	120	<5.0	<5.0
	Sep-06			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dec-06			50,000	2,100J	3,000	1,800J	6,100	<5.0	33	78	<5.0	<5.0
	Mar-07			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-07			32,000	1,900	1,400	1,900	6,600	<5.0	32	96	<5.0	<5.0
	Aug-07			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-07			24,000	2,000	680	1,400	3,700	<10	<200	270	<10	<10
	Feb-08			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-08			33,000	990	420	1,300	6,900	<25	<500	120	<25	<25
	Aug-08			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Dec-08			10,000	1,300	93	560	1,770	<20	<200	140	<20	<20
	Mar-09			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-09			6,700	1,500	59	250	520	<20	<200	170	<20	<20
	Aug-09			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Oct-09			11,000	1,700	62	340	680	5.2	<100	250	<5.0	<5.0
	Feb-10			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Jun-10			6,200	800	66	470	710	<20	<200	43	<20	<20
	Jun-10			6,000	750	60	440	660	<20	<200	42	<20	<20
	Aug-10			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Oct-10			4,100	210	19	100	440	<2.0	<40	15	<2.0	<2.0
	Feb-11			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-11			<100	8.3	<0.50	<0.50	<1.5	<1.0	<10	5.3	<1.0	<1.0
	Aug-11			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-11			<100	5.8	<0.50	<0.50	<1.0	<0.50	<10	4.7	<0.50	<0.50
	Feb-12			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Jun-12	14.97	18.84	300	31	<0.50	1.1	<1.5	<1.0	<10	9.1	<1.0	<1.0
	Aug-12	15.89	17.92	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Dec-12	16.15	17.66	150	10	<0.5	<0.5	<1.5	<1.0	<10	2.1	<1.0	<1.0
	Feb-13	15.76	18.05	170	15	<0.5	0.71	<1.5	<1.0	<10	3.2	<1.0	<1.0
	Jun-13	16.56	17.25	190	13	<0.5	<0.5	<1.5	<1.0	<10	3.5	<1.0	<1.0
	Aug-13	16.90	16.91	670	28	0.65	<0.5	<1.5	<1.0	<10	8.4	<1.0	<1.0
	Nov-13	17.33	16.48	330	110	<0.5	<0.5	<1.5	<1.0	15	47	<1.0	<1.0
	Feb-14	17.51	16.30	300	49	<0.50	<0.50	<1.5	1.1	19	53	<1.0	<1.0
	May-14	17.84	15.97	960	120	<0.50	0.74	<1.5	1.2	22	62	<1.0	<1.0
	Aug-14	19.44	14.37	1300	180	<0.52	0.79	<1.5	2.2	38	110	<1.0	<1.0
	Nov-14	20.16	13.65	1400	500	<5	<5	<15	<10	<100	140	<10	<10
	Feb-15	19.17	14.64	2400	650	2.5	28	<2.5	3.1J	73	220	<1.3	<1.3
	Jun-15	19.23	14.58	1900	240	1.8	1.5	2	3.8	62	180	<1.0	<1.0
	Aug-15	19.42	14.39	4500	950	14	65	23	<10	<100	180	<10	<10
	Nov-15	19.60	14.21	2800	810	7.8	23	61	<20	<200	100	<20	<20
	Feb-16	19.26	14.55	730	110	<1.3	1.5	<3.8	<2.5	27	130	<2.5	<2.5
	May-16	19.32	14.49	670	29	<1.3	1.00	<3.8	1.20	35	56	<2.5	<2.5

SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS
LA Times Costa Mesa Facility - North Tanks Site

Well No. (Elevation)	Date	Depth to Water	GW Elevation	TVPH	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA	DIPE	TAME	ETBE
		ft btoc	ft msl	µg/L									
MW-28 (34.00)	Jan-04			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Apr-04			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Jul-04			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oct-04			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Jan-05			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Apr-05			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Jul-05			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oct-05			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Feb-06			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	May-06			130,000	3,900	14,000	1,400	22,000	<200	<1,000	<200	<200	<200
	Sep-06			180,000J	5,500J	18,000J	2,100J	27,000J	<5.0	34	42	<5.0	<5.0
	Dec-06			120,000	5,000J	13,000	1,300J	20,000	<5.0	<25	55	<5.0	<5.0
	Mar-07			120,000	6,100	17,000	1,600	24,000	<100	<500	120	<100	<100
	May-07			83,000	6,300	15,000	1,500	21,000	7.1	35	63	<5.0	<5.0
	Aug-07			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Nov-07			90,000	8,800	21,300	2,700	25,000	<100	<2,000	110	<100	<100
	Feb-08			41,000	2,600	6,700	1,300	9,800	<50	<1,000	<50	<50	<50
	May-08			39,000	1,700	3,900[21]	830	8,200	<50	<1,000	<50	<50	<50
	Aug-08			58,000[21]	6,000	16,000	2,200	16,000	<250	<2,500	<250	<250	<250
	Dec-08			34,000	2,900[21]	7,100	1,400	11,700	<100	<1,000 C	<100	<100	<100
	Mar-09			12,000	1,100	710[21]	430	2,700[21]	<5.0	<100	<5.0	<5.0	<5.0
	May-09			41,000	4,700	6,800	1,700	11,000	<40	<400	<40	<40	<40
	Aug-09			30,000	2,400	550	1,100	6,700	<25	<250	31	<25	<25
	Oct-09			38,000	3,700	490	1,500	8,100	<10	<200	42	<10	<10
	Feb-10			8,700	800	220	430	1,300	<10	<200	<10	<10	<10
	Jun-10			6,700	1,500	110	510	410	<20	<200	<20	<20	<20
	Aug-10			8,800	1,300	250	470	970	<5.0	<100	14	<5.0	<5.0
	Oct-10			13,000	2,300	250	750	2,100	<10	<200	20	<10	<10
	Feb-11			5,200	800	38	320	290	<5.0	<100	8.8	<5.0	<5.0
	May-11			15,000	3,200	130	820	660	<10	<100	51	<10	<10
	Aug-11			8,500	2,500	<20	670	<40	<20	<400	120	<20	<20
	Aug-11			8,900	2,600	<20	680	<40	<20	<400	120	<20	<20
	Nov-11			5,400	2,100	18	130	<25	22	<250	160	<12	<12
	Nov-11			5,100	2,000	16	120	<25	20	<250	150	<12	<12
	Feb-12			3,800	1,900	<13	<13	<25	16	<250	130	<13	<13
	Feb-12			3,700	1,800	<10	13	<20	17	<200	130	<10	<10
	Jun-12	16.01	17.99	2,700	1,100	22	17	73	<20	<200	84	<20	<20
	Aug-12	16.55	17.45	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Dec-12	17.02	16.98	2200	1200	<10	<10	<30	21	<200	140	<20	<20
	Feb-13	16.76	17.24	2300	1200	<10	<10	<30	<20	<200	130	<20	<20
	Jun-13	17.19	16.81	2200	910	<10	<10	<30	<20	<200	120	<20	<20
	Aug-13	17.48	16.52	780	27	5.9	5.9	17	16	<10	79	<1.0	<1.0
	Nov-13	17.82	16.18	1500	600	<5.0	<5.0	<15	16	<100	110	<10	<10
	Feb-14	17.93	16.07	550	130	<1.0	<1.0	<3.0	13	26	91	<2.0	<2.0
	May-14	18.33	15.67	3000	1700	<10	<10	<30	21	<200	140	<20	<20
	Aug-14	19.81	14.19	1600	860	<10	<10	<30	<20	<200	81	<20	<20
	Nov-14	20.52	13.48	430	3	<0.50	<.50	<1.5	17	22	89	<1.0	<1.0
	Feb-15	19.60	14.40	1300	630	3.1	6.1	6.4	2.1J	<20	29	<1.0	<1.0
	Jun-15	19.61	14.39	6700	4800	12	21	39	24	<200	220	<20	<20
	Aug-15	20.80	13.20	7600	4400	<25	34	<75	<50	<500	220	<50	<50
	Nov-15	19.99	14.01	8600	5300	<50	<50	58J	<100	<1000	190	<100	<100
	Feb-16	19.92	14.08	3,400	2,600	<25	<25	<75	<50	<500	120	<50	<50
	May-16	19.70	14.30	2400	950	<25	<25	<75	<50	<500	36	<50	<50

SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS
LA Times Costa Mesa Facility - North Tanks Site

Well No. (Elevation)	Date	Depth to Water	GW Elevation	TVPH	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA	DIPE	TAME	ETBE
		ft btoc	ft msl	µg/L									
MW-29 (33.53)	Jan-04			1,800	80	20	31	77	<5.0	<25	<5.0	<5.0	<5.0
	Apr-04			3,200	500	42J	130	96	<5.0	<25	<5.0	<5.0	<5.0
	Jul-04			5,600	780	130	230	390	<5.0	<25	7.5	<5.0	<5.0
	Oct-04			15,000	760	340J	550	1,800	<5.0	<25	<5.0UJ	<5.0	<5.0
	Jan-05			<50	<0.30UJ	<0.30UJ	<0.30	<0.60	<5.0	<25	<5.0	<5.0	<5.0
	Apr-05			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Jul-05			5,300	440J	95	150	100	<5.0	<25	7.9	<5.0	<5.0
	Oct-05			14,000	1,500	330	370	1,200	<5.0	34	18	<5.0	<5.0
	Feb-06			24,000	3,700J	290J	680J	2,400	<5.0	54	29J	<5.0	<5.0
	May-06			<50UJ	<0.30	<0.30	<0.30	<0.60	<5.0	<25	<5.0	<5.0	<5.0
	Sep-06			14,000	1,900	79	140	970	<5.0	<25	17	<5.0	<5.0
	Dec-06			23,000	3,900	210	230	1,500	<250	<1,200	<250	<250	<250
	Mar-07			<50	0.42	<0.30	<0.30	<0.60	<5.0	<25	<5.0	<5.0	<5.0
	May-07			2,200 QP1	480	8.2	23	24	<5.0	<25	13	<5.0	<5.0
	Aug-07			4,800	1,700	47	72	530	<10	<200	30	<10	<10
	Nov-07			1,600[21]	370	9.5	19	58	<5.0	<100	<5.0	<5.0	<5.0
	Feb-08			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50
	May-08			1,100	170	5.1	26	8.3	<0.50	<10	1.3	<0.50	<0.50
	Aug-08			750 ZX	41	2.4	6.9	3.7	<1.0	<10	2.8	<1.0	<1.0
	Aug-08			740	27	1.6	3.2	1.2	<1.0	<10	2.5	<1.0	<1.0
	Dec-08			<100	<0.50	<0.50	<0.50	<1.0	<1.0	<10	<1.0	<1.0	<1.0
	Dec-08			<100	<0.50	<0.50	<0.50	<1.0	<1.0	<10 C	<1.0	<1.0	<1.0
	Mar-09			<100	<1.0	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50
	May-09			2,000 M2	280	18	25	21	<1.0	<10	3.6	<1.0	<1.0
	Aug-09			1,600	230	11	26	32	<4.0	<40	<4.0	<4.0	<4.0
	Oct-09			1,400	110	7.0	5.0	20	<0.50	<10	1.5	<0.50	<0.50
	Feb-10			<100	6.6	<0.50	<0.50	1.4	<0.50	<10	<0.50	<0.50	<0.50
	Jun-10			1,500	59	7.3	30	67	<4.0	<40	<4.0	<4.0	<4.0
	Aug-10			3,100	190	14	76	130	<0.50	<10	5.2	<0.50	<0.50
	Oct-10			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50
	Feb-11			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50
	May-11			<100	<0.50	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Aug-11			3,900	520	16[21]	55	130	<2.5	<50	11	<2.5	<2.5
	Nov-11			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50
	Feb-12			<100	4.4	<0.50	<0.50	<1.0	<0.50	<10	1.8	<0.50	<0.50
	Jun-12	14.65	18.88	860	120	3	5.4	41	<2.5	<25	3.5	<2.5	<2.5
	Aug-12	15.61	17.92	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Dec-12	15.13	18.40	<50	1.9	<0.5	<0.5	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Feb-13	15.32	18.21	<50	1.2	<0.5	<0.5	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Jun-13	16.26	17.27	920	120	3.6	16	29	<5	<50	5.3	<5	<5
	Aug-13	16.65	16.88	3600	560	12	45	90	<5.0	<5.0	19	<5.0	<5.0
	Nov-13	16.89	16.64	160	9.7	<0.5	<0.5	3.1	<1.0	<10	<1.0	<1.0	<1.0
	Feb-14	17.06	16.47	570	93	1.5	2.9	11	<1.0	<10	7.1	<1.0	<1.0
	May-14	17.56	15.97	860	160	3.3	9.2	21	<2.5	<25	11	<2.5	<2.5
	Aug-14	19.10	14.43	2000	380	7.5	14	64	<5.0	<50	14	<5.0	<5.0
	Nov-14	19.82	13.71	2900	570	8.3	8.4	70	<1.0	<10	16	<1.0	<1.0
	Feb-15	16.71	16.82	<25	0.46J	<0.25	<0.25	<0.50	<0.25	<5.0	<0.25	<0.25	<0.25
	Jun-15	18.87	14.66	510	84	2	4.3	8.7	<2.0	<20	4.3	<2.0	<2.0
	Aug-15	19.10	14.43	800	74	2.1	8.9	8.9	<1.0	<10	3.9	<1.0	<1.0
	Nov-15	19.78	13.75	1000	180	2.8	11	<6.0	<4.0	<40	6.4	<4.0	<4.0
	Feb-16	17.44	16.09	<50	<0.50	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	May-16	18.93	14.60	730	120	2.00	4.70	5.00	<1.0	<10	3.60	<1.0	<1.0

SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS
LA Times Costa Mesa Facility - North Tanks Site

Well No. (Elevation)	Date	Depth to Water ft btoc	GW Elevation ft msl	TVPH	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA	DIPE	TAME	ETBE
				µg/L									
MW-30 (32.97)	Jan-04			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Apr-04			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Jul-04			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oct-04			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Jan-05			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Apr-05			<50	<0.30UJ	<0.30	<0.30	<0.60	<5.0	<25	<5.0	<5.0	<5.0
	Jul-05			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oct-05			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Feb-06			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	May-06			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Jun-06 (R[33])			<50	<0.30	<0.30	<0.30	<0.60	<5.0	<25	<5.0	<5.0	<5.0
	Sep-06			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dec-06			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Mar-07			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-07			<50	0.47	<0.30	<0.30	<0.60	<5.0	<25	<5.0	<5.0	<5.0
	Aug-07			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-07			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Feb-08			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-08			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50
	Aug-08			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Dec-08			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Mar-09			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-09			<100	<0.50	<0.50	<0.50	<1.0	<1.0	<10	<1.0	<1.0	<1.0
	Aug-09			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Oct-09			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Feb-10			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Jun-10			<100	<0.50	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Aug-10			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Oct-10			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Feb-11			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-11			<100	<0.50	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Aug-11			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-11			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Feb-12			NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Jun-12	14.98	17.99	<50	<0.50	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Aug-12	15.69	17.28	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Dec-12	16.05	16.92	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Jun-13	16.34	16.63	<50	<0.5	<0.5	<0.5	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Aug-13	16.61	16.36	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-13	17.09	15.88	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Feb-14	17.31	15.66	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-14	17.56	15.41	<50	<0.50	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Aug-14	19.15	13.82	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-14	19.88	13.09	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Feb-15	18.92	14.05	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Jun-15	18.94	14.03	<50	<0.50	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Aug-15	19.13	13.84	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-15	20.30	12.67	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Feb-16	18.99	13.98	<10	<0.50	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	May-16	19.00	13.97	<10	<0.50	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0

SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS
LA Times Costa Mesa Facility - North Tanks Site

Well No. (Elevation)	Date	Depth to Water ft btoc	GW Elevation ft msl	TVPH	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA	DIPE	TAME	ETBE
				µg/L									
MW-31 (31.24)	Jan-04			6,700	1,100	140	160	410	<12	65	14	<12	<12
	Apr-04			5,000	810	140J	140	240	<12	80	<12	<12	<12
	Jul-04			6,800	870	100J	150	320	<12	74	<12	<12	<12
	Oct-04			6,900	1,000	87J	190	350	<10	77	11	<10	<10
	Oct-04			6,400	1,000	89J	170	330	<10	86	13	<10	<10
	Jan-05			6,200	1,100J	410J	190	350	<12	<62	<12	<12	<12
	Apr-05			4,200	760	28	55	94	<12	120	<12	<12	<12
	Apr-05			4,200	690	25	51	86	<12	110	<12	<12	<12
	Jul-05			2,200	250	13	6.8	18	<5.0	26	<5.0	<5.0	<5.0
	Jul-05			2,800	380J	17	<15	<30	<5.0	26	<5.0	<5.0	<5.0
	Oct-05			4,200	670	<15	30	39	<5.0	57	<5.0	<5.0	<5.0
	Oct-05			4,200	610	16	<15	<30	<5.0	<5.0	<5.0	<5.0	<5.0
	Feb-06			830	110J	5.9J	<1.5UJ	4.4	<5.0	100	<5.0	<5.0	<5.0
	May-06			320	2.5J	4.1	<0.30	1.4	<5.0	170	<5.0	<5.0	<5.0
	May-06			340	0.70J	4.0	<0.30	1.3	<5.0	140	<5.0	<5.0	<5.0
	Sep-06			650J	23J	4.7J	0.36J	2.5J	14	100	<5.0	<5.0	<5.0
	Dec-06			1,100	32	5.7	<1.5	3.1	<5.0	110	<5.0	<5.0	<5.0
	Mar-07			600J	52	2.8	0.89	4.3	<5.0	91	<5.0	<5.0	<5.0
	May-07			2,300	220	10	5.1	29	<5.0	86	<5.0	<5.0	<5.0
	May-07			1,600	130	9.4	3.4	19	<5.0	82	<5.0	<5.0	<5.0
	Aug-07			2,700	530	11	16	67	<2.5	68	5.3	<2.5	<2.5
	Aug-07			2,500	420	9.8	14	70	<2.5	83	5.3	<2.5	<2.5
	Nov-07			3,500	520	9.0	11	55	<2.5	86	2.8	<2.5	<2.5
	Nov-07			3,300	380	7.2	9.0	43	<2.5	92	2.8	<2.5	<2.5
	Feb-08			750	3.0	2.2	0.65	<1.0	<0.50	<10	0.51	<0.50	<0.50
	May-08			340	0.66	<0.50	<0.50	<1.0	<0.50	12	0.71	<0.50	<0.50
	Aug-08			330	<0.50	<0.50	<0.50	<1.0	<1.0	23	1.7	<1.0	<1.0
	Aug-08			480	<0.50	<0.50	<0.50	<1.0	<1.0	24	2.1	<1.0	<1.0
	Dec-08			350	<0.50	<0.50	<0.50	<1.0	<1.0	20	2.3	<1.0	<1.0
	Mar-09			290	<0.50	<0.50	<0.50	<1.0	<0.50	19	4.6	<0.50	<0.50
	May-09			460	<0.50	<0.50	<0.50	<1.0	<1.0	24	2.6	<1.0	<1.0
	Aug-09			410	<0.50	<0.50	<0.50	<1.5	<1.0	20	2.4	<1.0	<1.0
	Aug-09			450	<0.50	<0.50	<0.50	<1.5	<1.0	20	2.4	<1.0	<1.0
	Oct-09			330	<0.50	<0.50	<0.50	<1.0	<0.50	<10	0.77	<0.50	<0.50
	Feb-10			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50
	Jun-10			<100	<0.50	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Aug-10			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	0.88	<0.50	<0.50
	Aug-10			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	0.92	<0.50	<0.50
	Oct-10			110	<0.50	<0.50	<0.50	<1.0	<0.50	<10	0.92	<0.50	<0.50
	Feb-11			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50
	May-11			<100	<0.50	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Aug-11			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50
	Nov-11			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50
	Feb-12			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50
	Jun-12	13.19	18.05	<50	<0.50	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Aug-12	14.52	16.72	46	< 0.28	< 0.36	< 0.25	< 0.9	<.32	24	1.1	<0.33	<0.28
	Dec-12	14.71	16.53	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Jun-13	15.27	15.97	<50	<0.5	<0.5	<0.5	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Aug-13	15.61	15.63	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-13	16.25	14.99	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Feb-14	16.01	15.23	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-14	16.60	14.64	<50	<0.50	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Aug-14	18.11	13.13	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-14	17.83	13.41	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Feb-15	17.74	13.50	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Jun-15	17.84	13.40	<50	<0.50	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Aug-15	17.96	13.28	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-15	17.61	13.63	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Feb-16	17.82	13.42	<50	<0.50	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	May-16	17.56	13.68	<50	<0.50	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0

SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS
LA Times Costa Mesa Facility - North Tanks Site

Well No. (Elevation)	Date	Depth to Water ft btoc	GW Elevation ft msl	TVPH	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA	DIPE	TAME	ETBE
				µg/L									
MW-32	Jan-04			23,000	5,800	2,500	1,100	3,000	<100	<500	220	<100	<100
	Apr-04			22,000	5,400	1,900J	960	2,100	<100	<500	250	<100	<100
	Jul-04			17,000	4,500	220	920	770	<50	<250	200	<50	<50
	Oct-04			27,000	6,200	520J	1,200	2,700	<10	120	200	<10	<10
	Jan-05			33,000	9,100J	1,400J	1,400	4,700	<10	<50	250	<10	<10
	Apr-05			11,000	4,800J	210	440J	900	<10	<100	120	<20	<20
	Jul-05			10,000	2,900J	100	540	140	<10	56	130J	<10	<10
	Oct-05			7,100	2,300	16	440	<30	<10	61	130	<10	<10
	Feb-06			6,700	1,800J	56J	81J	760	<5.0	42	64	<5.0	<5.0
	May-06			31,000	4,800	120	130	270	<5.0	69	180	<5.0	<5.0
	Sep-06			9,000J	2,200J	34J	<30UJ	66J	<5.0	58	130J	<5.0	<5.0
	Dec-06			18,000	2,700J	34	44J	1,100	<5.0	77	120	<5.0	<5.0
	Dec-06			17,000	2,600J	<30	33J	1,000	<5.0	79	120	<5.0	<5.0
	Mar-07			18,000	4,800	32	<30	700	<5.0	73	160	<5.0	<5.0
	Mar-07			22,000	5,900	<60	<60	840	<5.0	71	160	<5.0	<5.0
	May-07			6,700[21]	2,000[21]	<30	48	89[21]	<20	<100	170	<20	<20
	Aug-07			1,200	620	<2.5	5.0	<5.0	<2.5	73	110	<2.5	<2.5
	Nov-07			8,500[21]	5,600	34	100	200	<25	<500	170	<25	<25
	Feb-08			6,900	3,700	30	<25	71	<25	<500	160	<25	<25
	Feb-08			6,900	3,500	28	<25	64	<25	<500	160	<25	<25
	May-08			2,400	1,200	10	<10	<20	<10	<200	110	<10	<10
	May-08			2,300	1,400	12	<10	<20	<10	<200	130	<10	<10
	Aug-08			1,000 QP1, ZX	300	<2.5	<2.5	<5.0	<5.0	68	110	<5.0	<5.0
	Dec-08			2,900	1,700[21]	17	12	15	<10	<100	170	<10	<10
	Dec-08			2,100	870[21]	11	6.4	8.0	<4.0	64	160	<4.0	<4.0
	Mar-09			6,300	4,600	46	27	63	<20	<400	260	<20	<20
	Mar-09			6,600	4,800	49	31	66	<20	<400	260	<20	<20
	May-09			5,600[21]	4,600	29	43	21	<20	<200	170	<20	<20
	Aug-09			<4,000	1,500	<20	<20	<60	<40	<400	110	<40	<40
	Oct-09			2,400	1,400	<10	<10	<20	<10	<200	120	<10	<10
	Oct-09			2,100	1,200	<5.0	5.4	<10	<5.0	<100	120	<5.0	<5.0
	Feb-10			530	230	4.1	<2.0	18	<2.0	<40	5.4	<2.0	<2.0
	Feb-10			520	230	3.8	<2.0	16	<2.0	<40	5.5	<2.0	<2.0
	Jun-10			690	190	2.0	17	<3.8	<2.5	29	68	<2.5	<2.5
	Aug-10			470	39	<0.50	1.6	<1.0	<0.50	34	44	<0.50	<0.50
	Oct-10			700	70	0.79	0.73	2.9	<0.50	39	82	<0.50	<0.50
	Oct-10			520	54	0.57	0.67	2.4	<0.50	31	54	<0.50	<0.50
	Feb-11			190	31	<0.50	<0.50	<1.0	<0.50	13	25	<0.50	<0.50
	May-11			290	4.0	<0.50	<0.50	<1.5	<1.0	16	42	<1.0	<1.0
	Aug-11			400	2.9	<0.50	<0.50	1.3	<0.50	25	56	<0.50	<0.50
	Nov-11			520		<0.50	<0.50	6.8	<0.50	25	62	<0.50	<0.50
	Nov-11			570	5.0	0.60	<0.50	9.1	<0.50	27	66	<0.50	<0.50
	Feb-12			510	13	<0.50	<0.50	2.2	<0.50	29	52	<0.50	<0.50
	Jun-12			<50	<0.50	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	MW-32 was properly destroyed prior to third quarter 2012 sampling event.												

SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS
LA Times Costa Mesa Facility - North Tanks Site

Well No. (Elevation)	Date	Depth to Water ft btoc	GW Elevation ft msl	TVPH	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA	DIPE	TAME	ETBE
				µg/L									
MW-33 (34.01)	Jan-04			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Apr-04			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Jul-04			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oct-04			14,000	460	1,700J	340	2,200	<5.0	<25	33J	<5.0	<5.0
	Jan-05			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Apr-05			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Jul-05			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oct-05			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Feb-06			2,100	880J	360J	70J	4,700	<120	<620	<120	<120	<120
	May-06			73,000	9,100	8,500	2,000	9,200	<5.0	<25	140	<5.0	<5.0
	Sep-06			100,000J	12,000J	6,800J	2,800J	11,000J	<5.0	26	110	<5.0	<5.0
	Dec-06			95,000	9,200J	8,800	2,000J	10,000	<5.0	<25	140	<5.0	<5.0
	Mar-07			110,000	14,000	18,000	3,700	15,000	<5.0	50	160	<5.0	<5.0
	May-07			72,000	9,200	8,700	2,600	8,700	<20	<100	170	<20	<20
	Aug-07			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Nov-07			62,000	8,200	11,000	3,100	15,000	<50	<1,000	180	<50	<50
	Feb-08			64,000	7,100	12,000	2,800	13,000	<50	<1,000	170	<50	<50
	May-08			87,000	7,300	15,000	3,400	22,000	<100	<2,000	180	<100	<100
	Aug-08			81,000	8,600	16,000	3,000	13,000	<250	<2,500	<250	<250	<250
	Dec-08			36,000	5,400	10,000	2,900	10,200	<100	<1,000	190	<100	<100
	Mar-09			47,000	6,800	11,000	3,100	8,100	<50	<1,000	280	<50	<50
	May-09			61,000 QP1	9,100	16,000	2,500	15,000	<200	<2,000	<200	<200	<200
	Aug-09			79,000	10,000	17,000	3,300	14,000	<200	<2,000	290	<200	<200
	Oct-09			66,000	6,200	12,000	2,600	10,000	<50	<1,000	160	<50	<50
	Feb-10			56,000	5,500	8,300	2,000	10,000	<50	<1,000	120	<50	<50
	Jun-10			21,000	7,700	1,900	1,700	1,900	<200	<2,000	<200	<200	<200
	Aug-10			22,000	7,500	2,000	1,100	1,600	<50	<1,000	130	<50	<50
	Oct-10			26,000	5,700	3,500	1,500	3,500	<50	<1,000	100	<50	<50
	Feb-11			20,000	4,300	760	1,700	1600	<50	<1000	73	<50	<50
	May-11			14,000	5,400	250	1,700	170	<100	<1000	<100	<100	<100
	Aug-11			12,000	3,100	330	1,300	130	<20	<400	59	<20	<20
	Nov-11			6,900	1,600	89	720	47	<5.0	<100	38	<5.0	<5.0
	Feb-12			9,500	1,700	360	1,200	230	<10	<200	39	<10	<10
	Jun-12	16.16	17.85	1,100	210	53	150	19	<4	<40	7.2	<4.0	<4.0
	Aug-12	17.21	16.80	5,900	1,200	130	760	99	<20	<130	32	<6.6	<5.6
	Dec-12	17.60	16.41	6,300	1,100	720	710	640	<20	<200	40	<20	<20
	Feb-13	17.12	16.89	6100	1100	120	940	58	<20	<100	50	<10	<10
	Jun-13	17.91	16.10	6600	850	100	830	47	<20	<200	35	<20	<20
	Aug-13	18.22	15.79	7600	1400	390	950	120	<20	<200	58	<20	<20
	Nov-13	18.66	15.35	2200	290	280	160	160	<4.0	<40	11	<4.0	<4.0
	Feb-14	18.79	15.22	9400	1500	710	1300	1200	<10	<100	47	<10	<10
	May-14	19.23	14.78	6100	790	150	800	59	<4.0	<40	39	<4.0	<4.0
	Aug-14	20.94	13.07	6100	1200	210	1000	68	<4.0	<40	45	<4.0	<4.0
	Nov-14	21.55	12.46	9700	1100	290	1100	95	<20	<200	54	<20	<20
	Feb-15	20.55	13.46	7400	990	200	970	120	<2.5	<50	64	<2.5	<2.5
	Jun-15	20.57	13.44	5000	800	120	800	<30	<20	<200	55	<20	<20
	Aug-15	20.75	13.26	4000	570	110	660	21	<5.0	<50	56	<5.0	<5.0
	Nov-15	20.92	13.09	2600	470	75	330	16	<10	<100	46	<10	<10
	Feb-16	20.50	13.51	2,100	430	54	250	15	<5.0	<50	59	<5.0	<5.0
	May-16	20.60	13.41	4000	610	99	320	18	<5.0	<50	66	<5.0	<5.0

SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS
LA Times Costa Mesa Facility - North Tanks Site

Well No. (Elevation)	Date	Depth to Water	GW Elevation	TVPH	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA	DIPE	TAME	ETBE
		ft btoc	ft msl	µg/L									
MW-34 (32.97)	Jan-04			<50	<0.30	<0.30	<0.30	<0.60	<5.0	<25	10	<5.0	<5.0
	Apr-04			<50	<0.30	<0.30UJ	<0.30	<0.60	<5.0	<25	<5.0	<5.0	<5.0
	Jul-04			<50	<0.30	<0.30	<0.30	<0.60	<5.0	<25	<5.0	<5.0	<5.0
	Oct-04			<50	<0.30	<0.30UJ	<0.30	<0.60	<5.0	<25	<5.0	<5.0	<5.0
	Jan-05			<50	0.65J	<0.30UJ	<0.30	<0.60	<5.0	<25	<5.0	<5.0	<5.0
	Apr-05			<50	<0.30	<0.30	<0.30	<0.60	<5.0	<25	<5.0	<5.0	<5.0
	Jul-05			<50	<0.30	<0.30	<0.30	<0.60	<5.0	<25	<5.0UJ	<5.0	<5.0
	Oct-05			<50	<0.30	<0.30	<0.30	<0.60	<5.0	<25	<5.0	<5.0	<5.0
	Feb-06			<50	<0.30UJ	<0.30UJ	<0.30UJ	<0.60	<5.0	<25	<5.0	<5.0	<5.0
	May-06			<50	<0.30	<0.30	<0.30	<0.60	<5.0	<25	<5.0	<5.0	<5.0
	Sep-06			<50	<0.30	<0.30	<0.30	<0.60	<5.0	<25	<5.0	<5.0	<5.0
	Dec-06			<50	0.57	<0.30	<0.30	<0.60	<5.0	<25	<5.0	<5.0	<5.0
	Mar-07			<50	<0.30	<0.30	<0.30	<0.60	<5.0	<25	5.4	<5.0	<5.0
	May-07			<50	<0.30	<0.30	<0.30	<0.60	<5.0	<25	<5.0	<5.0	<5.0
	Aug-07			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	2.9	<0.50	<0.50
	Nov-07			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	2.6	<0.50	<0.50
	Feb-08			<100	<0.50	<0.50	<0.50	<0.50	<0.50	<10	6.7	<0.50	<0.50
	May-08			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	0.73	<0.50	<0.50
	Aug-08			<50	<0.50	<0.50	<0.50	<1.0	<1.0	<10	2.3	<1.0	<1.0
	Dec-08			<100	<0.50	<0.50	<0.50	<1.0	<1.0	<10	2.6	<1.0	<1.0
	Mar-09			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	3.8	<0.50	<0.50
	May-09			<100	<0.50	<0.50	<0.50	<1.0	<1.0	<10	<1.0	<1.0	<1.0
	Aug-09			<100	<0.50	<0.50	<0.50	<1.5	<1.0	<10	2.7	<1.0	<1.0
	Oct-09			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	1.8	<0.50	<0.50
	Feb-10			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	1.9	<0.50	<0.50
	Jun-10			<100	<0.50	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Aug-10			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50
	Oct-10			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	2.3	<0.50	<0.50
	Feb-11			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	1.7	<0.50	<0.50
	May-11			<100	<0.50	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Aug-11			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50
	Nov-11			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	0.81	<0.50	<0.50
	Feb-12			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50
	Jun-12	15.25	17.72	<50	<0.50	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Aug-12	16.27	16.70	< 30	< 0.28	< 0.36	< 0.25	< 0.9	<1.0	<6.5	0.35J	<0.33	<0.28
	Dec-12	16.52	16.45	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Jun-13	16.95	16.02	<50	<0.5	<0.5	<0.5	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Aug-13	17.31	15.66	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-13	17.68	15.29	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Feb-14	17.89	15.08	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-14	18.30	14.67	<50	<0.50	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Aug-14	20.01	12.96	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-14	20.68	12.29	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Feb-15	19.62	13.35	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Jun-15	19.60	13.37	<50	<0.50	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Aug-15	19.81	13.16	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-15	19.94	13.03	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Feb-16	19.54	13.43	<50	<0.50	<0.50	<0.50	<1.5	<1.0	<10	2.0	<1.0	<1.0
	May-16	19.63	13.34	<50	<0.50	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0

SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS
LA Times Costa Mesa Facility - North Tanks Site

Well No. (Elevation)	Date	Depth to Water ft btoc	GW Elevation ft msl	TVPH	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA	DIPE	TAME	ETBE
				µg/L									
MW-35 (31.01)	Jan-04			51,000	12,000	5,200	2,100	7,200	<200	<1,000	<200	<200	<200
	Jan-04			43,000	10,000	3,600	1,600	5,500	<200	<1,000	<200	<200	<200
	Apr-04			9,200	1,900	570J	360	1,300	<50	<250	50	<50	<50
	Jul-04			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	08-Oct-04(R[37])			26,000	6,500	2,100	1,400	3,100	<5.0	54	54	<5.0	<5.0
	28-Oct-04			18,000	3,400	1,100J	790	1,600	<5.0	44J	41	<5.0	<5.0
	Jan-05			63,000	13,000J	12,000J	2,200	8,500	<100	<500	<100	<100	<100
	Apr-05			12,000	4,100J	720	690J	1,200	<50	<250	54	<50	<50
	Apr-05			14,000	5,500J	930	950J	1,600	<50	<250	<50	<50	<50
	Jul-05			31,000	9,500J	330	1,700	1,100	<50	<250	61J	<50	<50
	Oct-05			48,000	12,000	2,600	2,300	2,700	<5.0	60	55	<5.0	<5.0
	Oct-05			48,000	11,000	2,300	2,100	2,500	<5.0	57	55	<5.0	<5.0
	Feb-06			35,000	7,300J	750J	1,400J	2,100	<20	<100	27J	<20	<20
	Feb-06			49,000	14,000J	990J	2,500J	2,100	<25	<120	50J	<25	<25
	May-06			16,000	4,400	55	930	190	<5.0	<25	32	<5.0	<5.0
	Sep-06			21,000J	3,000J	240J	1,300J	150J	<50	<250	<50	<50	<50
	Sep-06			15,000J	2,700J	220J	1,200J	140J	<50	<250	<50	<50	<50
	Dec-06			36,000	5,900J	860	2,200J	1,400	<5.0	<25	37J	<5.0	<5.0
	Mar-07			15,000	3,500	120	1,500	470	8.1	<25	43	<5.0	<5.0
	May-07			19,000	3,900 M2	150	1,900 M2	300	<5.0	<25 ID	39	<5.0	<5.0
	Aug-07			14,000	3,700	110	1,500	730	<25	<500	31	<25	<25
	Nov-07			13,000	4,300	130	960	600	<50	<1,000	51	<50	<50
	Feb-08			14,000	6,500	76	1,000	86	<25	<500	55	<25	<25
	Feb-08			15,000	6,700	150	1,100	350	<25	<500	52	<25	<25
	May-08			3,000	170	48	120	460	<1.0	<20	<1.0	<1.0	<1.0
	Aug-08			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Dec-08			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Mar-09			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	May-09			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Aug-09			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oct-09			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Feb-10			67,000	1,200	2,000	2,500	15,000	<20	<400	<20	<20	<20
	Jun-10			37,000	1,300	2,000	2,300	12,000	<50	<500	<50	<50	<50
	Aug-10			36,000	1,400	1,500	2,300	9,300	<50	<1,000	<50	<50	<50
	Oct-10			42,000	2,100	2,000	2,400	11,000	<20	<400	<20	<20	<20
	Feb-11			14,000	960	300	840	2,400	<12	<250	<12	<12	<12
	May-11			480	<0.50	0.69	16	91	<1.0	<10	<1.0	<1.0	<1.0
	May-11			460	<0.50	0.60	15	86	<1.0	<10	<1.0	<1.0	<1.0
	Aug-11			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50
	Nov-11			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50
	Feb-12			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50
	Jun-12	13.12	17.89	1000	0.66	<0.50	2.2	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Aug-12	14.29	16.72	2100	130	1.4	37	< 1.8	<2.0	<13	<0.5	<0.66	<0.56
	Dec-12	14.73	16.28	2300	150	1.5	47	2.6	<1.0	<10	1.8	<1.0	<1.0
	Feb-13	14.27	16.74	980	83	1	30	<1.5	<1.0	10	3.1	<1.0	<1.0
	Jun-13	14.97	16.04	770	40	<0.5	3.3	<1.5	<1.0	12	4.8	<1.0	<1.0
	Aug-13	15.29	15.72	1200	150	4.3	50	8.9	<2.0	<20	4.3	<2.0	<2.0
	Nov-13	NM	NM	1200	160	2.1	65	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Nov-13	15.53	15.48	1200	150	2.4	72	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Feb-14	14.99	16.02	1100	16	<0.50	25	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	May-14	14.51	16.50	93	1.5	<0.50	1.1	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Aug-14	11.60	19.41	<50	<50	<50	<50	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Nov-14	18.67	12.34	3400	290	<2	49	<6	<4	<40	<4	<4	<4
	Feb-15	17.71	13.30	2000	140	1.6	43	3.1	<0.25	<5.0	2.9J	<0.25	<0.25
	Jun-15	17.65	13.36	1500	130	<2.0	22	<6.0	<4.0	<40	4	<4.0	<4.0
	Aug-15	NM	NM	<50	<0.5	<0.5	<0.5	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Nov-15	18.02	12.99	880	39	0.61	3.1	0.83J	<1.0	5.3J ID	2.4	<1.0	<1.0
	Feb-16	17.65	13.36	240	0.66	<0.50	<0.50	<1.5	<1.0	<10	6.9	<1.0	<1.0
	May-16	17.69	13.32	610	3.30	<0.50	<0.50	<1.5	<1.0	<10	2.70	<1.0	<1.0

SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS
LA Times Costa Mesa Facility - North Tanks Site

Well No. (Elevation)	Date	Depth to Water ft btoc	GW Elevation ft msl	TVPH	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA	DIPE	TAME	ETBE
				µg/L									
MW-36 (30.20)	Jan-04			57	1.8	0.58	0.54	0.78	<5.0	<25	28	<5.0	<5.0
	Apr-04			80	<0.30	0.99	1.0	<0.60	<5.0	<25	19	<5.0	<5.0
	Jul-04			NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Oct-04			<50	<0.30	<0.30	<0.30	<0.60	<5.0	<25	14	<5.0	<5.0
	28-Oct-04			230	6.2	11J	7.1	11	<5.0	<25	9.2	<5.0	<5.0
	Jan-05			1,000	57J	100J	54	86	<5.0	<25		<5.0	<5.0
	Apr-05			130	2.5J	<0.30	0.41	<0.60	<5.0	<25	9.0	<5.0	<5.0
	Jul-05			110	<0.30	3.3	<0.30	<0.60	<5.0	<25	8.6J	<5.0	<5.0
	Oct-05			98	<0.30	2.3	<0.30	<0.60	<5.0	<25	8.3	<5.0	<5.0
	Feb-06			<50	<0.30UJ	1.2J	<0.30UJ	<0.60	<5.0	<25	6.6	<5.0	<5.0
	May-06			64	<0.30	1.1	<0.30	<0.60	<5.0	<25	8.6	<5.0	<5.0
	Sep-06			100	<0.30	5.7	<0.30	<0.60	<5.0	<25	12	<5.0	<5.0
	Mar-07			170J	2.5	4.4	0.47	<0.60	<5.0	<25	16	<5.0	<5.0
	May-07			190	0.95	3.6	0.44	<0.60	<5.0	<25	9.8	<5.0	<5.0
	Aug-07			500	17	4.7	18	5.8	<0.50	<10	5.8	<0.50	<0.50
	Nov-07			610	38	26	17	19	<050	<10	0.72	<0.50	<0.50
	Feb-08			350	15	2.0	5.3	<1.0	<0.50	<10	0.67	<0.50	<0.50
	May-08			300	<0.50	<0.50	<0.50	<1.0	<0.50	<10	6.1	<0.50	<0.50
	May-08			300	<0.50	<0.50	<0.50	<1.0	<0.50	<10	5.7	<0.50	<0.50
	Aug-08			370	3.2	35	23	43	<1.0	<10	<1.0	<1.0	<1.0
	Dec-08			320 M2	7.6	<0.50	<0.50	<1.0	<1.0	<10	1.2	<1.0	<1.0
	Mar-09			330	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50 C	<0.50	<0.50
	May-09			160	<0.50	<0.50	<0.50	<1.0	<1.0	<10	<1.0	<1.0	<1.0
	Aug-09			230	<0.50	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Oct-09			340	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50
	Feb-10			230	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50
	Jun-10			<100	<0.50	<0.50	<0.50	<1.5	<1.0	<10	12	<1.0	<1.0
	Aug-10			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	8.9	<0.50	<0.50
	Oct-10			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	3.4	<0.50	<0.50
	Feb-11			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	1.5	<0.50	<0.50
	May-11			<100	<0.50	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Aug-11			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	0.66	<0.50	<0.50
	Nov-11			150	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50
	Feb-12			240	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50
	Jun-12	12.96	17.24	<50	<0.50	<0.50	<0.50	<1.5	<1.0	<10	6.5	<1.0	<1.0
	Aug-12	13.90	16.30	68	< 0.28	< 0.36	< 0.25	< 0.9	<1.0	<6.5	<0.25	<0.33	<0.28
	Dec-12	14.33	15.87	58	<0.5	<0.5	<0.5	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Jun-13	14.61	15.59	130	<0.5	<0.5	<0.5	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Aug-13	14.59	15.61	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-13	15.36	14.84	76	<0.5	<0.5	<0.5	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Feb-14	15.49	14.71	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-14	15.46	14.74	66	<0.50	0.7	3.4	2.9	<1.0	<10	<1.0	<1.0	<1.0
	Aug-14	17.62	12.58	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-14	18.31	11.89	120	<.50	<0.50	<.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Feb-15	17.32	12.88	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Jun-15	17.22	12.98	150	<0.50	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Aug-15	17.46	12.74	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-15	18.61	11.59	220	<0.50	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Feb-16	17.21	12.99	250	<0.50	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	May-16	17.25	12.95	100	<0.50	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0

SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS
LA Times Costa Mesa Facility - North Tanks Site

Well No. (Elevation)	Date	Depth to Water	GW Elevation	TVPH	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA	DIPE	TAME	ETBE
		ft btoc	ft msl	µg/L									
MW-37 (30.97)	Jan-05			<50	<0.30UJ	<0.30UJ	<0.30	<0.60	<5.0	<25	5.1	<5.0	<5.0
	Apr-05			<50	<0.30UJ	<0.30	<0.30	<0.60	<5.0	<25	<5.0	<5.0	<5.0
	Jul-05			<50	<0.30	<0.30	<0.30	<0.60	<5.0	<25	<5.0UJ	<5.0	<5.0
	Oct-05			55	<0.30	0.52	<0.30	0.70	<10	<50	<10	<10	<10
	Feb-06			<50	1.8J	<0.30UJ	<0.30UJ	<0.60	<5.0	<25	6.1	<5.0	<5.0
	May-06			140	42	0.47	2.8	1.8	<5.0	<25	9.7	<5.0	<5.0
	Sep-06			120	28	0.51	2.2	<0.60	<5.0	<25	10	<5.0	<5.0
	Dec-06			120	25	0.31	2.0	<0.60	<5.0	<25	11	<5.0	<5.0
	Mar-07			79J	3.5	0.39	3.3	<0.60	<5.0	<25	15	<5.0	<5.0
	Mar-07			66J	3.6	<0.30	3.4	<0.60	<5.0	<25	14	<5.0	<5.0
	Jun-07			<50	0.76	<0.30	<0.30	<0.60	<5.0	<25	11	<5.0	<5.0
	Aug-07			<100	0.60	<0.50	<0.50	<1.0	<0.50	<10	14	<0.50	<0.50
	Nov-07			<100	0.50	<0.50	<0.50	<1.0	<0.50	<10	31	<0.50	<0.50
	Feb-08			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	46	<0.50	<0.50
	May-08			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	15	<0.50	<0.50
	Aug-08			<50	<0.50	<0.50	<0.50	<1.0	<1.0	<10	22	<1.0	<1.0
	Dec-08			<100	<0.50	<0.50	<0.50	<1.0	<1.0	<10	26	<1.0	<1.0
	Mar-09			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	34	<0.50	<0.50
	May-09			<100	<0.50	<0.50	<0.50	<1.0	<1.0	<10	17	<1.0	<1.0
	Aug-09			<100	<0.50	<0.50	<0.50	<1.5	<1.0	<10	14	<1.0	<1.0
	Oct-09			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	15	<0.50	<0.50
	Feb-10			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	2.1	<0.50	<0.50
	Jun-10			<100	<0.50	<0.50	<0.50	<1.5	<1.0	<10	<1.0	<1.0	<1.0
	Aug-10			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	0.66	<0.50	<0.50
	Oct-10			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	<0.50	<0.50	<0.50
	Feb-11			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	0.83	<0.50	<0.50
	May-11			<100	<0.50	<0.50	<0.50	<1.5	<1.0	<10	1.0	<1.0	<1.0
	Aug-11			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	1.8	<0.50	<0.50
	Nov-11			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	2.0	<0.50	<0.50
	Feb-12			<100	<0.50	<0.50	<0.50	<1.0	<0.50	<10	3.2	<0.50	<0.50
	Jun-12	13.29	17.68	<50	<0.50	<0.50	<0.50	<1.5	<1.0	<10	6.5	<1.0	<1.0
	Aug-12	14.17	16.80	< 30	< 0.28	< 0.36	< 0.25	< 0.9	0.76J	<6.5	6.6	<0.33	<0.28
	Dec-12	14.48	16.49	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Jun-13	14.73	16.24	<50	<0.5	<0.5	<0.5	<1.5	<1.0	<10	7.3	<1.0	<1.0
	Aug-13	15.05	15.92	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-13	15.49	15.48	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Feb-14	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-14	16.02	14.95	<50	<0.50	<0.50	<0.50	<1.5	1.0	<10	8.2	<1.0	<1.0
	Aug-14	17.58	13.39	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-14	18.33	12.64	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Feb-15	NM	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Jun-15	17.31	13.66	<50	<0.50	<0.50	<0.50	<1.5	<1.0	<10	5	<1.0	<1.0
	Aug-15	17.56	13.41	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-15	17.39	13.58	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Feb-16	17.45	13.52	<50	<0.50	<0.50	<0.50	<1.5	<1.0	<10	3.5	<1.0	<1.0
	May-16	17.41	13.56	<50	<0.50	<0.50	<0.50	<1.5	<1.0	<10	5.60	<1.0	<1.0

SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS
LA Times Costa Mesa Facility - North Tanks Site

Well No. (Elevation)	Date	Depth to Water ft btoc	GW Elevation ft msl	TVPH	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA	DIPE	TAME	ETBE
				µg/L									
MW-38 (31.00)	Jan-05			49,000	17,000J	650J	2,000	7,400	<50	<250	260	<50	<50
	Apr-05			64,000	18,000	4,900	2,500J	5,300	<20	330	310	<20	<20
	Jul-05			86,000	21,000J	13,000	2,900	8,400	<25	470	460J	<25	<25
	Oct-05			94,000	20,000	13,000	2,700	7,900	<25	350	330	<25	<25
	Feb-06			96,000	21,000J	8,300J	2,800J	7,700	<25	320	280J	<25	<25
	May-06			52,000	14,000	370	1,800	4,100	<10	140	270	<10	<10
	Sep-06			44,000J	10,000J	150J	1,800J	2,900J	<100UJ	<500UJ	250J	<100UJ	<100UJ
	Dec-06			70,000	14,000J	640	2,700J	4,600	<250	<1,200	<250	<250	<250
	Mar-07			62,000	16,000	1,200	2,800	5,300	<50	<250	270	<50	<50
	May-07			34,000	9,400[21]	180	1,800[21]	2,400	<50	<250	200	<50	<50
	Aug-07			17,000	8,100	510	2,200	2,600	<10	220	230	<10	<10
	Nov-07			44,000	15,000	1,800	2,800	5,400	<100	<2,000	290	<100	<100
	Feb-08			53,000	20,000	1,400	3,200	5,200	<100	<2,000	290	<100	<100
	May-08			24,000	9,400	290	1,200	1,200	<100	<2,000	140	<100	<100
	Aug-08			47,000 QP1, ZX	19,000	590	2,500	3,400	<250	<2,500	280	<250	<250
	Dec-08			25,000	16,000	320	2,700	2,110	<100	<1,000	260	<100	<100
	Mar-09			30,000	16,000	370	2,500	1,800	<50	<1,000	350	<50	<50
	Mar-09			24,000	14,000	260	2,200	1,200	<50	<1,000	340	<50	<50
	May-09			32,000	15,000	380	2,600	1,600	<50	<500	250	<50	<50
	Aug-09			30,000	14,000	350	2,300	1,300	<200	<2,000	230	<200	<200
	Oct-09			35,000	14,000	340	2,300	1,300	<50	<1,000	210	<50	<50
	Feb-10			29,000	14,000	260	2,300	840	<100	<2,000	230	<100	<100
	Feb-10			29,000	14,000	240	2,200	800	<100	<2,000	230	<100	<100
	Jun-10			30,000	16,000	300	2,500	1,100	<200	<2,000	260	<200	<200
	Aug-10			22,000	14,000	110	2,100	730	<100	<2,000	180	<100	<100
	Oct-10			23,000	15,000	110	2,400	830	<100	<2,000	140[21]	<100	<100
	Feb-10			5,000	2,500	<20	670	<40	<20	<400	98	<20	<20
	Feb-10			6,400 QP1	2,600	<20	670	<40	<20	<400	98	<20	<20
	May-11			390	96	<0.50	3.5	<1.5	2.4	19 ID	22	<1.0	<1.0
	Aug-11			220	3.5	<0.50	<0.50	<1.0	2.7	11	17	<0.50	<0.50
	Nov-11			140	0.55	<0.50	<0.50	<1.0	3.2	<10	20	<0.50	<0.50
	Feb-12			150	<0.50	<0.50	<0.50	<1.0	2.2	<10	17	<0.50	<0.5
	Feb-12			140	<0.50	<0.50	<0.50	<1.0	2.1	<10	17	<0.50	<0.50
	Jun-12	12.80	18.20	96	<0.50	<0.50	<0.50	<1.5	2.7	<10	16	<1.0	<1.0
	Aug-12	13.73	17.27	59	< 0.28	< 0.36	< 0.25	< 0.9	1.9	<6.5	10	<0.33	<0.28
	Dec-12	14.12	16.88	260	<0.5	<0.5	<0.5	<1.5	2	46	57	<1.0	<1.0
	Jun-13	14.40	16.60	250	<0.5	<0.5	<0.5	<1.5	1.1	37	29	<1.0	<1.0
	Aug-13	14.72	16.28	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-13	15.19	15.81	550	61	0.63	<0.5	<1.5	1.6	82	74	<1.0	<1.0
	Feb-14	15.38	15.62	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	May-14	15.69	15.31	580	81	1.2	8.3	2.1	1.2	120	68	<1.0	<1.0
	Aug-14	17.26	13.74	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-14	18.00	13.00	3900	1800	15	190	<15	<10	180	110	<10	<10
	Feb-15	17.01	13.99	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Jun-15	17.02	13.98	3200	1900	<10	14	<30	<20	<200	98	<20	<20
	Aug-15	17.22	13.78	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Nov-15	17.40	13.60	390	140	<1.3	<1.3	<3.8	<2.5	80	44	<2.5	<2.5
	Feb-16	17.01	13.99	2,500	1,900	<13	<13	<38	<25	<250	120	<25	<25
	May-16	17.10	13.90	2000	1600	2.20	4.30	<38	<25	150	110	<25	<25

SUMMARY OF HISTORICAL GROUNDWATER ANALYTICAL RESULTS
LA Times Costa Mesa Facility - North Tanks Site

Well No. (Elevation)	Date	Depth to Water	GW Elevation	TVPH	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	TBA	DIPE	TAME	ETBE
		ft btoc	ft msl	µg/L									

NOTES:

** Well* - MW-25 was damaged and replaced by well MW-25(R) in September 2006.

< - indicates analyte was not detected above reporting limit (RL) indicated or method detection limit (MDL), if available.

F1 - MS and/or MSD recovery is outside acceptance limits.

ID - indicates due to the low level of analyte found in the sample, the analyte was qualitatively identified based on the compound retention time and the presence of a single mass ion.

J - indicates the analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

M2 - indicates the Matrix Spike and/or Matrix Spike Duplicate percent recovery (using this sample) were below the acceptance limits; therefore, the concentration for this sample and for other samples with a similar magnitude of concentration is considered estimated.

QP1 - indicates hydrocarbon result partly due to individual peak(s) in quantitation range; result is considered estimated.

UJ - indicates the analyte was not detected above the reported sample quantitation limit; however, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

ZX - indicates due to sample matrix effects, the surrogate recovery was outside the acceptance limits.

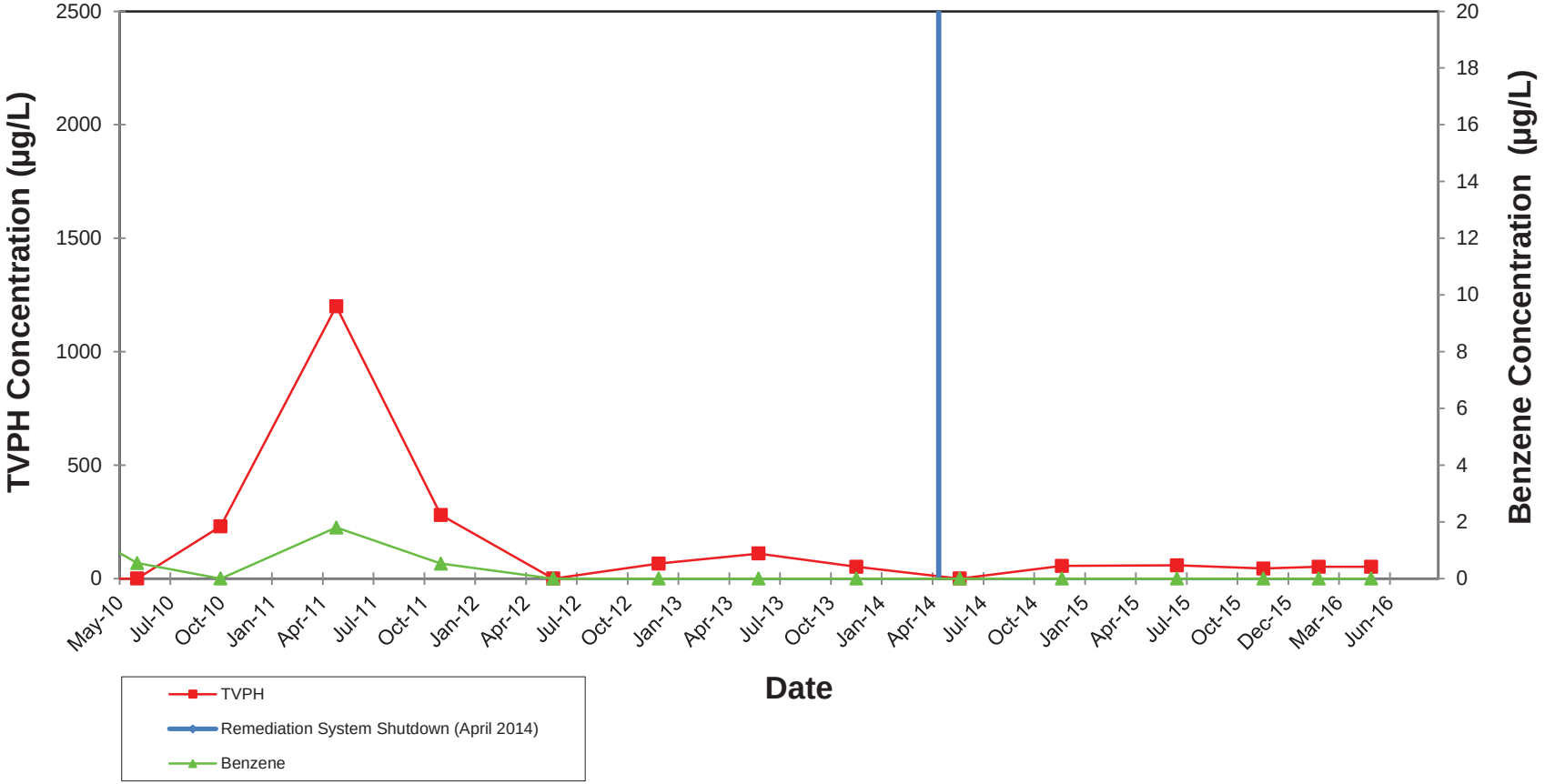
ABBREVIATIONS:

µg/L - micrograms per liter
ft btoc - feet below top of casing
ft msl - feet above mean sea level
NA - not analyzed or sampled
NM - not measured
NS - not sampled
R - repeat
DIPE - di-isopropyl ether
ETBE - ethyl tertiary butyl ether
MTBE - methyl tertiary butyl ether
TAME - tertiary-amyl methyl ether
TBA - tertiary butyl alcohol
TVPH - total volatile petroleum hydrocarbons; analyzed using CA LUFT Method 8260B.
VOC - volatile organic compound; analyzed by EPA Method 8260B.

Appendix D

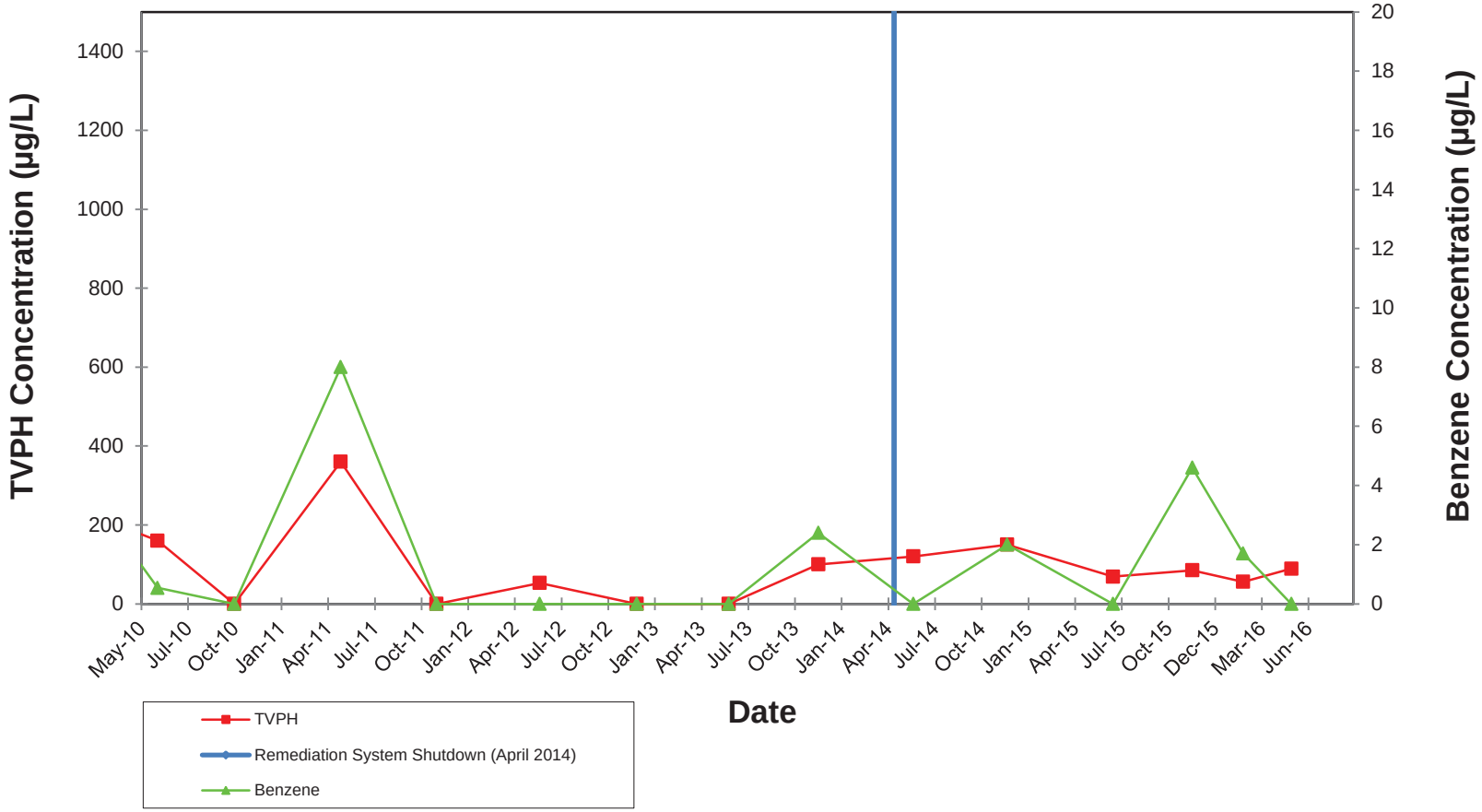
TVPH and Benzene Concentrations vs. Time Plots

TVPH and Benzene Concentration Plots
Monitoring Well MW-17



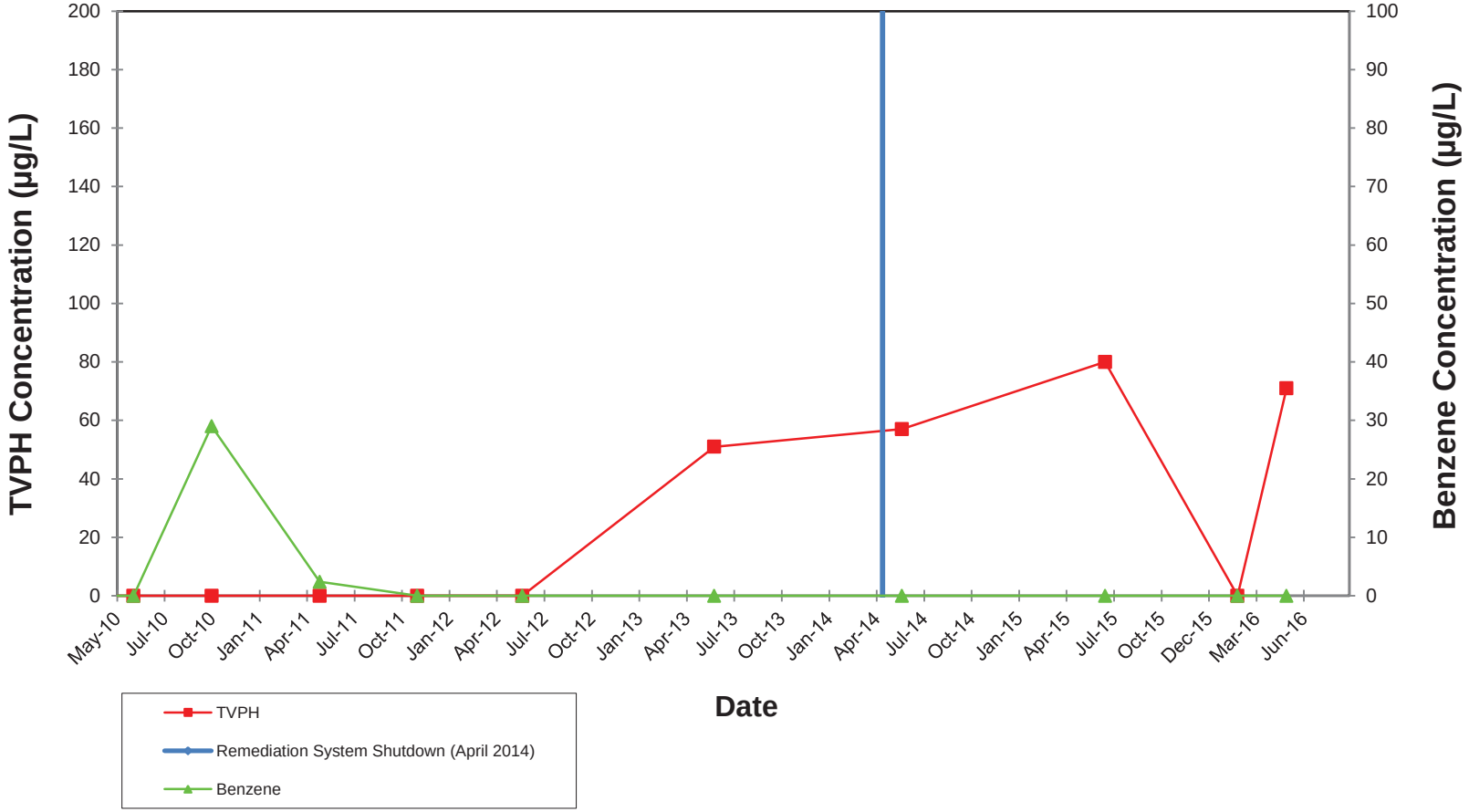
Note: Non-detect concentrations were entered as "0".

TVPH and Benzene Concentration Plots
Monitoring Well MW-18



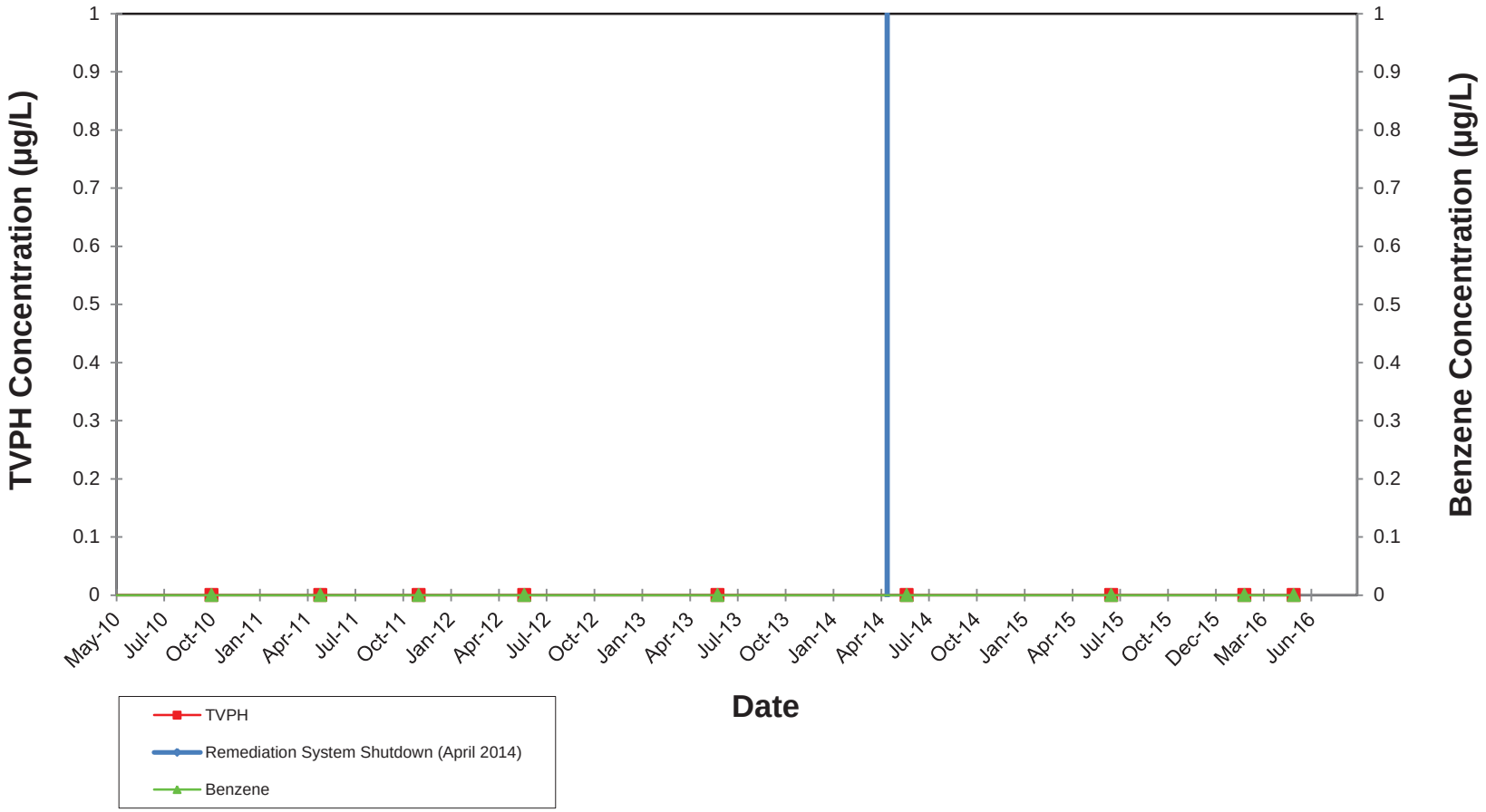
Note: Non-detect concentrations were entered as "0".

TVPH and Benzene Concentration Plots
Monitoring Well MW-19



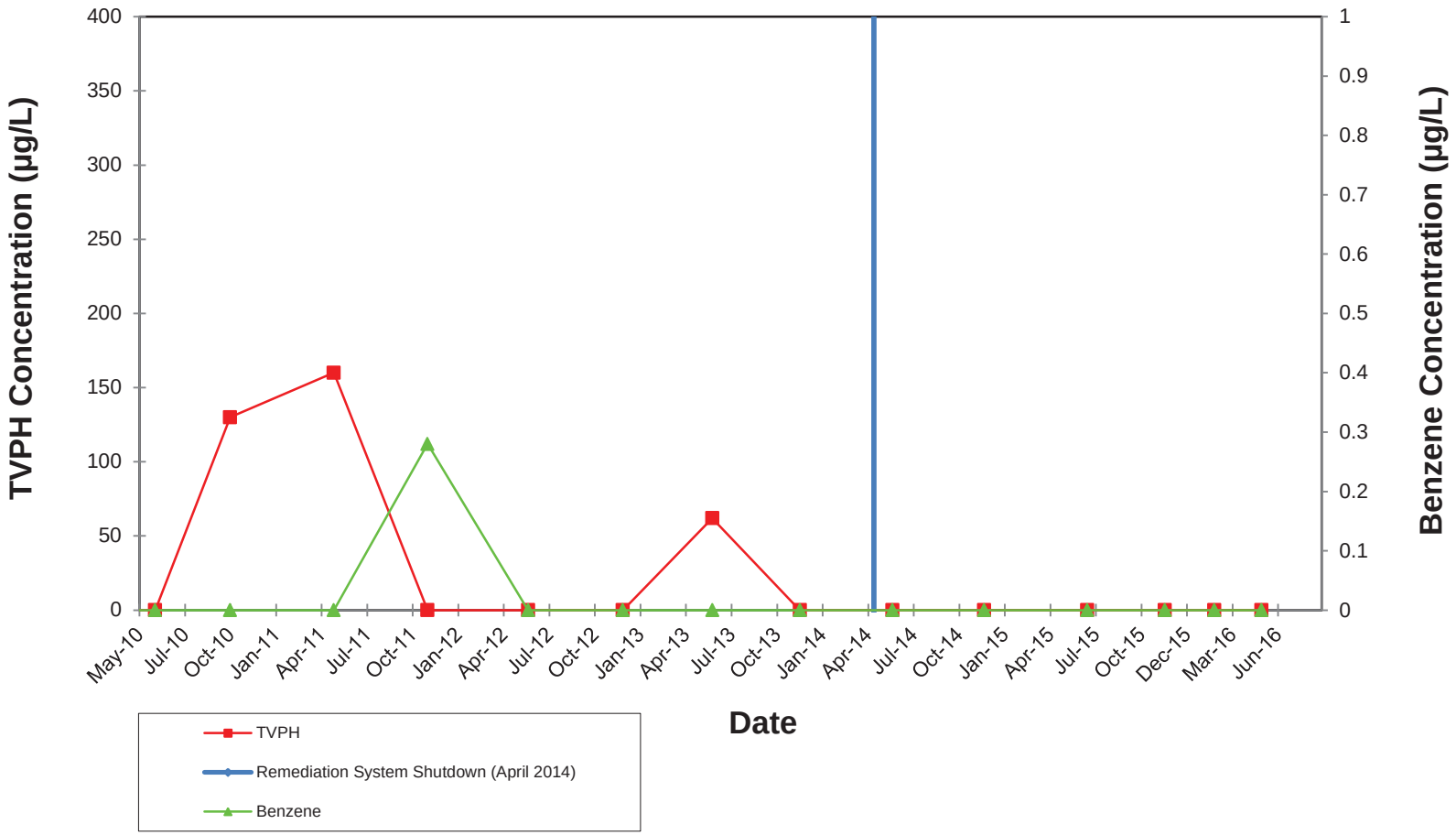
Note: Non-detect concentrations were entered as "0".

TVPH and Benzene Concentration Plots
Monitoring Well MW-20



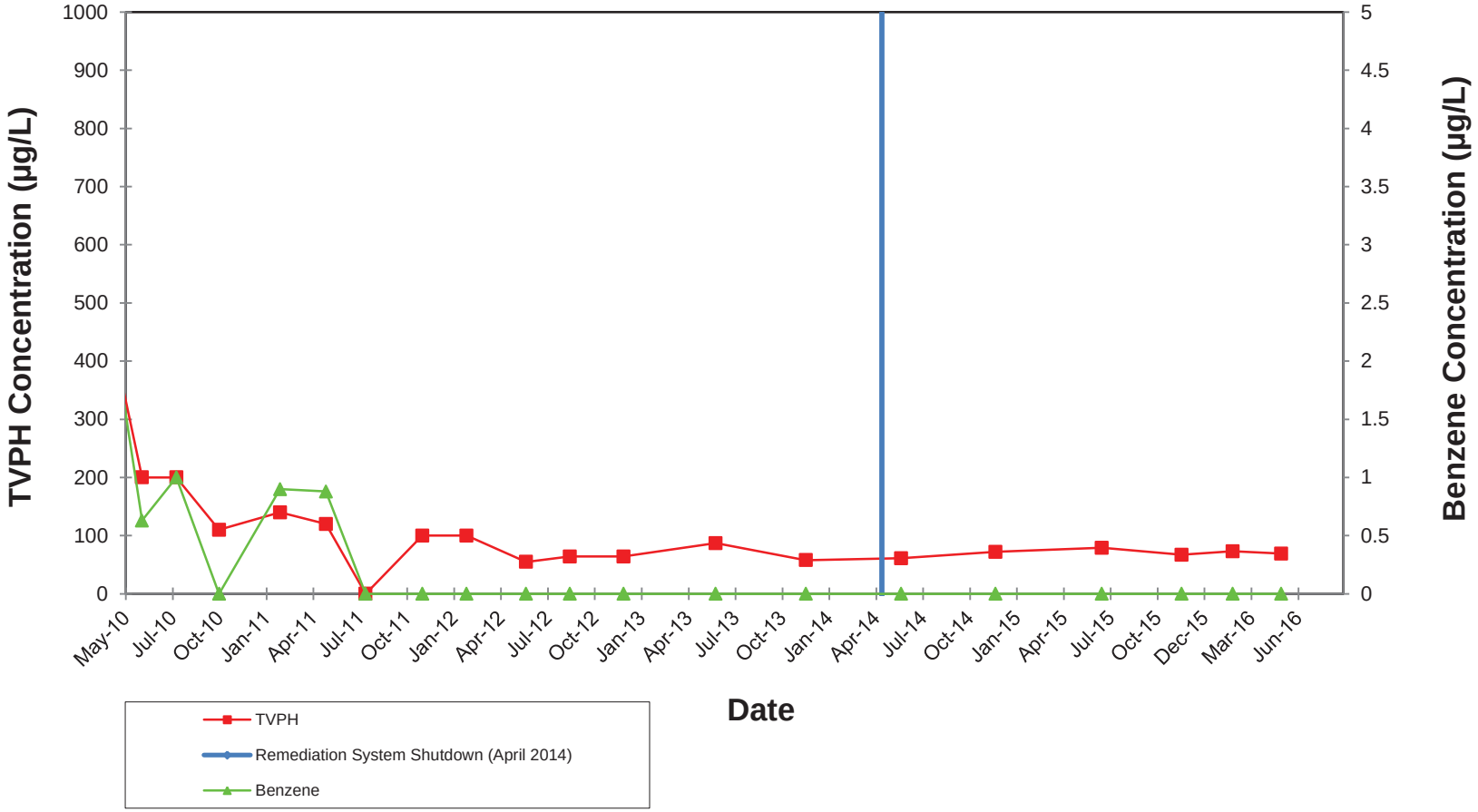
Note: Non-detect concentrations were entered as "0".

