



EarthTech

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**DRAFT
FIELD SAMPLING PLAN
SOIL INVESTIGATION FOR
HISTORICAL STORMWATER PATHWAY - SOUTH
ECOLOGY CONTROL INDUSTRIES PROPERTY
20846 SOUTH NORMANDIE AVENUE
TORRANCE, CALIFORNIA 90502**

Prepared for: **Montrose Chemical Corporation of California
600 Ericksen Avenue NE, Suite 380
Bainbridge Island, Washington 98111**

Prepared by: **Earth Tech, Inc.
300 Oceangate, Suite 700
Long Beach, California 90802**

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Table of Contents

Section	Page
Contents	i
1.0 Introduction	1-1
1.1 Problem Statement.....	1-1
1.2 Purpose.....	1-2
1.2.1 Investigation Needs and Objectives.....	1-2
2.0 Background	2-1
2.1 EPA Study Area Location.....	2-1
2.2 Physical Description	2-1
2.2.1 Geology and Hydrogeology.....	2-1
2.2.2 Historical Stormwater Pathway	2-2
2.2.3 Project 685 Stormwater Conveyance System.....	2-2
2.2.4 ECI property.....	2-3
2.2.5 Previous Stormwater Pathway Investigations.....	2-3
2.2.6 Previous EPA Study Area Investigations	2-4
2.2.7 Regulatory Involvement.....	2-4
2.3 Summary of Existing Data.....	2-5
2.3.1 Available Soil Quality Data.....	2-5
2.3.2 Available Groundwater Quality Data	2-6
2.3.3 Available Surface Water and Sediment Quality Data.....	2-6
3.0 Benchmarks For Characterization	3-1
4.0 Rationale for Sample Locations and Number of Samples	4-1
4.1 Rationale for Sample Locations.....	4-1
4.2 Rationale for Number of Samples.....	4-2
4.3 Sampling of IDW.....	4-3
4.4 QA/QC Samples.....	4-4
5.0 Request for Analyses	5-1
5.1 Request for Analyses	5-1
5.2 Analytical Laboratory	5-1
5.3 Sampling Schedule.....	5-2
5.4 Laboratory Analyses	5-2
6.0 Field Methods and Procedures	6-1
6.1 Sample Locations.....	6-1
6.2 Drilling and Sample Collection	6-1
6.2.1 General Drilling Requirements	6-1
6.2.2 Boring Logs	6-2
6.2.3 Direct-Push Sampling.....	6-2
6.2.4 Other Sampling Methods	6-3

6.2.5	Boring Abandonment.....	6-3
6.2.6	Field Screening	6-4
6.2.7	Equipment Decontamination	6-4
6.3	Health and Safety	6-5
6.4	Investigation-Derived Waste	6-5
6.5	Sample Management Procedures and Documentation	6-6
6.5.1	Sample Numbering and Labeling	6-6
6.5.2	Sample Packaging and Shipment.....	6-6
6.6	Sample Documentation.....	6-7
6.6.1	Daily Records.....	6-7
6.6.2	Photographs.....	6-7
6.6.3	Completion Report.....	6-8
6.6.4	Chain-of-Custody Forms	6-8
6.7	Quality Control Samples.....	6-8
6.7.1	Duplicate Samples	6-8
6.7.2	Equipment Rinsate Samples	6-9
6.7.3	Laboratory Quality Control Samples	6-9
7.0	References	7-1

Tables

- 1 Summary of Detected Pesticides/PCBs and TPH in Soil Samples
- 2 Metals in Soil Samples
- 3 VOCs in Soil Samples
- 4 Summary of Soil Sampling Program
- 5 Soil Sampling Boring Location Coordinates
- 6 Request for Analyses – Soil Samples
- 7 Request for Analyses – Soil IDW
- 8 Request for Analyses – Water IDW

Figures

- 1 Site Location Map
- 2 Site Plan ECI Property
- 3 Location of Unimproved Stormwater Slough in 1947
- 4 Locations of ECI Soil Borings
- 5 Locations of ECI excavations and Sample Locations Collected by Haley & Aldrich (2005)
- 6 Proposed Montrose Soil Boring Locations at the ECI property

Appendix

- A EPA Region IX Instructions for Sample Shipping and Documentation

Acronyms

AMSL	Above mean sea level
ASTM	American Society for Testing and Materials
bgs	below ground surface
BHC	benzene hexachloride (also called hexachlorocyclohexane)
CCR	California Code of Regulations
CDWR	California Department of Water Resources
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CFR	Code of Federal Regulations
COC	chain-of-custody
DDD	4,4'-dichlorodiphenyldichloroethane
DDE	4,4'-dichlorodiphenyldichloroethylene
DDT	4,4'-dichlorodiphenyltrichloroethane
DOT	Department of Transportation
DQO	data quality objective
Earth Tech	Earth Tech, Inc.
ECI	Ecology Control Industries
EPA	U.S. Environmental Protection Agency
ESA	Environmental Site Assessment
FID	flame ionization detector
FS	feasibility study
FSP	Field Sampling Plan
HASP	Health and Safety Plan
HHRA	human health risk assessment
HPLC	high-performance liquid chromatography
IDW	investigation-derived waste
LACDPW	Los Angeles County Department of Public Works
LACFCD	Los Angeles County Flood Control District
MDL	method detection limit
mg/kg	milligram per kilogram

Montrose	Montrose Chemical Superfund Site
MS/MSD	matrix spike/matrix spike duplicate
msl	mean sea level
NAD	North American Datum
OSHA	Occupational Safety and Health Administration
PCB	polychlorinated biphenyl
PID	photoionization detector
PPE	personal protective equipment
ppm	parts per million
QA	quality assurance
QC	quality control
QAPP	Quality Assurance Project Plan
RFA	request for analysis
RI	Remedial Investigation
RWQCB	Regional Water Quality Control Board
SVE	soil vapor extraction
Total DDT	Sum of concentrations of DDT, DDE, and DDD
TPH	total petroleum hydrocarbons
TPH-d	total petroleum hydrocarbons – diesel fraction
TPH-g	total petroleum hydrocarbons – gasoline fraction
TPH-o	total petroleum hydrocarbons – oil fraction
TSDF	treatment, storage, or disposal facility
UAO	Unilateral Administrative Order
USCS	Unified Soil Classification System
UST	Underground Storage Tank
VOA	volatile organic analysis
VOC	volatile organic compound

1 Introduction

Montrose Chemical Corporation of California (Montrose) retained Earth Tech, Inc. (Earth Tech) to prepare this revised Field Sampling Plan (FSP) to support field and laboratory activities for an investigation of soils within the Historical Stormwater Pathway – South (Operable Unit 6) of the Montrose Chemical Superfund Site (Montrose), Los Angeles County, California. This FSP contains a scope of work to be performed at the Ecology Controls, Inc. (ECI) property located at 20846 Normandie Avenue, Torrance, California (**Figure 1**).

The draft version of this FSP was initially developed by the U.S. Environmental Protection Agency (EPA) Region IX in March 2006 (EPA, 2006) and in accordance with *Guidance for Preparation of a U.S. EPA Region IX Field Sampling Plan for EPA-Led Superfund Projects* (EPA, 1993). The original FSP included investigation of both the ECI property and seven residential properties adjacent to ECI along its eastern property boundary defined as the EPA Study Area for this investigation. This revised FSP addresses only the ECI property and is accompanied by the *Quality Assurance Project Plan* (QAPP; Earth Tech, 2006a), also originally prepared by EPA, and later revised by Montrose/Earth Tech.

1.1 Problem Statement

In the spring of 2005, soil sampling was conducted at 20846 Normandie Avenue, in Los Angeles County, California, a commercial property occupied by ECI, as part of due diligence activities prior to sale of the property. That sampling reported several chemical constituents present in soils exceeding regulatory action levels, including: 4,4'-dichlorodiphenyltrichloroethane (DDT), 4,4'-dichlorodiphenyldichloroethene (DDE), and 4,4'-dichlorodiphenyldichloroethane (DDD), as well as several other chemicals including chlordane, petroleum hydrocarbons, and polychlorinated biphenyls (PCBs). The sum of DDT, DDE, and DDD concentrations (referred to collectively as total DDT) were detected in subsurface soil samples from the eastern and southeastern portions of the ECI property at concentrations exceeding residential background levels and up to 325 milligrams per kilogram (mg/kg).

The location of soils with total DDT concentrations exceeding residential background levels at the ECI property roughly coincides with the historical stormwater pathway, which crossed through what is now the eastern portion of the ECI property. EPA believes that the DDT-impacted soils at the ECI property are the result of contaminated storm-water runoff from the former Montrose technical-grade DDT manufacturing plant located at 20201 Normandie Avenue, in Los Angeles County, California (**Figure 1**). The ECI property is located “down stream” from the former Montrose plant property, by way of the historical stormwater drainage pathway. It is noted that Montrose disputes EPA’s preliminary conclusion regarding the source of total DDT at the ECI property.

Figure 1 shows the former Montrose plant and ECI properties, and **Figure 2** shows the layout of the ECI property. This FSP documents the scope of work to be performed by

Montrose at only the ECI property.

1.2 Purpose

The purpose of this investigation is to obtain additional analytical data adequate to characterize the vertical and lateral extent of pesticide/PCB chemicals in soil within the ECI portion of the EPA Study Area as referenced in Section 2.1, and assess if further action is needed based on those findings. This FSP presents the data and soil sampling requirements to meet this purpose.

1.2.1 Investigation Needs and Objectives

The data collected in 2005 to characterize the ECI property were provided to the EPA by ECI, and identified the presence of total DDT-impacted soils above residential background within its property boundaries. The data, however, were not adequate to characterize the vertical and lateral extent of pesticides/PCBs chemicals at the ECI property. Therefore, additional soil sampling is needed to provide adequate characterization of the eastern portion of the ECI property. Data obtained from this soil sampling effort, in combination with existing data, and additional data that will be collected by the EPA in the residential portion of the EPA Study Area, are intended to characterize the presence, distribution, and concentrations of pesticide/PCB chemicals in the EPA Study Area soils and identify those soils, if any, requiring remedial action.

It should be noted that the EPA investigation of historical activities related to the Montrose Property is ongoing. As such, additional sampling may be required to address the underlying needs and objectives presented in this FSP as new information is uncovered. The questions intended to be answered by this and the companion EPA investigations are listed below. The basis and rationale for these questions are fully developed in the companion QAPP for this investigation (Earth Tech, 2006a).

1. Characterize Nature and Extent of Soil Contamination: Are soils within the eastern ECI property impacted by pesticide/PCB chemicals at levels of concern, and if so, what is the vertical and lateral extent of that impact?
2. Support a Human Health Risk Assessment (HHRA): What are human health risks from the soil concentrations of pesticide/PCB chemicals found within the EPA Study Area?
3. Support a Removal Action, if necessary: What is the extent of pesticide/PCB soil impact requiring a removal action to be conducted, if any?
4. Support a Feasibility Study (FS), if necessary: Based on the nature and extent of pesticide/PCB impact within the ECI property, what are the alternatives for soil remediation, if needed?
5. Support characterization of Investigation-Derived Waste (IDW): Do IDW soil concentrations meet the waste acceptance criteria for disposal at either a nonhazardous waste, or hazardous waste treatment, storage, or disposal facility (TSDF)? Does IDW

water meet the acceptance criteria for disposal at an offsite TSDF?

2 Background

This section describes the background for the EPA Study Area, including its location, physical descriptions of the surrounding area and the historical stormwater pathway, a summary of previous investigations and regulatory involvement, and a summary of existing environmental analytical data. This Montrose-revised FSP addresses only the ECI property.

2.1 EPA Study Area Location

The overall EPA Study Area is located in Torrance, California, and includes portions of eight properties located along the historical stormwater pathway southeast of the former Montrose plant property. The eight properties include ECI, a commercial property located at 20846 Normandie Avenue, and seven residential properties located directly east of the ECI property along Torrance Boulevard, Raymond Avenue, and 209th Street. This FSP addresses only the ECI property. The residential properties are the subject of a separate FSP being concurrently prepared by EPA.

2.2 Physical Description

This section provides a brief description of the regional geology and hydrogeology, the Historical Stormwater Pathway, the stormwater conveyance system (Project 685), and the ECI property.

2.2.1 Geology and Hydrogeology

The EPA Study Area is located within the West Coast Basin of the Torrance Plain. The Ballona Escarpment bounds the basin to the north, the Newport-Inglewood Structural Zone to the east, Palos Verdes Hills to the southwest, and the Pacific Ocean to the west. There are four additional major structural features within the Torrance Plain, in the vicinity of the Montrose Chemical Superfund Site and the EPA Study Area: the Charnock Fault, the Palos Verdes Fault, the Torrance Anticline, and the Gardena Syncline (EPA, 1998; California Department of Water Resources [CDWR], 1961).

The stratigraphy of the West Coast Basin includes Quaternary-age continental and marine deposits and Tertiary-age marine sediments overlying a basement complex of igneous and metamorphic rocks. The geologic units of hydrogeologic interest are (in order from oldest to youngest) the Pico Formation; the San Pedro Formation; the Lakewood Formation; and older dune sand, alluvium, and active dune sand (EPA, 1998; CDWR, 1961).

Hydrogeologic units in the West Coast Basin include aquitards and aquifers of varying compositions and water-yielding properties. These units, in order from first water encountered to deeper units, include the Bellflower Aquitard, the Gage Aquifer, an unnamed aquitard, the Lynwood Aquifer, another unnamed aquitard, and the Silverado

Aquifer. A detailed discussion of the regional geologic, hydrogeologic, and physiographic setting is presented in the 1998 Remedial Investigation (RI) Report for the Montrose Superfund Site (EPA, 1998).

There are three generalized, soil layers representing undisturbed sediments within the unsaturated zone in the area, described as follows:

- **Upper Layer – Playa Deposits:** This layer occurs from near the ground surface to approximately 25 feet below ground surface (bgs). Based on grain-size analyses of soil samples collected in this layer, silt and clay comprise more than 65 percent of these soils.
- **Middle Layer – Palos Verdes Sands:** This layer occurs from approximately 25 to 45 feet bgs and consists primarily of fine-grained sand. Based on grain-size analyses of soil samples collected in this layer, fine- and medium-grained sand comprise more than 70 percent of these soils.
- **Lower Layer – Upper Bellflower Aquitard:** This layer is found from approximately 45 to approximately 95 feet bgs and consists of multiple thin sand layers interbedded with layers of silt and clay. This layer becomes saturated at approximately 65 feet bgs. Grain-size analyses of soil samples collected in this layer ranged from more than 70 percent fine-grained sand to more than 60 percent silt. This soil layer varied from fine-grained sand to clay and silt with increasing depth.

The specific occurrence, depth, and thickness of these units in the vicinity of the ECI property have not been well defined. The surface and near-surface sediments in and adjacent to the historical stormwater pathway of the EPA Study Area are composed of unconsolidated sediments, reworked soil from grading operations, and undisturbed Playa Deposits. The first-encountered groundwater beneath the area is at approximately 65 feet bgs, in the Upper Bellflower Aquitard (EPA, 1998).

2.2.2 Historical Stormwater Pathway

From the Montrose property, the historical stormwater pathway existed as a series of unlined ditches and sloughs continuing ultimately to the swampy area where the Torrance Lateral was constructed. The historical stormwater pathway originating from the drainage ditch on the west side of Normandie Avenue, crossed Normandie Avenue and entered an “unimproved channel” that continued along 204th Street and the west side of Kenwood Avenue, to Torrance Boulevard (also known as the Kenwood Ditch). After crossing under Torrance Boulevard, into the current EPA Study Area, it became a slough or swale that extended eastward beyond the EPA Study Area as shown in **Figure 3**.

2.2.3 Project 685 Stormwater Conveyance System

During the late 1960s and early 1970s, the Los Angeles County Flood Control District (LACFCD) constructed a new underground stormwater conveyance system referred to as Project 685, or the Kenwood Avenue-Supplemental. Project 685, a concrete box culvert, replaced the historical stormwater drainage ditch from 204th Street, along Kenwood

Avenue and through the EPA Study Area, connecting to the newly constructed Torrance Lateral. The Los Angeles County Flood Control District (LACFCD) maintains an easement for Project 685 within the properties it traverses, including the ECI property (EPA, 2005b).

As-built construction drawings for the Project 685 segment through the EPA Study Area (Los Angeles County Department of Public Works [LACDPW], 1969) indicate a pre-construction ground elevation of approximately 16 feet mean sea level (msl). This is believed to be the lowest elevation of the historical stormwater pathway within the EPA Study Area. The Project 685 box drain (8 feet wide and 12.5 feet high) is shown on the as-built drawings as having an invert elevation (exterior bottom of the drain) at approximately 11 to 12 feet msl. Thus, installation of Project 685 required excavation of existing soil.

2.2.4 ECI property

Prior to 1992, Akzo Coatings (Akzo) owned the land now occupied by ECI. In 1992, ECI's owner purchased approximately 4.7 acres of land from Akzo. Several years later, an additional 2.7 acres of adjacent land was purchased from Akzo, and created ECI property's current size of approximately 7.5 acres.

During its ownership, Akzo had numerous underground storage tanks (USTs) containing petroleum-based solvents along the southern boundary of Lot 2 (EPA, 1993). A release of toluene from one of the tanks required soil and groundwater investigations and the installation of a soil vapor extraction (SVE) system. The SVE system was installed around the time of property transfer to ECI, and included grading the southern area of the property prior to the installation of the SVE system, and covering the western portion of Lot 2 with concrete following installation. Akzo operated the SVE system for several years after the property was sold to and occupied by ECI. On July 22, 1996, the California Regional Water Quality Control Board (RWQCB) issued a closure letter confirming the completion of the UST remedial action.

In 1998, ECI graded and paved Lot 1, the northern portion of the full property (ECI, 2005). Pre-grading construction drawings of Lot 1 indicate surface elevations ranging from approximately 40 feet msl along its western boundary, to approximately 36 feet msl along its eastern boundary, with a low of 31 feet msl in the northeast corner along the LACFCD drainage easement and a high of over 50 feet msl where there was a large mound of soil generated from prior grading of the southern lot (EPA, 1993).

Soil from the large mound and an earthen embankment along Torrance Boulevard were used to level the property (ECI, 2005). After grading, the surface of the ECI property transitioned smoothly from approximately 40 feet msl at its western edge to approximately 36 feet msl along its eastern edge. Residential properties immediately east of the ECI property have lower elevations of approximately 32 feet msl (EPA, 2005b).

2.2.5 Previous Stormwater Pathway Investigations

Recent investigations pertinent to the EPA Study Area are summarized below.

Regional DDT Background Concentrations

From 1999 to 2002, as part of its ongoing investigation of the Montrose Chemical Superfund Site, EPA conducted an investigation and evaluation of residential soils within approximately 4 miles of the Montrose property. One outcome of this work was the determination of regional total DDT background concentrations in residential surface soil. Background residential surface soil concentrations were determined to average between 1 ppm and 3 ppm total DDT, and ranged up to 10 ppm total DDT (EPA, 2001c).

Kenwood Stormwater Drainage Pathway

EPA's investigations of soil in residential areas surrounding the former Montrose Plant Property discovered some soils along the west side of Kenwood Avenue with total DDT concentrations above the residential background range. The historical stormwater pathway, which, as an open, unlined earthen ditch, had conveyed stormwater runoff through portions of residential properties along the west side of Kenwood Avenue, until the ditch was replaced with the Project 685 underground concrete box culvert.

In 2001 and 2002, EPA conducted a removal action (Kenwood Stormwater Drainage Pathway Removal Action) to remove DDT-contaminated soils along the historical stormwater pathway north of Torrance Boulevard, from Del Amo Alley to Torrance Boulevard (EPA, 2002). Removal of soil was recommended for properties having an average total DDT soil concentration exceeding 17 ppm (corresponding to a one-in-one-hundred-thousand [1×10^{-5}] cancer risk for a residential exposure scenario). Removal was ultimately conducted at 22 properties and in 2 alleys to remove soil with total DDT concentrations exceeding 10 ppm.

2.2.6 Previous Study Area Investigations

Soil sampling was performed at the ECI property in the spring of 2005 as part of due diligence activities to prepare the property for sale. Sampling results from the 2005 investigation are described below.

2.2.7 Regulatory Involvement

In early summer of 2005, EPA learned of the presence of DDT and the owner's excavation activities at the ECI property. This work was initiated without direction or oversight from EPA. EPA requested that the owner immediately stop excavation and implement best management practices for erosion control and protective measures to minimize water and wind erosion (i.e., fugitive dust) from the excavated soil piles. EPA requested ECI to provide all information related to its soil sampling activities (i.e., locations, laboratory data sheets, etc.). That information is summarized in Section 2.3.

