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Final

SITE MANAGEMENT PLAN

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Port Hueneme, California

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µg/L	Micrograms per liter
40 CFR	Title 40 of the *Code of Federal Regulations*
AM	Action memorandum
AOC	Area of concern
Bechtel	Bechtel National, Inc.
BEI	Bechtel Environmental, Inc.
bgs	Below ground surface
BHHRA	Baseline human health risk assessment
BMP	Best management practices
BTEX	Benzene, toluene, ethylbenzene, and xylenes
CAP	Corrective action plan
CBC	Construction Battalion Center
CCR	*California Code of Regulations*
CED	Construction Equipment Department
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
COC	Chemical of concern
COPC	Chemical of potential concern
COPEC	Chemical of potential ecological concern
CPT	Cone penetrometer test
CRL	Chemical Research Laboratories
DD	Decision document
DDT	4,4'-Dichlorodiphenyltrichloroethane
DMETL	Metals (filtered)
DPDO	Defense Property Disposal Office
DQO	Data quality objective
DTSC	California Department of Toxic Substances Control
EE/CA	Engineering evaluation/cost analysis
EMSI	Environmental Monitoring and Services, Inc.
EPA	U.S. Environmental Protection Agency
ERA	Ecological risk assessment
ER-L	Effects range-low
ERTEC	Earth Technology Corporation
FS	Feasibility study
GMETL	General Mineral

HHRA	Human health risk assessment
HI	Hazard index
HMD	Hazardous Materials Department
HMSSA	Hazardous materials survey and site assessment
HSP	Health and safety plan
IAS	Initial site assessment
ID	Identification
IRP	Installation Restoration Program
J	Estimated value
Krispar	Krispar Technologies, Inc.
LFR	Levine Fricke
LUFT	Leaking underground fuel tank
MCL	Maximum contaminant level
METL	Metals (total-unfiltered)
mg/kg	Milligrams per kilogram
mg/L	Milligrams per liter
NA	Not applicable (or not analyzed)
Navy	U.S. Department of the Navy
NAWQC	National Ambient Water Quality Criteria
NBVC	Naval Base Ventura County
NC	No criteria
NCEL	Naval Civil Engineering Laboratories
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NCTC	Naval Construction Training Center
ND	None detected
NEESA	Naval Energy and Environmental Support Activity
NRC	Nuclear Regulatory Commission
NSFO	Navy special fuel oil
OC	Organochlorine
OHD	Oxnard Harbor District
ORGPB	Organic lead
PAH	Polynuclear [or polycyclic] aromatic hydrocarbon
PCB	Polychlorinated biphenyl
PEST	Pesticides

PESTO	Organophosphorus pesticides
PP	Proposed plan
ppm	Parts per million
PRC	PRC Environmental Management, Inc.
PRG	Preliminary remediation goal
R	Result rejected during quality assurance review
RCRA	Resource Conservation and Recovery Act
RFA	RCRA Facility Assessment
RI	Remedial investigation
RME	Reasonable maximum exposure
RWQCB	California Regional Water Quality Control Board, Los Angeles Region
SAP	Sampling and analysis plan
SCAPS	Site characterization and analysis penetrometer system
SCS	Stearns, Conrad, and Schmidt
SI	Site investigation
SMP	Site management plan
SOTA	SOTA Environmental Technology, Inc.
STLC	Soluble threshold limit concentration
SulTech	A joint venture of Sullivan Consulting Group and Tetra Tech EM Inc.
SVOC	Semivolatile organic compound
SWDIV	Naval Facilities Engineering Command, Southwest Division
SWMU	Solid waste management unit
TCLP	Toxicity characteristic leaching procedure
TDS	Total dissolved solids
Tetra Tech	Tetra Tech EM Inc.
TIC	Tentatively identified compound
TPH	Total petroleum hydrocarbons
TPH-e	Total petroleum hydrocarbons - extractable
TPH-p	Total petroleum hydrocarbons - purgeable
TRPH	Total recoverable petroleum hydrocarbons
TSCA	Toxic Substance Control Act
TTLC	Threshold concentration limits
U	Nondetected
UCL 95	95 Percent upper confidence limit
USACE	U.S. Army Corps of Engineers
UST	Underground storage tank
UST Sites	UST Waste Oil Sites

VCEHD	Ventura County Environmental Health Department
VOC	Volatile organic compound
West Coast	West Coast Environmental and Engineering
WET	Waste extraction test
yd^3	Cubic yards

1.0 INTRODUCTION

The U.S. Department of the Navy (Navy), Naval Facilities Engineering Command, Southwest Division (SWDIV), has developed this site management plan (SMP) for the Construction Battalion Center (CBC Port Hueneme) to guide installation activities carried out under the Navy's Installation Restoration Program (IRP) and the underground storage tank (UST) program. This SMP was prepared by SulTech, a joint venture of Sullivan Consulting Group and Tetra Tech EM Inc. (Tetra Tech), in accordance with the scope of work under Contract Task Order 0008 of Contract Number N68711-03-D-5104. All installations participating under the Navy IRP are planning and executing environmental restoration activities in response to releases of hazardous substances, pollutants, contaminants, or hazardous solid wastes. Similarly, in response to federal and state laws, all Navy installations have initiated environmental compliance programs and activities.

1.1 PURPOSE

This SMP was developed to provide the framework for implementing and scheduling the IRP activities at CBC Port Hueneme.