TVPH and Benzene Concentration Plots
Monitoring Well MW-21



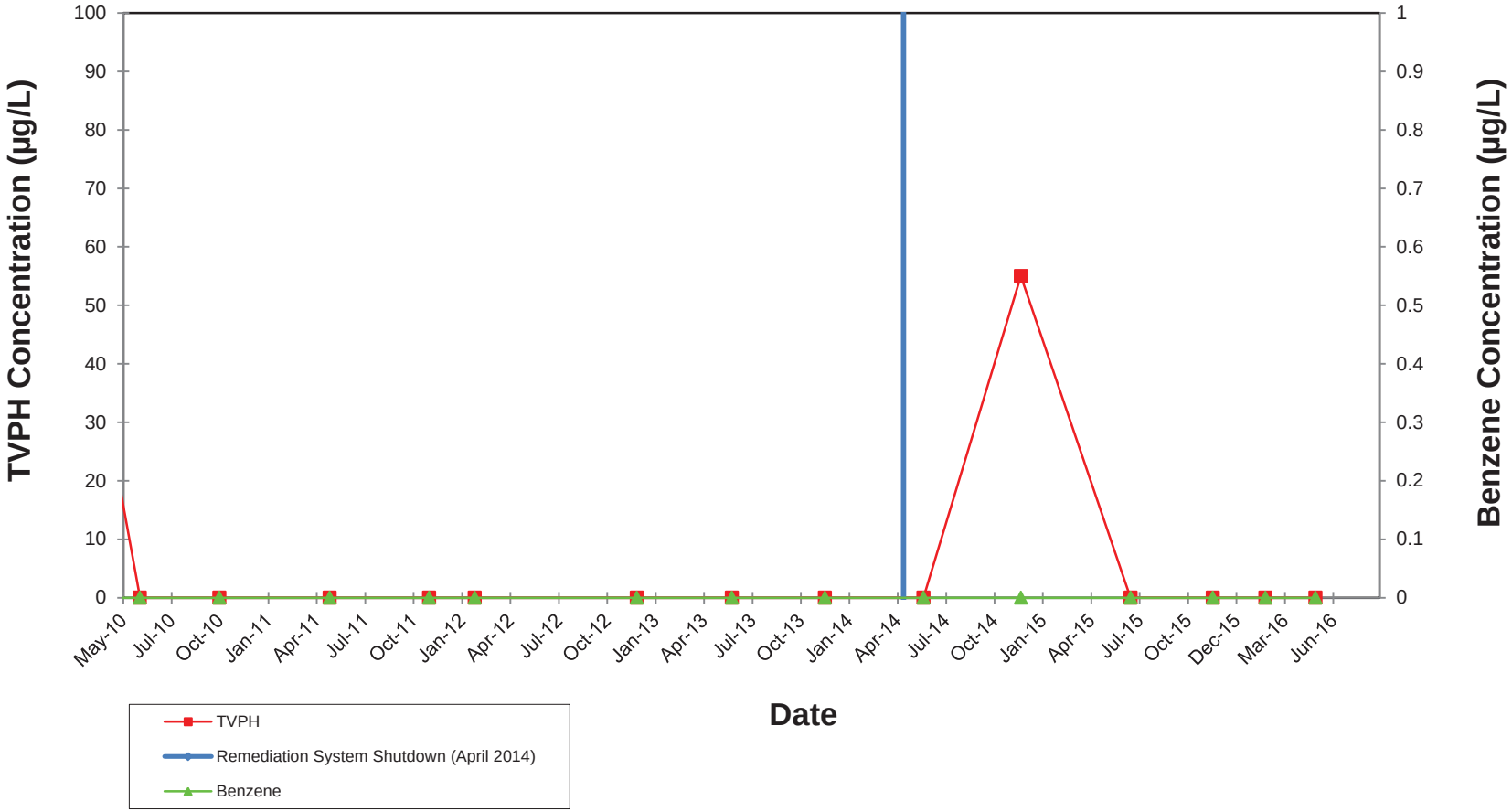
Note: Non-detect concentrations were entered as "0".

TVPH and Benzene Concentration Plots
Monitoring Well MW-22



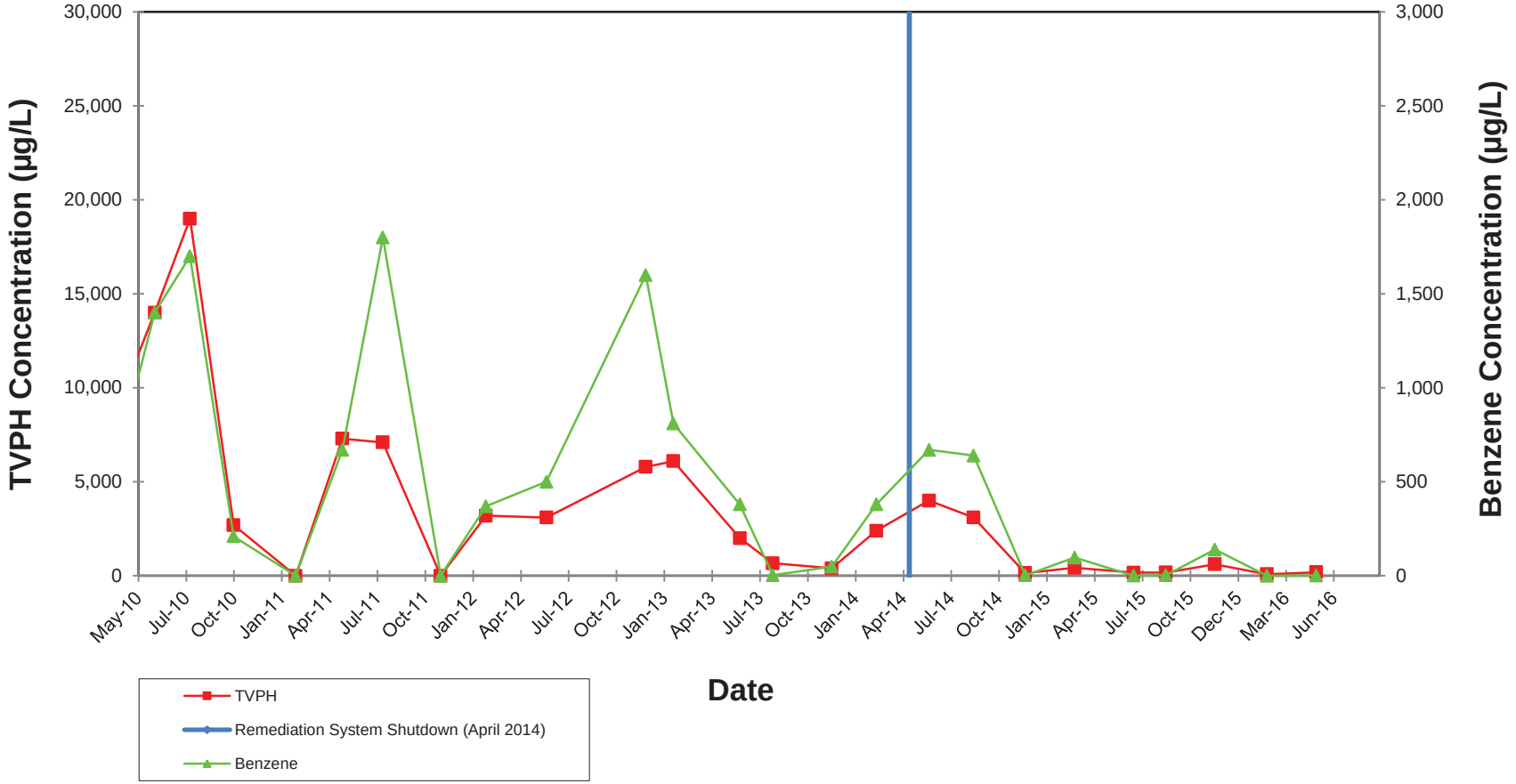
Note: Non-detect concentrations were entered as "0".

TVPH and Benzene Concentration Plots
Monitoring Well MW-23



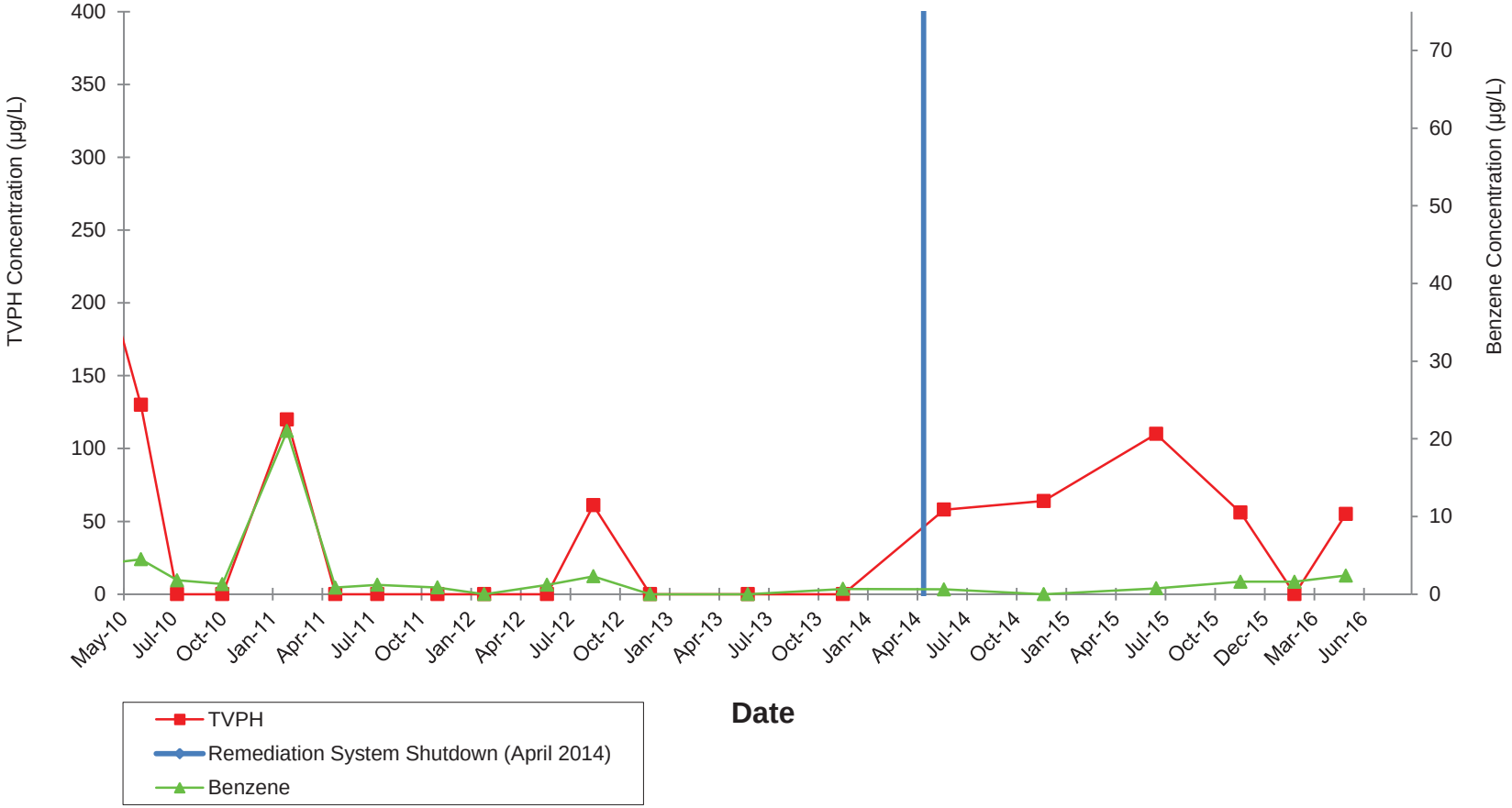
Note: Non-detect concentrations were entered as "0".

TVPH and Benzene Concentration Plots
Monitoring Well MW-24



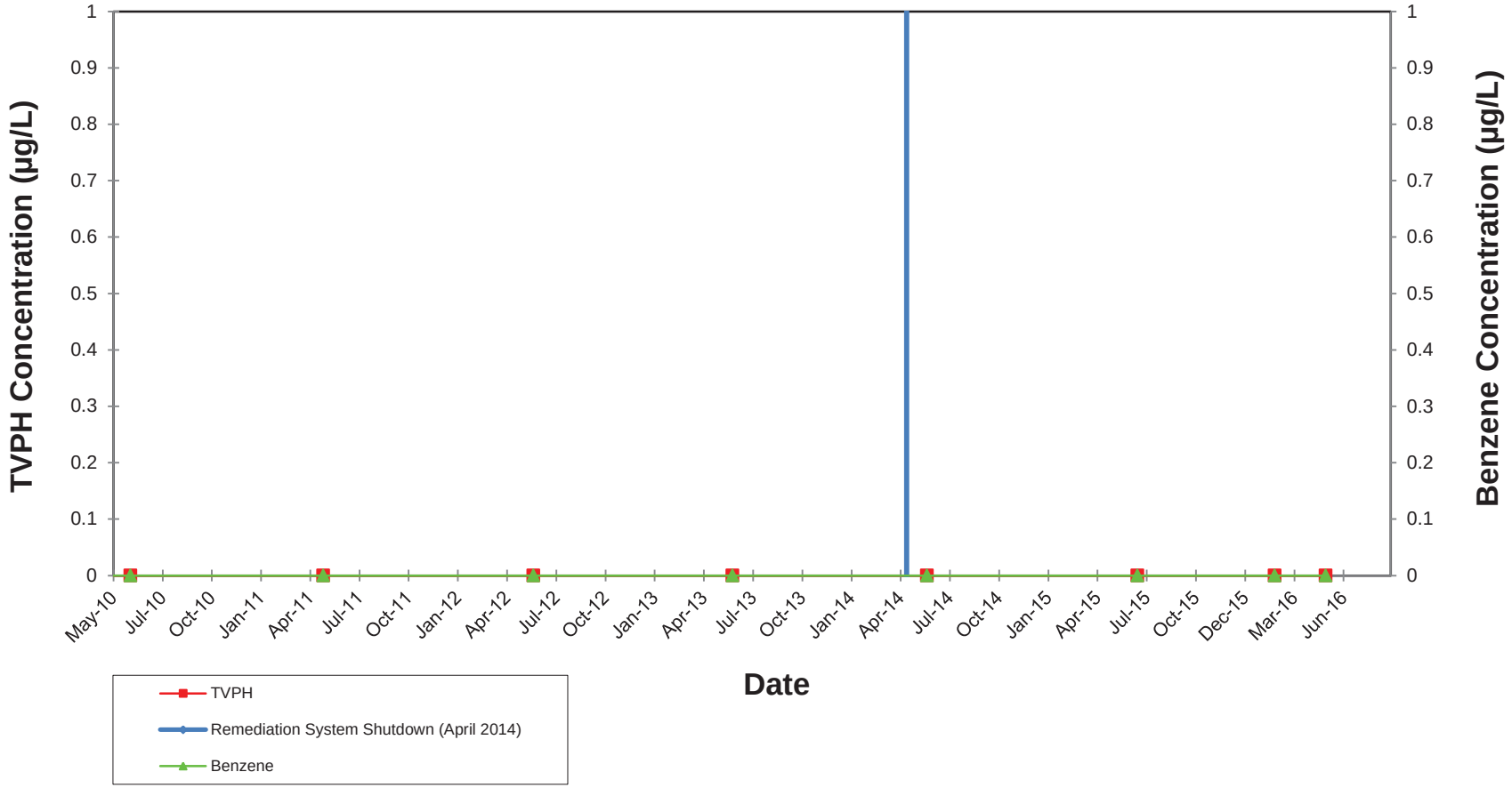
Note: Non-detect concentrations were entered as "0".

TVPH and Benzene Concentration Plots
Monitoring Well MW-25/MW-25(R)



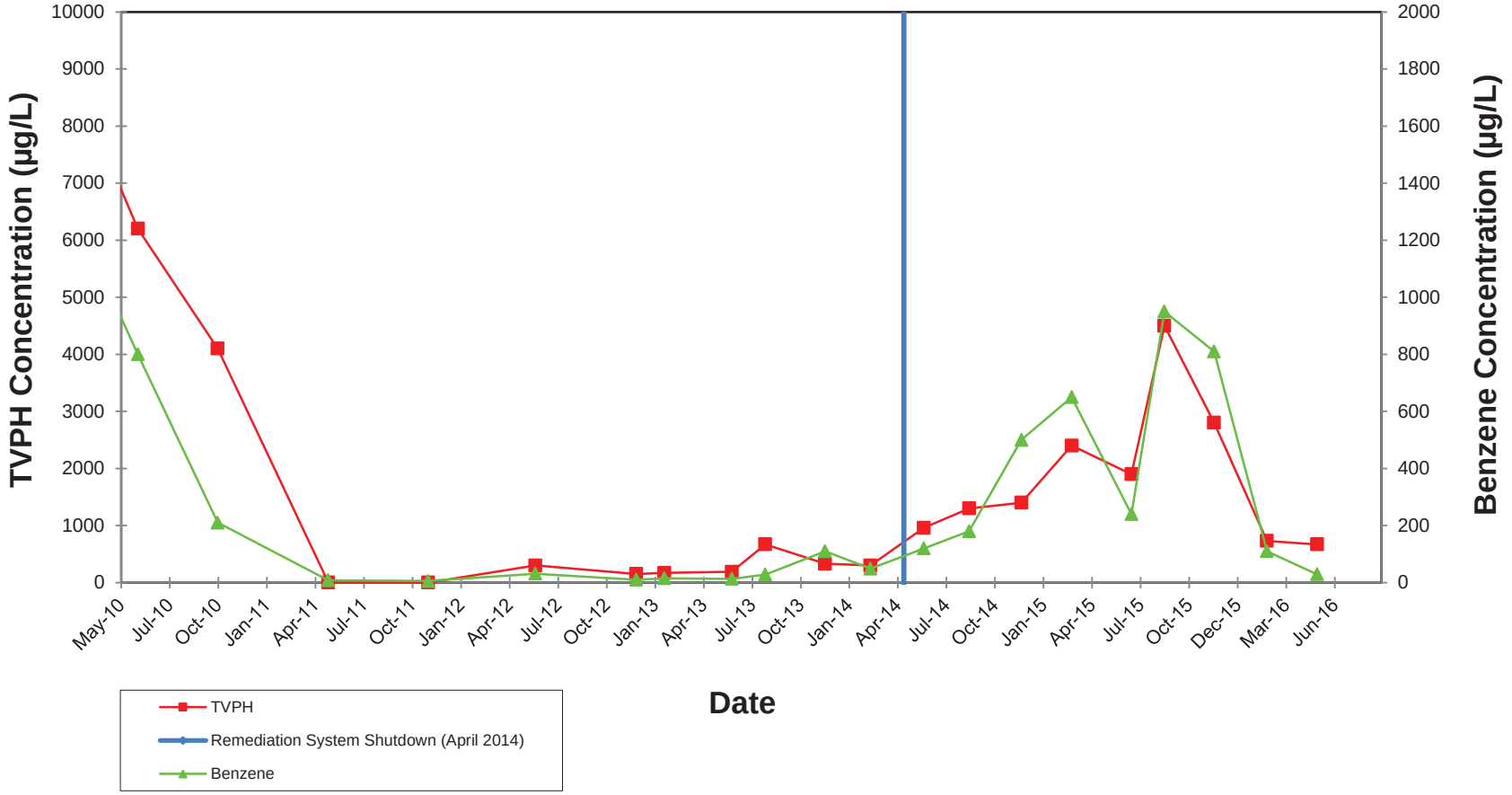
Note: Non-detect concentrations were entered as "0".

TVPH and Benzene Concentration Plots
Monitoring Well MW-26



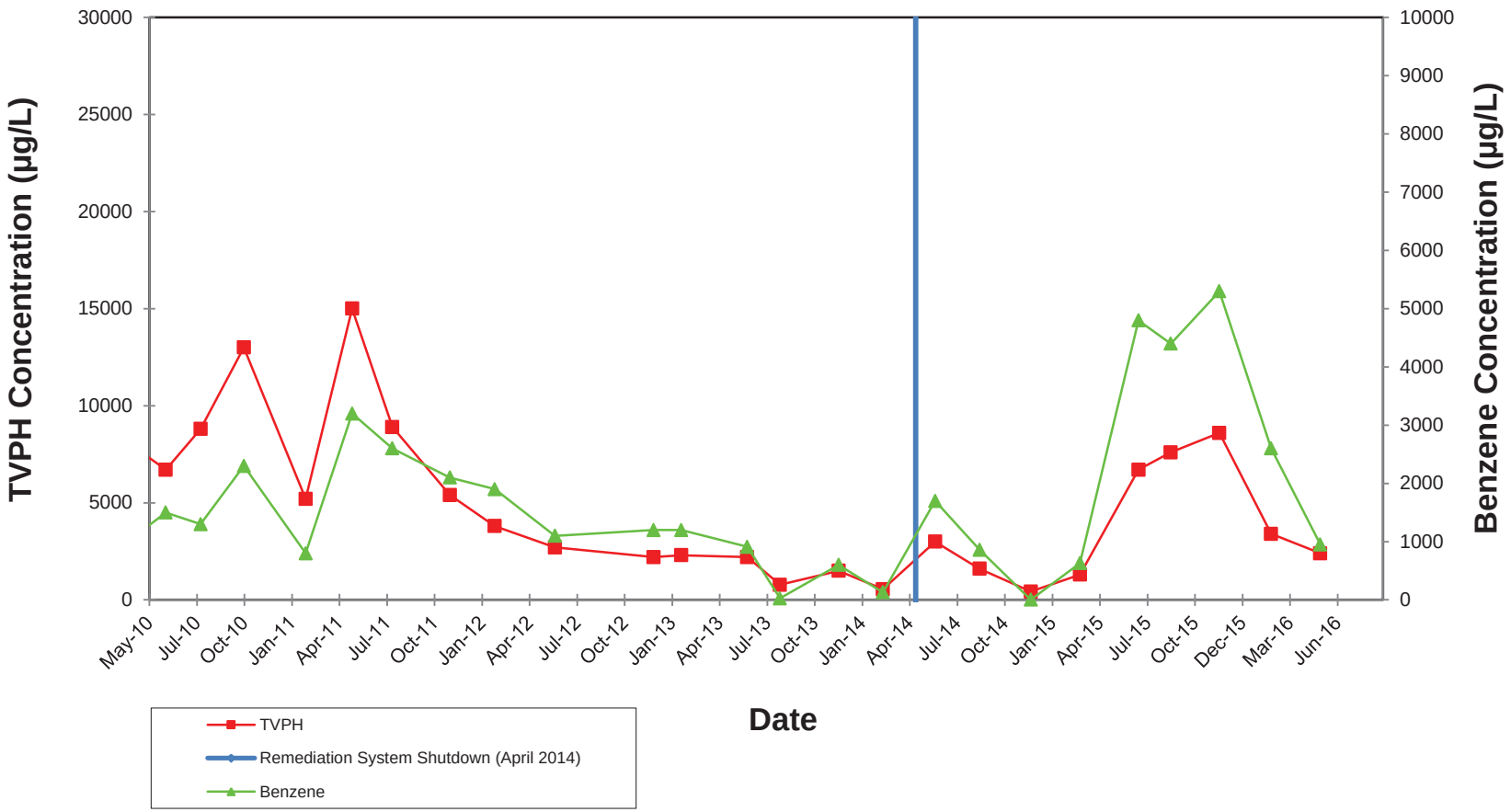
Note: Non-detect concentrations were entered as "0".

TVPH and Benzene Concentration Plots
Monitoring Well MW-27



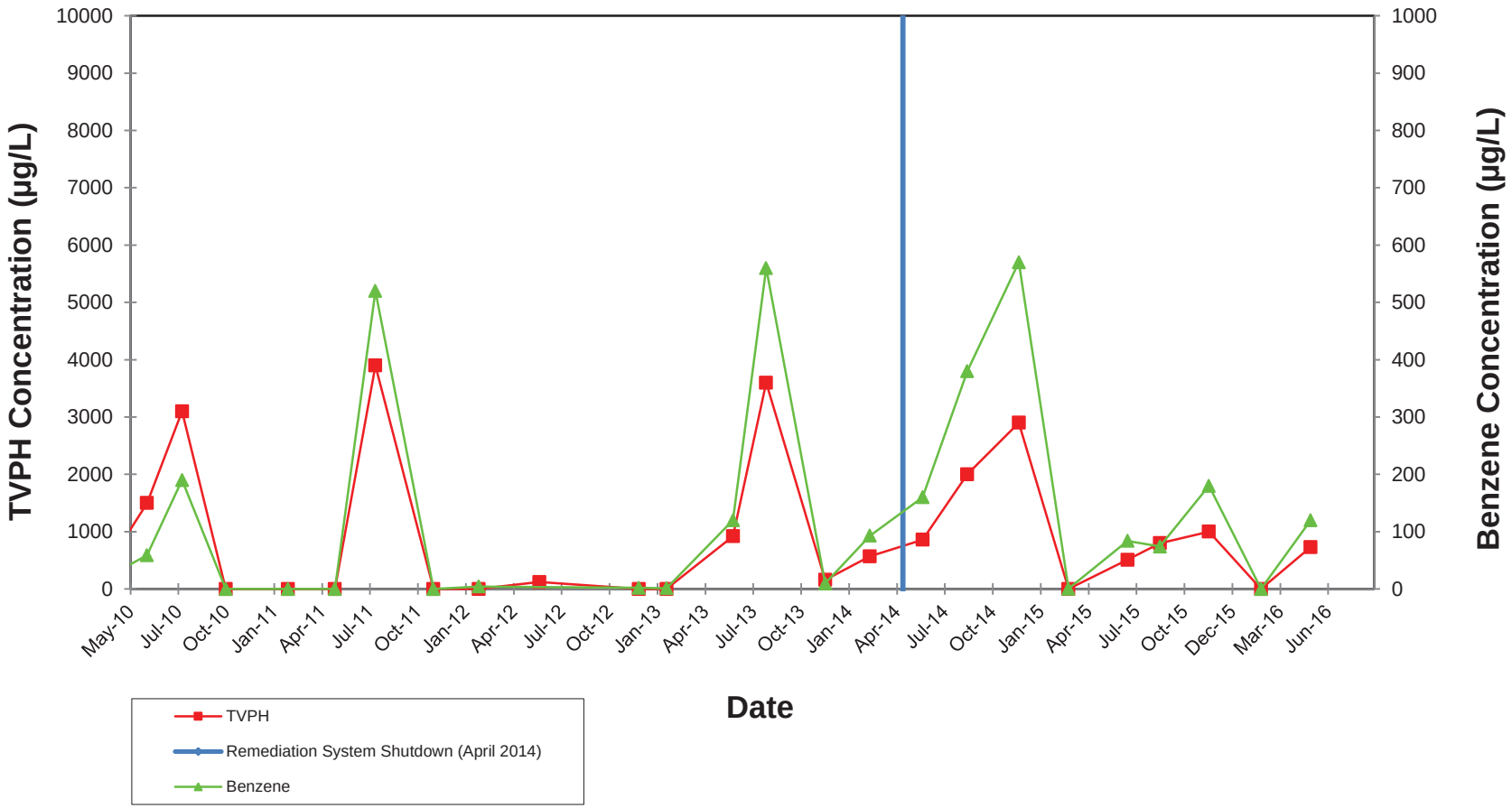
Note: Non-detect concentrations were entered as "0".

TVPH and Benzene Concentration Plots
Monitoring Well MW-28



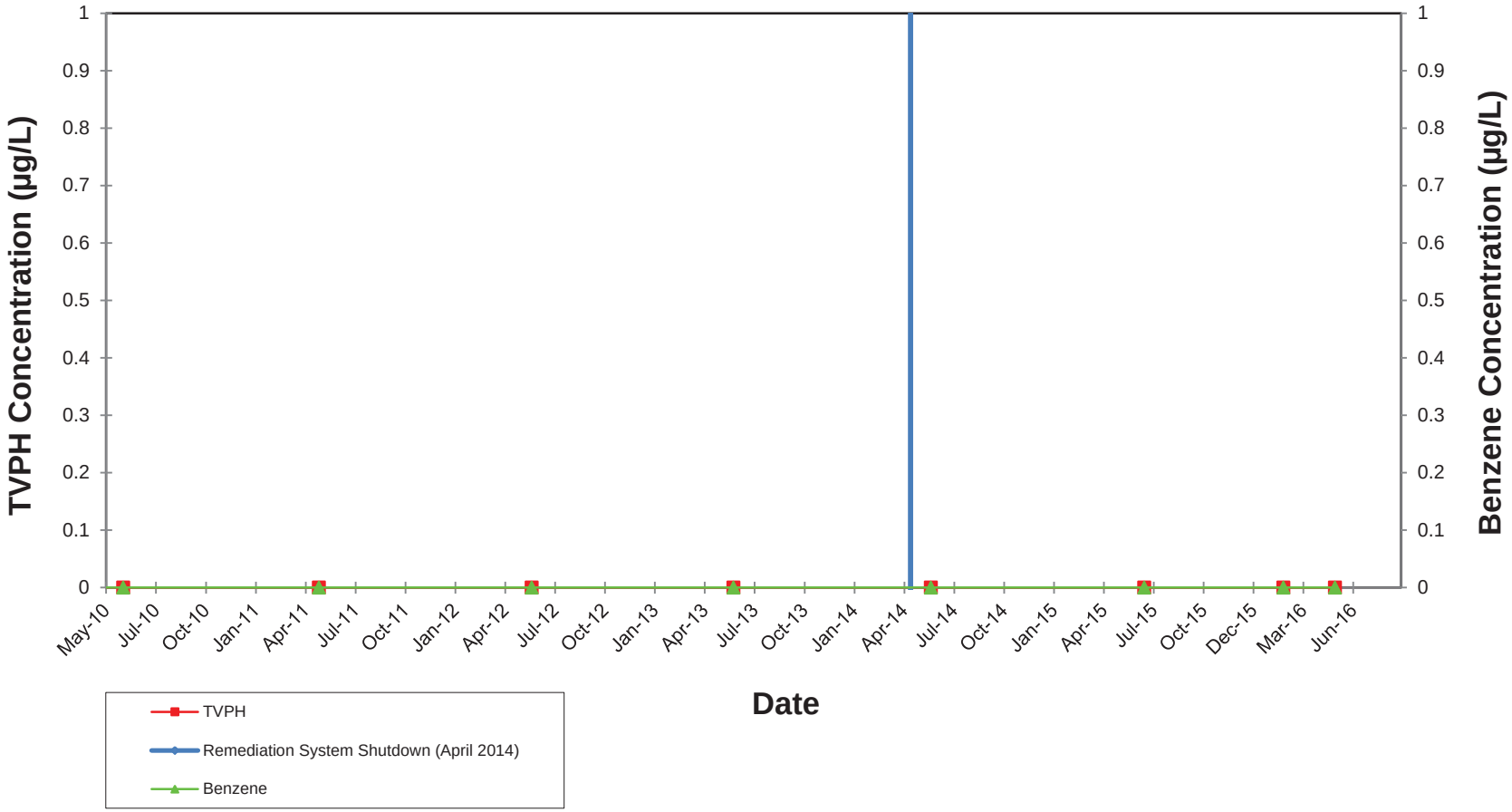
Note: Non-detect concentrations were entered as "0".

TVPH and Benzene Concentration Plots
Monitoring Well MW-29



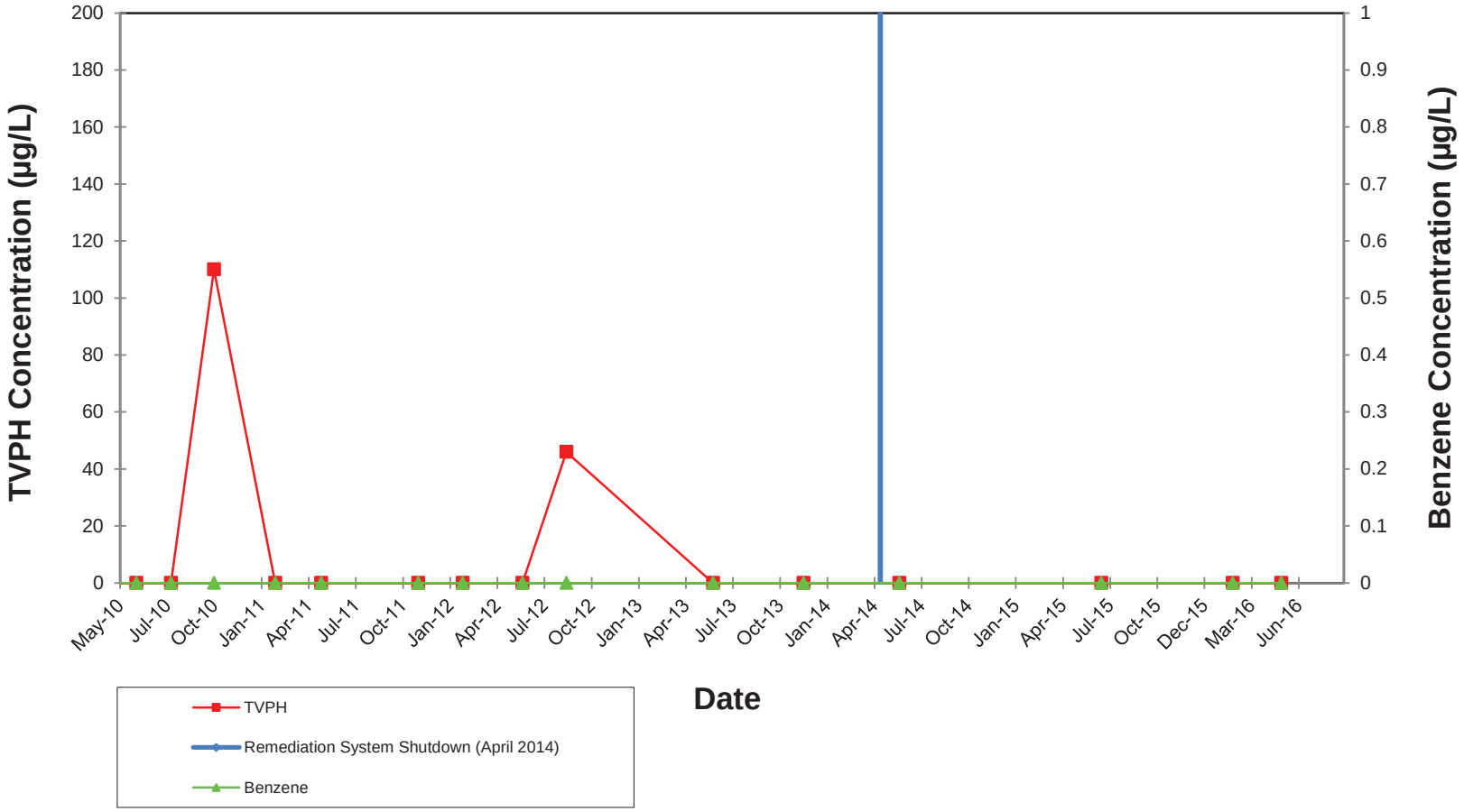
Note: Non-detect concentrations were entered as "0".

TVPH and Benzene Concentration Plots
Monitoring Well MW-30



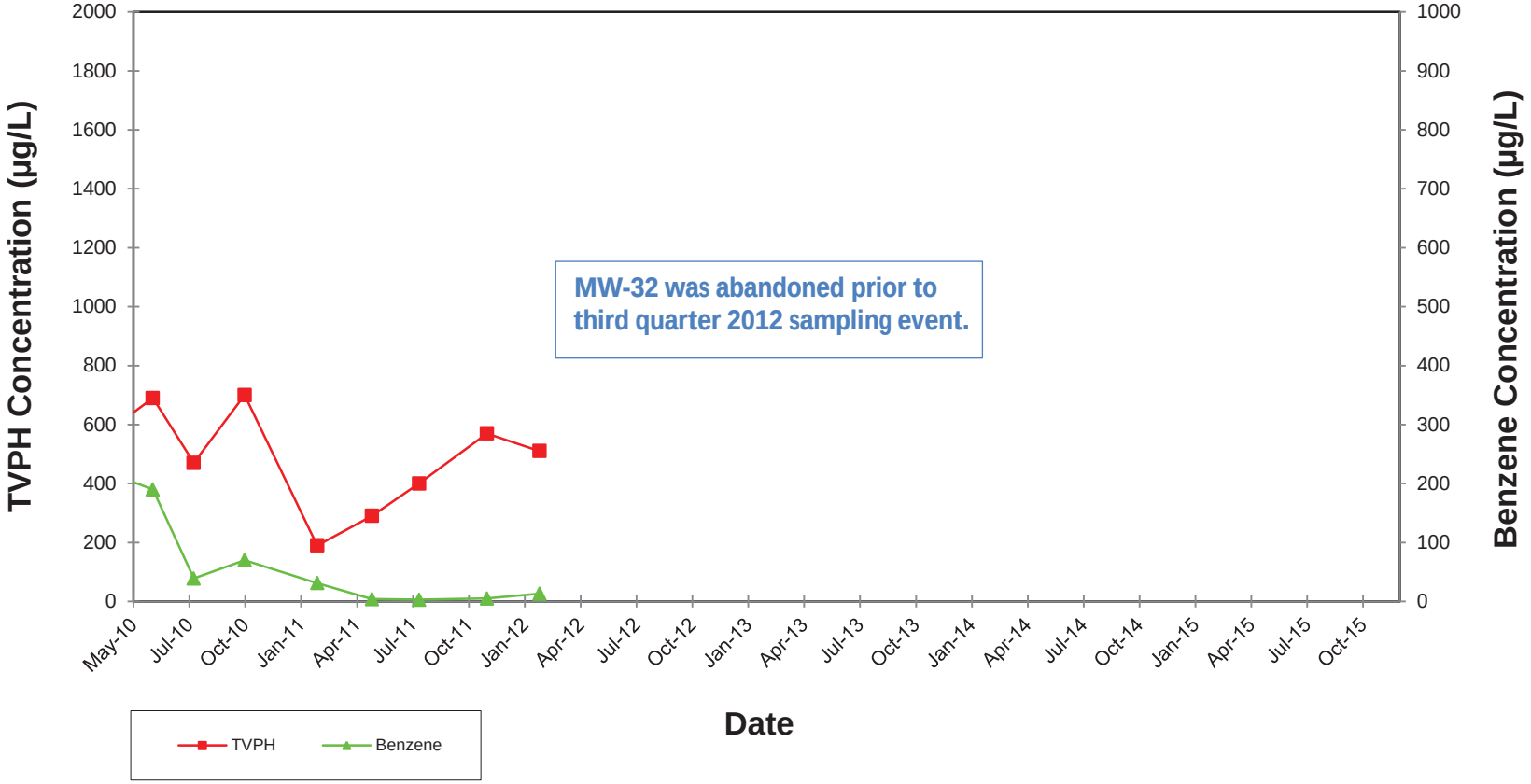
Note: Non-detect concentrations were entered as "0".

TVPH and Benzene Concentration Plots
Monitoring Well MW-31



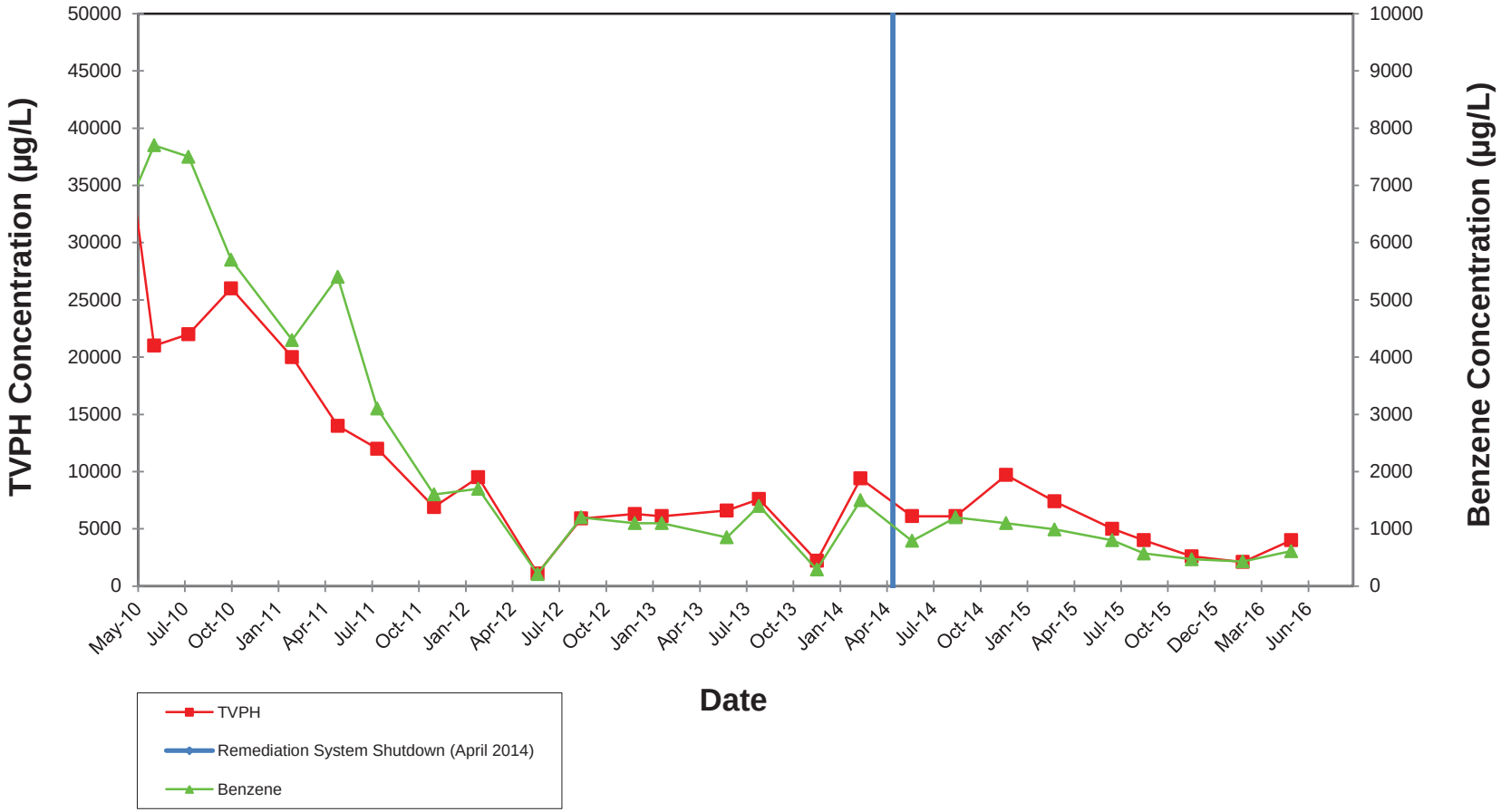
Note: Non-detect concentrations were entered as "0".

TVPH and Benzene Concentration Plots
Monitoring Well MW-32



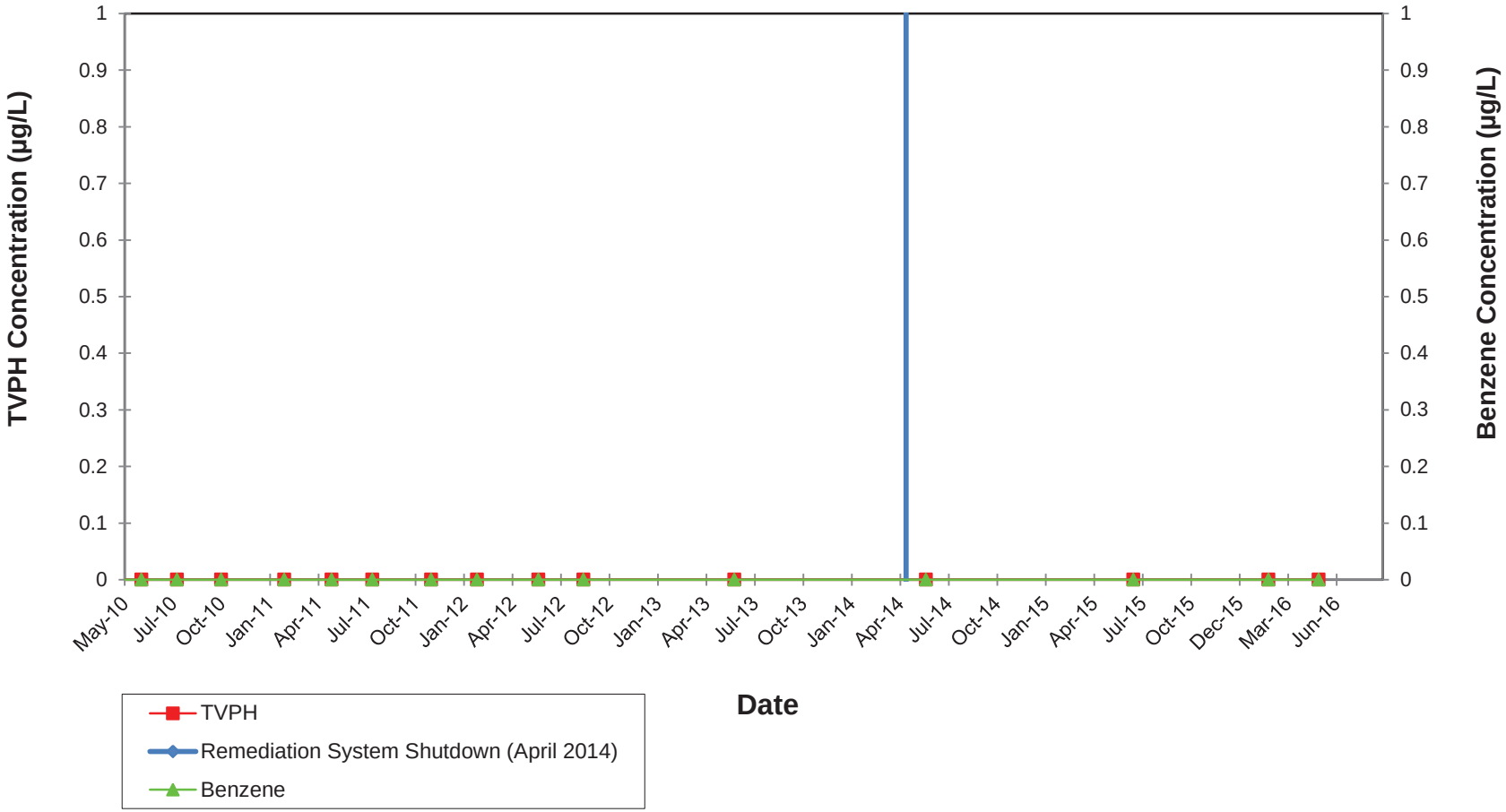
Note: Non-detect concentrations were entered as "0".

TVPH and Benzene Concentration Plots
Monitoring Well MW-33



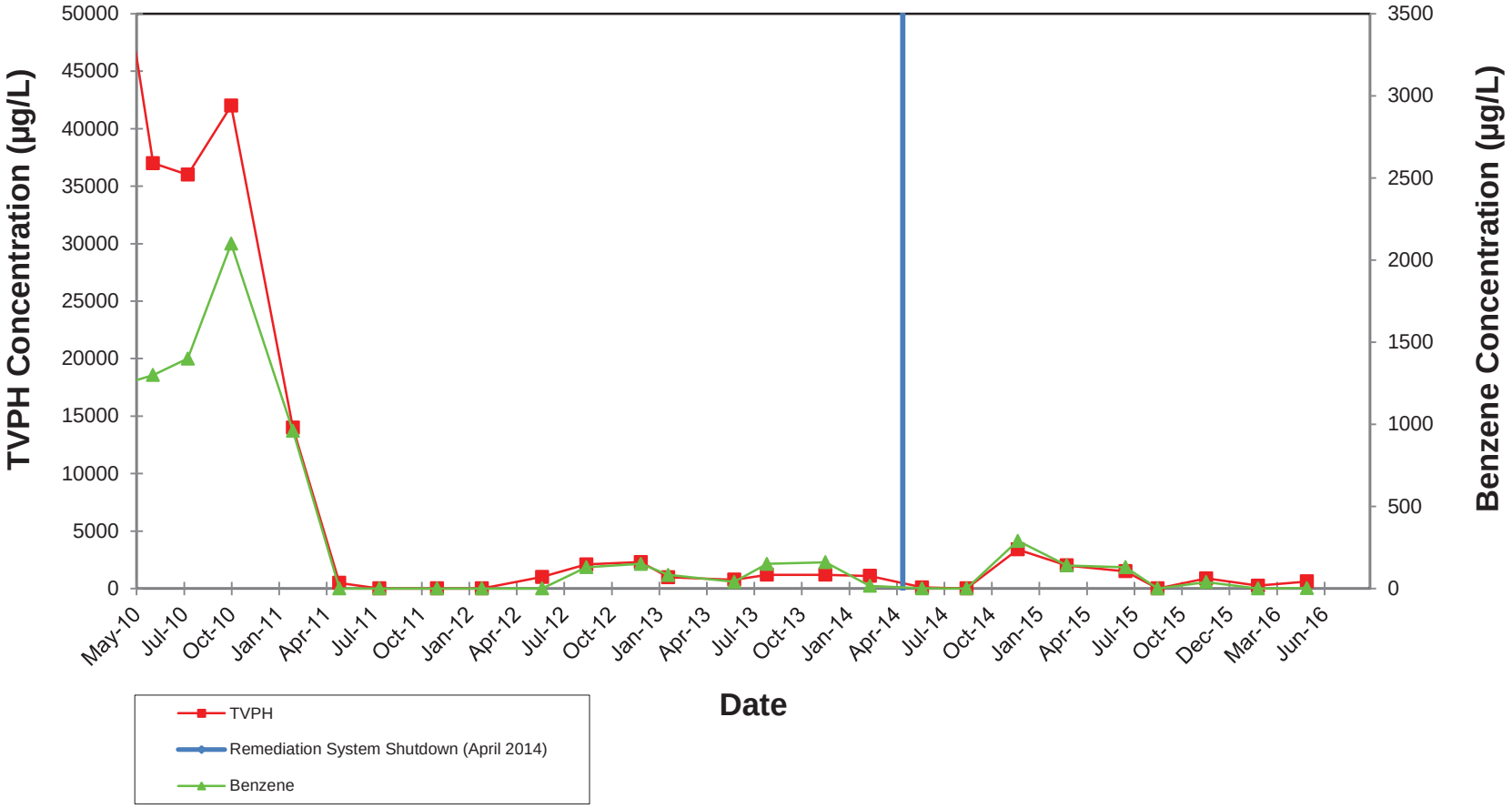
Note: Non-detect concentrations were entered as "0".

TVPH and Benzene Concentration Plots
Monitoring Well MW-34



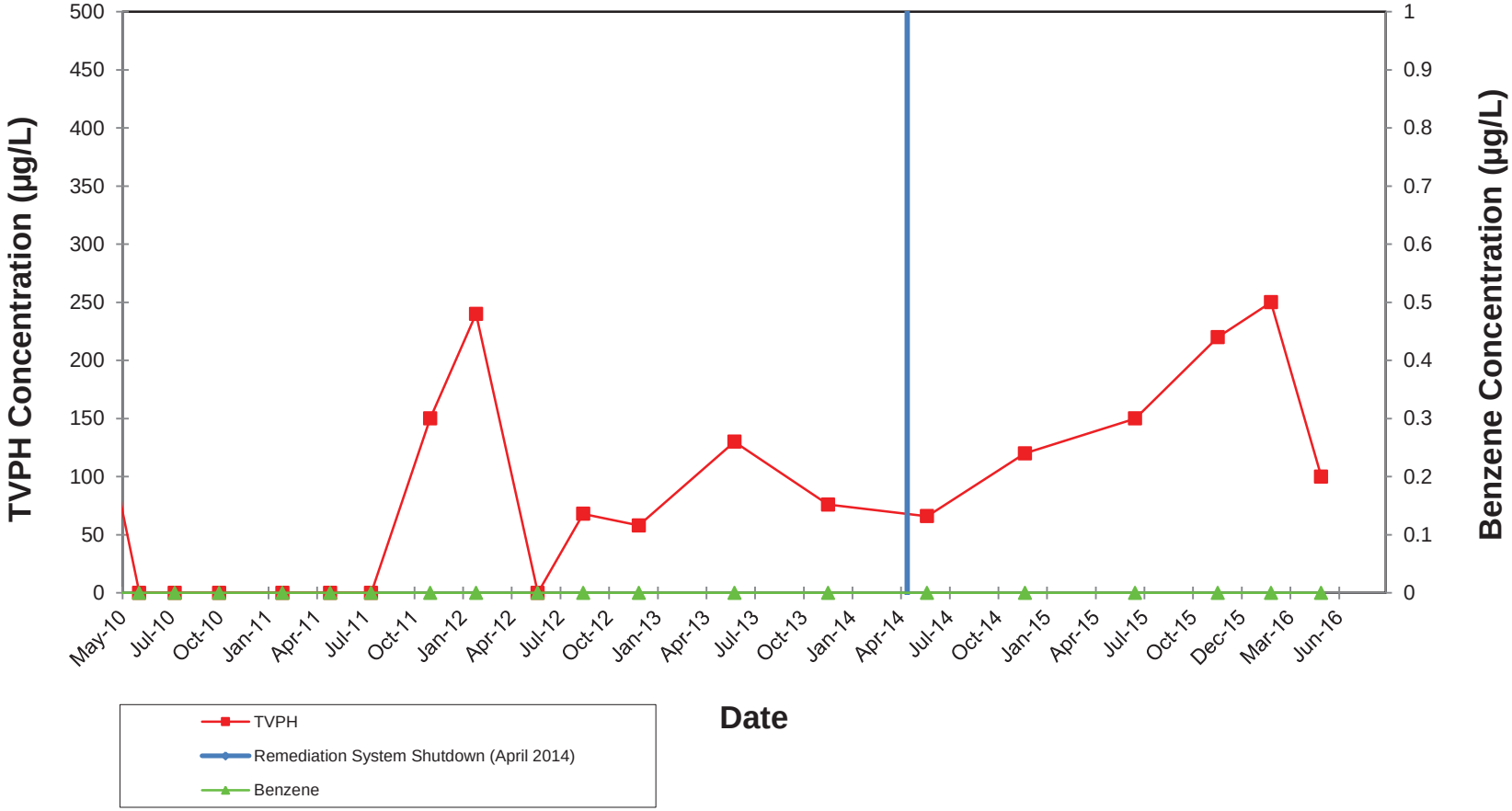
Note: Non-detect concentrations were entered as "0".

TVPH and Benzene Concentration Plots
Monitoring Well MW-35



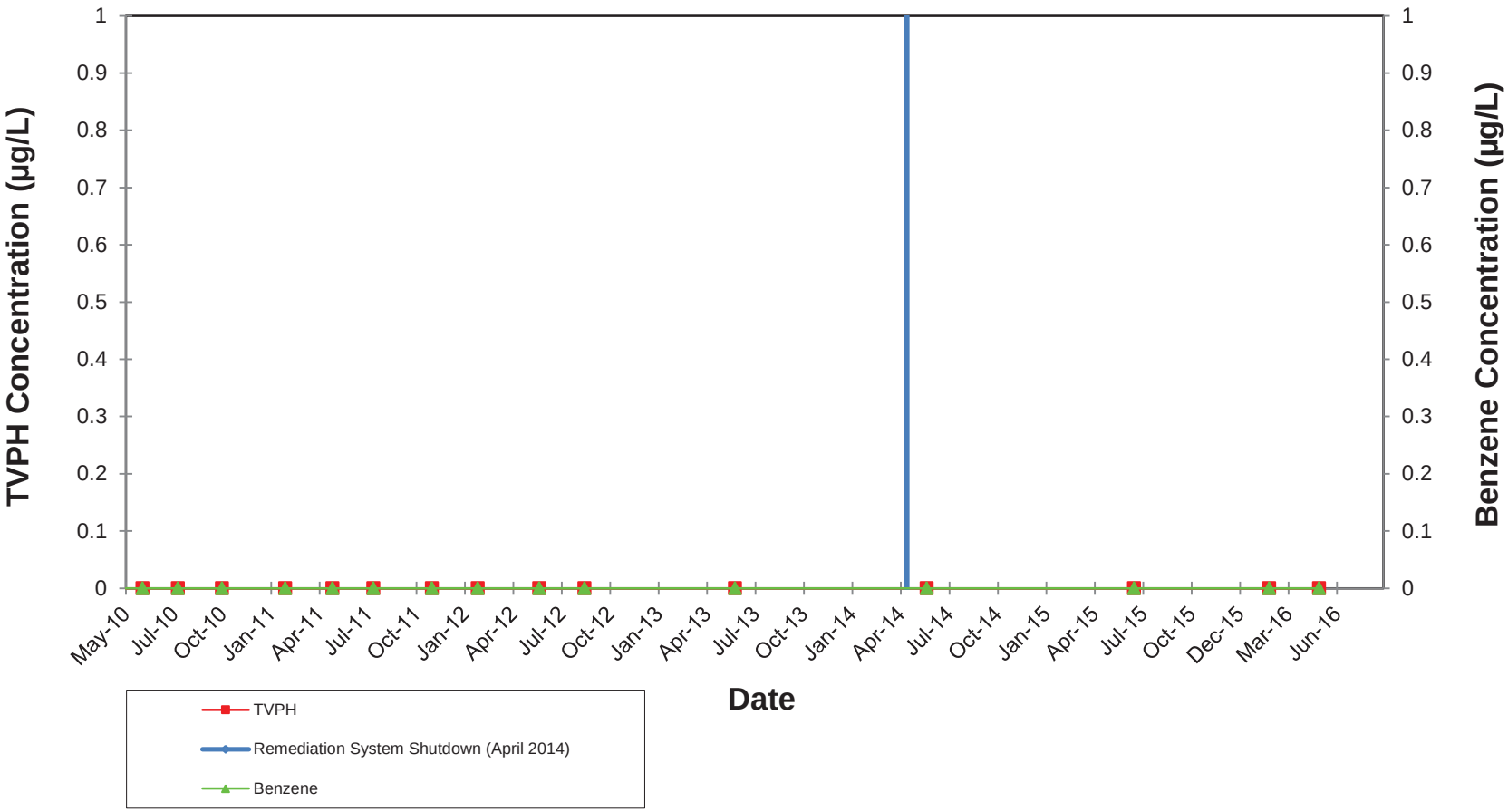
Note: Non-detect concentrations were entered as "0".

TVPH and Benzene Concentration Plots
Monitoring Well MW-36



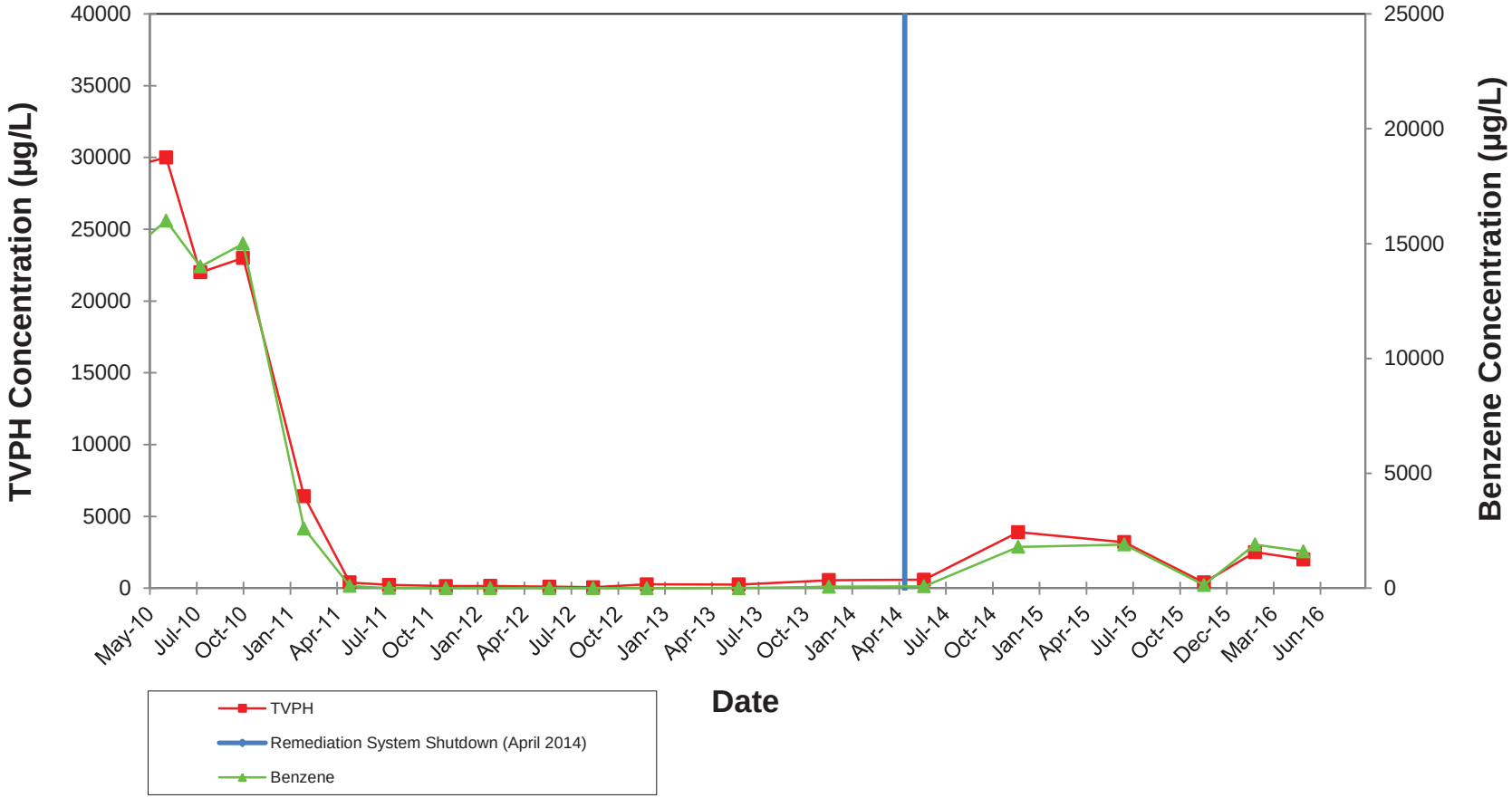
Note: Non-detect concentrations were entered as "0".

TVPH and Benzene Concentration Plots
Monitoring Well MW-37



Note: Non-detect concentrations were entered as "0".

TVPH and Benzene Concentration Plots
Monitoring Well MW-38



Note: Non-detect concentrations were entered as "0".

APPENDIX C

TRAFFIC IMPACT ANALYSIS

Tribune Property Traffic Analysis

City of Costa Mesa

Prepared for:
Gibson, Dunn & Crutcher LLP

Prepared by:
Stantec Consulting Services Inc.

August 16, 2016 Draft Report

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1.0 INTRODUCTION AND OVERVIEW

These technical notes summarize the results of a traffic analysis for the Tribune property in the northern portion of the City of Costa Mesa, California. The scope and approach for this analysis has been reviewed by City of Costa Mesa Transportation Department staff, and this report is intended for submittal to the City of Costa Mesa for the City's review of the proposed project and for use as a supporting document for the project's Environmental Impact Report (EIR) Addendum. As part of the updated Costa Mesa General Plan that was adopted by the City in June 2016, the Tribune project site was designated to allow for a mix of office and retail uses, which is consistent with the proposed project. This study is intended to satisfy the analysis needed for the corresponding zone change and entitlement.

The project area is generally bounded by South Coast Drive to the south, Sunflower Avenue to the north, Harbor Boulevard to the west and railroad right-of-way to the east. The Tribune site itself consists of the Los Angeles Time facility, which is a light industrial use, and an outdoor baseball and basketball facility to the west of the Los Angeles Times facility. Both of these existing land uses would be replaced in their entirety by the proposed project. The first phase of the project development plan is anticipated to consist of approximately 300,000 square feet of office use, and full development of the project consists of 655,000 square feet of office use.

1.1 TRAFFIC ANALYSIS SCENARIOS

The following timeframes and scenarios are analyzed in this study:

Existing Conditions

Existing traffic conditions are analyzed in this study based on observed traffic counts collected in 2015 and 2016 for the intersections in the study area.

Phase 1 Analysis (Opening Day Setting)

Trips generated by the project's first phase (300,000 square feet of office use) were distributed across the study area intersections based on a trip distribution pattern derived from the City's General Plan travel demand model. The distribution pattern is based on a select zone assignment conducted for the traffic model zone in which the project site is located using the base year (existing) version of the traffic model. Existing traffic counts were increased by an ambient growth rate of 1% per year to reflect opening day (year 2018) conditions without the project, and then the project trips were incrementally added to 2018 no-project conditions to derive opening day (year 2018) with-project conditions. Additionally, year 2018 conditions with and without the project were analyzed with the inclusion of traffic for two projects proposed in close proximity to the Tribune property; 1) the Vans corporate headquarters, which will occupy the currently vacant building located at the northeast corner of the intersection of South Coast

Drive and Hyland Avenue, and 2) the Steelwave development plan proposed on the former Emulex site, which is located immediately east of the Tribune property.

The comparison of opening day (year 2018) conditions with and without the project's first phase is utilized to determine the potential near-term impact of the project on the study area intersections. Potential impacts were identified based on level of service standards and impact thresholds established by the cities of Costa Mesa and Santa Ana, and mitigation is identified for significantly impacted locations if necessary.

Full Project Analysis (Long-Range Setting)

The potential long-term impacts with full development of the project are analyzed based on long-range (year 2035) traffic conditions. Year 2035 cumulative traffic forecasts with and without the proposed project were derived using the long-range version of the City's General Plan travel demand model based on the citywide land uses that correspond to the City's recent General Plan update. Full development of the proposed project (655,000 square feet of office use) is assumed in the City's General Plan update; therefore the long-range proposed General Plan traffic forecasts (committed highway network) from the General Plan Update Traffic Study served as the with-project conditions. Long-range no-project traffic conditions were then prepared by deleting the project traffic from the with-project forecasts based on a trip distribution pattern from a select zone assignment using the long-range (year 2035) version of the traffic model.

A comparison of General Plan build-out conditions with and without full development of the project is used to identify the potential impact of the project on the study area intersections. Potential impacts were identified based on level of service standards and impact thresholds established by the cities of Costa Mesa and Santa Ana, and mitigation is identified for significantly impacted locations if necessary. Non-committed long-range improvements have been identified in the General Plan update for intersection locations within the traffic analysis study area. The proposed project's fair share contribution towards the implementation of Costa Mesa General Plan roadway improvements both within and beyond the study area will be satisfied through the project's payment of Costa Mesa Traffic Impact Fees.

1.2 TRAFFIC ANALYSIS STUDY AREA

The traffic analysis study area consists of the following 18 intersections (16 intersections in Costa Mesa and two intersections in Santa Ana):

1. Harbor & MacArthur (Santa Ana)
2. Harbor & Scenic/Lake Center
3. Harbor & Sunflower
4. Harbor & South Coast
5. Hyland & South Coast/I-405 NB On-Ramp
6. Harbor & I-405 NB Ramps
7. Harbor & I-405 SB Ramps
8. Harbor & Gisler
9. Harbor & Baker
10. Susan & Sunflower

11. Susan & South Coast
12. Fairview & MacArthur (Santa Ana)
13. Fairview & Sunflower
14. Fairview & South Coast
15. Fairview & I-405 NB Ramps
16. Fairview & I-405 SB Ramps
17. Fairview & Paularino
18. Fairview & Baker

1.3 PERFORMANCE CRITERIA

A set of performance criteria is utilized in this analysis to determine existing and future operating levels of service (LOS) for the intersections in the study area. Traffic LOS is designated "A" through "F" with LOS "A" representing free flow conditions and LOS "F" representing severe traffic congestion. Table 1 summarizes general LOS descriptions for urban streets and intersections as well as the volume/capacity (V/C) ranges that correspond to LOS "A" through "F". The V/C ranges listed in the table are designated in the Costa Mesa General Plan Circulation Element as well as the Orange County Congestion Management Program (CMP). The performance criteria applied in this study for the intersections in the study area are based on LOS calculation methodologies and performance standards adopted by the Cities of Costa Mesa and Santa Ana.

The intersection performance criteria applied in this study involve the use of peak hour intersection capacity utilization (ICU) values. The ICU calculation methodology adopted by the Cities of Costa Mesa and Santa Ana applies a saturation flow rate of 1,700 vehicles per hour per intersection lane and a 0.05 clearance interval, which is consistent with the Orange County CMP. The ICU ranges that correspond to LOS "A" through "F" are the same as the V/C ranges shown in Table 1. LOS "D" (ICU not to exceed .90) is the performance standard for City of Costa Mesa and Santa Ana intersections.

Caltrans freeway ramp intersections are analyzed in this study using the Highway Capacity Manual (HCM) LOS methodology for signalized intersections in addition to the ICU methodology. In the HCM signalized intersection analysis methodology, the LOS at an intersection location is determined based on the estimated average delay experienced by all traffic using the intersection. The vehicle delay ranges that correspond to LOS "A" through "F" as specified in the HCM are summarized in Table 2.

Table 1 Level of Service Descriptions – Urban Streets and Intersections

Level of Service (LOS)	Description	Volume/Capacity (V/C) Range
A	LOS A describes primarily free-flow operations. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control delay at the intersections is minimal. The travel speed exceeds 85% of the base free-flow speed.	.00 – .60
B	LOS B describes reasonably unimpeded operation. The ability to maneuver within the traffic stream is only slightly restricted, and control delay at the intersections is not significant. The travel speed is between 67% and 85% of the base free-flow speed.	.61 – .70
C	LOS C describes stable operation. The ability to maneuver and change lanes at midsegment locations may be more restricted than at LOS B. Longer queues at the intersections may contribute to lower travel speeds. The travel speed is between 50% and 67% of the base free-flow speed.	.71 – .80
D	LOS D indicates a less stable condition in which small increases in flow may cause substantial increases in delay and decreases in travel speed. This operation may be due to adverse signal progression, high volume, or inappropriate signal timing at the intersections. The travel speed is between 40% and 50% of the base free-flow speed.	.81 – .90
E	LOS E is characterized by unstable operation and significant delay. Such operations may be due to some combination of adverse progression, high volume, and inappropriate signal timing at the intersections. The travel speed is between 30% and 40% of the base free-flow speed.	.91 – 1.00
F	LOS F is characterized by flow at extremely low speed. Congestion is likely occurring at the intersections, as indicated by high delay and extensive queuing. The travel speed is 30% or less of the base free-flow speed.	Above 1.00
Source: Orange County CMP and the Highway Capacity Manual 2010, Transportation Research Board, National Research Council		

Table 2 Intersection Level of Service Ranges (ICU and HCM Delay)

Level of Service (LOS)	Intersection Capacity Utilization (ICU)	Highway Capacity Manual (HCM) Average Delay
A	0.00 – 0.60	0.00 – 10.0 seconds
B	0.61 – 0.70	10.1 – 20.0 seconds
C	0.71 – 0.80	20.1 – 35.0 seconds
D	0.81 – 0.90	35.1 – 55.0 seconds
E	0.91 – 1.00	55.1 – 80.0 seconds
F	Above 1.00	Above 80.0 seconds

2.0 PROJECT TRIP GENERATION AND DISTRIBUTION

Vehicle trip generation estimates are provided here for the proposed future land uses on the project site. The trip generation estimates were calculated based on Institute of Transportation Engineers (ITE) trip generation rates used in the Costa Mesa travel demand model that was applied in the City's General Plan update. The daily and peak hour (AM and PM) trip generation estimates for the 300,000 square feet of office use with the initial phase of the project and the 655,000 square feet of office use with full General Plan buildout of the project are summarized in Table 3.

As mentioned in the introduction, traffic distribution patterns for the project were developed based on select zone assignments for the project site using the base year (existing) and long-range (year 2035) versions of the Costa Mesa travel demand model. The resulting project trip distribution patterns for opening day (year 2018) and long-range (year 2035) are summarized in Table 4. The opening day (year 2018) distribution pattern was used to add the trip generation estimates for the 300,000 square-foot initial development phase to year 2018 no-project traffic forecasts, and the long-range (year 2035) distribution pattern was used to delete the trip generation estimates for the 655,000 square-foot full development of the project from year 2035 with-project traffic forecasts based on the recently adopted Costa Mesa updated General Plan.

Table 3 Trip Generation Estimates for the Tribune Site

Land Use	Units	Amount	AM Peak Hour			PM Peak Hour			ADT
			IB	OB	Total	IB	OB	Total	
TRIBUNE PROJECT									
Initial Development Phase (300,000 Square Feet)									
General Office	TSF	300	411	57	468	75	372	447	3,309
Full General Plan Development (655,000 Square Feet)									
General Office	TSF	655	897	124	1,021	164	812	976	7,225
TRIP GENERATION RATES									
General Office (710)	TSF	--	1.37	0.19	1.56	0.25	1.24	1.49	11.03

Trip Rate Source: Institute of Transportation Engineers (ITE) 9th Edition, 2012, with ITE Code in parenthesis.

Abbreviations: ADT – Average Daily Trips
IB – Inbound Trips
OB – Outbound Trips
TSF – Thousand Square Feet

Table 4 Project Trip Distribution Pattern

Roadway Location	Percentage of Project Site Trip Generation	
	Opening Day (Year 2018)	Long-Range (Year 2035)
Fairview Road north of Sunflower Avenue	6%	6%
Fairview Road south of I-405 Freeway	2%	2%
Harbor Boulevard north of Sunflower Avenue	16%	19%
Harbor Boulevard south of I-405 Freeway	14%	12%
I-405 Freeway north of Harbor Boulevard	14%	17%
I-405 Freeway south of Fairview Road	25%	21%
South Coast Drive east of Fairview Road	3%	3%
Sunflower Avenue west of Harbor Boulevard	2%	3%
Sunflower Avenue east of Fairview Road	16%	14%
Susan Street north of Sunflower Avenue	2%	3%
Total	100%	100%

3.0 SHORT-RANGE TRAFFIC CONDITIONS

Table 5 summarizes AM and PM peak hour intersection capacity utilization (ICU) values and levels of service for the intersections in the study area based on existing (2015/2016) conditions and 2018 opening day conditions with and without the 300,000 square-foot initial development phase of the Tribune project (actual ICU worksheets are provided in Appendix A). Table 6 summarizes existing and 2018 AM and PM peak hour levels of service for the Caltrans freeway ramp intersections in the study area based on the Highway Capacity Manual (HCM) signalized intersection level of service (LOS) methodology (HCM intersection LOS calculation worksheets are provided in Appendix B).