In November of 2005, EPA authorized a Removal Action to address the excavated soil and open excavations (EPA, 2005b). On December 15, 2005, EPA issued a Unilateral Administrative Order (UAO, Docket No. 09-2006-02a) to ECI, its property owner, and Montrose Chemical Corporation of California. The UAO required the transport and

disposal of the excavated soil at the ECI property, and the backfilling and covering of the open excavations. The soil piles were transported to a permitted hazardous waste landfill in January 2006 by the respondents. Earth Tech provided air monitoring of fugitive dust potentially containing DDT during the loading of soil into trucks by ECI (Earth Tech, 2006b). Backfilling of the excavations remains to be completed under the UAO.

2.3 Summary of Existing Data

This section provides a summary of recent soil analytical data for the ECI property. Results and conclusions from those analyses served as the basis for determining additional data needs presented in this FSP.

2.3.1 Available Soil Quality Data

In June 2005, EPA learned that an environmental site assessment (ESA) and sampling had been performed at the ECI property in preparation for its sale and residential development (EPA, 2005b). Between February 7 and June 9, 2005, over 200 soil samples were collected and analyzed. The soil sampling and analyses activities included:

- Soil and soil gas sample collection and analysis for 15 locations across the ECI property (February 7 and 8, 2005).
- Soil sample collection using a 150- by 150-foot sampling grid, analyzed for pesticides, PCBs, total petroleum hydrocarbons (TPH)-gasoline (TPH-g), TPH-diesel (TPH-d), and TPH-oil (TPH-o), volatile organic compounds (VOCs), and metals. The locations of the soil borings are shown in **Figure 4**. Note that not all grid nodes were sampled for all analytes (March 23, 2005).
- Collection and analysis of an additional 24 soil borings to further delineate areas along the eastern portion of the ECI property where pesticides and PCBs had been detected (April 12, and 13, 2005).
- Excavation of soils with elevated chemical concentrations (March 17, 2005; May 17, 18, 26, and 27, 2005; and June 2, 3, 8, and 9, 2005) and collection of sidewall and floor samples.

Many of these soil samples were grab samples taken from within the walls of excavations along the eastern area of the ECI property. The final excavation footprints and excavation sample locations are shown in **Figure 5**. The depth of sample collection ranged from just below the ground surface to approximately 15 feet bgs.

Soil analytical results presented in **Tables 1 through 3**, identified elevated concentrations of several chemicals. Chemicals affecting soils at concentrations exceeding federal or state regulatory limits or the regional background include:

- Total DDT – Detected at a maximum reported concentration of 325 ppm total DDT. Samples containing elevated DDT concentrations were collected from the eastern area of the ECI property. Approximately 35 soil samples had total DDT

concentrations above the upper end of the regional residential background range of 10 ppm.

- Chlordane – Detected at a maximum reported concentration of 3.5 ppm from soil collected along the easternmost portion of the property.
- PCBs – Detected along the southeast corner of the ECI property at a maximum concentration of 23.1 ppm (sum of Aroclors 1254 and 1260).

Other chemical constituents detected in soil samples from the ECI property include:

- Benzene hexachloride (BHC), a pesticide manufactured at the former Montrose plant (maximum concentration of 0.019 ppm as beta-BHC),
- Dieldrin
- Heptachlor and heptachlor epoxide
- Endrin aldehyde and endrin ketone
- Toxaphene
- TPH-d and TPH-o (maximum concentration of 21,000 ppm)

2.3.2 Available Groundwater Quality Data

Groundwater quality data are available from investigations proximal to the EPA Study Area (i.e. Montrose); however, these data are not related to the investigation of the Historical Stormwater Pathway.

2.3.3 Available Surface Water and Sediment Quality Data

Recent surface water and sediment quality data are available for the *Current* Stormwater Pathway within the Project 685 stormwater drainage system, but are not germane to the investigation of impacted soils from the Historical Stormwater Pathway. EPA is separately conducting RI/FS activities for the Current Stormwater Pathway, as part of the Montrose Chemical Superfund Site.

3 Benchmarks for Characterization

Since issuing the RI Report in 1998, an assessment of appropriate soil benchmarks for investigation purposes at nearby residential communities has been conducted. A previous investigation of DDT background levels in residential soil had found DDT levels averaging between 1 and 3 mg/kg, and ranging up to approximately 10 mg/kg. This concentration range for DDT corresponds to an excess residential cancer risk of less than 6×10^{-6} (6 in one million) for individuals hypothetically exposed over a lifetime. This is at the low end of EPA's "risk range," which represents the concentrations at which exposure to the contaminant, even over a lifetime, would be insignificant. EPA selected 10 mg/kg DDT as a site-specific cleanup standard for DDT in soil for the 2001-2002 Kenwood Stormwater Drainage Pathway removal action.

EPA considers it reasonable, for the purposes of this FSP, to use 10 mg/kg as a benchmark for defining where DDT contamination has been sufficiently defined. Use of this value for this purpose does not represent a determination by EPA that 10 mg/kg has been or will be selected as a performance standard for the ECI property.

For chemicals other than DDT, this FSP will use the chemical-specific residential EPA Region IX Preliminary Remediation Goals (PRGs) dated October 2004 as benchmarks for sufficient characterization. PRGs are risk-based benchmarks corresponding to a one-in-a-million (1×10^{-6}) cancer risk for a hypothetical lifetime exposure, or a hazard index of unity for noncarcinogens, under standard exposure assumptions; they do not represent promulgated or selected cleanup goals (EPA, 2004c). For chlordane, the PRG is 1.6 parts per million (ppm) for residential exposure and 6.5 ppm for industrial exposure. PCBs have a PRG for high and low risk exposures. The PRG for the high risk exposure is 0.22 ppm for residential and 0.74 ppm for industrial (i.e., Aroclor 1254). The PRG for the low risk exposure for PCBs is 3.9 ppm for residential and 21 ppm for industrial (i.e., Aroclor 1016).

4 Rationale for Sample Locations and Number of Samples

This section provides the rationale for soil sample locations and the number of samples to be collected. This field sampling program was designed to characterize the nature and extent of pesticides and PCBs within the historical stormwater pathway at the ECI property.

Results from this investigation will be used to support remedial action alternatives, if necessary, and characterization for IDW disposal. The sampling locations presented in this section support the data needs and objectives identified in Section 1.2.1, and the data quality objectives (DQOs) presented in Appendix A of the companion QAPP (Earth Tech, 2006a). The locations of the proposed soil borings are shown in **Figure 6**.

4.1 Rationale for Sample Locations

A total of 38 soil borings are proposed to characterize the nature and extent of pesticides/PCBs within the historical stormwater pathway at the ECI property as shown in **Figure 6**. The rationale for the selection of these 38 boring locations is provided in this section.

The nature and extent of pesticides/PCBs within the historical stormwater pathway at the ECI property will be characterized using a series of transects intersecting the pathway as shown in **Figure 6**. There are nine east-west transects shown in this figure, intersecting the stormwater pathway in an approximate perpendicular manner. The transects are a series of borings drilled in a single row and designed to provide a high level of characterization at various intervals along the historical stormwater flowpath. Within each transect, borings will be spaced 30-feet apart and extend from the eastern ECI property line to or beyond the estimated western extent of the historical stormwater pathway. Because the estimated width of the historical stormwater pathway varies and because the pathway curves eastward, the number of borings in each transect varies from two to six borings. The transects are spaced 60-feet apart, providing a relatively high level of characterization along the historical stormwater pathway. The total number of borings to be drilled along transects at the ECI property is 31 borings as shown in **Figure 6**.

Three additional borings were identified by EPA at locations not associated with the transects as shown in **Figure 6**. These borings and their locations were identified by EPA with the intent to provide additional characterization of soils between the current stormwater pathway (concrete box drain) and the eastern property boundary. With the addition of these three area-specific borings, the total number of borings to be drilled at the ECI property (parking and equipment storage yard) is 34 borings.

Although the ECI property borders Torrance Boulevard to the north, the ECI property

surface is approximately 10 feet higher in elevation than the surface adjacent to the south side of Torrance Boulevard. A sloped embankment with a vegetative cover extends from the south side of Torrance Boulevard to the northern extent of the ECI property parking lot and equipment storage yard. A total of four borings are proposed along this slope for purposes of characterizing the nature and extent of pesticides/PCBs in this area as shown in **Figure 6**. With the addition of these four borings along the northern sloped embankment, the total number of borings to be drilled at the ECI property is 38 borings.

4.2 Rationale for Number of Samples

The 34 borings located within the main ECI property will be drilled to a depth of 24 feet bgs. This target depth was identified by EPA in order to ensure that all borings are drilled deep enough to sample the original unimproved slough estimated to occur at approximately 16 feet above mean sea level (AMSL). Because the highest portions of the investigation area occur at elevations between 39 and 40 feet AMSL, a target depth of 24 feet is required to sample the estimated original slough surface.

Soils will be continuously sampled during drilling of investigation borings, and 8 samples will be composited for analysis from each of the 34 borings located at the main ECI property as shown in **Table 4**. Composite soil samples will be collected across the following vertical intervals:

- 0-0.5 feet bgs
- 0.5-2 feet bgs
- 2-5 feet bgs
- 5-8 feet bgs
- 8-12 feet bgs
- 12-16 feet bgs
- 16-20 feet bgs
- 20-24 feet bgs

The continuous sampling, with collection of composite samples over specific intervals, is designed to provide a comprehensive characterization of subsurface soils. In this manner, the soil sampling results fully characterize soils between surface and 24 feet bgs. In shallow soils (i.e., 0 to 8 feet bgs), the sampling frequency occurs over shorter intervals, 0.5 to 3 feet, due to a higher potential for human exposure and for purposes of supporting human health risk assessment. In deep soils (i.e., 8 to 24 feet bgs), the sampling frequency occurs every 4 feet due to a reduced potential for human exposure. At a sampling frequency of 8 composite samples per boring, the total number of primary samples to be analyzed at the ECI property is 272 samples.

The 4 borings located along the sloped embankment at the northern ECI property boundary will be drilled to a depth of 16 feet bgs, if possible. The sloped embankment will limit use of drilling rigs for soil sampling, and therefore, the depths of borings in this area will be shallower than those within the main ECI property (drilling by hand may be necessary in this area). Additionally, borings located along the embankment will occur at

a shallower elevation, and therefore, it will not be necessary to drill to 24 feet bgs to characterize subsurface soils in this area. A target depth of 16 feet bgs was therefore selected for the 4 borings located along the sloped embankment, although achieving this depth will be dependent on many factors including the type of drilling equipment used and the presence of subsurface debris or rocks. Six samples will be composited for analysis from each northern slope boring across the following vertical intervals:

- 0-0.5 feet bgs
- 0.5-2 feet bgs
- 2-5 feet bgs
- 5-8 feet bgs
- 8-12 feet bgs
- 12-16 feet bgs

A total of 24 primary, composite soil samples will be analyzed from the borings within the northern sloped embankment. In all, a total of 296 composite soil samples will be collected for analysis from the ECI property and adjacent sloped embankment as shown in **Table 4**.

4.3 Sampling of IDW

IDW will consist of soil cuttings, personal protective equipment (PPE), decontamination water, asphalt/concrete cores and general trash.

Wastes will be disposed of at a State or Federally approved waste disposal facility. Wastes classified as hazardous waste will be disposed of offsite within 90 days of collection. Representative waste characterization samples will be collected for analysis and waste profiling as soon as practicable. Samples will be analyzed in accordance with the requirements of the disposal facility and in accordance with State and Federal regulations. After reviewing the results of the profiling, wastes will be classified in accordance with State and Federal regulations.

Soil cuttings will be stored in lined, closed top roll-off bins or Department of Transportation (DOT) 17H 55-gallon steel drums. Decontamination water will be stored separately in temporary aboveground storage tanks or DOT-rated 55-gallon steel drums. Each container will be marked clearly to indicate the waste type/source and generator information. Before disposal or shipment offsite, the containers will be labeled with appropriate DOT identification and classification information.

Used PPE and other disposable equipment used at locations where Level D site-safety protocols are required will be bagged and characterized as nonhazardous and disposed in industrial dumpsters. Heavily soiled PPE or PPE used at locations requiring a higher level of personal protection than Level D will be bagged and stored separately pending analytical results from the soil sampling. If the analytical results indicate that wastes generated at the Site were hazardous, the heavily soiled PPE will be characterized and

disposed as hazardous waste.

In addition, an estimated one equipment blank will be collected and analyzed for pesticides and PCBs per day of sampling. An estimated one (1) IDW soil samples and one (1) IDW water samples will be analyzed for VOCs, Title 22 metals, pesticides/PCBs, TPH-g, and TPH-d (**Tables 7 and 8**).

4.4 QA/QC Samples

Additional QA/QC samples will be collected during this investigation. Duplicate samples will be collected at the frequency of 10% of the primary samples collected. An equipment rinsate blank sample will be collected at the frequency of one per day of field sampling. The laboratory QA/QC samples (i.e. Matrix spike/matrix spike duplicate [MS/MSD]) will be collected at the frequency of one MS/MSD sample for every 20 field samples.

5 Request for Analyses

This section provides a description of the soil sampling analytical program including the analyses, types of laboratories being used, and the sample schedule. All soil samples will be analyzed for pesticides by EPA 8081A and for PCBs by EPA 8082A.

5.1 Request for Analyses

This section presents the requests for analyses (RFAs) for the samples that will be collected during field activities. **Table 6** summarizes the analyses, test methods, preservatives, and sample container requirements for soil samples that will be collected. This information is provided for the IDW soil and IDW water in **Tables 7** and **8**, respectively. The laboratory is expected to meet the specified detection limits for the compounds shown in **Table A-5** of the companion QAPP (Earth Tech, 2006a).

The following requests will be made of the laboratory:

- Soil sample analyses will be performed under standard EPA method protocols by a California-certified analytical laboratory.
- Samples submitted for DDT analysis will be analyzed for the 2,4' and 4,4' isomers of DDT, including 4,4'-DDE; 4,4'-DDD; 4,4'-DDT; 2,4'-DDE; 2,4'-DDD; and 2,4'-DDT. The laboratory will report both the individual isomer concentrations and the sum of the isomers (total DDT).
- Samples submitted for BHC analysis will be analyzed for alpha, beta, delta and gamma isomers of BHC, including alpha-BHC, beta-BHC, delta-BHC, and gamma-BHC (Lindane). The laboratory will report both the individual isomer concentrations and the sum of the isomers (total BHC).
- Special handling will be requested for the BHC analysis to address the BHC isomers (alpha-, beta-, delta, and gamma-BHC) as described above.
- The laboratory will homogenize soil samples prior to analysis for pesticides and PCBs. Because of the need to preserve sample integrity, this procedure will not be used for IDW soil VOC samples.
- For the sampling described in this FSP, a standard turnaround time will be requested from the laboratory.

5.2 Analytical Laboratory

Soil and IDW samples for the ECI investigation will be analyzed by Severn Trent Laboratories – Sacramento located in West Sacramento, California.

5.3 Sampling Schedule

The field sampling program at ECI is anticipated to begin in July 2006. The duration of the sampling is estimated to be approximately 2 weeks.

5.4 Laboratory Analyses

Analysis of soil samples collected by Earth Tech for pesticide analyses will be performed at an offsite laboratory. The laboratory must meet the analytical and QA/QC requirements specified in the QAPP, and pesticides/PCBs analyses will be conducted using SW 846 procedures (i.e., EPA Methods 8081A and 8082A). All method analytes (Target Analyte List), including the isomers of total DDT and BHC, will be analyzed and reported.

DDT results will be reported for both individual isomers (4,4'-DDE; 4,4'-DDD; 4,4'-DDT; 2,4'-DDE; 2,4'-DDD; and 2,4'-DDT) and total DDT. Analytical results for BHC will be reported for its alpha-BHC, beta-BHC, delta-BHC, and gamma-BHC isomers and total BHC (the sum of the concentrations of these isomers).

6 Field Methods and Procedures

This section provides the methods and procedures for the following field activities related to the collection, packing, and shipping of the samples including:

- Sample Locations
- Drilling and Sample Collection
- Investigation Derived Waste
- Sample Management Procedures and Documentation
- Sample Documentation
- Quality Control Samples

6.1 Sample Locations

Soil boring locations will be identified and marked in the field using the services of a California-licensed land surveyor. The final boring locations will be contingent on a site walk and clearance of underground utilities, debris, and other obstructions.

Boring locations will be cleared for underground utilities by notifying Underground Service Alert of Southern California. In addition, a geophysical utility clearance will be performed at the boring locations if there is a potential for buried pipelines, debris, or other subsurface obstructions. In locations where utilities may be present, the borings may be relocated and/or hand-augured to 5 feet prior to utilizing the direct-push rig.

Any borings that were not sampled at their surveyed locations will be re-surveyed again using the services of a California-licensed land surveyor. The surveyor will provide boring coordinates for each boring in North American Datum (NAD) 1983 coordinate system at the new location. Soil sampling locations and ground elevations (in feet above msl) will be surveyed to the nearest 0.05 foot. The surveyed control information for data collection points will be recorded and displayed in a table. The survey results table (**Table 5**) will give the easting (X) and northing (Y) coordinates in NAD 1983 coordinate system and the ground surface elevation in feet mean sea level.

6.2 Drilling and Sample Collection

6.2.1 General Drilling Requirements

General drilling requirements include:

- Clearing boring locations for underground utilities as described above in Section 6.1.
- High-pressure cleaning of downhole tools and equipment (using potable water) before advancing the boring. All decontamination rinsate will be containerized in 55-gallon drums. Potable water will be used, which will be provided by either the drilling subcontractor or provided from on-site potable sources. Soil sampling equipment will

be decontaminated as specified in Section 6.2.7.

- Proper handling and containerization of IDW wastes.
- Maintaining a record of field activities in a field notebook.
- Restoring the sampling area to its original condition.
- Soil samples will be collected using a direct-push drill rig or hand auger.

When using a direct-push drill rig to collect soil samples, if the drill point encounters refusal, due to a subsurface obstruction such as concrete debris or buried footings, additional drilling attempts will be made by “stepping out” the drill rig from the target location by only going along the transect. The additional attempts will be made at 5-foot intervals along the sampling transect. However, in order to maintain the sample grid integrity of the investigation approach, the maximum step-out distance will be limited to half the distance to the next target location (i.e., a maximum 15-foot step-out for the 30-foot sample grid).

Drilling will continue until either the boring is advanced and samples are collected, or refusal has been met three consecutive times. If the direct-push rig is unable to reach the specified sample depth, alternative drilling techniques may be required.

6.2.2 Boring Logs

Soils cores will be collected and logged by an experienced geologist or engineer under the direct supervision of a California Professional Geologist or Professional Civil Engineer. The log will include lithologic descriptions along with notations on drilling activities and conditions encountered during drilling. The soil core will be described (logged) using the Unified Soil Classification System (USCS) in accordance with American Society for Testing and Materials (ASTM) D 2488-84. The format and order for soil core descriptions will be as follows:

1. USCS soil name with appropriate modifiers
2. USCS soil group symbol
3. Color (using Munsell color chart book) at moist conditions, including mottling
4. Field moisture content (dry, moist, or wet)
5. Relative density or consistency
6. Percentage estimates of fines, sand, and gravel
7. Soil tests performed (if necessary)
8. Angularity, mineralogy, degree of weathering , or other descriptors (if necessary)

In addition, soil cores will be photographed if a notable field observation is made (i.e., soil staining, if present).

6.2.3 Direct-Push Sampling

A direct-push sampler will be used to collect soil cores and soil samples. The core barrel of the direct push sampler will contain an acetate sample sleeve in which to collect soil

cores. The core barrel of the sampler will be advanced short intervals between 0.5- to 4-foot intervals. At each interval, a soil core will be collected. The core barrel and drill rod extensions will be removed from the boring and decontaminated before the next sample is collected.

The acetate sleeve will be cut into sections using a hand saw in accordance with the sampling protocols in **Table 4**. Teflon squares will be placed over the ends of the acetate sleeve sections and capped with plastic caps.

Each sample will then be sealed for chain of custody (COC), placed in a resealable plastic bag, and immediately placed in a cooler with ice for shipment to a certified laboratory for analysis. The laboratory will be instructed to homogenize together all portions of the sample interval prior to selecting a representative, composite sub-sample for analysis.

6.2.4 Other Sampling Methods

Other sampling methods may be required when a sampling location is not accessible to a direct-push sampling rig. For example, a slide hammer or hand auger may be used to collect samples.

A slide hammer/hand auger is used to drive a single, 2-inch-diameter by 6-inch-long stainless steel sleeve into the soil matrix. The sampler is driven 6 inches into the bottom of the boring, or until refusal is encountered. The sampler then is retrieved, and sample recovery is estimated from the volume of soil in the stainless steel sleeve.

If the soil volume recovered appears sufficient, the sleeve ends will be sealed with Teflon tape and plastic caps, labeled, sealed with custody seals, placed in a resealable plastic bag, and immediately placed in a cooler with ice for shipment to a certified laboratory for analysis. The certified laboratory will be instructed to homogenize the soil sample prior to selecting a portion for analysis. However, if the volume of soil sample recovered is determined to be insufficient for chemical analysis, then collected soil cuttings from the depth interval of interest will be collected in a sample jar and used for analysis.

It is anticipated that a direct-push sampling rig will be suitable for the 34 borings on the ECI property. The use of a slide hammer/hand auger maybe necessary for the collection of soil samples in the 4 borings located in the northern slope area of the ECI property.

6.2.5 Boring Abandonment

After sample collection, each boring will be backfilled with neat cement grout or bentonite-cement grout. The grout mixture will be tremmied into the annular space of each boring from the bottom to the top in one continuous operation. In sample locations overlain by asphalt or concrete, the top of each boring will be capped to match the existing grade material (i.e., concrete for concrete surfaces and cold-patch asphalt for asphalt surfaces), at the preference of the property owner or his representative.

6.2.6 Field Screening

Soil samples will be field screened for VOCs using a flame ionization detector (FID) as

well as a photoionization detector (PID). Field instruments will be calibrated daily for field screening in accordance with the manufacturer's instructions (either hexane or isobutylene).

For field screening, a soil sample from each sample interval will be placed and sealed in a resealable plastic bag before being disaggregated. After the disaggregated soil sample is allowed to volatilize for approximately 5 to 10 minutes in the bag, the bag will be pierced with one of the instrument probes, and the concentration of organic vapors in the headspace of the plastic bag will be measured and recorded on the boring log.

6.2.7 Equipment Decontamination

Before and after drilling activities, drilling equipment, such as direct-push rods and slide hammer/hand augers will be decontaminated by high-pressure cleaning and allowed to air dry. Field sampling equipment such as the split-barrel samplers and stainless steel sleeves that directly or indirectly may contact samples will be decontaminated in a designated decontamination area. Field sampling equipment will be decontaminated before and after each use using the following procedures:

- Place equipment into a plastic tub or 5-gallon bucket
- Scrub and wash equipment with a solution of potable water and Alconox, or an equivalent laboratory-grade detergent (nonphosphate)
- Rinse with potable tap water
- **For IDW soils and water samples only**, rinse with trace-element-grade 0.1 N nitric acid solution; rinse off trace-element-grade 0.1 N nitric acid solution with laboratory-supplied Type II reagent-grade water
- Rinse with pesticide-grade methanol (pesticide-free) solvent
- Rinse with high-performance liquid chromatography (HPLC), organic-free reagent water
- Air-dry equipment on a clean surface of Teflon, stainless steel, or oil-free aluminum

Cleaned equipment will be stored in a clean area. Potentially contaminated equipment will be restricted to the decontamination area until it is cleaned. Rinse water and decontamination fluids will be transferred from cleaning containers to labeled 55-gallon drums, sealed, labeled, and placed in temporary storage prior to proper disposal.

An area will be set up adjacent to the decontamination area for PPE decontamination. Black plastic garbage bags will be used to dispose of used Tyvek® suits, gloves, and other PPE.

6.3 Health and Safety

A Health and Safety Plan (HASP) addendum to the Montrose HASP has been prepared

for field activities associated with the soil investigation of the eastern portion of the ECI property. The Montrose addendum of the HASP from the Supplemental Soil Investigation conducted in 2005 has a very similar scope in terms of health and safety. The HASP identifies the potential hazards that may be encountered during performance of the subsurface investigation. The HASP is consistent with current Federal and State Occupational Safety and Health Administration (OSHA) requirements for hazardous waste operations (29 Code of Federal Regulations [CFR] 1910.120 [e] and [f] and California Code of Regulations [CCR] Title 8, Section 5192). All field personnel will be required to read and sign the HASP prior to beginning work at the site. A brief meeting will be held at the start of each workday to remind field personnel of the potential hazards and other health and safety issues associated with the sampling program. A written record of the daily safety meeting will be kept, and a copy of the HASP will be maintained at the Site during field activities.

All drilling and soil sampling activities will be conducted in modified Level D PPE in accordance with the site-specific HASP. No significant dust generation or elevated VOC concentrations in the breathing zone are anticipated during drilling activities using the direct-push sampling method; however, water may be used to suppress dust generation during hand-auger drilling.

To minimize the potential for dermal contact with contaminated soil all field personnel involved with drilling and soil sampling are required to wear modified Level D PPE including, at a minimum, nitrile inner sampling gloves and a Tyvek® suit.

6.4 Investigation-Derived Waste

IDW will consist of soil cuttings, PPE, decontamination water, asphalt/concrete cores and general trash.

IDW will be disposed of at an appropriate state or federally approved waste disposal facility. Hazardous waste will be disposed of at a TSDF within 90 days of collection. Representative waste samples will be collected for chemical analysis and waste profiling as soon as practicable. Samples will be analyzed in accordance with the requirements of the disposal facility and state and federal regulations.

Waste materials such as soil cuttings, concrete/asphalt cores, and debris will be placed and stored in DOT 17H 55-gallon steel drums. Waste water from decontamination activities will also be placed and stored in DOT-approved 55-gallon steel drums. Each drum will be clearly marked to indicate the date of collection, its waste contents, and other generator information. Prior to offsite disposal, the drums will be labeled with appropriate DOT identification and classification information.

Used PPE and other disposable equipment used at locations where Level D site safety protocols are required will be bagged and characterized as nonhazardous and disposed in industrial dumpsters. Heavily soiled PPE or PPE used at locations requiring a higher level of personal protection than Level D will be bagged and stored separately pending analytical results from the soil sampling. If the analytical results indicate that wastes

generated at the Site were hazardous, the heavily soiled PPE will be characterized and disposed as hazardous waste.

6.5 Sample Management Procedures and Documentation

The following section discusses various sample management procedures that will be followed during the performance of field activities. Included in these subsections are procedures for sample packaging and transportation, sample labeling, and sample documentation. Additional guidelines are included in **Appendix A - EPA Region IX Instructions for Sample Shipping and Documentation**.

6.5.1 Sample Numbering and Labeling

The sample number will consist of the boring location number followed by a hyphen and the depth of the top of the sample interval in feet bgs. For example, a sample collected at 5 to 8 feet bgs in Boring P01 would have the sample number P01-5.

The following information will be written on each sample container label with a permanent marker:

- Sample number
- Type of analysis required
- Date and time of sample collection

6.5.2 Sample Packaging and Shipment

Custody seals will be placed over the lids of each sample container. Custody seals on volatile organic analysis (VOA) vials (equipment blanks, field blanks, and trip blanks) will be placed around the lid to prevent covering the septum. Sealed sample sleeves will be placed in individual re-sealable bags labeled with the sample number.

Previous labels on the cooler to be used for shipment will be removed and drain plugs will be taped closed. Samples will be packed inside the cooler with inert cushioning to prevent sample disturbance. Ice cubes, double-bagged in re-sealable bags, will be added to the cooler and placed on top of and between the samples. A COC form shall be completed, sealed in a plastic bag, and taped to the inside of the cooler lid. The cooler will be taped shut with strapping tape, and two custody seals will be taped across the cooler lid, one in the front and one in the back. The samples then will be shipped or hand delivered to the subcontracted analytical laboratory. Samples will be shipped overnight by a commercial courier service if needed.

Samples will be packaged properly for shipment and dispatched to the appropriate laboratory for analysis with a separate COC record accompanying each shipping container. The samples then will be shipped or hand-delivered to the analytical laboratory. If needed, samples will be shipped overnight by a commercial courier service. Sample shipments that would be received on a Saturday must be cleared with the

laboratory in advance to make sure that the samples can be received and that holding times will not be exceeded and preservation compromised.

6.6 Sample Documentation

Throughout the project, sample documentation records will be maintained for a variety of activities and QC requirements including daily records, weekly records, photographs, completion reports, and COC forms. This section describes the various methods that will be used by the project team to document the results of the soil sampling effort.

6.6.1 Daily Records

Bound and numbered field logbooks will be used to record sampling information. Information in the logbooks will include the following information:

- Name and title of the recorder
- Date and time of entry record
- Weather conditions
- Names of Field Personnel involved; with the field activities
- Photographic log, if appropriate
- Description of sampling location
- Sample description (i.e., soil sample, its location, date and time of collection, the chemicals or parameters to be analyzed or tested, and its sample identification number)
- Locations of duplicate and QC samples
- Names of visitors, their associations, and purpose of visit

Any deviations from the FSP daily field records will be completed, signed, and dated by the recorder. All records will be written using waterproof ink. Any corrections will be made by crossing out the error with a single horizontal line, initialing the correction, and entering the correct information. Crossed-out information shall be readable.

6.6.2 Photographs

Photographs will be taken to document the sampling effort and work conditions. Photographs of locations near a given sampling area may be taken in order to orient the viewer to its location. The photographs may also be used to provide backup documentation of procedures and/or unusual subsurface conditions encountered. The frame number (and roll number where applicable) corresponding to the sample location will be recorded in the field logbook. The camera used will be equipped with a device to record the date and time on the photograph. Photographs will be taken to document pre-

and post-work conditions.

6.6.3 Completion Report

The completion report will document the significant events of the sampling effort and will include, by reference, any other relevant reports and inspections.

6.6.4 Chain-of-Custody Forms

COC procedures will be used to maintain and document environmental sample collection and transfer.

6.7 Quality Control Samples

A field QC program, conforming to procedures outlined in the QAPP, will be implemented to help maintain the required level of confidence in the field data and to provide cross-checks on the laboratory performing the analyses. QC samples, such as trip blanks, duplicates, and matrix spikes will be collected routinely. QC samples will be collected for each analyte. Field QC sampling will follow EPA protocols and include the collection of the following:

- Duplicate samples for pesticides/PCBs
- Equipment rinsate samples using Type II reagent water
- MS/MSD samples

QC samples are described in detail in the following sections.

6.7.1 Duplicate Samples

A field duplicate sample is a second sample collected at the same location as the target sample. Duplicate samples are collected simultaneously or in immediate succession, using identical recovery techniques, and treated in an identical manner during storage, transportation, and analysis. The sample containers are assigned identification numbers in the field such that they cannot be identified (blind duplicate) as duplicate samples by laboratory personnel performing the analysis. Specific locations are designated for collection of field duplicate samples prior to the beginning of sample collection.

Duplicate samples will be collected to assess the reproducibility of field sampling methods and the repeatability of laboratory analysis. Duplicate samples will be collected at an approximate frequency of 10 percent for all parameters analyzed for the original sample.

For duplicate pesticide/PCB soil samples, soil will be mixed in a stainless steel bowl or disposable cardboard bucket in the field. The homogenized soil will be divided into two equal portions and each portion will be placed in a separate glass jar. One portion will be used as the target sample and the other portion will be used as the duplicate sample. If insufficient sample volume exists, additional sample will be collected in a successive push or hand-augered sample and added before mixing.

6.7.2 Equipment Rinsate Samples

Daily equipment rinsate samples will be collected on the sampling equipment used in soil sampling to assess the effectiveness of equipment decontamination procedures and to evaluate the potential for cross-contamination between sample locations. Equipment rinsate blank samples will be collected using Type II reagent-grade water. A daily sample will be collected from the last batch of equipment decontamination rinsate. The sample will be analyzed for all laboratory analyses requested for the soil samples collected at that location.

6.7.3 Laboratory Quality Control Samples

Laboratory QC samples (i.e., MS/MSDs) will be collected in accordance with SW 846 sampling protocols. One MS/MSD sample will be designated for every 20 field samples. A triple volume of soil will be needed when MS/MSD samples are required. The first soil volume is for the target sample; the soil second volume for the MS analysis; and the third volume for the MSD duplicate analysis.

Collection of MS/MSDs must be coordinated with the laboratory. The sample will be identified and denoted as an MS or MSD on the sample container and the COC record.

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TABLES

Table 1. Summary of Detected Pesticides/PCBs and TPH in Soil Samples
 ECI Property, 20846 Normandie Avenue, Torrance, CA

SOIL INVESTIGATION FOR HISTORICAL STORMWATER PATHWAY - SOUTH
 MONTROSE CHEMICAL SUPERFUND SITE, LOS ANGELES COUNTY, CALIFORNIA

Boring ID	Sample Number	Sample Date	Depth (feet)	Total DDT	4,4'-DDD	4,4'-DDE	4,4'-DDT	Chlordane	cis-Chlordane	gamma-Chlordane	Dieldrin	Alpha-BHC	Beta-BHC	Delta-BHC	Gamma-BHC	Aroclor 1254	Aroclor 1260	TPH-Gas	TPH-Diesel	TPH-Oil
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EX-SB05-SSM-05	EX-SB05-SSM-05	05/26/05	5	9.5	1.1	0.63	7.8	1 U	0.01 U	0.01 U	0.01 U	0.1 U	0.1 U	0.1 U	0.1 U	0.005 U	0.029			
EX-SB05-SSQ-05	EX-SB05-SSQ-05	05/26/05	5	0.9	0.43	0.11	0.31	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U		
EX-SB05-SSU-05	EX-SB05-SSU-05	06/02/05	5	0.8	0.25	0.15	0.36	0.1 U	0.01 U	0.01 U	0.01 U	0.02 U	0.02 U	0.02 U	0.02 U	0.051	0.017			
EX-SB05-SW-05	EX-SB05-SW-05	03/17/05	5	3.3	1.3	0.34	1.7	0.025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.005 U	0.038	1 U	170	480
EX-SB05-SW-10	EX-SB05-SW-10	03/17/05	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1 U	97	230
EX-SB05-SWEE-05	EX-SB05-SWEE-05	06/03/05	5	53.9	6.1	1.8	46	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.005 U	0.005 U			
EX-SB05-SWFF-05	EX-SB05-SWFF-05	06/08/05	5	0.5	0.2	0.13	0.15	0.025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.037	0.018		
EX-SB05-SWH-05	EX-SB05-SWH-05	05/18/05	5	1.7	0.56	0.26	0.91	0.005 U	0.0005 U	0.0005 U	0.002J	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.038	0.02			
EX-SB05-SWP-05	EX-SB05-SWP-05	05/26/05	5	1.4	0.86	0.11	0.43	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U			
EX-SB05-SWT-05	EX-SB05-SWT-05	06/02/05	5	4.0	0.26	0.49	3.2	0.5 U	0.05 U	0.05 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.005 U	0.026			
EX-SB09-BE-035	EX-SB09-BE-035	03/17/05	3.5	10.8	0.82	0.73	9.2	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U			
EX-SB09-BTE-05	EX-SB09-BTE-05	05/18/05	5	0.3	0.077	0.047	0.14	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U			
EX-SB09-BTF-05	EX-SB09-BTF-05	05/18/05	5	2.4	0.45	0.34	1.6	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.01 J			
EX-SB09-BTI-05	EX-SB09-BTI-05	05/26/05	5	0.0	0.0026	0.0025	0.011	0.0091	0.001 J	0.0016	0.002 J	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U			
EX-SB09-BTO-05	EX-SB09-BTO-05	06/02/05	5	0.1	0.099	0.006	0.015	0.016	0.0028	0.003	0.0033	0.001 U	0.001 U	0.001 U	0.001 U	0.005 U	0.007 J			
EX-SB09-BTT-06	EX-SB09-BTT-06	06/09/05	6	3.1	1	0.19	1.9	0.05 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U			
EX-SB09-BW-035	EX-SB09-BW-035	03/17/05	3.5	0.9	0.07	0.04	0.74	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U			
EX-SB09-SE-02	EX-SB09-SE-02	03/17/05	2	2.3	0.39	0.61	1.3	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.076	0.034			
EX-SB09-SEC-03	EX-SB09-SEC-03	05/18/05	3	2.4	0.5	0.73	1.2	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.081	0.046			
EX-SB09-SED-03	EX-SB09-SED-03	05/18/05	3	18.1	2.6	2.5	13	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.073	0.042			
EX-SB09-SEG-03	EX-SB09-SEG-03	05/26/05	3	6.9	1	0.63	5.3	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.005 U	0.005 U			
EX-SB09-SEH-03	EX-SB09-SEH-03	05/26/05	2	12.3	1.9	1.3	9.1	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.005 U	0.055			
EX-SB09-SEL-03	EX-SB09-SEL-03	06/02/05	3	2.4	0.94	0.75	0.69	0.5 U	0.05 U	0.05 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.045	0.024			
EX-SB09-SEP-03	EX-SB09-SEP-03	06/03/05	3	5.7	2.4	2.3	1	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.095	0.054			
EX-SB09-SER-03	EX-SB09-SER-03	06/09/05	3	2.7	0.64	0.28	1.8	0.005 U	0.0027	0.0005 U	0.0024	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.02	0.022			
EX-SB09-SN-02	EX-SB09-SN-02	03/17/05	2	5.9	0.91	1.2	3.8	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.08	0.042			
EX-SB09-SNA-03	EX-SB09-SNA-03	05/18/05	3	0.7	0.075	0.22	0.43	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.008 J			
EX-SB09-SNB-03	EX-SB09-SNB-03	05/18/05	3	2.9	0.66	0.73	1.5	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.019			
EX-SB09-SNJ-03	EX-SB09-SNJ-03	05/26/05	3	8.2	1.4	1.1	5.7	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.075	0.026			
EX-SB09-SNQ-03	EX-SB09-SNQ-03	06/09/05	3	1.4	0.66	0.44	0.31	0.05 U	0.006 J	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.042	0.025			
EX-SB09-SS-02	EX-SB09-SS-02	03/17/05	2	0.2	0.055	0.065	0.067	0.096	0.009	0.018	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U			
EX-SB09-SSK-03	EX-SB09-SSK-03	05/26/05	3	8.4	1.8	0.78	5.8	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.005 U	0.005 U			
EX-SB09-SSM-03	EX-SB09-SSM-03	06/02/05	3	2.3	0.63	0.27	1.4	0.5 U	0.05 U	0.05 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.027	0.017			
EX-SB09-SSS-03	EX-SB09-SSS-03	06/09/05	3	2.0	0.65	0.32	1	0.05 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.031	0.023			
EX-SB09-SW-02	EX-SB09-SW-02	03/17/05	2	0.0	0.001 J	0.0006 J	0.0027	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U			
EX-SB09-SWN-03	EX-SB09-SWN-03	06/02/05	3	1.2	0.62	0.2 J	0.37	0.5 U	0.05 U	0.05 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.023	0.019			
EX-SB20-BE-09	EX-SB20-BE-09	05/17/05	9	4.2	2.7	0.8	0.68	0.025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.005 U	0.005 U			
EX-SB20-BTCC-11	EX-SB20-BTCC-11	06/08/05	11	17.9	12	1.5	4.4	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.001 J	0.018	0.0041	0.0005 U	0.005 U	0.005 U			
EX-SB20-BTCC-12	EX-SB20-BTCC-12	06/09/05	12	21.4	8.5	3.2	9.7	0.025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.019	0.0025 U	0.0062	0.005 U	0.005 U			
EX-SB20-BTGG-11	EX-SB20-BTGG-11	06/09/05	11	21.8	16	1	4.8	0.025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.085	0.056			
EX-SB20-BTI-11	EX-SB20-BTI-11	05/26/05	11	2.4	1.3	0.65	0.4	0.25 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.005 U	0.005 U			
EX-SB20-BTJ-11	EX-SB20-BTJ-11	05/26/05	11	4.8	2.6	1	1.2	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.005 U	0.005 U			
EX-SB20-BTU-11	EX-SB20-BTU-11	06/03/05	11	0.1	0.067	0.015	0.057	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.007 J			
EX-SB20-SE-01	EX-SB20-SE-01	05/18/05	1	-	-	-	-	-	-	-	-	-	-	-	-	0.033	0.025			
EX-SB20-SE-03	EX-SB20-SE-03	05/17/05	3	7.2	0.53	2.1	4.6	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U			
EX-SB20-SE-07	EX-SB20-SE-07	05/17/05	7	32.4	4.1	4.3	24	0.005 U	0.0005 U	0.0005 U	0.015	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U			
EX-SB20-SEAA-03	EX-SB20-SEAA-03	06/09/05	3	4.5	0.98	0.88	2.6	0.025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	6.1	1.8			
EX-SB20-SEB-07	EX-SB20-SEB-07	05/26/05	7	0.0	0.0021	0.0079	0.028	0.061	0.015	0.017	0.0032	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U			
EX-SB20-SEQ-03	EX-SB20-SEQ-03	06/02/05	3	0.1	0.015	0.028	0.058	0.12	0.029	0.028	0.004	0.001 U	0.001 U	0.001 U	0.001 U	0.005 U	0.005 U			
EX-SB20-SES-07	EX-SB20-SES-07	06/03/05	7	1.3	0.2 J	0.26	0.88	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.005 U	0.007 J			
EX-SB20-SN-01	EX-SB20-SN-01	05/18/05	1	-	-	-	-	-	-	-	-	-	-	-	-	0.005 U	0.025			
EX-SB20-SN-03	EX-SB20-SN-03	05/17/05	3	1.4	0.11	0.15	1.1	0.1 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.005 U	0.005 U			
EX-SB20-SN-07	EX-SB20-SN-07	05/17/05	7	3.4	0.26	0.099	3	0.35	0.031	0.05	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U			
EX-SB20-SNA-07	EX-SB20-SNA-07	05/26/05	7	24.7	1.3	2.4	21	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U			
EX-SB20-SNBB-07	EX-SB20-SNBB-07	06/08/05	7	0.0	0.001 J	0.0058	0.013	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U			
EX-SB20-SNDD-03	EX-SB20-SNDD-03	06/09/05	3	0.4	0.1	0.087	0.17	0.025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.017	0.005 U			