Vehicle trip generation estimates for the Vans corporate headquarters project located at the northeast corner of the South Coast Drive/Hyland Avenue intersection and the Steelwave project located on the former Emulex site are summarized in Tables 7 and 8, respectively. The traffic generated by these two projects was distributed to the study area intersections based on Costa Mesa traffic model select zone assignments for their respective project sites. Table 9 summarizes year 2018 AM and PM peak hour ICU values and levels of service with the Vans and Steelwave projects without and with the 300,000 square-foot initial development phase of the Tribune project (actual ICU worksheets are provided in Appendix A), and Table 10 summarizes the corresponding year 2018 AM and PM peak hour levels of service for the Caltrans freeway ramp intersections in the study area based on the HCM signalized intersection LOS methodology (HCM intersection LOS calculation worksheets are provided in Appendix B).

As the LOS summary tables indicate, each of the intersections analyzed is forecast to operate at an acceptable LOS “D” or better under 2018 opening day conditions with development of the initial phase of the project (i.e., the 300,000 square-foot initial development phase of the Tribune project does not significantly impact any of the study area intersections based on 2018 opening day conditions).

Table 5 Existing and Opening Day (2018) Intersection LOS Summary (ICU Methodology)

	Existing (2015/2016)				Opening Day (2018) No-Project				Opening Day (2018) With 300,000 SF Initial Project Phase			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
Intersection	**ICU**	**LOS**	**ICU**	**LOS**	**ICU**	**LOS**	**ICU**	**LOS**	**ICU**	**LOS**	**ICU**	**LOS**
1. Harbor & MacArthur	.73	C	.83	D	.77	C	.85	D	.77	C	.85	D
2. Harbor & Scenic/Lake Center	.66	B	.57	A	.67	B	.58	A	.68	B	.59	A
3. Harbor & Sunflower	.64	B	.68	B	.66	B	.70	B	.66	B	.70	B
4. Harbor & South Coast	.50	A	.69	B	.51	A	.72	C	.52	A	.74	C
5. Hyland & South Coast/I-405 NB On	.26	A	.58	A	.26	A	.59	A	.27	A	.59	A
6. Harbor & I-405 NB Ramps	.64	B	.77	C	.66	B	.79	C	.67	B	.81	D
7. Harbor & I-405 SB Ramps	.44	A	.62	B	.46	A	.64	B	.48	A	.65	B
8. Harbor & Gisler	.58	A	.70	B	.59	A	.72	C	.59	A	.73	C
9. Harbor & Baker	.49	A	.62	B	.51	A	.63	B	.52	A	.63	B
10. Susan & Sunflower	.30	A	.72	C	.31	A	.74	C	.34	A	.75	C
11. Susan & South Coast	.24	A	.52	A	.26	A	.52	A	.27	A	.54	A
12. Fairview & MacArthur	.68	B	.76	C	.69	B	.79	C	.69	B	.79	C
13. Fairview & Sunflower	.55	A	.65	B	.56	A	.66	B	.57	A	.68	B
14. Fairview & South Coast	.68	B	.86	D	.69	B	.87	D	.69	B	.87	D
15. Fairview & I-405 NB Ramps	.52	A	.63	B	.54	A	.65	B	.54	A	.66	B
16. Fairview & I-405 SB Ramps	.58	A	.49	A	.59	A	.51	A	.59	A	.51	A
17. Fairview & Paularino	.46	A	.45	A	.46	A	.47	A	.47	A	.47	A
18. Fairview & Baker	.64	B	.60	A	.66	B	.62	B	.66	B	.62	B

Abbreviations: ICU – intersection capacity utilization
LOS – level of service
NB – northbound
SB – southbound

Table 6 Existing and Opening Day (2018) Intersect ion LOS Summary (HCM Methodology)

	Existing (2015/2016)				Opening Day (2018) No-Project				Opening Day (2018) With 300,000 SF Initial Project Phase			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
Intersection	**Delay (a)**	**LOS**	**Delay (a)**	**LOS**	**Delay (a)**	**LOS**	**Delay (a)**	**LOS**	**Delay (a)**	**LOS**	**Delay (a)**	**LOS**
5. Hyland & South Coast/I-405 NB On	1.7	A	1.2	A	1.7	A	1.2	A	1.7	A	1.2	A
6. Harbor & I-405 NB Ramps	15.4	B	20.1	C	15.9	B	21.1	C	16.5	B	21.5	C
7. Harbor & I-405 SB Ramps	10.4	B	14.2	B	10.4	B	14.8	B	11.1	B	15.1	B
15. Fairview & I-405 NB Ramps	18.8	B	28.4	C	19.4	B	30.0	C	19.5	B	30.2	C
16. Fairview & I-405 SB Ramps	20.0	C	18.0	B	20.1	C	18.4	B	20.1	C	18.3	B

Abbreviations: HCM – Highway Capacity Manual
LOS – level of service
NB – northbound
SB – southbound

(a) Average vehicle delay in seconds.

Table 7 Trip Generation Estimates for the Vans Corporate Headquarters Project

Land Use	Units	Amount	AM Peak Hour			PM Peak Hour			ADT
			IB	OB	Total	IB	OB	Total	
VANS PROJECT									
Corporate Headquarters	TSF	178.893	252	20	272	25	227	252	1,428
TRIP GENERATION RATES									
Corporate Headquarters (714)	TSF	--	1.41	.11	1.52	.14	1.27	1.41	7.98

Trip Rate Source: Institute of Transportation Engineers (ITE) 9th Edition, 2012, with ITE Code in parenthesis.

Abbreviations: ADT – Average Daily Trips
IB – Inbound Trips
OB – Outbound Trips
TSF – Thousand Square Feet

Table 8 Trip Generation Estimates for the Steelwave Project

Land Use	Units	Amount	AM Peak Hour			PM Peak Hour			ADT
			IB	OB	Total	IB	OB	Total	
STEELWAVE PROJECT									
Existing Development									
Industrial Park	TSF	172	115	26	141	31	115	146	1,175
Proposed Steelwave Development Plan									
Office (Existing Buildings)	TSF	172	236	33	269	43	213	256	1,897
Hotel	Room	128	40	28	68	40	37	77	1,046
Quality Restaurant	TSF	7.72	3	3	6	39	19	58	694
High Turnover Restaurant	TSF	5.58	33	27	60	33	22	55	709
Retail	TSF	2.00	1	1	2	4	5	9	107
Trip Generation Summary									
Total (Before Trip Reduction)			313	92	405	159	296	455	4,453
10% Internal Capture Trip Reduction			-20	-20	-40	-23	-23	-46	-445
Total (After Trip Reduction)			293	72	365	136	273	409	4,008
Difference (Proposed Steelwave Development Plan Versus Existing Development)									
Net Trip Generation Increase			178	46	224	105	158	263	2,833
TRIP GENERATION RATES									
Industrial Park (130)	TSF	--	.67	.15	.82	.18	.67	.85	6.83
Office (710)	TSF	--	1.37	.19	1.56	.25	1.24	1.49	11.03
Hotel (310)	Room	--	.31	.22	.53	.31	.29	.60	8.17
Quality Restaurant (931)	TSF	--	.41	.40	.81	5.02	2.47	7.49	89.95
High Turnover Restaurant (932)	TSF	--	5.95	4.86	10.81	5.91	3.94	9.85	127.15
Retail (820)	TSF	--	.73	.45	1.18	2.23	2.41	4.64	53.28

Trip Rate Source: Institute of Transportation Engineers (ITE) 9th Edition, 2012, with ITE Code in parenthesis.

Abbreviations: ADT – Average Daily Trips
IB – Inbound Trips
OB – Outbound Trips
TSF – Thousand Square Feet

Table 9 Opening Day (2018) Intersection LOS Summary with the Vans and Steelwave Projects (ICU Methodology)

	No-Project				With 300,000 SF Initial Project Phase			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
Intersection	**ICU**	**LOS**	**ICU**	**LOS**	**ICU**	**LOS**	**ICU**	**LOS**
1. Harbor & MacArthur	.77	C	.87	D	.79	C	.87	D
2. Harbor & Scenic/Lake Center	.68	B	.59	A	.69	B	.60	A
3. Harbor & Sunflower	.68	B	.71	C	.68	B	.71	C
4. Harbor & South Coast	.55	A	.76	C	.55	A	.78	C
5. Hyland & South Coast/I-405 NB On	.28	A	.61	B	.28	A	.64	B
6. Harbor & I-405 NB Ramps	.67	B	.80	C	.69	B	.82	D
7. Harbor & I-405 SB Ramps	.48	A	.65	B	.49	A	.65	B
8. Harbor & Gisler	.60	A	.73	C	.60	A	.73	C
9. Harbor & Baker	.51	A	.63	B	.52	A	.63	B
10. Susan & Sunflower	.32	A	.75	C	.34	A	.76	C
11. Susan & South Coast	.30	A	.56	A	.31	A	.56	A
12. Fairview & MacArthur	.69	B	.79	C	.69	B	.79	C
13. Fairview & Sunflower	.57	A	.67	B	.57	A	.69	B
14. Fairview & South Coast	.69	B	.87	D	.70	B	.87	D
15. Fairview & I-405 NB Ramps	.54	A	.66	B	.54	A	.66	B
16. Fairview & I-405 SB Ramps	.59	A	.52	A	.59	A	.52	A
17. Fairview & Paularino	.47	A	.47	A	.47	A	.47	A
18. Fairview & Baker	.66	B	.62	B	.66	B	.62	B

Abbreviations: ICU – intersection capacity utilization
LOS – level of service
NB – northbound
SB – southbound

Table 10 Opening Day (2018) Intersection LOS Summary with the Vans and Steelwave Projects (HCM Methodology)

Intersection	No-Project				With 300,000 SF Initial Project Phase			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Delay (a)	LOS	Delay (a)	LOS	Delay (a)	LOS	Delay (a)	LOS
5. Hyland & South Coast/I-405 NB On	1.3	A	1.2	A	1.3	A	1.2	A
6. Harbor & I-405 NB Ramps	16.5	B	21.3	C	17.6	B	22.0	C
7. Harbor & I-405 SB Ramps	11.2	B	15.1	B	12.1	B	15.3	B
15. Fairview & I-405 NB Ramps	19.4	B	31.1	C	19.4	B	31.2	C
16. Fairview & I-405 SB Ramps	20.2	C	18.5	B	20.3	C	18.5	B

Abbreviations: HCM – Highway Capacity Manual
LOS – level of service
NB – northbound
SB – southbound

(a) Average vehicle delay in seconds.

4.0 LONG-RANGE TRAFFIC CONDITIONS

Table 11 summarizes year 2035 long-range AM and PM peak hour intersection capacity utilization (ICU) values and levels of service for the intersections in the study area based on no-project conditions (i.e., no development of the proposed project) and conditions with full development of the proposed project (655,000 square feet of office use). Table 12 summarizes 2035 no-project and with-project AM and PM peak hour levels of service for the Caltrans freeway ramp intersections in the study area based on the Highway Capacity Manual (HCM) signalized intersection level of service (LOS) methodology (HCM intersection LOS calculation worksheets are provided in Appendix B).

As the LOS summary tables indicate, each of the intersections analyzed is forecast to operate at an acceptable LOS "D" or better under 2035 conditions with full development of the project with the exception of the Harbor Boulevard/MacArthur Boulevard intersection in the City of Santa Ana, which is forecast to operate at LOS "E" during the PM peak hour. However, the proposed project does not significantly impact that intersection because the PM peak hour ICU is the same (0.93) under 2035 no-project and with-project conditions. In other words, full development of the 655,000 square-foot Tribune project does not significantly impact any of the study area intersections based on 2035 long-range conditions.

The recently adopted Costa Mesa General Plan identifies non-committed long-range improvements that are planned at four of the Costa Mesa intersections in the study area. Those improvements, which are listed in Table 13, are included in the 2035 long-range intersection LOS results discussed above. The proposed project's fair share contribution towards the implementation of Costa Mesa General Plan roadway improvements both within and beyond the study area will be satisfied through the project's payment of Costa Mesa Traffic Impact Fees.

Table 11 Long-Range (2035) Intersect ion LOS Summary (ICU Methodology)

	No-Project				With 655,000 SF Full Project			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
Intersection	**ICU**	**LOS**	**ICU**	**LOS**	**ICU**	**LOS**	**ICU**	**LOS**
1. Harbor & MacArthur	.85	D	.93	E	.86	D	.93	E
2. Harbor & Scenic/Lake Center	.61	B	.66	B	.64	B	.69	B
3. Harbor & Sunflower	.60	A	.71	C	.61	B	.72	C
4. Harbor & South Coast	.56	A	.80	C	.56	A	.84	D
5. Hyland & South Coast/I-405 NB On	.26	A	.52	A	.26	A	.56	A
6. Harbor & I-405 NB Ramps	.79	C	.89	D	.81	D	.89	D
7. Harbor & I-405 SB Ramps	.57	A	.71	C	.62	B	.73	C
8. Harbor & Gisler	.58	A	.77	C	.58	A	.78	C
9. Harbor & Baker	.54	A	.78	C	.55	A	.79	C
10. Susan & Sunflower	.43	A	.62	B	.49	A	.64	B
11. Susan & South Coast	.46	A	.68	B	.46	A	.68	B
12. Fairview & MacArthur	.74	C	.83	D	.74	C	.83	D
13. Fairview & Sunflower	.71	C	.66	B	.73	C	.70	B
14. Fairview & South Coast	.68	B	.77	C	.69	B	.79	C
15. Fairview & I-405 NB Ramps	.66	B	.74	C	.68	B	.75	C
16. Fairview & I-405 SB Ramps	.65	B	.70	B	.65	B	.70	B
17. Fairview & Paularino	.58	A	.56	A	.58	A	.57	A
18. Fairview & Baker	.77	C	.81	D	.77	C	.81	D

Abbreviations: ICU – intersection capacity utilization
LOS – level of service
NB – northbound
SB – southbound

Denotes a peak hour deficiency.

Table 12 Long-Range (2035) Intersect ion LOS Summary (HCM Methodology)

Intersection	No-Project				With 655,000 SF Full Project			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Delay (a)	LOS	Delay (a)	LOS	Delay (a)	LOS	Delay (a)	LOS
5. Hyland & South Coast/I-405 NB On	1.3	A	1.2	A	1.3	A	1.2	A
6. Harbor & I-405 NB Ramps	15.6	B	21.4	C	17.7	B	22.1	C
7. Harbor & I-405 SB Ramps	20.7	C	19.2	B	22.5	C	20.1	C
15. Fairview & I-405 NB Ramps	40.3	D	39.5	D	41.5	D	40.1	D
16. Fairview & I-405 SB Ramps	22.0	C	26.0	C	22.1	C	25.4	C

Abbreviations: HCM – Highway Capacity Manual
LOS – level of service
NB – northbound
SB – southbound

(a) Average vehicle delay in seconds.

Table 13 Non-Committed General Plan Improvements in the Study Area

Intersection	Non-Committed General Plan Improvement
3. Harbor & Sunflower	Add eastbound and westbound right-turn lanes.
4. Harbor & South Coast	Widen the eastbound approach to provide one left-turn lane, one through lane and two right-turn lanes.
5. Hyland & South Coast/I-405 NB On-Ramp	Add a second westbound through lane.
8. Harbor & Gisler	Add a southbound right-turn lane and a third eastbound left-turn lane.

Appendix A INTERSECTION CAPACITY UTILIZATION (ICU) WORKSHEETS

1. Harbor & MacArthur

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	110	.03*	470	.14
NBT	3	5100	740	.15	1490	.29*
NBR	1	1700	70	.04	100	.06
SBL	2	3400	330	.10	190	.06*
SBT	3	5100	1860	.36*	1010	.20
SBR	1	1700	140	.08	140	.08
EBL	1	1700	100	.06	200	.12*
EBT	3	5100	1170	.23*	450	.09
EBR	1	1700	370	.22	220	.13
WBL	1	1700	110	.06*	90	.05
WBT	3	5100	410	.08	1590	.31*
WBR	1	1700	120	.07	300	.18
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.73**		**.83**

2018 No-Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	113	.03*	484	.14
NBT	3	5100	762	.15	1535	.30*
NBR	1	1700	72	.04	103	.06
SBL	2	3400	340	.10	196	.06*
SBT	3	5100	1916	.38*	1040	.20
SBR	1	1700	144	.08	144	.08
EBL	1	1700	103	.06	206	.12*
EBT	3	5100	1205	.24*	464	.09
EBR	1	1700	381	.22	227	.13
WBL	1	1700	113	.07*	93	.05
WBT	3	5100	422	.08	1638	.32*
WBR	1	1700	124	.07	309	.18
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.77**		**.85**

2018 With 300 TSF Initial Phase

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	117	.03*	510	.15
NBT	3	5100	764	.15	1550	.30*
NBR	1	1700	74	.04	114	.07
SBL	2	3400	340	.10	196	.06*
SBT	3	5100	1932	.38*	1043	.20
SBR	1	1700	144	.08	144	.08
EBL	1	1700	103	.06	206	.12*
EBT	3	5100	1205	.24*	464	.09
EBR	1	1700	410	.24	232	.14
WBL	1	1700	125	.07*	95	.06
WBT	3	5100	422	.08	1638	.32*
WBR	1	1700	124	.07	309	.18
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.77**		**.85**

2018 No-Project + Steelwave & Vans

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	114	.03*	487	.14
NBT	3	5100	767	.15	1571	.31*
NBR	1	1700	72	.04	105	.06
SBL	2	3400	340	.10	196	.06*
SBT	3	5100	1956	.38*	1047	.21
SBR	1	1700	154	.09	145	.09
EBL	1	1700	104	.06	215	.13*
EBT	3	5100	1205	.24*	464	.09
EBR	1	1700	385	.23	229	.13
WBL	1	1700	116	.07*	93	.05
WBT	3	5100	422	.08	1638	.32*
WBR	1	1700	124	.07	309	.18
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.77**		**.87**

1. Harbor & MacArthur

2018 w/300 TSF Initial Phase + Steelwave & Vans

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	118	.03*	513	.15
NBT	3	5100	769	.15	1586	.31*
NBR	1	1700	74	.04	116	.07
SBL	2	3400	340	.10	196	.06*
SBT	3	5100	1972	.39*	1050	.21
SBR	1	1700	154	.09	145	.09
EBL	1	1700	104	.06	215	.13*
EBT	3	5100	1205	.24*	464	.09
EBR	1	1700	414	.24	234	.14
WBL	1	1700	128	.08*	95	.06
WBT	3	5100	422	.08	1638	.32*
WBR	1	1700	124	.07	309	.18
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.79**		**.87**

2035 No-Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	98	.03*	357	.11
NBT	3	5100	814	.16	1659	.33*
NBR	1	1700	77	.05	76	.04
SBL	2	3400	390	.11	170	.05*
SBT	3	5100	2170	.43*	1112	.22
SBR	1	1700	70	.04	120	.07
EBL	1	1700	110	.06	210	.12*
EBT	3	5100	1360	.27*	520	.10
EBR	1	1700	285	.17	195	.11
WBL	1	1700	118	.07*	105	.06
WBT	3	5100	390	.08	1920	.38*
WBR	1	1700	110	.06	350	.21
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.85**		**.93**

2035 With 655 TSF Full Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	110	.03*	430	.13
NBT	3	5100	820	.16	1700	.33*
NBR	1	1700	80	.05	100	.06
SBL	2	3400	390	.11	170	.05*
SBT	3	5100	2210	.43*	1120	.22
SBR	1	1700	70	.04	120	.07
EBL	1	1700	110	.06	210	.12*
EBT	3	5100	1360	.27*	520	.10
EBR	1	1700	370	.22	210	.12
WBL	1	1700	140	.08*	110	.06
WBT	3	5100	390	.08	1920	.38*
WBR	1	1700	110	.06	350	.21
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.86**		**.93**

2. Harbor & Scenic/Lake Center

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	90	.05*	30	.02
NBT	3	5100	1120	.23	1890	.38*
NBR	0	0	60		40	
SBL	1	1700	70	.04	40	.02*
SBT	3	5100	2500	.51*	1250	.25
SBR	0	0	80		20	
EBL	1	1700	10	.01*	50	.03*
EBT	1	1700	30	.02	40	.02
EBR	1	1700	40	.02	70	.04
WBL	1	1700	20	.01	50	.03
WBT	1	1700	30	.04*	80	.09*
WBR	0	0	40		70	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.66**		**.57**

2018 No-Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	93	.05*	31	.02
NBT	3	5100	1154	.24	1947	.39*
NBR	0	0	62		41	
SBL	1	1700	72	.04	41	.02*
SBT	3	5100	2575	.52*	1288	.26
SBR	0	0	82		21	
EBL	1	1700	10	.01*	52	.03*
EBT	1	1700	31	.02	41	.02
EBR	1	1700	41	.02	72	.04
WBL	1	1700	21	.01	52	.03
WBT	1	1700	31	.04*	82	.09*
WBR	0	0	41		72	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.67**		**.58**

2018 With 300 TSF Initial Phase

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	93	.05*	31	.02
NBT	3	5100	1163	.24	2003	.40*
NBR	0	0	62		41	
SBL	1	1700	72	.04	41	.02*
SBT	3	5100	2637	.53*	1299	.26
SBR	0	0	82		21	
EBL	1	1700	10	.01*	52	.03*
EBT	1	1700	31	.02	41	.02
EBR	1	1700	41	.02	72	.04
WBL	1	1700	21	.01	52	.03
WBT	1	1700	31	.04*	82	.09*
WBR	0	0	41		72	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.68**		**.59**

2018 No-Project + Steelwave & Vans

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	93	.05*	31	.02
NBT	3	5100	1159	.24	1981	.40*
NBR	0	0	62		41	
SBL	1	1700	72	.04	41	.02*
SBT	3	5100	2614	.53*	1297	.26
SBR	0	0	90		22	
EBL	1	1700	11	.01*	59	.03*
EBT	1	1700	31	.02	41	.02
EBR	1	1700	41	.02	72	.04
WBL	1	1700	21	.01	52	.03
WBT	1	1700	31	.04*	82	.09*
WBR	0	0	41		72	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.68**		**.59**

2. Harbor & Scenic/Lake Center

2018 w/300 TSF Initial Phase + Steelwave & Vans

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	93	.05*	31	.02
NBT	3	5100	1168	.24	2037	.41*
NBR	0	0	62		41	
SBL	1	1700	72	.04	41	.02*
SBT	3	5100	2676	.54*	1308	.26
SBR	0	0	90		22	
EBL	1	1700	11	.01*	59	.03*
EBT	1	1700	31	.02	41	.02
EBR	1	1700	41	.02	72	.04
WBL	1	1700	21	.01	52	.03
WBT	1	1700	31	.04*	82	.09*
WBR	0	0	41		72	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.69**		**.60**

2035 No-Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	60	.04*	30	.02
NBT	3	5100	998	.20	2224	.45*
NBR	0	0	40		70	
SBL	1	1700	90	.05	20	.01*
SBT	3	5100	2399	.49*	1610	.32
SBR	0	0	110		20	
EBL	1	1700	10	.01*	90	.05*
EBT	1	1700	20	.01	50	.03
EBR	1	1700	20	.01	130	.08
WBL	1	1700	20	.01	60	.04
WBT	1	1700	30	.02*	100	.10*
WBR	0	0	10		70	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.61**		**.66**

2035 With 655 TSF Full Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	60	.04*	30	.02
NBT	3	5100	1020	.21	2370	.48*
NBR	0	0	40		70	
SBL	1	1700	90	.05	20	.01*
SBT	3	5100	2560	.52*	1640	.33
SBR	0	0	110		20	
EBL	1	1700	10	.01*	90	.05*
EBT	1	1700	20	.01	50	.03
EBR	1	1700	20	.01	130	.08
WBL	1	1700	20	.01	60	.04
WBT	1	1700	30	.02*	100	.10*
WBR	0	0	10		70	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.64**		**.69**

3. Harbor & Sunflower

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	220	.06*	240	.07
NBT	3	5100	1270	.25	1750	.34*
NBR	1	1700	150	.09	140	.08
SBL	2	3400	260	.08	120	.04*
SBT	3	5100	2090	.41*	1360	.27
SBR	1	1700	40	.02	20	.01
EBL	1	1700	10	.01	80	.05
EBT	2	3400	100	.04*	160	.09*
EBR	0	0	30		160	
WBL	1.5		150	{.08}*	270	{.16}*
WBT	1.5	5100	150	.08	440	.17
WBR	0		100		180	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.64**		**.68**

2018 No-Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	227	.07*	247	.07
NBT	3	5100	1308	.26	1803	.35*
NBR	1	1700	155	.09	144	.08
SBL	2	3400	268	.08	124	.04*
SBT	3	5100	2153	.42*	1401	.27
SBR	1	1700	41	.02	21	.01
EBL	1	1700	10	.01	82	.05
EBT	2	3400	103	.04*	165	.10*
EBR	0	0	31		165	
WBL	1.5		155	{.08}*	278	{.16}*
WBT	1.5	5100	155	.08	453	.18
WBR	0		103		185	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.66**		**.70**

2018 With 300 TSF Initial Phase

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	227	.07*	247	.07
NBT	3	5100	1309	.26	1807	.35*
NBR	1	1700	157	.09	155	.09
SBL	2	3400	321	.09	134	.04*
SBT	3	5100	2165	.42*	1403	.28
SBR	1	1700	41	.02	21	.01
EBL	1	1700	10	.01	82	.05
EBT	2	3400	107	.04*	166	.10*
EBR	0	0	35		166	
WBL	1.5		155	{.08}*	278	{.16}*
WBT	1.5	5100	156	.08	457	.19
WBR	0		110		233	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.66**		**.70**

2018 No-Project + Steelwave & Vans

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	227	.07*	247	.07
NBT	3	5100	1310	.26	1821	.36*
NBR	1	1700	157	.09	162	.10
SBL	2	3400	279	.08	130	.04*
SBT	3	5100	2173	.43*	1403	.28
SBR	1	1700	49	.03	22	.01
EBL	1	1700	11	.01	89	.05
EBT	2	3400	106	.04*	173	.10*
EBR	0	0	31		165	
WBL	1.5		175	{.09}*	280	{.16}*
WBT	1.5	5100	163	.09	456	.18
WBR	0		106		194	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.68**		**.71**

3. Harbor & Sunflower

2018 w/300 TSF Initial Phase + Steelwave & Vans

			AM PK HOUR		PM PK HOUR	
	LANES	CAPACITY	VOL	V/C	VOL	V/C
NBL	2	3400	227	.07*	247	.07
NBT	3	5100	1311	.26	1825	.36*
NBR	1	1700	159	.09	173	.10
SBL	2	3400	332	.10	140	.04*
SBT	3	5100	2185	.43*	1405	.28
SBR	1	1700	49	.03	22	.01
EBL	1	1700	11	.01	89	.05
EBT	2	3400	110	.04*	174	.10*
EBR	0	0	35		166	
WBL	1.5		175	{.09}*	280	{.16}*
WBT	1.5	5100	164	.09	460	.19
WBR	0		113		242	
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .68 .71

2035 No-Project

			AM PK HOUR		PM PK HOUR	
	LANES	CAPACITY	VOL	V/C	VOL	V/C
NBL	2	3400	370	.11*	80	.02
NBT	3	5100	1229	.24	2072	.41*
NBR	1	1700	235	.14	148	.09
SBL	2	3400	105	.03	135	.04*
SBT	3	5100	1684	.33*	1703	.33
SBR	1	1700	90	.05	30	.02
EBL	1	1700	10	.01	40	.02*
EBT	2	3400	191	.06*	168	.05
EBR	1	1700	31	.02	238	.14
WBL	1.5		120	{.05}*	200	.12
WBT	1.5	5100	139	.05	642	.19*
WBR	1	1700	61	.04	78	.05
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .60 .71

2035 With 655 TSF Full Project

			AM PK HOUR		PM PK HOUR	
	LANES	CAPACITY	VOL	V/C	VOL	V/C
NBL	2	3400	370	.11*	80	.02
NBT	3	5100	1230	.24	2080	.41*
NBR	1	1700	240	.14	180	.11
SBL	2	3400	240	.07	160	.05*
SBT	3	5100	1720	.34*	1710	.34
SBR	1	1700	90	.05	30	.02
EBL	1	1700	10	.01	40	.02*
EBT	2	3400	200	.06*	170	.05
EBR	1	1700	40	.02	240	.14
WBL	1.5		120	{.05}*	200	.12
WBT	1.5	5100	140	.05	650	.19*
WBR	1	1700	80	.05	200	.12
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .61 .72

4. Harbor & South Coast

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	240	.07*	390	.11*
NBT	3.5	8500	1640	.24	1890	.28
NBR	1.5		270	.16	240	.14
SBL	2	3400	100	.03	110	.03
SBT	4	6800	2050	.30*	1650	.24*
SBR	1	1700	60	.04	90	.05
EBL	1	1700	20	.01	20	.01*
EBT	0.5	3400	60	{.06}*	50	{.08}
EBR	1.5		240		370	
WBL	2	3400	80	.02*	320	.09
WBT	2	3400	150	.04	960	.28*
WBR	1	1700	50	.03	230	.14
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.50**		**.69**

2018 No-Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	247	.07*	402	.12*
NBT	3.5	8500	1689	.25	1947	.29
NBR	1.5		278	.16	247	.15
SBL	2	3400	103	.03	113	.03
SBT	4	6800	2112	.31*	1700	.25*
SBR	1	1700	62	.04	93	.05
EBL	1	1700	21	.01	21	.01*
EBT	0.5	3400	62	{.06}*	52	{.08}
EBR	1.5		247		381	
WBL	2	3400	82	.02*	330	.10
WBT	2	3400	155	.05	989	.29*
WBR	1	1700	52	.03	237	.14
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.51**		**.72**

2018 With 300 TSF Initial Phase

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	247	.07*	402	.12*
NBT	3.5	8500	1755	.26	1959	.29
NBR	1.5		360	.21	262	.15
SBL	2	3400	103	.03	113	.03
SBT	4	6800	2121	.31*	1760	.26*
SBR	1	1700	63	.04	100	.06
EBL	1	1700	21	.01	21	.01*
EBT	0.5	3400	62	{.06}*	52	{.08}
EBR	1.5		247		381	
WBL	2	3400	95	.03*	412	.12
WBT	2	3400	161	.05	1026	.30*
WBR	1	1700	52	.03	237	.14
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.52**		**.74**

2018 No-Project + Steelwave & Vans

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	343	.10*	412	.12*
NBT	3.5	8500	1689	.25	1947	.29
NBR	1.5		330	.19	277	.16
SBL	2	3400	103	.03	113	.03
SBT	4	6800	2112	.31*	1700	.25*
SBR	1	1700	105	.06	97	.06
EBL	1	1700	24	.01	60	.04*
EBT	0.5	3400	63	{.06}*	61	{.10}
EBR	1.5		252		440	
WBL	2	3400	88	.03*	349	.10
WBT	2	3400	173	.05	1017	.30*
WBR	1	1700	52	.03	237	.14
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.55**		**.76**

4. Harbor & South Coast

2018 w/300 TSF Initial Phase + Steelwave & Vans

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	343	.10*	412	.12*
NBT	3.5	8500	1755	.26	1959	.29
NBR	1.5		412	.24	292	.17
SBL	2	3400	103	.03	113	.03
SBT	4	6800	2121	.31*	1760	.26*
SBR	1	1700	106	.06	104	.06
EBL	1	1700	24	.01	60	.04*
EBT	0.5	3400	63	{.06}*	61	{.10}
EBR	1.5		252		440	
WBL	2	3400	101	.03*	431	.13
WBT	2	3400	179	.05	1054	.31*
WBR	1	1700	52	.03	237	.14
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .55 .78

2035 No-Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	350	.10*	220	.06
NBT	3.5	8500	2155	.32	2285	.34*
NBR	1.5		483	.28	194	
SBL	2	3400	150	.04	130	.04*
SBT	4	6800	2023	.30*	2076	.31
SBR	1	1700	106	.06	76	.04
EBL	1	1700	10	.01	20	.01*
EBT	1	1700	150	.09*	50	.03
EBR	2	3400	190	.06	350	.10
WBL	2	3400	59	.02*	392	.12
WBT	2	3400	163	.05	1236	.36*
WBR	1	1700	40	.02	350	.21
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .56 .80

2035 With 655 TSF Full Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	350	.10*	220	.06
NBT	3.5	8500	2290	.35	2310	.34*
NBR	1.5		680		230	
SBL	2	3400	150	.04	130	.04*
SBT	4	6800	2040	.30*	2190	.32
SBR	1	1700	110	.06	100	.06
EBL	1	1700	10	.01	20	.01*
EBT	1	1700	150	.09*	50	.03
EBR	2	3400	190	.06	350	.10
WBL	2	3400	80	.02*	530	.16
WBT	2	3400	180	.05	1350	.40*
WBR	1	1700	40	.02	350	.21
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .56 .84

5. Hyland & South Coast/I-405 NB On-Ramp

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1700	270	.16*	350	.21*
SBT	0	0	0		0	
SBR	f		60		410	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1700	90	.05*	490	.29*
WBR	1	1700	250	.15	810	.48
Right Turn Adjustment					WBR	.03*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .26 .58

2018 No-Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1700	278	.16*	361	.21*
SBT	0	0	0		0	
SBR	f		62		422	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1700	93	.05*	505	.30*
WBR	1	1700	258	.15	834	.49
Right Turn Adjustment					WBR	.03*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .26 .59

2018 With 300 TSF Initial Phase

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1700	278	.16*	361	.21*
SBT	0	0	0		0	
SBR	f		62		422	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1700	100	.06*	550	.32*
WBR	1	1700	258	.15	834	.49
Right Turn Adjustment					WBR	.01*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .27 .59

2018 No-Project + Steelwave & Vans

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1700	283	.17*	413	.24*
SBT	0	0	0		0	
SBR	f		63		436	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1700	102	.06*	546	.32*
WBR	1	1700	331	.19	841	.49
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .28 .61

5. Hyland & South Coast/I-405 NB On-Ramp

2018 w/300 TSF Initial Phase + Steelwave & Vans

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1700	283	.17*	413	.24*
SBT	0	0	0		0	
SBR	f		63		436	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	1	1700	109	.06*	591	.35*
WBR	1	1700	331	.19	841	.49
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .28 .64

2035 No-Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1700	250	.15*	340	.20*
SBT	0	0	0		0	
SBR	f		50		730	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3400	199	.06*	912	.27*
WBR	1	1700	260	.15	500	.29
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .26 .52

2035 With 655 TSF Full Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	0	0	0		0	
NBR	0	0	0		0	
SBL	1	1700	250	.15*	340	.20*
SBT	0	0	0		0	
SBR	f		50		730	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	0	0	0		0	
WBT	2	3400	220	.06*	1050	.31*
WBR	1	1700	260	.15	500	.29
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .26 .56

6. Harbor & I-405 NB Ramps

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		10	{.01}*
NBT	4	6800	1320	.26	1580	.31
NBR	0	0	440		500	
SBL	0	0	0		0	
SBT	4	6800	2450	.36*	2420	.36*
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1.5		480		880	
WBT	0	5100	0	{.23}*	0	{.35}*
WBR	1.5		820		990	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.64**		**.77**

2018 No-Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		10	{.01}*
NBT	4	6800	1360	.27	1627	.32
NBR	0	0	453		515	
SBL	0	0	0		0	
SBT	4	6800	2524	.37*	2493	.37*
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1.5		494		906	
WBT	0	5100	0	{.24}*	0	{.36}*
WBR	1.5		845		1020	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.66**		**.79**

2018 With 300 TSF Initial Phase

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		10	{.01}*
NBT	4	6800	1467	.28	1647	.32
NBR	0	0	453		515	
SBL	0	0	0		0	
SBT	4	6800	2546	.37*	2634	.39*
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1.5		494		906	
WBT	0	5100	0	{.25}*	0	{.36}*
WBR	1.5		886		1028	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.67**		**.81**

2018 No-Project + Steelwave & Vans

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		10	{.01}*
NBT	4	6800	1465	.28	1662	.32
NBR	0	0	453		515	
SBL	0	0	0		0	
SBT	4	6800	2535	.37*	2571	.38*
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1.5		494		906	
WBT	0	5100	0	{.25}*	0	{.36}*
WBR	1.5		888		1024	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.67**		**.80**

6. Harbor & I-405 NB Ramps

2018 w/300 TSF Initial Phase + Steelwave & Vans

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		10	{.01}*
NBT	4	6800	1572	.30	1682	.32
NBR	0	0	453		515	
SBL	0	0	0		0	
SBT	4	6800	2557	.38*	2712	.40*
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1.5		494		906	
WBT	0	5100	0	{.26}*	0	{.36}*
WBR	1.5		929		1032	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.69**		**.82**

2035 No-Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	4	6800	2040	.40*	1622	.32
NBR	0	0	1170	.69	1270	.75
SBL	0	0	0		0	
SBT	4	6800	2262	.33	2818	.41*
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1.5		370	.22*	940	
WBT	0	5100	0		0	{.35}*
WBR	1.5		748	.22	967	
Right Turn Adjustment			NBR	.12*	NBR	.08*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.79**		**.89**

2035 With 655 TSF Full Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	4	6800	2300	.45*	1670	.33
NBR	0	0	1170	.69	1270	.75
SBL	0	0	0		0	
SBT	4	6800	2300	.34	3070	.45*
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1.5		370	.22*	940	
WBT	0	5100	0		0	{.35}*
WBR	1.5		820	.24	980	
Right Turn Adjustment			Multi	.09*	NBR	.04*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.81**		**.89**

7. Harbor & I-405 SB Ramps

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	5100	1380	.27*	1810	.35
NBR	f		1290		750	
SBL	0	0	0		10	
SBT	4	6800	1700	.25	2440	.36*
SBR	f		1040		930	
EBL	1.5		290	{.12}*	170	.10*
EBT	0	5100	0	{.12}	0	
EBR	1.5		370		720	.21
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment					EBR	.11*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.44**		**.62**

2018 No-Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	5100	1421	.28*	1864	.37*
NBR	f		1329		773	
SBL	0	0	0		10	{.01}*
SBT	4	6800	1751	.26	2513	.37
SBR	f		1071		958	
EBL	1.5		299	{.13}*	175	.10*
EBT	0	5100	0	.13	0	
EBR	1.5		381		742	.22
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment					EBR	.11*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.46**		**.64**

2018 With 300 TSF Initial Phase

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	5100	1479	.29*	1875	.37*
NBR	f		1329		773	
SBL	0	0	0		10	{.01}*
SBT	4	6800	1759	.26	2565	.38
SBR	f		1085		1047	
EBL	1.5		348	{.14}*	184	.11*
EBT	0	5100	0	.14	0	
EBR	1.5		381		742	.22
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment					EBR	.11*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.48**		**.65**

2018 No-Project + Steelwave & Vans

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	5100	1465	.29*	1879	.37*
NBR	f		1329		773	
SBL	0	0	0		10	{.01}*
SBT	4	6800	1759	.26	2552	.38
SBR	f		1074		997	
EBL	1.5		359	{.14}*	196	.12*
EBT	0	5100	0	{.14}	0	
EBR	1.5		381		742	.22
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment					EBR	.10*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.48**		**.65**

7. Harbor & I-405 SB Ramps

2018 w/300 TSF Initial Phase + Steelwave & Vans

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	5100	1523	.30*	1890	.37*
NBR	f		1329		773	
SBL	0	0	0		10	{.01}*
SBT	4	6800	1767	.26	2604	.38
SBR	f		1088		1086	
EBL	1.5		408	{.14}*	205	.12*
EBT	0	5100	0	{.14}	0	
EBR	1.5		381		742	.22
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment					EBR	.10*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .49 .65

2035 No-Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	5100	1282	.25*	1720	.34
NBR	f		270		490	
SBL	0	0	0		0	
SBT	4	6800	1495	.22	2663	.39*
SBR	f		1166		1086	
EBL	1.5		678	{.27}*	192	.11*
EBT	0	5100	0	{.27}	0	
EBR	1.5		760		930	.27
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment					EBR	.16*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .57 .71

2035 With 655 TSF Full Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	5100	1390	.27*	1740	.34
NBR	f		270		490	
SBL	0	0	0		0	
SBT	4	6800	1510	.22	2760	.41*
SBR	f		1190		1240	
EBL	1.5		830	{.30}*	220	.13*
EBT	0	5100	0	{.30}	0	
EBR	1.5		760		930	.27
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment					EBR	.14*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .62 .73

8. Harbor & Gisler

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	80	.05*	130	.08*
NBT	5	8500	1960	.23	2090	.25
NBR	0	0	20		30	
SBL	1	1700	90	.05	160	.09
SBT	4	6800	1790	.28*	2540	.44*
SBR	0	0	120		430	
EBL	2	3400	610	.18*	350	.10*
EBT	1	1700	50	.08	40	.09
EBR	0	0	80		120	
WBL	1	1700	40	.02	40	.02
WBT	1	1700	30	.02*	50	.03*
WBR	1	1700	150	.09	150	.09
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.58**		**.70**

2018 No-Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	82	.05*	134	.08*
NBT	5	8500	2019	.24	2153	.26
NBR	0	0	21		31	
SBL	1	1700	93	.05	165	.10
SBT	4	6800	1844	.29*	2616	.45*
SBR	0	0	124		443	
EBL	2	3400	628	.18*	361	.11*
EBT	1	1700	52	.08	41	.10
EBR	0	0	82		124	
WBL	1	1700	41	.02	41	.02
WBT	1	1700	31	.02*	52	.03*
WBR	1	1700	155	.09	155	.09
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.59**		**.72**

2018 With 300 TSF Initial Phase

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	82	.05*	134	.08*
NBT	5	8500	2077	.25	2164	.26
NBR	0	0	21		31	
SBL	1	1700	93	.05	165	.10
SBT	4	6800	1852	.29*	2668	.46*
SBR	0	0	124		443	
EBL	2	3400	628	.18*	361	.11*
EBT	1	1700	52	.08	41	.10
EBR	0	0	82		124	
WBL	1	1700	41	.02	41	.02
WBT	1	1700	31	.02*	52	.03*
WBR	1	1700	155	.09	155	.09
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.59**		**.73**

2018 No-Project + Steelwave & Vans

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	82	.05*	134	.08*
NBT	5	8500	2060	.24	2168	.26
NBR	0	0	21		31	
SBL	1	1700	93	.05	165	.10
SBT	4	6800	1852	.29*	2653	.46*
SBR	0	0	124		445	
EBL	2	3400	631	.19*	361	.11*
EBT	1	1700	52	.08	41	.10
EBR	0	0	82		124	
WBL	1	1700	41	.02	41	.02
WBT	1	1700	31	.02*	52	.03*
WBR	1	1700	155	.09	155	.09
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.60**		**.73**

8. Harbor & Gisler

2018 w/300 TSF Initial Phase + Steelwave & Vans

			AM PK HOUR		PM PK HOUR	
	LANES	CAPACITY	VOL	V/C	VOL	V/C
NBL	1	1700	82	.05*	134	.08*
NBT	5	8500	2118	.25	2179	.26
NBR	0	0	21		31	
SBL	1	1700	93	.05	165	.10
SBT	4	6800	1860	.29*	2705	.46*
SBR	0	0	124		445	
EBL	2	3400	631	.19*	361	.11*
EBT	1	1700	52	.08	41	.10
EBR	0	0	82		124	
WBL	1	1700	41	.02	41	.02
WBT	1	1700	31	.02*	52	.03*
WBR	1	1700	155	.09	155	.09
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.60**		**.73**

2035 No-Project

			AM PK HOUR		PM PK HOUR	
	LANES	CAPACITY	VOL	V/C	VOL	V/C
NBL	1	1700	110	.06*	150	.09*
NBT	5	8500	2212	.26	2450	.29
NBR	0	0	10		30	
SBL	1	1700	100	.06	200	.12
SBT	4	6800	2305	.34*	3373	.50*
SBR	1	1700	160	.09	460	.27
EBL	3	5100	540	.11	500	.10*
EBT	1	1700	60	.11*	30	.08
EBR	0	0	130		110	
WBL	1	1700	30	.02*	60	.04
WBT	1	1700	20	.01	50	.03*
WBR	1	1700	160	.09	130	.08
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.58**		**.77**

2035 With 655 TSF Full Project

			AM PK HOUR		PM PK HOUR	
	LANES	CAPACITY	VOL	V/C	VOL	V/C
NBL	1	1700	110	.06*	150	.09*
NBT	5	8500	2320	.27	2470	.29
NBR	0	0	10		30	
SBL	1	1700	100	.06	200	.12
SBT	4	6800	2320	.34*	3470	.51*
SBR	1	1700	160	.09	460	.27
EBL	3	5100	540	.11	500	.10*
EBT	1	1700	60	.11*	30	.08
EBR	0	0	130		110	
WBL	1	1700	30	.02*	60	.04
WBT	1	1700	20	.01	50	.03*
WBR	1	1700	160	.09	130	.08
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.58**		**.78**

9. Harbor & Baker

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	70	.02	110	.03
NBT	4	6800	1640	.24*	1720	.25*
NBR	1	1700	230	.14	210	.12
SBL	2	3400	240	.07*	230	.07*
SBT	4	6800	1510	.22	1940	.29
SBR	1	1700	150	.09	270	.16
EBL	2	3400	240	.07*	230	.07*
EBT	2	3400	250	.07	230	.07
EBR	d	1700	60	.04	70	.04
WBL	2	3400	200	.06	420	.12
WBT	2	3400	210	.06*	600	.18*
WBR	1	1700	120	.07	290	.17
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.49**		**.62**

2018 No-Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	72	.02	113	.03
NBT	4	6800	1689	.25*	1772	.26*
NBR	1	1700	237	.14	216	.13
SBL	2	3400	247	.07*	237	.07*
SBT	4	6800	1555	.23	1998	.29
SBR	1	1700	155	.09	278	.16
EBL	2	3400	247	.07	237	.07*
EBT	2	3400	258	.08*	237	.07
EBR	d	1700	62	.04	72	.04
WBL	2	3400	206	.06*	433	.13
WBT	2	3400	216	.06	618	.18*
WBR	1	1700	124	.07	299	.18
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.51**		**.63**

2018 With 300 TSF Initial Phase

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	72	.02	113	.03*
NBT	4	6800	1734	.26*	1780	.26
NBR	1	1700	237	.14	216	.13
SBL	2	3400	248	.07*	241	.07
SBT	4	6800	1561	.23	2039	.30*
SBR	1	1700	156	.09	282	.17
EBL	2	3400	251	.07	238	.07*
EBT	2	3400	258	.08*	237	.07
EBR	d	1700	62	.04	72	.04
WBL	2	3400	206	.06*	433	.13
WBT	2	3400	216	.06	618	.18*
WBR	1	1700	128	.08	300	.18
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.52**		**.63**

2018 No-Project + Steelwave & Vans

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	72	.02	113	.03*
NBT	4	6800	1723	.25*	1783	.26
NBR	1	1700	237	.14	216	.13
SBL	2	3400	247	.07*	237	.07
SBT	4	6800	1560	.23	2028	.30*
SBR	1	1700	155	.09	282	.17
EBL	2	3400	252	.07	238	.07*
EBT	2	3400	258	.08*	237	.07
EBR	d	1700	62	.04	72	.04
WBL	2	3400	206	.06*	433	.13
WBT	2	3400	216	.06	618	.18*
WBR	1	1700	124	.07	299	.18
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.51**		**.63**

9. Harbor & Baker

2018 w/300 TSF Initial Phase + Steelwave & Vans

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	72	.02	113	.03*
NBT	4	6800	1768	.26*	1791	.26
NBR	1	1700	237	.14	216	.13
SBL	2	3400	248	.07*	241	.07
SBT	4	6800	1566	.23	2069	.30*
SBR	1	1700	156	.09	286	.17
EBL	2	3400	256	.08*	239	.07*
EBT	2	3400	258	.08	237	.07
EBR	d	1700	62	.04	72	.04
WBL	2	3400	206	.06	433	.13
WBT	2	3400	216	.06*	618	.18*
WBR	1	1700	128	.08	300	.18
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.52**		**.63**

2035 No-Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	50	.01	120	.04*
NBT	4	6800	1980	.29*	2104	.31
NBR	1	1700	270	.16	210	.12
SBL	2	3400	189	.06*	292	.09
SBT	4	6800	1868	.27	2719	.40*
SBR	1	1700	169	.10	412	.24
EBL	2	3400	261	.08*	278	.08*
EBT	2	3400	230	.07	230	.07
EBR	d	1700	60	.04	70	.04
WBL	2	3400	180	.05	590	.17
WBT	2	3400	190	.06*	710	.21*
WBR	1	1700	111	.07	228	.13
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.54**		**.78**

2035 With 655 TSF Full Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	50	.01	120	.04*
NBT	4	6800	2070	.30*	2120	.31
NBR	1	1700	270	.16	210	.12
SBL	2	3400	190	.06*	300	.09
SBT	4	6800	1880	.28	2800	.41*
SBR	1	1700	170	.10	420	.25
EBL	2	3400	270	.08*	280	.08*
EBT	2	3400	230	.07	230	.07
EBR	d	1700	60	.04	70	.04
WBL	2	3400	180	.05	590	.17
WBT	2	3400	190	.06*	710	.21*
WBR	1	1700	120	.07	230	.14
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.55**		**.79**

10. Susan & Sunflower

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	20	.01	100	.06
NBT	1	1700	210	.12*	570	.34*
NBR	1	1700	90	.05	200	.12
SBL	1	1700	70	.04*	80	.05*
SBT	1	1700	70	.05	150	.12
SBR	0	0	20		60	
EBL	1	1700	20	.01	70	.04*
EBT	2	3400	240	.07*	380	.11
EBR	1	1700	30	.02	30	.02
WBL	1	1700	30	.02*	30	.02
WBT	2	3400	200	.08	600	.24*
WBR	0	0	60		210	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.30**		**.72**

2018 No-Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	21	.01	103	.06
NBT	1	1700	216	.13*	587	.35*
NBR	1	1700	93	.05	206	.12
SBL	1	1700	72	.04*	82	.05*
SBT	1	1700	72	.05	155	.13
SBR	0	0	21		62	
EBL	1	1700	21	.01	72	.04*
EBT	2	3400	247	.07*	391	.12
EBR	1	1700	31	.02	31	.02
WBL	1	1700	31	.02*	31	.02
WBT	2	3400	206	.08	618	.25*
WBR	0	0	62		216	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.31**		**.74**

2018 With 300 TSF Initial Phase

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	21	.01	103	.06
NBT	1	1700	216	.13*	587	.35*
NBR	1	1700	93	.05	206	.12
SBL	1	1700	72	.04*	82	.05*
SBT	1	1700	72	.06	155	.13
SBR	0	0	29		64	
EBL	1	1700	22	.01*	79	.05*
EBT	2	3400	260	.08	473	.14
EBR	1	1700	31	.02	31	.02
WBL	1	1700	31	.02	31	.02
WBT	2	3400	296	.11*	635	.25*
WBR	0	0	62		216	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.34**		**.75**

2018 No-Project + Steelwave & Vans

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	24	.01	114	.07
NBT	1	1700	223	.13*	611	.36*
NBR	1	1700	99	.06	225	.13
SBL	1	1700	72	.04*	82	.05*
SBT	1	1700	99	.07	171	.14
SBR	0	0	24		62	
EBL	1	1700	21	.01*	74	.04*
EBT	2	3400	249	.07	414	.12
EBR	1	1700	43	.03	38	.02
WBL	1	1700	52	.03	44	.03
WBT	2	3400	231	.09*	621	.25*
WBR	0	0	62		216	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.32**		**.75**

10. Susan & Sunflower

2018 w/300 TSF Initial Phase + Steelwave & Vans

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	24	.01	114	.07
NBT	1	1700	223	.13*	611	.36*
NBR	1	1700	99	.06	225	.13
SBL	1	1700	72	.04*	82	.05*
SBT	1	1700	99	.08	171	.14
SBR	0	0	32		64	
EBL	1	1700	22	.01*	81	.05*
EBT	2	3400	262	.08	496	.15
EBR	1	1700	43	.03	38	.02
WBL	1	1700	52	.03	44	.03
WBT	2	3400	321	.11*	638	.25*
WBR	0	0	62		216	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.34**		**.76**

2035 No-Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	80	.05	150	.09
NBT	1	1700	250	.15*	430	.25*
NBR	1	1700	20	.01	140	.08
SBL	1	1700	170	.10*	70	.04*
SBT	1	1700	70	.04	180	.16
SBR	0	0	-7		85	
EBL	1	1700	76	.04*	36	.02*
EBT	2	3400	305	.09	418	.12
EBR	1	1700	120	.07	50	.03
WBL	1	1700	30	.02	40	.02
WBT	2	3400	221	.09*	667	.26*
WBR	0	0	90		200	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.43**		**.62**

2035 With 655 TSF Full Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	80	.05	150	.09
NBT	1	1700	250	.15*	430	.25*
NBR	1	1700	20	.01	140	.08
SBL	1	1700	170	.10*	70	.04*
SBT	1	1700	70	.05	180	.16
SBR	0	0	20		90	
EBL	1	1700	80	.05*	60	.04*
EBT	2	3400	330	.10	580	.17
EBR	1	1700	120	.07	50	.03
WBL	1	1700	30	.02	40	.02
WBT	2	3400	400	.14*	700	.26*
WBR	0	0	90		200	
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.49**		**.64**

11. Susan & South Coast

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	100	.03	700	.21
NBT	2	3400	370	.12*	630	.21*
NBR	0	0	50		80	
SBL	2	3400	50	.01*	160	.05*
SBT	2	3400	10	.01	20	.01
SBR	0	0	70	.04	140	.08
EBL	2	3400	100	.03*	70	.02*
EBT	2	3400	190	.06	250	.07
EBR	1	1700	10	.01	10	.01
WBL	2	3400	10	.00	60	.02
WBT	2	3400	100	.03*	610	.18*
WBR	1	1700	30	.02	100	.06
Right Turn Adjustment					SBR	.01*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.24**		**.52**

2018 No-Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	103	.03	721	.21
NBT	2	3400	381	.13*	649	.22*
NBR	0	0	52		82	
SBL	2	3400	52	.02*	165	.05*
SBT	2	3400	10	.01	21	.01
SBR	0	0	72	.04	144	.08
EBL	2	3400	103	.03*	72	.02*
EBT	2	3400	196	.06	258	.08
EBR	1	1700	10	.01	10	.01
WBL	2	3400	10	.00	62	.02
WBT	2	3400	103	.03*	628	.18*
WBR	1	1700	31	.02	103	.06
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.26**		**.52**

2018 With 300 TSF Initial Phase

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	161	.05	732	.22
NBT	2	3400	381	.13*	649	.22*
NBR	0	0	52		82	
SBL	2	3400	52	.02*	165	.05*
SBT	2	3400	10	.01	21	.01
SBR	0	0	72	.04	144	.08
EBL	2	3400	103	.03*	72	.02*
EBT	2	3400	201	.06	288	.08
EBR	1	1700	10	.01	10	.01
WBL	2	3400	10	.00	62	.02
WBT	2	3400	136	.04*	634	.19*
WBR	1	1700	31	.02	103	.06
Right Turn Adjustment					SBR	.01*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.27**		**.54**

2018 No-Project + Steelwave & Vans

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	112	.03	726	.21
NBT	2	3400	408	.14*	665	.22*
NBR	0	0	52		82	
SBL	2	3400	69	.02*	222	.07*
SBT	2	3400	10	.01	21	.01
SBR	0	0	77	.05	160	.09
EBL	2	3400	156	.05*	104	.03*
EBT	2	3400	197	.06	267	.08
EBR	1	1700	10	.01	10	.01
WBL	2	3400	10	.00	62	.02
WBT	2	3400	122	.04*	634	.19*
WBR	1	1700	51	.03	115	.07
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.30**		**.56**

11. Susan & South Coast

2018 w/300 TSF Initial Phase + Steelwave & Vans

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	170	.05	737	.22
NBT	2	3400	408	.14*	665	.22*
NBR	0	0	52		82	
SBL	2	3400	69	.02*	222	.07*
SBT	2	3400	10	.01	21	.01
SBR	0	0	77	.05	160	.09
EBL	2	3400	156	.05*	104	.03*
EBT	2	3400	202	.06	297	.09
EBR	1	1700	10	.01	10	.01
WBL	2	3400	10	.00	62	.02
WBT	2	3400	155	.05*	640	.19*
WBR	1	1700	51	.03	115	.07
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .31 .56

2035 No-Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	141	.04	532	.16
NBT	2	3400	470	.16*	490	.17*
NBR	0	0	70		80	
SBL	2	3400	100	.03*	140	.04*
SBT	2	3400	10	.01	10	.01
SBR	0	0	50	.03	330	.19
EBL	2	3400	130	.04*	50	.01*
EBT	2	3400	140	.04	135	.04
EBR	1	1700	620	.36	130	.08
WBL	2	3400	10	.00	30	.01
WBT	2	3400	48	.01*	947	.28*
WBR	1	1700	30	.02	20	.01
Right Turn Adjustment			EBR	.17*	SBR	.13*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .46 .68

2035 With 655 TSF Full Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	240	.07	550	.16
NBT	2	3400	470	.16*	490	.17*
NBR	0	0	70		80	
SBL	2	3400	100	.03*	140	.04*
SBT	2	3400	10	.01	10	.01
SBR	0	0	50	.03	330	.19
EBL	2	3400	130	.04*	50	.01*
EBT	2	3400	150	.04	200	.06
EBR	1	1700	620	.36	130	.08
WBL	2	3400	10	.00	30	.01
WBT	2	3400	120	.04*	960	.28*
WBR	1	1700	30	.02	20	.01
Right Turn Adjustment			EBR	.14*	SBR	.13*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .46 .68

12. Fairview & MacArthur

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	370	.11	210	.06*
NBT	3	5100	1420	.31*	910	.20
NBR	0	0	160		130	
SBL	2	3400	140	.04*	230	.07
SBT	3	5100	710	.14	1570	.31*
SBR	1	1700	40	.02	100	.06
EBL	2	3400	190	.06*	110	.03
EBT	3	5100	430	.08	1370	.27*
EBR	1	1700	120	.07	250	.15
WBL	2	3400	140	.04	250	.07*
WBT	3	5100	1100	.22*	720	.14
WBR	1	1700	180	.11	220	.13
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.68**		**.76**

2018 No-Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	381	.11	216	.06*
NBT	3	5100	1463	.32*	937	.21
NBR	0	0	165		134	
SBL	2	3400	144	.04*	237	.07
SBT	3	5100	731	.14	1617	.32*
SBR	1	1700	41	.02	103	.06
EBL	2	3400	196	.06*	113	.03
EBT	3	5100	443	.09	1411	.28*
EBR	1	1700	124	.07	258	.15
WBL	2	3400	144	.04	258	.08*
WBT	3	5100	1133	.22*	742	.15
WBR	1	1700	185	.11	227	.13
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.69**		**.79**

2018 With 300 TSF Initial Phase

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	381	.11	216	.06*
NBT	3	5100	1465	.32*	952	.21
NBR	0	0	165		134	
SBL	2	3400	144	.04*	237	.07
SBT	3	5100	747	.15	1620	.32*
SBR	1	1700	41	.02	103	.06
EBL	2	3400	196	.06*	113	.03
EBT	3	5100	443	.09	1411	.28*
EBR	1	1700	124	.07	258	.15
WBL	2	3400	144	.04	258	.08*
WBT	3	5100	1133	.22*	742	.15
WBR	1	1700	185	.11	227	.13
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.69**		**.79**

2018 No-Project + Steelwave & Vans

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	381	.11	216	.06*
NBT	3	5100	1465	.32*	945	.21
NBR	0	0	165		134	
SBL	2	3400	144	.04*	237	.07
SBT	3	5100	741	.15	1621	.32*
SBR	1	1700	41	.02	103	.06
EBL	2	3400	196	.06*	113	.03
EBT	3	5100	443	.09	1411	.28*
EBR	1	1700	124	.07	258	.15
WBL	2	3400	144	.04	258	.08*
WBT	3	5100	1133	.22*	742	.15
WBR	1	1700	185	.11	227	.13
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.69**		**.79**

12. Fairview & MacArthur

2018 w/300 TSF Initial Phase + Steelwave & Vans

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	381	.11	216	.06*
NBT	3	5100	1467	.32*	960	.21
NBR	0	0	165		134	
SBL	2	3400	144	.04*	237	.07
SBT	3	5100	757	.15	1624	.32*
SBR	1	1700	41	.02	103	.06
EBL	2	3400	196	.06*	113	.03
EBT	3	5100	443	.09	1411	.28*
EBR	1	1700	124	.07	258	.15
WBL	2	3400	144	.04	258	.08*
WBT	3	5100	1133	.22*	742	.15
WBR	1	1700	185	.11	227	.13
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.69**		**.79**

2035 No-Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	370	.11	250	.07*
NBT	3	5100	1543	.34*	1061	.24
NBR	0	0	180		140	
SBL	2	3400	210	.06*	260	.08
SBT	3	5100	796	.16	1620	.32*
SBR	1	1700	40	.02	100	.06
EBL	2	3400	190	.06*	100	.03
EBT	3	5100	530	.10	1570	.31*
EBR	1	1700	120	.07	240	.14
WBL	2	3400	130	.04	280	.08*
WBT	3	5100	1180	.23*	1020	.20
WBR	1	1700	190	.11	300	.18
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.74**		**.83**

2035 With 655 TSF Full Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	370	.11	250	.07*
NBT	3	5100	1550	.34*	1110	.25
NBR	0	0	180		140	
SBL	2	3400	210	.06*	260	.08
SBT	3	5100	850	.17	1630	.32*
SBR	1	1700	40	.02	100	.06
EBL	2	3400	190	.06*	100	.03
EBT	3	5100	530	.10	1570	.31*
EBR	1	1700	120	.07	240	.14
WBL	2	3400	130	.04	280	.08*
WBT	3	5100	1180	.23*	1020	.20
WBR	1	1700	190	.11	300	.18
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.74**		**.83**

13. Fairview & Sunflower

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	110	.03*	120	.04
NBT	3	5100	720	.14	1690	.33*
NBR	1	1700	90	.05	310	.18
SBL	2	3400	150	.04	110	.03*
SBT	3	5100	1530	.32*	1030	.21
SBR	0	0	120		60	
EBL	2	3400	30	.01	170	.05
EBT	2	3400	220	.08*	410	.15*
EBR	0	0	40		90	
WBL	2	3400	240	.07*	300	.09*
WBT	2	3400	220	.06	610	.18
WBR	1	1700	70	.04	170	.10
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .55 .65

2018 No-Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	113	.03*	124	.04
NBT	3	5100	742	.15	1741	.34*
NBR	1	1700	93	.05	319	.19
SBL	2	3400	155	.05	113	.03*
SBT	3	5100	1576	.33*	1061	.22
SBR	0	0	124		62	
EBL	2	3400	31	.01	175	.05
EBT	2	3400	227	.08*	422	.15*
EBR	0	0	41		93	
WBL	2	3400	247	.07*	309	.09*
WBT	2	3400	227	.07	628	.18
WBR	1	1700	72	.04	175	.10
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .56 .66

2018 With 300 TSF Initial Phase

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	113	.03*	124	.04
NBT	3	5100	742	.15	1741	.34*
NBR	1	1700	93	.05	319	.19
SBL	2	3400	155	.05	113	.03*
SBT	3	5100	1576	.34*	1061	.22
SBR	0	0	145		66	
EBL	2	3400	34	.01	194	.06
EBT	2	3400	236	.08*	478	.17*
EBR	0	0	41		93	
WBL	2	3400	247	.07*	309	.09*
WBT	2	3400	289	.09	639	.19
WBR	1	1700	72	.04	175	.10
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .57 .68

2018 No-Project + Steelwave & Vans

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	113	.03*	124	.04
NBT	3	5100	742	.15	1741	.34*
NBR	1	1700	93	.05	319	.19
SBL	2	3400	155	.05	113	.03*
SBT	3	5100	1576	.34*	1061	.22
SBR	0	0	134		66	
EBL	2	3400	33	.01	183	.05
EBT	2	3400	232	.08*	453	.16*
EBR	0	0	41		93	
WBL	2	3400	247	.07*	309	.09*
WBT	2	3400	262	.08	637	.19
WBR	1	1700	72	.04	175	.10
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .57 .67

13. Fairview & Sunflower

2018 w/300 TSF Initial Phase + Steelwave & Vans

			AM PK HOUR		PM PK HOUR	
	LANES	CAPACITY	VOL	V/C	VOL	V/C
NBL	2	3400	113	.03*	124	.04
NBT	3	5100	742	.15	1741	.34*
NBR	1	1700	93	.05	319	.19
SBL	2	3400	155	.05	113	.03*
SBT	3	5100	1576	.34*	1061	.22
SBR	0	0	155		70	
EBL	2	3400	36	.01	202	.06
EBT	2	3400	241	.08*	509	.18*
EBR	0	0	41		93	
WBL	2	3400	247	.07*	309	.09*
WBT	2	3400	324	.10	648	.19
WBR	1	1700	72	.04	175	.10
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.57**		**.69**

2035 No-Project

			AM PK HOUR		PM PK HOUR	
	LANES	CAPACITY	VOL	V/C	VOL	V/C
NBL	2	3400	200	.06*	190	.06
NBT	3	5100	1160	.23	1750	.34*
NBR	1	1700	120	.07	310	.18
SBL	2	3400	220	.06	150	.04*
SBT	3	5100	1790	.36*	1300	.27
SBR	0	0	46		90	
EBL	2	3400	63	.02	411	.12
EBT	2	3400	314	.13*	454	.17*
EBR	0	0	130		140	
WBL	2	3400	370	.11*	200	.06*
WBT	2	3400	393	.12	299	.09
WBR	1	1700	140	.08	100	.06
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.71**		**.66**

2035 With 655 TSF Full Project

			AM PK HOUR		PM PK HOUR	
	LANES	CAPACITY	VOL	V/C	VOL	V/C
NBL	2	3400	200	.06*	190	.06
NBT	3	5100	1160	.23	1750	.34*
NBR	1	1700	120	.07	310	.18
SBL	2	3400	220	.06	150	.04*
SBT	3	5100	1790	.37*	1300	.27
SBR	0	0	100		100	
EBL	2	3400	70	.02	460	.14
EBT	2	3400	330	.14*	560	.21*
EBR	0	0	130		140	
WBL	2	3400	370	.11*	200	.06*
WBT	2	3400	510	.15	320	.09
WBR	1	1700	140	.08	100	.06
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.73**		**.70**

14. Fairview & South Coast

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	40	.01	80	.02*
NBT	3	5100	1920	.38*	1460	.29
NBR	1	1700	60	.04	60	.04
SBL	2	3400	230	.07*	120	.04
SBT	3	5100	1230	.27	1960	.46*
SBR	0	0	160		370	
EBL	1	1700	270	.16*	300	.18*
EBT	1.5	5100	100	.03	270	.08
EBR	1.5		70		160	{.08}
WBL	2	3400	10	.00	80	.02
WBT	2	3400	70	.02*	210	.06*
WBR	1	1700	90	.05	500	.29
Right Turn Adjustment					WBR	.09*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.68**		**.86**

2018 No-Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	41	.01	82	.02*
NBT	3	5100	1978	.39*	1504	.29
NBR	1	1700	62	.04	62	.04
SBL	2	3400	237	.07*	124	.04
SBT	3	5100	1267	.28	2019	.47*
SBR	0	0	165		381	
EBL	1	1700	278	.16*	309	.18*
EBT	1.5	5100	103	.03	278	{.08}
EBR	1.5		72		165	{.08}
WBL	2	3400	10	.00	82	.02
WBT	2	3400	72	.02*	216	.06*
WBR	1	1700	93	.05	515	.30
Right Turn Adjustment					WBR	.09*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.69**		**.87**

2018 With 300 TSF Initial Phase

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	62	.02	86	.03*
NBT	3	5100	1978	.39*	1504	.29
NBR	1	1700	62	.04	62	.04
SBL	2	3400	237	.07*	124	.04
SBT	3	5100	1267	.28	2019	.47*
SBR	0	0	165		381	
EBL	1	1700	278	.16*	309	.18*
EBT	1.5	5100	105	{.03}	289	.09
EBR	1.5		75		184	
WBL	2	3400	10	.00	82	.02
WBT	2	3400	84	.02*	218	.06*
WBR	1	1700	93	.05	515	.30
Right Turn Adjustment					WBR	.08*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.69**		**.87**

2018 No-Project + Steelwave & Vans

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	70	.02	96	.03*
NBT	3	5100	1978	.39*	1504	.29
NBR	1	1700	62	.04	62	.04
SBL	2	3400	237	.07*	124	.04
SBT	3	5100	1267	.28	2019	.47*
SBR	0	0	165		381	
EBL	1	1700	278	.16*	309	.18*
EBT	1.5	5100	105	{.03}	286	{.09}
EBR	1.5		88		223	
WBL	2	3400	10	.00	82	.02
WBT	2	3400	82	.02*	220	.06*
WBR	1	1700	93	.05	515	.30
Right Turn Adjustment					WBR	.08*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.69**		**.87**

14. Fairview & South Coast

2018 w/300 TSF Initial Phase + Steelwave & Vans

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	91	.03	100	.03*
NBT	3	5100	1978	.39*	1504	.29
NBR	1	1700	62	.04	62	.04
SBL	2	3400	237	.07*	124	.04
SBT	3	5100	1267	.28	2019	.47*
SBR	0	0	165		381	
EBL	1	1700	278	.16*	309	.18*
EBT	1.5	5100	107	{.03}	297	{.10}
EBR	1.5		91		242	
WBL	2	3400	10	.00	82	.02
WBT	2	3400	94	.03*	222	.07*
WBR	1	1700	93	.05	515	.30
Right Turn Adjustment					WBR	.07*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .70 .87

2035 No-Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	544	.16*	283	.08*
NBT	3	5100	1480	.29	1820	.36
NBR	1	1700	290	.17	470	.28
SBL	2	3400	30	.01	70	.02
SBT	3	5100	1780	.38*	1620	.33*
SBR	0	0	180		50	
EBL	1	1700	30	.02	240	.14
EBT	1.5	5100	66	{.02}*	356	{.20}*
EBR	1.5		115		758	
WBL	2	3400	240	.07*	360	.11*
WBT	2	3400	193	.06	415	.12
WBR	1	1700	50	.03	100	.06
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .68 .77

2035 With 655 TSF Full Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	580	.17*	290	.09*
NBT	3	5100	1480	.29	1820	.36
NBR	1	1700	290	.17	470	.28
SBL	2	3400	30	.01	70	.02
SBT	3	5100	1780	.38*	1620	.33*
SBR	0	0	180		50	
EBL	1	1700	30	.02	240	.14
EBT	1.5	5100	70	{.02}*	380	{.21}*
EBR	1.5		120		790	
WBL	2	3400	240	.07*	360	.11*
WBT	2	3400	220	.06	420	.12
WBR	1	1700	50	.03	100	.06
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .69 .79

15. Fairview & I-405 NB Ramps

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	240	.14*	140	.08*
NBT	3	5100	690	.14	1220	.24
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	6	10200	1860	.18*	1850	.18*
SBR	1	1700	200	.12	310	.18
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3400	500	.15*	760	.22*
WBT	0	0	0		0	
WBR	2	3400	660	.19	1170	.34
Right Turn Adjustment					WBR	.10*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.52**		**.63**

2018 No-Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	247	.15*	144	.08*
NBT	3	5100	711	.14	1257	.25
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	6	10200	1916	.19*	1906	.19*
SBR	1	1700	206	.12	319	.19
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3400	515	.15*	783	.23*
WBT	0	0	0		0	
WBR	2	3400	680	.20	1205	.35
Right Turn Adjustment					WBR	.10*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.54**		**.65**

2018 With 300 TSF Initial Phase

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	247	.15*	144	.08*
NBT	3	5100	719	.14	1259	.25
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	6	10200	1919	.19*	1925	.19*
SBR	1	1700	206	.12	319	.19
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3400	515	.15*	783	.23*
WBT	0	0	0		0	
WBR	2	3400	692	.20	1207	.36
Right Turn Adjustment					WBR	.11*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.54**		**.66**

2018 No-Project + Steelwave & Vans

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	247	.15*	144	.08*
NBT	3	5100	728	.14	1265	.25
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	6	10200	1932	.19*	1964	.19*
SBR	1	1700	206	.12	319	.19
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3400	515	.15*	783	.23*
WBT	0	0	0		0	
WBR	2	3400	692	.20	1210	.36
Right Turn Adjustment					WBR	.11*
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.54**		**.66**

15. Fairview & I-405 NB Ramps

2018 w/300 TSF Initial Phase + Steelwave & Vans

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	247	.15*	144	.08*
NBT	3	5100	736	.14	1267	.25
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	6	10200	1935	.19*	1983	.19*
SBR	1	1700	206	.12	319	.19
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3400	515	.15*	783	.23*
WBT	0	0	0		0	
WBR	2	3400	704	.21	1212	.36
Right Turn Adjustment					WBR	.11*
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .54 .66

2035 No-Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	270	.16*	320	.19*
NBT	3	5100	1142	.22	1577	.31
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	6	10200	1865	.18*	2468	.24*
SBR	1	1700	300	.18	260	.15
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3400	520	.15*	900	.26*
WBT	0	0	0		0	
WBR	2	3400	1232	.36	977	.29
Right Turn Adjustment			WBR	.12*		
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .66 .74

2035 With 655 TSF Full Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	1	1700	270	.16*	320	.19*
NBT	3	5100	1160	.23	1580	.31
NBR	0	0	0		0	
SBL	0	0	0		0	
SBT	6	10200	1870	.18*	2500	.25*
SBR	1	1700	300	.18	260	.15
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	2	3400	520	.15*	900	.26*
WBT	0	0	0		0	
WBR	2	3400	1250	.37	980	.29
Right Turn Adjustment			WBR	.14*		
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .68 .75

16. Fairview & I-405 SB Ramps

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3.5	8500	740	.15*	1050	{.15}*
NBR	1.5		960	.28	380	
SBL	3	5100	1200	.24*	1040	.20*
SBT	3	5100	1130	.22	1490	.29
SBR	0	0	0		0	
EBL	2	3400	170	.05*	310	.09*
EBT	0	0	0		0	
EBR	2	3400	240	.07	310	.09
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment			NBR	.09*		
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .58 .49

2018 No-Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3.5	8500	762	.15*	1082	{.16}*
NBR	1.5		989	.29	391	
SBL	3	5100	1236	.24*	1071	.21*
SBT	3	5100	1164	.23	1535	.30
SBR	0	0	0		0	
EBL	2	3400	175	.05*	319	.09*
EBT	0	0	0		0	
EBR	2	3400	247	.07	319	.09
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment			NBR	.10*		
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .59 .51

2018 With 300 TSF Initial Phase

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3.5	8500	770	.15*	1084	{.16}*
NBR	1.5		989	.29	391	
SBL	3	5100	1238	.24*	1082	.21*
SBT	3	5100	1165	.23	1542	.30
SBR	0	0	0		0	
EBL	2	3400	175	.05*	319	.09*
EBT	0	0	0		0	
EBR	2	3400	247	.07	319	.09
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment			NBR	.10*		
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .59 .51

2018 No-Project + Steelwave & Vans

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3.5	8500	779	.15*	1090	{.16}*
NBR	1.5		989	.29	391	
SBL	3	5100	1247	.24*	1114	.22*
SBT	3	5100	1168	.23	1550	.30
SBR	0	0	0		0	
EBL	2	3400	175	.05*	319	.09*
EBT	0	0	0		0	
EBR	2	3400	247	.07	319	.09
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment			NBR	.10*		
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .59 .52

16. Fairview & I-405 SB Ramps

2018 w/300 TSF Initial Phase + Steelwave & Vans

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3.5	8500	787	.15*	1092	{.16}*
NBR	1.5		989	.29	391	
SBL	3	5100	1249	.24*	1125	.22*
SBT	3	5100	1169	.23	1557	.31
SBR	0	0	0		0	
EBL	2	3400	175	.05*	319	.09*
EBT	0	0	0		0	
EBR	2	3400	247	.07	319	.09
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment			NBR	.10*		
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .59 .52

2035 No-Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3.5	8500	1132	.22*	1397	{.21}*
NBR	1.5		1180	.35	510	{.19}
SBL	3	5100	1148	.23*	1474	.29*
SBT	3	5100	1208	.24	1884	.37
SBR	0	0	0		0	
EBL	2	3400	310	.09*	510	.15*
EBT	0	0	0		0	
EBR	2	3400	370	.11	440	.13
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment			NBR	.06*		
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .65 .70

2035 With 655 TSF Full Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3.5	8500	1150	.23*	1400	{.21}*
NBR	1.5		1180	.35	510	{.19}
SBL	3	5100	1150	.23*	1490	.29*
SBT	3	5100	1210	.24	1900	.37
SBR	0	0	0		0	
EBL	2	3400	310	.09*	510	.15*
EBT	0	0	0		0	
EBR	2	3400	370	.11	440	.13
WBL	0	0	0		0	
WBT	0	0	0		0	
WBR	0	0	0		0	
Right Turn Adjustment			NBR	.05*		
Clearance Interval				.05*		.05*

TOTAL CAPACITY UTILIZATION .65 .70

17. Fairview & Paularino

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	5100	1410	.30*	1260	.27*
NBR	0	0	100		110	
SBL	1	1700	100	.06*	160	.09*
SBT	3	5100	1270	.25	1650	.32
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1700	90	.05*	70	.04*
WBT	0	0	0		0	
WBR	1	1700	160	.09	90	.05
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.46**		**.45**

2018 No-Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	5100	1452	.30*	1298	.28*
NBR	0	0	103		113	
SBL	1	1700	103	.06*	165	.10*
SBT	3	5100	1308	.26	1700	.33
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1700	93	.05*	72	.04*
WBT	0	0	0		0	
WBR	1	1700	165	.10	93	.05
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.46**		**.47**

2018 With 300 TSF Initial Phase

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	5100	1456	.31*	1299	.28*
NBR	0	0	103		113	
SBL	1	1700	103	.06*	165	.10*
SBT	3	5100	1309	.26	1704	.33
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1700	93	.05*	72	.04*
WBT	0	0	0		0	
WBR	1	1700	165	.10	93	.05
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.47**		**.47**

2018 No-Project + Steelwave & Vans

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	5100	1466	.31*	1304	.28*
NBR	0	0	103		113	
SBL	1	1700	103	.06*	167	.10*
SBT	3	5100	1311	.26	1711	.34
SBR	0	0	0		2	
EBL	0	0	2		1	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1700	93	.05*	72	.04*
WBT	0	0	0		0	
WBR	1	1700	167	.10	94	.06
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.47**		**.47**

17. Fairview & Paularino

2018 w/300 TSF Initial Phase + Steelwave & Vans

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	5100	1470	.31*	1305	.28*
NBR	0	0	103		113	
SBL	1	1700	103	.06*	167	.10*
SBT	3	5100	1312	.26	1715	.34
SBR	0	0	0		2	
EBL	0	0	2		1	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1700	93	.05*	72	.04*
WBT	0	0	0		0	
WBR	1	1700	167	.10	94	.06
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.47**		**.47**

2035 No-Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	5100	1971	.41*	1738	.37
NBR	0	0	110		150	
SBL	1	1700	110	.06*	150	.09
SBT	3	5100	1529	.30	2422	.47*
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1700	80	.05*	70	.04*
WBT	0	0	0		0	
WBR	1	1700	190	.11	160	.09
Right Turn Adjustment			WBR	.01*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.58**		**.56**

2035 With 655 TSF Full Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	0	0	0		0	
NBT	3	5100	1980	.41*	1740	.37
NBR	0	0	110		150	
SBL	1	1700	110	.06*	150	.09
SBT	3	5100	1530	.30	2430	.48*
SBR	0	0	0		0	
EBL	0	0	0		0	
EBT	0	0	0		0	
EBR	0	0	0		0	
WBL	1	1700	80	.05*	70	.04*
WBT	0	0	0		0	
WBR	1	1700	190	.11	160	.09
Right Turn Adjustment			WBR	.01*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.58**		**.57**

18. Fairview & Baker

Existing

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	120	.04	200	.06
NBT	3	5100	1290	.25*	930	.18*
NBR	1	1700	630	.37	320	.19
SBL	2	3400	220	.06*	200	.06*
SBT	4	6800	820	.12	1120	.16
SBR	1	1700	240	.14	300	.18
EBL	2	3400	190	.06	290	.09
EBT	2	3400	470	.14*	450	.13*
EBR	1	1700	120	.07	150	.09
WBL	2	3400	240	.07*	600	.18*
WBT	3	5100	270	.05	1070	.21
WBR	1	1700	150	.09	210	.12
Right Turn Adjustment			NBR	.07*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.64**		**.60**

2018 No-Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	124	.04	206	.06
NBT	3	5100	1329	.26*	958	.19*
NBR	1	1700	649	.38	330	.19
SBL	2	3400	227	.07*	206	.06*
SBT	4	6800	845	.12	1154	.17
SBR	1	1700	247	.15	309	.18
EBL	2	3400	196	.06	299	.09
EBT	2	3400	484	.14*	464	.14*
EBR	1	1700	124	.07	155	.09
WBL	2	3400	247	.07*	618	.18*
WBT	3	5100	278	.05	1102	.22
WBR	1	1700	155	.09	216	.13
Right Turn Adjustment			NBR	.07*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.66**		**.62**

2018 With 300 TSF Initial Phase

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	124	.04	206	.06
NBT	3	5100	1333	.26*	959	.19*
NBR	1	1700	649	.38	330	.19
SBL	2	3400	227	.07*	206	.06*
SBT	4	6800	846	.12	1158	.17
SBR	1	1700	247	.15	309	.18
EBL	2	3400	196	.06	299	.09
EBT	2	3400	484	.14*	464	.14*
EBR	1	1700	124	.07	155	.09
WBL	2	3400	247	.07*	618	.18*
WBT	3	5100	278	.05	1102	.22
WBR	1	1700	155	.09	216	.13
Right Turn Adjustment			NBR	.07*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.66**		**.62**

2018 No-Project + Steelwave & Vans

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	124	.04	206	.06
NBT	3	5100	1343	.26*	964	.19*
NBR	1	1700	649	.38	330	.19
SBL	2	3400	227	.07*	206	.06*
SBT	4	6800	848	.12	1165	.17
SBR	1	1700	247	.15	309	.18
EBL	2	3400	196	.06	299	.09
EBT	2	3400	484	.14*	464	.14*
EBR	1	1700	124	.07	155	.09
WBL	2	3400	247	.07*	618	.18*
WBT	3	5100	278	.05	1102	.22
WBR	1	1700	155	.09	216	.13
Right Turn Adjustment			NBR	.07*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.66**		**.62**

18. Fairview & Baker

2018 w/300 TSF Initial Phase + Steelwave & Vans

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	124	.04	206	.06
NBT	3	5100	1347	.26*	965	.19*
NBR	1	1700	649	.38	330	.19
SBL	2	3400	227	.07*	206	.06*
SBT	4	6800	849	.12	1169	.17
SBR	1	1700	247	.15	309	.18
EBL	2	3400	196	.06	299	.09
EBT	2	3400	484	.14*	464	.14*
EBR	1	1700	124	.07	155	.09
WBL	2	3400	247	.07*	618	.18*
WBT	3	5100	278	.05	1102	.22
WBR	1	1700	155	.09	216	.13
Right Turn Adjustment			NBR	.07*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.66**		**.62**

2035 No-Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	130	.04	230	.07
NBT	3	5100	1641	.32*	1448	.28*
NBR	1	1700	790	.46	520	.31
SBL	2	3400	280	.08*	300	.09*
SBT	4	6800	1149	.17	1722	.25
SBR	1	1700	190	.11	430	.25
EBL	2	3400	330	.10	260	.08*
EBT	2	3400	520	.15*	620	.18
EBR	1	1700	130	.08	160	.09
WBL	2	3400	390	.11*	540	.16
WBT	3	5100	320	.06	1600	.31*
WBR	1	1700	90	.05	130	.08
Right Turn Adjustment			NBR	.06*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.77**		**.81**

2035 With 655 TSF Full Project

	LANES	CAPACITY	AM PK HOUR VOL	AM PK HOUR V/C	PM PK HOUR VOL	PM PK HOUR V/C
NBL	2	3400	130	.04	230	.07
NBT	3	5100	1650	.32*	1450	.28*
NBR	1	1700	790	.46	520	.31
SBL	2	3400	280	.08*	300	.09*
SBT	4	6800	1150	.17	1730	.25
SBR	1	1700	190	.11	430	.25
EBL	2	3400	330	.10	260	.08*
EBT	2	3400	520	.15*	620	.18
EBR	1	1700	130	.08	160	.09
WBL	2	3400	390	.11*	540	.16
WBT	3	5100	320	.06	1600	.31*
WBR	1	1700	90	.05	130	.08
Right Turn Adjustment			NBR	.06*		
Clearance Interval				.05*		.05*
TOTAL CAPACITY UTILIZATION				**.77**		**.81**

Appendix B HIGHWAY CAPACITY MANUAL (HCM) ANALYSIS WORKSHEETS

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	90	250	270	60
Future Volume (veh/h)	0	0	90	250	270	60
Number			8	18	1	16
Initial Q (Qb), veh			0	0	0	0
Ped-Bike Adj(A_pbT)				1.00	1.00	1.00
Parking Bus, Adj			1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln			1863	1863	1863	1863
Adj Flow Rate, veh/h			95	31	284	0
Adj No. of Lanes			1	1	1	1
Peak Hour Factor			0.95	0.95	0.95	0.95
Percent Heavy Veh, %			2	2	2	2
Cap, veh/h			583	495	0	0
Arrive On Green			0.31	0.31	0.00	0.00
Sat Flow, veh/h			1863	1583	0	
Grp Volume(v), veh/h			95	31	0.0	
Grp Sat Flow(s),veh/h/ln			1863	1583		
Q Serve(g_s), s			0.2	0.1		
Cycle Q Clear(g_c), s			0.2	0.1		
Prop In Lane				1.00		
Lane Grp Cap(c), veh/h			583	495		
V/C Ratio(X)			0.16	0.06		
Avail Cap(c_a), veh/h			10383	8826		
HCM Platoon Ratio			1.00	1.00		
Upstream Filter(I)			1.00	1.00		
Uniform Delay (d), s/veh			1.6	1.6		
Incr Delay (d2), s/veh			0.1	0.1		
Initial Q Delay(d3),s/veh			0.0	0.0		
%ile BackOfQ(50%),veh/ln			0.1	0.0		
LnGrp Delay(d),s/veh			1.8	1.6		
LnGrp LOS			A	A		
Approach Vol, veh/h			126			
Approach Delay, s/veh			1.7			
Approach LOS			A			

Timer	1	2	3	4	5	6	7	8
Assigned Phs								8
Phs Duration (G+Y+Rc), s								6.5
Change Period (Y+Rc), s								4.5
Max Green Setting (Gmax), s								36.5
Max Q Clear Time (g_c+I1), s								2.2
Green Ext Time (p_c), s								0.6

Intersection Summary	
HCM 2010 Ctrl Delay	1.7
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	480	0	820	0	1320	440	0	1410	1040
Future Volume (veh/h)	0	0	0	480	0	820	0	1320	440	0	1410	1040
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	1863	1863	0	1863	1863	0	1863	1863
Adj Flow Rate, veh/h				337	0	1024	0	1389	0	0	1484	0
Adj No. of Lanes				1	0	2	0	4	1	0	4	1
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	2	2	0	2	2	0	2	2
Cap, veh/h				710	0	1268	0	3047	753	0	3047	753
Arrive On Green				0.40	0.00	0.40	0.00	0.48	0.00	0.00	0.48	0.00
Sat Flow, veh/h				1774	0	3167	0	6669	1583	0	6669	1583
Grp Volume(v), veh/h				337	0	1024	0	1389	0	0	1484	0
Grp Sat Flow(s),veh/h/ln				1774	0	1583	0	1602	1583	0	1602	1583
Q Serve(g_s), s				10.2	0.0	20.8	0.0	10.5	0.0	0.0	11.5	0.0
Cycle Q Clear(g_c), s				10.2	0.0	20.8	0.0	10.5	0.0	0.0	11.5	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				710	0	1268	0	3047	753	0	3047	753
V/C Ratio(X)				0.47	0.00	0.81	0.00	0.46	0.00	0.00	0.49	0.00
Avail Cap(c_a), veh/h				1137	0	2030	0	3047	753	0	3047	753
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				16.1	0.0	19.3	0.0	12.7	0.0	0.0	13.0	0.0
Incr Delay (d2), s/veh				0.5	0.0	1.3	0.0	0.5	0.0	0.0	0.6	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				5.1	0.0	9.2	0.0	4.7	0.0	0.0	5.2	0.0
LnGrp Delay(d),s/veh				16.6	0.0	20.6	0.0	13.2	0.0	0.0	13.5	0.0
LnGrp LOS				B		C		B			B	
Approach Vol, veh/h					1361			1389			1484	
Approach Delay, s/veh					19.6			13.2			13.5	
Approach LOS					B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		39.0				39.0		33.6
Change Period (Y+Rc), s		4.5				4.5		4.5
Max Green Setting (Gmax), s		34.5				34.5		46.5
Max Q Clear Time (g_c+I1), s		12.5				13.5		22.8
Green Ext Time (p_c), s		19.3				18.5		6.3

Intersection Summary	
HCM 2010 Ctrl Delay	15.4
HCM 2010 LOS	B

Notes

Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations										
Traffic Volume (veh/h)	290	370	0	1380	1290	0	1700	1040	0	0
Future Volume (veh/h)	290	370	0	1380	1290	0	1700	1040	0	0
Number	7	14	5	2	12	1	6	16		
Initial Q (Qb), veh	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	0	1863	1863		
Adj Flow Rate, veh/h	431	220	0	1453	0	0	1789	0		
Adj No. of Lanes	2	1	0	3	1	0	4	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	0	2	2	0	2	2		
Cap, veh/h	614	274	0	3669	1142	0	4623	1142		
Arrive On Green	0.17	0.17	0.00	0.72	0.00	0.00	0.72	0.00		
Sat Flow, veh/h	3548	1583	0	5253	1583	0	6669	1583		
Grp Volume(v), veh/h	431	220	0	1453	0	0	1789	0		
Grp Sat Flow(s),veh/h/ln	1774	1583	0	1695	1583	0	1602	1583		
Q Serve(g_s), s	9.7	11.4	0.0	9.5	0.0	0.0	9.2	0.0		
Cycle Q Clear(g_c), s	9.7	11.4	0.0	9.5	0.0	0.0	9.2	0.0		
Prop In Lane	1.00	1.00	0.00		1.00	0.00		1.00		
Lane Grp Cap(c), veh/h	614	274	0	3669	1142	0	4623	1142		
V/C Ratio(X)	0.70	0.80	0.00	0.40	0.00	0.00	0.39	0.00		
Avail Cap(c_a), veh/h	812	362	0	3669	1142	0	4623	1142		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	33.2	33.9	0.0	4.6	0.0	0.0	4.6	0.0		
Incr Delay (d2), s/veh	1.8	9.3	0.0	0.3	0.0	0.0	0.2	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	4.9	5.7	0.0	4.4	0.0	0.0	4.1	0.0		
LnGrp Delay(d),s/veh	35.0	43.2	0.0	5.0	0.0	0.0	4.8	0.0		
LnGrp LOS	C	D		A			A			
Approach Vol, veh/h	651			1453			1789			
Approach Delay, s/veh	37.8			5.0			4.8			
Approach LOS	D			A			A			

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		66.0		19.2		66.0		
Change Period (Y+Rc), s		4.5		4.5		4.5		
Max Green Setting (Gmax), s		61.5		19.5		61.5		
Max Q Clear Time (g_c+I1), s		11.5		13.4		11.2		
Green Ext Time (p_c), s		42.5		1.4		42.7		

Intersection Summary	
HCM 2010 Ctrl Delay	10.4
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	500	0	660	240	690	0	0	1860	200
Future Volume (veh/h)	0	0	0	500	0	660	240	690	0	0	1860	200
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	0	1863	1863	1863	0	0	1863	1863
Adj Flow Rate, veh/h				526	0	343	253	726	0	0	1958	83
Adj No. of Lanes				2	0	2	1	3	0	0	6	1
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	0	2	2	2	0	0	2	2
Cap, veh/h				693	0	561	298	3503	0	0	3956	737
Arrive On Green				0.20	0.00	0.20	0.17	0.69	0.00	0.00	0.47	0.47
Sat Flow, veh/h				3442	0	2787	1774	5253	0	0	8941	1583
Grp Volume(v), veh/h				526	0	343	253	726	0	0	1958	83
Grp Sat Flow(s),veh/h/ln				1721	0	1393	1774	1695	0	0	1416	1583
Q Serve(g_s), s				11.8	0.0	9.2	11.3	4.2	0.0	0.0	13.1	2.4
Cycle Q Clear(g_c), s				11.8	0.0	9.2	11.3	4.2	0.0	0.0	13.1	2.4
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				693	0	561	298	3503	0	0	3956	737
V/C Ratio(X)				0.76	0.00	0.61	0.85	0.21	0.00	0.00	0.49	0.11
Avail Cap(c_a), veh/h				1028	0	832	487	3503	0	0	3956	737
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				30.9	0.0	29.8	33.1	4.6	0.0	0.0	15.2	12.4
Incr Delay (d2), s/veh				1.9	0.0	1.1	7.5	0.1	0.0	0.0	0.4	0.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				5.8	0.0	3.6	6.2	2.0	0.0	0.0	5.2	1.1
LnGrp Delay(d),s/veh				32.8	0.0	30.9	40.6	4.8	0.0	0.0	15.7	12.7
LnGrp LOS				C		C	D	A			B	B
Approach Vol, veh/h					869			979			2041	
Approach Delay, s/veh					32.0			14.0			15.5	
Approach LOS					C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		61.0			18.3	42.7		21.0
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5
Max Green Setting (Gmax), s		56.5			22.5	29.5		24.5
Max Q Clear Time (g_c+I1), s		6.2			13.3	15.1		13.8
Green Ext Time (p_c), s		37.3			0.5	13.0		2.7

Intersection Summary	
HCM 2010 Ctrl Delay	18.8
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	170	0	240	0	0	0	0	740	960	1200	1130	0
Future Volume (veh/h)	170	0	240	0	0	0	0	740	960	1200	1130	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	0	1863				0	1863	1863	1863	1863	0
Adj Flow Rate, veh/h	179	0	16				0	779	703	1263	1189	0
Adj No. of Lanes	2	0	2				0	3	2	3	3	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	0	2				0	2	2	2	2	0
Cap, veh/h	380	0	308				0	2533	1435	1431	4014	0
Arrive On Green	0.11	0.00	0.11				0.00	0.45	0.45	0.29	0.79	0.00
Sat Flow, veh/h	3442	0	2787				0	5588	3167	5003	5253	0
Grp Volume(v), veh/h	179	0	16				0	779	703	1263	1189	0
Grp Sat Flow(s),veh/h/ln	1721	0	1393				0	1863	1583	1668	1695	0
Q Serve(g_s), s	4.4	0.0	0.5				0.0	8.0	14.0	21.7	5.8	0.0
Cycle Q Clear(g_c), s	4.4	0.0	0.5				0.0	8.0	14.0	21.7	5.8	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	380	0	308				0	2533	1435	1431	4014	0
V/C Ratio(X)	0.47	0.00	0.05				0.00	0.31	0.49	0.88	0.30	0.00
Avail Cap(c_a), veh/h	387	0	313				0	2533	1435	1532	4014	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	37.5	0.0	35.7				0.0	15.6	17.3	30.6	2.6	0.0
Incr Delay (d2), s/veh	0.9	0.0	0.1				0.0	0.3	1.2	6.2	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	0.2				0.0	4.2	6.3	10.8	2.7	0.0
LnGrp Delay(d),s/veh	38.4	0.0	35.8				0.0	15.9	18.5	36.8	2.8	0.0
LnGrp LOS	D		D					B	B	D	A	
Approach Vol, veh/h		195						1482			2452	
Approach Delay, s/veh		38.2						17.1			20.3	
Approach LOS		D						B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	30.2	45.2		14.4		75.4		
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		
Max Green Setting (Gmax), s	27.5	38.9		10.1		70.9		
Max Q Clear Time (g_c+I1), s	23.7	16.0		6.4		7.8		
Green Ext Time (p_c), s	2.0	17.9		0.2		35.7		

Intersection Summary	
HCM 2010 Ctrl Delay	20.0
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	490	810	350	410
Future Volume (veh/h)	0	0	490	810	350	410
Number			8	18	1	16
Initial Q (Qb), veh			0	0	0	0
Ped-Bike Adj(A_pbT)				1.00	1.00	1.00
Parking Bus, Adj			1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln			1863	1863	1863	1863
Adj Flow Rate, veh/h			516	345	368	0
Adj No. of Lanes			1	1	1	1
Peak Hour Factor			0.95	0.95	0.95	0.95
Percent Heavy Veh, %			2	2	2	2
Cap, veh/h			1271	1080	0	0
Arrive On Green			0.68	0.68	0.00	0.00
Sat Flow, veh/h			1863	1583	0	
Grp Volume(v), veh/h			516	345	0.0	
Grp Sat Flow(s),veh/h/ln			1863	1583		
Q Serve(g_s), s			1.7	1.3		
Cycle Q Clear(g_c), s			1.7	1.3		
Prop In Lane				1.00		
Lane Grp Cap(c), veh/h			1271	1080		
V/C Ratio(X)			0.41	0.32		
Avail Cap(c_a), veh/h			6379	5422		
HCM Platoon Ratio			1.00	1.00		
Upstream Filter(I)			1.00	1.00		
Uniform Delay (d), s/veh			1.0	0.9		
Incr Delay (d2), s/veh			0.2	0.2		
Initial Q Delay(d3),s/veh			0.0	0.0		
%ile BackOfQ(50%),veh/ln			0.8	0.5		
LnGrp Delay(d),s/veh			1.2	1.1		
LnGrp LOS			A	A		
Approach Vol, veh/h			861			
Approach Delay, s/veh			1.2			
Approach LOS			A			

Timer	1	2	3	4	5	6	7	8
Assigned Phs								8
Phs Duration (G+Y+Rc), s								14.2
Change Period (Y+Rc), s								4.5
Max Green Setting (Gmax), s								48.5
Max Q Clear Time (g_c+I1), s								3.7
Green Ext Time (p_c), s								5.3

Intersection Summary	
HCM 2010 Ctrl Delay	1.2
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	880	0	990	0	1580	500	0	1490	930
Future Volume (veh/h)	0	0	0	880	0	990	0	1580	500	0	1490	930
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	1863	1863	0	1863	1863	0	1863	1863
Adj Flow Rate, veh/h				1260	0	667	0	1663	0	0	1568	0
Adj No. of Lanes				2	0	1	0	4	1	0	4	1
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	2	2	0	2	2	0	2	2
Cap, veh/h				1774	0	792	0	2474	611	0	2474	611
Arrive On Green				0.50	0.00	0.50	0.00	0.39	0.00	0.00	0.39	0.00
Sat Flow, veh/h				3548	0	1583	0	6669	1583	0	6669	1583
Grp Volume(v), veh/h				1260	0	667	0	1663	0	0	1568	0
Grp Sat Flow(s),veh/h/ln				1774	0	1583	0	1602	1583	0	1602	1583
Q Serve(g_s), s				21.8	0.0	28.8	0.0	17.0	0.0	0.0	15.7	0.0
Cycle Q Clear(g_c), s				21.8	0.0	28.8	0.0	17.0	0.0	0.0	15.7	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				1774	0	792	0	2474	611	0	2474	611
V/C Ratio(X)				0.71	0.00	0.84	0.00	0.67	0.00	0.00	0.63	0.00
Avail Cap(c_a), veh/h				2268	0	1012	0	2474	611	0	2474	611
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				15.3	0.0	17.1	0.0	20.1	0.0	0.0	19.7	0.0
Incr Delay (d2), s/veh				0.7	0.0	5.3	0.0	1.5	0.0	0.0	1.3	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				10.7	0.0	13.6	0.0	7.8	0.0	0.0	7.2	0.0
LnGrp Delay(d),s/veh				16.1	0.0	22.3	0.0	21.6	0.0	0.0	21.0	0.0
LnGrp LOS				B		C		C			C	
Approach Vol, veh/h					1927			1663			1568	
Approach Delay, s/veh					18.2			21.6			21.0	
Approach LOS					B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		35.0				35.0		44.0
Change Period (Y+Rc), s		4.5				4.5		4.5
Max Green Setting (Gmax), s		30.5				30.5		50.5
Max Q Clear Time (g_c+I1), s		19.0				17.7		30.8
Green Ext Time (p_c), s		11.0				12.1		8.8

Intersection Summary	
HCM 2010 Ctrl Delay	20.1
HCM 2010 LOS	C

Notes

Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations										
Traffic Volume (veh/h)	170	720	0	1810	750	0	2440	930	0	0
Future Volume (veh/h)	170	720	0	1810	750	0	2440	930	0	0
Number	7	14	5	2	12	1	6	16		
Initial Q (Qb), veh	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	0	1863	1863		
Adj Flow Rate, veh/h	179	731	0	1905	0	0	2568	0		
Adj No. of Lanes	1	2	0	3	1	0	4	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	0	2	2	0	2	2		
Cap, veh/h	491	877	0	3121	972	0	3932	972		
Arrive On Green	0.28	0.28	0.00	0.61	0.00	0.00	0.61	0.00		
Sat Flow, veh/h	1774	3167	0	5253	1583	0	6669	1583		
Grp Volume(v), veh/h	179	731	0	1905	0	0	2568	0		
Grp Sat Flow(s),veh/h/ln	1774	1583	0	1695	1583	0	1602	1583		
Q Serve(g_s), s	6.7	17.9	0.0	19.0	0.0	0.0	21.3	0.0		
Cycle Q Clear(g_c), s	6.7	17.9	0.0	19.0	0.0	0.0	21.3	0.0		
Prop In Lane	1.00	1.00	0.00		1.00	0.00		1.00		
Lane Grp Cap(c), veh/h	491	877	0	3121	972	0	3932	972		
V/C Ratio(X)	0.36	0.83	0.00	0.61	0.00	0.00	0.65	0.00		
Avail Cap(c_a), veh/h	658	1174	0	3121	972	0	3932	972		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	23.9	28.0	0.0	9.8	0.0	0.0	10.2	0.0		
Incr Delay (d2), s/veh	0.5	4.0	0.0	0.9	0.0	0.0	0.9	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	3.3	8.3	0.0	9.1	0.0	0.0	9.5	0.0		
LnGrp Delay(d),s/veh	24.4	32.0	0.0	10.7	0.0	0.0	11.1	0.0		
LnGrp LOS	C	C		B			B			
Approach Vol, veh/h	910			1905			2568			
Approach Delay, s/veh	30.5			10.7			11.1			
Approach LOS	C			B			B			

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		55.0		27.3		55.0		
Change Period (Y+Rc), s		4.5		4.5		4.5		
Max Green Setting (Gmax), s		50.5		30.5		50.5		
Max Q Clear Time (g_c+I1), s		21.0		19.9		23.3		
Green Ext Time (p_c), s		29.0		2.9		26.9		

Intersection Summary	
HCM 2010 Ctrl Delay	14.2
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	760	0	1170	140	1220	0	0	1850	310
Future Volume (veh/h)	0	0	0	760	0	1170	140	1220	0	0	1850	310
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	0	1863	1863	1863	0	0	1863	1863
Adj Flow Rate, veh/h				800	0	1190	147	1284	0	0	1947	79
Adj No. of Lanes				2	0	2	1	3	0	0	6	1
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	0	2	2	2	0	0	2	2
Cap, veh/h				1570	0	1271	194	2252	0	0	2406	448
Arrive On Green				0.46	0.00	0.46	0.11	0.44	0.00	0.00	0.28	0.28
Sat Flow, veh/h				3442	0	2787	1774	5253	0	0	8941	1583
Grp Volume(v), veh/h				800	0	1190	147	1284	0	0	1947	79
Grp Sat Flow(s),veh/h/ln				1721	0	1393	1774	1695	0	0	1416	1583
Q Serve(g_s), s				14.7	0.0	36.1	7.2	16.8	0.0	0.0	19.0	3.4
Cycle Q Clear(g_c), s				14.7	0.0	36.1	7.2	16.8	0.0	0.0	19.0	3.4
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1570	0	1271	194	2252	0	0	2406	448
V/C Ratio(X)				0.51	0.00	0.94	0.76	0.57	0.00	0.00	0.81	0.18
Avail Cap(c_a), veh/h				1602	0	1297	209	2252	0	0	2406	448
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				17.2	0.0	23.0	38.6	18.5	0.0	0.0	29.7	24.1
Incr Delay (d2), s/veh				0.3	0.0	12.6	13.9	1.1	0.0	0.0	3.1	0.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.9	0.0	15.9	4.3	8.1	0.0	0.0	7.7	1.6
LnGrp Delay(d),s/veh				17.4	0.0	35.6	52.5	19.6	0.0	0.0	32.8	25.0
LnGrp LOS				B		D	D	B			C	C
Approach Vol, veh/h					1990			1431			2026	
Approach Delay, s/veh					28.3			22.9			32.5	
Approach LOS					C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		44.0			14.2	29.8		45.2
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5
Max Green Setting (Gmax), s		39.5			10.5	24.5		41.5
Max Q Clear Time (g_c+I1), s		18.8			9.2	21.0		38.1
Green Ext Time (p_c), s		19.3			0.0	3.4		2.5

Intersection Summary	
HCM 2010 Ctrl Delay	28.4
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	310	0	310	0	0	0	0	1050	380	1040	1490	0
Future Volume (veh/h)	310	0	310	0	0	0	0	1050	380	1040	1490	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	0	1863				0	1863	1863	1863	1863	0
Adj Flow Rate, veh/h	326	0	234				0	1105	212	1095	1568	0
Adj No. of Lanes	2	0	2				0	4	1	3	3	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	0	2				0	2	2	2	2	0
Cap, veh/h	447	0	362				0	3285	698	1348	3882	0
Arrive On Green	0.13	0.00	0.13				0.00	0.44	0.44	0.27	0.76	0.00
Sat Flow, veh/h	3442	0	2787				0	7451	1583	5003	5253	0
Grp Volume(v), veh/h	326	0	234				0	1105	212	1095	1568	0
Grp Sat Flow(s),veh/h/ln	1721	0	1393				0	1863	1583	1668	1695	0
Q Serve(g_s), s	7.7	0.0	6.7				0.0	8.2	7.3	17.3	8.9	0.0
Cycle Q Clear(g_c), s	7.7	0.0	6.7				0.0	8.2	7.3	17.3	8.9	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	447	0	362				0	3285	698	1348	3882	0
V/C Ratio(X)	0.73	0.00	0.65				0.00	0.34	0.30	0.81	0.40	0.00
Avail Cap(c_a), veh/h	672	0	544				0	3285	698	1747	3882	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	35.3	0.0	34.9				0.0	15.5	15.2	28.9	3.4	0.0
Incr Delay (d2), s/veh	2.3	0.0	1.9				0.0	0.3	1.1	2.3	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.8	0.0	2.7				0.0	4.3	3.4	8.2	4.2	0.0
LnGrp Delay(d),s/veh	37.6	0.0	36.8				0.0	15.8	16.4	31.2	3.7	0.0
LnGrp LOS	D		D					B	B	C	A	
Approach Vol, veh/h		560						1317			2663	
Approach Delay, s/veh		37.3						15.9			15.0	
Approach LOS		D						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	27.3	41.7		15.5		69.0		
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		
Max Green Setting (Gmax), s	29.5	30.5		16.5		64.5		
Max Q Clear Time (g_c+I1), s	19.3	10.2		9.7		10.9		
Green Ext Time (p_c), s	3.5	17.7		1.3		39.1		

Intersection Summary	
HCM 2010 Ctrl Delay	18.0
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	93	258	278	62
Future Volume (veh/h)	0	0	93	258	278	62
Number			8	18	1	16
Initial Q (Qb), veh			0	0	0	0
Ped-Bike Adj(A_pbT)				1.00	1.00	1.00
Parking Bus, Adj			1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln			1863	1863	1863	1863
Adj Flow Rate, veh/h			98	33	293	0
Adj No. of Lanes			1	1	1	1
Peak Hour Factor			0.95	0.95	0.95	0.95
Percent Heavy Veh, %			2	2	2	2
Cap, veh/h			602	512	0	0
Arrive On Green			0.32	0.32	0.00	0.00
Sat Flow, veh/h			1863	1583	0	
Grp Volume(v), veh/h			98	33	0.0	
Grp Sat Flow(s),veh/h/ln			1863	1583		
Q Serve(g_s), s			0.2	0.1		
Cycle Q Clear(g_c), s			0.2	0.1		
Prop In Lane				1.00		
Lane Grp Cap(c), veh/h			602	512		
V/C Ratio(X)			0.16	0.06		
Avail Cap(c_a), veh/h			10226	8692		
HCM Platoon Ratio			1.00	1.00		
Upstream Filter(I)			1.00	1.00		
Uniform Delay (d), s/veh			1.6	1.6		
Incr Delay (d2), s/veh			0.1	0.1		
Initial Q Delay(d3),s/veh			0.0	0.0		
%ile BackOfQ(50%),veh/ln			0.1	0.0		
LnGrp Delay(d),s/veh			1.7	1.6		
LnGrp LOS			A	A		
Approach Vol, veh/h			131			
Approach Delay, s/veh			1.7			
Approach LOS			A			

Timer	1	2	3	4	5	6	7	8
Assigned Phs								8
Phs Duration (G+Y+Rc), s								6.6
Change Period (Y+Rc), s								4.5
Max Green Setting (Gmax), s								36.5
Max Q Clear Time (g_c+I1), s								2.2
Green Ext Time (p_c), s								0.6

Intersection Summary	
HCM 2010 Ctrl Delay	1.7
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	494	0	845	0	1360	453	0	1453	1071
Future Volume (veh/h)	0	0	0	494	0	845	0	1360	453	0	1453	1071
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	1863	1863	0	1863	1863	0	1863	1863
Adj Flow Rate, veh/h				347	0	1056	0	1432	0	0	1529	0
Adj No. of Lanes				1	0	2	0	4	1	0	4	1
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	2	2	0	2	2	0	2	2
Cap, veh/h				727	0	1298	0	2999	741	0	2999	741
Arrive On Green				0.41	0.00	0.41	0.00	0.47	0.00	0.00	0.47	0.00
Sat Flow, veh/h				1774	0	3167	0	6669	1583	0	6669	1583
Grp Volume(v), veh/h				347	0	1056	0	1432	0	0	1529	0
Grp Sat Flow(s),veh/h/ln				1774	0	1583	0	1602	1583	0	1602	1583
Q Serve(g_s), s				10.6	0.0	21.8	0.0	11.3	0.0	0.0	12.3	0.0
Cycle Q Clear(g_c), s				10.6	0.0	21.8	0.0	11.3	0.0	0.0	12.3	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				727	0	1298	0	2999	741	0	2999	741
V/C Ratio(X)				0.48	0.00	0.81	0.00	0.48	0.00	0.00	0.51	0.00
Avail Cap(c_a), veh/h				1119	0	1998	0	2999	741	0	2999	741
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				16.0	0.0	19.3	0.0	13.4	0.0	0.0	13.7	0.0
Incr Delay (d2), s/veh				0.5	0.0	1.6	0.0	0.5	0.0	0.0	0.6	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				5.2	0.0	9.7	0.0	5.1	0.0	0.0	5.5	0.0
LnGrp Delay(d),s/veh				16.4	0.0	20.8	0.0	14.0	0.0	0.0	14.3	0.0
LnGrp LOS				B		C		B			B	
Approach Vol, veh/h					1403			1432			1529	
Approach Delay, s/veh					19.7			14.0			14.3	
Approach LOS					B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		39.0				39.0		34.7
Change Period (Y+Rc), s		4.5				4.5		4.5
Max Green Setting (Gmax), s		34.5				34.5		46.5
Max Q Clear Time (g_c+I1), s		13.3				14.3		23.8
Green Ext Time (p_c), s		18.9				18.1		6.5

Intersection Summary	
HCM 2010 Ctrl Delay	15.9
HCM 2010 LOS	B

Notes

Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations										
Traffic Volume (veh/h)	299	381	0	1421	1329	0	1751	1071	0	0
Future Volume (veh/h)	299	381	0	1421	1329	0	1751	1071	0	0
Number	7	14	5	2	12	1	6	16		
Initial Q (Qb), veh	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	0	1863	1863		
Adj Flow Rate, veh/h	436	223	0	1496	0	0	1843	0		
Adj No. of Lanes	2	1	0	3	1	0	4	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	0	2	2	0	2	2		
Cap, veh/h	620	277	0	3661	1140	0	4614	1140		
Arrive On Green	0.17	0.17	0.00	0.72	0.00	0.00	0.72	0.00		
Sat Flow, veh/h	3548	1583	0	5253	1583	0	6669	1583		
Grp Volume(v), veh/h	436	223	0	1496	0	0	1843	0		
Grp Sat Flow(s),veh/h/ln	1774	1583	0	1695	1583	0	1602	1583		
Q Serve(g_s), s	9.9	11.6	0.0	10.0	0.0	0.0	9.7	0.0		
Cycle Q Clear(g_c), s	9.9	11.6	0.0	10.0	0.0	0.0	9.7	0.0		
Prop In Lane	1.00	1.00	0.00		1.00	0.00		1.00		
Lane Grp Cap(c), veh/h	620	277	0	3661	1140	0	4614	1140		
V/C Ratio(X)	0.70	0.81	0.00	0.41	0.00	0.00	0.40	0.00		
Avail Cap(c_a), veh/h	810	361	0	3661	1140	0	4614	1140		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	33.2	33.9	0.0	4.7	0.0	0.0	4.7	0.0		
Incr Delay (d2), s/veh	1.9	9.7	0.0	0.3	0.0	0.0	0.3	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	5.0	5.8	0.0	4.7	0.0	0.0	4.3	0.0		
LnGrp Delay(d),s/veh	35.0	43.6	0.0	5.1	0.0	0.0	5.0	0.0		
LnGrp LOS	D	D		A			A			
Approach Vol, veh/h	659			1496			1843			
Approach Delay, s/veh	37.9			5.1			5.0			
Approach LOS	D			A			A			

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		66.0		19.4		66.0		
Change Period (Y+Rc), s		4.5		4.5		4.5		
Max Green Setting (Gmax), s		61.5		19.5		61.5		
Max Q Clear Time (g_c+I1), s		12.0		13.6		11.7		
Green Ext Time (p_c), s		43.0		1.4		43.2		

Intersection Summary	
HCM 2010 Ctrl Delay	10.4
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	515	0	680	247	711	0	0	1916	206
Future Volume (veh/h)	0	0	0	515	0	680	247	711	0	0	1916	206
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	0	1863	1863	1863	0	0	1863	1863
Adj Flow Rate, veh/h				542	0	385	260	748	0	0	2017	83
Adj No. of Lanes				2	0	2	1	3	0	0	6	1
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	0	2	2	2	0	0	2	2
Cap, veh/h				714	0	578	305	3473	0	0	3875	722
Arrive On Green				0.21	0.00	0.21	0.17	0.68	0.00	0.00	0.46	0.46
Sat Flow, veh/h				3442	0	2787	1774	5253	0	0	8941	1583
Grp Volume(v), veh/h				542	0	385	260	748	0	0	2017	83
Grp Sat Flow(s),veh/h/ln				1721	0	1393	1774	1695	0	0	1416	1583
Q Serve(g_s), s				12.2	0.0	10.5	11.7	4.5	0.0	0.0	13.9	2.5
Cycle Q Clear(g_c), s				12.2	0.0	10.5	11.7	4.5	0.0	0.0	13.9	2.5
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				714	0	578	305	3473	0	0	3875	722
V/C Ratio(X)				0.76	0.00	0.67	0.85	0.22	0.00	0.00	0.52	0.11
Avail Cap(c_a), veh/h				1037	0	840	489	3473	0	0	3875	722
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				30.7	0.0	30.0	33.0	4.8	0.0	0.0	16.0	12.8
Incr Delay (d2), s/veh				2.0	0.0	1.3	8.0	0.1	0.0	0.0	0.5	0.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				6.0	0.0	4.1	6.4	2.1	0.0	0.0	5.5	1.1
LnGrp Delay(d),s/veh				32.6	0.0	31.3	41.0	5.0	0.0	0.0	16.5	13.2
LnGrp LOS				C		C	D	A			B	B
Approach Vol, veh/h					927			1008			2100	
Approach Delay, s/veh					32.1			14.3			16.3	
Approach LOS					C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		60.7			18.7	42.0		21.6
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5
Max Green Setting (Gmax), s		56.2			22.7	29.0		24.8
Max Q Clear Time (g_c+I1), s		6.5			13.7	15.9		14.2
Green Ext Time (p_c), s		38.1			0.5	12.0		2.9

Intersection Summary	
HCM 2010 Ctrl Delay	19.4
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	175	0	247	0	0	0	0	762	989	1236	1164	0
Future Volume (veh/h)	175	0	247	0	0	0	0	762	989	1236	1164	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	0	1863				0	1863	1863	1863	1863	0
Adj Flow Rate, veh/h	184	0	28				0	802	734	1301	1225	0
Adj No. of Lanes	2	0	2				0	3	2	3	3	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	0	2				0	2	2	2	2	0
Cap, veh/h	381	0	309				0	2481	1406	1476	4013	0
Arrive On Green	0.11	0.00	0.11				0.00	0.44	0.44	0.30	0.79	0.00
Sat Flow, veh/h	3442	0	2787				0	5588	3167	5003	5253	0
Grp Volume(v), veh/h	184	0	28				0	802	734	1301	1225	0
Grp Sat Flow(s),veh/h/ln	1721	0	1393				0	1863	1583	1668	1695	0
Q Serve(g_s), s	4.5	0.0	0.8				0.0	8.4	15.1	22.3	6.0	0.0
Cycle Q Clear(g_c), s	4.5	0.0	0.8				0.0	8.4	15.1	22.3	6.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	381	0	309				0	2481	1406	1476	4013	0
V/C Ratio(X)	0.48	0.00	0.09				0.00	0.32	0.52	0.88	0.31	0.00
Avail Cap(c_a), veh/h	387	0	313				0	2481	1406	1587	4013	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	37.5	0.0	35.9				0.0	16.2	18.1	30.2	2.6	0.0
Incr Delay (d2), s/veh	0.9	0.0	0.1				0.0	0.3	1.4	5.9	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	0.3				0.0	4.4	6.8	11.0	2.8	0.0
LnGrp Delay(d),s/veh	38.5	0.0	36.0				0.0	16.6	19.5	36.0	2.8	0.0
LnGrp LOS	D		D					B	B	D	A	
Approach Vol, veh/h		212						1536			2526	
Approach Delay, s/veh		38.2						18.0			19.9	
Approach LOS		D						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	31.0	44.4		14.4		75.4		
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		
Max Green Setting (Gmax), s	28.5	37.9		10.1		70.9		
Max Q Clear Time (g_c+I1), s	24.3	17.1		6.5		8.0		
Green Ext Time (p_c), s	2.3	17.0		0.2		37.5		

Intersection Summary	
HCM 2010 Ctrl Delay	20.1
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	505	834	361	422
Future Volume (veh/h)	0	0	505	834	361	422
Number			8	18	1	16
Initial Q (Qb), veh			0	0	0	0
Ped-Bike Adj(A_pbT)				1.00	1.00	1.00
Parking Bus, Adj			1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln			1863	1863	1863	1863
Adj Flow Rate, veh/h			532	360	380	0
Adj No. of Lanes			1	1	1	1
Peak Hour Factor			0.95	0.95	0.95	0.95
Percent Heavy Veh, %			2	2	2	2
Cap, veh/h			1273	1082	0	0
Arrive On Green			0.68	0.68	0.00	0.00
Sat Flow, veh/h			1863	1583	0	
Grp Volume(v), veh/h			532	360	0.0	
Grp Sat Flow(s),veh/h/ln			1863	1583		
Q Serve(g_s), s			1.8	1.3		
Cycle Q Clear(g_c), s			1.8	1.3		
Prop In Lane				1.00		
Lane Grp Cap(c), veh/h			1273	1082		
V/C Ratio(X)			0.42	0.33		
Avail Cap(c_a), veh/h			6387	5429		
HCM Platoon Ratio			1.00	1.00		
Upstream Filter(I)			1.00	1.00		
Uniform Delay (d), s/veh			1.0	0.9		
Incr Delay (d2), s/veh			0.2	0.2		
Initial Q Delay(d3),s/veh			0.0	0.0		
%ile BackOfQ(50%),veh/ln			0.8	0.6		
LnGrp Delay(d),s/veh			1.2	1.1		
LnGrp LOS			A	A		
Approach Vol, veh/h			892			
Approach Delay, s/veh			1.2			
Approach LOS			A			

Timer	1	2	3	4	5	6	7	8
Assigned Phs								8
Phs Duration (G+Y+Rc), s								14.2
Change Period (Y+Rc), s								4.5
Max Green Setting (Gmax), s								48.7
Max Q Clear Time (g_c+I1), s								3.8
Green Ext Time (p_c), s								5.5

Intersection Summary	
HCM 2010 Ctrl Delay	1.2
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	906	0	1020	0	1627	515	0	1535	958
Future Volume (veh/h)	0	0	0	906	0	1020	0	1627	515	0	1535	958
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	1863	1863	0	1863	1863	0	1863	1863
Adj Flow Rate, veh/h				1299	0	688	0	1713	0	0	1616	0
Adj No. of Lanes				2	0	1	0	4	1	0	4	1
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	2	2	0	2	2	0	2	2
Cap, veh/h				1809	0	807	0	2425	599	0	2425	599
Arrive On Green				0.51	0.00	0.51	0.00	0.38	0.00	0.00	0.38	0.00
Sat Flow, veh/h				3548	0	1583	0	6669	1583	0	6669	1583
Grp Volume(v), veh/h				1299	0	688	0	1713	0	0	1616	0
Grp Sat Flow(s),veh/h/ln				1774	0	1583	0	1602	1583	0	1602	1583
Q Serve(g_s), s				22.8	0.0	30.4	0.0	18.3	0.0	0.0	16.9	0.0
Cycle Q Clear(g_c), s				22.8	0.0	30.4	0.0	18.3	0.0	0.0	16.9	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				1809	0	807	0	2425	599	0	2425	599
V/C Ratio(X)				0.72	0.00	0.85	0.00	0.71	0.00	0.00	0.67	0.00
Avail Cap(c_a), veh/h				2223	0	992	0	2425	599	0	2425	599
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				15.3	0.0	17.1	0.0	21.2	0.0	0.0	20.8	0.0
Incr Delay (d2), s/veh				0.9	0.0	6.1	0.0	1.8	0.0	0.0	1.5	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				11.2	0.0	14.6	0.0	8.4	0.0	0.0	7.7	0.0
LnGrp Delay(d),s/veh				16.1	0.0	23.2	0.0	23.0	0.0	0.0	22.3	0.0
LnGrp LOS				B		C		C			C	
Approach Vol, veh/h					1987			1713			1616	
Approach Delay, s/veh					18.6			23.0			22.3	
Approach LOS					B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		35.0				35.0		45.6
Change Period (Y+Rc), s		4.5				4.5		4.5
Max Green Setting (Gmax), s		30.5				30.5		50.5
Max Q Clear Time (g_c+I1), s		20.3				18.9		32.4
Green Ext Time (p_c), s		9.8				11.1		8.7

Intersection Summary	
HCM 2010 Ctrl Delay	21.1
HCM 2010 LOS	C

Notes

Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations										
Traffic Volume (veh/h)	175	742	0	1864	773	0	2513	958	0	0
Future Volume (veh/h)	175	742	0	1864	773	0	2513	958	0	0
Number	7	14	5	2	12	1	6	16		
Initial Q (Qb), veh	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	0	1863	1863		
Adj Flow Rate, veh/h	184	756	0	1962	0	0	2645	0		
Adj No. of Lanes	1	2	0	3	1	0	4	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	0	2	2	0	2	2		
Cap, veh/h	508	906	0	3071	956	0	3870	956		
Arrive On Green	0.29	0.29	0.00	0.60	0.00	0.00	0.60	0.00		
Sat Flow, veh/h	1774	3167	0	5253	1583	0	6669	1583		
Grp Volume(v), veh/h	184	756	0	1962	0	0	2645	0		
Grp Sat Flow(s),veh/h/ln	1774	1583	0	1695	1583	0	1602	1583		
Q Serve(g_s), s	6.8	18.3	0.0	20.4	0.0	0.0	22.8	0.0		
Cycle Q Clear(g_c), s	6.8	18.3	0.0	20.4	0.0	0.0	22.8	0.0		
Prop In Lane	1.00	1.00	0.00		1.00	0.00		1.00		
Lane Grp Cap(c), veh/h	508	906	0	3071	956	0	3870	956		
V/C Ratio(X)	0.36	0.83	0.00	0.64	0.00	0.00	0.68	0.00		
Avail Cap(c_a), veh/h	682	1217	0	3071	956	0	3870	956		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	23.3	27.4	0.0	10.5	0.0	0.0	10.9	0.0		
Incr Delay (d2), s/veh	0.4	3.9	0.0	1.0	0.0	0.0	1.0	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	3.4	8.5	0.0	9.7	0.0	0.0	10.2	0.0		
LnGrp Delay(d),s/veh	23.7	31.3	0.0	11.5	0.0	0.0	11.9	0.0		
LnGrp LOS	C	C		B			B			
Approach Vol, veh/h	940			1962			2645			
Approach Delay, s/veh	29.8			11.5			11.9			
Approach LOS	C			B			B			

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		54.0		28.0		54.0		
Change Period (Y+Rc), s		4.5		4.5		4.5		
Max Green Setting (Gmax), s		49.5		31.5		49.5		
Max Q Clear Time (g_c+I1), s		22.4		20.3		24.8		
Green Ext Time (p_c), s		26.8		3.1		24.4		

Intersection Summary	
HCM 2010 Ctrl Delay	14.8
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	783	0	1205	144	1257	0	0	1906	319
Future Volume (veh/h)	0	0	0	783	0	1205	144	1257	0	0	1906	319
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	0	1863	1863	1863	0	0	1863	1863
Adj Flow Rate, veh/h				824	0	1226	152	1323	0	0	2006	80
Adj No. of Lanes				2	0	2	1	3	0	0	6	1
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	0	2	2	2	0	0	2	2
Cap, veh/h				1582	0	1281	193	2238	0	0	2388	445
Arrive On Green				0.46	0.00	0.46	0.11	0.44	0.00	0.00	0.28	0.28
Sat Flow, veh/h				3442	0	2787	1774	5253	0	0	8941	1583
Grp Volume(v), veh/h				824	0	1226	152	1323	0	0	2006	80
Grp Sat Flow(s),veh/h/ln				1721	0	1393	1774	1695	0	0	1416	1583
Q Serve(g_s), s				15.3	0.0	38.1	7.5	17.7	0.0	0.0	19.9	3.4
Cycle Q Clear(g_c), s				15.3	0.0	38.1	7.5	17.7	0.0	0.0	19.9	3.4
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1582	0	1281	193	2238	0	0	2388	445
V/C Ratio(X)				0.52	0.00	0.96	0.79	0.59	0.00	0.00	0.84	0.18
Avail Cap(c_a), veh/h				1592	0	1289	208	2238	0	0	2388	445
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				17.2	0.0	23.4	39.0	19.0	0.0	0.0	30.4	24.4
Incr Delay (d2), s/veh				0.3	0.0	15.9	16.9	1.2	0.0	0.0	3.8	0.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.3	0.0	17.3	4.6	8.4	0.0	0.0	8.2	1.6
LnGrp Delay(d),s/veh				17.5	0.0	39.3	55.9	20.2	0.0	0.0	34.1	25.3
LnGrp LOS				B		D	E	C			C	C
Approach Vol, veh/h					2050			1475			2086	
Approach Delay, s/veh					30.6			23.8			33.8	
Approach LOS					C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		44.0			14.3	29.7		45.7
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5
Max Green Setting (Gmax), s		39.5			10.5	24.5		41.5
Max Q Clear Time (g_c+I1), s		19.7			9.5	21.9		40.1
Green Ext Time (p_c), s		18.7			0.0	2.5		1.1

Intersection Summary	
HCM 2010 Ctrl Delay	30.0
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	319	0	319	0	0	0	0	1082	391	1071	1535	0
Future Volume (veh/h)	319	0	319	0	0	0	0	1082	391	1071	1535	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	0	1863				0	1863	1863	1863	1863	0
Adj Flow Rate, veh/h	336	0	253				0	1139	216	1127	1616	0
Adj No. of Lanes	2	0	2				0	4	1	3	3	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	0	2				0	2	2	2	2	0
Cap, veh/h	458	0	371				0	3223	685	1376	3868	0
Arrive On Green	0.13	0.00	0.13				0.00	0.43	0.43	0.28	0.76	0.00
Sat Flow, veh/h	3442	0	2787				0	7451	1583	5003	5253	0
Grp Volume(v), veh/h	336	0	253				0	1139	216	1127	1616	0
Grp Sat Flow(s),veh/h/ln	1721	0	1393				0	1863	1583	1668	1695	0
Q Serve(g_s), s	8.0	0.0	7.3				0.0	8.7	7.6	17.9	9.5	0.0
Cycle Q Clear(g_c), s	8.0	0.0	7.3				0.0	8.7	7.6	17.9	9.5	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	458	0	371				0	3223	685	1376	3868	0
V/C Ratio(X)	0.73	0.00	0.68				0.00	0.35	0.32	0.82	0.42	0.00
Avail Cap(c_a), veh/h	670	0	542				0	3223	685	1741	3868	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	35.3	0.0	35.0				0.0	16.1	15.8	28.8	3.6	0.0
Incr Delay (d2), s/veh	2.3	0.0	2.2				0.0	0.3	1.2	2.6	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.0	2.9				0.0	4.5	3.5	8.6	4.5	0.0
LnGrp Delay(d),s/veh	37.6	0.0	37.3				0.0	16.4	17.0	31.3	3.9	0.0
LnGrp LOS	D		D					B	B	C	A	
Approach Vol, veh/h		589						1355			2743	
Approach Delay, s/veh		37.5						16.5			15.2	
Approach LOS		D						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	27.8	41.2		15.8		69.0		
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		
Max Green Setting (Gmax), s	29.5	30.5		16.5		64.5		
Max Q Clear Time (g_c+I1), s	19.9	10.7		10.0		11.5		
Green Ext Time (p_c), s	3.5	17.6		1.3		40.0		

Intersection Summary	
HCM 2010 Ctrl Delay	18.4
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	100	258	278	62
Future Volume (veh/h)	0	0	100	258	278	62
Number			8	18	1	16
Initial Q (Qb), veh			0	0	0	0
Ped-Bike Adj(A_pbT)				1.00	1.00	1.00
Parking Bus, Adj			1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln			1863	1863	1863	1863
Adj Flow Rate, veh/h			105	33	293	0
Adj No. of Lanes			1	1	1	1
Peak Hour Factor			0.95	0.95	0.95	0.95
Percent Heavy Veh, %			2	2	2	2
Cap, veh/h			629	534	0	0
Arrive On Green			0.34	0.34	0.00	0.00
Sat Flow, veh/h			1863	1583	0	
Grp Volume(v), veh/h			105	33	0.0	
Grp Sat Flow(s),veh/h/ln			1863	1583		
Q Serve(g_s), s			0.3	0.1		
Cycle Q Clear(g_c), s			0.3	0.1		
Prop In Lane				1.00		
Lane Grp Cap(c), veh/h			629	534		
V/C Ratio(X)			0.17	0.06		
Avail Cap(c_a), veh/h			10010	8508		
HCM Platoon Ratio			1.00	1.00		
Upstream Filter(I)			1.00	1.00		
Uniform Delay (d), s/veh			1.6	1.5		
Incr Delay (d2), s/veh			0.1	0.0		
Initial Q Delay(d3),s/veh			0.0	0.0		
%ile BackOfQ(50%),veh/ln			0.1	0.0		
LnGrp Delay(d),s/veh			1.7	1.6		
LnGrp LOS			A	A		
Approach Vol, veh/h			138			
Approach Delay, s/veh			1.7			
Approach LOS			A			

Timer	1	2	3	4	5	6	7	8
Assigned Phs								8
Phs Duration (G+Y+Rc), s								6.8
Change Period (Y+Rc), s								4.5
Max Green Setting (Gmax), s								36.5
Max Q Clear Time (g_c+I1), s								2.3
Green Ext Time (p_c), s								0.7

Intersection Summary	
HCM 2010 Ctrl Delay	1.7
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	494	0	886	0	1467	453	0	1461	1085
Future Volume (veh/h)	0	0	0	494	0	886	0	1467	453	0	1461	1085
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	1863	1863	0	1863	1863	0	1863	1863
Adj Flow Rate, veh/h				347	0	1100	0	1544	0	0	1538	0
Adj No. of Lanes				1	0	2	0	4	1	0	4	1
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	2	2	0	2	2	0	2	2
Cap, veh/h				754	0	1345	0	2906	718	0	2906	718
Arrive On Green				0.42	0.00	0.42	0.00	0.45	0.00	0.00	0.45	0.00
Sat Flow, veh/h				1774	0	3167	0	6669	1583	0	6669	1583
Grp Volume(v), veh/h				347	0	1100	0	1544	0	0	1538	0
Grp Sat Flow(s),veh/h/ln				1774	0	1583	0	1602	1583	0	1602	1583
Q Serve(g_s), s				10.3	0.0	22.6	0.0	12.8	0.0	0.0	12.8	0.0
Cycle Q Clear(g_c), s				10.3	0.0	22.6	0.0	12.8	0.0	0.0	12.8	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				754	0	1345	0	2906	718	0	2906	718
V/C Ratio(X)				0.46	0.00	0.82	0.00	0.53	0.00	0.00	0.53	0.00
Avail Cap(c_a), veh/h				1141	0	2036	0	2906	718	0	2906	718
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				15.2	0.0	18.7	0.0	14.5	0.0	0.0	14.5	0.0
Incr Delay (d2), s/veh				0.4	0.0	1.6	0.0	0.7	0.0	0.0	0.7	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				5.1	0.0	10.1	0.0	5.7	0.0	0.0	5.7	0.0
LnGrp Delay(d),s/veh				15.6	0.0	20.4	0.0	15.2	0.0	0.0	15.2	0.0
LnGrp LOS				B		C		B			B	
Approach Vol, veh/h					1447			1544			1538	
Approach Delay, s/veh					19.2			15.2			15.2	
Approach LOS					B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		38.0				38.0		35.9
Change Period (Y+Rc), s		4.5				4.5		4.5
Max Green Setting (Gmax), s		33.5				33.5		47.5
Max Q Clear Time (g_c+I1), s		14.8				14.8		24.6
Green Ext Time (p_c), s		17.1				17.2		6.8

Intersection Summary	
HCM 2010 Ctrl Delay	16.5
HCM 2010 LOS	B

Notes

Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations										
Traffic Volume (veh/h)	348	381	0	1479	1329	0	1759	1085	0	0
Future Volume (veh/h)	348	381	0	1479	1329	0	1759	1085	0	0
Number	7	14	5	2	12	1	6	16		
Initial Q (Qb), veh	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	0	1863	1863		
Adj Flow Rate, veh/h	474	241	0	1557	0	0	1852	0		
Adj No. of Lanes	2	1	0	3	1	0	4	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	0	2	2	0	2	2		
Cap, veh/h	663	296	0	3599	1121	0	4535	1121		
Arrive On Green	0.19	0.19	0.00	0.71	0.00	0.00	0.71	0.00		
Sat Flow, veh/h	3548	1583	0	5253	1583	0	6669	1583		
Grp Volume(v), veh/h	474	241	0	1557	0	0	1852	0		
Grp Sat Flow(s),veh/h/ln	1774	1583	0	1695	1583	0	1602	1583		
Q Serve(g_s), s	10.7	12.5	0.0	11.0	0.0	0.0	10.2	0.0		
Cycle Q Clear(g_c), s	10.7	12.5	0.0	11.0	0.0	0.0	10.2	0.0		
Prop In Lane	1.00	1.00	0.00		1.00	0.00		1.00		
Lane Grp Cap(c), veh/h	663	296	0	3599	1121	0	4535	1121		
V/C Ratio(X)	0.71	0.81	0.00	0.43	0.00	0.00	0.41	0.00		
Avail Cap(c_a), veh/h	851	380	0	3599	1121	0	4535	1121		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	32.6	33.3	0.0	5.3	0.0	0.0	5.1	0.0		
Incr Delay (d2), s/veh	2.0	10.1	0.0	0.4	0.0	0.0	0.3	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	5.5	6.3	0.0	5.2	0.0	0.0	4.5	0.0		
LnGrp Delay(d),s/veh	34.7	43.5	0.0	5.6	0.0	0.0	5.4	0.0		
LnGrp LOS	C	D		A			A			
Approach Vol, veh/h	715			1557			1852			
Approach Delay, s/veh	37.6			5.6			5.4			
Approach LOS	D			A			A			

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		65.0		20.5		65.0		
Change Period (Y+Rc), s		4.5		4.5		4.5		
Max Green Setting (Gmax), s		60.5		20.5		60.5		
Max Q Clear Time (g_c+I1), s		13.0		14.5		12.2		
Green Ext Time (p_c), s		42.0		1.5		42.6		

Intersection Summary	
HCM 2010 Ctrl Delay	11.1
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	515	0	692	247	719	0	0	1919	206
Future Volume (veh/h)	0	0	0	515	0	692	247	719	0	0	1919	206
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	0	1863	1863	1863	0	0	1863	1863
Adj Flow Rate, veh/h				542	0	410	260	757	0	0	2020	83
Adj No. of Lanes				2	0	2	1	3	0	0	6	1
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	0	2	2	2	0	0	2	2
Cap, veh/h				721	0	584	306	3461	0	0	3849	718
Arrive On Green				0.21	0.00	0.21	0.17	0.68	0.00	0.00	0.45	0.45
Sat Flow, veh/h				3442	0	2787	1774	5253	0	0	8941	1583
Grp Volume(v), veh/h				542	0	410	260	757	0	0	2020	83
Grp Sat Flow(s),veh/h/ln				1721	0	1393	1774	1695	0	0	1416	1583
Q Serve(g_s), s				12.1	0.0	11.2	11.6	4.6	0.0	0.0	14.0	2.5
Cycle Q Clear(g_c), s				12.1	0.0	11.2	11.6	4.6	0.0	0.0	14.0	2.5
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				721	0	584	306	3461	0	0	3849	718
V/C Ratio(X)				0.75	0.00	0.70	0.85	0.22	0.00	0.00	0.52	0.12
Avail Cap(c_a), veh/h				1064	0	861	492	3461	0	0	3849	718
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				30.4	0.0	30.0	32.8	4.9	0.0	0.0	16.1	12.9
Incr Delay (d2), s/veh				1.7	0.0	1.6	7.8	0.1	0.0	0.0	0.5	0.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				5.9	0.0	4.4	6.4	2.1	0.0	0.0	5.5	1.1
LnGrp Delay(d),s/veh				32.1	0.0	31.5	40.7	5.1	0.0	0.0	16.6	13.2
LnGrp LOS				C		C	D	A			B	B
Approach Vol, veh/h					952			1017			2103	
Approach Delay, s/veh					31.8			14.2			16.4	
Approach LOS					C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		60.2			18.6	41.6		21.7
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5
Max Green Setting (Gmax), s		55.7			22.7	28.5		25.3
Max Q Clear Time (g_c+I1), s		6.6			13.6	16.0		14.1
Green Ext Time (p_c), s		38.0			0.5	11.5		3.1

Intersection Summary	
HCM 2010 Ctrl Delay	19.5
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	175	0	247	0	0	0	0	770	989	1238	1165	0
Future Volume (veh/h)	175	0	247	0	0	0	0	770	989	1238	1165	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	0	1863				0	1863	1863	1863	1863	0
Adj Flow Rate, veh/h	184	0	29				0	811	736	1303	1226	0
Adj No. of Lanes	2	0	2				0	3	2	3	3	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	0	2				0	2	2	2	2	0
Cap, veh/h	381	0	309				0	2479	1405	1478	4013	0
Arrive On Green	0.11	0.00	0.11				0.00	0.44	0.44	0.30	0.79	0.00
Sat Flow, veh/h	3442	0	2787				0	5588	3167	5003	5253	0
Grp Volume(v), veh/h	184	0	29				0	811	736	1303	1226	0
Grp Sat Flow(s),veh/h/ln	1721	0	1393				0	1863	1583	1668	1695	0
Q Serve(g_s), s	4.5	0.0	0.8				0.0	8.5	15.1	22.3	6.0	0.0
Cycle Q Clear(g_c), s	4.5	0.0	0.8				0.0	8.5	15.1	22.3	6.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	381	0	309				0	2479	1405	1478	4013	0
V/C Ratio(X)	0.48	0.00	0.09				0.00	0.33	0.52	0.88	0.31	0.00
Avail Cap(c_a), veh/h	387	0	313				0	2479	1405	1587	4013	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	37.5	0.0	35.9				0.0	16.3	18.1	30.2	2.6	0.0
Incr Delay (d2), s/veh	0.9	0.0	0.1				0.0	0.4	1.4	5.9	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	0.3				0.0	4.4	6.8	11.1	2.8	0.0
LnGrp Delay(d),s/veh	38.5	0.0	36.0				0.0	16.6	19.5	36.0	2.8	0.0
LnGrp LOS	D		D					B	B	D	A	
Approach Vol, veh/h		213						1547			2529	
Approach Delay, s/veh		38.1						18.0			19.9	
Approach LOS		D						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	31.0	44.4		14.5		75.4		
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		
Max Green Setting (Gmax), s	28.5	37.9		10.1		70.9		
Max Q Clear Time (g_c+I1), s	24.3	17.1		6.5		8.0		
Green Ext Time (p_c), s	2.2	17.0		0.2		37.7		

Intersection Summary	
HCM 2010 Ctrl Delay	20.1
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	550	834	361	422
Future Volume (veh/h)	0	0	550	834	361	422
Number			8	18	1	16
Initial Q (Qb), veh			0	0	0	0
Ped-Bike Adj(A_pbT)				1.00	1.00	1.00
Parking Bus, Adj			1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln			1863	1863	1863	1863
Adj Flow Rate, veh/h			579	378	380	0
Adj No. of Lanes			1	1	1	1
Peak Hour Factor			0.95	0.95	0.95	0.95
Percent Heavy Veh, %			2	2	2	2
Cap, veh/h			1284	1091	0	0
Arrive On Green			0.69	0.69	0.00	0.00
Sat Flow, veh/h			1863	1583	0	
Grp Volume(v), veh/h			579	378	0.0	
Grp Sat Flow(s),veh/h/ln			1863	1583		
Q Serve(g_s), s			2.0	1.4		
Cycle Q Clear(g_c), s			2.0	1.4		
Prop In Lane				1.00		
Lane Grp Cap(c), veh/h			1284	1091		
V/C Ratio(X)			0.45	0.35		
Avail Cap(c_a), veh/h			6266	5326		
HCM Platoon Ratio			1.00	1.00		
Upstream Filter(I)			1.00	1.00		
Uniform Delay (d), s/veh			1.0	0.9		
Incr Delay (d2), s/veh			0.2	0.2		
Initial Q Delay(d3),s/veh			0.0	0.0		
%ile BackOfQ(50%),veh/ln			1.1	0.6		
LnGrp Delay(d),s/veh			1.3	1.1		
LnGrp LOS			A	A		
Approach Vol, veh/h			957			
Approach Delay, s/veh			1.2			
Approach LOS			A			

Timer	1	2	3	4	5	6	7	8
Assigned Phs								8
Phs Duration (G+Y+Rc), s								14.5
Change Period (Y+Rc), s								4.5
Max Green Setting (Gmax), s								48.7
Max Q Clear Time (g_c+I1), s								4.0
Green Ext Time (p_c), s								6.2

Intersection Summary	
HCM 2010 Ctrl Delay	1.2
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	906	0	1028	0	1647	515	0	1587	1047
Future Volume (veh/h)	0	0	0	906	0	1028	0	1647	515	0	1587	1047
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	1863	1863	0	1863	1863	0	1863	1863
Adj Flow Rate, veh/h				1303	0	692	0	1734	0	0	1671	0
Adj No. of Lanes				2	0	1	0	4	1	0	4	1
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	2	2	0	2	2	0	2	2
Cap, veh/h				1815	0	810	0	2417	597	0	2417	597
Arrive On Green				0.51	0.00	0.51	0.00	0.38	0.00	0.00	0.38	0.00
Sat Flow, veh/h				3548	0	1583	0	6669	1583	0	6669	1583
Grp Volume(v), veh/h				1303	0	692	0	1734	0	0	1671	0
Grp Sat Flow(s),veh/h/ln				1774	0	1583	0	1602	1583	0	1602	1583
Q Serve(g_s), s				22.9	0.0	30.7	0.0	18.7	0.0	0.0	17.8	0.0
Cycle Q Clear(g_c), s				22.9	0.0	30.7	0.0	18.7	0.0	0.0	17.8	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				1815	0	810	0	2417	597	0	2417	597
V/C Ratio(X)				0.72	0.00	0.85	0.00	0.72	0.00	0.00	0.69	0.00
Avail Cap(c_a), veh/h				2216	0	989	0	2417	597	0	2417	597
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				15.2	0.0	17.1	0.0	21.5	0.0	0.0	21.2	0.0
Incr Delay (d2), s/veh				0.9	0.0	6.3	0.0	1.9	0.0	0.0	1.6	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				11.3	0.0	14.7	0.0	8.5	0.0	0.0	8.1	0.0
LnGrp Delay(d),s/veh				16.1	0.0	23.4	0.0	23.4	0.0	0.0	22.9	0.0
LnGrp LOS				B		C		C			C	
Approach Vol, veh/h					1995			1734			1671	
Approach Delay, s/veh					18.7			23.4			22.9	
Approach LOS					B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		35.0				35.0		45.9
Change Period (Y+Rc), s		4.5				4.5		4.5
Max Green Setting (Gmax), s		30.5				30.5		50.5
Max Q Clear Time (g_c+I1), s		20.7				19.8		32.7
Green Ext Time (p_c), s		9.5				10.4		8.7

Intersection Summary	
HCM 2010 Ctrl Delay	21.5
HCM 2010 LOS	C

Notes

Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations										
Traffic Volume (veh/h)	184	742	0	1875	773	0	2565	1047	0	0
Future Volume (veh/h)	184	742	0	1875	773	0	2565	1047	0	0
Number	7	14	5	2	12	1	6	16		
Initial Q (Qb), veh	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	0	1863	1863		
Adj Flow Rate, veh/h	194	754	0	1974	0	0	2700	0		
Adj No. of Lanes	1	2	0	3	1	0	4	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	0	2	2	0	2	2		
Cap, veh/h	498	890	0	3113	969	0	3922	969		
Arrive On Green	0.28	0.28	0.00	0.61	0.00	0.00	0.61	0.00		
Sat Flow, veh/h	1774	3167	0	5253	1583	0	6669	1583		
Grp Volume(v), veh/h	194	754	0	1974	0	0	2700	0		
Grp Sat Flow(s),veh/h/ln	1774	1583	0	1695	1583	0	1602	1583		
Q Serve(g_s), s	7.4	18.9	0.0	20.7	0.0	0.0	23.8	0.0		
Cycle Q Clear(g_c), s	7.4	18.9	0.0	20.7	0.0	0.0	23.8	0.0		
Prop In Lane	1.00	1.00	0.00		1.00	0.00		1.00		
Lane Grp Cap(c), veh/h	498	890	0	3113	969	0	3922	969		
V/C Ratio(X)	0.39	0.85	0.00	0.63	0.00	0.00	0.69	0.00		
Avail Cap(c_a), veh/h	622	1110	0	3113	969	0	3922	969		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	24.4	28.5	0.0	10.3	0.0	0.0	10.9	0.0		
Incr Delay (d2), s/veh	0.5	5.2	0.0	1.0	0.0	0.0	1.0	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	3.7	8.9	0.0	9.8	0.0	0.0	10.6	0.0		
LnGrp Delay(d),s/veh	24.9	33.7	0.0	11.3	0.0	0.0	11.9	0.0		
LnGrp LOS	C	C		B			B			
Approach Vol, veh/h	948			1974			2700			
Approach Delay, s/veh	31.9			11.3			11.9			
Approach LOS	C			B			B			

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		56.0		28.1		56.0		
Change Period (Y+Rc), s		4.5		4.5		4.5		
Max Green Setting (Gmax), s		51.5		29.5		51.5		
Max Q Clear Time (g_c+I1), s		22.7		20.9		25.8		
Green Ext Time (p_c), s		28.5		2.7		25.5		

Intersection Summary	
HCM 2010 Ctrl Delay	15.1
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	783	0	1207	144	1259	0	0	1925	319
Future Volume (veh/h)	0	0	0	783	0	1207	144	1259	0	0	1925	319
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	0	1863	1863	1863	0	0	1863	1863
Adj Flow Rate, veh/h				824	0	1229	152	1325	0	0	2026	80
Adj No. of Lanes				2	0	2	1	3	0	0	6	1
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	0	2	2	2	0	0	2	2
Cap, veh/h				1582	0	1281	193	2237	0	0	2387	445
Arrive On Green				0.46	0.00	0.46	0.11	0.44	0.00	0.00	0.28	0.28
Sat Flow, veh/h				3442	0	2787	1774	5253	0	0	8941	1583
Grp Volume(v), veh/h				824	0	1229	152	1325	0	0	2026	80
Grp Sat Flow(s),veh/h/ln				1721	0	1393	1774	1695	0	0	1416	1583
Q Serve(g_s), s				15.3	0.0	38.3	7.5	17.7	0.0	0.0	20.2	3.4
Cycle Q Clear(g_c), s				15.3	0.0	38.3	7.5	17.7	0.0	0.0	20.2	3.4
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1582	0	1281	193	2237	0	0	2387	445
V/C Ratio(X)				0.52	0.00	0.96	0.79	0.59	0.00	0.00	0.85	0.18
Avail Cap(c_a), veh/h				1591	0	1288	207	2237	0	0	2387	445
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				17.2	0.0	23.4	39.0	19.0	0.0	0.0	30.5	24.4
Incr Delay (d2), s/veh				0.3	0.0	16.3	17.0	1.2	0.0	0.0	4.0	0.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.3	0.0	17.4	4.6	8.5	0.0	0.0	8.3	1.6
LnGrp Delay(d),s/veh				17.5	0.0	39.7	56.0	20.2	0.0	0.0	34.5	25.3
LnGrp LOS				B		D	E	C			C	C
Approach Vol, veh/h					2053			1477			2106	
Approach Delay, s/veh					30.8			23.9			34.1	
Approach LOS					C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		44.0			14.3	29.7		45.8
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5
Max Green Setting (Gmax), s		39.5			10.5	24.5		41.5
Max Q Clear Time (g_c+I1), s		19.7			9.5	22.2		40.3
Green Ext Time (p_c), s		18.7			0.0	2.2		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	30.2
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	319	0	319	0	0	0	0	1084	391	1082	1542	0
Future Volume (veh/h)	319	0	319	0	0	0	0	1084	391	1082	1542	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	0	1863				0	1863	1863	1863	1863	0
Adj Flow Rate, veh/h	336	0	254				0	1141	215	1139	1623	0
Adj No. of Lanes	2	0	2				0	4	1	3	3	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	0	2				0	2	2	2	2	0
Cap, veh/h	458	0	371				0	3192	678	1397	3868	0
Arrive On Green	0.13	0.00	0.13				0.00	0.43	0.43	0.28	0.76	0.00
Sat Flow, veh/h	3442	0	2787				0	7451	1583	5003	5253	0
Grp Volume(v), veh/h	336	0	254				0	1141	215	1139	1623	0
Grp Sat Flow(s),veh/h/ln	1721	0	1393				0	1863	1583	1668	1695	0
Q Serve(g_s), s	8.0	0.0	7.4				0.0	8.8	7.6	18.0	9.5	0.0
Cycle Q Clear(g_c), s	8.0	0.0	7.4				0.0	8.8	7.6	18.0	9.5	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	458	0	371				0	3192	678	1397	3868	0
V/C Ratio(X)	0.73	0.00	0.68				0.00	0.36	0.32	0.82	0.42	0.00
Avail Cap(c_a), veh/h	670	0	542				0	3192	678	1800	3868	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	35.3	0.0	35.1				0.0	16.4	16.0	28.5	3.6	0.0
Incr Delay (d2), s/veh	2.3	0.0	2.2				0.0	0.3	1.2	2.3	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.0	2.9				0.0	4.6	3.5	8.5	4.5	0.0
LnGrp Delay(d),s/veh	37.6	0.0	37.3				0.0	16.7	17.3	30.9	3.9	0.0
LnGrp LOS	D		D					B	B	C	A	
Approach Vol, veh/h		590						1356			2762	
Approach Delay, s/veh		37.5						16.8			15.0	
Approach LOS		D						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	28.2	40.8		15.8		69.0		
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		
Max Green Setting (Gmax), s	30.5	29.5		16.5		64.5		
Max Q Clear Time (g_c+I1), s	20.0	10.8		10.0		11.5		
Green Ext Time (p_c), s	3.7	16.7		1.3		40.1		