Table 1. Summary of Detected Pesticides/PCBs and TPH in Soil Samples
 ECI Property, 20846 Normandie Avenue, Torrance, CA

SOIL INVESTIGATION FOR HISTORICAL STORMWATER PATHWAY - SOUTH
 MONTROSE CHEMICAL SUPERFUND SITE, LOS ANGELES COUNTY, CALIFORNIA

Boring ID	Sample Number	Sample Date	Depth (feet)	Total DDT	4,4'-DDD	4,4'-DDE	4,4'-DDT	Chlordane	cis-Chlordane	gamma-Chlordane	Dieldrin	Alpha-BHC	Beta-BHC	Delta-BHC	Gamma-BHC	Aroclor 1254	Aroclor 1260	TPH-Gas	TPH-Diesel	TPH-Oil
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EX-SB20-SNR-03	EX-SB20-SNR-03	06/02/05	3	7.1	1.1	1.2	4.8	0.5 U	0.05 U	0.05 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.005 U	0.021			
EX-SB20-SNR-07	EX-SB20-SNR-07	06/03/05	7	1.1	0.2 J	0.23	0.65	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.044	0.02			
EX-SB20-SS-01	EX-SB20-SS-01	05/18/05	1	-	--	--	--	--	--	--	--	--	--	--	--	0.025	0.032			
EX-SB20-SS-03	EX-SB20-SS-03	05/17/05	3	21.3	3.4	1.9	16	0.005 U	0.0005 U	0.0005 U	0.0096	0.0005 U	0.0025	0.0005 U	0.0005 U	0.005 U	0.005 U			
EX-SB20-SS-07	EX-SB20-SS-07	05/17/05	7	23.7	8.4	2.3	13	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005	0.0005 U	0.0005 U	0.005 U	0.005 U			
EX-SB20-SSC-03	EX-SB20-SSC-03	05/26/05	3	11.7	1.1	3.3	7.3	1.2 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.005 U	0.005 U			
EX-SB20-SSD-07	EX-SB20-SSD-07	05/26/05	7	2.6	0.21	0.2	2.2	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U			
EX-SB20-SSE-03	EX-SB20-SSE-03	05/26/05	3	0.8	0.2	0.12	0.49	0.12 U	0.012 U	0.012 U	0.012 U	0.012 U	0.012 U	0.012 U	0.012 U	0.043	0.023			
EX-SB20-SSF-07	EX-SB20-SSF-07	05/25/05	7	1.5	0.39	0.16	0.95	0.25 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025	0.005 U			
EX-SB20-SSFF-03	EX-SB20-SSFF-03	06/09/05	3	1.0	0.53	0.14	0.34	0.05 U	0.005 J	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.055	0.035			
EX-SB20-SSM-03	EX-SB20-SSM-03	06/02/05	3	0.1	0.02	0.012	0.057	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.001 U	0.001 U	0.001 U	0.001 U	0.005 U	0.009 J			
EX-SB20-SSO-03	EX-SB20-SSO-03	06/02/05	3	12.9	1.2	1.9	9.8	0.5 U	0.05 U	0.05 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.005 U	0.005 U			
EX-SB20-SW-01	EX-SB20-SW-01	05/18/05	1	-	--	--	--	--	--	--	--	--	--	--	--	0.005 U	0.028			
EX-SB20-SW-03	EX-SB20-SW-03	05/17/05	3	7.0	0.87	1.4	4.7	0.005 U	0.0005 U	0.0005 U	0.0009J	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U			
EX-SB20-SW-07	EX-SB20-SW-07	05/17/05	7	0.3	0.096	0.044	0.13	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U			
EX-SB20-SWAA-07	EX-SB20-SWAA-07	06/08/05	7	27.7	2.8	0.88	24	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0069	0.0005 U	0.0005 U	0.005 U	0.005 U			
EX-SB20-SWBB-03	EX-SB20-SWBB-03	06/09/05	3	12.3	4	1.8	6.5	0.025 U	0.0025 U	0.0025 U	0.006 J	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.005 U	0.005 U			
EX-SB20-SWEE-03	EX-SB20-SWEE-03	06/09/05	3	1.7	0.31	0.32	1.1	0.096	0.011	0.021	0.008 J	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.005 U	0.005 U			
EX-SB20-SWG-03	EX-SB20-SWG-03	05/26/05	3	36.6	6.2	2.4	28 E	2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.005 U	0.005 U			
EX-SB20-SWH-07	EX-SB20-SWH-07	05/26/05	7	0.4	0.11	0.021	0.25	0.025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.005 U	0.01 J			
EX-SB20-SWL-03	EX-SB20-SWL-03	06/02/05	3	6.4	0.92	1.4	4.1	0.5 U	0.05 U	0.05 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.005 U	0.024 U			
EX-SB20-SWN-03	EX-SB20-SWN-03	06/02/05	3	10.4	0.96	1.7	7.7	0.5 U	0.05 U	0.05 U	0.05 U	0.1 U	0.1 U	0.1 U	0.1 U	0.005 U	0.005 U			
EX-SB20-SWP-07	EX-SB20-SWP-07	06/03/05	7	10.6	2.4	1.3	6.9	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.005 U	0.026			
EX-SB20-SWT-03	EX-SB20-SWT-03	06/02/05	3	7.1	1.1	1.2	4.8													
EX-SB32-BT-12	EX-SB32-BT-12	05/18/05	12	0.5	0.041	0.072	0.37	0.05 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.026			
EX-SB32-BTC-10	EX-SB32-BTC-10	06/02/05	10	7.1	0.24	0.49	6.4	0.11	0.022	0.028	0.014	0.001 U	0.001 U	0.001 U	0.001 U	0.045	0.079			
EX-SB32-BTH-12	EX-SB32-BTH-12	06/09/05	12	10.3	0.51	0.84	8.9	0.025 U	0.0025 U	0.0025 U	0.004 J	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.087	0.038			
EX-SB32-NA-09	EX-SB32-NA-09	06/02/05	9	3.6	0.2	0.87	2.5	0.2	0.04	0.044	0.0025 U	0.005 U	0.005 U	0.005 U	0.005 U	0.031	0.054			
EX-SB32-SE-09	EX-SB32-SE-09	05/18/05	9	4.8	0.46	1.8	2.5	3.5	0.49	0.46	0.08J	0.025 U	0.025 U	0.025 U	0.025 U	0.005 U	0.005 U			
EX-SB32-SEB-09	EX-SB32-SEB-09	06/02/05	9	3.2	0.17	2.5	0.57	0.43	0.053	0.048	0.18	0.005 U	0.005 U	0.005 U	0.005 U	0.052	0.005 U			
EX-SB32-SEF-09	EX-SB32-SEF-09	06/09/05	9	0.8	0.036	0.31	0.5	0.2	0.038	0.043	0.024	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.068	0.046			
EX-SB32-SN-09	EX-SB32-SN-09	05/18/05	9	0.8	0.087	0.47	0.26	0.17	0.02	0.021	0.02 J	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.062			
EX-SB32-SNE-09	EX-SB32-SNE-09	06/09/05	9	1.1	0.062	0.69	0.33	0.2	0.036	0.037	0.1	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.029	0.06			
EX-SB32-SS-09	EX-SB32-SS-09	05/18/05	9	0.1	0.01	0.1	0.037	0.03 J	0.003 J	0.0086	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.005 U	0.018			
EX-SB32-SSD-09	EX-SB32-SSD-09	06/02/05	9	0.6	0.01 J	0.42	0.13	0.05 U	0.005 U	0.005 U	0.065	0.01 U	0.01 U	0.01 U	0.01 U	0.005 U	0.018			
EX-SB32-SSG-09	EX-SB32-SSG-09	06/09/05	9	0.6	0.023	0.52	0.078	0.011	0.0025	0.0024	0.026	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.021			
EX-SB32-SW-09	EX-SB32-SW-09	05/18/05	9	0.2	0.025	0.13	0.046	0.025 U	0.0025 U	0.0025 U	0.004 J	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.005 U	0.009 J			
EX-SB35-BTI-09	EX-SB35-BTI-09	05/17/05	9	1.7	0.15	0.21	1.3	0.1 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.005 U	0.005 U			
EX-SB35-BTM-09	EX-SB35-BTM-09	05/26/05	9	2.9	1.8	0.37	0.72	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U			
EX-SB35-BTO-09	EX-SB35-BTO-09	06/03/05	9	7.5	1.8	1.5	4.2	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.11	0.067			
EX-SB35-BTV-12	EX-SB35-BTV-12	06/09/05	12	11.4	8.9	0.58	1.9	0.025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.059	0.096			
EX-SB35-SEG-03	EX-SB35-SEG-03	05/17/05	3	0.7	0.034	0.11	0.52	0.043	0.0099	0.01	0.0029	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U			
EX-SB35-SEH-07	EX-SB35-SEH-07	05/17/05	7	0.6	0.032	0.093	0.5	0.025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.005 U	0.005 U			
EX-SB35-SEL-07	EX-SB35-SEL-07	05/26/05	7	4.0	0.2	0.5	3.3	0.005 U	0.0005 U	0.0005 U	0.02	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U			
EX-SB35-SEQ-07	EX-SB35-SEQ-07	06/03/05	7	0.4	0.17	0.044	0.16	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.01 J	0.01 J			
EX-SB35-SNE-03	EX-SB35-SNE-03	05/17/05	3	2.3	0.19	0.56	1.5	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U			
EX-SB35-SNF-07	EX-SB35-SNF-07	05/17/05	7	0.7	0.033	0.095	0.62	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U			
EX-SB35-SNN-07	EX-SB35-SNN-07	06/03/05	7	4.1	1.6	0.16	2.3	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.034	0.024			
EX-SB35-SNS-07	EX-SB35-SNS-07	06/09/05	7	0.2	0.13	0.014	0.066	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.007 J			
EX-SB35-SSC-03	EX-SB35-SSC-03	05/17/05	3	2.5	0.19	0.44	1.9	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U			
EX-SB35-SSD-07	EX-SB35-SSD-07	05/17/05	7	9.2	0.83	0.79	7.6	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U			
EX-SB35-SSK-07	EX-SB35-SSK-07	05/26/05	7	7.8	0.57	0.9	6.3	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U			
EX-SB35-SSP-07	EX-SB35-SSP-07	06/03/05	7	2.5	1.4	0.17	0.92	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.02	0.02 J			
EX-SB35-SSU-07	EX-SB35-SSU-07	06/09/05	7	2.0	1.2	0.32	0.47	0.025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.005 U	0.022			
EX-SB35-SWA-03	EX-SB35-SWA-03	05/17/05	3	7.8	0.63	1.2	6	0.025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.005 U	0.005 U			
EX-SB35-SWB-07	EX-SB35-SWB-07	05/17/05	7	5.6	1	1.2	3.4	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U			

Table 1. Summary of Detected Pesticides/PCBs and TPH in Soil Samples
 ECI Property, 20846 Normandie Avenue, Torrance, CA

SOIL INVESTIGATION FOR HISTORICAL STORMWATER PATHWAY - SOUTH
 MONTROSE CHEMICAL SUPERFUND SITE, LOS ANGELES COUNTY, CALIFORNIA

Boring ID	Sample Number	Sample Date	Depth (feet)	Total DDT	4,4'-DDD	4,4'-DDE	4,4'-DDT	Chlordane	cis-Chlordane	gamma-Chlordane	Dieldrin	Alpha-BHC	Beta-BHC	Delta-BHC	Gamma-BHC	Aroclor 1254	Aroclor 1260	TPH-Gas	TPH-Diesel	TPH-Oil
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
EX-SB35-SWJ-07	EX-SB35-SWJ-07	05/26/05	7	5.6	0.73	1	3.9	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.081	0.039			
EX-SB35-SWR-07	EX-SB35-SWR-07	06/03/05	7	9.2	1	1.7	6.5	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.16	0.092			
EX-SB35-SWT-07	EX-SB35-SWT-07	06/09/05	7	0.9	0.28	0.11	0.48	0.05 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U			
SB-01	SB-01-020805-05	02/08/05	4-5	-	--	--	--	--	--	--	--	--	--	--	--	--	--	0.37 U	300	1000
SB-01	SB-01-020805-10	02/08/05	9-10	-	--	--	--	--	--	--	--	--	--	--	--	--	--	0.37 U	5 J	7 J
SB-02	SB-02-020805-05	02/08/05	4-5	-	--	--	--	--	--	--	--	--	--	--	--	--	--	0.37 U	6 J	4 J
SB-02	SB-02-020805-10	02/08/05	9-10	-	--	--	--	--	--	--	--	--	--	--	--	--	--	0.37 U	10 J	4 J
SB-03	SB-03-020805-01	02/08/05	0-1	0.0	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	2.4	0.31	--	--	--
SB-03	SB-03-020805-03	02/08/05	2-3	0.0	0.002 J	0.0005 U	0.001 J	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U	--	--	--
SB-03	SB-03-020805-05	02/08/05	4-5	0.0	0.0022	0.0007 J	0.0028	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	0.37 U	300	980
SB-03	SB-03-020805-10	02/08/05	9-10	-	--	--	--	--	--	--	--	--	--	--	--	--	--	0.37 U	9 J	6 J
SB-03	SB03A-041205-01	04/12/05	0-1	0.1	0.004	0.019	0.044	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.021	0.01 J	--	--	--
SB-03	SB03A-041205-03	04/12/05	2-3	0.1	0.021	0.022	0.055	0.05 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.022	0.01 J	--	--	--
SB-03	SB03B-041205-01	04/12/05	0-1	0.1	0.02 U	0.02 U	0.02 U	0.2 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.01 U	0.01 U	--	--	--
SB-03	SB03B-041205-03	04/12/05	2-3	0.0	0.0005 U	0.0005 U	0.002 J	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U	--	--	--
SB-04	SB-04-020805-05	02/08/05	4-5	-	--	--	--	--	--	--	--	--	--	--	--	--	--	0.37 U	170	380
SB-04	SB-04-020805-10	02/08/05	9-10	-	--	--	--	--	--	--	--	--	--	--	--	--	--	0.37 U	64	150
SB-05	DUP-02-020805	02/08/05	4-5	-	--	--	--	--	--	--	--	--	--	--	--	--	--	0.37 U	970	3600
SB-05	SB-05-020805-05	02/08/05	4-5	-	--	--	--	--	--	--	--	--	--	--	--	--	--	0.37 U	11	17
SB-05	SB-05-020805-10	02/08/05	9-10	-	--	--	--	--	--	--	--	--	--	--	--	--	--	0.37 U	7900	21000
SB-05	SB-05-020805-15	02/08/05	14-15	-	--	--	--	--	--	--	--	--	--	--	--	--	--	0.37 U	31	79
SB-06	SB-06-020805-05	02/08/05	4-5	-	--	--	--	--	--	--	--	--	--	--	--	--	--	0.37 U	5 J	6 J
SB-06	SB-06-020805-10	02/08/05	9-10	-	--	--	--	--	--	--	--	--	--	--	--	--	--	0.37 U	8 J	4 J
SB-07	SB-07-020805-05	02/08/05	4-5	-	--	--	--	--	--	--	--	--	--	--	--	--	--	0.37 U	9 J	7 J
SB-07	SB-07-020805-10	02/08/05	9-10	-	--	--	--	--	--	--	--	--	--	--	--	--	--	0.37 U	9 J	5 J
SB-08	SB-08-020805-05	02/08/05	4-5	-	--	--	--	--	--	--	--	--	--	--	--	--	--	0.37 U	11	16
SB-08	SB-08-020805-10	02/08/05	9-10	-	--	--	--	--	--	--	--	--	--	--	--	--	--	0.37 U	7 J	5 J
SB-09	SB-09-020805-01	02/08/05	0-1	0.0	0.0005 U	0.032	0.0031	0.005 U	0.011	0.015	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.029	0.005 U	--	--	--
SB-09	SB-09-020805-03	02/08/05	2-3	1.3	0.39	0.49	0.42	0.045	0.0039	0.0036	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U	--	--	--
SB-09	SB-09-020805-05	02/08/05	4-5	0.0	0.0005 U	0.0005 U	0.0005 J	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	0.37 U	12	28
SB-09	DUP-01-020805	02/08/05	9-10	-	--	--	--	--	--	--	--	--	--	--	--	--	--	0.37 U	9 J	10
SB-09	SB-09-020805-10	02/08/05	9-10	-	--	--	--	--	--	--	--	--	--	--	--	--	--	0.37 U	9 J	14
SB-09	SB09A-041205-03	04/12/05	2-3	0.5	0.29	0.13	0.084	0.025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.005 U	0.018	--	--	--
SB-09	SB09A-041205-05	04/12/05	4-5	0.0	0.001 J	0.0071	0.0032	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.008 J	--	--	--
SB-09	SB09B-041205-03	04/12/05	2-3	0.0	0.002 J	0.0062	0.0031	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U	--	--	--
SB-09	SB09B-041205-05	04/12/05	4-5	1.9	0.42	0.32	1.2	0.026	0.005 U	0.005 U	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U	--	--	--
SB-09	SB09C-041205-03	04/12/05	2-3	10.1	2	1.1	7	0.005 U	0.005 U	0.005 U	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U	--	--	--
SB-09	SB09C-041205-05	04/12/05	4-5	0.4	0.18	0.057	0.18	0.025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.005 U	0.005 U	--	--	--
SB-10	SB-10-020805-01	02/08/05	0-1	0.0	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U	--	--	--
SB-10	SB-10-020805-05	02/08/05	4-5	-	--	--	--	--	--	--	--	--	--	--	--	--	--	0.37 U	6 J	6 J
SB-10	SB-10-020805-10	02/08/05	9-10	-	--	--	--	--	--	--	--	--	--	--	--	--	--	0.37 U	5 J	7 J
SB-11	SB-11-020805-05	02/08/05	4-5	-	--	--	--	--	--	--	--	--	--	--	--	--	--	0.37 U	550	1500
SB-11	SB-11-020805-10	02/08/05	9-10	-	--	--	--	--	--	--	--	--	--	--	--	--	--	0.37 U	9 J	4 J
SB-12	SB-12-020805-01	02/08/05	0-1	0.0	0.0005 U	0.001 J	0.0005 U	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.029	0.009 J	--	--	--
SB-12	SB-12-020805-03	02/08/05	2-3	0.0	0.0044	0.039	0.0034	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U	--	--	--
SB-12	SB-12-020805-05	02/08/05	4-5	0.0	0.01	0.0055	0.002 J	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0008 J	--	--	0.37 U	30	36
SB-12	SB-12-020805-10	02/08/05	9-10	-	--	--	--	--	--	--	--	--	--	--	--	--	--	0.37 U	9 J	4 J
SB-13	SB-13-020805-05	02/08/05	4-5	-	--	--	--	--	--	--	--	--	--	--	--	--	--	0.37 U	140	310
SB-13	SB-13-020805-10	02/08/05	9-10	-	--	--	--	--	--	--	--	--	--	--	--	--	--	0.37 U	40	96
SB-14	SB-14-020805-05	02/08/05	4-5	-	--	--	--	--	--	--	--	--	--	--	--	--	--	0.37 U	120	280
SB-14	DUP-03-020805	02/08/05	9-10	-	--	--	--	--	--	--	--	--	--	--	--	--	--	0.37 U	34	46
SB-14	SB-14-020805-10	02/08/05	9-10	-	--	--	--	--	--	--	--	--	--	--	--	--	--	0.37 U	190	420
SB-15	SB-15-020805-05	02/08/05	4-5	-	--	--	--	--	--	--	--	--	--	--	--	--	--	0.37 U	7 J	4 J
SB-15	SB-15-020805-10	02/08/05	9-10	-	--	--	--	--	--	--	--	--	--	--	--	--	--	0.37 U	6 J	4 J
SB-16	SB-16-032305-01	03/23/05	0-1	0.0	0.002 J	0.03	0.014	0.01	0.0005 U	0.0016	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.024	0.01 J	--	--	--
SB-16	SB-16-032305-03	03/23/05	2-3	0.1	0.027	0.025	0.016	0.005 U	0.0005 U	0.0005 U	0.0005 U	-	-	-	-	0.018	0.018	--	--	--

Table 1. Summary of Detected Pesticides/PCBs and TPH in Soil Samples
 ECI Property, 20846 Normandie Avenue, Torrance, CA