Intersection Summary	
HCM 2010 Ctrl Delay	18.3
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	109	331	283	63
Future Volume (veh/h)	0	0	109	331	283	63
Number			8	18	1	16
Initial Q (Qb), veh			0	0	0	0
Ped-Bike Adj(A_pbT)				1.00	1.00	1.00
Parking Bus, Adj			1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln			1863	1863	1863	1863
Adj Flow Rate, veh/h			115	109	298	0
Adj No. of Lanes			1	1	1	1
Peak Hour Factor			0.95	0.95	0.95	0.95
Percent Heavy Veh, %			2	2	2	2
Cap, veh/h			896	761	0	0
Arrive On Green			0.48	0.48	0.00	0.00
Sat Flow, veh/h			1863	1583	0	
Grp Volume(v), veh/h			115	109	0.0	
Grp Sat Flow(s),veh/h/ln			1863	1583		
Q Serve(g_s), s			0.3	0.3		
Cycle Q Clear(g_c), s			0.3	0.3		
Prop In Lane				1.00		
Lane Grp Cap(c), veh/h			896	761		
V/C Ratio(X)			0.13	0.14		
Avail Cap(c_a), veh/h			8487	7214		
HCM Platoon Ratio			1.00	1.00		
Upstream Filter(I)			1.00	1.00		
Uniform Delay (d), s/veh			1.2	1.3		
Incr Delay (d2), s/veh			0.1	0.1		
Initial Q Delay(d3),s/veh			0.0	0.0		
%ile BackOfQ(50%),veh/ln			0.1	0.1		
LnGrp Delay(d),s/veh			1.3	1.3		
LnGrp LOS			A	A		
Approach Vol, veh/h			224			
Approach Delay, s/veh			1.3			
Approach LOS			A			

Timer	1	2	3	4	5	6	7	8
Assigned Phs								8
Phs Duration (G+Y+Rc), s								8.7
Change Period (Y+Rc), s								4.5
Max Green Setting (Gmax), s								39.5
Max Q Clear Time (g_c+I1), s								2.3
Green Ext Time (p_c), s								1.0

Intersection Summary	
HCM 2010 Ctrl Delay	1.3
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	494	0	888	0	1465	453	0	1461	1074
Future Volume (veh/h)	0	0	0	494	0	888	0	1465	453	0	1461	1074
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	1863	1863	0	1863	1863	0	1863	1863
Adj Flow Rate, veh/h				347	0	1102	0	1542	0	0	1538	0
Adj No. of Lanes				1	0	2	0	4	1	0	4	1
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	2	2	0	2	2	0	2	2
Cap, veh/h				755	0	1347	0	2903	717	0	2903	717
Arrive On Green				0.43	0.00	0.43	0.00	0.45	0.00	0.00	0.45	0.00
Sat Flow, veh/h				1774	0	3167	0	6669	1583	0	6669	1583
Grp Volume(v), veh/h				347	0	1102	0	1542	0	0	1538	0
Grp Sat Flow(s),veh/h/ln				1774	0	1583	0	1602	1583	0	1602	1583
Q Serve(g_s), s				10.3	0.0	22.7	0.0	12.8	0.0	0.0	12.8	0.0
Cycle Q Clear(g_c), s				10.3	0.0	22.7	0.0	12.8	0.0	0.0	12.8	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				755	0	1347	0	2903	717	0	2903	717
V/C Ratio(X)				0.46	0.00	0.82	0.00	0.53	0.00	0.00	0.53	0.00
Avail Cap(c_a), veh/h				1139	0	2034	0	2903	717	0	2903	717
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				15.2	0.0	18.7	0.0	14.6	0.0	0.0	14.6	0.0
Incr Delay (d2), s/veh				0.4	0.0	1.7	0.0	0.7	0.0	0.0	0.7	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				5.1	0.0	10.1	0.0	5.8	0.0	0.0	5.7	0.0
LnGrp Delay(d),s/veh				15.6	0.0	20.4	0.0	15.3	0.0	0.0	15.3	0.0
LnGrp LOS				B		C		B			B	
Approach Vol, veh/h					1449			1542			1538	
Approach Delay, s/veh					19.2			15.3			15.3	
Approach LOS					B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		38.0				38.0		36.0
Change Period (Y+Rc), s		4.5				4.5		4.5
Max Green Setting (Gmax), s		33.5				33.5		47.5
Max Q Clear Time (g_c+I1), s		14.8				14.8		24.7
Green Ext Time (p_c), s		17.1				17.2		6.8

Intersection Summary	
HCM 2010 Ctrl Delay	16.5
HCM 2010 LOS	B

Notes

Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations										
Traffic Volume (veh/h)	359	381	0	1465	1329	0	1759	1074	0	0
Future Volume (veh/h)	359	381	0	1465	1329	0	1759	1074	0	0
Number	7	14	5	2	12	1	6	16		
Initial Q (Qb), veh	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	0	1863	1863		
Adj Flow Rate, veh/h	480	244	0	1542	0	0	1852	0		
Adj No. of Lanes	2	1	0	3	1	0	4	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	0	2	2	0	2	2		
Cap, veh/h	669	299	0	3592	1118	0	4526	1118		
Arrive On Green	0.19	0.19	0.00	0.71	0.00	0.00	0.71	0.00		
Sat Flow, veh/h	3548	1583	0	5253	1583	0	6669	1583		
Grp Volume(v), veh/h	480	244	0	1542	0	0	1852	0		
Grp Sat Flow(s),veh/h/ln	1774	1583	0	1695	1583	0	1602	1583		
Q Serve(g_s), s	10.9	12.7	0.0	10.9	0.0	0.0	10.2	0.0		
Cycle Q Clear(g_c), s	10.9	12.7	0.0	10.9	0.0	0.0	10.2	0.0		
Prop In Lane	1.00	1.00	0.00		1.00	0.00		1.00		
Lane Grp Cap(c), veh/h	669	299	0	3592	1118	0	4526	1118		
V/C Ratio(X)	0.72	0.82	0.00	0.43	0.00	0.00	0.41	0.00		
Avail Cap(c_a), veh/h	849	379	0	3592	1118	0	4526	1118		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	32.6	33.3	0.0	5.3	0.0	0.0	5.2	0.0		
Incr Delay (d2), s/veh	2.1	10.5	0.0	0.4	0.0	0.0	0.3	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	5.5	6.4	0.0	5.1	0.0	0.0	4.6	0.0		
LnGrp Delay(d),s/veh	34.7	43.9	0.0	5.7	0.0	0.0	5.5	0.0		
LnGrp LOS	C	D		A			A			
Approach Vol, veh/h	724			1542			1852			
Approach Delay, s/veh	37.8			5.7			5.5			
Approach LOS	D			A			A			

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		65.0		20.7		65.0		
Change Period (Y+Rc), s		4.5		4.5		4.5		
Max Green Setting (Gmax), s		60.5		20.5		60.5		
Max Q Clear Time (g_c+I1), s		12.9		14.7		12.2		
Green Ext Time (p_c), s		41.9		1.5		42.5		

Intersection Summary	
HCM 2010 Ctrl Delay	11.2
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	515	0	692	247	728	0	0	1932	206
Future Volume (veh/h)	0	0	0	515	0	692	247	728	0	0	1932	206
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	0	1863	1863	1863	0	0	1863	1863
Adj Flow Rate, veh/h				542	0	397	260	766	0	0	2034	83
Adj No. of Lanes				2	0	2	1	3	0	0	6	1
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	0	2	2	2	0	0	2	2
Cap, veh/h				720	0	583	306	3463	0	0	3852	718
Arrive On Green				0.21	0.00	0.21	0.17	0.68	0.00	0.00	0.45	0.45
Sat Flow, veh/h				3442	0	2787	1774	5253	0	0	8941	1583
Grp Volume(v), veh/h				542	0	397	260	766	0	0	2034	83
Grp Sat Flow(s),veh/h/ln				1721	0	1393	1774	1695	0	0	1416	1583
Q Serve(g_s), s				12.1	0.0	10.7	11.6	4.6	0.0	0.0	14.1	2.5
Cycle Q Clear(g_c), s				12.1	0.0	10.7	11.6	4.6	0.0	0.0	14.1	2.5
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				720	0	583	306	3463	0	0	3852	718
V/C Ratio(X)				0.75	0.00	0.68	0.85	0.22	0.00	0.00	0.53	0.12
Avail Cap(c_a), veh/h				1064	0	862	492	3463	0	0	3852	718
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				30.4	0.0	29.8	32.8	4.9	0.0	0.0	16.1	12.9
Incr Delay (d2), s/veh				1.7	0.0	1.4	7.8	0.1	0.0	0.0	0.5	0.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				5.9	0.0	4.2	6.4	2.2	0.0	0.0	5.6	1.1
LnGrp Delay(d),s/veh				32.1	0.0	31.2	40.6	5.1	0.0	0.0	16.6	13.2
LnGrp LOS				C		C	D	A			B	B
Approach Vol, veh/h					939			1026			2117	
Approach Delay, s/veh					31.7			14.1			16.5	
Approach LOS					C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		60.2			18.6	41.6		21.6
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5
Max Green Setting (Gmax), s		55.7			22.7	28.5		25.3
Max Q Clear Time (g_c+I1), s		6.6			13.6	16.1		14.1
Green Ext Time (p_c), s		38.2			0.5	11.5		3.0

Intersection Summary	
HCM 2010 Ctrl Delay	19.4
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	175	0	247	0	0	0	0	779	989	1247	1168	0
Future Volume (veh/h)	175	0	247	0	0	0	0	779	989	1247	1168	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	0	1863				0	1863	1863	1863	1863	0
Adj Flow Rate, veh/h	184	0	28				0	820	734	1313	1229	0
Adj No. of Lanes	2	0	2				0	3	2	3	3	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	0	2				0	2	2	2	2	0
Cap, veh/h	381	0	309				0	2472	1401	1484	4013	0
Arrive On Green	0.11	0.00	0.11				0.00	0.44	0.44	0.30	0.79	0.00
Sat Flow, veh/h	3442	0	2787				0	5588	3167	5003	5253	0
Grp Volume(v), veh/h	184	0	28				0	820	734	1313	1229	0
Grp Sat Flow(s),veh/h/ln	1721	0	1393				0	1863	1583	1668	1695	0
Q Serve(g_s), s	4.5	0.0	0.8				0.0	8.6	15.1	22.5	6.0	0.0
Cycle Q Clear(g_c), s	4.5	0.0	0.8				0.0	8.6	15.1	22.5	6.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	381	0	309				0	2472	1401	1484	4013	0
V/C Ratio(X)	0.48	0.00	0.09				0.00	0.33	0.52	0.88	0.31	0.00
Avail Cap(c_a), veh/h	387	0	313				0	2472	1401	1587	4013	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	37.5	0.0	35.9				0.0	16.4	18.2	30.1	2.6	0.0
Incr Delay (d2), s/veh	0.9	0.0	0.1				0.0	0.4	1.4	6.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	0.3				0.0	4.5	6.9	11.2	2.8	0.0
LnGrp Delay(d),s/veh	38.5	0.0	36.0				0.0	16.7	19.6	36.2	2.8	0.0
LnGrp LOS	D		D					B	B	D	A	
Approach Vol, veh/h		212						1554			2542	
Approach Delay, s/veh		38.2						18.1			20.1	
Approach LOS		D						B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	31.2	44.2		14.4		75.4		
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		
Max Green Setting (Gmax), s	28.5	37.9		10.1		70.9		
Max Q Clear Time (g_c+I1), s	24.5	17.1		6.5		8.0		
Green Ext Time (p_c), s	2.2	17.0		0.2		37.9		

Intersection Summary	
HCM 2010 Ctrl Delay	20.2
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	546	841	413	436
Future Volume (veh/h)	0	0	546	841	413	436
Number			8	18	1	16
Initial Q (Qb), veh			0	0	0	0
Ped-Bike Adj(A_pbT)				1.00	1.00	1.00
Parking Bus, Adj			1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln			1863	1863	1863	1863
Adj Flow Rate, veh/h			575	367	435	0
Adj No. of Lanes			1	1	1	1
Peak Hour Factor			0.95	0.95	0.95	0.95
Percent Heavy Veh, %			2	2	2	2
Cap, veh/h			1277	1085	0	0
Arrive On Green			0.69	0.69	0.00	0.00
Sat Flow, veh/h			1863	1583	0	
Grp Volume(v), veh/h			575	367	0.0	
Grp Sat Flow(s),veh/h/ln			1863	1583		
Q Serve(g_s), s			2.0	1.4		
Cycle Q Clear(g_c), s			2.0	1.4		
Prop In Lane				1.00		
Lane Grp Cap(c), veh/h			1277	1085		
V/C Ratio(X)			0.45	0.34		
Avail Cap(c_a), veh/h			6055	5146		
HCM Platoon Ratio			1.00	1.00		
Upstream Filter(I)			1.00	1.00		
Uniform Delay (d), s/veh			1.0	0.9		
Incr Delay (d2), s/veh			0.2	0.2		
Initial Q Delay(d3),s/veh			0.0	0.0		
%ile BackOfQ(50%),veh/ln			1.0	0.6		
LnGrp Delay(d),s/veh			1.3	1.1		
LnGrp LOS			A	A		
Approach Vol, veh/h			942			
Approach Delay, s/veh			1.2			
Approach LOS			A			

Timer	1	2	3	4	5	6	7	8
Assigned Phs								8
Phs Duration (G+Y+Rc), s								14.3
Change Period (Y+Rc), s								4.5
Max Green Setting (Gmax), s								46.5
Max Q Clear Time (g_c+I1), s								4.0
Green Ext Time (p_c), s								6.0

Intersection Summary	
HCM 2010 Ctrl Delay	1.2
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	906	0	1024	0	1662	515	0	1538	997
Future Volume (veh/h)	0	0	0	906	0	1024	0	1662	515	0	1538	997
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	1863	1863	0	1863	1863	0	1863	1863
Adj Flow Rate, veh/h				1301	0	690	0	1749	0	0	1619	0
Adj No. of Lanes				2	0	1	0	4	1	0	4	1
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	2	2	0	2	2	0	2	2
Cap, veh/h				1812	0	809	0	2421	598	0	2421	598
Arrive On Green				0.51	0.00	0.51	0.00	0.38	0.00	0.00	0.38	0.00
Sat Flow, veh/h				3548	0	1583	0	6669	1583	0	6669	1583
Grp Volume(v), veh/h				1301	0	690	0	1749	0	0	1619	0
Grp Sat Flow(s),veh/h/ln				1774	0	1583	0	1602	1583	0	1602	1583
Q Serve(g_s), s				22.9	0.0	30.5	0.0	18.9	0.0	0.0	17.0	0.0
Cycle Q Clear(g_c), s				22.9	0.0	30.5	0.0	18.9	0.0	0.0	17.0	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				1812	0	809	0	2421	598	0	2421	598
V/C Ratio(X)				0.72	0.00	0.85	0.00	0.72	0.00	0.00	0.67	0.00
Avail Cap(c_a), veh/h				2219	0	990	0	2421	598	0	2421	598
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				15.3	0.0	17.1	0.0	21.5	0.0	0.0	20.9	0.0
Incr Delay (d2), s/veh				0.9	0.0	6.2	0.0	1.9	0.0	0.0	1.5	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				11.2	0.0	14.6	0.0	8.6	0.0	0.0	7.7	0.0
LnGrp Delay(d),s/veh				16.1	0.0	23.3	0.0	23.4	0.0	0.0	22.4	0.0
LnGrp LOS				B		C		C			C	
Approach Vol, veh/h					1991			1749			1619	
Approach Delay, s/veh					18.6			23.4			22.4	
Approach LOS					B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		35.0				35.0		45.7
Change Period (Y+Rc), s		4.5				4.5		4.5
Max Green Setting (Gmax), s		30.5				30.5		50.5
Max Q Clear Time (g_c+I1), s		20.9				19.0		32.5
Green Ext Time (p_c), s		9.3				11.1		8.7

Intersection Summary	
HCM 2010 Ctrl Delay	21.3
HCM 2010 LOS	C

Notes

Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations										
Traffic Volume (veh/h)	196	742	0	1879	773	0	2552	997	0	0
Future Volume (veh/h)	196	742	0	1879	773	0	2552	997	0	0
Number	7	14	5	2	12	1	6	16		
Initial Q (Qb), veh	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	0	1863	1863		
Adj Flow Rate, veh/h	206	756	0	1978	0	0	2686	0		
Adj No. of Lanes	1	2	0	3	1	0	4	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	0	2	2	0	2	2		
Cap, veh/h	504	900	0	3089	962	0	3892	962		
Arrive On Green	0.28	0.28	0.00	0.61	0.00	0.00	0.61	0.00		
Sat Flow, veh/h	1774	3167	0	5253	1583	0	6669	1583		
Grp Volume(v), veh/h	206	756	0	1978	0	0	2686	0		
Grp Sat Flow(s),veh/h/ln	1774	1583	0	1695	1583	0	1602	1583		
Q Serve(g_s), s	7.8	18.7	0.0	20.8	0.0	0.0	23.6	0.0		
Cycle Q Clear(g_c), s	7.8	18.7	0.0	20.8	0.0	0.0	23.6	0.0		
Prop In Lane	1.00	1.00	0.00		1.00	0.00		1.00		
Lane Grp Cap(c), veh/h	504	900	0	3089	962	0	3892	962		
V/C Ratio(X)	0.41	0.84	0.00	0.64	0.00	0.00	0.69	0.00		
Avail Cap(c_a), veh/h	651	1162	0	3089	962	0	3892	962		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	24.1	28.0	0.0	10.5	0.0	0.0	11.0	0.0		
Incr Delay (d2), s/veh	0.5	4.5	0.0	1.0	0.0	0.0	1.0	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	3.9	8.6	0.0	9.8	0.0	0.0	10.5	0.0		
LnGrp Delay(d),s/veh	24.6	32.4	0.0	11.5	0.0	0.0	12.1	0.0		
LnGrp LOS	C	C		B			B			
Approach Vol, veh/h	962			1978			2686			
Approach Delay, s/veh	30.8			11.5			12.1			
Approach LOS	C			B			B			

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		55.0		28.1		55.0		
Change Period (Y+Rc), s		4.5		4.5		4.5		
Max Green Setting (Gmax), s		50.5		30.5		50.5		
Max Q Clear Time (g_c+I1), s		22.8		20.7		25.6		
Green Ext Time (p_c), s		27.4		3.0		24.7		

Intersection Summary	
HCM 2010 Ctrl Delay	15.1
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	783	0	1210	144	1265	0	0	1964	319
Future Volume (veh/h)	0	0	0	783	0	1210	144	1265	0	0	1964	319
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	0	1863	1863	1863	0	0	1863	1863
Adj Flow Rate, veh/h				824	0	1232	152	1332	0	0	2067	80
Adj No. of Lanes				2	0	2	1	3	0	0	6	1
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	0	2	2	2	0	0	2	2
Cap, veh/h				1549	0	1254	193	2288	0	0	2475	461
Arrive On Green				0.45	0.00	0.45	0.11	0.45	0.00	0.00	0.29	0.29
Sat Flow, veh/h				3442	0	2787	1774	5253	0	0	8941	1583
Grp Volume(v), veh/h				824	0	1232	152	1332	0	0	2067	80
Grp Sat Flow(s),veh/h/ln				1721	0	1393	1774	1695	0	0	1416	1583
Q Serve(g_s), s				15.6	0.0	39.2	7.5	17.6	0.0	0.0	20.5	3.4
Cycle Q Clear(g_c), s				15.6	0.0	39.2	7.5	17.6	0.0	0.0	20.5	3.4
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1549	0	1254	193	2288	0	0	2475	461
V/C Ratio(X)				0.53	0.00	0.98	0.79	0.58	0.00	0.00	0.84	0.17
Avail Cap(c_a), veh/h				1549	0	1254	207	2288	0	0	2475	461
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				17.9	0.0	24.4	39.1	18.4	0.0	0.0	29.9	23.8
Incr Delay (d2), s/veh				0.4	0.0	21.2	17.2	1.1	0.0	0.0	3.5	0.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.4	0.0	18.6	4.6	8.4	0.0	0.0	8.3	1.6
LnGrp Delay(d),s/veh				18.2	0.0	45.6	56.3	19.5	0.0	0.0	33.4	24.6
LnGrp LOS				B		D	E	B			C	C
Approach Vol, veh/h					2056			1484			2147	
Approach Delay, s/veh					34.6			23.3			33.1	
Approach LOS					C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		45.0			14.3	30.7		45.0
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5
Max Green Setting (Gmax), s		40.5			10.5	25.5		40.5
Max Q Clear Time (g_c+I1), s		19.6			9.5	22.5		41.2
Green Ext Time (p_c), s		19.8			0.0	2.9		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	31.1
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	319	0	319	0	0	0	0	1090	391	1114	1550	0
Future Volume (veh/h)	319	0	319	0	0	0	0	1090	391	1114	1550	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	0	1863				0	1863	1863	1863	1863	0
Adj Flow Rate, veh/h	336	0	253				0	1147	216	1173	1632	0
Adj No. of Lanes	2	0	2				0	4	1	3	3	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	0	2				0	2	2	2	2	0
Cap, veh/h	458	0	371				0	3144	668	1429	3868	0
Arrive On Green	0.13	0.00	0.13				0.00	0.42	0.42	0.29	0.76	0.00
Sat Flow, veh/h	3442	0	2787				0	7451	1583	5003	5253	0
Grp Volume(v), veh/h	336	0	253				0	1147	216	1173	1632	0
Grp Sat Flow(s),veh/h/ln	1721	0	1393				0	1863	1583	1668	1695	0
Q Serve(g_s), s	8.0	0.0	7.3				0.0	8.9	7.7	18.6	9.6	0.0
Cycle Q Clear(g_c), s	8.0	0.0	7.3				0.0	8.9	7.7	18.6	9.6	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	458	0	371				0	3144	668	1429	3868	0
V/C Ratio(X)	0.73	0.00	0.68				0.00	0.36	0.32	0.82	0.42	0.00
Avail Cap(c_a), veh/h	670	0	542				0	3144	668	1800	3868	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	35.3	0.0	35.0				0.0	16.7	16.4	28.3	3.6	0.0
Incr Delay (d2), s/veh	2.3	0.0	2.2				0.0	0.3	1.3	2.5	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.0	2.9				0.0	4.6	3.6	8.8	4.5	0.0
LnGrp Delay(d),s/veh	37.6	0.0	37.3				0.0	17.1	17.7	30.8	3.9	0.0
LnGrp LOS	D		D					B	B	C	A	
Approach Vol, veh/h		589						1363			2805	
Approach Delay, s/veh		37.5						17.2			15.2	
Approach LOS		D						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	28.7	40.3		15.8		69.0		
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		
Max Green Setting (Gmax), s	30.5	29.5		16.5		64.5		
Max Q Clear Time (g_c+I1), s	20.6	10.9		10.0		11.6		
Green Ext Time (p_c), s	3.7	16.6		1.3		40.3		

Intersection Summary	
HCM 2010 Ctrl Delay	18.5
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	109	331	283	63
Future Volume (veh/h)	0	0	109	331	283	63
Number			8	18	1	16
Initial Q (Qb), veh			0	0	0	0
Ped-Bike Adj(A_pbT)				1.00	1.00	1.00
Parking Bus, Adj			1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln			1863	1863	1863	1863
Adj Flow Rate, veh/h			115	109	298	0
Adj No. of Lanes			1	1	1	1
Peak Hour Factor			0.95	0.95	0.95	0.95
Percent Heavy Veh, %			2	2	2	2
Cap, veh/h			896	761	0	0
Arrive On Green			0.48	0.48	0.00	0.00
Sat Flow, veh/h			1863	1583	0	
Grp Volume(v), veh/h			115	109	0.0	
Grp Sat Flow(s),veh/h/ln			1863	1583		
Q Serve(g_s), s			0.3	0.3		
Cycle Q Clear(g_c), s			0.3	0.3		
Prop In Lane				1.00		
Lane Grp Cap(c), veh/h			896	761		
V/C Ratio(X)			0.13	0.14		
Avail Cap(c_a), veh/h			8487	7214		
HCM Platoon Ratio			1.00	1.00		
Upstream Filter(I)			1.00	1.00		
Uniform Delay (d), s/veh			1.2	1.3		
Incr Delay (d2), s/veh			0.1	0.1		
Initial Q Delay(d3),s/veh			0.0	0.0		
%ile BackOfQ(50%),veh/ln			0.1	0.1		
LnGrp Delay(d),s/veh			1.3	1.3		
LnGrp LOS			A	A		
Approach Vol, veh/h			224			
Approach Delay, s/veh			1.3			
Approach LOS			A			

Timer	1	2	3	4	5	6	7	8
Assigned Phs								8
Phs Duration (G+Y+Rc), s								8.7
Change Period (Y+Rc), s								4.5
Max Green Setting (Gmax), s								39.5
Max Q Clear Time (g_c+I1), s								2.3
Green Ext Time (p_c), s								1.0

Intersection Summary	
HCM 2010 Ctrl Delay	1.3
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	494	0	929	0	1572	453	0	1469	1088
Future Volume (veh/h)	0	0	0	494	0	929	0	1572	453	0	1469	1088
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	1863	1863	0	1863	1863	0	1863	1863
Adj Flow Rate, veh/h				347	0	1145	0	1655	0	0	1546	0
Adj No. of Lanes				1	0	2	0	4	1	0	4	1
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	2	2	0	2	2	0	2	2
Cap, veh/h				770	0	1375	0	2876	711	0	2876	711
Arrive On Green				0.43	0.00	0.43	0.00	0.45	0.00	0.00	0.45	0.00
Sat Flow, veh/h				1774	0	3167	0	6669	1583	0	6669	1583
Grp Volume(v), veh/h				347	0	1145	0	1655	0	0	1546	0
Grp Sat Flow(s),veh/h/ln				1774	0	1583	0	1602	1583	0	1602	1583
Q Serve(g_s), s				10.6	0.0	24.6	0.0	14.8	0.0	0.0	13.5	0.0
Cycle Q Clear(g_c), s				10.6	0.0	24.6	0.0	14.8	0.0	0.0	13.5	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				770	0	1375	0	2876	711	0	2876	711
V/C Ratio(X)				0.45	0.00	0.83	0.00	0.58	0.00	0.00	0.54	0.00
Avail Cap(c_a), veh/h				1073	0	1915	0	2876	711	0	2876	711
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				15.3	0.0	19.3	0.0	15.7	0.0	0.0	15.4	0.0
Incr Delay (d2), s/veh				0.4	0.0	2.3	0.0	0.8	0.0	0.0	0.7	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				5.2	0.0	11.1	0.0	6.6	0.0	0.0	6.0	0.0
LnGrp Delay(d),s/veh				15.7	0.0	21.6	0.0	16.6	0.0	0.0	16.1	0.0
LnGrp LOS				B		C		B			B	
Approach Vol, veh/h					1492			1655			1546	
Approach Delay, s/veh					20.2			16.6			16.1	
Approach LOS					C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		39.0				39.0		37.9
Change Period (Y+Rc), s		4.5				4.5		4.5
Max Green Setting (Gmax), s		34.5				34.5		46.5
Max Q Clear Time (g_c+I1), s		16.8				15.5		26.6
Green Ext Time (p_c), s		16.5				17.7		6.7

Intersection Summary	
HCM 2010 Ctrl Delay	17.6
HCM 2010 LOS	B

Notes

Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations										
Traffic Volume (veh/h)	408	381	0	1523	1329	0	1767	1088	0	0
Future Volume (veh/h)	408	381	0	1523	1329	0	1767	1088	0	0
Number	7	14	5	2	12	1	6	16		
Initial Q (Qb), veh	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	0	1863	1863		
Adj Flow Rate, veh/h	518	262	0	1603	0	0	1860	0		
Adj No. of Lanes	2	1	0	3	1	0	4	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	0	2	2	0	2	2		
Cap, veh/h	703	314	0	3549	1105	0	4472	1105		
Arrive On Green	0.20	0.20	0.00	0.70	0.00	0.00	0.70	0.00		
Sat Flow, veh/h	3548	1583	0	5253	1583	0	6669	1583		
Grp Volume(v), veh/h	518	262	0	1603	0	0	1860	0		
Grp Sat Flow(s),veh/h/ln	1774	1583	0	1695	1583	0	1602	1583		
Q Serve(g_s), s	11.9	13.8	0.0	12.1	0.0	0.0	10.7	0.0		
Cycle Q Clear(g_c), s	11.9	13.8	0.0	12.1	0.0	0.0	10.7	0.0		
Prop In Lane	1.00	1.00	0.00		1.00	0.00		1.00		
Lane Grp Cap(c), veh/h	703	314	0	3549	1105	0	4472	1105		
V/C Ratio(X)	0.74	0.83	0.00	0.45	0.00	0.00	0.42	0.00		
Avail Cap(c_a), veh/h	839	374	0	3549	1105	0	4472	1105		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	32.6	33.4	0.0	5.8	0.0	0.0	5.6	0.0		
Incr Delay (d2), s/veh	2.8	13.0	0.0	0.4	0.0	0.0	0.3	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	6.1	7.2	0.0	5.6	0.0	0.0	4.7	0.0		
LnGrp Delay(d),s/veh	35.4	46.4	0.0	6.2	0.0	0.0	5.9	0.0		
LnGrp LOS	D	D		A			A			
Approach Vol, veh/h	780			1603			1860			
Approach Delay, s/veh	39.1			6.2			5.9			
Approach LOS	D			A			A			

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		65.0		21.7		65.0		
Change Period (Y+Rc), s		4.5		4.5		4.5		
Max Green Setting (Gmax), s		60.5		20.5		60.5		
Max Q Clear Time (g_c+I1), s		14.1		15.8		12.7		
Green Ext Time (p_c), s		41.5		1.4		42.6		

Intersection Summary	
HCM 2010 Ctrl Delay	12.1
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	515	0	704	247	736	0	0	1935	206
Future Volume (veh/h)	0	0	0	515	0	704	247	736	0	0	1935	206
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	0	1863	1863	1863	0	0	1863	1863
Adj Flow Rate, veh/h				542	0	423	260	775	0	0	2037	83
Adj No. of Lanes				2	0	2	1	3	0	0	6	1
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	0	2	2	2	0	0	2	2
Cap, veh/h				728	0	590	306	3446	0	0	3819	712
Arrive On Green				0.21	0.00	0.21	0.17	0.68	0.00	0.00	0.45	0.45
Sat Flow, veh/h				3442	0	2787	1774	5253	0	0	8941	1583
Grp Volume(v), veh/h				542	0	423	260	775	0	0	2037	83
Grp Sat Flow(s),veh/h/ln				1721	0	1393	1774	1695	0	0	1416	1583
Q Serve(g_s), s				12.0	0.0	11.5	11.5	4.7	0.0	0.0	14.1	2.5
Cycle Q Clear(g_c), s				12.0	0.0	11.5	11.5	4.7	0.0	0.0	14.1	2.5
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				728	0	590	306	3446	0	0	3819	712
V/C Ratio(X)				0.74	0.00	0.72	0.85	0.22	0.00	0.00	0.53	0.12
Avail Cap(c_a), veh/h				1102	0	893	496	3446	0	0	3819	712
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				29.9	0.0	29.7	32.6	5.0	0.0	0.0	16.2	13.0
Incr Delay (d2), s/veh				1.5	0.0	1.7	7.6	0.2	0.0	0.0	0.5	0.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				5.8	0.0	4.5	6.3	2.2	0.0	0.0	5.6	1.1
LnGrp Delay(d),s/veh				31.5	0.0	31.4	40.1	5.1	0.0	0.0	16.7	13.3
LnGrp LOS				C		C	D	A			B	B
Approach Vol, veh/h					965			1035			2120	
Approach Delay, s/veh					31.4			13.9			16.6	
Approach LOS					C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		59.5			18.5	41.0		21.7
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5
Max Green Setting (Gmax), s		55.0			22.7	27.8		26.0
Max Q Clear Time (g_c+I1), s		6.7			13.5	16.1		14.0
Green Ext Time (p_c), s		37.9			0.5	10.9		3.2

Intersection Summary	
HCM 2010 Ctrl Delay	19.4
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	175	0	247	0	0	0	0	787	989	1249	1169	0
Future Volume (veh/h)	175	0	247	0	0	0	0	787	989	1249	1169	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	0	1863				0	1863	1863	1863	1863	0
Adj Flow Rate, veh/h	184	0	29				0	828	736	1315	1231	0
Adj No. of Lanes	2	0	2				0	3	2	3	3	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	0	2				0	2	2	2	2	0
Cap, veh/h	381	0	309				0	2470	1400	1486	4013	0
Arrive On Green	0.11	0.00	0.11				0.00	0.44	0.44	0.30	0.79	0.00
Sat Flow, veh/h	3442	0	2787				0	5588	3167	5003	5253	0
Grp Volume(v), veh/h	184	0	29				0	828	736	1315	1231	0
Grp Sat Flow(s),veh/h/ln	1721	0	1393				0	1863	1583	1668	1695	0
Q Serve(g_s), s	4.5	0.0	0.8				0.0	8.7	15.2	22.5	6.1	0.0
Cycle Q Clear(g_c), s	4.5	0.0	0.8				0.0	8.7	15.2	22.5	6.1	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	381	0	309				0	2470	1400	1486	4013	0
V/C Ratio(X)	0.48	0.00	0.09				0.00	0.34	0.53	0.89	0.31	0.00
Avail Cap(c_a), veh/h	387	0	313				0	2470	1400	1587	4013	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	37.5	0.0	35.9				0.0	16.4	18.2	30.1	2.6	0.0
Incr Delay (d2), s/veh	0.9	0.0	0.1				0.0	0.4	1.4	6.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	0.3				0.0	4.5	6.9	11.2	2.8	0.0
LnGrp Delay(d),s/veh	38.5	0.0	36.0				0.0	16.8	19.6	36.2	2.8	0.0
LnGrp LOS	D		D					B	B	D	A	
Approach Vol, veh/h		213						1564			2546	
Approach Delay, s/veh		38.1						18.1			20.1	
Approach LOS		D						B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	31.2	44.2		14.5		75.4		
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		
Max Green Setting (Gmax), s	28.5	37.9		10.1		70.9		
Max Q Clear Time (g_c+I1), s	24.5	17.2		6.5		8.1		
Green Ext Time (p_c), s	2.2	17.0		0.2		38.1		

Intersection Summary	
HCM 2010 Ctrl Delay	20.3
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	591	841	413	436
Future Volume (veh/h)	0	0	591	841	413	436
Number			8	18	1	16
Initial Q (Qb), veh			0	0	0	0
Ped-Bike Adj(A_pbT)				1.00	1.00	1.00
Parking Bus, Adj			1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln			1863	1863	1863	1863
Adj Flow Rate, veh/h			622	385	435	0
Adj No. of Lanes			1	1	1	1
Peak Hour Factor			0.95	0.95	0.95	0.95
Percent Heavy Veh, %			2	2	2	2
Cap, veh/h			1315	1118	0	0
Arrive On Green			0.71	0.71	0.00	0.00
Sat Flow, veh/h			1863	1583	0	
Grp Volume(v), veh/h			622	385	0.0	
Grp Sat Flow(s),veh/h/ln			1863	1583		
Q Serve(g_s), s			2.3	1.4		
Cycle Q Clear(g_c), s			2.3	1.4		
Prop In Lane				1.00		
Lane Grp Cap(c), veh/h			1315	1118		
V/C Ratio(X)			0.47	0.34		
Avail Cap(c_a), veh/h			5658	4809		
HCM Platoon Ratio			1.00	1.00		
Upstream Filter(I)			1.00	1.00		
Uniform Delay (d), s/veh			1.0	0.9		
Incr Delay (d2), s/veh			0.3	0.2		
Initial Q Delay(d3),s/veh			0.0	0.0		
%ile BackOfQ(50%),veh/ln			1.1	0.6		
LnGrp Delay(d),s/veh			1.3	1.1		
LnGrp LOS			A	A		
Approach Vol, veh/h			1007			
Approach Delay, s/veh			1.2			
Approach LOS			A			

Timer	1	2	3	4	5	6	7	8
Assigned Phs								8
Phs Duration (G+Y+Rc), s								15.3
Change Period (Y+Rc), s								4.5
Max Green Setting (Gmax), s								46.5
Max Q Clear Time (g_c+I1), s								4.3
Green Ext Time (p_c), s								6.7

Intersection Summary	
HCM 2010 Ctrl Delay	1.2
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	906	0	1032	0	1682	515	0	1626	1086
Future Volume (veh/h)	0	0	0	906	0	1032	0	1682	515	0	1626	1086
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	1863	1863	0	1863	1863	0	1863	1863
Adj Flow Rate, veh/h				1305	0	694	0	1771	0	0	1712	0
Adj No. of Lanes				2	0	1	0	4	1	0	4	1
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	2	2	0	2	2	0	2	2
Cap, veh/h				1802	0	804	0	2452	606	0	2452	606
Arrive On Green				0.51	0.00	0.51	0.00	0.38	0.00	0.00	0.38	0.00
Sat Flow, veh/h				3548	0	1583	0	6669	1583	0	6669	1583
Grp Volume(v), veh/h				1305	0	694	0	1771	0	0	1712	0
Grp Sat Flow(s),veh/h/ln				1774	0	1583	0	1602	1583	0	1602	1583
Q Serve(g_s), s				23.6	0.0	31.6	0.0	19.4	0.0	0.0	18.5	0.0
Cycle Q Clear(g_c), s				23.6	0.0	31.6	0.0	19.4	0.0	0.0	18.5	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				1802	0	804	0	2452	606	0	2452	606
V/C Ratio(X)				0.72	0.00	0.86	0.00	0.72	0.00	0.00	0.70	0.00
Avail Cap(c_a), veh/h				2134	0	952	0	2452	606	0	2452	606
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				15.8	0.0	17.7	0.0	21.7	0.0	0.0	21.4	0.0
Incr Delay (d2), s/veh				1.0	0.0	7.2	0.0	1.9	0.0	0.0	1.7	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				11.7	0.0	15.3	0.0	8.8	0.0	0.0	8.5	0.0
LnGrp Delay(d),s/veh				16.8	0.0	25.0	0.0	23.5	0.0	0.0	23.1	0.0
LnGrp LOS				B		C		C			C	
Approach Vol, veh/h					1999			1771			1712	
Approach Delay, s/veh					19.6			23.5			23.1	
Approach LOS					B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		36.0				36.0		46.3
Change Period (Y+Rc), s		4.5				4.5		4.5
Max Green Setting (Gmax), s		31.5				31.5		49.5
Max Q Clear Time (g_c+I1), s		21.4				20.5		33.6
Green Ext Time (p_c), s		9.8				10.6		8.2

Intersection Summary	
HCM 2010 Ctrl Delay	22.0
HCM 2010 LOS	C

Notes

Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations										
Traffic Volume (veh/h)	205	742	0	1890	773	0	2604	1086	0	0
Future Volume (veh/h)	205	742	0	1890	773	0	2604	1086	0	0
Number	7	14	5	2	12	1	6	16		
Initial Q (Qb), veh	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	0	1863	1863		
Adj Flow Rate, veh/h	216	754	0	1989	0	0	2741	0		
Adj No. of Lanes	1	2	0	3	1	0	4	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	0	2	2	0	2	2		
Cap, veh/h	496	886	0	3123	973	0	3936	973		
Arrive On Green	0.28	0.28	0.00	0.61	0.00	0.00	0.61	0.00		
Sat Flow, veh/h	1774	3167	0	5253	1583	0	6669	1583		
Grp Volume(v), veh/h	216	754	0	1989	0	0	2741	0		
Grp Sat Flow(s),veh/h/ln	1774	1583	0	1695	1583	0	1602	1583		
Q Serve(g_s), s	8.5	19.1	0.0	21.0	0.0	0.0	24.5	0.0		
Cycle Q Clear(g_c), s	8.5	19.1	0.0	21.0	0.0	0.0	24.5	0.0		
Prop In Lane	1.00	1.00	0.00		1.00	0.00		1.00		
Lane Grp Cap(c), veh/h	496	886	0	3123	973	0	3936	973		
V/C Ratio(X)	0.44	0.85	0.00	0.64	0.00	0.00	0.70	0.00		
Avail Cap(c_a), veh/h	604	1079	0	3123	973	0	3936	973		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	25.1	28.9	0.0	10.4	0.0	0.0	11.0	0.0		
Incr Delay (d2), s/veh	0.6	5.7	0.0	1.0	0.0	0.0	1.0	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	4.2	9.0	0.0	10.1	0.0	0.0	10.9	0.0		
LnGrp Delay(d),s/veh	25.7	34.5	0.0	11.4	0.0	0.0	12.1	0.0		
LnGrp LOS	C	C		B			B			
Approach Vol, veh/h	970			1989			2741			
Approach Delay, s/veh	32.6			11.4			12.1			
Approach LOS	C			B			B			

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		56.6		28.2		56.6		
Change Period (Y+Rc), s		4.5		4.5		4.5		
Max Green Setting (Gmax), s		52.1		28.9		52.1		
Max Q Clear Time (g_c+I1), s		23.0		21.1		26.5		
Green Ext Time (p_c), s		28.8		2.6		25.4		

Intersection Summary	
HCM 2010 Ctrl Delay	15.3
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	783	0	1212	144	1267	0	0	1983	319
Future Volume (veh/h)	0	0	0	783	0	1212	144	1267	0	0	1983	319
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	0	1863	1863	1863	0	0	1863	1863
Adj Flow Rate, veh/h				824	0	1234	152	1334	0	0	2087	80
Adj No. of Lanes				2	0	2	1	3	0	0	6	1
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	0	2	2	2	0	0	2	2
Cap, veh/h				1556	0	1260	193	2277	0	0	2456	458
Arrive On Green				0.45	0.00	0.45	0.11	0.45	0.00	0.00	0.29	0.29
Sat Flow, veh/h				3442	0	2787	1774	5253	0	0	8941	1583
Grp Volume(v), veh/h				824	0	1234	152	1334	0	0	2087	80
Grp Sat Flow(s),veh/h/ln				1721	0	1393	1774	1695	0	0	1416	1583
Q Serve(g_s), s				15.5	0.0	39.2	7.5	17.7	0.0	0.0	20.8	3.4
Cycle Q Clear(g_c), s				15.5	0.0	39.2	7.5	17.7	0.0	0.0	20.8	3.4
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1556	0	1260	193	2277	0	0	2456	458
V/C Ratio(X)				0.53	0.00	0.98	0.79	0.59	0.00	0.00	0.85	0.17
Avail Cap(c_a), veh/h				1556	0	1260	207	2277	0	0	2456	458
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				17.8	0.0	24.2	39.1	18.6	0.0	0.0	30.1	23.9
Incr Delay (d2), s/veh				0.3	0.0	20.4	17.2	1.1	0.0	0.0	3.9	0.8
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				7.4	0.0	18.5	4.6	8.5	0.0	0.0	8.6	1.6
LnGrp Delay(d),s/veh				18.1	0.0	44.7	56.3	19.7	0.0	0.0	34.1	24.8
LnGrp LOS				B		D	E	B			C	C
Approach Vol, veh/h					2058			1486			2167	
Approach Delay, s/veh					34.0			23.5			33.7	
Approach LOS					C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		44.8			14.3	30.5		45.2
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5
Max Green Setting (Gmax), s		40.3			10.5	25.3		40.7
Max Q Clear Time (g_c+I1), s		19.7			9.5	22.8		41.2
Green Ext Time (p_c), s		19.6			0.0	2.4		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	31.2
HCM 2010 LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	319	0	319	0	0	0	0	1092	391	1125	1557	0
Future Volume (veh/h)	319	0	319	0	0	0	0	1092	391	1125	1557	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	0	1863				0	1863	1863	1863	1863	0
Adj Flow Rate, veh/h	336	0	254				0	1149	215	1184	1639	0
Adj No. of Lanes	2	0	2				0	4	1	3	3	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	0	2				0	2	2	2	2	0
Cap, veh/h	458	0	371				0	3129	665	1439	3868	0
Arrive On Green	0.13	0.00	0.13				0.00	0.42	0.42	0.29	0.76	0.00
Sat Flow, veh/h	3442	0	2787				0	7451	1583	5003	5253	0
Grp Volume(v), veh/h	336	0	254				0	1149	215	1184	1639	0
Grp Sat Flow(s),veh/h/ln	1721	0	1393				0	1863	1583	1668	1695	0
Q Serve(g_s), s	8.0	0.0	7.4				0.0	9.0	7.7	18.7	9.7	0.0
Cycle Q Clear(g_c), s	8.0	0.0	7.4				0.0	9.0	7.7	18.7	9.7	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	458	0	371				0	3129	665	1439	3868	0
V/C Ratio(X)	0.73	0.00	0.68				0.00	0.37	0.32	0.82	0.42	0.00
Avail Cap(c_a), veh/h	670	0	542				0	3129	665	1800	3868	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	35.3	0.0	35.1				0.0	16.9	16.5	28.2	3.6	0.0
Incr Delay (d2), s/veh	2.3	0.0	2.2				0.0	0.3	1.3	2.6	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.9	0.0	2.9				0.0	4.6	3.6	8.9	4.5	0.0
LnGrp Delay(d),s/veh	37.6	0.0	37.3				0.0	17.2	17.8	30.8	3.9	0.0
LnGrp LOS	D		D					B	B	C	A	
Approach Vol, veh/h		590						1364			2823	
Approach Delay, s/veh		37.5						17.3			15.2	
Approach LOS		D						B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	28.9	40.1		15.8		69.0		
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		
Max Green Setting (Gmax), s	30.5	29.5		16.5		64.5		
Max Q Clear Time (g_c+I1), s	20.7	11.0		10.0		11.7		
Green Ext Time (p_c), s	3.7	16.6		1.3		40.4		

Intersection Summary	
HCM 2010 Ctrl Delay	18.5
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	199	260	250	50
Future Volume (veh/h)	0	0	199	260	250	50
Number			8	18	1	16
Initial Q (Qb), veh			0	0	0	0
Ped-Bike Adj(A_pbT)				1.00	1.00	1.00
Parking Bus, Adj			1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln			1863	1863	1863	1863
Adj Flow Rate, veh/h			209	46	263	0
Adj No. of Lanes			1	1	1	1
Peak Hour Factor			0.95	0.95	0.95	0.95
Percent Heavy Veh, %			2	2	2	2
Cap, veh/h			965	820	0	0
Arrive On Green			0.52	0.52	0.00	0.00
Sat Flow, veh/h			1863	1583	0	
Grp Volume(v), veh/h			209	46	0.0	
Grp Sat Flow(s),veh/h/ln			1863	1583		
Q Serve(g_s), s			0.6	0.1		
Cycle Q Clear(g_c), s			0.6	0.1		
Prop In Lane				1.00		
Lane Grp Cap(c), veh/h			965	820		
V/C Ratio(X)			0.22	0.06		
Avail Cap(c_a), veh/h			7679	6527		
HCM Platoon Ratio			1.00	1.00		
Upstream Filter(I)			1.00	1.00		
Uniform Delay (d), s/veh			1.2	1.1		
Incr Delay (d2), s/veh			0.1	0.0		
Initial Q Delay(d3),s/veh			0.0	0.0		
%ile BackOfQ(50%),veh/ln			0.3	0.1		
LnGrp Delay(d),s/veh			1.3	1.1		
LnGrp LOS			A	A		
Approach Vol, veh/h			255			
Approach Delay, s/veh			1.3			
Approach LOS			A			

Timer	1	2	3	4	5	6	7	8
Assigned Phs								8
Phs Duration (G+Y+Rc), s								9.3
Change Period (Y+Rc), s								4.5
Max Green Setting (Gmax), s								38.5
Max Q Clear Time (g_c+I1), s								2.6
Green Ext Time (p_c), s								1.4

Intersection Summary	
HCM 2010 Ctrl Delay	1.3
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	370	0	748	0	2040	1170	0	1096	1166
Future Volume (veh/h)	0	0	0	370	0	748	0	2040	1170	0	1096	1166
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	1863	1863	0	1863	1863	0	1863	1863
Adj Flow Rate, veh/h				259	0	905	0	2147	0	0	1154	0
Adj No. of Lanes				1	0	2	0	4	1	0	4	1
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	2	2	0	2	2	0	2	2
Cap, veh/h				613	0	1094	0	3461	855	0	3461	855
Arrive On Green				0.35	0.00	0.35	0.00	0.54	0.00	0.00	0.54	0.00
Sat Flow, veh/h				1774	0	3167	0	6669	1583	0	6669	1583
Grp Volume(v), veh/h				259	0	905	0	2147	0	0	1154	0
Grp Sat Flow(s),veh/h/ln				1774	0	1583	0	1602	1583	0	1602	1583
Q Serve(g_s), s				8.8	0.0	20.6	0.0	18.2	0.0	0.0	8.0	0.0
Cycle Q Clear(g_c), s				8.8	0.0	20.6	0.0	18.2	0.0	0.0	8.0	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				613	0	1094	0	3461	855	0	3461	855
V/C Ratio(X)				0.42	0.00	0.83	0.00	0.62	0.00	0.00	0.33	0.00
Avail Cap(c_a), veh/h				868	0	1549	0	3461	855	0	3461	855
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				19.7	0.0	23.6	0.0	12.5	0.0	0.0	10.2	0.0
Incr Delay (d2), s/veh				0.5	0.0	2.6	0.0	0.8	0.0	0.0	0.3	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.4	0.0	9.3	0.0	8.1	0.0	0.0	3.5	0.0
LnGrp Delay(d),s/veh				20.2	0.0	26.2	0.0	13.4	0.0	0.0	10.4	0.0
LnGrp LOS				C		C		B			B	
Approach Vol, veh/h					1164			2147			1154	
Approach Delay, s/veh					24.9			13.4			10.4	
Approach LOS					C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		47.0				47.0		31.7
Change Period (Y+Rc), s		4.5				4.5		4.5
Max Green Setting (Gmax), s		42.5				42.5		38.5
Max Q Clear Time (g_c+I1), s		20.2				10.0		22.6
Green Ext Time (p_c), s		20.8				29.6		4.6

Intersection Summary	
HCM 2010 Ctrl Delay	15.6
HCM 2010 LOS	B

Notes

Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations										
Traffic Volume (veh/h)	678	760	0	1282	270	0	1495	1166	0	0
Future Volume (veh/h)	678	760	0	1282	270	0	1495	1166	0	0
Number	7	14	5	2	12	1	6	16		
Initial Q (Qb), veh	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	0	1863	1863		
Adj Flow Rate, veh/h	969	493	0	1349	0	0	1574	0		
Adj No. of Lanes	2	1	0	3	1	0	4	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	0	2	2	0	2	2		
Cap, veh/h	1187	530	0	2872	894	0	3618	894		
Arrive On Green	0.33	0.33	0.00	0.56	0.00	0.00	0.56	0.00		
Sat Flow, veh/h	3548	1583	0	5253	1583	0	6669	1583		
Grp Volume(v), veh/h	969	493	0	1349	0	0	1574	0		
Grp Sat Flow(s),veh/h/ln	1774	1583	0	1695	1583	0	1602	1583		
Q Serve(g_s), s	22.4	26.9	0.0	14.1	0.0	0.0	12.7	0.0		
Cycle Q Clear(g_c), s	22.4	26.9	0.0	14.1	0.0	0.0	12.7	0.0		
Prop In Lane	1.00	1.00	0.00		1.00	0.00		1.00		
Lane Grp Cap(c), veh/h	1187	530	0	2872	894	0	3618	894		
V/C Ratio(X)	0.82	0.93	0.00	0.47	0.00	0.00	0.43	0.00		
Avail Cap(c_a), veh/h	1210	540	0	2872	894	0	3618	894		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	27.2	28.7	0.0	11.5	0.0	0.0	11.2	0.0		
Incr Delay (d2), s/veh	4.4	22.7	0.0	0.6	0.0	0.0	0.4	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	11.6	15.0	0.0	6.6	0.0	0.0	5.7	0.0		
LnGrp Delay(d),s/veh	31.6	51.5	0.0	12.1	0.0	0.0	11.6	0.0		
LnGrp LOS	C	D		B			B			
Approach Vol, veh/h	1462			1349			1574			
Approach Delay, s/veh	38.3			12.1			11.6			
Approach LOS	D			B			B			

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		55.0		34.4		55.0		
Change Period (Y+Rc), s		4.5		4.5		4.5		
Max Green Setting (Gmax), s		50.5		30.5		50.5		
Max Q Clear Time (g_c+I1), s		16.1		28.9		14.7		
Green Ext Time (p_c), s		28.8		1.0		29.7		

Intersection Summary	
HCM 2010 Ctrl Delay	20.7
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	520	0	1232	270	1142	0	0	1865	300
Future Volume (veh/h)	0	0	0	520	0	1232	270	1142	0	0	1865	300
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	0	1863	1863	1863	0	0	1863	1863
Adj Flow Rate, veh/h				547	0	1253	284	1202	0	0	1963	67
Adj No. of Lanes				2	0	2	1	3	0	0	6	1
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	0	2	2	2	0	0	2	2
Cap, veh/h				1480	0	1198	300	2390	0	0	2133	398
Arrive On Green				0.43	0.00	0.43	0.17	0.47	0.00	0.00	0.25	0.25
Sat Flow, veh/h				3442	0	2787	1774	5253	0	0	8941	1583
Grp Volume(v), veh/h				547	0	1253	284	1202	0	0	1963	67
Grp Sat Flow(s),veh/h/ln				1721	0	1393	1774	1695	0	0	1416	1583
Q Serve(g_s), s				9.7	0.0	38.7	14.3	14.8	0.0	0.0	20.3	3.0
Cycle Q Clear(g_c), s				9.7	0.0	38.7	14.3	14.8	0.0	0.0	20.3	3.0
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1480	0	1198	300	2390	0	0	2133	398
V/C Ratio(X)				0.37	0.00	1.05	0.95	0.50	0.00	0.00	0.92	0.17
Avail Cap(c_a), veh/h				1480	0	1198	300	2390	0	0	2133	398
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				17.4	0.0	25.7	37.0	16.6	0.0	0.0	32.8	26.4
Incr Delay (d2), s/veh				0.2	0.0	38.8	38.2	0.8	0.0	0.0	8.0	0.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.6	0.0	21.3	10.1	7.1	0.0	0.0	8.7	1.4
LnGrp Delay(d),s/veh				17.5	0.0	64.4	75.2	17.3	0.0	0.0	40.8	27.3
LnGrp LOS				B		F	E	B			D	C
Approach Vol, veh/h					1800			1486			2030	
Approach Delay, s/veh					50.2			28.4			40.3	
Approach LOS					D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		46.8			19.7	27.1		43.2
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5
Max Green Setting (Gmax), s		42.3			15.2	22.6		38.7
Max Q Clear Time (g_c+I1), s		16.8			16.3	22.3		40.7
Green Ext Time (p_c), s		23.3			0.0	0.3		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	40.3
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	310	0	370	0	0	0	0	1132	1180	1148	1208	0
Future Volume (veh/h)	310	0	370	0	0	0	0	1132	1180	1148	1208	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	0	1863				0	1863	1863	1863	1863	0
Adj Flow Rate, veh/h	326	0	188				0	1192	935	1208	1272	0
Adj No. of Lanes	2	0	2				0	3	2	3	3	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	0	2				0	2	2	2	2	0
Cap, veh/h	407	0	329				0	2563	1453	1358	3970	0
Arrive On Green	0.12	0.00	0.12				0.00	0.46	0.46	0.27	0.78	0.00
Sat Flow, veh/h	3442	0	2787				0	5588	3167	5003	5253	0
Grp Volume(v), veh/h	326	0	188				0	1192	935	1208	1272	0
Grp Sat Flow(s),veh/h/ln	1721	0	1393				0	1863	1583	1668	1695	0
Q Serve(g_s), s	8.2	0.0	5.7				0.0	13.1	20.2	20.6	6.5	0.0
Cycle Q Clear(g_c), s	8.2	0.0	5.7				0.0	13.1	20.2	20.6	6.5	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	407	0	329				0	2563	1453	1358	3970	0
V/C Ratio(X)	0.80	0.00	0.57				0.00	0.46	0.64	0.89	0.32	0.00
Avail Cap(c_a), veh/h	445	0	360				0	2563	1453	1433	3970	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	38.2	0.0	37.1				0.0	16.6	18.5	31.1	2.9	0.0
Incr Delay (d2), s/veh	9.4	0.0	1.8				0.0	0.6	2.2	7.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	0.0	2.3				0.0	6.8	9.1	10.4	3.0	0.0
LnGrp Delay(d),s/veh	47.7	0.0	38.9				0.0	17.2	20.7	38.2	3.1	0.0
LnGrp LOS	D		D					B	C	D	A	
Approach Vol, veh/h		514						2127			2480	
Approach Delay, s/veh		44.5						18.7			20.2	
Approach LOS		D						B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	28.7	45.3		15.0		74.0		
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		
Max Green Setting (Gmax), s	25.5	39.5		11.5		69.5		
Max Q Clear Time (g_c+I1), s	22.6	22.2		10.2		8.5		
Green Ext Time (p_c), s	1.5	15.9		0.3		47.3		

Intersection Summary	
HCM 2010 Ctrl Delay	22.0
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	912	500	340	730
Future Volume (veh/h)	0	0	912	500	340	730
Number			8	18	1	16
Initial Q (Qb), veh			0	0	0	0
Ped-Bike Adj(A_pbT)				1.00	1.00	1.00
Parking Bus, Adj			1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln			1863	1863	1863	1863
Adj Flow Rate, veh/h			960	297	358	0
Adj No. of Lanes			1	1	1	1
Peak Hour Factor			0.95	0.95	0.95	0.95
Percent Heavy Veh, %			2	2	2	2
Cap, veh/h			1505	1279	0	0
Arrive On Green			0.81	0.81	0.00	0.00
Sat Flow, veh/h			1863	1583	0	
Grp Volume(v), veh/h			960	297	0.0	
Grp Sat Flow(s),veh/h/ln			1863	1583		
Q Serve(g_s), s			4.8	1.0		
Cycle Q Clear(g_c), s			4.8	1.0		
Prop In Lane				1.00		
Lane Grp Cap(c), veh/h			1505	1279		
V/C Ratio(X)			0.64	0.23		
Avail Cap(c_a), veh/h			4412	3750		
HCM Platoon Ratio			1.00	1.00		
Upstream Filter(I)			1.00	1.00		
Uniform Delay (d), s/veh			0.9	0.5		
Incr Delay (d2), s/veh			0.5	0.1		
Initial Q Delay(d3),s/veh			0.0	0.0		
%ile BackOfQ(50%),veh/ln			2.3	0.4		
LnGrp Delay(d),s/veh			1.3	0.6		
LnGrp LOS			A	A		
Approach Vol, veh/h			1257			
Approach Delay, s/veh			1.2			
Approach LOS			A			

Timer	1	2	3	4	5	6	7	8
Assigned Phs								8
Phs Duration (G+Y+Rc), s								23.4
Change Period (Y+Rc), s								4.5
Max Green Setting (Gmax), s								55.5
Max Q Clear Time (g_c+I1), s								6.8
Green Ext Time (p_c), s								12.2

Intersection Summary	
HCM 2010 Ctrl Delay	1.2
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	940	0	967	0	1622	1270	0	1732	1086
Future Volume (veh/h)	0	0	0	940	0	967	0	1622	1270	0	1732	1086
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	1863	1863	0	1863	1863	0	1863	1863
Adj Flow Rate, veh/h				1302	0	665	0	1707	0	0	1823	0
Adj No. of Lanes				2	0	1	0	4	1	0	4	1
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	2	2	0	2	2	0	2	2
Cap, veh/h				1747	0	780	0	2548	630	0	2548	630
Arrive On Green				0.49	0.00	0.49	0.00	0.40	0.00	0.00	0.40	0.00
Sat Flow, veh/h				3548	0	1583	0	6669	1583	0	6669	1583
Grp Volume(v), veh/h				1302	0	665	0	1707	0	0	1823	0
Grp Sat Flow(s),veh/h/ln				1774	0	1583	0	1602	1583	0	1602	1583
Q Serve(g_s), s				24.1	0.0	30.1	0.0	17.9	0.0	0.0	19.6	0.0
Cycle Q Clear(g_c), s				24.1	0.0	30.1	0.0	17.9	0.0	0.0	19.6	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				1747	0	780	0	2548	630	0	2548	630
V/C Ratio(X)				0.75	0.00	0.85	0.00	0.67	0.00	0.00	0.72	0.00
Avail Cap(c_a), veh/h				2105	0	939	0	2548	630	0	2548	630
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				16.6	0.0	18.2	0.0	20.2	0.0	0.0	20.7	0.0
Incr Delay (d2), s/veh				1.2	0.0	6.6	0.0	1.4	0.0	0.0	1.8	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				11.9	0.0	14.4	0.0	8.1	0.0	0.0	8.9	0.0
LnGrp Delay(d),s/veh				17.8	0.0	24.8	0.0	21.6	0.0	0.0	22.5	0.0
LnGrp LOS				B		C		C			C	
Approach Vol, veh/h					1967			1707			1823	
Approach Delay, s/veh					20.2			21.6			22.5	
Approach LOS					C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		37.0				37.0		44.7
Change Period (Y+Rc), s		4.5				4.5		4.5
Max Green Setting (Gmax), s		32.5				32.5		48.5
Max Q Clear Time (g_c+I1), s		19.9				21.6		32.1
Green Ext Time (p_c), s		12.2				10.6		8.2

Intersection Summary	
HCM 2010 Ctrl Delay	21.4
HCM 2010 LOS	C

Notes

Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations										
Traffic Volume (veh/h)	192	930	0	1720	490	0	2663	1086	0	0
Future Volume (veh/h)	192	930	0	1720	490	0	2663	1086	0	0
Number	7	14	5	2	12	1	6	16		
Initial Q (Qb), veh	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	0	1863	1863		
Adj Flow Rate, veh/h	202	954	0	1811	0	0	2803	0		
Adj No. of Lanes	1	2	0	3	1	0	4	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	0	2	2	0	2	2		
Cap, veh/h	607	1084	0	2812	876	0	3544	876		
Arrive On Green	0.34	0.34	0.00	0.55	0.00	0.00	0.55	0.00		
Sat Flow, veh/h	1774	3167	0	5253	1583	0	6669	1583		
Grp Volume(v), veh/h	202	954	0	1811	0	0	2803	0		
Grp Sat Flow(s),veh/h/ln	1774	1583	0	1695	1583	0	1602	1583		
Q Serve(g_s), s	7.3	24.4	0.0	21.2	0.0	0.0	29.8	0.0		
Cycle Q Clear(g_c), s	7.3	24.4	0.0	21.2	0.0	0.0	29.8	0.0		
Prop In Lane	1.00	1.00	0.00		1.00	0.00		1.00		
Lane Grp Cap(c), veh/h	607	1084	0	2812	876	0	3544	876		
V/C Ratio(X)	0.33	0.88	0.00	0.64	0.00	0.00	0.79	0.00		
Avail Cap(c_a), veh/h	692	1235	0	2812	876	0	3544	876		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	21.0	26.6	0.0	13.3	0.0	0.0	15.2	0.0		
Incr Delay (d2), s/veh	0.3	7.0	0.0	1.1	0.0	0.0	1.9	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	3.6	11.6	0.0	10.2	0.0	0.0	13.5	0.0		
LnGrp Delay(d),s/veh	21.3	33.6	0.0	14.5	0.0	0.0	17.1	0.0		
LnGrp LOS	C	C		B			B			
Approach Vol, veh/h	1156			1811			2803			
Approach Delay, s/veh	31.4			14.5			17.1			
Approach LOS	C			B			B			

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		52.0		33.9		52.0		
Change Period (Y+Rc), s		4.5		4.5		4.5		
Max Green Setting (Gmax), s		47.5		33.5		47.5		
Max Q Clear Time (g_c+I1), s		23.2		26.4		31.8		
Green Ext Time (p_c), s		24.0		3.0		15.6		

Intersection Summary	
HCM 2010 Ctrl Delay	19.2
HCM 2010 LOS	B

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	900	0	977	320	1577	0	0	2468	260
Future Volume (veh/h)	0	0	0	900	0	977	320	1577	0	0	2468	260
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	0	1863	1863	1863	0	0	1863	1863
Adj Flow Rate, veh/h				947	0	991	337	1660	0	0	2598	79
Adj No. of Lanes				2	0	2	1	3	0	0	6	1
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	0	2	2	2	0	0	2	2
Cap, veh/h				1174	0	951	345	2842	0	0	2671	498
Arrive On Green				0.34	0.00	0.34	0.19	0.56	0.00	0.00	0.31	0.31
Sat Flow, veh/h				3442	0	2787	1774	5253	0	0	8941	1583
Grp Volume(v), veh/h				947	0	991	337	1660	0	0	2598	79
Grp Sat Flow(s),veh/h/ln				1721	0	1393	1774	1695	0	0	1416	1583
Q Serve(g_s), s				22.5	0.0	30.7	17.0	19.2	0.0	0.0	27.2	3.2
Cycle Q Clear(g_c), s				22.5	0.0	30.7	17.0	19.2	0.0	0.0	27.2	3.2
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1174	0	951	345	2842	0	0	2671	498
V/C Ratio(X)				0.81	0.00	1.04	0.98	0.58	0.00	0.00	0.97	0.16
Avail Cap(c_a), veh/h				1174	0	951	345	2842	0	0	2671	498
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				27.0	0.0	29.7	36.0	13.0	0.0	0.0	30.5	22.3
Incr Delay (d2), s/veh				4.3	0.0	40.9	42.1	0.9	0.0	0.0	12.1	0.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				11.3	0.0	17.1	12.4	9.1	0.0	0.0	12.1	1.5
LnGrp Delay(d),s/veh				31.2	0.0	70.5	78.2	13.9	0.0	0.0	42.6	22.9
LnGrp LOS				C		F	E	B			D	C
Approach Vol, veh/h					1938			1997			2677	
Approach Delay, s/veh					51.3			24.7			42.0	
Approach LOS					D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		54.8			22.0	32.8		35.2
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5
Max Green Setting (Gmax), s		50.3			17.5	28.3		30.7
Max Q Clear Time (g_c+I1), s		21.2			19.0	29.2		32.7
Green Ext Time (p_c), s		28.5			0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	39.5
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	510	0	440	0	0	0	0	1397	510	1474	1884	0
Future Volume (veh/h)	510	0	440	0	0	0	0	1397	510	1474	1884	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	0	1863				0	1863	1863	1863	1863	0
Adj Flow Rate, veh/h	537	0	416				0	1471	274	1552	1983	0
Adj No. of Lanes	2	0	2				0	4	1	3	3	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	0	2				0	2	2	2	2	0
Cap, veh/h	616	0	499				0	2500	531	1674	3664	0
Arrive On Green	0.18	0.00	0.18				0.00	0.34	0.34	0.33	0.72	0.00
Sat Flow, veh/h	3442	0	2787				0	7451	1583	5003	5253	0
Grp Volume(v), veh/h	537	0	416				0	1471	274	1552	1983	0
Grp Sat Flow(s),veh/h/ln	1721	0	1393				0	1863	1583	1668	1695	0
Q Serve(g_s), s	13.6	0.0	12.9				0.0	14.6	12.4	26.8	16.0	0.0
Cycle Q Clear(g_c), s	13.6	0.0	12.9				0.0	14.6	12.4	26.8	16.0	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	616	0	499				0	2500	531	1674	3664	0
V/C Ratio(X)	0.87	0.00	0.83				0.00	0.59	0.52	0.93	0.54	0.00
Avail Cap(c_a), veh/h	634	0	514				0	2500	531	1704	3664	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	35.8	0.0	35.5				0.0	24.6	23.9	28.7	5.7	0.0
Incr Delay (d2), s/veh	12.4	0.0	11.1				0.0	1.0	3.6	9.2	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	0.0	5.7				0.0	7.6	5.9	13.6	7.5	0.0
LnGrp Delay(d),s/veh	48.2	0.0	46.6				0.0	25.6	27.4	37.9	6.3	0.0
LnGrp LOS	D		D					C	C	D	A	
Approach Vol, veh/h		953						1745			3535	
Approach Delay, s/veh		47.5						25.9			20.2	
Approach LOS		D						C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	34.5	34.5		20.5		69.0		
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		
Max Green Setting (Gmax), s	30.5	29.5		16.5		64.5		
Max Q Clear Time (g_c+I1), s	28.8	16.6		15.6		18.0		
Green Ext Time (p_c), s	1.2	12.5		0.4		42.4		

Intersection Summary	
HCM 2010 Ctrl Delay	26.0
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	220	260	250	50
Future Volume (veh/h)	0	0	220	260	250	50
Number			8	18	1	16
Initial Q (Qb), veh			0	0	0	0
Ped-Bike Adj(A_pbT)				1.00	1.00	1.00
Parking Bus, Adj			1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln			1863	1863	1863	1863
Adj Flow Rate, veh/h			232	48	263	0
Adj No. of Lanes			1	1	1	1
Peak Hour Factor			0.95	0.95	0.95	0.95
Percent Heavy Veh, %			2	2	2	2
Cap, veh/h			1012	860	0	0
Arrive On Green			0.54	0.54	0.00	0.00
Sat Flow, veh/h			1863	1583	0	
Grp Volume(v), veh/h			232	48	0.0	
Grp Sat Flow(s),veh/h/ln			1863	1583		
Q Serve(g_s), s			0.6	0.1		
Cycle Q Clear(g_c), s			0.6	0.1		
Prop In Lane				1.00		
Lane Grp Cap(c), veh/h			1012	860		
V/C Ratio(X)			0.23	0.06		
Avail Cap(c_a), veh/h			7279	6187		
HCM Platoon Ratio			1.00	1.00		
Upstream Filter(I)			1.00	1.00		
Uniform Delay (d), s/veh			1.2	1.1		
Incr Delay (d2), s/veh			0.1	0.0		
Initial Q Delay(d3),s/veh			0.0	0.0		
%ile BackOfQ(50%),veh/ln			0.3	0.1		
LnGrp Delay(d),s/veh			1.3	1.1		
LnGrp LOS			A	A		
Approach Vol, veh/h			280			
Approach Delay, s/veh			1.3			
Approach LOS			A			

Timer	1	2	3	4	5	6	7	8
Assigned Phs								8
Phs Duration (G+Y+Rc), s								9.9
Change Period (Y+Rc), s								4.5
Max Green Setting (Gmax), s								38.5
Max Q Clear Time (g_c+I1), s								2.6
Green Ext Time (p_c), s								1.6

Intersection Summary	
HCM 2010 Ctrl Delay	1.3
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	370	0	820	0	2300	1170	0	1110	1190
Future Volume (veh/h)	0	0	0	370	0	820	0	2300	1170	0	1110	1190
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	1863	1863	0	1863	1863	0	1863	1863
Adj Flow Rate, veh/h				259	0	979	0	2421	0	0	1168	0
Adj No. of Lanes				1	0	2	0	4	1	0	4	1
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	2	2	0	2	2	0	2	2
Cap, veh/h				643	0	1148	0	3384	836	0	3384	836
Arrive On Green				0.36	0.00	0.36	0.00	0.53	0.00	0.00	0.53	0.00
Sat Flow, veh/h				1774	0	3167	0	6669	1583	0	6669	1583
Grp Volume(v), veh/h				259	0	979	0	2421	0	0	1168	0
Grp Sat Flow(s),veh/h/ln				1774	0	1583	0	1602	1583	0	1602	1583
Q Serve(g_s), s				9.0	0.0	23.5	0.0	23.6	0.0	0.0	8.7	0.0
Cycle Q Clear(g_c), s				9.0	0.0	23.5	0.0	23.6	0.0	0.0	8.7	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				643	0	1148	0	3384	836	0	3384	836
V/C Ratio(X)				0.40	0.00	0.85	0.00	0.72	0.00	0.00	0.35	0.00
Avail Cap(c_a), veh/h				808	0	1442	0	3384	836	0	3384	836
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				19.6	0.0	24.2	0.0	14.7	0.0	0.0	11.2	0.0
Incr Delay (d2), s/veh				0.4	0.0	4.2	0.0	1.3	0.0	0.0	0.3	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.5	0.0	10.9	0.0	10.6	0.0	0.0	3.9	0.0
LnGrp Delay(d),s/veh				20.0	0.0	28.5	0.0	16.1	0.0	0.0	11.5	0.0
LnGrp LOS				B		C		B			B	
Approach Vol, veh/h					1238			2421			1168	
Approach Delay, s/veh					26.7			16.1			11.5	
Approach LOS					C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		48.0				48.0		34.4
Change Period (Y+Rc), s		4.5				4.5		4.5
Max Green Setting (Gmax), s		43.5				43.5		37.5
Max Q Clear Time (g_c+I1), s		25.6				10.7		25.5
Green Ext Time (p_c), s		17.3				30.9		4.4

Intersection Summary	
HCM 2010 Ctrl Delay	17.7
HCM 2010 LOS	B

Notes

Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations										
Traffic Volume (veh/h)	830	760	0	1390	270	0	1510	1190	0	0
Future Volume (veh/h)	830	760	0	1390	270	0	1510	1190	0	0
Number	7	14	5	2	12	1	6	16		
Initial Q (Qb), veh	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	0	1863	1863		
Adj Flow Rate, veh/h	1084	550	0	1463	0	0	1589	0		
Adj No. of Lanes	2	1	0	3	1	0	4	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	0	2	2	0	2	2		
Cap, veh/h	1294	577	0	2722	847	0	3430	847		
Arrive On Green	0.36	0.36	0.00	0.54	0.00	0.00	0.54	0.00		
Sat Flow, veh/h	3548	1583	0	5253	1583	0	6669	1583		
Grp Volume(v), veh/h	1084	550	0	1463	0	0	1589	0		
Grp Sat Flow(s),veh/h/ln	1774	1583	0	1695	1583	0	1602	1583		
Q Serve(g_s), s	25.1	30.4	0.0	16.9	0.0	0.0	13.8	0.0		
Cycle Q Clear(g_c), s	25.1	30.4	0.0	16.9	0.0	0.0	13.8	0.0		
Prop In Lane	1.00	1.00	0.00		1.00	0.00		1.00		
Lane Grp Cap(c), veh/h	1294	577	0	2722	847	0	3430	847		
V/C Ratio(X)	0.84	0.95	0.00	0.54	0.00	0.00	0.46	0.00		
Avail Cap(c_a), veh/h	1299	580	0	2722	847	0	3430	847		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	26.1	27.8	0.0	13.6	0.0	0.0	12.9	0.0		
Incr Delay (d2), s/veh	5.0	26.0	0.0	0.8	0.0	0.0	0.5	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	13.1	17.3	0.0	8.0	0.0	0.0	6.2	0.0		
LnGrp Delay(d),s/veh	31.1	53.8	0.0	14.4	0.0	0.0	13.4	0.0		
LnGrp LOS	C	D		B			B			
Approach Vol, veh/h	1634			1463			1589			
Approach Delay, s/veh	38.7			14.4			13.4			
Approach LOS	D			B			B			

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		52.6		37.3		52.6		
Change Period (Y+Rc), s		4.5		4.5		4.5		
Max Green Setting (Gmax), s		48.1		32.9		48.1		
Max Q Clear Time (g_c+I1), s		18.9		32.4		15.8		
Green Ext Time (p_c), s		25.6		0.4		28.0		