SOIL INVESTIGATION FOR HISTORICAL STORMWATER PATHWAY - SOUTH
 MONTROSE CHEMICAL SUPERFUND SITE, LOS ANGELES COUNTY, CALIFORNIA

Boring ID	Sample Number	Sample Date	Depth (feet)	Total DDT	4,4'-DDD	4,4'-DDE	4,4'-DDT	Chlordane	cis-Chlordane	gamma-Chlordane	Dieldrin	Alpha-BHC	Beta-BHC	Delta-BHC	Gamma-BHC	Aroclor 1254	Aroclor 1260	TPH-Gas	TPH-Diesel	TPH-Oil
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
SB-16	SB-16-032305-05	03/23/05	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1 U	41	75.9
SB-17	SB-17-032305-01	03/23/05	0-1	0.0	0.0005 U	0.0005 U	0.001 J	0.005 U	0.0008 J	0.001	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--
SB-17	SB-17-032305-03	03/23/05	2-3	0.0	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--
SB-18	SB-18-032305-01	03/23/05	0-1	0.2	0.0095	0.039	0.11	0.013	0.0007 J	0.0019	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.01 J	0.01 J	--
SB-18	SB-18-032305-03	03/23/05	2-3	0.0	0.001 J	0.016	0.0075	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	--	--	--
SB-18	SB18A-041205-01	04/12/05	0-1	0.1	0.02 U	0.02 U	0.02 U	0.2 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.02 U	0.01 U	0.01 U	--
SB-18	SB18A-041205-03	04/12/05	2-3	0.0	0.002 J	0.018	0.0033	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U	--
SB-18	SB18B-041205-01	04/12/05	0-1	0.1	0.03 J	0.02 J	0.01 J	0.1 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.005 U	0.02	--
SB-18	SB18B-041205-03	04/12/05	2-3	0.0	0.002 J	0.0073	0.01	0.023	0.0044	0.0046	0.013	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.01 J	--
SB-18	SB18C-041205-01	04/12/05	0-1	0.1	0.023	0.01 J	0.047	0.05 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.025	--	--
SB-18	SB18C-041205-03	04/12/05	2-3	0.0	0.001 J	0.0074	0.012	0.005 U	0.0005 U	0.0006 J	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U	--
SB-18	SB18C-041205-05	04/12/05	4-5	0.0	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U	--
SB-19	SB-19-032305-01	03/23/05	0-1	0.1	0.021	0.015	0.092	0.025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.005 U	0.01 J	--
SB-19	SB-19-032305-03	03/23/05	2-3	5.7	0.31	0.87	4.5	0.025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.005 U	0.005 U	--
SB-19	SB-19-032305-05	03/23/05	4-5	0.0	0.012	0.0025 U	0.003 J	0.025 U	0.004 J	0.0025 U	0.009 J	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.005 U	0.005 U	--
SB-19	SB-19-032305-07	03/23/05	6-7	0.0	0.007 J	0.005 U	0.005 U	0.05 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.008 J	--
SB-19	SB19A-041205-03	04/12/05	2-3	0.1	0.005 J	0.029	0.11	0.025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.019	0.02	--	--
SB-19	SB19A-041205-05	04/12/05	4-5	0.3	0.035	0.059	0.23	0.05 U	0.009 J	0.01 J	0.008 J	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.025	0.01 J	--	--
SB-19	SB19A-041205-07	04/12/05	6-7	0.0	0.002 J	0.0052	0.029	0.018	0.0026	0.0033	0.0093	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.007 J	--
SB-19	SB19B-041205-03	04/12/05	2-3	2.6	0.1 J	0.1 J	2.4	0.5 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	0.005 U	0.005 U	--	--
SB-19	SB19B-041205-05	04/12/05	4-5	0.2	0.01	0.016	0.18	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.018	--	--
SB-19	SB19B-041205-07	04/12/05	6-7	0.0	0.01 J	0.01 U	0.01 U	0.1 U	0.01 U	0.01 U	0.01 J	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.005 U	0.01 J	--	--
SB-19	SB19C-041205-03	04/12/05	2-3	0.7	0.02 J	0.22	0.42	0.05 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	--	--
SB-19	SB19C-041205-05	04/12/05	4-5	0.9	0.056	0.33	0.52	0.025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.037	0.027	--	--
SB-19	SB19C-041205-07	04/12/05	6-7	0.1	0.0088	0.01	0.056	0.016	0.0019	0.0026	0.001 J	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.037	--	--
SB-20	SB-20-032305-01	03/23/05	0-1	0.2	0.022	0.063	0.16	0.05 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.22	0.07	--	--
SB-20	SB-20-032305-03	03/23/05	2-3	6.4	0.68	0.64	5.1	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0025	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U	--	--
SB-20	SB-20-032305-07	03/23/05	6-7	0.4	0.054	0.055	0.34	0.005 U	0.0009 J	0.0031	0.0005 J	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U	--	--
SB-20	SB-20-032305-10	03/23/05	9-10	0.0	0.019	0.008 J	0.009 J	0.025 U	0.003 J	0.003 J	0.0025 J	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.005 U	0.005 U	--	--
SB-20	SB20A-041305-03	04/13/05	2-3	22.5	0.73	1.8	20	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U	--	--
SB-20	SB20A-041305-07	04/13/05	6-7	15.7	4.9	1.7	9.1	0.025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.003 J	0.0025 U	0.0025 U	0.005 U	0.005 U	--	--	
SB-20	SB20A-041305-10	04/13/05	9-10	0.4	0.21	0.036	0.14	0.05 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	--	--
SB-20	SB20B-041305-03	04/13/05	2-3	52.7	4	8.7	40	0.025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.01	0.0025 U	0.0025 U	0.005 U	0.005 U	--	--	
SB-20	SB20B-041305-07	04/13/05	6-7	0.3	0.024	0.028	0.2	0.005 U	0.0005 U	0.002	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U	--	--
SB-20	SB20B-041305-10	04/13/05	9-10	0.0	0.002 J	0.0006 J	0.0005 U	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U	--	--
SB-20	SB20C-041305-03	04/13/05	2-3	0.3	0.03 J	0.04 J	0.2	0.1 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.005 U	0.01 J	--	--	
SB-20	SB20C-041305-07	04/13/05	6-7	0.1	0.0055	0.011	0.049	0.005 U	0.0005 U	0.0009 J	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 J	--	--
SB-21	SB-21-032305-01	03/23/05	0-1	0.0	0.0005 U	0.004	0.001 J	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U	--	--
SB-21	SB-21-032305-03	03/23/05	2-3	0.0	0.001 J	0.0065	0.002 J	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U	--	--
SB-22	SB-22-032305-01	03/23/05	0-1	0.1	0.015	0.065	0.0041	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.01 J	0.008 J	--	--
SB-22	SB-22-032305-03	03/23/05	2-3	0.1	0.0074	0.058	0.0005 U	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.006 J	0.005 U	--	--
SB-23	SB-23-032305-01	03/23/05	0-1	0.3	0.1 U	0.1 U	0.1 U	1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.01 U	0.01 U	--	--
SB-23	SB-23-032305-03	03/23/05	2-3	0.0	0.001 U	0.001 U	0.001 U	0.01 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.001 U	0.01 U	0.01 U	--	--
SB-24	SB-24-032505-01	03/23/05	0-1	0.0	0.0092	0.012	0.028	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.01 J	0.005 U	--	--
SB-24	SB-24-032505-03	03/23/05	2-3	0.0	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U	--	--
SB-25	SB-25-032305-01	03/23/05	0-1	0.0	0.0062	0.019	0.02	0.041	0.0033	0.0044	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.019	0.018	--	--
SB-25	SB-25-032305-03	03/23/05	2-3	0.0	0.007 J	0.021	0.02 J	0.1	0.017	0.014	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.01 J	--	--
SB-26	SB-26-032305-01	03/23/05	0-1	0.0	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.0005 U	0.0005 U	0.0005 U									

Table 1. Summary of Detected Pesticides/PCBs and TPH in Soil Samples
 ECI Property, 20846 Normandie Avenue, Torrance, CA

SOIL INVESTIGATION FOR HISTORICAL STORMWATER PATHWAY - SOUTH
 MONTROSE CHEMICAL SUPERFUND SITE, LOS ANGELES COUNTY, CALIFORNIA

Boring ID	Sample Number	Sample Date	Depth (feet)	Total DDT	4,4'-DDD	4,4'-DDE	4,4'-DDT	Chlordane	cis-Chlordane	gamma-Chlordane	Dieldrin	Alpha-BHC	Beta-BHC	Delta-BHC	Gamma-BHC	Aroclor 1254	Aroclor 1260	TPH-Gas	TPH-Diesel	TPH-Oil
				mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
SB-28	SB28A-041305-03	04/13/05	2-3	0.2	0.033	0.04	0.08	0.05 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.026	--	--	--
SB-28	SB28A-041305-05	04/13/05	4-5	0.0	0.0009 J	0.009	0.002 J	0.005 U	0.0005 U	0.0012	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U	--	--
SB-28	DUP04-041305-00	04/13/05	2-3	1.1	0.062	0.22	0.78	0.04 J	0.0082	0.0072	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.005 U	0.021	--	--	--
SB-28	SB28B-041305-03	04/13/05	2-3	0.2	0.012	0.028	0.15	0.025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.005 U	0.01 J	--	--	--
SB-28	SB28B-041305-05	04/13/05	4-5	0.6	0.067	0.2	0.33	0.04 J	0.004 J	0.0079	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.005 U	0.016	--	--	--
SB-28	SB28B-041305-07	04/13/05	6-7	0.4	0.1	0.22	0.066	0.005 U	0.0005 U	0.0005 U	0.0044	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.022	--	--	--
SB-28	SB28B-041305-10	04/13/05	9-10	0.6	0.051	0.48	0.037	0.005 U	0.0005 U	0.0005 U	0.011	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.022	0.028	--	--	--
SB-28	DUP02-041305-00	04/13/05	2-3	0.1	0.023	0.037	0.079	0.025 U	0.0025 U	0.0064	0.009 J	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.005 U	0.021	--	--	--
SB-28	SB28C-041305-03	04/13/05	2-3	0.7	0.043	0.21	0.43	0.04 J	0.004 J	0.0051	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.005 U	0.018	--	--	--
SB-28	SB28C-041305-05	04/13/05	4-5	2.9	0.84	0.95	1.1	0.05 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.005 U	0.022	--	--	--
SB-28	SB28C-041305-07	04/13/05	6-7	0.9	0.4	0.34	0.13	0.12 U	0.012 U	0.012 U	0.012 U	0.012 U	0.012 U	0.012 U	0.012 U	0.005 U	0.01 J	--	--	--
SB-28	SB28C-041305-10	04/13/05	9-10	2.5	1.1	0.86	0.5	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U	--	--	--
SB-29	SB-29-041305-03	04/13/05	2-3	0.3	0.038	0.057	0.16	0.03 J	0.0058	0.004 J	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.005 U	0.024	--	--	--
SB-29	SB-29-041305-07	04/13/05	6-7	0.3	0.093	0.07	0.11	0.025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.005 U	0.008 J	--	--	--
SB-29	SB-29-041305-10	04/13/05	9-10	0.3	0.15	0.1	0.063	0.025 U	0.0025 U	0.0051	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.005 U	0.006 J	--	--	--
SB-30	SB-30-041305-03	04/13/05	2-3	0.0	0.0006 J	0.0008 J	0.002 J	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U	--	--	--
SB-30	DUP01-041305-00	04/13/05	4-5	0.1	0.024	0.049	0.014	0.044	0.004 J	0.0081	0.006 J	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.005 U	0.01 J	--	--	--
SB-30	SB-30-041305-07	04/13/05	4-5	0.1	0.035	0.019	0.009 J	0.025 U	0.0025 U	0.003 J	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.005 U	0.01 J	--	--	--
SB-30	SB-30-041305-10	04/13/05	9-10	0.1	0.13	0.011	0.0025 U	0.025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.005 U	0.005 U	--	--	--
SB-31	SB-31-041305-03	04/13/05	2-3	3.6	0.14	0.71	2.7	0.025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.005 U	0.005 U	--	--	--
SB-31	SB-31-041305-05	04/13/05	4-5	0.4	0.059	0.12	0.19	0.025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.005 U	0.01 J	--	--	--
SB-31	SB-31-041305-07	04/13/05	6-7	0.0	0.0005 U	0.004	0.0073	0.006 J	0.0011	0.0013	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.007 J	--	--	--
SB-32	SB-32-041205-03	04/12/05	2-3	1.2	0.27	0.38	0.54	0.1 U	0.01 J	0.022	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	0.01 U	--	--	--
SB-32	SB-32-041205-07	04/12/05	6-7	2.1	0.25	0.45 E	1.4 E	0.025 U	0.0025 U	0.0025 U	0.01	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.005 U	0.005 U	--	--	--
SB-32	SB-32-041205-10	04/12/05	9-10	9.1	1.3	1.2	6.6	0.025 U	0.003 J	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.0025 U	0.005 U	0.005 U	--	--	--
SB-33	SB-33-041205-03	04/12/05	2-3	0.1	0.004	0.042	0.019	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U	--	--	--
SB-33	SB-33-041205-07	04/12/05	6-7	0.0	0.0062	0.0078	0.012	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 J	--	--	--
SB-34	SB-34-041205-03	04/12/05	2-3	0.0	0.0035	0.0041	0.022	0.005 U	0.0007 J	0.0025	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.01 J	--	--	--
SB-34	SB-34-041205-07	04/12/05	6-7	0.0	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U	--	--	--
SB-35	SB-35-041205-03	04/12/05	2-3	12.6	0.62	2.3	9.7	1.2 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.12 U	0.005 U	0.005 U	--	--	--
SB-35	SB-35-041205-07	04/12/05	6-7	7.9	5.8	0.71	1.4	0.25 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	0.025 U	22	1.1	--	--	--
SB-35	SB-35-041205-10	04/12/05	9-10	0.3	0.170	0.037	0.057	0.005 U	0.001 U	0.001 U	0.001 U	0.0005 U	0.0005 U	0.0005 U	0.0005 U	0.005 U	0.005 U	--	--	--

Notes:
 mg/kg = milligrams per kilogram
 Only results with total DDT > 1.0 mg/kg were tabulated
 NA = not available
 Only 4,4' isomers were analyzed for DDE, DDT and DDD.
 -- = not analyzed
 Data Source: ECI, 2005.
 Hard copy of data not provided
 J = Concentration is estimated because it falls between the method detection limit and the laboratory reporting limit.
 U = Concentration is non-detect at the laboratory reporting limit.
 E = Concentration exceeds the upper level of the calibration range.
 TPH = Total petroleum hydrocarbons
 BHC = benzene hexachloride
 DDE = 4,4'-dichlorodiphenyldichloroethene
 DDT = 4,4'-dichlorodiphenyltrichloroethane
 DDD = 4,4'-dichlorodiphenyldichloroethane

Table 2. Summary of Soil Sampling Program - Metals
ECI Property, 20846 Normandie Avenue, Torrance, CA

SOIL INVESTIGATION FOR HISTORICAL STORMWATER PATHWAY - SOUTH
 MONTROSE CHEMICAL SUPERFUND SITE, LOS ANGELES COUNTY, CALIFORNIA

Boring ID Sample ID Depth (feet) Sample Date	Reporting Limit	SB-03	SB-09	SB-10	SB-12	SB-16	SB-27	EPA PRGs		CA specific EPA PRGs		DTSC Soil Screening Values	
		SB-03-020805-01 0 to 1 2/8/2005	SB-09-020805-01 0 to 1 2/8/2005	SB-10-020805-01 0 to 1 2/8/2005	SB-12-020805-01 0 to 1 2/8/2005	SB-16-032305-01 0 to 1 3/23/2005	SB-27-032305-01 0 to 1 3/23/2005	Industrial	Residential	Industrial	Residential	Industrial	Residential
Antimony	1.2	ND	ND	ND	ND	ND	ND	410	31	NA	NA	380	30
Arsenic	0.48	ND	ND	ND	ND	1.3	ND	1.6	0.39	0.25	0.062	0.24	0.07
Barium		120	63	57	190	140	190	67,000	5,400	NA	NA	63,000	5,200
Beryllium	0.45	ND	ND	ND	ND	ND	ND	1,900	150	NA	NA	1,700	150
Cadmium	0.52	ND	ND	ND	ND	ND	ND	450	37	NA	NA	7.5	1.7
Chromium		18	9.4	14	18	19	24	100,000	100,000	NA	NA	NA	NA
Cobalt		6.9	4.7	8.8	17	8.1	12	1,900	900	NA	NA	3,200	660
Copper		22	8.3	25	13	19	22	41,000	3,100	NA	NA	38,000	3,000
Lead		23	8.7	3.7	6.5	11	6.3	800	400	NA	150	3,500	150
Mercury		0.12	0.08 J	0.02 J	0.04 J	0.03 J	0.01 J	310	23	NA	NA	180	18
Molybdenum	0.46	1.6	1.8	1.1	0.9 J	ND	ND	5,100	390	NA	NA	4,800	380
Nickel		13	11	9.3	13	14	17	NA	NA	NA	NA	16,000	1,600
Selenium	0.82	ND	ND	ND	ND	1.5	1.9	5,100	390	NA	NA	4,800	380
Silver	0.45	ND	ND	ND	ND	ND	ND	5,100	390	NA	NA	4,800	380
Thallium	0.92	ND	ND	ND	ND	ND	ND	67	5.2	NA	NA	63	5
Vanadium		31	22	27	58	34	51	100	78	NA	NA	6,700	530
Zinc		69	26	29	34	51	61	100,000	23,000	NA	NA	100,000	23,000

Notes

All concentrations are in mg/kg

ND = Not detected

Bold values indicate exceeds the PRG

Table 3. Summary of Soil Sampling Program - VOCs
ECI Property, 20846 Normandie Avenue, Torrance, CA

SOIL INVESTIGATION FOR HISTORICAL STORMWATER PATHWAY - SOUTH
 MONTROSE CHEMICAL SUPERFUND SITE, LOS ANGELES COUNTY, CALIFORNIA

Boring ID Sample ID Depth (feet) Sample Date	Detection Limit	SB-01	SB-02	SB-03	SB-04	SB-05	SB-06	SB-07	SB-08	EPA Region 9 PRGs		DTSC Soil Screening Values	
		SB-01-020805-10 9 to 10 2/8/2005	SB-02-020805-10 9 to 10 2/8/2005	SB-03-020805-10 9 to 10 2/8/2005	SB-04-020805-10 9 to 10 2/8/2005	SB-05-020805-10 9 to 10 2/8/2005	SB-06-020805-10 9 to 10 2/8/2005	SB-07-020805-10 9 to 10 2/8/2005	SB-08-020805-10 9 to 10 2/8/2005	Industrial	Residential	Industrial	Residential
Ethylbenzene	1.8	ND	82	ND	ND	ND	ND	ND	ND	400	400	NA	NA
Methylbenzene	2.1	ND	5 J	ND	ND	ND	ND	ND	ND	520	520	NA	NA
O-Xylene	2.1	ND	97	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
P/M -Xylene	4.9	ND	160	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Xylenes		NR	420	270	NA	NA							
Tetrachloroethene	1.7	ND	1.3	0.48	NA	NA							

Boring ID Sample ID Depth (ft) Sample Date	Detection Limit	SB-09	SB-10	SB-11	SB-11	SB-12	SB-13	SB-14	SB-15	EPA Region 9 PRGs		DTSC Soil Screening Values	
		DUP-01-020805 9 to 10 2/8/2005	SB-10-020805-10 9 to 10 2/8/2005	SB-11-020805-10 9 to 10 2/8/2005	SB-11-020805-15 14 to 15 2/8/2005	SB-12-020805-10 9 to 10 2/8/2005	SB-13-020805-10 9 to 10 2/8/2005	SB-14-020805-10 9 to 10 2/8/2005	SB-15-020805-10 9 to 10 2/8/2005	Industrial	Residential	Industrial	Residential
Ethylbenzene	1.8	ND	ND	ND	ND	ND	ND	ND	ND	400	400	NA	NA
Methylbenzene	2.1	ND	ND	ND	ND	ND	ND	ND	ND	520	520	NA	NA
O-Xylene	2.1	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
P/M -Xylene	4.9	ND	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA
Xylenes		NR	NR	NR	NR	NR	NR	NR	NR	420	270	NA	NA
Tetrachloroethene	1.7	ND	ND	5.5	ND	ND	ND	ND	ND	1.3	0.48	NA	NA

Note
 All concentrations are in mg/kg
 mg/kg = Milligrams per kilogram
 Only detected VOCs are shown
 ND = Not detected
 NR = Not reported
Bold values indicate exceeds the PRG

Table 4. Summary of Soil Sampling Program
 ECI Property, 20846 Normandie Avenue, Los Angeles County, California

SOIL INVESTIGATION FOR HISTORICAL STORMWATER PATHWAY - SOUTH
 MONTROSE CHEMICAL SUPERFUND SITE, LOS ANGELES COUNTY, CALIFORNIA

Attribute	ECI Property
Total Sampling Depth of Borings	20 ft bgs
No. of Samples per Boring	8
Sampling Depth Intervals	0 to 0.5 feet, 0.5 to 2 feet, 2 to 5 feet, 5 to -8 feet, 8 to 12 feet, 12 to 16 feet, 16 to 20 feet, and 20 to 24 feet
Grid Spacing	30 feet by 60 feet
Number of Primary Grid Locations	34
Total Number of Sampling Locations	38
Total Number of Environmental Samples	296
QA/QC Samples ^[1]	
Duplicate Samples	30
MS/MSD	15
Subtotal Sample Count	341
Investigation Total No. of Soil Samples	341

Note: ^[1]QA/QC samples include 1 duplicate for each 10 samples (10 percent) and 1 matrix spike/matrix spike duplicate (MS/MSD) for each 20 samples. Each MS/MSD consists of two samples, thus MS/MSD samples account for 10 percent of samples. In addition, an estimated 7 equipment blanks will be collected during sampling, one for each field sampling day.

**Table 5. Soil Sampling Boring Location Coordinates
ECI Property, 20846 Normandie Avenue, Los Angeles County, California**

SOIL INVESTIGATION FOR HISTORICAL STORMWATER PATHWAY - SOUTH
MONTROSE CHEMICAL SUPERFUND SITE, LOS ANGELES COUNTY, CALIFORNIA

Borehole Identification	Location	Description	Easting	Northing	Total Depth (feet)
P01	ECI Property	Eastern portion of ECI property	TBD	TBD	24
P02	ECI Property	Eastern portion of ECI property	TBD	TBD	24
P03	ECI Property	Eastern portion of ECI property	TBD	TBD	24
P04	ECI Property	Eastern portion of ECI property	TBD	TBD	24
P05	ECI Property	Eastern portion of ECI property	TBD	TBD	24
P06	ECI Property	Eastern portion of ECI property	TBD	TBD	24
P07	ECI Property	Eastern portion of ECI property	TBD	TBD	24
P08	ECI Property	Eastern portion of ECI property	TBD	TBD	24
P09	ECI Property	Eastern portion of ECI property	TBD	TBD	24
P10	ECI Property	Eastern portion of ECI property	TBD	TBD	24
P11	ECI Property	Eastern portion of ECI property	TBD	TBD	24
P12	ECI Property	Eastern portion of ECI property	TBD	TBD	24
P13	ECI Property	Eastern portion of ECI property	TBD	TBD	24
P14	ECI Property	Eastern portion of ECI property	TBD	TBD	24
P15	ECI Property	Eastern portion of ECI property	TBD	TBD	24
P16	ECI Property	Eastern portion of ECI property	TBD	TBD	24
P17	ECI Property	Eastern portion of ECI property	TBD	TBD	24
P18	ECI Property	Eastern portion of ECI property	TBD	TBD	24
P19	ECI Property	Eastern portion of ECI property	TBD	TBD	24
P20	ECI Property	Eastern portion of ECI property	TBD	TBD	24
P21	ECI Property	Eastern portion of ECI property	TBD	TBD	24
P22	ECI Property	Eastern portion of ECI property	TBD	TBD	24
P23	ECI Property	Eastern portion of ECI property	TBD	TBD	24
P24	ECI Property	Eastern portion of ECI property	TBD	TBD	24
P25	ECI Property	Eastern portion of ECI property	TBD	TBD	24
P26	ECI Property	Eastern portion of ECI property	TBD	TBD	24
P27	ECI Property	Eastern portion of ECI property	TBD	TBD	24
P28	ECI Property	Eastern portion of ECI property	TBD	TBD	24
P29	ECI Property	Eastern portion of ECI property	TBD	TBD	24
P30	ECI Property	Eastern portion of ECI property	TBD	TBD	24
P31	ECI Property	Eastern portion of ECI property	TBD	TBD	24
P32	ECI Property	Eastern portion of ECI property	TBD	TBD	24
P33	ECI Property	Eastern portion of ECI property	TBD	TBD	24
P34	ECI Property	Eastern portion of ECI property	TBD	TBD	24
P35	ECI Property	Northern slope portion of ECI Property	TBD	TBD	16
P36	ECI Property	Northern slope portion of ECI Property	TBD	TBD	16
P37	ECI Property	Northern slope portion of ECI Property	TBD	TBD	16
P38	ECI Property	Northern slope portion of ECI Property	TBD	TBD	16

Notes:

TBD = To be determined after land survey.

Table 6. Request for Analyses - Phase 1 Soil Samples
 ECI Property, 20846 Normandie Avenue, Los Angeles County, California

SOIL INVESTIGATION FOR HISTORICAL STORMWATER PATHWAY - SOUTH
 MONTROSE CHEMICAL SUPERFUND SITE, LOS ANGELES COUNTY, CALIFORNIA

Method					EPA 8081A/EPA 8082A	EPA 8081A/EPA 8082A	EPA 8081A/EPA 8082A	EPA 8081A/EPA 8082A
Specific Analyses Requested					Pesticides/PCBs	Pesticides/PCBs	Pesticides/PCBs	Pesticides/PCBs
Preservatives					Chill to 4° C			
Analytical Holding Time					< 14 days prior to extraction, 40 days after extraction	< 14 days prior to extraction, 40 days after extraction	< 14 days prior to extraction, 40 days after extraction	< 14 days prior to extraction, 40 days after extraction
Contract Holding Time					< 14 days prior to extraction, 40 days after extraction	< 14 days prior to extraction, 40 days after extraction	< 14 days prior to extraction, 40 days after extraction	< 14 days prior to extraction, 40 days after extraction
Turn-around Time					14 days	14 days	14 days	14 days
Boring ID	Sample Depth	Sample ID	Sample Type	Sample Date	1 x 8 -oz. glass jar	1 x 1.5' to 4' acetate sleeve (or) 1 x 8-oz. glass jar	1 x 3' to 4' acetate sleeve (or) 1 x 16-oz. glass jar	2-1 L amber bottles
P-01	0' - 0.5'	P-01-0	Soil		X			
	0.5' - 2'	P-01-0.5	Soil			X		
	2' - 5'	P-01-2	Soil				X	
	5' - 8'	P-01-5	Soil				X	
	8' - 12'	P-01-8	Soil				X	
	12' - 16'	P-01-12	Soil				X	
	16' - 20'	P-01-16	Soil				X	
P-02	0' - 0.5'	P-02-0	Soil		X			
	0.5' - 2'	P-02-0.5	Soil			X		
	2' - 5'	P-02-2	Soil				X	
	5' - 8'	P-02-5	Soil				X	
	8' - 12'	P-02-8	Soil				X	
	12' - 16'	P-02-12	Soil				X	
	16' - 20'	P-02-16	Soil				X	
P-03	0' - 0.5'	P-03-0	Soil		X			
	0.5' - 2'	P-03-0.5	Soil			X		
	2' - 5'	P-03-2	Soil				X	
	5' - 8'	P-03-5	Soil				x MS/MSD	
	8' - 12'	P-03-8	Soil				X	
	12' - 16'	P-03-12	Soil				X	
	16' - 20'	P-03-16	Soil				X	
P-04	0' - 0.5'	P-04-0	Soil		X			
	0.5' - 2'	P-04-0.5	Soil			X		
	2' - 5'	P-04-2	Soil				X	
	5' - 8'	P-04-5	Soil				X	
	8' - 12'	P-04-8	Soil				X	
	12' - 16'	P-04-12	Soil				X	
	16' - 20'	P-04-16	Soil				X	
P-05	0' - 0.5'	P-05-0	Soil		X			
	0.5' - 2'	P-05-0.5	Soil			X		
	2' - 5'	P-05-2	Soil				X	
	5' - 8'	P-05-5	Soil				X	
	8' - 12'	P-05-8	Soil				X	
	12' - 16'	P-05-12	Soil				X	
	16' - 20'	P-05-16	Soil				X	
P-06	0' - 0.5'	P-06-0	Soil		X			
	0.5' - 2'	P-06-0.5	Soil			X		
	2' - 5'	P-06-2	Soil				X	
	5' - 8'	P-06-5	Soil				X	
	8' - 12'	P-06-8	Soil				X	
	12' - 16'	P-06-12	Soil				X	
	16' - 20'	P-06-16	Soil				X	
P-07	0' - 0.5'	P-07-0	Soil		X			
	0.5' - 2'	P-07-0.5	Soil			X		
	2' - 5'	P-07-2	Soil				X	
	5' - 8'	P-07-5	Soil				X	
	8' - 12'	P-07-8	Soil				X	
	12' - 16'	P-07-12	Soil				X	
	16' - 20'	P-07-16	Soil				X	
20' - 24'	P-07-20	Soil				X		

Table 6. Request for Analyses - Phase 1 Soil Samples
 ECI Property, 20846 Normandie Avenue, Los Angeles County, California

SOIL INVESTIGATION FOR HISTORICAL STORMWATER PATHWAY - SOUTH
 MONTROSE CHEMICAL SUPERFUND SITE, LOS ANGELES COUNTY, CALIFORNIA

Method					EPA 8081A/EPA 8082A	EPA 8081A/EPA 8082A	EPA 8081A/EPA 8082A	EPA 8081A/EPA 8082A
Specific Analyses Requested					Pesticides/PCBs	Pesticides/PCBs	Pesticides/PCBs	Pesticides/PCBs
Preservatives					Chill to 4° C			
Analytical Holding Time					< 14 days prior to extraction, 40 days after extraction	< 14 days prior to extraction, 40 days after extraction	< 14 days prior to extraction, 40 days after extraction	< 14 days prior to extraction, 40 days after extraction
Contract Holding Time					< 14 days prior to extraction, 40 days after extraction	< 14 days prior to extraction, 40 days after extraction	< 14 days prior to extraction, 40 days after extraction	< 14 days prior to extraction, 40 days after extraction
Turn-around Time					14 days	14 days	14 days	14 days
Boring ID	Sample Depth	Sample ID	Sample Type	Sample Date	1 x 8 -oz. glass jar	1 x 1.5' to 4' acetate sleeve (or) 1 x 8-oz. glass jar	1 x 3' to 4' acetate sleeve (or) 1 x 16-oz. glass jar	2-1 L amber bottles
P-08	0' - 0.5'	P-08-0	Soil		X			
	0.5' - 2'	P-08-0.5	Soil			X		
	2' - 5'	P-08-2	Soil				X	
	5' - 8'	P-08-5	Soil				x MS/MSD	
	8' - 12'	P-08-8	Soil				X	
	12' - 16'	P-08-12	Soil				X	
	16' - 20'	P-08-16	Soil				X	
20' - 24'	P-08-20	Soil				X		
P-09	0' - 0.5'	P-09-0	Soil		X			
	0.5' - 2'	P-09-0.5	Soil			X		
	2' - 5'	P-09-2	Soil				X	
	5' - 8'	P-09-5	Soil				X	
	8' - 12'	P-09-8	Soil				X	
	12' - 16'	P-09-12	Soil				X	
	16' - 20'	P-09-16	Soil				X	
20' - 24'	P-09-20	Soil				X		
P-10	0' - 0.5'	P-10-0	Soil		X			
	0.5' - 2'	P-10-0.5	Soil			X		
	2' - 5'	P-10-2	Soil				X	
	5' - 8'	P-10-5	Soil				X	
	8' - 12'	P-10-8	Soil				X	
	12' - 16'	P-10-12	Soil				X	
	16' - 20'	P-10-16	Soil				X	
20' - 24'	P-10-20	Soil				x MS/MSD		
P-11	0' - 0.5'	P-11-0	Soil		X			
	0.5' - 2'	P-11-0.5	Soil			X		
	2' - 5'	P-11-2	Soil				X	
	5' - 8'	P-11-5	Soil				X	
	8' - 12'	P-11-8	Soil				X	
	12' - 16'	P-11-12	Soil				X	
	16' - 20'	P-11-16	Soil				X	
20' - 24'	P-11-20	Soil				X		
P-12	0' - 0.5'	P-12-0	Soil		X			
	0.5' - 2'	P-12-0.5	Soil			X		
	2' - 5'	P-12-2	Soil				X	
	5' - 8'	P-12-5	Soil				X	
	8' - 12'	P-12-8	Soil				X	
	12' - 16'	P-12-12	Soil				X	
	16' - 20'	P-12-16	Soil				X	
20' - 24'	P-12-20	Soil				X		
P-13	0' - 0.5'	P-13-0	Soil		X			
	0.5' - 2'	P-13-0.5	Soil			X		
	2' - 5'	P-13-2	Soil				X	
	5' - 8'	P-13-5	Soil				x MS/MSD	
	8' - 12'	P-13-8	Soil				X	
	12' - 16'	P-13-12	Soil				X	
	16' - 20'	P-13-16	Soil				X	
20' - 24'	P-13-20	Soil				X		
P-14	0' - 0.5'	P-14-0	Soil		X			
	0.5' - 2'	P-14-0.5	Soil			X		
	2' - 5'	P-14-2	Soil				X	
	5' - 8'	P-14-5	Soil				X	
	8' - 12'	P-14-8	Soil				X	
	12' - 16'	P-14-12	Soil				X	
	16' - 20'	P-14-16	Soil				X	
20' - 24'	P-14-20	Soil				X		

Table 6. Request for Analyses - Phase 1 Soil Samples
 ECI Property, 20846 Normandie Avenue, Los Angeles County, California

SOIL INVESTIGATION FOR HISTORICAL STORMWATER PATHWAY - SOUTH
 MONTROSE CHEMICAL SUPERFUND SITE, LOS ANGELES COUNTY, CALIFORNIA

Method					EPA 8081A/EPA 8082A	EPA 8081A/EPA 8082A	EPA 8081A/EPA 8082A	EPA 8081A/EPA 8082A
Specific Analyses Requested					Pesticides/PCBs	Pesticides/PCBs	Pesticides/PCBs	Pesticides/PCBs
Preservatives					Chill to 4° C			
Analytical Holding Time					< 14 days prior to extraction, 40 days after extraction	< 14 days prior to extraction, 40 days after extraction	< 14 days prior to extraction, 40 days after extraction	< 14 days prior to extraction, 40 days after extraction
Contract Holding Time					< 14 days prior to extraction, 40 days after extraction	< 14 days prior to extraction, 40 days after extraction	< 14 days prior to extraction, 40 days after extraction	< 14 days prior to extraction, 40 days after extraction
Turn-around Time					14 days	14 days	14 days	14 days
Boring ID	Sample Depth	Sample ID	Sample Type	Sample Date	1 x 8 -oz. glass jar	1 x 1.5' to 4' acetate sleeve (or) 1 x 8-oz. glass jar	1 x 3' to 4' acetate sleeve (or) 1 x 16-oz. glass jar	2-1 L amber bottles
P-15	0' - 0.5'	P-15-0	Soil		X			
	0.5' - 2'	P-15-0.5	Soil			X		
	2' - 5'	P-15-2	Soil				X	
	5' - 8'	P-15-5	Soil				X	
	8' - 12'	P-15-8	Soil				X	
	12' - 16'	P-15-12	Soil				X	
	16' - 20'	P-15-16	Soil				X	
20' - 24'	P-15-20	Soil					x MS/MSD	
P-16	0' - 0.5'	P-16-0	Soil		X			
	0.5' - 2'	P-16-0.5	Soil			X		
	2' - 5'	P-16-2	Soil				X	
	5' - 8'	P-16-5	Soil				X	
	8' - 12'	P-16-8	Soil				X	
	12' - 16'	P-16-12	Soil				X	
	16' - 20'	P-16-16	Soil				X	
20' - 24'	P-16-20	Soil				X		
P-17	0' - 0.5'	P-17-0	Soil		X			
	0.5' - 2'	P-17-0.5	Soil			X		
	2' - 5'	P-17-2	Soil				X	
	5' - 8'	P-17-5	Soil				X	
	8' - 12'	P-17-8	Soil				X	
	12' - 16'	P-17-12	Soil				X	
	16' - 20'	P-17-16	Soil				X	
20' - 24'	P-17-20	Soil				X		
P-18	0' - 0.5'	P-18-0	Soil		X			
	0.5' - 2'	P-18-0.5	Soil			X		
	2' - 5'	P-18-2	Soil				X	
	5' - 8'	P-18-5	Soil				x MS/MSD	
	8' - 12'	P-18-8	Soil				X	
	12' - 16'	P-18-12	Soil				X	
	16' - 20'	P-18-16	Soil				X	
20' - 24'	P-18-20	Soil				X		
P-19	0' - 0.5'	P-19-0	Soil		X			
	0.5' - 2'	P-19-0.5	Soil			X		
	2' - 5'	P-19-2	Soil				X	
	5' - 8'	P-19-5	Soil				X	
	8' - 12'	P-19-8	Soil				X	
	12' - 16'	P-19-12	Soil				X	
	16' - 20'	P-19-16	Soil				X	
20' - 24'	P-19-20	Soil				X		
P-20	0' - 0.5'	P-20-0	Soil		X			
	0.5' - 2'	P-20-0.5	Soil			X		
	2' - 5'	P-20-2	Soil				X	
	5' - 8'	P-20-5	Soil				X	
	8' - 12'	P-20-8	Soil				X	
	12' - 16'	P-20-12	Soil				X	
	16' - 20'	P-20-16	Soil				X	
20' - 24'	P-20-20	Soil				x MS/MSD		
P-21	0' - 0.5'	P-21-0	Soil		X			
	0.5' - 2'	P-21-0.5	Soil			X		
	2' - 5'	P-21-2	Soil				X	
	5' - 8'	P-21-5	Soil				X	
	8' - 12'	P-21-8	Soil				X	
	12' - 16'	P-21-12	Soil				X	
	16' - 20'	P-21-16	Soil				X	
20' - 24'	P-21-20	Soil				X		

Table 6. Request for Analyses - Phase 1 Soil Samples
 ECI Property, 20846 Normandie Avenue, Los Angeles County, California

SOIL INVESTIGATION FOR HISTORICAL STORMWATER PATHWAY - SOUTH
 MONTROSE CHEMICAL SUPERFUND SITE, LOS ANGELES COUNTY, CALIFORNIA

Method					EPA 8081A/EPA 8082A	EPA 8081A/EPA 8082A	EPA 8081A/EPA 8082A	EPA 8081A/EPA 8082A
Specific Analyses Requested					Pesticides/PCBs	Pesticides/PCBs	Pesticides/PCBs	Pesticides/PCBs
Preservatives					Chill to 4° C			
Analytical Holding Time					< 14 days prior to extraction, 40 days after extraction	< 14 days prior to extraction, 40 days after extraction	< 14 days prior to extraction, 40 days after extraction	< 14 days prior to extraction, 40 days after extraction
Contract Holding Time					< 14 days prior to extraction, 40 days after extraction	< 14 days prior to extraction, 40 days after extraction	< 14 days prior to extraction, 40 days after extraction	< 14 days prior to extraction, 40 days after extraction
Turn-around Time					14 days	14 days	14 days	14 days
Boring ID	Sample Depth	Sample ID	Sample Type	Sample Date	1 x 8 -oz. glass jar	1 x 1.5' to 4' acetate sleeve (or) 1 x 8-oz. glass jar	1 x 3' to 4' acetate sleeve (or) 1 x 16-oz. glass jar	2-1 L amber bottles
P-22	0' - 0.5'	P-22-0	Soil		X			
	0.5' - 2'	P-22-0.5	Soil			X		
	2' - 5'	P-22-2	Soil				X	
	5' - 8'	P-22-5	Soil				X	
	8' - 12'	P-22-8	Soil				X	
	12' - 16'	P-22-12	Soil				X	
	16' - 20'	P-22-16	Soil				X	
20' - 24'	P-22-20	Soil				X		
P-23	0' - 0.5'	P-23-0	Soil		X			
	0.5' - 2'	P-23-0.5	Soil			X		
	2' - 5'	P-23-2	Soil				X	
	5' - 8'	P-23-5	Soil				x MS/MSD	
	8' - 12'	P-23-8	Soil				X	
	12' - 16'	P-23-12	Soil				X	
	16' - 20'	P-23-16	Soil				X	
20' - 24'	P-23-20	Soil				X		
P-24	0' - 0.5'	P-24-0	Soil		X			
	0.5' - 2'	P-24-0.5	Soil			X		
	2' - 5'	P-24-2	Soil				X	
	5' - 8'	P-24-5	Soil				X	
	8' - 12'	P-24-8	Soil				X	
	12' - 16'	P-24-12	Soil				X	
	16' - 20'	P-24-16	Soil				X	
20' - 24'	P-24-20	Soil				X		
P-25	0' - 0.5'	P-25-0	Soil		X			
	0.5' - 2'	P-25-0.5	Soil			X		
	2' - 5'	P-25-2	Soil				X	
	5' - 8'	P-25-5	Soil				X	
	8' - 12'	P-25-8	Soil				X	
	12' - 16'	P-25-12	Soil				X	
	16' - 20'	P-25-16	Soil				X	
20' - 24'	P-25-20	Soil				x MS/MSD		
P-26	0' - 0.5'	P-26-0	Soil		X			
	0.5' - 2'	P-26-0.5	Soil			X		
	2' - 5'	P-26-2	Soil				X	
	5' - 8'	P-26-5	Soil				X	
	8' - 12'	P-26-8	Soil				X	
	12' - 16'	P-26-12	Soil				X	
	16' - 20'	P-26-16	Soil				X	
20' - 24'	P-26-20	Soil				X		
P-27	0' - 0.5'	P-27-0	Soil		X			
	0.5' - 2'	P-27-0.5	Soil			X		
	2' - 5'	P-27-2	Soil				X	
	5' - 8'	P-27-5	Soil				X	
	8' - 12'	P-27-8	Soil				X	
	12' - 16'	P-27-12	Soil				X	
	16' - 20'	P-27-16	Soil				X	
20' - 24'	P-27-20	Soil				X		
P-28	0' - 0.5'	P-28-0	Soil		X			
	0.5' - 2'	P-28-0.5	Soil			X		
	2' - 5'	P-28-2	Soil				X	
	5' - 8'	P-28-5	Soil				x MS/MSD	
	8' - 12'	P-28-8	Soil				X	
	12' - 16'	P-28-12	Soil				X	
	16' - 20'	P-28-16	Soil				X	
20' - 24'	P-28-20	Soil				X		