Intersection Summary	
HCM 2010 Ctrl Delay	22.5
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	520	0	1250	270	1160	0	0	1870	300
Future Volume (veh/h)	0	0	0	520	0	1250	270	1160	0	0	1870	300
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	0	1863	1863	1863	0	0	1863	1863
Adj Flow Rate, veh/h				547	0	1273	284	1221	0	0	1968	64
Adj No. of Lanes				2	0	2	1	3	0	0	6	1
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	0	2	2	2	0	0	2	2
Cap, veh/h				1510	0	1223	298	2345	0	0	2067	385
Arrive On Green				0.44	0.00	0.44	0.17	0.46	0.00	0.00	0.24	0.24
Sat Flow, veh/h				3442	0	2787	1774	5253	0	0	8941	1583
Grp Volume(v), veh/h				547	0	1273	284	1221	0	0	1968	64
Grp Sat Flow(s),veh/h/ln				1721	0	1393	1774	1695	0	0	1416	1583
Q Serve(g_s), s				9.5	0.0	39.5	14.3	15.3	0.0	0.0	20.5	2.9
Cycle Q Clear(g_c), s				9.5	0.0	39.5	14.3	15.3	0.0	0.0	20.5	2.9
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1510	0	1223	298	2345	0	0	2067	385
V/C Ratio(X)				0.36	0.00	1.04	0.95	0.52	0.00	0.00	0.95	0.17
Avail Cap(c_a), veh/h				1510	0	1223	298	2345	0	0	2067	385
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				16.8	0.0	25.2	37.1	17.2	0.0	0.0	33.5	26.8
Incr Delay (d2), s/veh				0.1	0.0	37.0	39.8	0.8	0.0	0.0	11.3	0.9
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.5	0.0	21.4	10.2	7.3	0.0	0.0	9.1	1.3
LnGrp Delay(d),s/veh				17.0	0.0	62.3	77.0	18.0	0.0	0.0	44.9	27.8
LnGrp LOS				B		F	E	B			D	C
Approach Vol, veh/h					1820			1505			2032	
Approach Delay, s/veh					48.7			29.1			44.3	
Approach LOS					D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		46.0			19.6	26.4		44.0
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5
Max Green Setting (Gmax), s		41.5			15.1	21.9		39.5
Max Q Clear Time (g_c+I1), s		17.3			16.3	22.5		41.5
Green Ext Time (p_c), s		22.2			0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	41.5
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	310	0	370	0	0	0	0	1150	1180	1150	1210	0
Future Volume (veh/h)	310	0	370	0	0	0	0	1150	1180	1150	1210	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	0	1863				0	1863	1863	1863	1863	0
Adj Flow Rate, veh/h	326	0	189				0	1211	937	1211	1274	0
Adj No. of Lanes	2	0	2				0	3	2	3	3	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	0	2				0	2	2	2	2	0
Cap, veh/h	407	0	329				0	2561	1451	1360	3970	0
Arrive On Green	0.12	0.00	0.12				0.00	0.46	0.46	0.27	0.78	0.00
Sat Flow, veh/h	3442	0	2787				0	5588	3167	5003	5253	0
Grp Volume(v), veh/h	326	0	189				0	1211	937	1211	1274	0
Grp Sat Flow(s),veh/h/ln	1721	0	1393				0	1863	1583	1668	1695	0
Q Serve(g_s), s	8.2	0.0	5.7				0.0	13.3	20.3	20.7	6.5	0.0
Cycle Q Clear(g_c), s	8.2	0.0	5.7				0.0	13.3	20.3	20.7	6.5	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	407	0	329				0	2561	1451	1360	3970	0
V/C Ratio(X)	0.80	0.00	0.57				0.00	0.47	0.65	0.89	0.32	0.00
Avail Cap(c_a), veh/h	445	0	360				0	2561	1451	1433	3970	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	38.2	0.0	37.1				0.0	16.7	18.5	31.1	2.9	0.0
Incr Delay (d2), s/veh	9.4	0.0	1.9				0.0	0.6	2.2	7.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	0.0	2.3				0.0	7.0	9.3	10.4	3.0	0.0
LnGrp Delay(d),s/veh	47.7	0.0	39.0				0.0	17.3	20.8	38.2	3.1	0.0
LnGrp LOS	D		D					B	C	D	A	
Approach Vol, veh/h		515						2148			2485	
Approach Delay, s/veh		44.5						18.8			20.2	
Approach LOS		D						B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	28.7	45.3		15.0		74.0		
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		
Max Green Setting (Gmax), s	25.5	39.5		11.5		69.5		
Max Q Clear Time (g_c+I1), s	22.7	22.3		10.2		8.5		
Green Ext Time (p_c), s	1.5	15.9		0.3		47.6		

Intersection Summary	
HCM 2010 Ctrl Delay	22.1
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	1050	500	340	730
Future Volume (veh/h)	0	0	1050	500	340	730
Number			8	18	1	16
Initial Q (Qb), veh			0	0	0	0
Ped-Bike Adj(A_pbT)				1.00	1.00	1.00
Parking Bus, Adj			1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln			1863	1863	1863	1863
Adj Flow Rate, veh/h			1105	326	358	0
Adj No. of Lanes			1	1	1	1
Peak Hour Factor			0.95	0.95	0.95	0.95
Percent Heavy Veh, %			2	2	2	2
Cap, veh/h			1579	1342	0	0
Arrive On Green			0.85	0.85	0.00	0.00
Sat Flow, veh/h			1863	1583	0	
Grp Volume(v), veh/h			1105	326	0.0	
Grp Sat Flow(s),veh/h/ln			1863	1583		
Q Serve(g_s), s			6.6	1.2		
Cycle Q Clear(g_c), s			6.6	1.2		
Prop In Lane				1.00		
Lane Grp Cap(c), veh/h			1579	1342		
V/C Ratio(X)			0.70	0.24		
Avail Cap(c_a), veh/h			3687	3134		
HCM Platoon Ratio			1.00	1.00		
Upstream Filter(I)			1.00	1.00		
Uniform Delay (d), s/veh			0.8	0.4		
Incr Delay (d2), s/veh			0.6	0.1		
Initial Q Delay(d3),s/veh			0.0	0.0		
%ile BackOfQ(50%),veh/ln			3.0	0.5		
LnGrp Delay(d),s/veh			1.4	0.5		
LnGrp LOS			A	A		
Approach Vol, veh/h			1431			
Approach Delay, s/veh			1.2			
Approach LOS			A			

Timer	1	2	3	4	5	6	7	8
Assigned Phs								8
Phs Duration (G+Y+Rc), s								29.6
Change Period (Y+Rc), s								4.5
Max Green Setting (Gmax), s								58.5
Max Q Clear Time (g_c+I1), s								8.6
Green Ext Time (p_c), s								16.5

Intersection Summary	
HCM 2010 Ctrl Delay	1.2
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	940	0	980	0	1670	1270	0	1830	1240
Future Volume (veh/h)	0	0	0	940	0	980	0	1670	1270	0	1830	1240
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	1863	1863	0	1863	1863	0	1863	1863
Adj Flow Rate, veh/h				1309	0	672	0	1758	0	0	1926	0
Adj No. of Lanes				2	0	1	0	4	1	0	4	1
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	2	2	0	2	2	0	2	2
Cap, veh/h				1757	0	784	0	2533	626	0	2533	626
Arrive On Green				0.50	0.00	0.50	0.00	0.40	0.00	0.00	0.40	0.00
Sat Flow, veh/h				3548	0	1583	0	6669	1583	0	6669	1583
Grp Volume(v), veh/h				1309	0	672	0	1758	0	0	1926	0
Grp Sat Flow(s),veh/h/ln				1774	0	1583	0	1602	1583	0	1602	1583
Q Serve(g_s), s				24.3	0.0	30.6	0.0	18.8	0.0	0.0	21.4	0.0
Cycle Q Clear(g_c), s				24.3	0.0	30.6	0.0	18.8	0.0	0.0	21.4	0.0
Prop In Lane				1.00		1.00	0.00		1.00	0.00		1.00
Lane Grp Cap(c), veh/h				1757	0	784	0	2533	626	0	2533	626
V/C Ratio(X)				0.75	0.00	0.86	0.00	0.69	0.00	0.00	0.76	0.00
Avail Cap(c_a), veh/h				2093	0	934	0	2533	626	0	2533	626
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00
Uniform Delay (d), s/veh				16.6	0.0	18.2	0.0	20.7	0.0	0.0	21.5	0.0
Incr Delay (d2), s/veh				1.2	0.0	7.0	0.0	1.6	0.0	0.0	2.2	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				12.1	0.0	14.8	0.0	8.6	0.0	0.0	9.8	0.0
LnGrp Delay(d),s/veh				17.8	0.0	25.2	0.0	22.3	0.0	0.0	23.7	0.0
LnGrp LOS				B		C		C			C	
Approach Vol, veh/h					1981			1758			1926	
Approach Delay, s/veh					20.3			22.3			23.7	
Approach LOS					C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2				6		8
Phs Duration (G+Y+Rc), s		37.0				37.0		45.2
Change Period (Y+Rc), s		4.5				4.5		4.5
Max Green Setting (Gmax), s		32.5				32.5		48.5
Max Q Clear Time (g_c+I1), s		20.8				23.4		32.6
Green Ext Time (p_c), s		11.4				9.0		8.1

Intersection Summary	
HCM 2010 Ctrl Delay	22.1
HCM 2010 LOS	C

Notes

Movement	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR
Lane Configurations										
Traffic Volume (veh/h)	220	930	0	1740	490	0	2760	1240	0	0
Future Volume (veh/h)	220	930	0	1740	490	0	2760	1240	0	0
Number	7	14	5	2	12	1	6	16		
Initial Q (Qb), veh	0	0	0	0	0	0	0	0		
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00		1.00	1.00		1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Adj Sat Flow, veh/h/ln	1863	1863	0	1863	1863	0	1863	1863		
Adj Flow Rate, veh/h	232	954	0	1832	0	0	2905	0		
Adj No. of Lanes	1	2	0	3	1	0	4	1		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95		
Percent Heavy Veh, %	2	2	0	2	2	0	2	2		
Cap, veh/h	580	1035	0	2909	906	0	3666	906		
Arrive On Green	0.33	0.33	0.00	0.57	0.00	0.00	0.57	0.00		
Sat Flow, veh/h	1774	3167	0	5253	1583	0	6669	1583		
Grp Volume(v), veh/h	232	954	0	1832	0	0	2905	0		
Grp Sat Flow(s),veh/h/ln	1774	1583	0	1695	1583	0	1602	1583		
Q Serve(g_s), s	9.0	25.8	0.0	21.4	0.0	0.0	31.6	0.0		
Cycle Q Clear(g_c), s	9.0	25.8	0.0	21.4	0.0	0.0	31.6	0.0		
Prop In Lane	1.00	1.00	0.00		1.00	0.00		1.00		
Lane Grp Cap(c), veh/h	580	1035	0	2909	906	0	3666	906		
V/C Ratio(X)	0.40	0.92	0.00	0.63	0.00	0.00	0.79	0.00		
Avail Cap(c_a), veh/h	600	1071	0	2909	906	0	3666	906		
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Upstream Filter(I)	1.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00		
Uniform Delay (d), s/veh	23.2	28.9	0.0	12.7	0.0	0.0	14.9	0.0		
Incr Delay (d2), s/veh	0.4	12.5	0.0	1.0	0.0	0.0	1.8	0.0		
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
%ile BackOfQ(50%),veh/ln	4.5	13.1	0.0	10.1	0.0	0.0	14.2	0.0		
LnGrp Delay(d),s/veh	23.6	41.4	0.0	13.8	0.0	0.0	16.7	0.0		
LnGrp LOS	C	D		B			B			
Approach Vol, veh/h	1186			1832			2905			
Approach Delay, s/veh	37.9			13.8			16.7			
Approach LOS	D			B			B			

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4		6		
Phs Duration (G+Y+Rc), s		55.4		33.6		55.4		
Change Period (Y+Rc), s		4.5		4.5		4.5		
Max Green Setting (Gmax), s		50.9		30.1		50.9		
Max Q Clear Time (g_c+I1), s		23.4		27.8		33.6		
Green Ext Time (p_c), s		27.2		1.2		17.2		

Intersection Summary	
HCM 2010 Ctrl Delay	20.1
HCM 2010 LOS	C

Notes

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	900	0	980	320	1580	0	0	2500	260
Future Volume (veh/h)	0	0	0	900	0	980	320	1580	0	0	2500	260
Number				3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1863	0	1863	1863	1863	0	0	1863	1863
Adj Flow Rate, veh/h				947	0	981	337	1663	0	0	2632	76
Adj No. of Lanes				2	0	2	1	3	0	0	6	1
Peak Hour Factor				0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %				2	0	2	2	2	0	0	2	2
Cap, veh/h				1178	0	954	345	2836	0	0	2661	496
Arrive On Green				0.34	0.00	0.34	0.19	0.56	0.00	0.00	0.31	0.31
Sat Flow, veh/h				3442	0	2787	1774	5253	0	0	8941	1583
Grp Volume(v), veh/h				947	0	981	337	1663	0	0	2632	76
Grp Sat Flow(s),veh/h/ln				1721	0	1393	1774	1695	0	0	1416	1583
Q Serve(g_s), s				22.5	0.0	30.8	17.0	19.3	0.0	0.0	27.7	3.1
Cycle Q Clear(g_c), s				22.5	0.0	30.8	17.0	19.3	0.0	0.0	27.7	3.1
Prop In Lane				1.00		1.00	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				1178	0	954	345	2836	0	0	2661	496
V/C Ratio(X)				0.80	0.00	1.03	0.98	0.59	0.00	0.00	0.99	0.15
Avail Cap(c_a), veh/h				1178	0	954	345	2836	0	0	2661	496
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				26.9	0.0	29.6	36.0	13.1	0.0	0.0	30.7	22.3
Incr Delay (d2), s/veh				4.1	0.0	36.7	42.1	0.9	0.0	0.0	15.0	0.7
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				11.3	0.0	16.6	12.4	9.2	0.0	0.0	12.7	1.4
LnGrp Delay(d),s/veh				31.0	0.0	66.3	78.2	14.0	0.0	0.0	45.8	22.9
LnGrp LOS				C		F	E	B			D	C
Approach Vol, veh/h					1928			2000			2708	
Approach Delay, s/veh					49.0			24.8			45.1	
Approach LOS					D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2			5	6		8
Phs Duration (G+Y+Rc), s		54.7			22.0	32.7		35.3
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5
Max Green Setting (Gmax), s		50.2			17.5	28.2		30.8
Max Q Clear Time (g_c+I1), s		21.3			19.0	29.7		32.8
Green Ext Time (p_c), s		28.4			0.0	0.0		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	40.1
HCM 2010 LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	510	0	440	0	0	0	0	1400	510	1490	1900	0
Future Volume (veh/h)	510	0	440	0	0	0	0	1400	510	1490	1900	0
Number	7	4	14				5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	0	1863				0	1863	1863	1863	1863	0
Adj Flow Rate, veh/h	537	0	400				0	1474	258	1568	2000	0
Adj No. of Lanes	2	0	2				0	4	1	3	3	0
Peak Hour Factor	0.95	0.95	0.95				0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	0	2				0	2	2	2	2	0
Cap, veh/h	616	0	498				0	2445	520	1712	3664	0
Arrive On Green	0.18	0.00	0.18				0.00	0.33	0.33	0.34	0.72	0.00
Sat Flow, veh/h	3442	0	2787				0	7451	1583	5003	5253	0
Grp Volume(v), veh/h	537	0	400				0	1474	258	1568	2000	0
Grp Sat Flow(s),veh/h/ln	1721	0	1393				0	1863	1583	1668	1695	0
Q Serve(g_s), s	13.6	0.0	12.3				0.0	14.8	11.7	26.9	16.2	0.0
Cycle Q Clear(g_c), s	13.6	0.0	12.3				0.0	14.8	11.7	26.9	16.2	0.0
Prop In Lane	1.00		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	616	0	498				0	2445	520	1712	3664	0
V/C Ratio(X)	0.87	0.00	0.80				0.00	0.60	0.50	0.92	0.55	0.00
Avail Cap(c_a), veh/h	634	0	514				0	2445	520	1761	3664	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	35.8	0.0	35.2				0.0	25.2	24.1	28.2	5.8	0.0
Incr Delay (d2), s/veh	12.5	0.0	8.7				0.0	1.1	3.4	7.9	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.5	0.0	5.3				0.0	7.8	5.6	13.6	7.6	0.0
LnGrp Delay(d),s/veh	48.2	0.0	44.0				0.0	26.3	27.5	36.1	6.3	0.0
LnGrp LOS	D		D					C	C	D	A	
Approach Vol, veh/h		937						1732			3568	
Approach Delay, s/veh		46.4						26.5			19.4	
Approach LOS		D						C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		
Phs Duration (G+Y+Rc), s	35.1	33.9		20.5		69.0		
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5		
Max Green Setting (Gmax), s	31.5	28.5		16.5		64.5		
Max Q Clear Time (g_c+I1), s	28.9	16.8		15.6		18.2		
Green Ext Time (p_c), s	1.7	11.4		0.4		42.3		

Intersection Summary	
HCM 2010 Ctrl Delay	25.4
HCM 2010 LOS	C

Notes

APPENDIX D

SEWER CAPACITY STUDY AND
SEWER SERVICES WILL SERVE LETTER

Sewer Capacity Study

For

The Press

3370 Harbor Boulevard, 1375 Sunflower Avenue
& 1376 W. South Coast Drive
Costa Mesa, CA

August 1st, 2016

REGISTERED PROFESSIONAL ENGINEER
NICK V. NGUYEN
No. 59138
CIVIL
STATE OF CALIFORNIA

Nick Nguyen, P.E.
Registered Civil Engineer No. 59138
Exp.: 6/30/17

Prepared for:

TREH/Kearny Costa Mesa, LLC
1900 Avenue of the Stars, Suite 320
Los Angeles, CA. 90067
(310) 203-1847

Prepared by:

TAIT
RISING TO THE CHALLENGE

Tait & Associates, Inc.
701 N. Parkcenter Drive
Santa Ana, CA 92705
(714) 560-8200

TAIT JOB # **SP7998B**

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Appendix E – CMSD Unit Flow Coefficients ..... E
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Appendix G – Proposed Flow Calculations Based on CMSD Unit Flow Coefficients ..... G
Appendix H – Pipe Hydraulics Calculations ..... H

Section 1 Study Purpose

The Costa Mesa Sanitary District has requested Kearny Real Estate Company to provide a site specific sewer capacity study to show the amount of proposed wastewater generated by the development of The Press and the project's possible impacts to the surrounding Costa Mesa Sanitary District (CMSD) sewer system. This sewer study is to prove that the proposed increase in sewer usage by the proposed buildings in the proposed Parcels 2, 3, and 7 will have no adverse effect on the existing sewer lines downstream. Refer to Appendix B for the Vesting Tentative Parcel Map No. 2016-134.

Section 2 Project Location

The proposed project site is a 23.41-acres parcel located in the city of Costa Mesa, CA. The site is enclosed by South Coast Drive along the south end, Sunflower Drive along the north end, and Harbor Boulevard on the west side. The Press, in Parcel 3, building address is 1376 South Coast Drive. The future potential residential building, in Parcel 2, address is 1375 Sunflower Avenue. The future potential office building, in Parcel 7, address is 3370 Harbor Boulevard. Refer to Appendix B for the Vesting Tentative Parcel Map No. 2016-134.

Section 3 Site Description

The existing condition of the site is occupied by a one-story industrial building and the Costa Mesa Baseball field with associated parking.

The Press, which is an existing building, will have a third of the building demolished from the north end adjacent to Sunflower Avenue, and remodeled as part of the development of Parcel 3. In addition to The Press, which will occupy 8.08-acres with 295,000 sf. of office space in Parcel 3 of the 23.41-acre property, an additional two buildings, approximately 3.65-acres (Parcel 2) and 1.50-acres (Parcel 7), are entitled for the remaining acreages. Parcel 2 will have 215,000 sf. of medium density residential space, and Parcel 7 will have 145,000 sf. of office space. Refer to Appendix B for the Vesting Tentative Parcel Map No. 2016-134.

Section 4 Existing Sewer System Layout

This section summarizes the proposed sewer layout for each building of the project site.

4.1 The Press (Parcel 3)

The sewer from the Press will connect to a stub out south of the property to a 10" V.C.P. Greenville-Banning Trunk sewer line along South Coast Drive owned by the Costa Mesa Sanitary District. The 10" V.C.P. sewer line leads to the College Avenue Sub-trunk 12" V.C.P. sewer line. Refer to Sheet 4 in Appendix D for Referenced Existing Sewer Improvement Plans.

4.2 Building (Parcel 2)

The sewer from the potential proposed residential parcel will connect to a stub out east of the property to a 12" V.C.P. sewer line along Segerstrom Brothers' Railroad owned by the Costa Mesa Sanitary District. The 12" V.C.P. sewer line leads to the College Avenue Sub-trunk 12" V.C.P. sewer line. Refer to Sheet 2 in Appendix D for Referenced Existing Sewer Improvement Plans.

4.3 Building (Parcel 7)

The sewer from the potential proposed office building will connect west of the property to 8" V.C.P. sewer line along Harbor Boulevard owned by the Costa Mesa Sanitary District. The 8" V.C.P. sewer line will connect to 10" Greenville-Banning Trunk Sewer before connecting to the College Avenue Sub-trunk 12" V.C.P. sewer line. Refer to Sheet 3 in Appendix D for Referenced Existing Sewer Improvement Plans.

Section 5 Design Criteria

The project area is currently zoned for industrial use surrounded by industrial and commercial zoning. Refer to Appendix C for current zoning map.

5.1 Unit Flow Coefficients

Refer to Appendix E for Various Land Uses.

5.2 Existing Sewer Flows

The calculated existing sewer peak flow for the 12" sewer conveying area "A" is 0.070 cfs. The calculated existing sewer peak flow for the 8" sewer conveying areas B, C, D and E is 0.144 cfs. The existing sewer peak flow for the 10" sewer conveying areas B, C, D, E, G, H, I, J, K and L is 0.562 cfs. The total combined existing sewer peak flow is 0.6320 cfs at Greenville-Banning Trunk Sewer. Refer to Appendix F for Calculations.

5.3 Sewer Capacity

The calculated sewer capacity for the 12" sewer conveying Area "A" is 0.17 cfs. The calculated sewer capacity for the 8" sewer discharge to Harbor Boulevard conveying Areas B, C, D and E is 0.249 cfs. The calculated sewer capacity for the 10" sewer discharge to the Greenville-Banning Trunk conveying Areas B, C, D, E, F, G, H, I, J, K, L and M is 0.829 cfs. After the confluence, Area F confluences with the College Avenue Sub-trunk with 0.136 cfs. After the confluence on College Avenue Sub-trunk, the total combined sewer capacity is 1.135 cfs. Refer to Appendix G for Calculations.

Section 6 Results and Conclusion

In consideration of the hydraulic conditions below:

$$Sewer\ System\ Sizing\ is\ Limited\ to\ the\ following\ hydraulic\ condition:$$

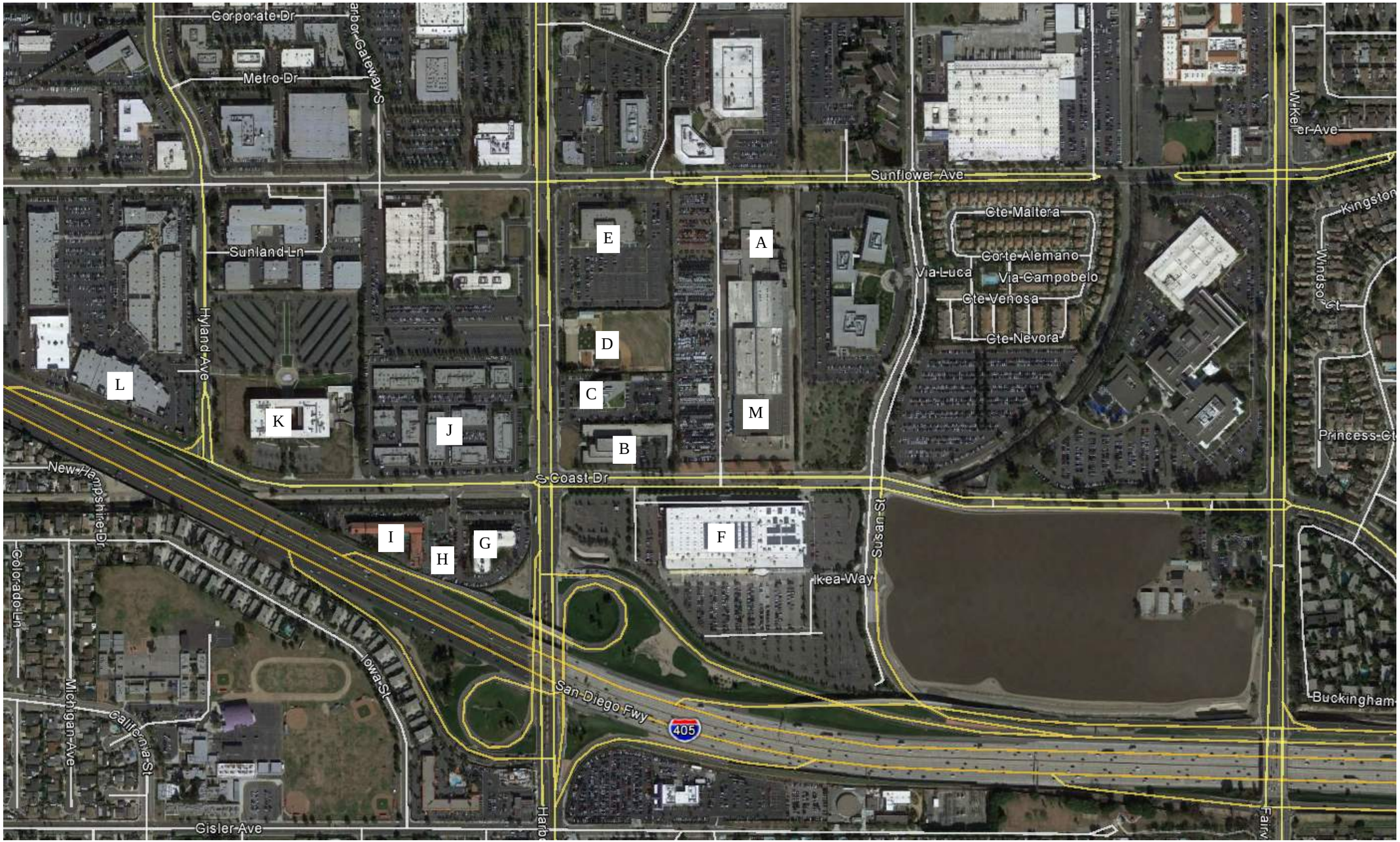
$$\frac{Depth}{diameter} = \frac{D}{d} = \frac{1}{2} for\ pipes < 18"\ diameter$$

For the Greenville-Banning 10" Sewer Trunk line, the projected flow rate is over the required fifty percent flow rate of 0.62 cfs at 0.829 cfs. The depth of flow is 0.50 foot; therefore, the D/d is equal to 0.60. As for the College Avenue 12" Sub-trunk line, the projected flow rate is also over the required fifty percent flow rate of 0.80 cfs at 1.135 cfs. The depth of flow is 0.63 foot; therefore, the D/d is equal to 0.63. Please see Appendix H for more details of pipe hydraulics calculations.

Although the projected peak wet weather flow is above half full, it is within the range of acceptable gravity flow operation and there will be no surcharging.

APPENDIX

Appendix A – Vicinity Map



VICINITY MAP

STREET ADDRESS - Costa Mesa, CA 92626	EXISTING AREA (sf)	PROPOSED AREA (sf)
A - 1375 West Sunflower Avenue	132,992	215,000
B - 3330 Harbor Boulevard	56,251	-
C - 3350 Harbor Boulevard	45,602	-
D - 3370 Harbor Boulevard	225	145,000
E - 3390 Harbor Boulevard	77,216	-
F - 1475 South Coast Drive	307,820	-
G - 1503 South Coast Drive	65,881	-

STREET ADDRESS - Costa Mesa, CA 92626	EXISTING AREA (sf)	PROPOSED AREA (sf)
H - 1507 South Coast Drive	12,683	-
I - 1515 South Coast Drive	60,481	-
J - 3303 Harbor Boulevard (Commerce Park)	173,600	-
K - 3321 Hyland Avenue	176,455	-
L - 3303-3323 Hyland Avenue	60,129	-
M - 1376 South Coast Drive	115,696	295,000

Appendix B – Vesting Tentative Parcel Map No. 2016-134

VESTING TENTATIVE PARCEL MAP NO. 2016-134

IN THE CITY OF COSTA MESA,
COUNTY OF ORANGE, STATE OF CALIFORNIA

PROPOSED CONDITIONS

TITLE REPORT:

TITLE COMPANY: CHICAGO TITLE INSURANCE COMPANY
POLICY NO. : 12020589-X59
DATED: NOVEMBER 12, 2015

LEGAL DESCRIPTION:

PARCEL A:

THAT PORTION OF THE LAND ALLOTED TO JAMES MCFADDEN IN DECREE OF PARTITION OF THE RANCHO SANTIAGO DE SANTA ANA, RENDERED IN CASE NO. 1192 AND ENTERED SEPTEMBER 12, 1868 IN BOOK "B", PAGE 410 OF JUDGMENTS OF THE 17TH JUDICIAL DISTRICT COURT OF CALIFORNIA, IN THE CITY OF SANTA ANA, COUNTY OF ORANGE, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE CENTERLINE OF HUNTZINGER AVENUE, EAST 1237.68 FEET FROM THE CENTERLINE OF HARBOR BOULEVARD, SAID POINT BEING THE INTERSECTION OF THE CENTERLINE OF SAID HUNTZINGER AVENUE WITH THE CENTERLINE OF RAILS OF THE RAILROAD AS THEY EXISTED SEPTEMBER 9, 1965; THENCE SOUTH 00°02'30" WEST 766.00 FEET ALONG SAID CENTERLINE OF EXISTING RAILS; THENCE WESTERLY 615.00 FEET PARALLEL WITH SAID CENTERLINE OF HUNTZINGER AVENUE TO A LINE PARALLEL WITH AND WESTERLY 615.00 FEET FROM SAID CENTERLINE OF EXISTING RAILS; THENCE NORTH 00°02'30" EAST 766.00 FEET ALONG SAID PARALLEL LINE TO SAID CENTERLINE OF HUNTZINGER AVENUE; THENCE EASTERLY 615.00 FEET ALONG LAST SAID CENTERLINE TO THE POINT OF BEGINNING.

EXCEPT ALL OIL, GAS, HYDROCARBON SUBSTANCES AND MINERALS BY WHATEVER NAME KNOWN IN, ON OR UNDER THE ABOVE DESCRIBED LAND BELOW A DEPTH OF 500 FEET MEASURED VERTICALLY FROM THE SURFACE OF THE GROUND, BUT WITHOUT THE RIGHT OF ENTRY UPON ANY PORTION OF THE SURFACE OF THE GROUND ABOVE A DEPTH OF 500 FEET FOR THE PURPOSE OF EXPLORING FOR, BORING, MINING, DRILLING, REMOVING, EXTRACTING OR MARKETING SAID SUBSTANCES, TOGETHER WITH THE EXCLUSIVE RIGHT TO EXECUTE ANY AND ALL LEASES FOR THE PURPOSE OF EXTRACTING OR RECOVERING SAID SUBSTANCES, AS RESERVED IN DEED RECORDED JANUARY 16, 1966.

PARCEL B:

PARCEL 1, IN THE CITY OF COSTA MESA, COUNTY OF ORANGE, STATE OF CALIFORNIA, AS SHOWN ON A MAP FILED IN BOOK 127, PAGES 13 AND 14 OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

EXCEPTING ALL MINERAL RIGHTS, BUT WITHOUT RIGHT OF ENTRY ON THE SURFACE OR WITHIN 500 FEET THEREOF, AS RESERVED BY C.J. SEGERSTROM & SONS, A GENERAL PARTNERSHIP, IN THE DEED RECORDED JANUARY 24, 1979 IN BOOK 13010, PAGE 1405 OF OFFICIAL RECORDS.

EXISTING EASEMENTS:

- ( ) INDICATES SHOWN HEREON. NUMBERED ACCORDING TO THE ABOVE REFERENCED PRELIMINARY TITLE REPORT.
- (7) AN EASEMENT FOR ROAD PURPOSES AND RIGHTS INCIDENTAL THERETO RECORDED IN BOOK 7797 PAGE 276, O.R.
- (8) AN EASEMENT FOR PUBLIC UTILITIES PURPOSES AND RIGHTS INCIDENTAL THERETO RECORDED APRIL 17, 1967 IN BOOK 8226 PAGE 944, O.R.
- (9) AN EASEMENT FOR COMMON CARRIER RAILROAD AND TRANSPORTATION PURPOSES AND RIGHTS INCIDENTAL THERETO RECORDED IN BOOK 8414 PAGE 129, O.R.
- (11) AN EASEMENT FOR UNDERGROUND ELECTRICAL SUPPLY SYSTEMS AND COMMUNICATION SYSTEMS PURPOSES AND RIGHTS INCIDENTAL THERETO RECORDED JANUARY 31, 1989 AS INSTRUMENT NO. 89-054233, O.R.
- (12) AN EASEMENT FOR STREET AND HIGHWAY PURPOSES AND RIGHTS INCIDENTAL THERETO RECORDED JANUARY 29, 1998 AS INSTRUMENT NO. 1998-0050778, O.R.
- (13) AN EASEMENT FOR PUBLIC SEWERS, PUMPING WELLS, PUMPING STATIONS, SERVICE ROADS AND MANHOLES PURPOSES AND RIGHTS INCIDENTAL THERETO RECORDED NOVEMBER 12, 1965 IN BOOK 7738, PAGE 834, O.R.
- (14) AN EASEMENT FOR STORM DRAIN AND APPURTENANT STRUCTURES PURPOSES AND RIGHTS INCIDENTAL THERETO RECORDED JANUARY 4, 1967 IN BOOK 8145 PAGE 14, O.R.
- (15) AN EASEMENT FOR RAILROAD, TRANSPORTATION AND COMMUNICATION PURPOSES AND RIGHTS INCIDENTAL THERETO RECORDED OCTOBER 11, 1973 IN BOOK 10949 PAGE 559, O.R.
- (18) AN EASEMENT FOR STREET AND HIGHWAY PURPOSES AND RIGHTS INCIDENTAL THERETO RECORDED JULY 9, 1979 IN BOOK 13220 PAGE 1984, O.R.

TITLE REPORT:

TITLE COMPANY: CHICAGO TITLE INSURANCE COMPANY
POLICY NO. : 00046313-994-X59
DATED: NOVEMBER 12, 2015

LEGAL DESCRIPTION:

PARCEL 2, AS SHOWN ON PARCEL MAP NO. 98-227 IN THE CITY OF COSTA MESA, COUNTY OF ORANGE, STATE OF CALIFORNIA, FILED IN BOOK 305, PAGES 6 AND 7 OF PARCEL MAPS, AND AS PER CERTIFICATE OF CORRECTION RECORDED ON AUGUST 26, 1999 AS INSTRUMENT NO. 1999-621102, OFFICIAL RECORDS, BOTH IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

EXCEPTING ALL MINERALS RIGHTS, BUT WITHOUT RIGHT OF ENTRY ON THE SURFACE OR WITHIN 500 FEET THEREOF, AS RESERVED BY C.J. SEGERSTROM & SONS, A CALIFORNIA GENERAL PARTNERSHIP, IN THE DEED RECORDED JANUARY 22, 1999 IN THE OFFICIAL RECORDS OF THE COUNTY OF ORANGE.

EXISTING EASEMENTS:

- ( ) INDICATES SHOWN HEREON. NUMBERED ACCORDING TO THE ABOVE REFERENCED PRELIMINARY TITLE REPORT.
- (2) AN EASEMENT FOR TRAFFIC SIGNAL PURPOSES AND RIGHTS INCIDENTAL THERETO RECORDED JULY 19, 1966 IN BOOK 7993, PAGE 895, O.R.
- (3) AN EASEMENT FOR SEWER PURPOSES AND RIGHTS INCIDENTAL THERETO RECORDED JANUARY 16, 1979 IN BOOK 13002, PAGE 1496, O.R.
- (4) AN EASEMENT FOR INGRESS AND EGRESS PURPOSES AND RIGHTS INCIDENTAL THERETO RECORDED IN PARCEL MAP NO. 98-227, P.M.B. 305 / 6 - 7.
- (7') AN EASEMENT FOR STREET AND HIGHWAY PURPOSES AND RIGHTS INCIDENTAL THERETO RECORDED JUNE 27, 2012 AS INSTRUMENT NO. 2012-363512, O.R.

BASIS OF BEARINGS:

THE BEARINGS SHOWN HEREON ARE BASED ON THE BEARINGS BETWEEN O.C.S. HORIZONTAL CONTROL STATION GPS NO. 6106 AND STATION GPS NO. 6117 BEING NORTH 00°20'50" EAST PER RECORDS ON FILE IN THE OFFICE OF THE ORANGE COUNTY SURVEYOR.

BENCHMARK:

BM NO.: 1F-175-04

DESCRIPTION: FOUND 3 3/4" OCS ALUMINUM BENCHMARK DISK STAMPED "1F-175-04", SET IN THE TOP OF CURB AT THE NORTHEAST CORNER OF A 3.0 FT X 3.0 FT DROP INLET BASIN. MONUMENT IS LOCATED IN THE SOUTHEAST PORTION OF THE INTERSECTION OF HARBOR BLVD. AND SOUTH COAST DR. 72 FT EAST OF THE CENTERLINE OF HARBOR BLVD. 100 FT SOUTH OF THE CENTERLINE OF SOUTH COAST DR. MONUMENT IS SET LEVEL WITH THE SIDEWALK.

ELEVATION: 29.20 FEET (NAVD 1988)

YEAR LEVELED: 2010

AREA SUMMARY TABLE:

EXISTING AREA: ± 1,094,291 S.F. / ± 25.12 ACRES (GROSS)
± 1,019,702 S.F. / ± 23.41 ACRES (NET)

PROPOSED AREAS:

PARCEL 1:	± 95,368 S.F. / ±	2.19 ACRES
PARCEL 2:	± 158,926 S.F. / ±	3.65 ACRES
PARCEL 3:	± 351,851 S.F. / ±	8.08 ACRES
PARCEL 4:	± 45,920 S.F. / ±	1.05 ACRES
PARCEL 5:	± 165,307 S.F. / ±	3.79 ACRES
PARCEL 6:	± 108,780 S.F. / ±	2.50 ACRES
PARCEL 7:	± 65,485 S.F. / ±	1.50 ACRES
PARCEL A:	± 28,064 S.F. / ±	0.64 ACRES
TOTAL:	± 1,019,702 S.F. / ±	23.41ACRES

UTILITY INFORMATION:

WATER:

MESA CONSOLIDATED WATER
1965 PLACENTIA AVENUE
COSTA MESA, CA 92627
(949) 631-1200

SANITARY SEWER:

COSTA MESA SANITARY DISTRICT
628 WEST 19TH STREET
COSTA MESA, CA 92627
(949) 645-9400

ELECTRIC:

SOUTHERN CALIFORNIA EDISON
(800) 684-8123

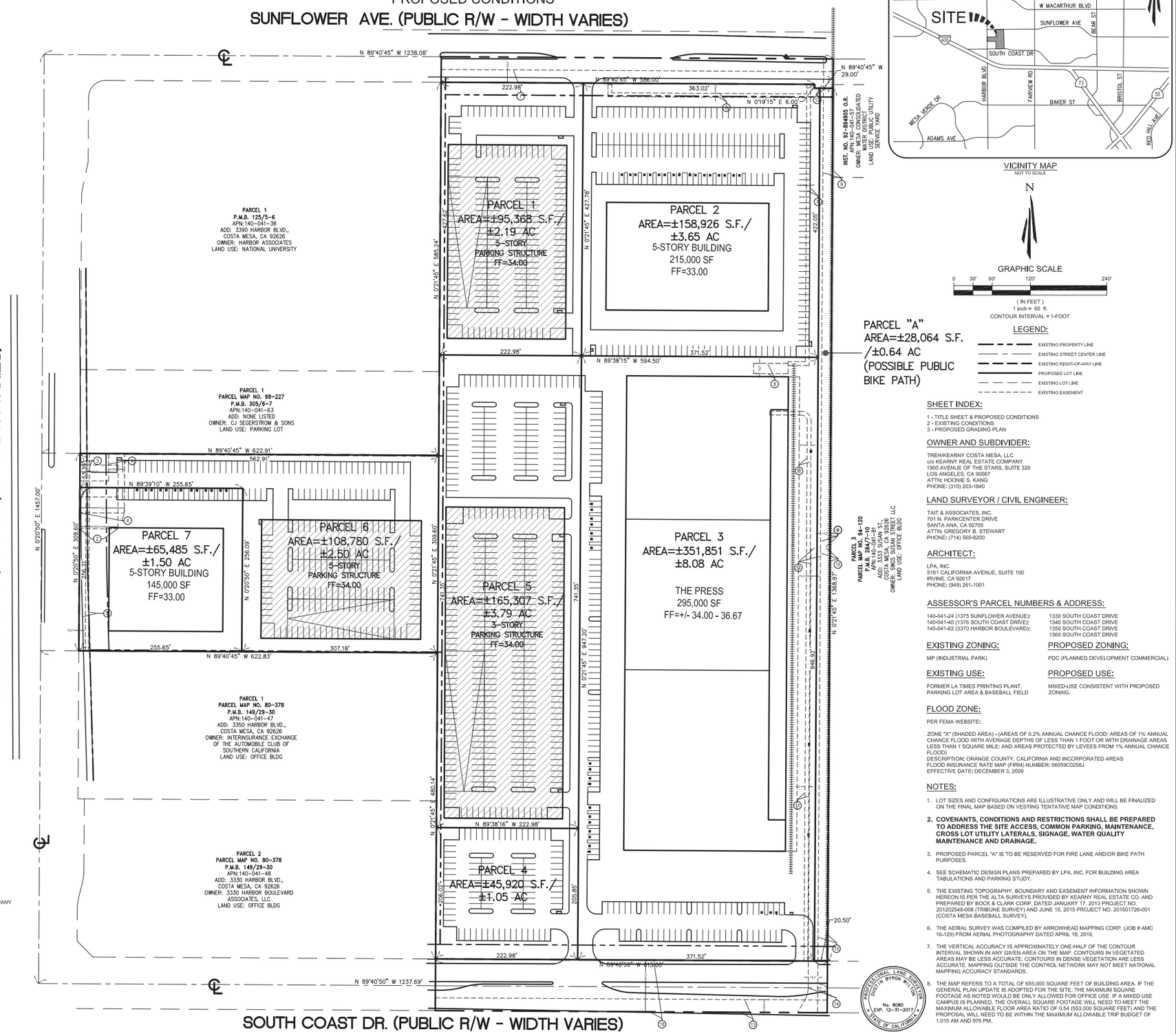
GAS:

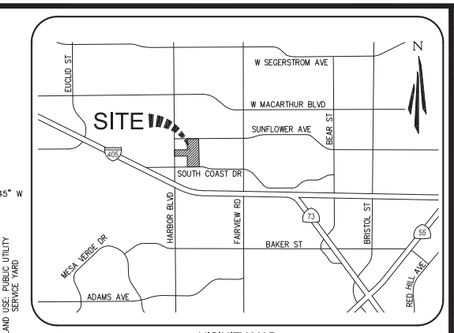
SOUTHERN CALIFORNIA GAS COMPANY
(800) 427-2000

TELECOMMUNICATIONS / CABLE:

PACIFIC BELL
2280 FAIRVIEW ROAD
COSTA MESA, CA 92627
(800) 310-2155

TIME WARNER CABLE
200 PAULARINO AVENUE
COSTA MESA, CA 92626
(866) 744-1678





VICINITY MAP
NOT TO SCALE

N

GRAPHIC SCALE
0 30' 60' 120' 240'
(IN FEET)
1 inch = 60 ft.
CONTOUR INTERVAL = 1-FOOT

LEGEND:

- EXISTING PROPERTY LINE
- EXISTING STREET CENTER LINE
- EXISTING RIGHT-OF-WAY LINE
- PROPOSED LOT LINE
- EXISTING LOT LINE
- EXISTING EASEMENT

SHEET INDEX:

1 - TITLE SHEET & PROPOSED CONDITIONS
2 - EXISTING CONDITIONS
3 - PROPOSED GRADING PLAN

OWNER AND SUBDIVIDER:

TREH/KEARNY COSTA MESA, LLC
c/o KEARNY REAL ESTATE COMPANY
1900 AVENUE OF THE STARS, SUITE 320
LOS ANGELES, CA 90067
ATTN: HOONIE S. KANG
PHONE: (310) 203-1840

LAND SURVEYOR / CIVIL ENGINEER:

TAIT & ASSOCIATES, INC.
701 N. PARKCENTER DRIVE
SANTA ANA, CA 92705
ATTN: GREGORY B. STEWART
PHONE: (714) 560-8200

ARCHITECT:

LPA, INC.
5161 CALIFORNIA AVENUE, SUITE 100
IRVINE, CA 92617
PHONE: (949) 261-1001

ASSESSOR'S PARCEL NUMBERS & ADDRESS:

140-041-24 (1375 SUNFLOWER AVENUE); 1330 SOUTH COAST DRIVE
140-041-40 (1376 SOUTH COAST DRIVE); 1340 SOUTH COAST DRIVE
140-041-62 (3370 HARBOR BOULEVARD); 1350 SOUTH COAST DRIVE
1360 SOUTH COAST DRIVE

EXISTING ZONING:

MP (INDUSTRIAL PARK)

PROPOSED ZONING:

PDC (PLANNED DEVELOPMENT COMMERCIAL)

EXISTING USE:

FORMER LA TIMES PRINTING PLANT, PARKING LOT AREA & BASEBALL FIELD

PROPOSED USE:

MIXED-USE CONSISTENT WITH PROPOSED ZONING.

FLOOD ZONE:

PER FEMA WEBSITE:

ZONE "X" (SHADED AREA) - (AREAS OF 0.2% ANNUAL CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD)
DESCRIPTION: ORANGE COUNTY, CALIFORNIA AND INCORPORATED AREAS
FLOOD INSURANCE RATE MAP (FIRM) NUMBER: 06059C0258J
EFFECTIVE DATE: DECEMBER 3, 2009

NOTES:

1. LOT SIZES AND CONFIGURATIONS ARE ILLUSTRATIVE ONLY AND WILL BE FINALIZED ON THE FINAL MAP BASED ON VESTING TENTATIVE MAP CONDITIONS.
2. **COVENANTS, CONDITIONS AND RESTRICTIONS SHALL BE PREPARED TO ADDRESS THE SITE ACCESS, COMMON PARKING, MAINTENANCE, CROSS LOT UTILITY LATERALS, SIGNAGE, WATER QUALITY MAINTENANCE AND DRAINAGE.**
3. PROPOSED PARCEL "A" IS TO BE RESERVED FOR FIRE LANE AND/OR BIKE PATH PURPOSES.
4. SEE SCHEMATIC DESIGN PLANS PREPARED BY LPA, INC. FOR BUILDING AREA TABULATIONS AND PARKING STUDY.
5. THE EXISTING TOPOGRAPHY, BOUNDARY AND EASEMENT INFORMATION SHOWN HEREON IS PER THE ALTA SURVEYS PROVIDED BY KEARNY REAL ESTATE CO. AND PREPARED BY BOCK & CLARK CORP. DATED JANUARY 17, 2013 PROJECT NO. 201202548-008 (TRIBUNE SURVEY) AND JUNE 15, 2015 PROJECT NO. 201501726-001 (COSTA MESA BASEBALL SURVEY).
6. THE AERIAL SURVEY WAS COMPILED BY ARROWHEAD MAPPING CORP. (JOB # AMC 16-129) FROM AERIAL PHOTOGRAPHY DATED APRIL 18, 2016.
7. THE VERTICAL ACCURACY IS APPROXIMATELY ONE-HALF OF THE CONTOUR INTERVAL SHOWN IN ANY GIVEN AREA ON THE MAP. CONTOURS IN VEGETATED AREAS MAY BE LESS ACCURATE. CONTOURS IN DENSE VEGETATION ARE LESS ACCURATE. MAPPING OUTSIDE THE CONTROL NETWORK MAY NOT MEET NATIONAL MAPPING ACCURACY STANDARDS.
8. THE MAP REFERS TO A TOTAL OF 655,000 SQUARE FEET OF BUILDING AREA. IF THE GENERAL PLAN UPDATE IS ADOPTED FOR THE SITE, THE MAXIMUM SQUARE FOOTAGE AS NOTED WOULD BE ONLY ALLOWED FOR OFFICE USE. IF A MIXED USE CAMPUS IS PLANNED, THE OVERALL SQUARE FOOTAGE WILL NEED TO MEET THE MAXIMUM ALLOWABLE FLOOR AREA RATIO OF 0.54 (553,000 SQUARE FEET) AND THE PROPOSAL WILL NEED TO BE WITHIN THE MAXIMUM ALLOWABLE TRIP BUDGET OF 1,015 AM AND 976 PM.

NO.	DESCRIPTION	BY	DATE	CHK
1	REVISED PER CITY OF COSTA MESA 1ST PLAN CHECK COMMENTS	GG	6-06-16	GBS

REVISIONS

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t: 714/560/8211
Los Angeles Sacramento San Francisco Dallas Phoenix
Orlando San Diego Boise Denver Portland

VESTING TENTATIVE PARCEL MAP NO. 2016-134

THE PRESS
1375 SUNFLOWER AVE., 1375 & COAST DR., 3370 HARBOR BLVD.,
COSTA MESA, CA 92626

KEARNY REAL ESTATE COMPANY
1900 AVENUE OF THE STARS, SUITE 320
LOS ANGELES, CA 90067

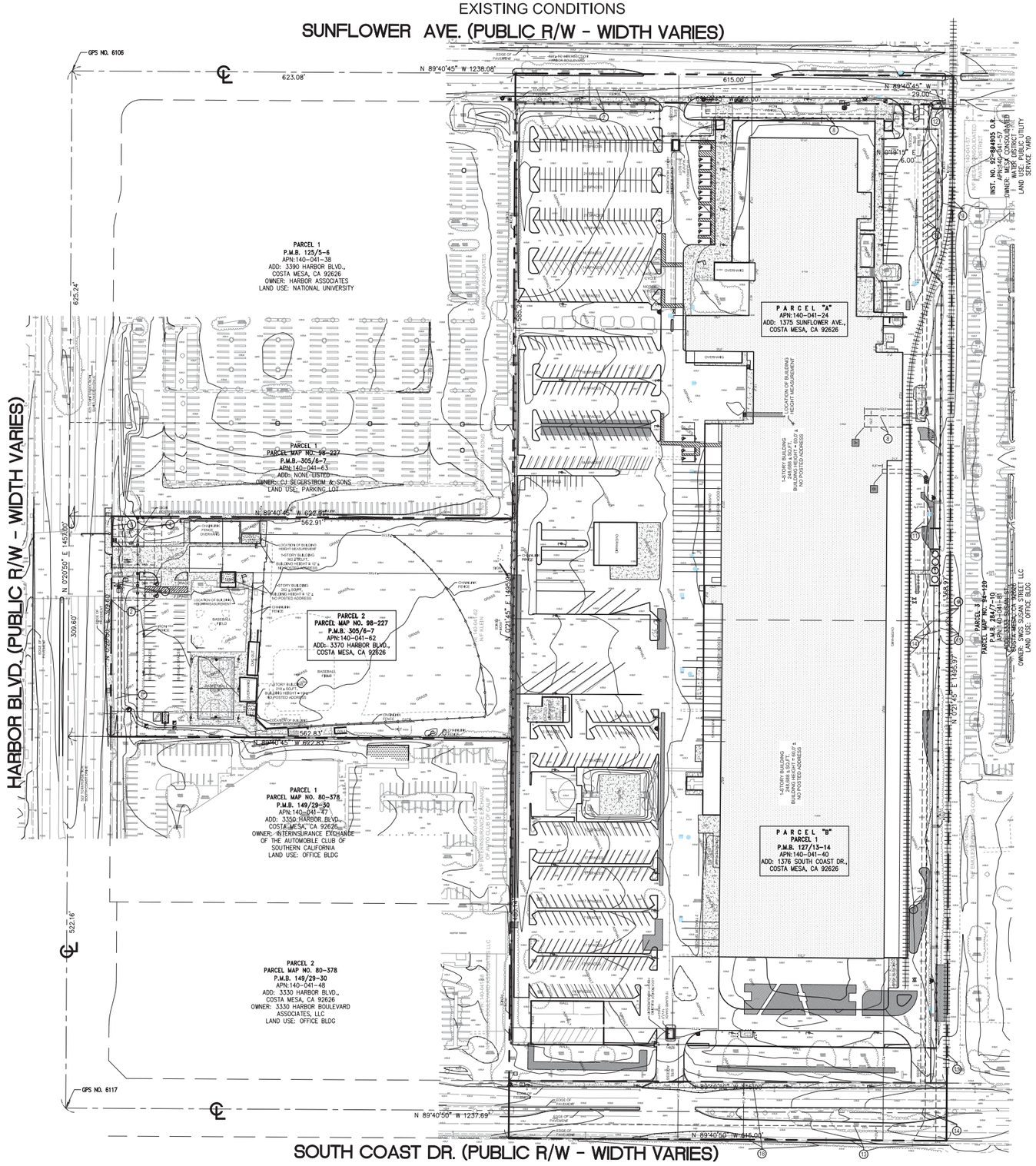
DRAWN: GG
DATE: 04/13/16
CHECKED: GBS
DATE: 04/28/16
REVISION #: 1 06/06/16
REVISION #: 2 07/11/16
JOB NO: SP7998

K:\Drawing\SP\SP7998 - Costa Mesa\Survey\Office\Tentative Map\SP7998-TM-SH1.dwg
PLOTTED: 7/11/2016 4:17:03 PM BY Geoffrey Gulpeo PAGESETUP: ---- PLOTSTYLE: Default R14 pen assignments.ctb

VESTING TENTATIVE PARCEL MAP NO. 2016-134

IN THE CITY OF COSTA MESA,
COUNTY OF ORANGE, STATE OF CALIFORNIA

EXISTING CONDITIONS



N

GRAPHIC SCALE

0 30' 60' 120' 240'

(IN FEET)
1 inch = 60 ft.

LEGEND:

- EXISTING PROPERTY LINE
- EXISTING STREET CENTER LINE
- EXISTING RIGHT-OF-WAY LINE
- PROPOSED LOT LINE
- EXISTING LOT LINE
- EXISTING EASEMENT
- PROPOSED PARKING STRUCTURE

AREA SUMMARY TABLE:

EXISTING AREA: ± 1,094,291 S.F. / ± 25.12 ACRES (GROSS)

± 1,019,702 S.F. / ± 23.41 ACRES (NET)

NOTES:

1. LOT SIZES AND CONFIGURATIONS ARE ILLUSTRATIVE ONLY AND WILL BE FINALIZED ON THE FINAL MAP BASED ON VESTING TENTATIVE MAP CONDITIONS.
2. **COVENANTS, CONDITIONS AND RESTRICTIONS SHALL BE PREPARED TO ADDRESS THE SITE ACCESS, COMMON PARKING, MAINTENANCE, CROSS LOT UTILITY LATERALS, SIGNAGE, WATER QUALITY MAINTENANCE AND DRAINAGE.**
3. PROPOSED PARCEL "A" IS TO BE RESERVED FOR FIRE LANE AND/OR BIKE PATH PURPOSES.
4. SEE SCHEMATIC DESIGN PLANS PREPARED BY LPA, INC. FOR BUILDING AREA TABULATIONS AND PARKING STUDY.
5. THE EXISTING TOPOGRAPHY, BOUNDARY AND EASEMENT INFORMATION SHOWN HEREON IS PER THE ALTA SURVEYS PROVIDED BY KEARNY REAL ESTATE CO. AND PREPARED BY BOCK & CLARK CORP. DATED JANUARY 17, 2013 PROJECT NO. 2012025A8-008 (TRIBUNE SURVEY) AND JUNE 15, 2015 PROJECT NO. 201501726-001 (COSTA MESA BASEBALL SURVEY).
6. THE AERIAL SURVEY WAS COMPILED BY ARROWHEAD MAPPING CORP. (JOB # AMC 16-129) FROM AERIAL PHOTOGRAPHY DATED APRIL 18, 2016.
7. THE VERTICAL ACCURACY IS APPROXIMATELY ONE-HALF OF THE CONTOUR INTERVAL SHOWN IN ANY GIVEN AREA ON THE MAP. CONTOURS IN VEGETATED AREAS MAY BE LESS ACCURATE. CONTOURS IN DENSE VEGETATION ARE LESS ACCURATE. MAPPING OUTSIDE THE CONTROL NETWORK MAY NOT MEET NATIONAL MAPPING ACCURACY STANDARDS.
8. THE MAP REFERS TO A TOTAL OF 655,000 SQUARE FEET OF BUILDING AREA. IF THE GENERAL PLAN UPDATE IS ADOPTED FOR THE SITE, THE MAXIMUM SQUARE FOOTAGE AS NOTED WOULD BE ONLY ALLOWED FOR OFFICE USE. IF A MIXED USE CAMPUS IS PLANNED, THE OVERALL SQUARE FOOTAGE WILL NEED TO MEET THE MAXIMUM ALLOWABLE FLOOR AREA RATIO OF 0.54 (553,000 SQUARE FEET) AND THE PROPOSAL WILL NEED TO BE WITHIN THE MAXIMUM ALLOWABLE TRIP BUDGET OF 1,015 AM AND 976 PM.

NO.	DESCRIPTION	BY	DATE	CHK
1	REVISED PER CITY OF COSTA MESA 1ST PLAN CHECK COMMENTS	GG	5-06-16	GBS

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NO.	DESCRIPTION	BY	DATE	CHK

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VESTING TENTATIVE PARCEL MAP NO. 2016-134

THE PRESS
1375 SUNFLOWER AVE., 1376 S. COAST DR., 3370 HARBOR BLVD.,
COSTA MESA, CA 92626

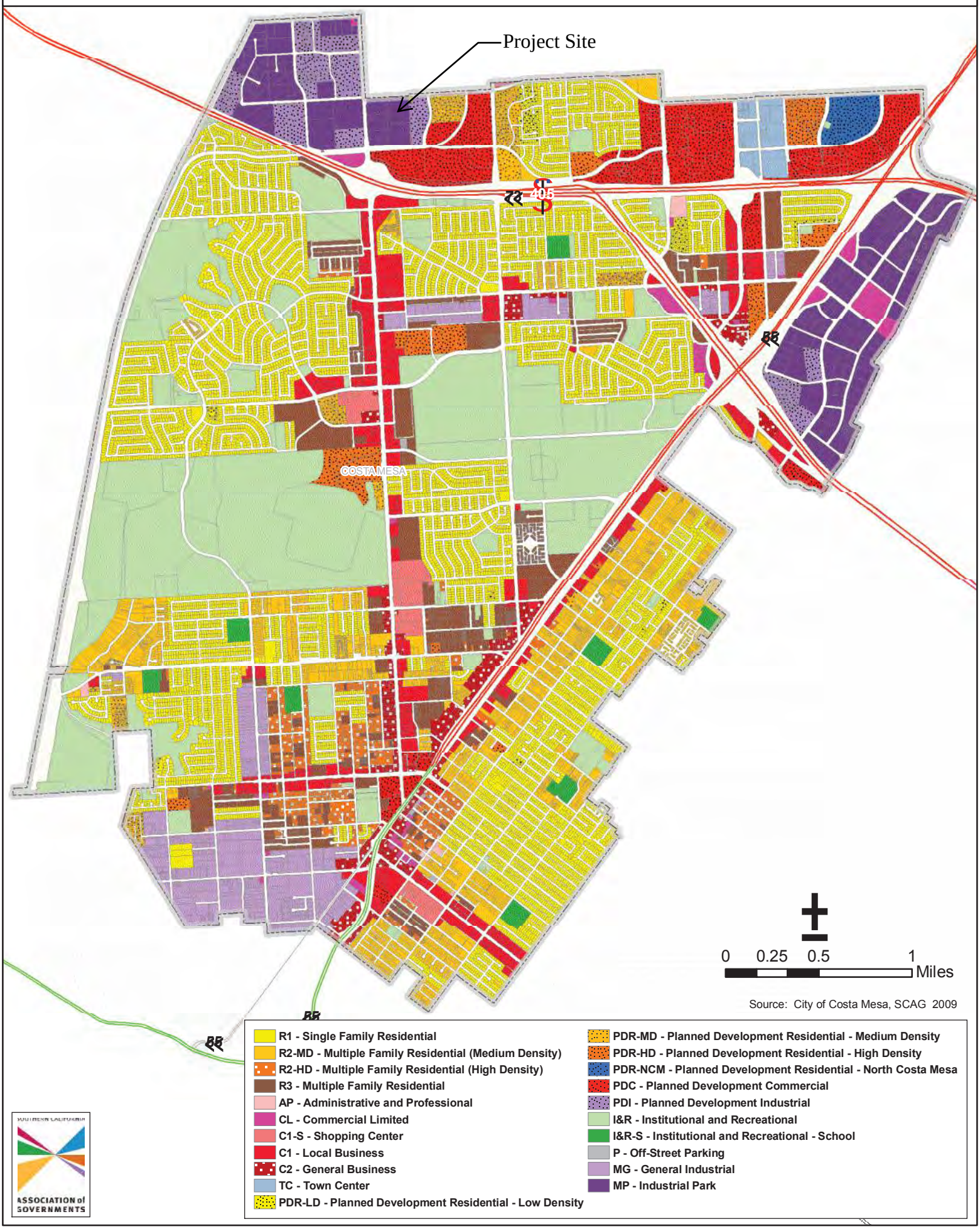
KEARNY REAL ESTATE COMPANY
1900 AVENUE OF THE STARS, SUITE 320
LOS ANGELES, CA 90067

DRAWN: GG
DATE: 04/13/16
CHECKED: GBS
DATE: 04/28/16
REVISION #: 1
DATE: 05/06/16
JOB NO: SP7998

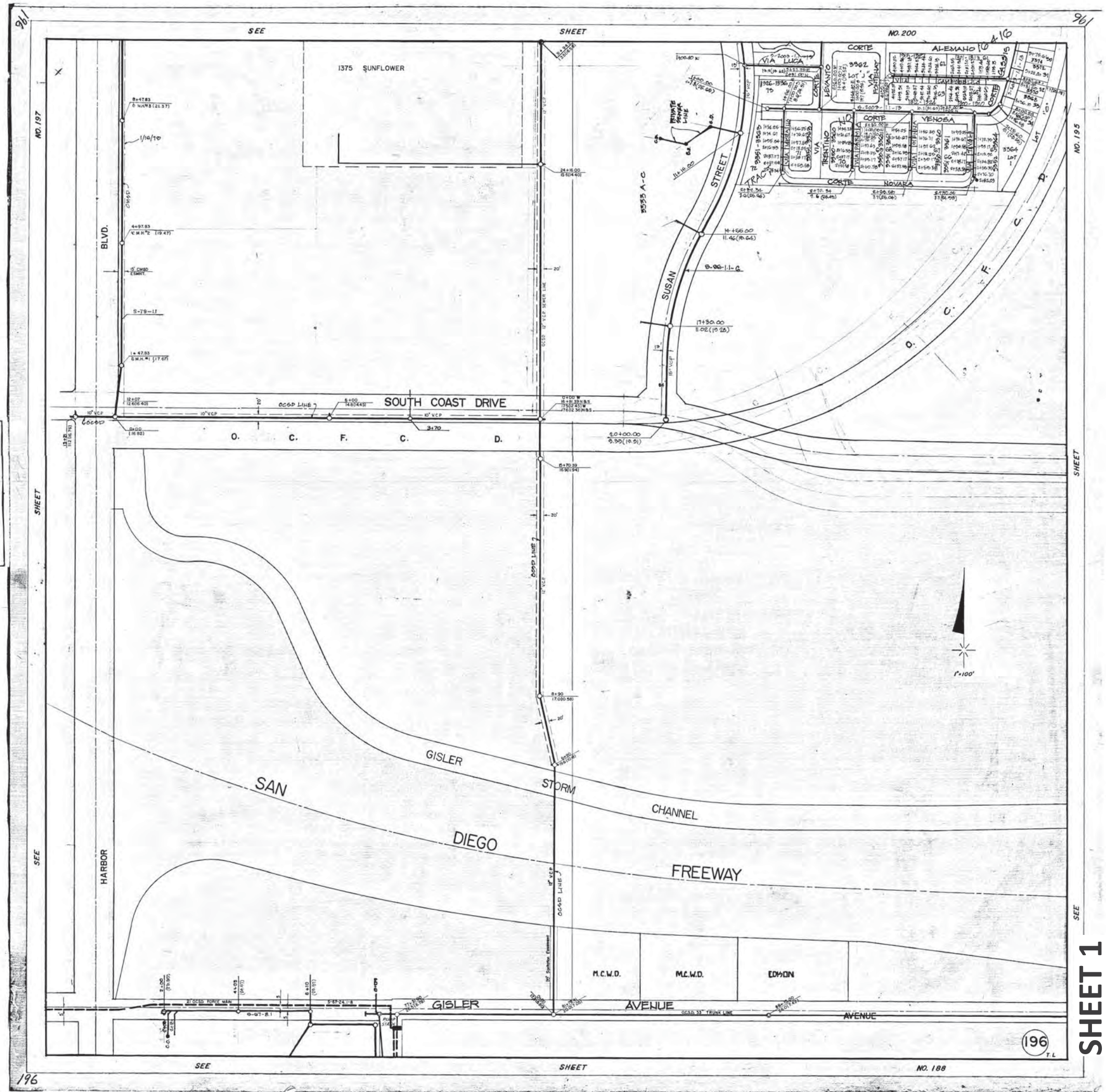
K:\Drawings\SP\SP7998 - Costa Mesa\Survey\Office\Tentative Map\SP7998-TM-SHT2.dwg
PLOTTED: 7/11/2016 4:17:54 PM BY Geoffrey Galpao PAGESETUP: ---- PLOTSTYLE: Default.R14.pen assignments.ctb

Appendix C – Zoning Map

Zoning Map for City of Costa Mesa



Appendix D – Sewer Improvement References

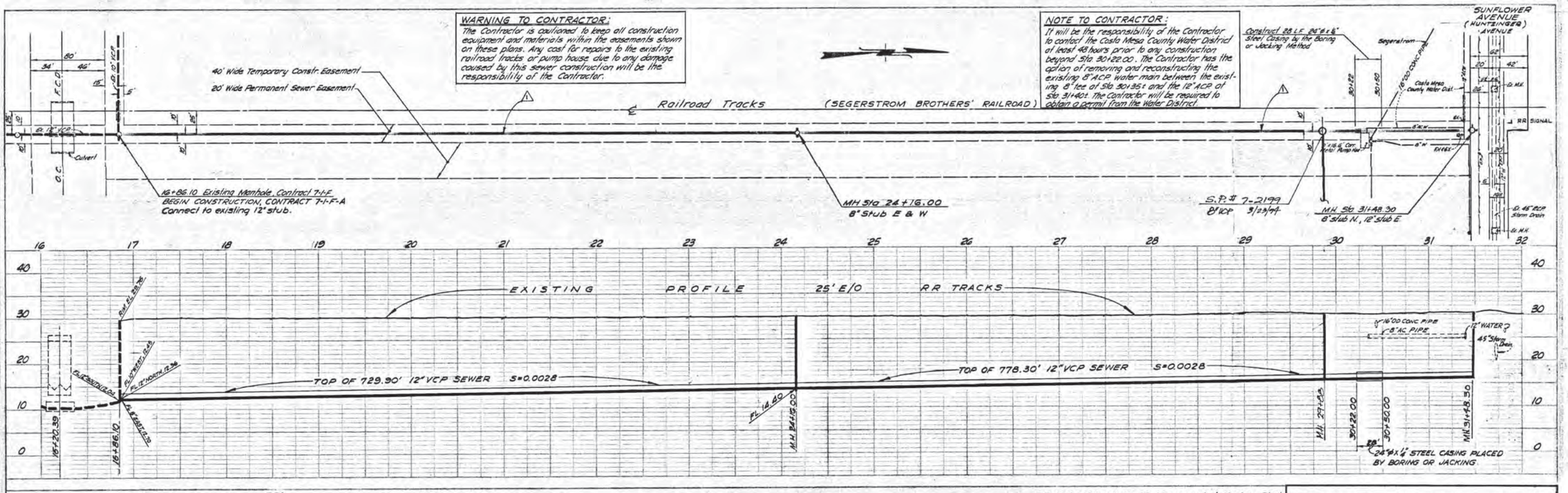

SEE SHEET NO. 200
1375 SUNFLOWER
NO. 197
BLVD.
SHEET
SEE
HARBOR
SOUTH COAST DRIVE
O. C. F. C. D.
SUSAN STREET
VIA LUCA
CORTE ALEMANO
CORTE VENOSA
CORTE NOVARA
VIA TRESTINO
TRACT 9561-9562
PRIVATE PARK LINE
GISLER STORM CHANNEL
SAN DIEGO FREEWAY
GISLER AVENUE
M.C.W.D.
EDISON
1"=100'
NO. 195
SHEET
SEE
196
SEE SHEET NO. 188

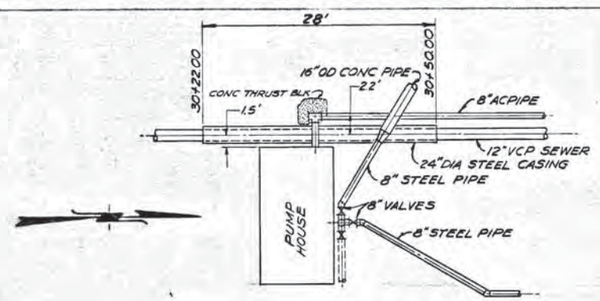
S-196

SHEET 1

WARNING TO CONTRACTOR:
The Contractor is cautioned to keep all construction equipment and materials within the easements shown on these plans. Any cost for repairs to the existing railroad tracks or pump house due to any damage caused by this sewer construction will be the responsibility of the Contractor.

NOTE TO CONTRACTOR:
It will be the responsibility of the Contractor to contact the Costa Mesa County Water District at least 48 hours prior to any construction beyond Sta. 30+22.00. The Contractor has the option of removing and reconstructing the existing 8" ACP water main between the existing 8" tee at Sta. 30+35± and the 12" ACP at Sta. 31+40±. The Contractor will be required to obtain a permit from the Water District.





DETAIL - SEWER ENCASEMENT
Scale: 1" = 8'-0"

BENCH MARK: IF 92-60. Monument ℄ Harbor Blvd and Huntzinger Ave. 1961 el 29.228

FIELD BOOK No. 10. O C S D No. 7

"AS-BUILT"

0 50 100
GRAPHIC SCALE: 1" = 50'

LEGEND:

THE FOLLOWING SYMBOLS AND ABBREVIATIONS HAVE BEEN USED UNLESS OTHERWISE NOTED

- INSTALL SEWER PIPE — SIZE & TYPE INDICATED
- INSTALL STANDARD MANHOLE
- INSTALL SPECIAL MANHOLE OR STRUCTURE
- —6" W— EXISTING WATER LINE — SIZE AS INDICATED
- —5" WW— EXISTING WASTE WATER LINE — SIZE AS INDICATED
- —4" G— EXISTING GAS LINE — SIZE AS INDICATED
- —6" OIL— EXISTING OIL LINE — SIZE AS INDICATED
- —12" IRR.— EXISTING IRRIGATION LINE — SIZE AS INDICATED
- —o— EXISTING POWER AND/OR TELEPHONE POLE, GUY POLE
- ANCHOR OR GUY WIRE
- —x— EXISTING FENCE
- EXISTING CURB
- RIGHT OF WAY LINE
- RAILROAD

R.C.P.	REINFORCED CONCRETE PIPE		
V.C.P.	VITRIFIED CLAY PIPE		
C.M.P.	CORRUGATED METAL PIPE		
R.C.B.	REINFORCED CONCRETE BOX	INV.	INVERT
HDWL	HEADWALL	W.M.	WATER METER
C.B.	CATCH BASIN	G.M.	GAS METER
C.O.	CLEAN OUT	M.H.	MANHOLE
P.M.S.	PLANT MIX SURFACING	S.P.	STANDPIPE
E.P.	EDGE OF EXISTING PAVEMENT	F.L.	FLOW LINE
S	SLOPE IN FEET PER FOOT	STD.	STANDARD
P.I.	POINT OF INTERSECTION	I.P.	IRON PIPE
ELEV.	ELEVATION	EUC.	EUCALYPTUS
B.M.	BENCH MARK	CONC.	CONCRETE
EQ.	EQUATION	F.M.	FORCE MAIN
F.H.	FIRE HYDRANT	—o—	IRR. VALVE
—⋈—	VALVE		

BENCH MARK USC&GS-Y-167-1933, N.W. CURB, U.S. ALT. 101 & SANTA ANA RIVER BRIDGE-ELEVATION 16.014 FEET

1	9/09	TRANSFER CONT # 7-1-F-A TO COSTA MESA SANITARY DISTRICT

COUNTY SANITATION DISTRICTS OF ORANGE COUNTY, CALIF.
DISTRICT NO. 7

CONTRACT 7-1-F-A

COLLEGE AVENUE SUB-TRUNK SEWER
EXTENSION TO SUNFLOWER AVENUE

BOYLE AND LOWRY
CONSULTING ENGINEERS A JOINT VENTURE OF
BOYLE ENGINEERING AND LOWRY AND ASSOCIATES
CIVIL ENGINEERS

RA-24

DESIGNED BY:	DRAWN BY:	APPROVED BY:	SHEET
HCB	SWP/EDR	Sidney L. Lowry	2
CHECKED BY: HCB/SLL	DATE: August, 1966	SIDNEY L. LOWRY R.C.E. 6210	OF 4 SHEETS

RA-24

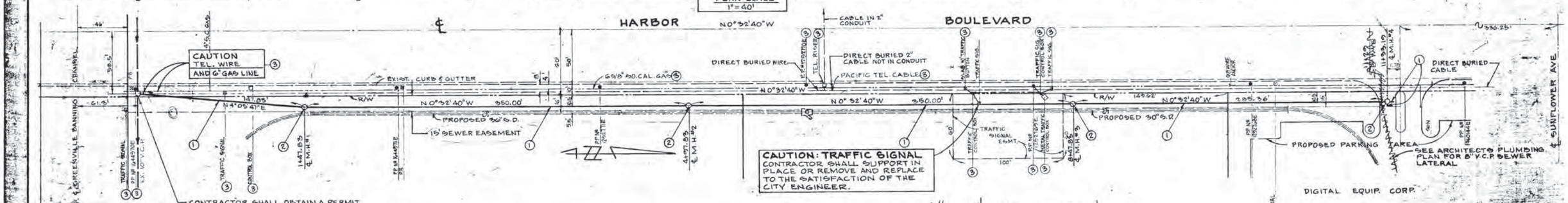
SHEET 2

PLAN — SURVEYED / DRAWN / NOTE BOOK / ALIGNMENT CHECKED / BY / NO. / BY: OF R/W CHECKED

PROFILE — SURVEYED / DRAWN / NOTE BOOK / GRADES CHECKED / BY: R.B. HOYES / NO. / STRUCTURES LOCATIONS CHECKED

EAR FILE CORP. IRVINE CA. S-66-6.2

PLATE 2-PLAN-PROFILE C.S.P.C.S.R.D. STANDARD
KEUFFEL & ESSER CO. NEW YORK

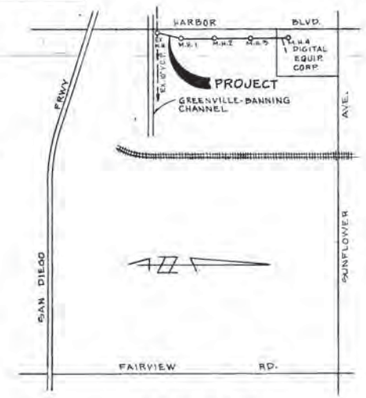


GENERAL NOTES

1. ALL SEWER CONSTRUCTION SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF THE COSTA MESA SANITARY DISTRICT.
2. MANHOLE SHALL BE BRICK OR PRECAST CONCRETE AS MANUFACTURED BY ASSOCIATED CONCRETE PRODUCTS, INC. OR APPROVED EQUAL.
3. SEWER MANHOLE FRAME AND COVER SHALL BE ALHAMBRA FOUNDRY A-1270 OR APPROVED EQUAL.
4. CLAY PIPE JOINTS SHALL BE MECHANICAL COMPRESSION JOINTS. MECHANICAL COMPRESSION JOINTS SHALL BE WEDGE-LOCK, SPEED SEAL, MAINLINE, OR APPROVED EQUAL. IN NO CASE WILL JOINTING MATERIAL USING NEAT PORTLAND CEMENT MORTAR OR GROUT BE PERMITTED.
5. CONTRACTOR SHALL REQUEST INSPECTION FROM THE OFFICE OF THE SANITARY DISTRICT ENGINEER 24 HOURS PRIOR TO COMMENCEMENT OF WORK. TELEPHONE: (714) 556-5400.
6. CONNECTION PERMIT REQ'D FROM STREET DEPT., TEL 556-5507, 77 FAIR DR. COSTA MESA.
7. WORK NOT DONE IN THE PRESENCE OF THE SANITARY DISTRICT INSPECTOR IS SUBJECT TO REJECTION.
8. A 15' EASEMENT WILL BE GRANTED TO C.M.S.D. FOR ALL NON-DEDICATED STREETS FOR MAINTENANCE PURPOSES OF SEWER MAINS AND MANHOLES.
9. 8" V.C.P. HOUSE CONNECTIONS SHALL BE CONSTRUCTED FOR EACH CONNECTION SHOWN ON THE PLAN.
10. THE DEVELOPER SHALL FURNISH THE SEWER CONTRACTOR WITH A PLAN INDICATING THE RECOMMENDED LOCATION OF EACH HOUSE CONNECTION PRIOR TO SEWER MAIN CONSTRUCTION.
11. ALL SEWER HOUSE CONNECTIONS SHALL BE PLACED PRIOR TO SURFACING OF STREETS OR PARKING AREAS.
12. ALL SEWER MANHOLE FRAMES AND COVERS IN PAVEMENT AREAS SHALL BE LEFT 6" BELOW FINISH GRADE.
13. THE SEWER CONTRACTOR SHALL RAISE THE MANHOLE FRAME AND COVER TO FINISH GRADE AFTER STREET OR PARKING LOT SURFACING IS COMPLETED.
14. STAMP "S" ON CURB AT ALL SEWER LATERAL LOCATIONS.
15. PRIOR TO EXCAVATION IN THIS AREA PLEASE CALL UNDERGROUND SERVICE ALERT AT (1-800) 422-4133.
16. CONTRACTOR SHALL OBTAIN A PERMIT FROM CITY OF COSTA MESA ENGINEERING DEPARTMENT AND REQUEST INSPECTION 48 HOURS PRIOR TO COMMENCING ANY WORK IN THE PUBLIC RIGHT OF WAY. (TEL. 556-5323, 77 FAIR DRIVE, COSTA MESA)
17. MAINTAIN ALL TRAFFIC LANES ON HARBOR BOULEVARD.

CONSTRUCTION NOTES & ESTIMATED QUANTITIES

CONST. NOTE No.	ITEMS TO BE CONSTRUCTED OR INSTALLED	QUANTITY	UNIT
1	INSTALL 8" V.C.P. SEWER MAIN	1122	L.F.
2	CONST. 48" I.D. SEWER MANHOLE	4	EA.
3	PROTECT IN PLACE		



VICINITY MAP
N.T.S.

AS BUILTS
5/18/79 FM

COSTA MESA SANITARY DISTRICT

APPROVED BY: Donald E. Stevens DATE: 10-18-78
DONALD E. STEVENS, DISTRICT ENGINEER

Contractor agrees that he shall assume sole and complete responsibility for job site conditions during the course of construction of this Project, including safety of all persons and property; that this requirement shall apply continuously and not be limited to normal working hours; and that the Contractor shall defend, indemnify and hold the Owner and the Engineer harmless from any and all liability, real or alleged, in connection with the performance of work on this Project, excepting for liability arising from the sole negligence of the Owner or the Engineer.

UNDERGROUND STRUCTURES

ALL UNDERGROUND UTILITIES OR STRUCTURES REPORTED BY THE OWNER OR OTHERS AND THOSE SHOWN ON THE RECORDS EXAMINED ARE INDICATED WITH THEIR APPROXIMATE LOCATION AND EXTENT. THE OWNER BY ACCEPTING THESE PLANS OR PROCEEDING WITH IMPROVEMENTS PURSUANT THERETO AGREES TO ASSUME LIABILITY AND TO HOLD UNDERSIGNED HARMLESS FOR ANY DAMAGES RESULTING FROM THE EXISTENCE OF UNDERGROUND UTILITIES OR STRUCTURES NOT REPORTED TO THE UNDERSIGNED, NOT INDICATED ON THE PUBLIC RECORDS EXAMINED, LOCATED AT VARIANCE WITH THAT REPORTED OR SHOWN ON RECORDS EXAMINED. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES OR STRUCTURES SHOWN AND ANY OTHER UTILITIES OR STRUCTURES FOUND AT THE SITE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNERS OF THE UTILITIES OR STRUCTURES CONCERNED BEFORE STARTING WORK.

Robert Bein, William Frost & Associates
PROFESSIONAL ENVIRONMENTAL ENGINEERS & PLANNERS
P.O. BOX 2580 • 1401 QUAIL STREET, NEWPORT BEACH, CALIFORNIA 92663
(714) 833-0070
Robert W. Bein DATE: 8-30-78
ROBERT W. BEIN R.C.E. 12758

REVISIONS

NO.	DATE	DESCRIPTION	APP.

CONTRACTOR
WORK STARTED:
WORK ACCEPTED:
INSPECTED BY:
DATE

REFERENCES

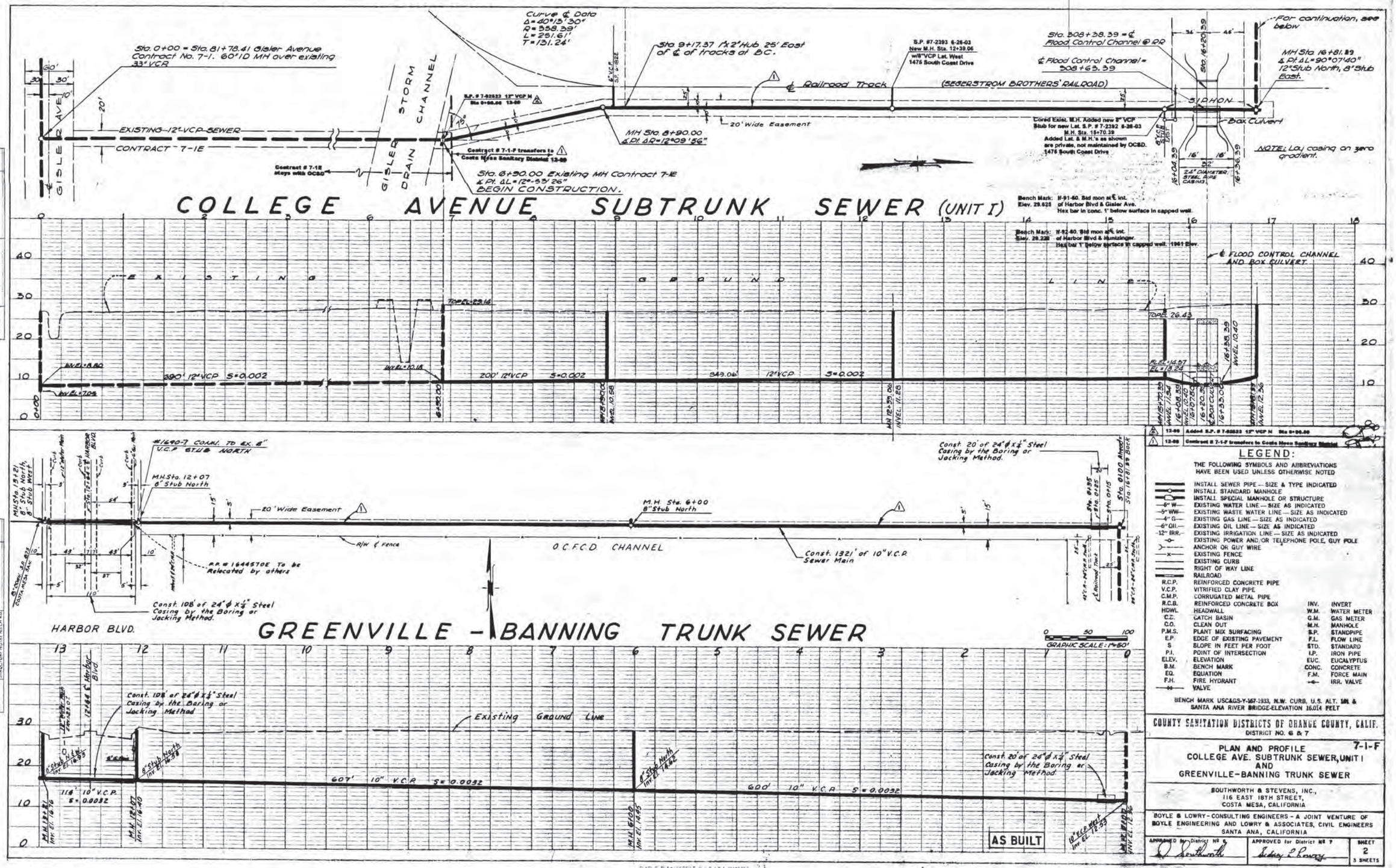
FIELD BOOK	PAGE		
		BENCH MARK NO. 145	REFERENCE PLANS
		ELEVATION 30.59	NOTE TO CONTRACTOR, SEE SHT.
		DESCRIPTION CITY OF COSTA	STANDARD DRAWING NO.
		MESA B.M. BEING A	
		CHISLED "X" IN THE CENTER	
		OF CURB RET. AT N.E. COR.	
		OF HARBOR BLVD. & SUN-	
		FLOWER AVE.	

PLAN AND PROFILE FOR THE IMPROVEMENT OF
SEWER ADJACENT TO HARBOR BLVD.
FROM GREENVILLE-BANNING CHANNEL TO
1133' NORTH OF GREENVILLE-BANNING CHANNEL
CITY OF COSTA MESA

SHEET 1 OF 1
PLAN NUMBER

SHEET 3

S-79-11


COLLEGE AVENUE SUBTRUNK SEWER (UNIT I)
PLAN
Sta. 0+00 = Sta. 81+78.41 Gisler Avenue Contract No. 7-1. 60" ID MH over existing 33" VCP.
GISLER AVE
EXISTING 12" VCP SEWER
CONTRACT 7-1E
GISLER DRAIN STORM CHANNEL
Contract # 7-1E stays with OCSD
Curve ℄ Data Δ=40°13'30" R=558.39' L=251.61' T=131.24'
Sta. 9+17.37 1"x2" Hub 25' East of ℄ of tracks at BC.
℄ Railroad Track
(SEGERSTROM BROTHERS' RAILROAD)
20' Wide Easement
MH Sta. 8+90.00 ℄ Pt. ΔR=12°09'56"
Contract # 7-1-F transfers to Costa Mesa Sanitary District 13-00
Sta. 8+90.00 Existing MH Contract 7-1E ℄ Pt. ΔL=12°-53'26" BEGIN CONSTRUCTION.
S.P. #7-2393 6-26-03 New M.H. Sta. 12+39.06 w/8"VCP Lat. West 1476 South Coast Drive
Sta. 308+38.39 = ℄ Flood Control Channel @ PR
℄ Flood Control Channel = 308+63.39
SIPHON
Box Culvert
For continuation, see below
MH Sta. 16+81.89 ℄ Pt. ΔL=90°07'40" 12" Stub North, 8" Stub East.
NOTE: Lay casing on zero gradient.
Cored Exist. M.H. Added new 8" VCP Stub for new Lat. S.P. # 7-2392 6-26-03 M.H. Sta. 15+70.39 Added Lat. & M.H.'s as shown are private, not maintained by OCSD. 1476 South Coast Drive
24" DIAMETER STEEL PIPE CASING
Bench Mark: H-91-60. Bld mon at ℄ int. Elev. 29.525 of Harbor Blvd & Gisler Ave. Hex bar in conc. 1' below surface in capped well.
Bench Mark: H-92-60. Bld mon at ℄ int. Elev. 28.328 of Harbor Blvd & Hamlinger. Hex bar 1' below surface in capped well. 1961 Elev.
℄ FLOOD CONTROL CHANNEL AND BOX CULVERT
EXISTING GROUND LINE
390' 12" VCP S=0.002
200' 12" VCP S=0.002
349.06' 12" VCP S=0.002
TOP EL. 29.14
TOP EL. 26.43
INVEL. 8.80
INVEL. 7.04
INVEL. 10.18
INVEL. 10.58
INVEL. 11.83
INVEL. 10.40
FL. EL. 14.57
EL. 13.24
GREENVILLE - BANNING TRUNK SEWER
HARBOR BLVD.
#1640-7 CONN. TO EX. 8" V.C.P. STUB NORTH
M.H. Sta. 12+07 8" Stub North
20' Wide Easement
R/W ℄ Fence
O.C.F.C.D. CHANNEL
M.H. Sta. 6+00 8" Stub North
Const. 1321' of 10" V.C.P. Sewer Main
Const. 20' of 24"ø x ¼" Steel Casing by the Boring or Jacking Method.
Const. 108' of 24"ø x ¼" Steel Casing by the Boring or Jacking Method.
P.P. # 1644STOE To be Relocated by others
Existing Ground Line
607' 10" V.C.P. S=0.0032
600' 10" V.C.P. S=0.0032
116' 10" V.C.P. S=0.0032
GRAPHIC SCALE: 1"=50'
AS BUILT
PROFILE
LEGEND:
THE FOLLOWING SYMBOLS AND ABBREVIATIONS HAVE BEEN USED UNLESS OTHERWISE NOTED
INSTALL SEWER PIPE — SIZE & TYPE INDICATED
INSTALL STANDARD MANHOLE
INSTALL SPECIAL MANHOLE OR STRUCTURE
—6" W— EXISTING WATER LINE — SIZE AS INDICATED
—5" WW— EXISTING WASTE WATER LINE — SIZE AS INDICATED
—4" G— EXISTING GAS LINE — SIZE AS INDICATED
—6" OIL— EXISTING OIL LINE — SIZE AS INDICATED
—12" IRR.— EXISTING IRRIGATION LINE — SIZE AS INDICATED
EXISTING POWER AND/OR TELEPHONE POLE, GUY POLE
ANCHOR OR GUY WIRE
EXISTING FENCE
EXISTING CURB
RIGHT OF WAY LINE
RAILROAD
R.C.P. REINFORCED CONCRETE PIPE
V.C.P. VITRIFIED CLAY PIPE
C.M.P. CORRUGATED METAL PIPE
R.C.B. REINFORCED CONCRETE BOX
HDWL. HEADWALL
C.B. CATCH BASIN
C.O. CLEAN OUT
P.M.S. PLANT MIX SURFACING
E.P. EDGE OF EXISTING PAVEMENT
S SLOPE IN FEET PER FOOT
P.I. POINT OF INTERSECTION
ELEV. ELEVATION
B.M. BENCH MARK
EQ. EQUATION
F.H. FIRE HYDRANT
VALVE
INV. INVERT
W.M. WATER METER
G.M. GAS METER
M.H. MANHOLE
S.P. STANDPIPE
F.L. FLOW LINE
STD. STANDARD
I.P. IRON PIPE
EUC. EUCALYPTUS
CONC. CONCRETE
F.M. FORCE MAIN
IRR. VALVE
BENCH MARK USC&GS-Y-167-1933, N.W. CURB, U.S. ALT. 101 & SANTA ANA RIVER BRIDGE-ELEVATION 16.014 FEET
COUNTY SANITATION DISTRICTS OF ORANGE COUNTY, CALIF.
DISTRICT NO. 6 & 7
7-1-F
PLAN AND PROFILE
COLLEGE AVE. SUBTRUNK SEWER, UNIT I
AND
GREENVILLE-BANNING TRUNK SEWER
SOUTHWORTH & STEVENS, INC.,
116 EAST 18TH STREET,
COSTA MESA, CALIFORNIA
BOYLE & LOWRY - CONSULTING ENGINEERS - A JOINT VENTURE OF BOYLE ENGINEERING AND LOWRY & ASSOCIATES, CIVIL ENGINEERS
SANTA ANA, CALIFORNIA
APPROVED for District No. 6
APPROVED for District No. 7
SHEET 2
3 SHEETS
S-67-252
SHEET 4

Appendix E – CMSD Unit Flow Coefficients

PROVIDED BY COSTA MESA SANITARY DISTRICT

Table 1: UNIT FLOW COEFFICIENTS

Use		**Unit**
Office	200 gal / 1000 SF per day	0.2 GPD/SF
Retail	100 gal / 1000 SF per day	0.1 GPD/SF
Person	85 gal per person per day	85 GPD/Person
Restaurant	50 gal. per seat per day	50 GPD/seat
Hotel	150 gal. per room per day	150 GPD/room
Low Density Residential	1545 gal per day per acre	0.0355 GPD/SF
Medium Density Residential	2525 gal per day per acre	0.0580 GPD/SF
High Density Residential	4625gal per day per acre	0.1062 GPD/SF
Commercial	5000 gal per day per acre	0.1148 GPD/SF
Industrial	3500 gal. per day per acre	0.0804 GPD/SF
Storm Inflow	800 gal per day per acre	0.0184 GPD/SF

Appendix F – Existing Flow Calculations Based on CMSD Unit Flow Coefficients

EXISTING SEWER FLOWS

Existing Project Site Discharge to College Avenue Sub-Trunk 12" Sewer (Reference Plan S-66-6.2, Sheet 2 in Appendix C)							
	Address	Use	Sq. Ft.	Use Flow (mgd)	Storm Flow (mgd)	Total Flow (mgd)	
A	1375 West Sunflower Avenue	Commercial	132992	0.01530	0.00240	0.01770	
$Average\ Flow = Q_a$				Actual Average Flow to Times Storm Drain	=	0.01770	mgd
$Peak\ Flow = Q_p = 1.84(Q_a)^{0.92}$				Actual Peak Flow	=	0.0450	mgd
				Actual Peak Flow	**=**	**0.070**	cfs

Existing Project Site Discharge to Harbor Boulevard 8" Sewer (Reference Plan S-79-1.1, Sheet 1 in Appendix C)							
	Address	Use	Sq. Ft.	Use Flow (mgd)	Storm Flow (mgd)	Total Flow (mgd)	
B	3330 Harbor Boulevard	Office	56251	0.01130	0.00100	0.01230	
C	3350 Harbor Boulevard	Office	45702	0.00910	0.00080	0.00990	
D	3370 Harbor Boulevard	Commercial	225	0.00000	0.00000	0.00000	
E	3390 Harbor Boulevard	Office	77216	0.01540	0.00140	0.01680	
$Average\ Flow = Q_a$				Actual Average Flow to Harbor Boulevard	=	0.03900	mgd
$Peak\ Flow = Q_p = 1.84(Q_a)^{0.92}$				Actual Peak Flow	=	0.0930	mgd
				Actual Peak Flow	**=**	**0.144**	cfs

Neighborhood Discharge to Greenville-Banning 10" Sewer (Reference Plan S-67-25, Sheet 2 in Appendix C)							
	Address	**Use**	**Sq. Ft.**	**Use Flow (mgd)**	**Storm Flow (mgd)**	**Total Flow (mgd)**	
G	1503 South Coast Drive	Office	65881	0.00760	0.00120	0.00880	
H	1507 South Coast Drive	Restaurant (*)	208	0.01040	0.00000	0.01040	
I	1515 South Coast Drive	Hotel (**)	160	0.02400	0.00000	0.02400	
J	3303 Harbor Boulevard (Commerce Park)	Office	173600	0.03470	0.00320	0.03790	
K	3300 Hyland Avenue	Office	176455	0.01760	0.00320	0.02080	
L	3303 Hyland Avenue	Retail	60129	0.00600	0.00110	0.00710	
M	1376 South Coast Drive	Commercial	115696	0.01330	0.00210	0.01540	
$Average\ Flow = Q_a$				Actual Average Flow to Greenville-Banning Sewer	=	0.12440	mgd
$Peak\ Flow = Q_p = 1.84(Q_a)^{0.92}$				Actual Peak Flow	=	0.2700	mgd
				Actual Peak Flow	**=**	**0.418**	cfs

Total Discharge to Confluence at College Avenue Sub-Trunk 12" Sewer (Reference Sheet 4 in Appendix C)			
Total Actual Peak Flow	**=**	**0.6320**	cfs

(*) Units here are in seats
(**) Units here are in rooms

Appendix G – Proposed Flow Calculations Based on CMSD Unit Flow Coefficients

SEWER CAPACITY

Proposed Project Site Discharge to College Avenue Sub-Trunk 12" Sewer (Reference Sheet 2 in Appendix C)

	Address	Use	Sq. Ft.	Use Flow (mgd)	Storm Flow (mgd)	Total Flow (mgd)	
A	1375 West Sunflower Avenue	Office	215000	0.04300	0.00390	0.04690	
$Average\ Flow = Q_a$				Actual Average Flow to Times Storm Drain	=	0.04690	mgd
$Peak\ Flow = Q_p = 1.84(Q_a)^{0.92}$				Actual Peak Flow	=	0.1100	mgd
				Actual Peak Flow	=	**0.17**	cfs
Sewer System Sizing is Limited to Hydraulic Conditions: Depth/Diameter=D/d=1/2							
$Area\ of\ Pipe = A = \pi r^2$				A	=	0.79	sf
$Perimeter\ of\ Pipe = P = 2\pi r$				P	=	3.14	sf
$Hydraulic\ Radius = R_h = A/P$				R_h	=	0.25	sf
$Manning\ Formula = v = \frac{k}{n} {R_h}^{2/3} S^{1/2}$, k=1.49 , n=0.013, s=0.0028				Max Allowable Velocity	=	2.41	f/s
$Max.Allowable\ Flow = Q = vA * 50\%$				Max. Allowable Flow	=	**0.95**	cfs

Actual Peak Flow<Max. Allowable Flow; therefore COMPLIES with hydraulic conditions.

Proposed Project Site Discharge to Harbor Boulevard 8" Sewer (Reference Sheet 3 in Appendix C)

	Address	Use	Sq. Ft.	Use Flow (mgd)	Storm Flow (mgd)	Total Flow (mgd)	
B	3330 Harbor Boulevard	Office	56251	0.01130	0.00100	0.01230	
C	3350 Harbor Boulevard	Office	45702	0.00910	0.00080	0.00990	
D	3370 Harbor Boulevard	Office	145000	0.02900	0.00270	0.03170	
E	3390 Harbor Boulevard	Office	77216	0.01540	0.00140	0.01680	
$Average\ Flow = Q_a$				Actual Average Flow to Harbor Boulevard	=	0.07070	mgd
$Peak\ Flow = Q_p = 1.84(Q_a)^{0.92}$				Actual Peak Flow	=	0.1610	mgd
				Actual Peak Flow	=	**0.249**	cfs
Sewer System Sizing is Limited to Hydraulic Conditions: Depth/Diameter=D/d=1/2							
$Area\ of\ Pipe = A = \pi r^2$				A	=	0.35	sf
$Perimeter\ of\ Pipe = P = 2\pi r$				P	=	2.09	sf
$Hydraulic\ Radius = R_h = A/P$				R_h	=	0.17	sf
$Manning\ Formula = v = \frac{k}{n} {R_h}^{2/3} S^{1/2}$, k=1.49 , n=0.013, s=0.0052				Max Allowable Velocity	=	2.50	f/s
$Max.Allowable\ Flow = Q = vA * 50\%$				Max. Allowable Flow	=	**0.44**	cfs

Actual Peak Flow<Max. Allowable Flow; therefore COMPLIES with hydraulic conditions.

Neighborhood Discharge to Greenville-Banning 10" Sewer (Reference Sheet 4 in Appendix C)

	Address	**Use**	**Sq. Ft.**	**Use Flow (mgd)**	**Storm Flow (mgd)**	**Total Flow (mgd)**	
B	3330 Harbor Boulevard	Office	56251	0.01130	0.00100	0.01230	
C	3350 Harbor Boulevard	Office	45702	0.00910	0.00080	0.00990	
D	3370 Harbor Boulevard	Office	145000	0.02900	0.00270	0.03170	
E	3390 Harbor Boulevard	Office	77216	0.01540	0.00140	0.01680	
G	1503 South Coast Drive	Office	65881	0.00760	0.00120	0.00880	
H	1507 South Coast Drive	Restaurant (*)	208	0.01040	N/A	0.01040	
I	1515 South Coast Drive	Hotel (**)	160	0.02400	N/A	0.02400	
J	3303 Harbor Boulevard (Commerce Park)	Office	173600	0.03470	0.00320	0.03790	
K	3300 Hyland Avenue	Office	176455	0.03530	0.00320	0.03850	
L	3303 Hyland Avenue	Retail	60129	0.00600	0.00110	0.00710	
M	1376 South Coast Drive	Office	295000	0.05900	0.00540	0.06440	
$Average\ Flow = Q_a$				Actual Average Flow to Greenville-Banning Sewer	=	0.26180	mgd
$Peak\ Flow = Q_p = 1.84(Q_a)^{0.92}$				Actual Peak Flow	=	0.5360	mgd
				Actual Peak Flow	=	**0.829**	cfs
Sewer System Sizing is Limited to Hydraulic Conditions: Depth/Diameter=D/d=1/2							
$Area\ of\ Pipe = A = \pi r^2$				A	=	0.55	sf
$Perimeter\ of\ Pipe = P = 2\pi r$				P	=	2.62	sf
$Hydraulic\ Radius = R_h = A/P$				R_h	=	0.21	sf
$Manning\ Formula = v = \frac{k}{n} {R_h}^{2/3} S^{1/2}$, k=1.49 , n=0.013, s=0.0032				Max Allowable Velocity	=	2.28	f/s
$Max.Allowable\ Flow = Q = vA$ * 50%				Max. Allowable Flow	=	**0.62**	cfs

Actual Peak Flow>Max. Allowable Flow; depth of flow = 0.50'; therefore it is within the range of acceptable gravity flow operation.

Total Discharge After Confluence at College Avenue Sub-Trunk 12" Sewer (Reference Sheet 4 in Appendix C)

F	1475 South Coast Drive	Retail	307820	0.03080	0.00570	0.03650	
$\boldsymbol{Average\ Flow = Q_a}$				Actual Average Flow After College Avenue Subtrunk Sewer	=	0.03650	mgd
$Peak\ Flow = Q_p = 1.84(Q_a)^{0.92}$				Actual Peak Flow	=	0.0880	mgd
				Actual Peak Flow	=	**0.136**	cfs
				Total Actual Peak Flow	=	**1.1350**	cfs
Sewer System Sizing is Limited to Hydraulic Conditions: Depth/Diameter=D/d=1/2							
$\boldsymbol{Area\ of\ Pipe = A = \pi r^2}$				A	=	0.79	sf
$Perimeter\ of\ Pipe = P = 2\pi r$				P	=	3.14	sf
$Hydraulic\ Radius = R_h = A/P$				R_h	=	0.25	sf
$Manning\ Formula = v = \frac{k}{n} {R_h}^{2/3} S^{1/2}$, k=1.49 , n=0.013, s=0.002				Max Allowable Velocity	=	2.03	f/s
$Max.Allowable\ Flow = Q = vA * 50\%$				Max. Allowable Flow	=	**0.80**	cfs

Actual Peak Flow>Max. Allowable Flow; depth of flow = 0.63'; therefore it is within the range of acceptable gravity flow operation.

(*) Units here are in seats
(**) Units here are in rooms

Appendix H – Pipe Hydraulics Calculations

Channel Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Thursday, Jul 28 2016

<Name>

Circular

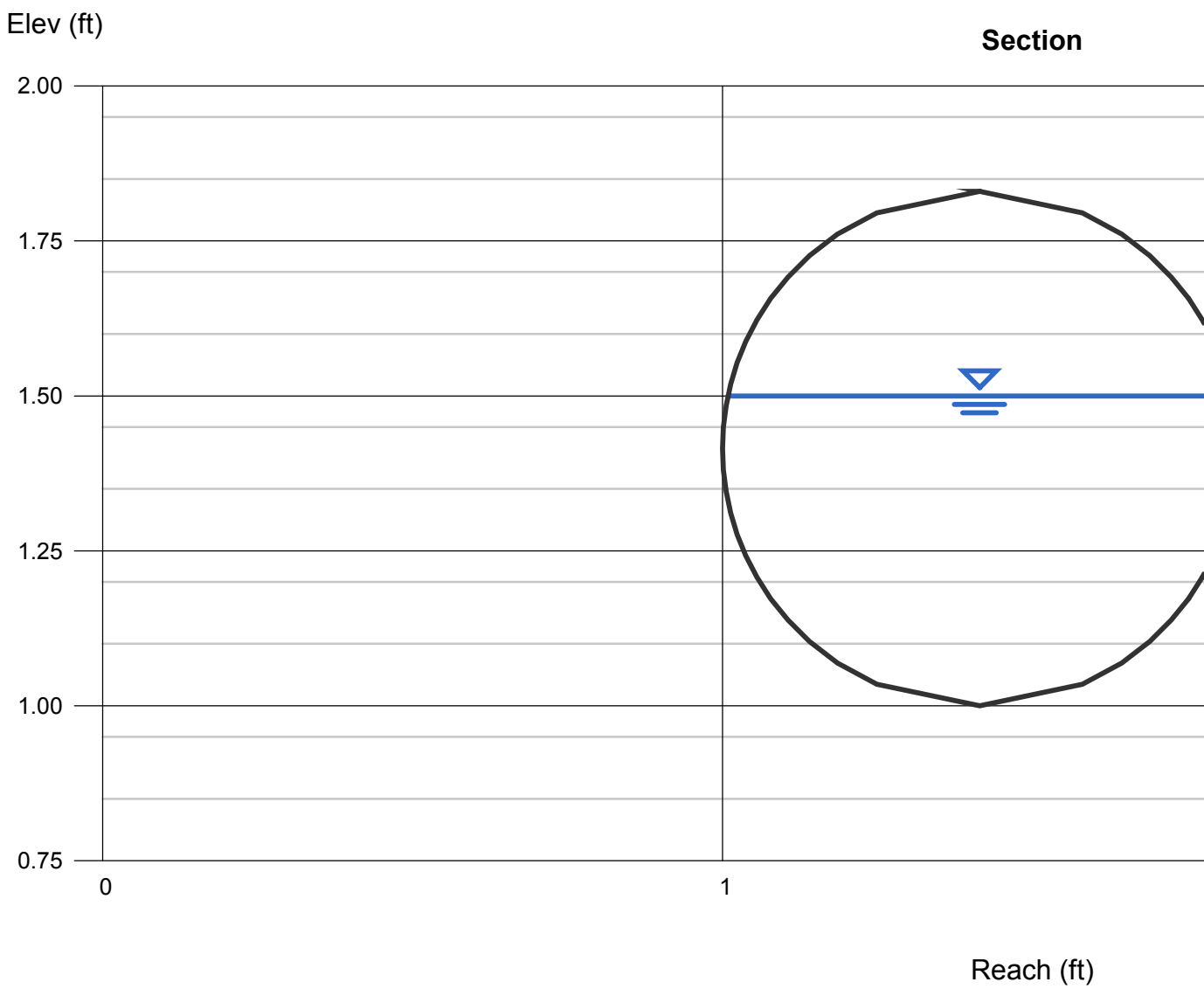
Diameter (ft)	= 0.83
Invert Elev (ft)	= 1.00
Slope (%)	= 0.32
N-Value	= 0.013

Calculations

Compute by:	Known Q
Known Q (cfs)	= 0.83

Highlighted

Depth (ft)	= 0.50
Q (cfs)	= 0.830
Area (sqft)	= 0.34
Velocity (ft/s)	= 2.43
Wetted Perim (ft)	= 1.48
Crit Depth, Yc (ft)	= 0.41
Top Width (ft)	= 0.81
EGL (ft)	= 0.59



Channel Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc. Thursday, Jul 28 2016

<Name>

Circular

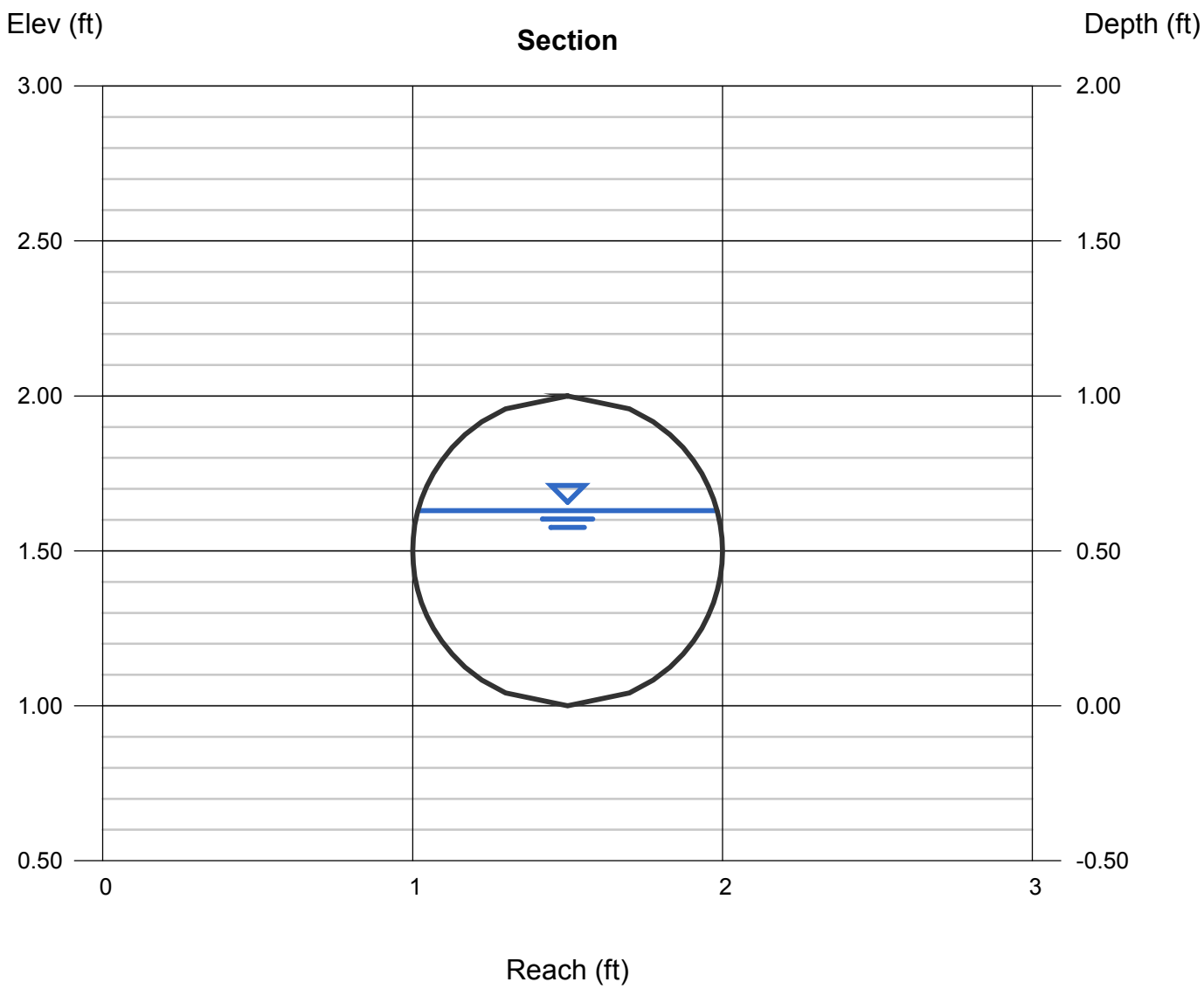
Diameter (ft)	= 1.00
Invert Elev (ft)	= 1.00
Slope (%)	= 0.20
N-Value	= 0.013

Calculations

Compute by:	Known Q
Known Q (cfs)	= 1.14

Highlighted

Depth (ft)	= 0.63
Q (cfs)	= 1.135
Area (sqft)	= 0.52
Velocity (ft/s)	= 2.18
Wetted Perim (ft)	= 1.83
Crit Depth, Yc (ft)	= 0.45
Top Width (ft)	= 0.97
EGL (ft)	= 0.70



Costa Mesa Sanitary District

...an Independent Special District

Board of Directors
Michael Scheafer
Arthur Perry
Robert Ooten
Arlene Schafer
James Ferryman

Staff
Scott C. Carroll
General Manager

Robin B. Hamers
District Engineer

Alan R. Burns
District Counsel

Marcus D. Davis
Treasurer

Noelani Middenway
District Clerk

Wendy H. Davis
Finance Manager

www.cmsdca.gov

District of Distinction
2009-2014

August 1, 2016

TREH/Kearny Costa Mesa, LLC
1900 Avenue of the Stars Suite 320
Los Angeles, CA 90067

Nick Nguyen, PE
Tait & Associates, Inc.
701 Parkcenter Drive
Santa Ana, CA 92705

RE: SEWER WILL SERVE LETTER
LA Times Redevelopment
3370 Harbor Blvd, 1375 Sunflower Avenue, and
1376 W. South Coast Drive, Costa Mesa

Gentlemen:

The Costa Mesa Sanitary District is the local sewer agency that provides sanitary sewer service to the subject property and due to potential sewer flows beyond master plan levels along with certain sewer mains being transferred from the Orange County Sanitation District to the Costa Mesa Sanitary District, a sewer capacity study was required from the developer's engineer.

The Sewer Capacity Study prepared by Tait & Associates dated August 1, 2016 identifies the existing and proposed flows for the tributary area that includes the 23.41-acre LA Times redevelopment and concludes that upon maximum build-out, the sewer mains will be flowing slightly above half full at peak wet weather flow, which is acceptable for gravity sewer operation.

Therefore, the District considers this letter a will serve letter and the commitment to serve the project will last for three (3) years from the date of this letter after which a new request shall be made. The sewer capacity study will remain on file at the Costa Mesa Sanitary District.

Thank you for your consideration in this matter. Please contact me at (714) 293-2727 (cell) or rhamers@robhamers.com if you have any questions.

Sincerely,

Robin B. Hamers
District Engineer

Cc: Staff

628 W. 19th Street / Costa Mesa, CA 92627-2716 • (949) 645-8400 / fax: (949) 650-2253

APPENDIX E

WATER SUPPLY ASSESSMENT

L.A. TIMES BUILDING REUSE PROJECT

WATER SUPPLY ASSESSMENT

May 2017

Prepared for:

MESA WATER DISTRICT

Prepared by:

PSOMAS
3 Hutton Centre Drive
Suite 200
Santa Ana, CA 92707
Project No. 3COS010200

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APPENDICES

APPENDIX A – CITY OF COSTA MESA WATER EFFICIENT LANDSCAPE ORDINANCE NO. 16-03

ABBREVIATIONS/ACRONYMS

AB	Assembly Bill
AF	Acre-feet
AFY	Acre-feet per year
APN	Assessor Parcel Number
BDCP	Bay Delta Conservation Plan
BEA	Basin Equity Assessment
BMP	Best Management Practice
BPP	Basin Production Percentage
CAWCD	Central Arizona Water Conservation District
CEQA	California Environmental Quality Act
CFS	Cubic feet per second
CPP	Canyon Power Plant
CRA	Colorado River Aqueduct
CUWCC	California Urban Water Conservation Council
CVP	Central Valley Project
CVWD	Coachella Valley Water District
District, Mesa Water	Mesa Water District
DWA, Desert	Desert Water Agency
DWR	California Department of Water Resources
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
ESA	Endangered Species Act
ETAF	Evapotranspiration Adjustment Factor
FEIR	Final Environmental Impact Report
FY	Fiscal Year
GAP	Green Acres Project
GMP	Groundwater Management Plan
Gpd	Gallons per day
GWRS	Groundwater Replenishment System
IID	Imperial Irrigation District
IRP	Integrated Resources Planning
IRWM	Integrated Regional Water Management
LACDPW	Los Angeles County Department of Public Works
LTFP	Long Term Facilities Plan
MAF	Million acre-feet
Metropolitan, MWD	Metropolitan Water District of Southern California
MG	Million gallons
MGD	Million gallons per day
MOU	Memorandum of Understanding
MPR	Master Plan Report
MWDOC	Municipal Water District of Orange County

MWELO	Model Water Efficient Landscape Ordinance
MWRF	Mesa Water Reliability Facility
OC	Orange County
OCSD	Orange County Sanitation District
OCWD	Orange County Water District
PVID	Palo Verde Irrigation District
QSA	Quantification Settlement Agreement
RA	Replenishment Assessment
RUWMP	Regional Urban Water Management Plan
SAR	Santa Ana River
SB	Senate Bill
SDCWA	San Diego County Water Authority
sf	Square feet
SNWA	Southern Nevada Water Authority
SWP	State Water Project
SWRCB	State Water Resources Control Board
TAF	Thousand Acre Feet
UWMP	Urban Water Management Plan
WCR	Walnut Canyon Reservoir
WEAP	Water Evaluation and Planning
WQCP	Water Quality Control Plan
WRD	Water Replenishment District
WSA	Water Supply Assessment
WSAP	Water Supply Allocation Plan
WSDM	Water Surplus and Drought Management
WUE	Water Use Efficiency
YCWA	Yuba County Water Agency

Executive Summary

This Water Supply Assessment (WSA) has been prepared for the Los Angeles (L.A.) Times Building Reuse Project (Proposed Project) in accordance with applicable sections of the Public Resources Code and California Water Code as referenced in Senate Bill (SB) 610, which requires the demonstration of water supply sufficiency for development projects of this size.

The Proposed Project will be implemented on the 25.1-acre site of the former L.A. Times Building at 1375 West Sunflower Avenue and 3370 Harbor Boulevard in the City of Costa Mesa (City). In July 2016, the GP FEIR was certified and the 2015-2035 General Plan was approved. These documents addressed the development of the L.A. Times site with up to 655,000 square feet (sf) of office development or 553,000 sf of commercial/retail development

The Proposed Project entails the renovation of the existing 339,063 sf L.A. Times building and associated surface parking, and the construction of approximately 315,000 sf of commercial development in two additional separate buildings. Although the current proposal involves development of up to 3 office buildings, the WSA analyzes development of the site with a mixture of hotel, restaurant, office and retail uses. This development scenario includes uses that would be permitted on the project site pursuant to existing zoning and land use designation; therefore, this option was analyzed as it generates the highest water demand and is therefore the most conservative in terms of analyzing the Project's impact on water supply.

The Proposed Project is located within the water service area of Mesa Water District (Mesa Water or District). This WSA will demonstrate that the District has sufficient water supply projected through the year 2040 to meet all District water demands including water demands for the Proposed Project, which were included in the water demands forecasted in the District's 2015 Urban Water Management Plan (UWMP).

E.1 Water Demands

District Water Demands

The District's total water demand in FY 2015 was 18,002 acre-feet (AF) including 1,158 AF of recycled water use, which was significantly less than the total water demand of 19,700 AF projected for the District in the District's 2010 UWMP (8.6 percent less). This is believed to be primarily attributable to District water conservation efforts associated with the Water Conservation Act of 2009 (SBx7-7) that mandated water demand reductions of 10 percent by 2015, which the District has met, and a reduction of 20 percent by 2020, which the District is on track to meet.

In April 2015 Governor Brown issued Executive Order B-29-15 as a result of one of the most severe droughts in California's history, requiring a collective reduction in statewide urban water use of 25 percent by February 2016 (relative to demands in 2013), with each agency in the state given a specific reduction target by DWR. The District was able to meet

their reduction target (initially set at 20 percent and subsequently lowered to 13 percent) through May 2016. These EO B-29-15 reduction targets have since been eliminated.

Water demand projections developed in the District's 2014 Water Master Plan (Master Plan) based on land use, population and economic growth were the basis for demand projections presented in the District's 2015 UWMP. The Master Plan identified over 82 acres of parcels for future development within the District's service area for a corresponding demand projection of 350 AFY that included the additional demands from the L.A. Times Building Reuse Project.

Project Water Demands

Metered Fiscal Year (FY) 2015 water demand for the existing land uses at the Project site was 14.5 AF, including site landscaping that was irrigated with potable water. There is no recycled water use on-site. Based on the estimate of approximately 80 percent of the Project being completed by 2020 with the remaining 20 percent completed by 2025, the additional project demand above the FY 2015 demand for the existing site land uses of 15 AFY are shown in Table E.1, not including water loss. The estimated buildout water demands for the Proposed Project are projected to be 112 AF greater than the FY 2015 water demands for the existing land uses at the Project site.

Table E.1
Estimated Project Water Demand[(a)] Phasing (AF)

	FY 2020	FY 2025	FY 2030	FY 2035	FY 2040
2015 Demand	15	15	15	15	15
Project	101	126	126	126	126
Additional Demand	87	112	112	112	112

(a) Not including water loss
Table may not total exactly due to spreadsheet rounding

Projected normal year District water demands through FY 2040 are shown in Table E.2. All demands include an estimated 4.3 percent in water loss consistent with the 2015 UWMP, thus representing required District supply. District water demands as estimated in the 2015 UWMP included the increased demands due to the Proposed Project. The demand increase from the Proposed Project in FY 2040 is projected to be 0.6 percent of the total demand estimated for the District.

E.2 Water Supply

Approximately 94 percent of the District's water supply and 100 percent of its potable water supply comes from groundwater produced from the Orange County Groundwater Basin (OC Basin). Mesa Water utilizes recycled water purchased from the Orange County Water District (OCWD) via the Green Acres Project (GAP) for approximately 6 percent of its water supply. The District has imported water connections for back-up water supply.

Table E.2
Projected Normal District Water Demands (AF)

Projected Normal Demands[a]	FY 2020	FY 2025	FY 2030	FY 2035	FY 2040
Total District Demand without Project[b]	20,520	20,559	20,625	20,692	20,757
Additional Project Demand[b]	90	117	117	117	117
Total Demand[c]	20,610	20,676	20,742	20,809	20,874

(a) All demands include estimated 4.3% water loss consistent with the 2015 UWMP
(b) Additional Project demand above FY 2015 demand of existing land uses on the Project site
(c) From Table 2-6, Mesa Water District Final 2015 UWMP

Groundwater Supply

The OC Basin is managed by the Orange County Water District (OCWD). The District pumps groundwater from the OC Basin via six wells that provide clear groundwater from the main production aquifer, and two wells that provide organic amber-tinted groundwater from below the main aquifer. The amber-tinted groundwater is then treated at the Mesa Water Reliability Facility (MWRF) before being pumped into the distribution system. The clear groundwater only requires disinfection by chloramination prior to entering the distribution system.

OCWD manages the OC Basin largely through financial incentives to encourage groundwater producers to pump a sustainable amount of water. The framework for the financial incentives is the Basin Production Percentage (BPP), which is the percentage a Basin producer can pump from the Basin in a given water year relative to its total water supply not including recycled water. Groundwater production at or below the BPP is assessed a Replenishment Assessment (RA). For Basin groundwater production above the BPP, a Basin Equity Assessment (BEA) is assessed in addition to the RA.

The BPP for the past twenty years has averaged approximately 73 percent. Resolution No. 13-1-6 adopted on January 16, 2013 by the OCWD Board of Directors stated the District's goal to develop the necessary supplies and facilities to achieve and maintain a 75 percent BPP, long-term. OCWD's transition to the higher 75 percent BPP was due to construction of the Ground Water Recovery System (GWRS) Initial Expansion Project, which was completed in 2015, which provided an additional 33,600 AFY of water for recharging the groundwater basin.

A BEA Exemption is used to encourage pumping of groundwater that does not meet drinking water standards in order to clean up and contain the spread of poor quality water. OCWD uses a partial or total exemption of the BEA to compensate a qualified participating agency or Producer for the costs of treating poor-quality groundwater. Amber-tinted groundwater produced from the Mesa Water Reliability Facility (MWRF) is BEA Exempt, which allows the District to utilize groundwater to meet 100 percent of demands. Without the MWRF, District groundwater production would be restricted by the BPP pumping percentage and more expensive imported water would need to be purchased to satisfy District water demands.

Imported Water Supply

Mesa Water has connections to receive imported water purchased from the Municipal Water District of Orange County (MWDOC), a member agency of the Metropolitan Water District of Southern California (Metropolitan). Metropolitan imports water to Southern California from the Colorado River and from northern California via the State Water Project (SWP). Because of the MWRF, the District is able to utilize imported water as a reliable back-up source to meet demands rather than a normal source of supply.

Through the 1996 Integrated Resources Plan and subsequent updates, Metropolitan has worked toward identifying and developing water supplies to provide 100 percent reliability. Due to competing needs and uses for all of the water sources and regional water operation issues, Metropolitan undertook a number of planning processes: the Integrated Resources Planning (IRP) Process, the Water Surplus and Drought Management (WSDM) Plan, the Urban Water Management Plan (UWMP) and the Water Supply Allocation Plan (WSAP).

E.3 Reliability of Water Supplies

The reliability of the District's water supply is primarily dependent on clear and color-treated groundwater produced from the OC Basin, which is managed by OCWD. However, having imported water delivered by Metropolitan as a reliable backup is also a key to providing Mesa Water with a reliable water supply.

According to the OCWD's 2014/15 Engineer's Report, 114,061 acre-feet of water was supplied to the OC Basin through (1) direct percolation or injection of purchased imported water from the Colorado River and State Water Project, (2) use of recycled water to supplement purchased imported water in the Alamitos seawater intrusion barrier, and (3) use of GWRS recycled water. For the five year period from July 1, 2010 to June 30, 2015, an annual average of approximately 120,000 acre-feet of supplemental water and recycled water was percolated or injected into the underground Basin for replenishment or used directly in place of pumping groundwater (i.e. In-Lieu Program). The average annual overdraft during the same five-year period was 132,000 AF.

Metropolitan has taken a number of actions to secure a reliable water source for its member agencies. Metropolitan developed a WSAP and has utilized it initially in 2009 and 2010, and again in 2015 for dealing with potential shortages that took into consideration the impact on retail customers and the economy, changes and losses in local supplies, the investment in and development of local resources, and conservation achievements. Additional actions taken by Metropolitan over the past several years have increased spending on conservation, local projects and water supply/reliability enhancements significantly.

In their 2015 UWMP, Metropolitan estimated supply capability and projected demands for an average (normal) year based on an average of hydrologies for the years 1922-2012; for a single dry-year based on a repeat of the hydrology in the year 1977; and for multiple dry years based on a repeat of the hydrology of 1990-1992. In all scenarios, there is a projected

surplus, even without Metropolitan's Supplies under Development and Potential Supplies that could further increase the projected surplus if/when implemented.

Normal-year, dry-year, and multiple dry-year demands projected for the District through FY 2040 as estimated in the District's 2015 UWMP, which included the Proposed Project demands, were compared with projected available groundwater and recycled water supplies. Demands for dry-year scenarios were increased 6.0 percent consistent with the District's 2015 UWMP.

The District is projected to have sufficient groundwater supply and supplementary recycled water supply to meet all normal, single-dry year, and multiple-dry year demands, including the Proposed Project demands, through the year 2040, with imported water as a back-up water supply source.

E.4 Conclusion

The estimated buildout water demand for the Proposed Project is projected to be 112 AF greater than the FY 2015 water demand for the existing land uses at the Project site, which is only 0.6 percent of the total demand estimated for Mesa Water in FY 2040 including water loss.

The information included in this WSA identifies a sufficient and reliable water supply for the Mesa Water, now and into the future, including a sufficient water supply for the re-developed land uses proposed for the Proposed Project. These supplies are also sufficient to provide for overall District-wide growth at the rate projected in the District's 2015 UWMP.

1 INTRODUCTION

This Water Supply Assessment (WSA) has been prepared for the Los Angeles (L.A.) Times Building Reuse Project (Proposed Project) in accordance with applicable sections of the Public Resources Code and California Water Code as referenced in Senate Bill (SB), which requires the demonstration of water supply sufficiency for development projects of this size.

The Proposed Project will be implemented on the 25.1-acre site of the former L.A. Times Building at 1375 West Sunflower Avenue and 3370 Harbor Boulevard in the City of Costa Mesa (City). In July 2016, the GP FEIR was certified and the 2015- 2035 General Plan was approved. These documents addressed the development of the L.A. Times site with up to 655,000 square feet (sf) of office development or 553,000 sf of commercial/retail development.

The Proposed Project entails the renovation of the existing 339,063 sf L.A. Times building and associated surface parking, and the construction of approximately 315,000 sf of commercial development in two additional separate buildings. Although the current proposal involves development of up to 3 office buildings, the WSA analyzes development of the site with a mixture of hotel, restaurant, office and retail uses. This development scenario includes uses that would be permitted on the project site pursuant to existing zoning and land use designation; therefore, this option was analyzed as it generates the highest water demand and is therefore the most conservative in terms of analyzing the Project's impact on water supply.

The Proposed Project will be implemented in two phases with approximately 80 percent estimated to be completed by 2020 and the remaining 20% completed by 2025.

The Proposed Project is located within the water service area of Mesa Water District (Mesa Water or District). This WSA will demonstrate that the District has sufficient water supply projected through the year 2040 to meet all District water demands including water demands from the Proposed Project, which were included in the water demands forecasted in the District's 2015 Urban Water Management Plan (UWMP).

2 LEGISLATION

According to the Guidebook for Implementation of Senate Bill (SB) 610 and SB 221 Water Code Section 10912, a "Project" requiring a WSA is defined by any of the following criteria:

1. A proposed residential development of more than 500 dwelling units (DU)
2. A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet (sf) of floor space
3. A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space
4. A proposed hotel or motel, or both, having more than 500 rooms
5. A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor space
6. A mixed-use project that includes one or more of the projects specified in this subdivision
7. A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project

The Proposed Project is a mixed-use project that will have 300,000 sf of office buildings, along with a 400-room hotel, and 100,000 sf of retail and restaurant floor space, and as such, necessitates the preparation of a WSA following the requirements of SB 610.

2.1 SB 610 – Costa – Water Supply Planning

SB 610 was chaptered into law on October 9, 2001. It mandates that a city or county approving certain projects subject to CEQA (i) identify any public water system that may supply water for the project, and (ii) request those public water systems to prepare a specified water supply assessment. The assessment is to include the following:

1. A discussion of whether the public water system's total projected water supplies available during normal, single dry, and multiple dry water years during a 20-year projection will meet the projected water demand associated with the proposed project, in addition to the public water system's existing and planned future uses, including agricultural and manufacturing.
2. The identification of existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project and water received in prior years pursuant to those entitlements, rights, and contracts.
3. A description of the quantities of water received in prior years by the public water system under the existing water supply entitlements, water rights, or water service contracts.

4. A demonstration of water supply entitlements, water rights, or water service contracts by the following means:
   a. Written contracts or other proof of entitlement to an identified water supply.
   b. Copies of a capital outlay program for financing the delivery of a water supply that has been adopted by the public water system.
   c. Federal, state, and local permits for construction of necessary infrastructure associated with delivering the water supply.
   d. Any necessary regulatory approvals that are required in order to be able to convey or deliver the water supply.
5. The identification of other public water systems or water service contract holders that receive a water supply or have existing water supply entitlements, water rights, or water service contracts, to the same source of water as the public water system.
6. If groundwater is included for the supply for a proposed project, the following additional information is required:
   a. Review of any information contained in the Urban Water Management Plan (UWMP) relevant to the identified water supply for the proposed project.
   b. Description of any groundwater basin(s) from which the proposed project will be supplied. Adjudicated basins must have a copy of the court order or decree adopted and a description of the amount of groundwater the public water system has the legal right to pump. For non-adjudicated basins, information on whether the DWR has identified the basin as over-drafted or has projected that the basin will become over-drafted if present management conditions continue, in the most current bulletin of DWR that characterizes the condition of the basin, and a detailed description of the efforts being undertaken in the basin to eliminate the long-term overdraft condition.
   c. Description and analysis of the amount and location of groundwater pumped by the public water system for the past five years from any groundwater basin which the proposed project will be supplied. Analysis should be based on information that is reasonably available, including, but not limited to, historic use records.
   d. Description and analysis of the amount and location of groundwater projected to be pumped by the public water system from any groundwater basin by which the proposed project will be supplied. Analysis should be based on information that is reasonably available, including, but not limited to, historic use records.
   e. Analysis of the sufficiency of the groundwater from the basin(s) from which the proposed project will be supplied.

The Water Supply Assessment shall be included in any environmental document prepared for the project. The assessment may include an evaluation of any information included in that environmental document. A determination shall be made whether the projected water supplies will be sufficient to satisfy the demands of the project, in addition to existing and planned future uses.

Additionally, SB 610 requires new information to be included as part of an UWMP if groundwater is identified as a source of water available to the supplier. Information must include a description of all water supply projects and programs that may be undertaken to meet total projected water use. SB 610 prohibits eligibility for funds from specified bond acts until the plan is submitted to the State.

2.2 SB 1262 – Sustainable Groundwater Management Act

State Senate Bill 1262 adopted in September 2016 amends Section 66473.7 of the Government Code to require WSAs to address certain elements regarding groundwater sustainability if the project relies in whole or in part on groundwater as a source of supply.

3 L.A. TIMES BUILDING REUSE PROJECT

The Proposed Project would be implemented on the site of the former L.A. Times Building in the City of Costa Mesa. In July 2016, the GP FEIR was certified and the 2015- 2035 General Plan was approved. These documents addressed the development of the L.A. Times site with up to 655,000 square feet (sf) of office development or 553,000 sf of commercial/retail development.

3.1 Proposed Project Location

The Proposed Project location is at 1375 West Sunflower Avenue and 3370 Harbor Boulevard in the City of Costa Mesa as shown on Figure 3.1. The L.A. Times Building and associated surface parking areas encompass approximately 21 acres on two adjacent parcels currently owned by Tribune Publishing (Assessor Parcel Numbers [APNs] 140-041-24 and 140-041-40). The adjacent baseball field is approximately 4 acres on an additional parcel owned by the same owner, Tribune Publishing (APN 140-041-62).

The 25.1-acre Project site is bound to the west by the National University campus, office buildings, and Harbor Boulevard; to the north by Sunflower Avenue and commercial and industrial development; to the east by commercial development, an open space area and Susan Street; to the south by the IKEA retail center; and to the southeast by an active agricultural area. An aerial photograph of the Proposed Project is shown on Figure 3.2.

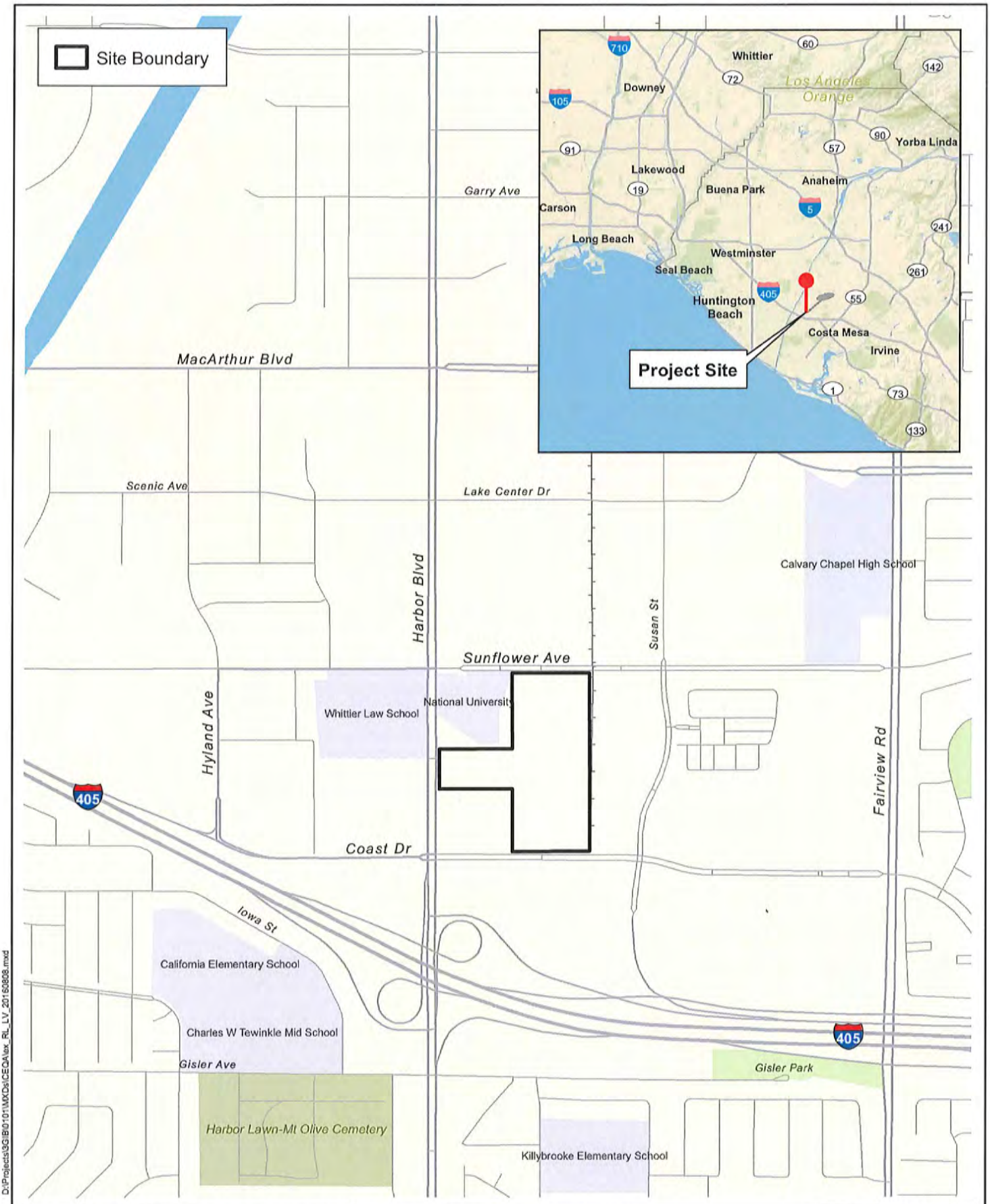
3.2 Proposed Project Characteristics

3.2.1 Existing Conditions

The 25.1-acre project site, consisting of three parcels owned by Tribune Publishing, is currently occupied by the 339,063 sf former L.A. Times Building and ancillary structures, surface parking areas, and an active baseball field. The site is relatively flat with no notable elevation changes. Landscaping on the site consists of planters along the L.A. Times Building and throughout the associated parking lot, trees lining the perimeter of the baseball field, turf associated with the baseball fields, and an approximately 0.6-acre strip of trees and vegetation along the southern edge of the L.A. Times site.

3.2.2 Proposed Project Description

The Proposed Project entails the renovation of the existing 339,063 sf L.A. Times building and associated surface parking, and the construction of approximately 315,000 sf of commercial development in two additional separate buildings. Although the current proposal involves development of up to 3 office buildings, the WSA analyzes development of the site with a mixture of hotel, restaurant, office and retail uses, all of which are permitted uses pursuant to existing zoning and land use designation, in order to characterize the highest potential water demand for the site. Specifically, it is assumed that the project site would be developed with a 400-room hotel, 40,000 SF of restaurant uses, 300,000 SF of office space, and 60,000 SF of retail uses. Therefore, the WSA evaluates the most conservative scenario in terms of analyzing the Project's impact on water supply.



Regional Location/Local Vicinity Map

Figure 3.1

LA Times Building Reuse Project

1,000 500 0 1,000 Feet

BonTerra PSOMAS

(Rev: 08/08/2016 JAZ) R:\Projects\GIB\3GIB010100\Graphics\CEQA\ex1_RL_LV_20160808.pdf

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Aerial Photograph

Figure 3.2

LA Times Building Reuse Project

N W E S

200 100 0 200 Feet

BonTerra PSOMAS

(Rev: 08/08/2016 JAZ) R:\Projects\GIB\3GIB010100\Graphics\CEQA\ex2_Aerial_20160808.pdf

3.2.3 Proposed Project Phasing

The Proposed Project will be implemented in three phases with approximately 80 percent estimated to be completed by 2020 and the remaining 20% completed by 2025.

3.3 Project Water Demands

3.3.1 FY 2015 BBSP Land Use Water Demands

FY 2015 water demand metered for the existing land uses at the Project site by address is shown in Table 3.5. The total demand was 14.5 AF. The site landscaping as described above in Section 3.2.1 is irrigated with potable water. There is no recycled water use.

Table 3.5
FY 2015 Metered Water Demands[(a)] at Project Site

Address	Irrigation (gpd)	Buildings (gpd)	Total (gpd)	Total (AFY)
1375 Sunflower	1,986	5,308	7,294	8.2
3370 Harbor	5,652	27	5,679	6.4
Totals	7,638	5,335	12,973	14.5

(a) All water use was potable water, i.e. no recycled water
Table may not total exactly due to spreadsheet rounding

3.3.2 Estimated Project Water Demand

Uses, units, unit demand factors and water demands estimated for the proposed Project land uses are shown in Table 3.6. Building areas are calculated using a floor area ratio (FAR) of 0.64 FAR for office buildings and a FAR of 0.54 FAR for commercial buildings.

It is estimated that approximately 25 percent of the Project site will be irrigated (2.5 acres) and that all site irrigation would be done with potable water, i.e. there will be no Project recycled water use. The irrigation rate of 1,500 gpd/acre is estimated based on the Model Water Efficient Landscape Ordinance (MWELO), which limits the Evapotranspiration Adjustment Factor (ETAF) for non-residential land use irrigation to 0.45. In calculating the maximum irrigation rate, an evapotranspiration (ETo) rate of 45.6 inches was used, which is the historical annual average for Costa Mesa.

Based on the estimate of approximately 80 percent of the Project being completed by 2020 with the remaining 20 percent completed by 2025, the additional project demand over and above the FY 2015 demand for the existing site land uses of 15 AFY are shown in Table 3.7, not including water loss.

Table 3.6
Estimated Buildout Water Demands[a]

Use	Hotel Rooms	Building square feet[a] (sf)	Acres	Unit Demand Factor	Water Demand (gpd)	Water Demand AFY
Hotel	400	-	-	125	50,000	56.0
Restaurant[b]	-	40,000	-	800	32,000	35.8
Office[b]	-	300,000	-	65	19,500	21.8
Retail[b]	-	60,000	-	125	7,500	8.4
Irrigation[c][d]	-	-	2.5	1,500	3,750	4.2
Totals		-	-	-	112,750	126.3

(a) All water use from potable water, i.e. no recycled water
(b) Building areas calculated with 0.64 FAR for office and 0.54 FAR for other commercial uses
(c) Assume 10% of the 25-acre site irrigated with potable water
(d) Irrigation rate based on Model Water Efficient Landscape Ordinance (MWELO):
ETAF (Evapotranspiration Adjustment Factor) = 0.45 for non-residential potable irrigation
MAWA (Maximum Applied Water Allowance) in gal/yr = ETo x 0.62 x ETAF x Area
ETo (evapotranspiration) for Costa Mesa = 45.6 inches (historical annual average)
Table may not total exactly due to spreadsheet rounding

Table 3.7
Estimated Project Water Demand Phasing (AF)

	2020	2025	2030	2035	2040
2015 Demand	15	15	15	15	15
Project	101	126	126	126	126
Additional Demand	87	112	112	112	112

Not including water loss
Table may not total exactly due to spreadsheet rounding

4 MESA WATER SYSTEM

4.1 District Water System Characteristics

The Mesa Water service area encompasses 18 square miles in Orange County and includes most of the City of Costa Mesa, portions of the City of Newport Beach, and a small portion of unincorporated Orange County. The Mesa Water service area is shown on Figure 4-1. The service area has ground elevations ranging from 30 to 110 feet above sea level, and overlies the Orange County Groundwater Basin (OC Basin or Basin), which provides approximately 94 percent of the District's water supply and 100 percent of its potable water supply. The OC Basin is managed by the Orange County Water District (OCWD). Mesa Water utilizes recycled water for approximately 6 percent of its water supply. The District also has imported water connections for back-up water supply; and emergency connections with adjacent water agencies.

The District pumps groundwater from the OC Basin via six wells that provide clear groundwater from the main production aquifer, and two wells that provide organic amber-tinted groundwater from below the main aquifer. The amber-tinted groundwater is then treated at the MWRF before being pumped into the distribution system. The MWRF, which is owned and operated by the District, has an 8.6 MGD capacity. The plant removes organic color from the water using a nanofiltration membrane treatment process. The clear groundwater only requires disinfection by chloramination prior to entering the distribution system.

In addition to the wells and the MWRF, the District's water system includes two reservoirs with a combined storage capacity of 28 million gallons; pump stations at each reservoir; and approximately 317 miles of transmission and distribution pipelines. The District has two metered connections with the City of Huntington Beach and with Irvine Ranch Water District (IRWD). Additionally, the District has four emergency connections with the City of Santa Ana, seven emergency connections with the City of Newport Beach, and five emergency connections with Irvine Ranch Water District (IRWD).

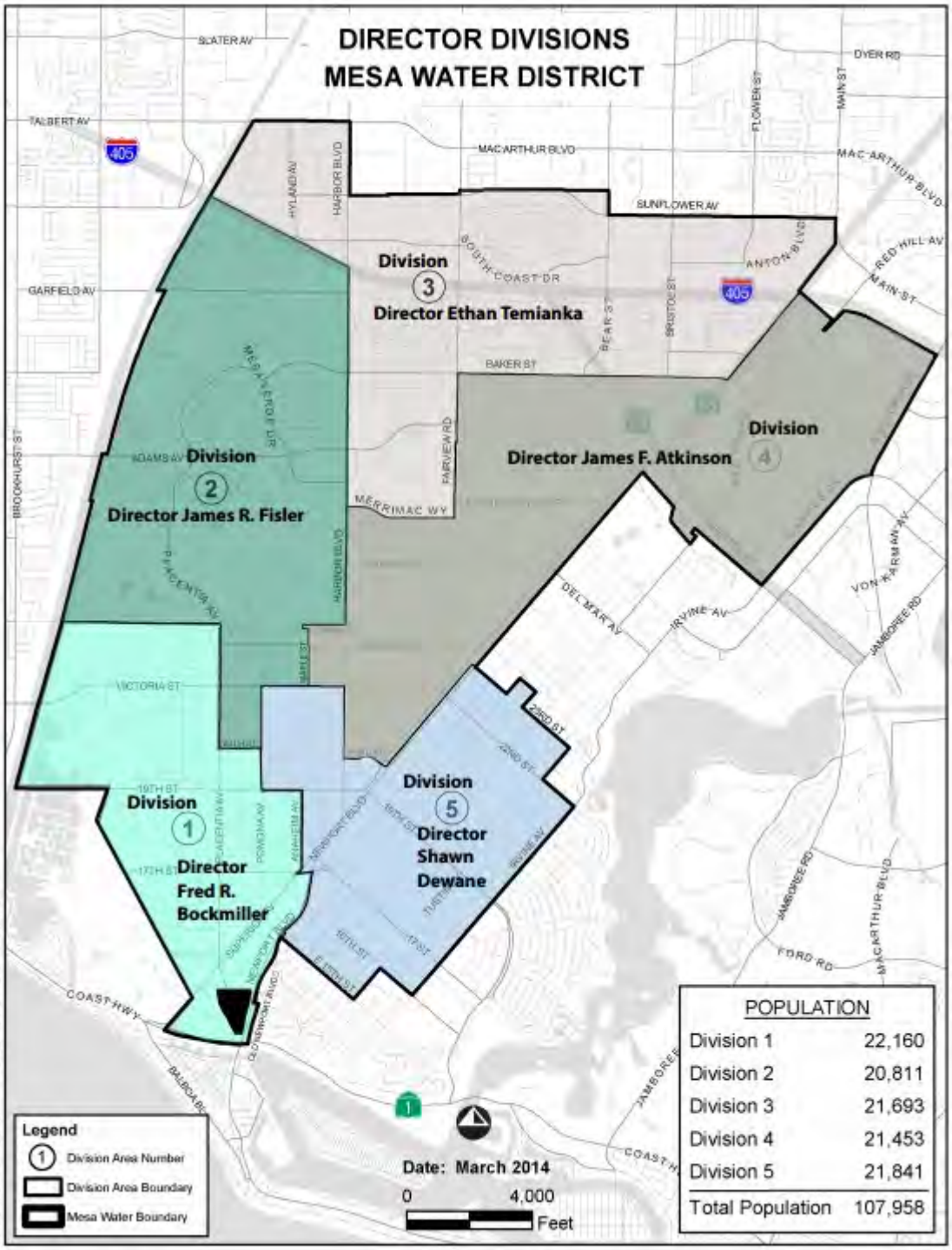
The District also has connections to receive imported water from the Metropolitan Water District of Southern California (Metropolitan) through the Municipal Water District of Orange County (MWDOC). The District currently uses imported water supply as a backup to supplement their groundwater supply.

The District receives recycled water from OCWD via the Green Acres Project (GAP).

District's water service area population, which was estimated at 107,588 in 2015, is estimated to increase to 110,675 by 2040, which is an increase of approximately 2.9 percent. The service area also attracts a significant number of visitors during the summer months, which contributes to increased water demands.

There were a total of 23,760 customer service connections in 2015. All active service connections are metered. Residential land use accounts for approximately 61 percent of the potable water, and this percentage is anticipated to remain largely the same through 2040.

Figure 4.1 Mesa Water Service Area



4.2 District Water Demands

Since the previous 2010 UWMP update, southern California's urban water demand has been largely shaped by the efforts to comply with the Water Conservation Act of 2009 (SBx7-7). This law requires all California retail urban water suppliers serving more than 3,000 acre-feet per year (AFY) or 3,000 service connections to achieve a 20 percent water demand reduction (from a historical baseline) by 2020 and an interim 10 percent reduction by 2015. Mesa Water's actual water use in FY 2015 of 108 (gallons per capita per day (gpcd) was significantly less than their 2015 target of 162 gpcd and is less than their 2020 target of 144 gpcd. Meeting the 2020 target is critical to ensure the District's eligibility to receive future state water grants and loans.

In April 2015, Governor Jerry Brown issued Executive Order B-29-15 requiring the State Water Resources Control Board to implement measures to cut the State's overall water usage by 25% due to the continuing drought. Water agencies were assigned various reduction goals, and the District's reduction goal was initially set at 20 percent below demands of 2013. The State Water Board subsequently lowered the District's target water conservation goal to 13 percent below demands of 2013. This reduction was in recognition of the significant new water supply provided by the Groundwater Replenishment System (GWRS) project, available to all OCWD members. In response, District water use decreased a cumulative 22.3 percent for the eleven recording months (June 2015 through May 2016) relative to year 2013 water usage (9.3 percent greater than the District's goal).

In May 2016, the Governor issued Executive Order B-37-16, which continued the requirement for monthly reporting of water conservation levels versus 2013 use but allowed each urban water supplier to set its own target customized to fir its unique conditions. Following this EO, the State Water Board adopted a revised emergency regulation which extends restrictions on urban water use through January 2017. Under the new regulation, last year's state-mandated conservation targets are being replaced with locally determined measures established under a self-certification approach ("Stress Test"). The Stress test requires each water supply agency to demonstrate whether or not they require a water use reduction requirement under specific, extreme conditions of high demand and low precipitation over the next three years, assuming the drought continues.

District water conservation programs range from being a signatory member of the California Urban Water Conservation Council's (CUWCC) Best Management Practices (BMP) Memorandum of Understanding (MOU) since 1994, to the implementation of water audit and leak detection programs. Mesa Water has also partnered with MWDOC on educational programs, retrofits, and trainings.

The District's total water demand in FY 2015 was 18,002 AF including 1,158 AF of recycled water use, which was significantly less than the total water demand of 19,700 AF projected for the District in the District's 2010 UWMP (8.6 percent) and is primarily attributable to District water conservation efforts associated with SBx7-7 and Executive Order B-29-15.

It is anticipated that once the drought ends, water use will increase some relative to 2015 water use. However, it is also anticipated that a great deal of water conservation will remain due to permanent measures that have already been implemented for existing District residences and other development.

California's newly adopted green building code will have a direct impact on new home building and water conservation in the State. The new code aims to cut indoor water consumption by at least 20 percent, primarily through more efficient indoor water fixtures. The California Green Building program also includes outdoor water conservation by reducing the area devoted to high-irrigation use lawns and plants, emphasizing natural drought-tolerant plantings and the installation of irrigation controls that respond to local weather conditions. This is consistent with the new MWELO, which was adopted by the State on July 15, 2015. The City of Costa Mesa adopted Ordinance 16-03 on February 16, 2016, which is their water efficient landscape ordinance in compliance with MWELO and a copy is included in Appendix A.

Water demand projections developed in the District's 2014 Water Master Plan based on land use, population and economic growth were the basis for demand projections presented in the District's 2015 UWMP.