Table 6. Request for Analyses - Phase 1 Soil Samples
 ECI Property, 20846 Normandie Avenue, Los Angeles County, California

SOIL INVESTIGATION FOR HISTORICAL STORMWATER PATHWAY - SOUTH
 MONTROSE CHEMICAL SUPERFUND SITE, LOS ANGELES COUNTY, CALIFORNIA

Method					EPA 8081A/EPA 8082A	EPA 8081A/EPA 8082A	EPA 8081A/EPA 8082A	EPA 8081A/EPA 8082A
Specific Analyses Requested					Pesticides/PCBs	Pesticides/PCBs	Pesticides/PCBs	Pesticides/PCBs
Preservatives					Chill to 4° C			
Analytical Holding Time					< 14 days prior to extraction, 40 days after extraction	< 14 days prior to extraction, 40 days after extraction	< 14 days prior to extraction, 40 days after extraction	< 14 days prior to extraction, 40 days after extraction
Contract Holding Time					< 14 days prior to extraction, 40 days after extraction	< 14 days prior to extraction, 40 days after extraction	< 14 days prior to extraction, 40 days after extraction	< 14 days prior to extraction, 40 days after extraction
Turn-around Time					14 days	14 days	14 days	14 days
Boring ID	Sample Depth	Sample ID	Sample Type	Sample Date	1 x 8 -oz. glass jar	1 x 1.5' to 4' acetate sleeve (or) 1 x 8-oz. glass jar	1 x 3' to 4' acetate sleeve (or) 1 x 16-oz. glass jar	2-1 L amber bottles
P-29	0' - 0.5'	P-29-0	Soil		X			
	0.5' - 2'	P-29-0.5	Soil			X		
	2' - 5'	P-29-2	Soil				X	
	5' - 8'	P-29-5	Soil				X	
	8' - 12'	P-29-8	Soil				X	
	12' - 16'	P-29-12	Soil				X	
	16' - 20'	P-29-16	Soil				X	
20' - 24'	P-29-20	Soil				X		
P-30	0' - 0.5'	P-30-0	Soil		X			
	0.5' - 2'	P-30-0.5	Soil			X		
	2' - 5'	P-30-2	Soil				X	
	5' - 8'	P-30-5	Soil				X	
	8' - 12'	P-30-8	Soil				X	
	12' - 16'	P-30-12	Soil				X	
	16' - 20'	P-30-16	Soil				X	
20' - 24'	P-30-20	Soil				x MS/MSD		
P-31	0' - 0.5'	P-31-0	Soil		X			
	0.5' - 2'	P-31-0.5	Soil			X		
	2' - 5'	P-31-2	Soil				X	
	5' - 8'	P-31-5	Soil				X	
	8' - 12'	P-31-8	Soil				X	
	12' - 16'	P-31-12	Soil				X	
	16' - 20'	P-31-16	Soil				X	
20' - 24'	P-31-20	Soil				X		
P-32	0' - 0.5'	P-32-0	Soil		X			
	0.5' - 2'	P-32-0.5	Soil			X		
	2' - 5'	P-32-2	Soil				X	
	5' - 8'	P-32-5	Soil				X	
	8' - 12'	P-32-8	Soil				X	
	12' - 16'	P-32-12	Soil				X	
	16' - 20'	P-32-16	Soil				X	
20' - 24'	P-32-20	Soil				X		
P-33	0' - 0.5'	P-33-0	Soil		X			
	0.5' - 2'	P-33-0.5	Soil			X		
	2' - 5'	P-33-2	Soil				X	
	5' - 8'	P-33-5	Soil				x MS/MSD	
	8' - 12'	P-33-8	Soil				X	
	12' - 16'	P-33-12	Soil				X	
	16' - 20'	P-33-16	Soil				X	
20' - 24'	P-33-20	Soil				X		
P-34	0' - 0.5'	P-34-0	Soil		X			
	0.5' - 2'	P-34-0.5	Soil			X		
	2' - 5'	P-34-2	Soil				X	
	5' - 8'	P-34-5	Soil				X	
	8' - 12'	P-34-8	Soil				X	
	12' - 16'	P-34-12	Soil				X	
	16' - 20'	P-34-16	Soil				X	
20' - 24'	P-34-20	Soil				X		
P-35	0' - 0.5'	P-35-0	Soil		X			
	0.5' - 2'	P-35-0.5	Soil			X		
	2' - 5'	P-35-2	Soil				X	
	5' - 8'	P-35-5	Soil				X	
	8' - 12'	P-35-8	Soil				X	
12' - 16'	P-35-12	Soil				X		

Table 6. Request for Analyses - Phase 1 Soil Samples
 ECI Property, 20846 Normandie Avenue, Los Angeles County, California

SOIL INVESTIGATION FOR HISTORICAL STORMWATER PATHWAY - SOUTH
 MONTROSE CHEMICAL SUPERFUND SITE, LOS ANGELES COUNTY, CALIFORNIA

Method					EPA 8081A/EPA 8082A	EPA 8081A/EPA 8082A	EPA 8081A/EPA 8082A	EPA 8081A/EPA 8082A
Specific Analyses Requested					Pesticides/PCBs	Pesticides/PCBs	Pesticides/PCBs	Pesticides/PCBs
Preservatives					Chill to 4° C			
Analytical Holding Time					< 14 days prior to extraction, 40 days after extraction	< 14 days prior to extraction, 40 days after extraction	< 14 days prior to extraction, 40 days after extraction	< 14 days prior to extraction, 40 days after extraction
Contract Holding Time					< 14 days prior to extraction, 40 days after extraction	< 14 days prior to extraction, 40 days after extraction	< 14 days prior to extraction, 40 days after extraction	< 14 days prior to extraction, 40 days after extraction
Turn-around Time					14 days	14 days	14 days	14 days
Boring ID	Sample Depth	Sample ID	Sample Type	Sample Date	1 x 8 -oz. glass jar	1 x 1.5' to 4' acetate sleeve (or) 1 x 8-oz. glass jar	1 x 3' to 4' acetate sleeve (or) 1 x 16-oz. glass jar	2-1 L amber bottles
P-36	0' - 0.5'	P-36-0	Soil		X			
	0.5' - 2'	P-36-0.5	Soil			x MS/MSD		
	2' - 5'	P-36-2	Soil				X	
	5' - 8'	P-36-5	Soil				X	
	8' - 12'	P-36-8	Soil				X	
	12' - 16'	P-36-12	Soil				X	
P-37	0' - 0.5'	P-37-0	Soil		X			
	0.5' - 2'	P-37-0.5	Soil			X		
	2' - 5'	P-37-2	Soil				X	
	5' - 8'	P-37-5	Soil				X	
	8' - 12'	P-37-8	Soil				X	
	12' - 16'	P-37-12	Soil				X	
P-38	0' - 0.5'	P-38-0	Soil		X			
	0.5' - 2'	P-38-0.5	Soil			X		
	2' - 5'	P-38-2	Soil				X	
	5' - 8'	P-38-5	Soil				X	
	8' - 12'	P-38-8	Soil				X	
	12' - 16'	P-38-12	Soil				x MS/MSD	
Equipment Blank								
EQ101	-----		Water					X
EQ102	-----		Water					X
EQ103	-----		Water					X
EQ104	-----		Water					X
EQ105	-----		Water					X
EQ106	-----		Water					X
EQ107	-----		Water					X
EQ108	-----		Water					X
EQ109	-----		Water					X
EQ110	-----		Water					X
Total Samples					38	38	220	0
Total Duplicates					0	0	0	0
Total Field/Equipment Blanks					0	0	0	10
Total Trip Blanks					0	0	0	0
Total Laboratory QC (MS/MSD) Samples					0	1	14	0
Subtotal Analyses					38	39	234	10
Total Analyses								321

Notes

Laboratory Quality Control (QC) = Matrix spike/matrix spike duplicate (MS/MSD) sample set consists of three times the normal sample volume (equivalent to three samples).
 Equipment Blanks will be collected at a frequency of one per day.
 EPA= US Environmental Protection Agency

Table 7. Request for Analyses - Soil IDW
ECI Property, 20846 Normandie Avenue, Los Angeles County, California

SOIL INVESTIGATION FOR HISTORICAL STORMWATER PATHWAY - SOUTH
 MONTROSE CHEMICAL SUPERFUND SITE, LOS ANGELES COUNTY, CALIFORNIA

Method (Soil)					EPA 8260C	EPA 6000/7000 Series	EPA 8081A/EPA 8082A	EPA 8015-Gasoline	EPA 8015-Diesel
Specific Analyses Requested					VOCs	Metals	Pesticides/PCBs	TPHg	TPHd
Preservatives					No headspace, Chill to 4° C	Chill to 4° C	Chill to 4° C	No headspace, Chill to 4° C	Chill to 4° C
Analytical Holding Time					<14 days	180 days for all metals except Mercury, which is 28 days	< 14 days prior to extraction, 40 days after extraction	<14 days	< 14 days prior to extraction, 40 days after extraction
Turn-around Time					14 days	14 days	14 days	14 days	14 days
					Number of bottles/ analysis				
Borings	Sample Location	Sample ID	Sample Matrix	Sample Date	1 x 8 -oz. glass jar	1 x 8 -oz. glass jar	1 x 8 -oz. glass jar	1 x 8 -oz. glass jar	1 x 8 -oz. glass jar
1st quarter	drum composite	SIDW-1	soil		X	X	X	X	X
1st quarter	drum composite	SIDW-11	soil (duplicate)		O	O	O	O	O
2nd quarter	drum composite	SIDW-2	soil (MS/MSD)		XXX	XXX	XXX	XXX	XXX
3rd quarter	drum composite	SIDW-3	soil		X	X	X	X	X
4th quarter	drum composite	SIDW-4	soil		X	X	X	X	X
Total Samples					4	4	4	4	4
Total Duplicates					0	0	0	0	0
Total Field/Equipment Blanks					0	0	0	0	0
Total Trip Blanks					0	0	0	0	0
Total Laboratory QC (MS/MSD) Samples					2	2	2	2	2
Total Analyses					6	6	6	6	6

Notes:

Laboratory QC = Matrix spike/matrix spike duplicate (MS/MSD) sample set that will be three times the normal sample volume (equivalent to three samples).

IDW = Investigation Derived Waste

One (1) MS/MSD sample will be taken for each 20 samples per matrix.

Table 8. Request for Analyses - Water IDW
ECI Property, 20846 Normandie Avenue, Los Angeles County, California

SOIL INVESTIGATION FOR HISTORICAL STORMWATER PATHWAY - SOUTH
 MONTROSE CHEMICAL SUPERFUND SITE, LOS ANGELES COUNTY, CALIFORNIA

Method (Water)					EPA 8260C	EPA 6000/7000 Series	EPA 8081A/EPA 8082A	EPA 8015-Gasoline	EPA 8015-Diesel
Specific Analyses Requested					VOCs	Dissolved Metals [a]	Pesticides/PCBs	TPHg	TPHd
Preservatives					HCl to pH <2; Chill to 4° C; no headspace	HNO3 to pH <2; Chill to 4° C	Chill to 4° C	HCl to pH <2; Chill to 4° C; no headspace	Chill to 4° C
Analytical Holding Time					<14 days	< 6 months (28 days for mercury)	< 14 days prior to extraction, 40 days after extraction	< 14 days	< 7 days
Turn-around Time					14 days	14 days	14 days	14 days	14 days
					Number of bottles/ analysis				
Borings	Sample Location	Sample ID	Sample Matrix	Sample Date	3 x 40 ml VOAs	1 x 1-L poly bottle	2 x 1-L amber bottles	3 x 40 ml VOAs	2-1 L amber bottles
1st sixth	drum composite	WIDW-1	water		X	X	X	X	X
1st sixth	drum composite	WIDW-11	water (duplicate)		0	0	0	0	0
2nd sixth	drum composite	WIDW-2	water (MS/MSD)		XXX	XXX	XXX	XXX	XXX
3rd sixth	drum composite	WIDW-3	water		X	X	X	X	X
4th sixth	drum composite	WIDW-4	water		X	X	X	X	X
5th sixth	drum composite	WIDW-5	water		X	X	X	X	X
6th sixth	drum composite	WIDW-6	water		X	X	X	X	X
--	field blank	WIDW-7	water		0	0	0	0	0
Total Samples					7	7	7	7	7
Total Duplicates					0	0	0	0	0
Total Field/Equipment Blanks					0	0	0	0	0
Total Trip Blanks					0	0	0	0	0
Total Laboratory QC (MS/MSD) Samples					2	2	2	2	2
Total Analyses					9	9	9	9	9

Notes

Laboratory QC = Matrix spike/matrix spike duplicate (MS/MSD) sample set that will be three times the normal sample volume (equivalent to three samples).

[a] Dissolved metals samples to be filtered in the laboratory

IDW = Investigation Derived Waste

One (1) MS/MSD sample will be taken for each 20 samples per matrix.

FIGURES

APPENDIX A

EPA Region IX

**Instructions for Sample Shipping
and Documentation**

**INSTRUCTIONS FOR
SAMPLE SHIPPING
AND DOCUMENTATION**

November 1997

Quality Assurance Management Section
U. S. EPA Region 9
San Francisco, CA

TABLE OF CONTENTS

1.0 GENERAL 1
1.3 DISTRIBUTION OF COPIES 1

2.0 SAMPLE SHIPMENTS..... 2

3.0 CLP ANALYTICAL SERVICES (CLPAS) TRAFFIC REPORT/CHAIN-OF-CUSTODY FORMS FOR ORGANIC AND INORGANIC ANALYSES..... 3
3.1 CASE DOCUMENTATION..... 3
3.2 HEADER INFORMATION..... 4
3.3 SAMPLE DOCUMENTATION..... 5
3.4 "SHIPMENT FOR CASE COMPLETE (Y/N)" 7
3.5 "PAGE 1 OF __" 7
3.6 "SAMPLE USED FOR SPIKE AND/OR DUPLICATE" 7
3.7 "ADDITIONAL SAMPLER SIGNATURES" 7
3.8 "CHAIN OF CUSTODY SEAL NUMBER" 7

4.0 REGIONAL ANALYTICAL PROGRAM (RAP) CHAIN-OF-CUSTODY FORMS..... 7
4.1 CASE DOCUMENTATION..... 7
4.2 SAMPLE DOCUMENTATION..... 8
4.3 AIRBILL NUMBER 9
4.4 "REMARKS" BOX 9

5.0 SAMPLE BOTTLES 9

6.0 FIELD QA/QC SUMMARY FORM..... 10

FIGURES

TYPE OF ACTIVITY Appendix A
CLP SAMPLE NUMBERS Appendix B
ORGANIC TRAFFIC REPORT & CHAIN OF CUSTODY RECORD Attachment 1
INORGANIC TRAFFIC REPORT & CHAIN OF CUSTODY RECORD Attachment 2
(REGIONAL) CHAIN OF CUSTODY RECORD Attachment 3
FIELD QA/QC SUMMARY FORM Attachment 4
SAMPLE SHIPMENT INFORMATION Attachment 5

1.0 **GENERAL**

- 1.1 When all paperwork has been completed by the sampler and samples are ready to be shipped, place the laboratories' copies in a plastic bag and tape it to the inside of the lid of the cooler(s). For CLP Analytical Services, Contract Laboratory Analytical Services Support's (CLASS) copies must be submitted within 5 days of sampling. The Region's copies may be submitted at that time or at the end of the sampling event. If the sampling event covers an extended length of time, the Region's copies must be submitted weekly. (Note: The RSCC coordinator will not forward CLASS's copies. They will be returned to the sampler.)

QAMS address:

U.S. EPA Region 9
Quality Assurance Program (PMD-3)
75 Hawthorne Street
San Francisco, CA 94105
Attn.: RSCC Coordinator

CLASS address:

Contract Laboratory Analytical Services Support
DynCorp
2000 Edmund Halley Dr.
Reston, VA 20191-3436
Attn.: Region 9 Coordinator

- 1.2 For analyses performed by the Regional Laboratory, DO NOT send any copies of the paperwork to the Contract Laboratory Analytical Services Support (CLASS).

1.3 DISTRIBUTION OF COPIES

1.3.1 CLP ANALYTICAL SERVICES

1.3.1.1 ORGANIC TRAFFIC REPORT/CHAIN-OF-CUSTODY FORM

- a. Blue (original) copy to QAMS, Region 9
- b. Pink (second) copy to CLASS
- c. White (third) and Yellow (fourth) copies accompany samples to laboratory
- d. Photocopy for sampler's files

1.3.1.2 INORGANIC TRAFFIC REPORT/CHAIN-OF-CUSTODY FORM

- a. Green (original) copy to QAMS, Region 9
- b. Pink (second) copy to CLASS
- c. White (third) and Yellow (fourth) copies accompany samples to laboratory
- d. Photocopy for sampler's files

1.3.2 REGIONAL ANALYTICAL PROGRAM (RAP):

1.3.2.1 RAP CHAIN-OF-CUSTODY FORM

- a. White (original) copy to laboratory with samples
- b. Pink copy to QAMS, Region 9
- c. Photocopy for sampler's file

1.3.3 FIELD QA/QC SUMMARY FORM

- a. Original to QAMS, Region 9
- b. Photocopy for sampler's files

2.0 SAMPLE SHIPMENTS

2.1 Calling in shipments to the RSCC coordinator

2.1.1 Call the EPA Regional Sample Control Center (RSCC) coordinator on a daily basis, even if no shipments were made. The RSCC coordinator may be reached at (415) 744-1498.

2.1.2 Try to stick to the sampling schedule. If this is not possible, let the RSCC coordinator know immediately so other arrangements can be made.

2.1.3 Notify the RSCC coordinator within 12 hours of sample shipments. Calling in sample shipments to the RSCC coordinator is MANDATORY. Provide the following information to the RSCC coordinator:

1. Case number
2. Name of Laboratory
3. Date of shipment
4. Carrier and airbill number
5. Number of samples shipped by matrix and analysis type
6. Number of coolers shipped
7. Information on completions, changes, delays, etc.

2.2 Special shipments (i.e., Saturday delivery/pickup)

2.2.1 General - Friday shipments for Saturday delivery/pickup must be called in by noon (12:00 pm) Friday. This is to enable the RSCC coordinator to pass the information on to CLASS or to the laboratories. Samplers may not contact the laboratories directly. (Laboratories do not have to accept notification of delivery of samples from sources other than CLASS or RSCC.)

2.2.2 Regional Laboratory - The Regional Laboratory is located within a gated compound that is closed on weekends and holidays. Designated laboratory personnel will pickup the samples at the Federal Express office, take them to the laboratory and place them inside the refrigerators. If the following shipping instructions are not followed, an unsuccessful delivery attempt will be made to the Regional Laboratory. In addition, the staff member on call will not be able to pickup the samples, since they will not be at the Federal Express office.

To ensure that samples are held at the Federal Express office, please be sure to complete the following items:

1. On the lower left side of the Federal Express airbill, "For HOLD at FedEx Location check here," mark the box for "Hold Saturday."

2. In Section 3 of the airbill, print the following Federal Express office address:

1600 63rd Street
Emeryville, CA 94608

Federal Express may affix stickers to the coolers. Be sure they read "SATURDAY FEDERAL EXPRESS CENTER HOLD" or something similar. Under no circumstances should a "SATURDAY DELIVERY" sticker be placed on the cooler.

If a carrier other than Federal Express is used, please call the RSCC coordinator (415-744-1498) to make special arrangements.

- 2.2.3 Most CLP laboratories and other commercial laboratories contracted by QAP are staffed on Saturdays. Therefore, coolers can be delivered directly to these laboratories. In this case, the "SATURDAY DELIVERY" sticker should be placed on the cooler.

- 2.2.4 Laboratories may request advance notification of the arrival of certain types of samples, such as samples with very short holding times (e.g., Cr +6) that will be hand delivered to the laboratory. Required deadlines for notification of sample shipments in these special cases will be determined on a case by case basis. The RSCC coordinator will inform the samplers as to when notification of sample delivery is required (e.g., by noon on the day samples will be delivered). This is to facilitate the laboratory(ies) having personnel available to analyze the samples as soon as they arrive.

2.3 Cooler Return

Samplers are responsible for providing laboratories with a means to return coolers to their place of origin. The easiest way is to enclose an airbill with return shipping instructions (i.e., the address filled in as to where the coolers are to be returned to) and an account number to charge shipping costs to.

Samplers using EMFAC coolers should refer to Section 7 of the EMFAC Users Guide for cooler return instructions. EPA contractors should contact their EPA Project Officer for details on acceptable modes of cooler return and shipping cost reimbursement.

3.0 CLP ANALYTICAL SERVICES (CLPAS) TRAFFIC REPORT/CHAIN-OF-CUSTODY FORMS FOR ORGANIC AND INORGANIC ANALYSES

3.1 CASE DOCUMENTATION

Complete this form when collecting CLPAS samples. See Attachments 1 through 3 for examples.

Enter the CLPAS case number in the box(es) located in the upper right corner of the form. CLPAS case numbers have the format "xxxx" (e.g., 18123).

3.2 HEADER INFORMATION

3.2.1 Box 1 - PROJECT CODE/SITE INFORMATION

Enter the Project Code (i.e., \$F), Site Name, City, State, Site Spill ID. (**Note: the information entered here does not go through to the laboratory's copies.**)

If sampling is not under the Superfund program, enter the Account code (account to be billed), any Regional Information and the name of the program (e.g., RCRA) in the box titled "Non-Superfund program."

3.2.2 Box 2 - REGIONAL INFORMATION

Enter the Region number, the name of your sampling company, and your name and signature in the designated spaces.

3.2.3 Box 3 - TYPE OF ACTIVITY

Check the appropriate box(es) for the type of activity for this sampling event. See Appendix A for acronym definitions.

3.2.4 Box 4 - SHIPPING INFORMATION

Enter the date shipped, the carrier (e.g., Federal Express, Airbourne, etc.) and the air bill number in the appropriate spaces.

3.2.5 Box 5 - SHIP TO

Enter the laboratory name, full address and laboratory contact (e.g., Sample Custodian).

3.2.6 Box 6 - PRESERVATIVE

This box provides a list of commonly used preservatives. Enter the appropriate preservative in Column D. If you enter "5" on the Organic Traffic Report or "7" on the Inorganic Traffic Report indicating "Other", specify the preservative used at the bottom of the "Sample Documentation" area.

If you are using more than one type of preservative, you may either note the preservatives in the box specifically under the requested analyses (e.g., in the Cyanide box enter "2") or list them, separated by commas, in the same order as the checked sample analyses. (Alternatively, the analyses may be listed on separate lines.)

3.2.7 Box 7 - SAMPLE DESCRIPTION

This box provides a list of the description/matrices of the samples that are collected. Enter the appropriate description in Column A.

3.3 SAMPLE DOCUMENTATION

3.3.1 SAMPLE NUMBERS

Carefully transcribe the CLPAS sample numbers from the printed labels onto the Organic or Inorganic Traffic Report/Chain-of-Custody forms in the column labeled "CLP Sample Numbers".

CLPAS sample numbers have the following formats: YX123 for organic and MYX123 for inorganic samples. See Appendix B for examples.

3.3.2 Column A - SAMPLE DESCRIPTION

Enter the appropriate sample description code from Box 7.

Note: Item #6 "Oil" and Item #7 "Waste" are for RAP projects only. Do not ship oily samples or waste samples without making prior arrangements with the EPA.

3.3.3 Column B - CONCENTRATION

Enter "L" for low and "M" for medium concentration samples. (Prior arrangements must have been made with the ESAT RSCC coordinator, CLASS and the laboratories accepting the samples before shipping medium concentration samples. At this time, high concentration samples must be scheduled through the RAP system.)

NOTE: Medium concentration samples must be shipped in metal cans.

3.3.4 Column C - SAMPLE TYPE COMPOSITE/GRAB

Enter the type of sample you collected. A composite is a sample composed of more than one discrete sample. A grab is a discrete sample.

3.3.5 Column D - PRESERVATIVE USED

Enter the preservative used from Box 6.

3.3.6 Column E - CLPAS ANALYSIS

Check the analytical fractions requested for each sample, for example, VOAs, BNAs and Pesticides/PCBs are for low/medium concentration organics. Total metals and cyanide are for low/medium concentration inorganics.

NOTE: If dissolved metals are requested, a note must be added indicating that the samples have been field filtered and that digestion is required. See Attachment 2 for an example.

3.3.7 Column F - REGIONAL SPECIFIC TRACKING NUMBERS OR TAG NUMBERS

Region 9 does not issue tracking numbers or tag numbers. Samplers may use this column for sampler specific tracking numbers or for "Special Instructions". If you choose to use this as "Special Instructions", be sure to note, at the bottom of the "Sample Documentation" area, what the special

handling is. The number and type of containers could be entered here. (e.g., 3-40 mL, 6-1L)

3.3.8 Column G - STATION LOCATION NUMBER

Enter the station location in the space provided.

3.3.9 Column H - MO/DAY/YEAR/TIME OF SAMPLE COLLECTION

Record the month, day, year and time (use military time, e.g., 1600 = 4:00 pm) of sample collection.

3.3.10 Column I - SAMPLER INITIALS

Enter your initials.

3.3.11 Column J - CORRESPONDING CLP ORGANIC/INORGANIC SAMPLE NUMBER

Enter the corresponding CLP sample number for organic or inorganic CLPAS analysis.

3.3.12 Column K - DESIGNATED FIELD QC

NOTE: This column is NOT to be used for the designated laboratory QC samples. **Information entered here is not reproduced onto the laboratories' copies.**

Enter the appropriate qualifier as listed below for "Blind" Field QC samples in this column. (NOTE: All samples must have a qualifier.)

<u>Blind Field QC</u>	<u>Qualifier</u>
Blind Blanks (field, etc.)	B
Blind Field Duplicates	D
Blind Field Spikes	S
Blind PE Samples	PE
All other field samples	--

"B" = These are blanks and include trip blanks (T), field blanks (F) and equipment blanks (E). Blanks may be further identified by the letter in parenthesis. For example, B(T) indicates that the sample is a trip blank.

"D" = These are field duplicates. Do not include samples designated as laboratory duplicates. The primary sample is identified with "--" and the duplicate is given "D" in column K. In addition, the station locations should also identify the primary and duplicate samples. For example, MW-1 is the primary sample and MW-1B is the duplicate sample.

"S" = These are spiked field samples and are generated by field personnel

"PE" = These are performance evaluation samples. They are spiked samples but are not field samples. They are usually prepared by other than field personnel.

"--" = All other samples not designated as blind field QC samples are given this qualifier.

3.4 "SHIPMENT FOR CASE COMPLETE (Y/N)"

This should reflect the status of the samples scheduled to be shipped to a laboratory for a specific case. Only when ALL samples scheduled for shipment to a laboratory for a specific case have been shipped is the case complete.

3.5 "PAGE 1 OF ___"

Enter the number of Traffic Report/Chain-of-Custody Record form(s) enclosed in each cooler. The form(s) accompanying each cooler must list only those samples contained in that cooler.

3.6 "SAMPLE USED FOR SPIKE AND/OR DUPLICATE"

Enter the sample number of the sample designated for laboratory spike and/or duplicate analysis. This is also known as the Laboratory QC sample. This sample should be included in the first shipment to the laboratory and in the first shipment for each subsequent sample delivery group (SDG).

DO NOT enter samples designated as blind field duplicates in this block.

3.7 "ADDITIONAL SAMPLER SIGNATURES"

Record additional sampler signatures that are different from that in Box 2.

3.8 "CHAIN OF CUSTODY SEAL NUMBER"

Enter the Chain of Custody Seal Number used to seal the cooler, if applicable.

3.9 Instructions summarizing CLP sample volumes, packaging and shipment reporting requirements are printed on the back of the Traffic Reports.

4.0 **REGIONAL ANALYTICAL PROGRAM (RAP) CHAIN-OF-CUSTODY FORMS**

4.1 CASE DOCUMENTATION

Complete this form when collecting RAP samples. See Attachment 4 for an example.

4.1.1 PROJECT NUMBER

Enter the RAP case number in this box.

4.1.2 PROJECT NAME

Leave this space blank.

4.1.3 **SAMPLERS (Signature)**

Record all sampler signatures in this box.

4.2 **SAMPLE DOCUMENTATION**

4.2.1 **SAMPLE NUMBERS**

No sample numbers are provided. Samplers should designate their own numbers and enter them in the space labeled STA.NO.

4.2.2 **DATE**

Enter the month, day and year the sample was collected in the "DATE" column.

4.2.3 **TIME**

Enter the time (using military time) in the "TIME" column.

4.2.4 **COMP/GRAB**

Check the kind of sample collected in the composite or grab column.

4.2.5 **STATION LOCATION**

Enter the sample site location in the space provided.

4.2.6 **SAMPLE MATRIX**

For each sample, enter the appropriate sample matrix description in the right third portion of the "STATION LOCATION" column.

4.2.7 **NO. OF CONTAINERS**

Enter the total number of sample containers collected for each matrix at each station location.

4.2.8 **SAMPLE ANALYSES**

There are six slanted columns to be used to specify the kind of analysis to be performed by the laboratory. Enter the appropriate analysis in each column. Mark the box of the appropriate analysis for each sample collected.

4.2.9 **REMARKS**

The items listed below are to be included in this area on the appropriate sample line.

4.2.9.1 **CONCENTRATION**

Enter "L" for low concentration, "M" for medium concentration and "H" for high concentration.

NOTE: Medium and high concentration samples must be shipped in metal cans.

4.2.9.2 PRESERVATIVE USED

Enter the preservative used.

If more than one type of preservative is used for a sample, separate the preservative references with commas. The sequence of the reference numbers must follow the sequence of the requested "RAP Analysis" parameters that are recorded in the analysis columns.

4.2.9.3 SAMPLE USED FOR SPIKE AND/OR DUPLICATE

Enter the sample number designated for spike and/or duplicate analysis. This is also known as the Laboratory QC sample. This sample should be included in the first shipment to the laboratory and in the first shipment for each subsequent sample delivery group (SDG).

4.3 AIRBILL NUMBER

The airbill number should be entered on the first signature line, in the box marked "Received by: (Signature)".

4.4 "REMARKS" BOX

Located in the lower right hand corner of the Chain of Custody is a box labeled "Remarks". The following items should be entered there.

4.4.1 CHAIN OF CUSTODY SEAL NUMBER

Enter the Chain of Custody Seal Number used to seal the coolers, if applicable, in the box labeled "Remarks", in the lower right-hand corner.

4.4.2 LABORATORY NAME

Enter the Laboratory name in the box labeled "Remarks", in the lower right-hand corner.

4.4.3 SHIPPING COMPLETE?

Enter "yes, shipping is complete" or "No, shipping is not complete" in the box labeled "Remarks", in the lower right-hand corner.

4.4.4 CARRIER

Enter the carrier (e.g., "Fed Ex") in the box labeled "Remarks", in the lower right-hand corner.

5.0 SAMPLE BOTTLES

5.1 Sample bottles be labeled with the following information:

- a. Case number

- b. Date/Time of collection
- c. Matrix/Concentration
- d. Station Location
- e. Sample number (CLP or sampler designated)
- f. Analysis
- g. Preservative

5.2 Pre-printed, self-adhesive labels are provided for CLPAS Organic, CLPAS Inorganic and RAP samples.

5.2.1 Transcribe the appropriate sample number onto the corresponding bottle label and/or affix the sample number label onto the bottle.

5.2.2 Destroy all unused labels or return them to the ESAT RSCC coordinator. DO NOT use them for future samplings. New sample numbers will be assigned.

6.0 FIELD QA/QC SUMMARY FORM

6.1 Complete one form per laboratory per matrix for each sampling event. For long term projects, complete a form(s) after each week of sampling. Complete the header portion even if no QA/QC samples were provided.

6.2 Complete all applicable entries. Please use the appropriate sample numbers for each laboratory. (e.g., for the laboratory performing CLPAS organics, use the CLP organic sample numbers, YX123, etc. For the laboratory performing RAP analyses, use the RAP sample numbers, SY0123, etc.) Please do not use station locations. If a laboratory is performing more than one type of analysis, list all applicable sample numbers.

6.3 This form is very important for validation purposes. The validators will compare the results of duplicates and assess the quality of blanks, if they know which samples they are. Failure to provide this information will delay the completion of validation.

Appendix A

TYPE OF ACTIVITY

Check the box which describes the funding lead for this sampling event:

Funding Lead

SF = Superfund
PRP = Potentially Responsible Party
ST = State
FED = Federal

Check one or more boxes, as appropriate, which describe the task of this sampling event:

Pre-Remedial

PA = Preliminary Assessment
SSI = Screening Site Investigation
LSI = Listing Site Investigation

Remedial

RIFS = Remedial Investigation Feasibility Study
RD = Remedial Design
O&M = Operations and Maintenance
NPLD = National Priorities List

Removal

CLEM = Classic Emergency
REMA = Removal Assessment
REM = Removal
OIL = Oil Response
UST = Underground Storage Tank Response

Appendix B

CLP SAMPLE NUMBERS

Each sample is assigned a unique sample number. A "sample" is defined as follows:

- one matrix, e.g., water, soil/sediment, fish, etc.
- one station location
- one analytical program, e.g., CLPAS organics, CLPAS inorganics or a RAP analysis
- one laboratory

Sample numbers for CLPAS analyses:

- CLPAS Organic sample numbers consist of five alpha-numeric, always beginning with "Y"

Example - YJ386

- CLPAS Inorganic sample numbers consist of six alpha-numeric, always beginning with "MY"

Example - MYG528

Examples for assigning sample numbers:

- CLPAS Volatiles & CLPAS Pesticides/PCBs receive the **SAME SAMPLE NUMBER**, if the samples are:

- the same matrix
- part of the same analytical program, e.g., CLPAS organics
- from the same station location
- going to the same laboratory

- CLPAS Volatiles & CLPAS Pesticides/PCBs receive **DIFFERENT SAMPLE NUMBERS**, if the samples are:

- the same matrix
- part of the same analytical program, e.g., CLPAS organics
- from the same station location
- going to different laboratories

- CLPAS Volatiles & CLPAS Metals receive **DIFFERENT SAMPLE NUMBERS**, if the samples are:

- the same matrix
- part of different analytical programs, e.g., CLPAS organics & CLPAS inorganics
- from the same station location
- going to the same laboratory

Case No. **17235**

SAS No. (if applicable)

7. Sample Description (Enter in Column A)
 1. Surface Water
 2. Ground Water
 3. Leachate
 4. Rainate
 5. Soil/Sediment
 6. Oil (High only)
 7. Waste (High only)
 8. Other (Specify)

6. Preservative (Enter in Column D)
 1. HCl
 2. HNO3
 3. NaHSO4
 4. H2SO4
 5. Other (Specify)
 6. Ice only
 N. Not preserved

5. Ship to
**Alpha Lab
 123 Pine Ave
 NY, NY 10001**

4. Date Shipped (Carrier)
1-7-94 Fed. Express

3. Type of Activity
 SF PA ST FED
 Removal: RIFS RD RA O&M NPLD
 Remedial: CLEM REM OIL UST

2. Region No. **9** Sampling Co. **Ace**
 Sampler (Name) **Gail Jones**
 Sampler Signature **Gail Jones**

1. Project Code **\$F** Account Code
 Regional Information
 Non-Superfund Program
 Site Name **Toxic Dump** Site Spill ID **99**
 City/State **Smallville CA**

ATTN: **John Doe**

A Enter # from Box 7	B Conc. Sample Type: Low Med High	C Sample Type: Comp. Grab	D Preservative from Box 6	E RAS Analysis			F Regional Speculo Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Enter Appropriate Qualifier for Designated Field CG B - Batch S - Spoke D - Duplicate PE - Perm. Evap. - = Not a CC Sample
				VOA	BNA	High only ARO/PCB/TOX						
YJ126	2	6		X			MW-1	1-6-94 0900	JY	MYG001		
YJ127	3	6		X			MW-2	1-6-94 1000	JY	MYG002		
YJ128	3	6		X			MW-3	1-6-94 1100	JY	MYG003		

Chain of Custody Seal Number

Additional Sampler Signatures

Sample used for a spike and/or duplicate **YJ127**

Page 1 of 1

SHIPMENT FOR CASE COMPLETE? (Y/N) **(Y)**

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time	Remarks
Gail Jones	1-7-94 1600			
				is custody seal intact? Y/N/None

Split Samples Accepted (Signature) Declined

EPA Form 9110-2 (Rev. 8-81) Replaces EPA Form (2075-7), previous edition which may be used

REGION
75 Hawthorne St., 9th
San Francisco, California 94105

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

CHAIN OF CUSTODY RECORD

PROJ. NO. R94512		PROJECT NAME		STATION LOCATION		NO. OF CONTAINERS	REMARKS
STA. NO.	DATE	TIME	COM	GRAB	ANAL		
SAMPLERS: (Signature) <i>R. Pettit</i>							
SyD000	7/21/94	1000		✓	FRONT - MW	4	VOA'S PRESERVED WITH SLURRY PRESERVED WITH NaOH + Zn Acetate
SyD001	7/21/94	1030		✓	BACK - MW	4	
SyD002	7/21/94	1300		✓	EAST - MW	4	
SyD003	7/21/94	1320		✓	EAST - S	1	
							LABQC
							LABQC
							LOW LEVEL VOA
							NITRATE/NITRITE
							ALL SOIL AND GW SAMPLES ARE LOW CONCENTRATION
Relinquished by: (Signature) <i>R. Pettit</i>		Date / Time	Received by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time
		7/22/94 1600	1234567890				
Relinquished by: (Signature)		Date / Time	Received by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time
Relinquished by: (Signature)		Date / Time	Received for Laboratory by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Relinquished by: (Signature)	Date / Time
Remarks LAB: REGION 7 SHIPPING IS COMPLETE 7/22/94 CARRIER: FED EX, 7/22/94 CUSTODY SEAL #: 12245							

FIELD QA/QC SUMMARY FORM

Instructions: Complete one form per laboratory and per matrix for each sampling event

Date: 1-10-94
Sampler: Gail Jones
Office: ACE
Phone: (415) 456-7890

Site: TOXIC DUMP
Case/SAS #: 17235
Laboratory: Beta Labs, Inc

Matrix: [X] Groundwater [] Surface Soil [] Air
[] Surface Water [] Subsurface Soil [] Other

I. BLANKS

Table with 3 columns: Sample #, Type (circle one), Date Collected. Includes handwritten entry MVG 021 with type Equip and date 1-9-94.

II. BACKGROUND SAMPLES

Table with 2 columns: Sample #, Date Collected. Empty rows for background samples.

III. LAB QC SAMPLES

Table with 2 columns: Sample #, Date Collected. Includes handwritten entries MVG 003 and MVG 004 with dates 1-6-94.

IV. DUPLICATES

Table with 4 columns: Sample #, Matches Sample #, Date Collected, Type (circle one). Includes handwritten entry MVG 015 matching MVG 016 with date 1-9-94 and type (b).

V. Checklist of Field Problems Encountered

Checklist table with 2 columns: Problem description (e.g., None, Pumping Equipment Problems, etc.) and Sample # / Date(s) of Occurrence / Comments.

ATTACHMENT 5

SAMPLE SHIPMENT INFORMATION

DATE: _____ # OF PAGES: _____
 TO: GAIL JONES, RSCC COORDINATOR FROM: _____
 CD.: EPA REGION 9 (P-3-21) CO.: _____
 PHONE #: (415) 744-1496 PHONE #: _____
 FAX #: (415) 744-1476 FAX #: _____



CASE #: _____ LAB NAME: _____
 # COOLERS: _____ SHIPPING DATE: _____
 CARRIER: _____ AIRBILL #: _____

# SAMPLES	CONC/MATRIX	ANALYSES
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Is this sampling event complete with this shipment? Y N

COMMENTS: _____



CASE #: _____ LAB NAME: _____
 # COOLERS: _____ SHIPPING DATE: _____
 CARRIER: _____ AIRBILL #: _____

# SAMPLES	CONC/MATRIX	ANALYSES
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Is this sampling event complete with this shipment? Y N

COMMENTS: _____