Future land uses and development projects were identified by parcel in the 2014 Water Master Plan through two approaches. The first approach centered on reviewing all development plans received by the City of Costa Mesa Planning Department in 2012 and 2013. Eight developments of at least 14 units were deemed to be of a sufficient size to impact future water use within the service area and were included in the future demand forecast. The second approach used aerial imagery of the service area to identify vacant lots and potential infill sites for future developments. Identified parcels included residential and commercial areas and were assumed to follow the zoning designation from the City of Costa Mesa 2004 General Plan Land Use Map.

Together, the two approaches identified over 82 acres of parcels for future development within the District's service area for a corresponding demand projection of 350 AFY that included the additional demands from the L.A. Times Building Reuse Project. Linear interpolation was used to project demands out to 2040. The Banning Ranch Development water demand of 614 AFY was evaluated but not included in demand projections as the timing of this development is unknown.

Projected normal year (non-dry year) water demands for the District are shown in Table 4.1. Total District demands come from Table 2-6 of the District's 2015 UWMP, which are based on demands projected in the District's 2014 Water Master Plan. The additional Project demands (above the FY2015 demand of existing land uses on the project site) were included in the 2015 UWMP demand projections. All demands shown in Table 4.1 include an estimated 4.3% of water loss consistent with the 2015 UWMP. At buildout, the additional Project demands (117 AF) are estimated to be 0.6 percent of the District's total projected 2040 water demand of 20,874 AF.

Table 4.1
Projected Normal District Water Demands (AF)

Projected Normal Demands[a]	FY 2020	FY 2025	FY 2030	FY 2035	FY 2040
Total District Demand without Project[b]	20,520	20,559	20,625	20,692	20,757
Additional Project Demand[b]	90	117	117	117	117
Total Demand[c]	20,610	20,676	20,742	20,809	20,874

(a) All demands include estimated 4.3% water loss consistent with the 2015 UWMP
(b) Additional Project demand above FY 2015 demand of existing land uses on the Project site
(c) From Table 2-6, Mesa Water District Final 2015 UWMP

4.3 District Water Supply

4.3.1 Groundwater Supply

The information in this section is intended to furnish the information required by Water Code section 10910(f).

The primary source of water supply for the District is the OC Basin. Groundwater produced by District wells from FY 2011 through FY 2015 is shown in Table 4.2.

Table 4.2
Historical District Groundwater Production (AF)

FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
12,193	10,852	15,558	18,457	17,652

The OC Basin underlies the north half of Orange County beneath broad lowlands. A description of the Coastal Plain of the Basin or DWR's Groundwater Basin Number 8-1, dated September 2001, states that the Basin underlies a coastal alluvial plain in the northwestern portion of Orange County. The Basin covers an area of approximately 350 square miles, bordered by the Coyote and Chino Hills to the north, the Santa Ana Mountains to the northeast, the Pacific Ocean to the southwest, and terminates at the Orange County line to the northwest, where its aquifer systems continue into the Central Basin of Los Angeles County.[1]

The Basin is dominated by a deep structural depression containing a thick accumulation of fresh water-bearing imbedded marine and continental sand, silt and clay deposits. The sediments containing easily recoverable fresh water extend to approximately 2,000 feet in depth. Although water bearing aquifers exist below that level, reduced water quality and pumping make these materials economically unviable at present. Upper, middle and lower

[1] DWR's Bulletin 118-1 Basin Description for Coastal Plain of Orange County Groundwater Basin Number 8-1. September 5, 2001.

aquifer systems are recognized in the Basin with well production yields ranging from 500 to 4,500 gallons per minute, but are generally 2,000 to 3,000 gallons per minute.[2]

The aquifers comprising the Basin form a complex series of interconnected sand and gravel deposits. The Basin holds millions of acre feet of water, of which about 1.25 to 1.5 million AF is available for use.[3]

The OC Basin is unadjudicated, but is managed by the OCWD. To ensure the Basin is not overdrawn, OCWD recharges the Basin with local and imported water. Groundwater conditions in the Basin are influenced by the natural hydrologic conditions. The Basin is recharged primarily by four sources: (1) local rainfall, which varies due to the extent of the annual seasonal precipitation; (2) storm and base flows from the Santa Ana River, which includes recycled wastewater from treatment plants in Riverside and San Bernardino Counties; (3) imported water; and (4) highly treated recycled wastewater. The Basin generally operates as a reservoir in which the net amount of water stored is increased in wet years to allow for manageable overdrafts in dry years. Groundwater production within the OC Basin for 2014/15 was 305,259 AF (including any available In-Lieu Program water), which was an 8.0 percent decrease from the prior water year.[4]

OCWD's Groundwater Replenishment System (GWRS) is the world's largest advanced water purification system for potable reuse. OCSD treats wastewater and produces water clean enough to undergo purification at the GWRS, instead of discharging it into the Pacific Ocean. This water is then purified at the GWRS using a three-step advanced process. Consisting of microfiltration, reverse osmosis and ultraviolet light with hydrogen peroxide, this purification process produces high quality water that meets and exceeds state and federal drinking water standards. This purified water is injected into a seawater barrier and pumped to recharge basins where it naturally percolates into the OC Basin and supplements Orange County's drinking water supplies.

Operational since January 2008, the GWRS originally produced 70 million gallons a day (MGD) (78,400 AFY) of highly purified water. In 2015, the project was expanded to produce 100 MGD (112,000 AFY). Ultimate capacity for the GWRS is projected at 130 MGD (145,600 AFY) after infrastructure is built to increase wastewater flows from OCSD to the GWRS.

Basin recharge occurs largely in the following recharge basins: (i) Warner Basin, a 50-foot deep recharge basin located next to the Santa Ana River (SAR) at the intersection of the 55 and 91 Freeways; (ii) Burris Pit, located between Lincoln Avenue and Ball Road; (iii) Kraemer Basin, located adjacent to Burris Pit, and (iv) Santiago Creek. A large portion of the recharge of the Basin comes from water flowing in the Santa Ana River (SAR) south of the Prado Dam, which is located in San Bernardino County, just east of the Orange County jurisdictional boundary. With the exception of contractual rights conveyed to Bryant Ranch landowners in east Yorba Linda which have contractual rights to

[2] DWR's Bulletin 118-1 Basin Description for Coastal Plain of Orange County Groundwater Basin Number 8-1. September 5, 2001.
[3] Orange County Water District 2020 Master Plan Report. Chapter 3, Orange County Groundwater Basin Hydrology. 2000.
[4] OCWD. Engineer's Report, 2014/15. February 2016.

approximately 2,800 AFY of SAR water, OCWD has the legal rights to all of the SAR flow south of the Prado Dam. (See OCWD v. City of Chino, et al, (Civ. Case No. 117628), Judgment and Settlement Documents.)

The Basin is one of the richest and most plentiful sources of groundwater in the entire State, containing approximately 1.25 to 1.5 million AF of water available for use at the present time, and millions of acre-feet that could be produced in the future.[5] As reported in the 2014-2015 OCWD Engineer's Report, the Basin is not in a state of overdraft

As part of its Basin management function, OCWD operates an extensive groundwater monitoring program whereby OCWD routinely tests all groundwater production wells located within the Basin in compliance with Title 22 of the California Administrative Code. OCWD maintains a multi-million dollar laboratory whereby chemists test the well water for traces of pollution, hydrocarbons, pesticides, and other chemical components. OCWD's laboratories process tens of thousands of samples a year, and perform hundreds of thousands of analyses a year. As part of its monitoring and management duties, OCWD has developed and adopted a Groundwater Management Plan which is a program to increase water supplies and increase monitoring and groundwater contamination clean up.

State Senate Bill 1262 adopted in September 2016 amends Section 66473.7 of the Government Code to require WSAs to address certain elements regarding groundwater sustainability if the project relies in whole or in part on groundwater as a source of supply. The OC Basin has been designated as medium-priority pursuant to Section 10722.4 of the Water Code. The Sustainable Groundwater Management Act (SGMA) establishes OCWD as the exclusive local agency to manage groundwater within its statutory boundaries with powers to comply with the provisions of the SGMA (California Water Code Section 10723 (c) (1). OCWD adopted a Groundwater Management Plan, 2015 Update dated June 17, 2015, that includes the required elements for Groundwater Sustainability Plans and additional plan elements have been incorporated into OCWD. Furthermore, as mentioned above DWR has not identified the Basin as overdrafted or has it projected that the Basin will become overdrafted if present management conditions continue.

Section 5 of this WSA sets forth various groundwater production scenarios as required by the Water Code (Single Dry Year, Multiple Dry Year). This additional information set forth in Section 5 will furnish further information pertaining to the sufficiency of the groundwater basin in various pumping scenarios as required by Water Code section 10910(f)(5).

Basin Production Percentage (BPP)

OCWD manages the OC Basin largely through financial incentives to encourage groundwater producers to pump a sustainable amount of water. The framework for the financial incentives is the Basin Production Percentage (BPP), which is the percentage a Basin producer can pump from the Basin in a given water year relative to its total water supply not including recycled water. Groundwater production at or below the BPP is assessed a Replenishment Assessment (RA). For Basin groundwater production above the

[5] Orange County Water District 2020 Master Plan Report. Chapter 3, Orange County Groundwater Basin Hydrology. 2000.

BPP, a Basin Equity Assessment (BEA) is assessed in addition to the RA. OCWD sets the BPP, the RA, and the BEA each water year with the combined RA + BEA assessment reflective of current Metropolitan imported water rates. Funds collected by OCWD through the RA and the BEA are used to finance groundwater replenishment, recharge, and recycling programs aimed at ensuring the long-term viability and stability of the Basin.

The BPP is set based on groundwater conditions, availability of imported water supplies, and basin management objectives. The supplies available for recharge must be estimated for a given year including: (1) Santa Ana River stormflow, (2) Natural incidental recharge, (3) Santa Ana River base flow, (4) GWRS supplies, and (5) other supplies such as imported water and recycled water purchased for the Alamitos Barrier, which is discussed in Section 5.

The BPP was initially established in 1969 and has generally ranged from 62 to 89 percent. The average BPP for the past twenty years is approximately 73 percent.

Resolution No. 13-1-6 adopted on January 16, 2013 by the OCWD Board of Directors stated the District's goal to develop the necessary supplies and facilities to achieve and maintain a 75 percent BPP, long-term. OCWD's transition to the 75 percent BPP was due to construction of the GWRS Initial Expansion Project, which was completed in 2015. This expansion provided an additional 33,600 AFY of water for recharging the groundwater basin. OCWD is planning to increase GWRS treatment capacity to 130 MGD through its final expansion. Although the BPP is set at 75 percent, a BPP of 70 percent was assumed in the District's 2015 UWMP through 2040 to be conservative.

BEA Exemption

In some cases, OCWD encourages the pumping of groundwater that does not meet drinking water standards in order to protect water quality. This is achieved by using a financial incentive called the BEA Exemption. A BEA Exemption is used to encourage pumping of groundwater that does not meet drinking water standards in order to clean up and contain the spread of poor quality water. OCWD uses a partial or total exemption of the BEA to compensate a qualified participating agency or Producer for the costs of treating poor-quality groundwater. When OCWD authorizes a BEA exemption for a project, it is obligated to provide the replenishment water for the production above the BPP and forgoes the BEA revenue that OCWD would otherwise receive from the producer.

Mesa Water constructed the MWRF in 2012 to remove organic amber color from the groundwater pumped from two District wells, which as a result, enables the water to be utilized as potable water in the District's water system. Other than excess organic color, the water meets all water quality standards. A nanofiltration treatment process removes the organic color, while sand separators and other filters remove inorganic materials. Chloramines are used to disinfect the water before leaving the facility. The water is stored in a 1.0 MG onsite reservoir before being pumped into the District's potable water distribution system. For every gallon of water moved through the MWRF, 98 percent is delivered as drinking water to District customers.

Approximately 70 to 75 percent of the potable groundwater supply for the District comes from six District wells that provide clear groundwater from the main production aquifer. The clear groundwater only requires disinfection (chloramination) prior to entering the distribution system. The balance of the potable groundwater supply is MWRF-treated groundwater from two District wells. MWRF groundwater production is BEA Exempt, which allows the District to forego using more expensive imported water to meet demands.

It is projected that the District will be able to meet all future normal, dry-year and multiple dry-year water demand scenarios with a clear groundwater supply ratio [clear groundwater/(clear groundwater + treated groundwater)] of 70 percent, which puts the clear groundwater supply below the BPP of 75 percent set by OCWD without the need to utilize imported water as part of the regular supply regiment.

4.3.2 Imported Water (Surface Water)

The information in this section is intended to provide the information required by Water Code section 10910(d).

Mesa Water has connections to receive imported water purchased from the Municipal Water District of Orange County (MWDOC), a member agency of the Metropolitan Water District of Southern California (Metropolitan). Metropolitan imports water to Southern California from the Colorado River and from northern California via the State Water Project (SWP).

The construction of the SWP was authorized by the State Legislature in 1951. Eight years later, the Legislature passed the Burns-Porter Act, which provided a mechanism for bonds to be issued to pay for the construction of certain portions of the SWP facilities. The DWR has entered into contracts with water districts and regional agencies (SWP Contractors) specifying the amount of SWP water to be delivered to each SWP Contractor. Each SWP Contractor was provided with a contract amount (Table A Amount) and capacity rights to the SWP aqueduct and storage system in return for payments intended to cover operation and maintenance, bondholder obligations, and repayment of moneys loaned from the California Water Fund. DWR water supply contracts contemplate that the SWP would deliver 4.2 million AFY to 29 SWP Contractors.

Although the SWP is not fully constructed and cannot yet deliver the full 4.2 million AFY in all years, since the end of the six-year drought in 1992, the SWP has fully met SWP Contractors' water needs twelve out of the next 16 years, except the dry years of 1994, 2001, 2007 and 2008. Of SWP water deliveries, about 70 percent is delivered to SWP urban contractors and about 30 percent is delivered to SWP agricultural contractors. Kern County Water Agency and Metropolitan are the largest Contractors with DWR for SWP water.[6]

From a statewide perspective, the maximum capacity of the overall SWP transportation system is generally limited by the capacity of the system pumps. The capacity of the California Aqueduct is 10,300 cubic feet per second (cfs) at its northern end, and 4,480 cfs below the Edmonston pumping plant (1,000 cfs equates to approximately 82.6 acre-feet

[6] Bulletin No. 132-06 and later supplements to Bulletin No. 132.

per hour, 1,980 acre-feet per day and 725,000 AFY). If these transportation rates were maintained for a full year, they would result in the transport of approximately 7.2 million acre-feet near the Delta and 3.2 million acre-feet to users in Southern California.[7]

Demand can have a significant effect upon the reliability of a water system. For example, if the demand occurs only three months in the summer, a water system with a sufficient annual supply but insufficient water storage may not be able to reliably meet the demand. If, however, the same amount of demand is distributed over the year, the system could more easily meet the demand because the need for water storage is reduced. Because the Mesa Water overlies the Orange County Groundwater Basin and can utilize the Basin to smooth out seasonal peaks, its imported water reliability is enhanced.

Metropolitan's SWP imported water is stored at Castaic Lake on the western side of Metropolitan's service area, at Silverwood Lake near San Bernardino and at Diamond Valley Reservoir near Hemet. Metropolitan water imported from the Colorado River via the Colorado River Aqueduct (CRA) is stored at Diamond Valley Lake and Lake Mathews in Riverside County.

Through the 1996 Integrated Resources Plan and subsequent updates, Metropolitan has worked toward identifying and developing water supplies to provide 100 percent reliability. Due to competing needs and uses for all of the water sources and regional water operation issues, Metropolitan undertook a number of planning processes: the Integrated Resources Planning (IRP) Process, the Water Surplus and Drought Management (WSDM) Plan, the Strategic Planning Process, the Urban Water Management Plan (UWMP), and the Water Supply Allocation Plan (WSAP). Combined, these documents provide a framework and guidelines for optimum water planning into the future. Reliability of Metropolitan's supply is further discussed in Section 5.0, Reliability of Water Supplies.

Metropolitan member agencies receive imported water at various delivery points along the Metropolitan transmission system, and pay for it at tiered and/or uniform rates established by the Board depending on the class of service.

Historical water demands in the Metropolitan service area increased from 3.1 million acre feet (MAF) in 1980 to 3.9 MAF in 2000. However, water demands decreased to 3.4 MAF in 2010 and further decreased to 3.1 MAF primarily due to SBx7-7 water conservation. Total water use is projected to rebound to 3.7 MAF in 2020 after the end of the drought, but is then only forecast to increase to 4.0 MAF by 2040 (7.7 percent) with the implementation of long-term water conservation measures.[8]

For the Orange County service area, according to Metropolitan, demands are projected to increase approximately 14.8 percent between 2015 and 2040.[9] Table 4.3 shows the historic and projected total retail water demands for Metropolitan's Orange County service area. The water demand forecasts account for water savings resulting from plumbing codes,

[7] DWR, Bulletin No. 132-05, December 2006.
[8] Metropolitan Water District of Southern California, Urban Water Management Plan, June 2016.
[9] ibid.

price effects, and actual and projected implementation of water conservation Best Management Practices.[10]

Table 4.3
Total Retail Water Demand in Metropolitan's Service Area for Orange County - Includes Municipal and Industrial, and Agriculture (AF)

	Reported				Projected				
County	2000	2005	2010	2015	2020	2025	2030	2035	2040
Orange	660,000	629,000	546,000	539,000	604,000	613,000	617,000	613,000	619,000

Source: The Urban Water Management Plan for the Metropolitan Water District of Southern California, Appendix 1 Demand Forecast. June 2016.

Because Mesa Water can pump and treat organic amber-tinted water at the MWRF, using this treated groundwater along with their clear-groundwater supply to meet normal, single-dry, and multiple-dry year scenarios without having to pay the OCWD BEA, the District currently only utilizes imported water as a backup supply to their groundwater supply. The cost to purchase imported water is greater than the District's cost to produce potable groundwater.

4.2.3 Recycled Water Supply

OCWD owns and operates the Green Acres Project (GAP), a water recycling system that provides recycled water to Orange County water purveyors including Mesa Water. The total annual demand for GAP water in FY 2015 was approximately 4,320 AF (3.86 MGD). Orange County Sanitation District (OCSD) wastewater flows are treated to a tertiary level (Title 22 of the California Code of Regulations) at the 7.5 MGD treatment plant. The GAP distribution system consists of two pump stations, two reservoirs with a combined storage capacity of 7.5 MG, approximately 37 miles pipelines, a dedicated service pipeline to OCSD Plant #2, and an intertie pipeline to Irvine Ranch Water District's (IRWD) recycled water distribution system.

Currently, Mesa Water has 42 recycled water service connections. Customers include the City of Costa Mesa, the County of Orange, CalTrans, Costa Mesa Country Club, Orange Coast Community College, and several shopping and business centers. In FY 2015, 1,158 AF of recycled water from OCWD's GAP was used in the Mesa Water service area for landscape irrigation. Recycled water use accounts for approximately six percent of annual demand.

4.3.4 Projected District Water Supply

Projected normal–year, i.e. non dry-year, supply by source for the District through the year 2040 is shown in Table 4.4. The supplies, as developed and presented in Table 3-3 of the

[10] ibid.

District's 2015 UWMP, include supply as needed to satisfy the additional demands of the Proposed Project.

Table 4.4
Projected Normal District Water Supply (AF)

Supply Sources/Demands	FY 2020	FY 2025	FY 2030	FY 2035	FY 2040
Supply[(a)]	Normal Year				
Clear Groundwater	14,427	14,473	14,519	14,566	14,612
MWRF Treated Groundwater	5,083	5,103	5,123	5,143	5,162
Recycled Water	1,100	1,100	1,100	1,100	1,100
Total Supply	20,610	20,676	20,742	20,809	20,874

(a) From Table 3-3, Mesa Water District 2015 UWMP

4.2.5 Non-Revenue Water (Water Loss)

Non-revenue water (water loss) is defined by the International Water Association (IWA) and AWWA as the difference between distribution systems input (supply) volume, and billed authorized consumption (demand). In essence, water loss is an extraneous demand on the water system. In the District's 2015 UWMP, non-revenue potable water was calculated at 4.3 percent of the water supplied into the District's distribution system in FY 2015 not including recycled water, which was not estimated. Additional demands for the Proposed Project were increased by 4.3 percent to account for system water supply losses in meeting these demands.

5 RELIABILITY OF WATER SUPPLIES

This section provides a description of OCWD's and Metropolitan's efforts in securing adequate groundwater and imported water supply, respectively, as well as the reliability of regional and District normal, single dry year, and multiple dry year water supplies.

The Southern California region faces a challenge in satisfying its water requirements and securing firm water supplies. Increased environmental regulations and the competition for water from outside the region have resulted in reduced supplies of imported water. Continued population and economic growth correspond to increased water demands within the region, putting an even larger burden on local supplies.

Reliability is a measure of a water system's ability to manage water shortages. Reliability planning requires information about the following: (1) expected frequency and severity of shortages; (2) how additional water management measures are likely to affect the frequency and severity of shortages; and (3) how available contingency measures can reduce the impact of shortages when they occur.

The reliability of the District's water supply is primarily dependent on clear and color-treated groundwater produced from the OC Basin, which is managed by OCWD. However, having imported water delivered by Metropolitan as a reliable backup is also a key to providing Mesa Water with a reliable water supply.

State funding has been made available, through California voters' approval, to increase reliability of State water supplies. In March 2000, California voters approved Proposition 13, which authorized the State to issue $1.97 billion of its general obligation bonds for water projects. Additionally, California voters approved Proposition 50 in November 2002 and Proposition 84 in November 2006, which authorized the issuance by the State of $3.4 billion and $5.4 billion, respectively, of its general obligation bonds for water projects. Types of water projects that were eligible for funding under Propositions 13, 50, and 84 of these programs included water conservation, groundwater storage, water treatment, water quality, water security and Colorado River water management projects, many of which are within the scope of the California Plan. The 2014 Water Bond, through Proposition 1, provides funding to implement the three broad objectives of the California Water Action Plan:

1. More reliable water supplies
2. Restoration of important species and habitat
3. A more resilient, sustainably managed water resources system

It includes $372.5 million administered by the California Department of Fish and Wildlife under Chapter 6 for watershed restoration and Delta water quality and ecosystem restoration grants. Proposition 1 also includes the following funding administered by DWR: $610 million for regional water reliability under Chapter 7 including integrated regional water management (IRWM) and water conservation and water use efficiency (WUE), $2.7 billion for water storage projects that improve the operation of the state water system, $825 million for water recycling under Chapter 9 including desalination and

advanced treatment technology, $100 million for groundwater sustainability under Chapter 10 including local plans and projects to manage groundwater, $395 million for flood management under Chapter 11 including reducing risk of levee failure and flooding in the Delta and statewide flood management. Additionally, the 2015 Agricultural Water Use Efficiency Grants provide a funding limit of $30 million and CalConserve water use efficiency revolving fund loans provide another $10 million limit.

5.1 Orange County Water District Supply Reliability

The primary source of water for Mesa Water is the OC Basin. OCWD is responsible for the protection of water rights to the Santa Ana River in Orange County as well as the management and replenishment of the Basin.[11] OCWD replenishes and maintains the Basin at safe levels while significantly increasing the Basin's annual yield by utilization of the best available technology. Other than recycled water, OCWD primarily recharges the Basin with water from the Santa Ana River and to a lesser extent with imported raw water purchased from Metropolitan.

According to the OCWD's 2014/15 Engineer's Report, 114,061 acre-feet of water was supplied to the Basin as (1) directly from the percolation or injection of purchased imported water from the Colorado River and State Water Project, and (2) use of recycled water to supplement purchased imported water in the Alamitos seawater intrusion barrier, and (3) use of GWRS recycled water. For the five year period from July 1, 2010 to June 30, 2015, an annual average of approximately 120,000 acre-feet of supplemental water and recycled water was percolated or injected into the underground Basin for replenishment or used directly in place of pumping groundwater (i.e. In-Lieu Program). The average annual overdraft during the same five-year period was approximately 132,000 AF. As of January 2008, OCWD began recharging recycled water from the GWRS, which is discussed in Section 4.2.1.

Total water demand within OCWD was 425,349 AF for the 2014/15 water year (beginning July 1, 2014 and ending June 30, 2015). In the same period, groundwater production (including In-Lieu Program water and excluding Metropolitan Groundwater Storage Program extractions) for the water year totaled 305,259 AF. For the water year, a total of 60,870 AF of supplemental water was used for the purpose of groundwater replenishment and barrier maintenance to prevent seawater intrusion from occurring in areas of the groundwater basin adjacent to the Pacific Ocean in Huntington Beach, Costa Mesa, and Fountain Valley.

Based on the groundwater basin conditions for the water year ending June 30, 2015, OCWD may purchase up to 170,000 AF for groundwater basin replenishment during the ensuing water year, beginning July 1, 2016, pursuant to the District Act. Since the formation of OCWD in 1933, OCWD has made substantial investment in facilities, basin management and water rights protection, resulting in the elimination and prevention of

[11] OCWD Groundwater Management Plan, 2015 Update, June 17, 2015.

adverse long-term "mining" overdraft conditions. OCWD continues to develop new replenishment supplies, recharge capacity and basin protection measures to meet projected production from the basin during average/normal rainfall and drought periods.[12] OCWD has invested in seawater intrusion control (injection barriers), recharge facilities, laboratories and basin monitoring to effectively manage the basin. Some of these programs include:

Recharge Facilities - OCWD currently owns and operates more than 1,500 acres of surface water recharge facilities in and adjacent to the SAR and Santiago Creek. OCWD has built a recharge system that provides the majority of water supplied by the District. The 23 major facilities in the Anaheim/Orange area are grouped into four major components: the Main River System, the Off-River System, the Deep Basin System, and the Burris Pit/Santiago System. Each system has a series of percolation spreading basins, either shallow or deep, whose sidewalls and bottoms allow for percolation into the underlying aquifer.

Seawater Intrusion Barriers - OCWD's Talbert Barrier is composed of a series of injection wells that span the 2.5-mile-wide Talbert Gap between the Newport and Huntington mesas. The Talbert Barrier wells can inject approximately 42 MGD of water into four aquifer zones. Injecting water through the wells forms a hydraulic barrier to seawater that would otherwise migrate inland toward areas of groundwater production.

The Alamitos seawater intrusion barrier is composed of a series of injection wells that span the Los Angeles/Orange County line in the Seal Beach-Long Beach area. It is operated by the Los Angeles County Department of Public Works (LACDPW) in cooperation with OCWD and the Water Replenishment District (WRD). The source of this water is a blend of purified wastewater from WRD and potable supplies from Metropolitan. Also, the Alamitos Barrier System includes four extraction wells located seaward of the injection barrier to create a pumping trough to remove the degraded brackish groundwater.

Groundwater Monitoring – OCWD has one of the most sophisticated groundwater monitoring programs in the country. The District runs more than 350,000 analyses of water from more than 650 wells every year. OCWD performs nearly 50 percent more water quality tests than it is required to do in order to ensure the highest water quality possible. In 2004, OCWD completed a 10-year, $10 million Santa Ana River Water Quality and Health Effects Study, which demonstrated the safety of SAR water as a source for recharging the groundwater basin. A panel of nationally recognized experts provided an independent review of the study and validated its positive results.

[12] Orange County Water District, *Groundwater Management Plan, 2015 Update,* June 17, 2015.

5.1.1 OCWD Long Term Facilities Plan (LFTP)

OCWD developed a LTFP through a series of discussions in 2008-2009 with its Board of Directors and producers. It was received and filed by the Board in July 2009. Its purpose was to evaluate potential basin and water quality enhancement projects that may be implemented in the 20-year planning period. In 2012, OCWD staff made a presentation to the OCWD Board updating the progress on the 19 projects included in the LTFP and recommended the LFTP purpose going forward include the following:

- Identify and evaluate potential projects to:
    - cost effectively increase the amount of sustainable yield
    - protect and enhance groundwater quality
    - increase operational efficiency
- Prioritize efforts for next 3 to 5 years
- Assist with preparation of capital improvement program budget
- Becomes a living document, updated periodically

The LTFP utilizes the most recent information developed in OCWD's Groundwater Management Plan and Recharge Development Study. The LTFP includes a master list of developed and proposed projects. The various projects are grouped into five categories: (1) recharge facilities, (2) water source facilities, (3) basin management facilities, (4) water quality management facilities, and (5) operational improvements facilities. Each project is evaluated using criteria such as technical feasibility, cost, institutional support, functional feasibility, and environmental compliance. The LTFP currently tracks 19 projects that are either under construction or completed, in design or feasibility study completed, or in concept stage. Staff completed updating the LFTP and a copy of the LFTP 2014 Update, dated November 19, 2014 is on OCWD's website (ocwd.com).

5.1.2 OCWD Groundwater Management Plan (GMP)

OCWD finalized its GMP in June 2015, which updated its 2009 and 2004 GMPs. The GMP complies with SB 1938, passed in 2002, which includes a list of items to be included in a GMP. A copy of this GMP is available on OCWD's website (ocwd.com). The GMP's objectives include (1) protecting and enhancing groundwater quality, (2) increasing the basin's sustainable yield in a cost-effective manner, and (3) increasing operational efficiency.[13] Various programs, policies, goals, and projects are defined in the GMP to assist OCWD staff meet these objectives. The potential projects described in the GMP are discussed in further detail in the LTFP. The GMP describes the following:

- the background and purpose of the GMP

[13] Orange County Water District, Groundwater Management Plan, June 17, 2015.

- the hydrogeology of the basin
- the range of activities and management programs, including groundwater monitoring, groundwater quality management, production management, recharge water supply, and improvement projects
- the historical and future water demands and integrated demand/supply management strategies
- the financial management programs
- the recommendations for continued proactive basin management

5.1.3 OCWD 2020 Water Master Plan Report (MPR)

OCWD's 2020 Water Master Plan Report (MPR) describes local water supplies and estimates their availability extending to the year 2020. Specifically, OCWD states in their 2020 Water MPR that significant water supply sources will be available in the future for potable, non-potable, and recharge purposes. The 2020 Water MPR discusses source waters such as imported water from Metropolitan, base flows from the Santa Ana River, treated wastewater through the OCWD/OCSD GWRS program, and possibly desalinated ocean water. The local supplies' availability and projections from the 2020 Water MPR are incorporated in the LTFP.

5.1.4 OCWD Huntington Beach Sea Water Desalination Facility

As technology progresses, additional water supplies and facilities are being brought on line to further assure water supply reliability well into the future.

One recent example is the proposal by Poseidon Resources, Inc. to build a 50 MGD (56,000 AFY) seawater desalination project in Huntington Beach called the Huntington Beach Sea Water Desalination Facility. Poseidon Resources Corporation is working with local and state agencies to obtain the required permits to ensure proper safeguards to the community and environment. The Environmental Impact Report was certified in September 2005 by the Huntington Beach City Council. The City Council also approved the Coastal Development Plan, Conditional Use Permit, and Owner's Participation Agreement for the facility in February 2006. In 2014 the California Coastal Commission issued a staff report on the project requiring a revised intake facility that Poseidon Resources indicated could render the project infeasible and pulled their application pending additional studies. In 2015, OCWD announced it would spearhead efforts to move this project forward and is currently working on options to purchase all the capacity and distribute it directly to agencies within its boundary as well as use a portion of the capacity for injection along its seawater barrier.

Again, this is just one example of a new project and new technology ensuring water reliability into the future. Another example includes OCWD's Groundwater Replenishment System discussed above.

5.2 Metropolitan Water District Supply Reliability

Metropolitan was formed in the late 1920's. Collectively, charter members recognized the limited water supplies available within the region, and realized that continued prosperity and economic development of Southern California depended upon the acquisition and careful management of an adequate supplemental water supply. This foresight made the continued development of Southern California possible.

Metropolitan acquires water from Northern California via the State Water Project (SWP) and from the Colorado River to supply water to most of Southern California. As a wholesaler, Metropolitan has no retail customers, and distributes treated and untreated water directly to its 26 member agencies. One such member agency is MWDOC and Mesa Water is a member agency of MWDOC.

Through the Integrated Resources Plan and subsequent updates including the 2015 update, Metropolitan has worked toward identifying and developing water supplies to provide 100 percent reliability. Due to competing needs and uses for all of the water sources and regional water operational issues, Metropolitan has undertaken a number of planning processes: the Integrated Resources Planning (IRP) Process, the Water Surplus and Drought Management (WSDM) Plan, the Strategic Planning Process, the Urban Water Management Plan, and the WSAP. Combined, these documents provide a framework and guidelines for optimum water planning into the future.

The reliability and operational issues related to Metropolitan's various sources of supply are discussed in detail by major source in the subsequent sections.

5.2.1 State Water Project

The SWP is owned and operated by the California Department of Water Resources (DWR). The reliability of the SWP impacts Metropolitan's member agencies' ability to plan for future growth and supply. On an annual basis, each of the 29 SWP contractors, including Metropolitan, request an amount of SWP water based on their anticipated yearly demand. In most cases, Metropolitan's requested supply is equivalent to its full Table A Amount,[14] currently at 1,911,500 AFY. The full Table A amount is defined as the maximum amount of imported water to be delivered and is specified in the contract between the DWR and the contractor. After receiving the requests, DWR assesses the amount of water supply available based on precipitation, snow pack on northern California watersheds, volume of water in storage, projected carry over storage, and Sacramento-San Joaquin Bay Delta regulatory requirements. Due to the uncertainty in water supply, contractors are not

[14] Generally, two types of deliveries are assumed for all SWP contractors: Table A and Article 21. Table A Amount is the contractual amount of allocated SWP supply, set by percentage amount annually by DWR; it is scheduled and uninterruptible. Article 21 water refers to the SWP contract provision defining this supply as water that may be made available by DWR when excess flows area available in the Delta (i.e., Delta outflow requirements have been met, SWP storage south of the Delta is full, and conveyance capacity is available beyond that being used for SWP operations and delivery of allocated and scheduled Table A supplies). Article 21 water is made available on an unscheduled and interruptible basis and is typically available only in average to wet years, generally only for a limited time in the later winter.

typically guaranteed their full Table A Amount, but instead a percentage of that amount based on the available supply. Once the percentage is set early in the water year, the agency can count on that amount of supply or more in the coming year. The percentage is typically set conservative and then held or adjusted upwards later in the year based on a reassessment of precipitation, snow pack, etc.

SWP supplies are estimated using the 2015 SWP Delivery Capability Report distributed by DWR in July 2015. The 2015 Delivery Capability Report presents the current DWR estimate of the amount of water deliveries for current conditions and conditions 20 years in the future. These estimates incorporate restrictions on SWP and Central Valley Project (CVP) operations in accordance with the biological opinions of the U.S. Fish and Wildlife Service and National Marine Fisheries Service issued on December 15, 2008, and June 4, 2009, respectively. Under the 2015 Delivery Capability Report with existing conveyance and low outflow requirements scenario, the delivery estimates for the SWP for 2020 conditions as percentage of Table A amounts are 12 percent, equivalent to 230 thousand acre-feet (TAF) to Metropolitan, under a single dry-year (1977) condition and 51 percent, equivalent to 975 TAF, under the long-term average condition.

In dry, below-normal conditions, Metropolitan has increased the supplies received from the California Aqueduct by developing flexible Central Valley/SWP storage and transfer programs. Over the last two years under the pumping restrictions of the SWP, Metropolitan has worked collaboratively with the other contractors to develop numerous voluntary Central Valley/SWP storage and transfer programs. The goal of these storage/transfer programs is to develop additional dry-year supplies that can be conveyed through the California Aqueduct during dry hydrologic conditions and regulatory restrictions.

Metropolitan has made rapid progress to date developing SWP storage and transfer programs. Most notably, Metropolitan has utilized approximately 457 TAF to supplement its SWP supplies during the recent 2012-2015 unprecedented drought. Of this total, approximately 325 TAF are from SWP storage program extractions in Semitropic, Arvin, Kern Delta, and Mojave; 57 TAF are from the San Bernardino and SGV-Metropolitan programs; and 78 TAF of SWP transfer supplies were purchased from the State Water Contractors Buyers Group, Multi-Year Water Pool, and Yuba water purchase programs.

The Bay Delta Conservation Plan

Much of the SWP water supply passes through the San Francisco-San Joaquin Bay-Delta (Bay-Delta). The SWP consists of a series of pump stations, reservoirs, aqueducts, tunnels, and power plants operated by DWR. This statewide water supply infrastructure provides water to 29 urban and agricultural agencies throughout California. More than two-thirds of California's residents obtain some of their drinking water from the Bay-Delta system.

The Bay-Delta's declining ecosystem, caused by a number of factors that include agricultural runoff, predation of native fish species, urban and agricultural discharge, changing ecosystem food supplies, and overall system operation, has led to reduction in

water supply deliveries. SWP delivery restrictions due to regulatory requirements resulted in the loss of about 1.5 MAF of supplies to Metropolitan from 2008 through 2014, reducing the likelihood that regional storage can be refilled in the near-term. Operational constraints will likely continue until a long-term solution to the problems in the Bay-Delta is identified and implemented.

In April 2015, the Brown Administration announced California WaterFix, as well as a separate ecosystem restoration effort called California EcoRestore. Together, the California WaterFix and California EcoRestore will make significant contributions toward achieving the coequal goals of providing a more reliable water supply for California and protecting, restoring and enhancing the Delta ecosystem established in the Sacramento-San Joaquin Delta Reform Act of 2009. In addition to enhancing the Delta Ecosystem there are a number major actions, projects, and programs Metropolitan has undertaken to improve SWP reliability.

The Bay Delta Conservation Plan (BDCP) was prepared through a collaboration of state, federal, and local water agencies, state and federal fish agencies, environmental organizations, and other interested parties. At the outset of the BDCP process, a planning agreement was developed and executed among the participating parties and a Steering Committee was formed. The BDCP identified a set of conservation measures including water conveyance improvements and restoration actions to contribute to the recovery of endangered and sensitive species and their habitats in California's Sacramento-San Joaquin Delta. The BDCP was formulated to contribute to the state's co-equal goals of water supply reliability and ecosystem restoration.

Lead agencies for the EIR/EIS were the California Department of Water Resources, the USBR, the United States Fish and Wildlife Service, and National Oceanic and Atmospheric Administration's National Marine Fisheries Service, in cooperation with the California Department of Fish and Game, the United States Environmental Protection Agency and the United States Army Corps of Engineers. Metropolitan served on the steering committee. DWR and USBR are the lead agencies for the California WaterFix.

In order to select the most appropriate elements of the final conservation plan, the BDCP considered a range of options for accomplishing these goals using information developed as part of an environmental review process. Potential habitat restoration and water supply conveyance options included in the BDCP were assessed through an Environmental Impact Report (EIR)/Environmental Impact Statement (EIS). The BDCP planning process and the supporting EIR/EIS process is being funded by state and federal water contractors. The First Administrative Draft BDCP was released in March 2012, a Second Administrative Draft BDCP and EIR/S was released in March 2012 and the Public Draft BDCP and EIR/S was released December 2013. Each of the above draft documents were released to the public. The official public comment draft was released in December 2013.

A new permitting approach and associated new alternatives to the BDCP were announced in April 2015. The California WaterFix and California EcoRestore would be implemented under a different Endangered Species Act permitting process. This would fulfill the requirement of the 2009 Delta Reform Act to contribute toward meeting the coequal goals of providing a more reliable water supply for California and protecting, restoring and

enhancing the Delta ecosystem. DWR and USBR serve as lead agencies for the California WaterFix. The new water conveyance facilities included in Alternative 4 (the BDCP) would be constructed and operated under the California WaterFix. Proposes changes to the design of the water conveyance facilities reduce the overall environmental/construction impacts to the environment, minimize disruptions to local communities, and increase long-term operational and cost benefits.

Some of the engineering improvements configuration improvements would include moving the tunnel alignment away from local communities and environmentally sensitive areas. The elimination of pumping plants, reduction of permanent power lines and power use, and the reconfiguration of intake and pumping facilities sediment basins and reconfiguration/relocation of the construction staging sites in the North Delta will lessen construction and longer term operational impacts. If implemented, these would result in reduced environmental and construction impacts and increase improved long-term operational and cost benefits.

The main objective under the EcoRestore Program is to pursue at least 30,000 acres of Delta habitats over the next five years. These restoration programs would include projects and actions that are in compliance with pre-existing regulatory requirements designed to improve the overall health of the Delta. Other priority restoration projects would also be identified by the Delta Conservancy and other local governments. Funding would be provided through multiple sources including state bonds and other state-mandated funds, State Water Project/Central Valley Project contractors' funds as part of existing regulatory obligations, and from various local and federal partners.

As part of the new alternatives and the state's proposed project, the regulatory approach to obtaining state and federal endangered species compliance is shifting from the BDCP Habitat Conservation Plan/Natural Community Conservation Plan strategy to an approach that contemplates a Biological Opinion pursuant to Federal Endangered Species Act (ESA) Section 7 and a State 2081 Permit. This approach as well as the proposed revision to the new water facilities and ecosystem restoration actions is evaluated in the partially Recirculated Draft EIR/EIS released in July 2015. The deadline for comments is October 2015.

The State Water Resources Control Board (SWRCB) is continuing its phased review and update of the 2006 Water Quality Control Plan (WQCP) for the Bay-Delta. The first phase focuses on the southern Delta salinity objectives for the protection of agriculture, San Joaquin River flow objectives for the protection of fish and wildlife, and a program of implementation for achieving those objectives. The second phase considers the comprehensive review of the other elements of the Bay-Delta WQCP, including but not limited to Sacramento River and Delta outflow objectives.

Metropolitan has been collaborating with water users and other stakeholders to develop sound science and technical analyses in support of the WQCP review process, including sharing results in technical forums and publishing findings in peer-reviewed scientific journals. Metropolitan has been meeting with Board members and staff to share findings as new science and analyses are developed and to encourage close coordination between BDCP and WQCP updates.

The goal for SWP supplies is to adaptively manage flow and export regulations in the near term and to achieve a long-term Delta solution that addresses ecosystem and water supply reliability challenges. Achieving this goal will require continued participation and successful outcomes in the California WaterFix and the California EcoRestore efforts. As previously discussed, the primary challenge to water supply reliability from the SWP is from the water required for regulatory and flow-based actions to protect environmental concerns. It is also expected that the scheduled review and revision to Biological Opinions and operating rules would present further challenges to water supply reliability. Continued participation in the California WaterFix and California EcoRestore efforts will have both a near-term and long-term effect.

In the near-term, the efforts to permanently address pumping and flow-based environmental through the California WaterFix and the attention to environmental and ecosystem restoration in the California EcoRestore is expected to facilitate a continuation of collaborative adaptive management with the key regulatory agencies. Collaborative adaptive management has been occurring for a number of years with current biological standards and has resulted in a better balance of water supply reliability and regulatory compliance than what would have occurred with a strict adherence to flow-based standards. With agencies committed to a long-term solution to these issues in the Delta, it is anticipated that collaborative adaptive management would continue in the face of more stringent flow-based standards that could result from a review and strengthening of Biological Opinions.

In the long-term, the preferred alternative identified in the California WaterFix is expected to provide more flexible water diversions through improved conveyance and operations. The new conveyance and diversion facilities will allow for increased water supply reliability and a more permanent solution for flow-based environmental standards. The preferred alternative in the California WaterFix would also provide additional access to storm flows and interruptible water supplies that are occasionally available hydrologically but cannot be diverted due to system conveyance constraints.

Based on modeling done for the California WaterFix, it is estimated that the goal for SWP supplies in the 2015 IRP Update[15] will result in an average of about 980,000 acre-feet of SWP supplies in 2020 and 1.2 million acre-feet on average starting in 2030 when a long-term Delta solution is estimated to be in place. Table 5.1 provides a Summary of SWP Supplies Available to Metropolitan with 2015 IRP Update target development.

[15] Metropolitan develops Integrated Resource Plans (IRPs), which lay out how Metropolitan will secure and provide water to its customer base. These IRPs utilize hydrological and other data provided by DWR and are updated periodically through IRP Implementation Reports to reflect changing conditions.

Table 5.1
Summary of SWP Supplies Available to Metropolitan
With 2015 IRP Update Target Development (AF)

SWP	2016	2020	2025	2030	2035	2040
Minimum	210,000	229,000	229,000	314,000	314,000	314,000
Average	1,202,000	984,000	984,000	1,213,000	1,213,000	1,213,000
Maximum	2,022,000	1,695,000	1,695,000	1,863,000	1,863,000	1,863,000

Source: 2015 IRP Update Report

5.2.2 Colorado River Aqueduct

The Colorado River was Metropolitan's original source of water after Metropolitan's establishment in 1928. Metropolitan has a legal entitlement to receive water from the Colorado River under a permanent service contract with the Secretary of the Interior. Water from the Colorado River or its tributaries is also available to other users in California, as well as to users in the states of Arizona, Colorado, Nevada, New Mexico, Utah, and Wyoming (the "Colorado River Basin States"), resulting in both competition and the need for cooperation among these holders of Colorado River entitlements. In addition, under a 1944 treaty, Mexico has an allotment of 1.5 million acre-feet of Colorado River water annually, except in the event of extraordinary drought or serious accident to the delivery system in the United States, when the water allotted to Mexico would be curtailed. Mexico also can schedule delivery of an additional 200,000 acre-feet of Colorado River water per year if water is available in excess of the requirements in the United States and the 1.5 million acre-feet allotted to Mexico.

The Colorado River Aqueduct, which is owned and operated by Metropolitan, transports water from the Colorado River approximately 242 miles to its terminus at Lake Mathews in Riverside County. After deducting for conveyance losses and considering maintenance requirements, up to 1.2 million acre-feet of water a year may be conveyed through the Colorado River Aqueduct to Metropolitan's member agencies, subject to availability of Colorado River water for delivery to Metropolitan as described below.

California is apportioned the use of 4.4 million acre-feet of water from the Colorado River each year plus one-half of any surplus that may be available for use collectively in Arizona, California and Nevada. In addition, California has historically been allowed to use Colorado River water apportioned to, but not used by, Arizona and Nevada when such supplies have been requested for use in California. Under the 1931 priority system that has formed the basis for the distribution of Colorado River water made available to California, Metropolitan holds the fourth priority right to 550,000 acre-feet per year. This is the last priority within California's basic apportionment of 4.4 million acre-feet. In addition,

Metropolitan holds the fifth priority right to 662,000 acre-feet of water, which is in excess of California's basic apportionment.

Metropolitan has taken steps to augment its share of Colorado River water through agreements with other agencies that have rights to use such water. Under a 1988 water conservation agreement (the "1988 Conservation Agreement") between Metropolitan and the Imperial Irrigation District (IID), IID has constructed and is operating a number of conservation projects that are currently conserving 105,000 acre-feet of water per year.

In 1992, Metropolitan entered into an agreement with the Central Arizona Water Conservation District (CAWCD) to demonstrate the feasibility of CAWCD storing Colorado River water in central Arizona for the benefit of an entity outside of the State of Arizona. Pursuant to this agreement, CAWCD created 80,909 acre-feet of long-term storage credits that may be recovered by CAWCD for Metropolitan. Metropolitan, the Arizona Water Banking Authority, and CAWCD executed an amended agreement for recovery of these storage credits in December 2007. Metropolitan started recovering its credits in 2007. Water recovered by CAWCD under the terms of the 1992 agreement allows CAWCD to reduce its use of Colorado River water, resulting in Arizona having an unused apportionment. The Secretary of the Interior is making this unused apportionment available to Metropolitan under its Colorado River water delivery contract

In April 2008, Metropolitan's Board authorized the expenditure of $28.7 million to join the CAWCD and the Southern Nevada Water Authority (SNWA) in funding the construction of a new 8,000 acre-foot off-stream regulating reservoir near Drop 2 of the All-American Canal in Imperial County. This reservoir was recently completed by the Bureau of Reclamation. The Drop 2 Reservoir is expected to save up to 70,000 acre-feet of water per year by capturing and storing water that would otherwise be lost. In return for its funding, Metropolitan received 100,000 acre-feet of water that is stored in Lake Mead until recovered, with annual long-term deliveries of up to 25,000 acre-feet of water through 2036. Besides the additional water supply, the new reservoir will add to the flexibility of Colorado River operations. SNWA will have stored approximately 330,000 acre-feet with Metropolitan through 2015. SNWA is not expected to call upon Metropolitan to return water until after 2019.

Metropolitan and the Palo Verde Irrigation District (PVID) signed the program agreement for a Land Management, Crop Rotation and Water Supply Program in August 2004. This program provides up to 133,000 acre-feet of water available to Metropolitan in certain years. The term of the program is 35 years. Fallowing of approximately 20,000 acres of land began on January 1, 2005. In 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, and 2014 approximately 108,700 acre-feet, 105,000, and 72,300, 94,300, 120,200, 116,300, 122,200, 73,700, 32,800, and 43,000 acre-feet, respectively, of water were saved and made available to Metropolitan. In March 2009, Metropolitan and PVID entered into a one-year supplemental fallowing program within PVID that provides for the fallowing of additional acreage, with savings of 24,100 in 2009 and 32,300 acre-feet in 2010.

With Arizona's and Nevada's increasing use of their respective apportionments and the uncertainty of continued Colorado River surpluses, in 1997 the Colorado River Board of California, in consultation with Metropolitan, IID, PVID, CVWD, the Los Angeles Department of Water and Power and the San Diego County Water Authority (SDCWA), embarked on the development of a plan for reducing California's use of Colorado River water to its basic apportionment of 4.4 million acre-feet when use of that basic allotment is necessary (California Plan). In 1999, IID, CVWD, Metropolitan and the State of California agreed to a set of Key Terms aimed at managing California's Colorado River supply. These Key Terms were incorporated into the Colorado River Board's May 2000 California Plan that proposed to optimize the use of the available Colorado River supply through water conservation, transfers from higher priority agricultural users to Metropolitan's service area and storage programs.

To implement these plans, a number of agreements have been executed. One such agreement, the Quantification Settlement Agreement (QSA), is a landmark agreement signed by the four California Colorado River water use agencies and the U.S. Secretary of the Interior, which will guide reasonable and fair use of the Colorado River by California through the year 2037. The QSA was authorized in October 2003 and defined Colorado River water deliveries to the four California agencies as well as facilitated transfers from agricultural agencies to urban users. The QSA is a critical component of the California's Colorado River Water Use Plan.

The goal for CRA supplies is to maintain current levels of water supplies from existing programs, while also developing flexibility through dry-year programs and storage. Much of this goal involves protecting existing supply and storage programs in the face of risks that could impact CRA supplies in the future. Identified risks to future CRA supplies include increased demands from Colorado River uses whose rights to Colorado River water exceed Metropolitan's rights and climate change that can impact the frequency and depth of shortage declarations on the river.

In order to accomplish this goal, the 2015 IRP Update calls for developing sufficient base supply programs to ensure that a minimum of 900,000 acre-feet of diversions are available when needed and to ensure access to 1.2 million acre- feet of supplies in dry years through flexible programs and storage. This will require an approach that maintains existing base supply availability, minimizes reductions in base supplies from risks and challenges and augments base supply amounts to increase resilience to any reductions that may occur. Table 5.2 provides a summary of Colorado River diversion targets.

Table 5.2
Summary of Colorado River Diversion Targets (AF)

CRA	2016	2020	2025	2030	2035	2040
Minimum Diversion Target	900,000	900,000	900,000	900,000	900,000	900,000
Dry-Year Diversion Target	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000	1,200,000

Source: 2015 IRP Update Report

5.2.3 Storage

A key component of Metropolitan's water supply capability is the amount of water in Metropolitan's storage facilities. Storage is a major component of Metropolitan's dry-year resource management strategy. Metropolitan's likelihood of having adequate supply capability to meet projected demands, without implementing the Water Supply Allocation Plan (WSAP), is dependent on its storage resources.

In developing the supply capabilities in the 2015 UWMP, Metropolitan assumed the current (2015) storage levels at the start of simulation and used the median storage levels going into each of the five year increments based on the balances of supplies and demands. Under the median storage conditions, there is an estimated 50 percent probability that storage levels would be higher than the assumption used, and a 50 percent probability that storage levels would be lower than the assumption used. All storage capability figures shown in the 2015 UWMP reflect actual storage program conveyance constraints. Under some conditions, Metropolitan may choose to implement the WSAP in order to preserve storage reserves for a future year, instead of using the full supply capability. This can result in impacts at the retail level even under conditions where there may be adequate supply capabilities to meet demands.

Historically, local groundwater has been the most economical and reliable source of supply for Mesa Water. However imported Metropolitan water is available through the District's member agency, MWDOC. In FY 2015 all of Mesa Water was able to serve all of its water demands from groundwater (both clear and from the MWRF) and recycled water without reliance on imported water. Future demands are anticipated to be met without utilization of imported water as well; however this source is described below.

5.2.4 Supply Management Strategies

On the regional level, Metropolitan has taken a number of actions to secure a reliable water source for its member agencies. Metropolitan developed a water supply allocation plan (WSAP) [16] and has utilized it initially in 2009 and 2010 and in 2015 for dealing with potential shortages that took into consideration the impact on retail customers and the

[16] Metropolitan Water District Press Release dated February 12, 2008.

economy, changes and losses in local supplies, the investment in and development of local resources, and conservation achievements. Additional actions taken by Metropolitan over the past several years have increased spending on conservation, local projects and water supply/reliability enhancements significantly.

This spending plan included expenditures for the improvement of water conveyance facilities, water transfers, and providing financial assistance to member agency's local conservation, recycling, and groundwater clean-up efforts, and is continuing. To fund these past and future expenditures on conservation, recycling and other local projects, Metropolitan Tier 1 treated water rates were increased by almost 54% for the 5-year period from January 1, 2009 to January 1, 2014. Over the past two years, this rate increased more modestly by 3.7 and 2.0 percent each year for 2015 and 2016, respectively. And the rates recently approved by Metropolitan for 2017 and 2018 are similar at 3.9 and 3.7 percent, respectively.

5.2.5 Water Transfer and Exchange Programs

California's agricultural activities consume approximately 34 million acre-feet of water annually, which is 80 percent of the total water used for agricultural and urban uses and 40 percent of the water used for all consumptive uses. Voluntary water transfers and exchanges can make a portion of this agricultural water supply available to support the State's urban areas. Such existing and potential water transfers and exchanges are an important element for improving the water supply reliability within Metropolitan's service area and accomplishing the reliability goal set by Metropolitan's Board of Directors. Metropolitan is currently pursuing voluntary water transfer and exchange programs with state, federal, public and private water districts and individuals. The following are summary descriptions of some of these programs.

Arvin-Edison/Metropolitan Water Management Program. In December 1997, Metropolitan entered into an agreement with the Arvin-Edison Water Storage District (Arvin-Edison), an irrigation agency located southeast of Bakersfield, California. Under the program, Arvin-Edison stores water on behalf of Metropolitan. Up to 350,000 acre-feet of Metropolitan's water may be stored and Arvin-Edison is obligated to return up to 70,000 acre-feet of stored water in any year to Metropolitan, upon request. The agreement will terminate in 2035 unless extended.

Semitropic/Metropolitan Groundwater Storage and Exchange Program. In 1994 Metropolitan entered into an agreement with the Semitropic Water Storage District (Semitropic), located adjacent to the California Aqueduct north of Bakersfield, to store water in the groundwater basin underlying land within Semitropic. The minimum annual yield available to Metropolitan from the program is 31,500 acre-feet of water and the maximum annual yield is 223,000 acre-feet of water depending on the available unused capacity and the SWP allocation.

California Aqueduct Dry-Year Transfer Program. Metropolitan has entered into agreements with the Kern Delta Water District, the Mojave Water Agency (Demonstration Water Exchange Program) and the San Bernardino Valley Municipal Water District to

ensure against regulatory and operational uncertainties in the SWP system that could impact the reliability of existing supplies. The total potential yield for the three agreements is approximately 115,000 acre-feet of water per year.

Other Water Purchase, Storage and Exchange Programs in the San Joaquin and Sacramento Valleys. Metropolitan has been negotiating water purchase, storage and exchange programs with other agencies in the Sacramento and San Joaquin Valleys. These programs will involve the storage of both SWP supplies and water purchased from other sources to enhance Metropolitan's dry-year supplies and the exchange of normal year supplies to enhance Metropolitan's water reliability and water quality, in view of dry conditions and potential impacts from the ESA cases discussed above. Metropolitan has entered into agreements to purchase water transfer supplies for 2008 totaling 41,743 acre-feet from Western Canal Water District, Richvale Irrigation District, South Feather Water and Power Agency and South Sutter Water District. In addition, Metropolitan is pursuing water quality exchange partnerships with San Joaquin Valley agricultural districts, including the Friant Water Users Authority. The purpose of these partnerships is to improve the quality of water that Metropolitan receives via the California Aqueduct.

Yuba River Accord. Metropolitan entered into an agreement with the Department of Water Resources in December 2007 to purchase a portion of the water released by the Yuba County Water Agency (YCWA). YCWA was involved in a SWRCB proceeding in which it was required to increase Yuba River fishery flows. Metropolitan and other SWP contractors entered into agreements with the Department of Water Resources for purchase of portions of the water made available. Metropolitan's agreement allows Metropolitan to purchase 13,750 acre-feet to 35,000 acre-feet per year of water supplies in dry years through 2025.

Metropolitan/Coachella/Desert Water Agency Exchange and Advance Delivery Agreement. Metropolitan has agreements with the CVWD and the Desert Water Agency (Desert) that require Metropolitan to exchange its Colorado River water for those agencies' SWP entitlement water on an annual basis. Because Desert and Coachella do not have a physical connection to the SWP, Metropolitan takes delivery of Desert's and CVWD's SWP supplies and delivers a like amount of Colorado River water to the agencies. In accordance with an advance delivery agreement executed by Metropolitan, CVWD and Desert, Metropolitan delivers Colorado River water in advance to these agencies for storage in the Upper Coachella Valley groundwater basin. In years when supplies are needed to meet local demands, Metropolitan has the option to receive the water supply and must pay the associated SWP transportation costs and CVWD and Desert may use the stored water.

5.2.6 Metropolitan 2015 UWMP Supply Capability Projections

In their 2015 UWMP, Metropolitan estimated supply capability and projected demands for an average (normal) year based on an average of hydrologies for the years 1922-2012; for a single dry-year based on a repeat of the hydrology in the year 1977; and for multiple dry years based on a repeat of the hydrology of 1990-1992. These single and multiple-dry-year hydrologies were also used in Metropolitan's 2010 UWMP, 2010 IRP, and 2015 IRP as they historically represent the timing of the least amount of available water resources from the SWP, a major source of Metropolitan's supply.

Metropolitan developed demand forecasts by first estimating total retail demands for its service area and then factoring out water savings attributed to conservation. Projections of local supplies then were derived using data on current and expected local supply programs and the IRP Local Resource Program Target. The resulting difference between total demands net of conservation and local supplies is the expected regional demands on Metropolitan supplies. These estimates are summarized by category in Table 5.3 for average, single-dry and multiple-dry-year water supply scenarios. More detailed information on Metropolitan's forecasts and these tables can be found in their 2015 UWMP. In all scenarios shown in Table 5.3 there is a projected surplus, even without Metropolitan's Supplies under Development and Potential Supplies.

5.3 District Supply Reliability

OCWD and Metropolitan/MWDOC water supply reliability translates to District water supply reliability with groundwater from the OC Basin providing the District with 94 percent of its water supply needs (6 percent comes from recycled water), and Metropolitan/MWDOC imported water supply serving as a reliable backup water supply for the District.

The District pumps groundwater from the OC Basin via six wells that provide clear groundwater from the main production aquifer. The District operates, maintains, rehabilitates, and replaces these wells to ensure reliable clear groundwater production. Approximately 70 to 75 percent of the potable groundwater supply for the District comes from these six District wells.

Mesa Water constructed the MWRF in 2012 to remove organic amber color from the groundwater pumped from two District wells, which as a result, enables the water to be utilized as potable water in the District's water system. The balance of the potable groundwater supply for the District (25 to 30 percent) is MWRF-treated groundwater. These two wells are also well maintained and will be replaced as required to ensure reliable supply to help meet District demands. MWRF groundwater production is BEA Exempt, which allows the District to utilize groundwater to meet 100 percent of demands. Without the MWRF, District groundwater production would be restricted by the BPP pumping percentage, and more expensive imported water would need to be purchased to satisfy District water demands. Instead, imported water can be used as a reliable back-up water supply.

Table 5.3
Metropolitan Regional Water Demands
Single Dry, Multiple Dry and Average Years (AF)

Single Dry Year MWD Supply Capability and Projected Demands (1977 Hydrology)					
Forecast Year	2020	2025	2030	2035	2040
Capability of Current Programs	2,584,000	2,686,000	2,775,000	2,905,000	2,941,000
Projected Demands	2,005,000	2,066,000	2,108,000	2,160,000	2,201,000
Projected Surplus	579,000	620,000	667,000	745,000	740,000
Projected Surplus %[(a)]	29%	30%	32%	34%	34%
Programs under Development	63,000	100,000	316,000	358,000	398,000
Potential Surplus	642,000	720,000	983,000	1,103,000	1,138,000
Potential Surplus %[(a)]	32%	35%	47%	51%	52%
Multiple Dry Year MWD Supply Capability and Projected Demands (1990-1992 Hydrology)					
Forecast Year	2020	2025	2030	2035	2040
Capability of Current Programs	2,103,000	2,154,000	2,190,000	2,242,000	2,260,000
Projected Demands	2,001,000	2,118,000	2,171,000	2,216,000	2,258,000
Projected Surplus	102,000	36,000	19,000	26,000	2,000
Projected Surplus %[(a)]	5%	2%	1%	1%	0.1%
Programs under Development	43,000	80,000	204,000	245,000	286,000
Potential Surplus	145,000	116,000	223,000	271,000	288,000
Potential Surplus %[(a)]	7%	5%	10%	12%	13%
Average Year MWD Supply Capability and Projected Demands (1922 - 2012 Hydrology)					
Forecast Year	2020	2025	2030	2035	2040
Capability of Current Programs	3,448,000	3,550,000	3,658,000	3,788,000	3,824,000
Projected Demands	1,860,000	1,918,000	1,959,000	2,008,000	2,047,000
Projected Surplus	1,588,000	1,632,000	1,699,000	1,780,000	1,777,000
Projected Surplus %[(a)]	85%	85%	87%	89%	87%
Programs under Development	63,000	100,000	386,000	428,000	468,000
Potential Surplus	1,651,000	1,732,000	2,085,000	2,208,000	2,245,000
Potential Surplus %[(a)]	89%	90%	106%	110%	110%

(a) As a percentage of projected demand
Source – 2015 Metropolitan Urban Water Management Plan, June 2016

Normal-year, dry-year, and multiple dry-year demands projected for the District through FY 2040 as estimated in the District's 2015 UWMP, which included the Proposed Project demands, were compared with projected available groundwater and recycled water supplies as shown in Tables 5.4, 5.5, and 5.6, respectively. Demands for dry-year scenarios were increased 6.0 percent consistent with the District's 2015 UWMP.

The District is projected to have sufficient groundwater supply and supplementary recycled water supply to meet all normal, single-dry year, and multiple-dry year demands, including the Proposed Project demands, through the year 2040, with imported water as a back-up water supply source.

Table 5.4
District Projected Normal-Year Water Supply and Demand (AF)

Water Sources	2020	2025	2030	2035	2040
Supply	Normal Year				
Clear Groundwater	14,427	14,473	14,519	14,566	14,612
MWRF Treated Groundwater	5,083	5,103	5,123	5,143	5,162
Recycled Water	1,100	1,100	1,100	1,100	1,100
Total Supply[(a)]	20,610	20,676	20,742	20,809	20,874
Demand	Normal Year				
Total District Demand without Project	20,520	20,559	20,625	20,692	20,757
Additional Project Demand	90	117	117	117	117
Total Demand[(a)]	20,610	20,676	20,742	20,809	20,874

(a) From Table 3-5, Mesa Water District Final 2015 UWMP

Table 5.5
District Projected Single Dry-Year Water Supply and Demand (AF)

Water Sources	2020	2025	2030	2035	2040
Supply	Normal Year				
Clear Groundwater	15,293	15,341	15,390	15,440	15,489
MWRF Treated Groundwater	5,388	5,409	5,430	5,452	5,472
Recycled Water	1,166	1,166	1,166	1,166	1,166
Total Supply[(a)]	21,847	21,917	21,987	22,058	22,126
Demand	Single Dry Year				
Total District Demand without Project	21,755	21,798	21,868	21,939	22,008
Additional Project Demand	92	119	119	119	119
Total Demand[(a)]	21,847	21,917	21,987	22,058	22,126

(a) From Table 3-6, Mesa Water District Final 2015 UWMP (normal supply and demands increased by 6.0%)

Table may not total exactly due to spreadsheet rounding

Table 5.6
District Projected Multiple Dry-Year Water Supply and Demand (AF)

Supply Sources/Demands	2020	2025	2030	2035	2040
Supply	First Multiple Dry Year				
Clear Groundwater	15,293	15,341	15,390	15,440	15,489
MWRF Treated Groundwater	5,388	5,409	5,430	5,452	5,472
Recycled Water	1,166	1,166	1,166	1,166	1,166
Total Supply[(a)]	21,847	21,917	21,987	22,058	22,126
Total Demand[(a)]	21,847	21,917	21,987	22,058	22,126
Supply	Second Multiple Dry Year				
Clear Groundwater	15,293	15,341	15,390	15,440	15,489
MWRF Treated Groundwater	5,388	5,409	5,430	5,452	5,472
Recycled Water	1,166	1,166	1,166	1,166	1,166
Total Supply[(a)]	21,847	21,917	21,987	22,058	22,126
Total Demand[(a)]	21,847	21,917	21,987	22,058	22,126
Supply	Third Multiple Dry Year				
Clear Groundwater	15,293	15,341	15,390	15,440	15,489
MWRF Treated Groundwater	5,388	5,409	5,430	5,452	5,472
Recycled Water	1,166	1,166	1,166	1,166	1,166
Total Supply[(a)]	21,847	21,917	21,987	22,058	22,126
Total Demand[(a)]	21,847	21,917	21,987	22,058	22,126

(a) From Table 3-7, Mesa Water District Final 2015 UWMP (normal supply and demands increased by 6.0%)

Table may not total exactly due to spreadsheet rounding

6 CONCLUSION

The estimated buildout normal year water demand for the Proposed Project is projected to be 112 AF greater than the FY 2015 water demand for the existing land uses at the Project site (a total of 117 AF), which is less than 0.6 percent of the total demand estimated for the District in FY 2040 including water loss.

The information included in this WSA identifies a sufficient and reliable water supply for the District, now and into the future, including a sufficient water supply for the re-developed land uses proposed for the Proposed Project. These supplies are also sufficient to provide for overall District-wide growth at the rate projected in the District's 2015 UWMP.

7 REFERENCES

The following documents were used, in conjunction with discussions with Mesa Water staff, in preparing this water supply assessment:

Mesa Water District, *2015 Urban Water Management Plan*, *Final*, June 2016.

Department of Water Resources (DWR), *Bulletin 118-1 Basin Description for Coastal Plain of Orange County Groundwater Basin Number 8-1*, September 5, 2001.

DWR, *The State Water Project Final Delivery Reliability Report 2015, July 2015.*

Metropolitan Water District of Southern California (MWD), *Water Revenue Refunding Bonds, 2008 Series C*, *Appendix A*, July 2008.

Metropolitan Water District of Southern California (MWD), 2015 *Urban Water Management Plan, June* 2015.

Metropolitan Water District of Southern California (MWD), *Integrated Water Resources Plan 2015 Update,* January 2016.

Orange County Water District (OCWD), *Orange County Water District 2020 Master Plan Report,* 2000.

Orange County Water District (OCWD), *Engineer's Report,* 2014-2015, February 2016.

Orange County Water District (OCWD), *Resolution No. 13-1-6 Stating the District's Goal to Develop the Necessary Supplies and Facilities to Achieve and Maintain a 75% Basin Production Percentage*. Orange County Water District Board, January 16, 2013.

Orange County Water District (OCWD), The OCWD Act.

Orange County Water District (OCWD), OCWD v. City of Chino, et al, (Civ. Case No. 117628), Judgment and Settlement Documents.

Orange County Water District (OCWD), Groundwater Management Plan 2015 Update, June 17, 2015.

APPENDIX A

CITY OF COSTA MESA
WATER EFFICIENT LANDSCAPE
ORDINANCE (ORD. NO. 16-03)

ORDINANCE NO. 16-03

AN ORDINANCE OF THE CITY COUNCIL OF COSTA MESA, CALIFORNIA ADOPTING ZONING CODE AMENDMENT CO-15-05, AMENDING TITLE 13, CHAPTER VII, LANDSCAPE STANDARDS OF THE COSTA MESA MUNICIPAL CODE REGARDING WATER EFFICIENT LANDSCAPE STANDARDS

THE CITY COUNCIL OF THE CITY OF COSTA MESA DOES HEREBY ORDAIN AS FOLLOWS:

WHEREAS, consistent with the findings of the State Legislature, the City Council finds that the waters of the State are of limited supply and are subject to ever increasing demands;

WHEREAS, landscape design, installation, maintenance, and management can and should be water efficient;

WHEREAS, Article X, Section 2 of the California Constitution specifies that the right to use water is limited to the amount reasonably required for the beneficial use to be served, and the right does not and shall not extend to waste or unreasonable method of use of water;

WHEREAS, allocation-based and tiered water rate structures allow public agencies to document water use in landscapes;

WHEREAS, all water services within the City are metered and billed based on volume of use;

WHEREAS, Costa Mesa is served by two water purveyors, Irvine Ranch Water District (IRWD) and Mesa Consolidated Water District (Mesa). IRWD is implementing budget- based tiered-rate billing and/or enforcement of water waste prohibitions for all existing metered landscaped areas throughout its service area, which includes a portion of City containing business and industrial parks south of the 405 Freeway. Mesa is implementing enforcement of water waste prohibitions for all existing metered landscaped areas within its jurisdiction by Water Conservation Ordinance No. 46 adopted on November 12, 2015, which limits the watering and irrigation of landscaping to one day a week;

WHEREAS, On January 19, 2010, the City Council adopted Water Efficient Landscape Ordinance and corresponding Guidelines consistent with the requirements of AB 1881;

WHEREAS, the purpose of the amendment to City's Water Efficient Landscape Ordinance and Guidelines is to establish an alternative model acceptable under Governor Brown's April 1, 2015 Drought Executive Order (B-19-25) as being at least as effective as the State Model Water Efficient Landscape Ordinance in the context of conditions in the City in order to:

3. New or rehabilitated landscape projects with an aggregate landscape area of 2,500 square feet or less may comply with the performance requirements of this ordinance or conform to the prescriptive measures contained in Appendix A of the *Guidelines*;

4. New or rehabilitated projects using treated or untreated graywater or rainwater capture on site, any lot or parcels within the project that has less than 2,500 square feet of landscape area and meets the lot or parcel's landscape water requirement (Estimated Total Water Use) entirely with the treated or untreated graywater or though stored rainwater capture on site is subject only to Appendix A of the *Guidelines*.

(d) This water Efficient Landscape Ordinance does not apply to:

1. Registered local or state historical sites;
2. Ecological restoration projects that do not require a permanent irrigation system;

SECTION 2: Title 13, Chapter VII, Section 13-106 of the Costa Mesa Municipal Code is hereby amended as follows:

(a) All required landscaped areas, including landscape areas within parking lots, shall consist of drought tolerant plan material and shall meet the following minimum requirements:

'[....]

(4) Groundcover: At least 70 per cent of all landscaped areas containing trees and shrubs shall be underplanted with groundcover, with the remaining areas to incorporate a layer of uncontaminated compost or mulch as required per Water Efficient Landscape Guidelines. Decorative (commercial) bark is not acceptable. Groundcover shall be planted in a triangular-spaced pattern to ensure 100 percent coverage within one year of planting. A minimum 2-foot diameter clearance, measured from each tree trunk, shall be maintained free of groundcover or turf. Uncontaminated shredded mulch or compost shall be applied and maintained in these areas.

(5) Turf: Turf incorporated into the landscape design shall not exceed thresholds established by the Guidelines, except for active play areas such as parks, sports fields and golf courses. All turf shall be of a drought tolerant variety. Redwood headerboard, or other material acceptable by the planning division, shall be installed to separate turf from planter and groundcover areas.

SECTION 3: Title 13, Chapter VII, Section 13-107, as follows:

"Sec. 13-107. IRRIGATION REQUIREMENTS

(a) Irrigation and drip systems shall be provided in accordance with Section 2.5 of the Water Efficient Landscape Guidelines. All landscaped areas as specified in the Guidelines shall be provided with an approved irrigation system Landscaped areas with an automatically time-controlled sprinkler system when the site is zoned commercial or industrial, or when the site is zoned residential and permits more than 2 dwelling units.

(b) **Irrigation system:** The Irrigation and/or drip system shall consist of underground piped water lines with low water flow sprinklers and/or a drip or trickle irrigation system as specified in the Guidelines. The system chosen shall be designed to provide adequate coverage to all plant material, existing and proposed. Water meter and line sizes shall be calculated from total water demand, which should be, at least, the sum of the maximum irrigation demand and all building demand. Due to varying irrigation requirements, separate control valves and/or sprinkler/emitter heads shall be used when shrubs and turf all appear on the same landscape plan. The irrigation system shall be designed so that overspray, runoff, and low-head drainage onto streets, sidewalks, windows, walls, and fences are minimized. Automatic systems for watering cycles shall be scheduled to maximize ground infiltration rates and further minimize runoff.

SECTION 4: ENVIRONMENTAL DETERMINATION. The project has been reviewed for compliance with the California Environmental Quality Act (CEQA), the CEQA guidelines, and the City's environmental procedures, and has been found to be exempt pursuant to Section 15061 (b) (3) (general rule) of the CEQA Guidelines, in that the City Council hereby finds that it can be seen with certainty that there is no possibility that the passage of this ordinance amending the Municipal Code will have a significant effect on the environment.

SECTION 5: INCONSISTENCIES. Any provision of the Costa Mesa Municipal Code or appendices thereto inconsistent with the provisions of this ordinance, to the extent of such inconsistencies and or further, is hereby repealed or modified to the extent necessary to affect the provisions of this ordinance.

SECTION 6: APPLICABILITY. The provisions of this ordinance shall be applicable to all properties within City limits as applicable noted hereto.

SECTION 7: SEVERABILITY. If any provision or clause of this ordinance or the application thereof to any person or circumstances is held to be unconstitutional or otherwise invalid by any court of competent jurisdiction, such invalidity shall not affect other provisions or clauses or applications of this ordinance which can be implemented without the invalid provision, clause or application; and to this end, the provisions of this ordinance are declared to be severable.

SECTION 8: PUBLICATION. This Ordinance shall take effect and be in full force thirty (30) days from and after the passage thereof, and prior to the expiration of fifteen (15) days from its passage shall be published once in the DAILY PILOT, a newspaper of general circulation, printed and published in the City of Costa Mesa or, in the alternative, the City Clerk may cause to be published a summary of this Ordinance and a certified copy of the text of this Ordinance shall be posted in the office of the City Clerk five (5) days prior to the date of adoption of this Ordinance, and within fifteen (15) days after adoption, the City Clerk shall cause to be published the aforementioned summary and shall post in the office of the City Clerk a certified copy of this Ordinance together with the names and member of the City Council voting for and against the same.

PASSED AND ADOPTED this 1st day of March, 2016.

Stephen M. Mensinger, Mayor

APPROVED AS TO FORM:

Thomas Duarte, City Attorney

ATTEST:

Brenda Green

Brenda Green, City Clerk

STATE OF CALIFORNIA)
COUNTY OF ORANGE) ss
CITY OF COSTA MESA)

I, BRENDA GREEN, City Clerk and ex-officio Clerk of the City Council of the City of Costa Mesa, hereby certify that the above foregoing Ordinance No. 16-03 as introduced and considered section by section at a regular meeting of said City Council held on the 16th day of February, 2016, and thereafter passed and adopted as a whole at the regular meeting of said City Council held on the 1st day of March, 2016, by the following roll call vote:

AYES:	COUNCIL MEMBERS:	GENIS, MONAHAN, RIGHEIMER, MENSINGER
NOES:	COUNCIL MEMBERS:	NONE
ABSENT:	COUNCIL MEMBERS:	FOLEY

IN WITNESS WHEREOF, I have hereby set my hand and affixed the Seal of the City of Costa Mesa this 2nd day of March, 2016.

Brenda Green

Brenda Green, City Clerk