This SMP contains background information and available historical site data; identifies data gaps; and recommends action items related to 21 IRP and 10 UST Waste Oil Sites (UST Sites) at CBC Port Hueneme. The purpose of the plan is to establish an environmental investigation and restoration strategy, and to identify site groupings for environmental investigation and restoration activities at CBC Port Hueneme.

This document describes the history of environmental investigations at CBC Port Hueneme, discusses current environmental restoration strategies, sets priorities for the environmental investigations and restoration, identifies site groupings for accelerated site investigations and reporting, and provides schedules for the environmental investigations and restoration. A master project schedule indicating the major phases of work for the IRP sites at CBC Port Hueneme is included as Appendix A.

Previous recommendations for specific sites are presented for historical perspective and do not necessarily reflect current priorities and strategies for each site. Historically, the strategy for individual IRP site closure considered soil contamination issues while groundwater was addressed separately in a basewide groundwater investigation (Tetra Tech and LFR Levine-Fricke [LFR] 2001). Currently, the strategy is to address groundwater together with all other issues on a site-specific basis. The Navy has determined that further evaluation is necessary at many sites to provide a complete assessment of site conditions necessary to formulate decisions regarding site closure and to evaluate data using current methodologies and guidance.

Priorities identified in the schedule are based primarily on risks to human health and the environment but also consider budgetary and personnel resources. Revisions to these schedules are anticipated in response to information developed during ongoing investigation and cleanup

projects, and the schedules will be revised as required. The updates will allow for flexibility in the environmental restoration process by providing the Navy and State of California the ability to reallocate resources to high-priority tasks based on the most current information.

1.2 FACILITY DESCRIPTION

CBC Port Hueneme is located in Ventura County, California, approximately 60 miles northwest of Los Angeles, as shown on Figure 1-1. CBC Port Hueneme consists of 1,647 acres of coastal land, situated approximately 5 miles northwest of the Santa Monica Mountains. CBC Port Hueneme is located at the southwest margin of the Oxnard Plain in the western portion of the Ventura Basin. The Ventura Basin is a relatively broad and level flood plain and river delta formed by the Santa Clara River. The Ventura Basin is bordered on the north and northwest by the Santa Ynez Mountains, on the south and east by the Santa Monica Mountains, and on the southwest by the Pacific Ocean and Channel Islands (Mukae and Turner 1985). Hueneme Harbor is the only deep-water port facility between Los Angeles and San Francisco. The harbor, created by dredging in 1934, occupies approximately 80 acres and is used for both commercial and naval activities (Stearns, Conrad, and Schmidt [SCS] and Landau Associates 1985).

1.3 HISTORY AND MISSION

Established in 1942 to meet World War II military needs, CBC Port Hueneme consists of 750 buildings and supports a work force of over 10,000 individuals (SCS and Landau Associates 1985). Major responsibilities of CBC Port Hueneme are divided into homeported and deployed functions that include military and technical training; outfitting of Naval Mobile Construction Battalions and Seabee teams; supply and administrative services; and logistical support in deployment of the Naval Construction Force. Supply services include procurement, storage and issue, assembly and staging of equipment, scheduling of shipping, and outloading. Additionally, CBC Port Hueneme hosts a variety of tenant activities and lessees such as the Civil Engineer Corps Officers School and Mazda Motor of America. Historical fluctuations in the growth of the base reflect increased mobilization activity associated with World War II, the Korean War, and the Vietnam War. Most existing facilities were constructed to support these periods of increased military activity.

1.4 ENVIRONMENTAL PROGRAMS

The Navy conducts environmental activities at CBC Port Hueneme under several different environmental programs. Although this SMP focuses on the 31 sites investigated under the IRP and the UST programs, other environmental programs are also summarized in this section.

1.4.1 Installation Restoration Program

The IRP at CBC Port Hueneme is designed to identify, investigate, assess, characterize, and clean up or control releases of hazardous substances, as well as reduce risk to human health and the environment from past waste disposal operations and hazardous material spills at the facility.

The IRP is implemented in a manner consistent with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended, and its implementing regulation, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), codified in Title 40 of the *Code of Federal Regulations* (40 CFR) Part 300. CERCLA (commonly referred to as "Superfund") authorized federal government intervention in areas where hazardous substances were released into the environment or a substantial threat of a release exists and may present an imminent danger to public health or welfare. Twenty-one IRP sites at CBC Port Hueneme have been identified as requiring further evaluation or action to fulfill the requirements of CERCLA. Sections 2.0 through 22.0 discuss these IRP sites in more detail. Figure 1-2 identifies the IRP sites discussed in this SMP.

1.4.2 Underground Storage Tank Program

The UST program at CBC Port Hueneme is designed to remove abandoned USTs and identify, investigate, assess, characterize, and clean up or control releases of petroleum constituents associated with the abandoned USTs. Although the UST program is administered under the Navy's IRP, it is not subject to the provisions of CERCLA. The Ventura County Environmental Health Department (VCEHD) is the lead agency within the county for most subsurface environmental investigations involving USTs. The VCEHD published a reference manual on leaking underground fuel tanks (LUFT) in July 1990 to provide guidance for and stipulate the specific requirements of subsurface environmental investigations at LUFT sites. The California Regional Water Quality Control Board, Los Angeles Region (RWQCB) is the lead regulatory agency that approves final closure for sites involving groundwater contamination.

The CBC Port Hueneme UST program currently includes 60 sites, categorized into the following three groups:

- USTs that have been removed,
- UST sites that have undergone site assessment and closure following removal, and
- USTs that have undergone site assessments and for which confirmation sampling and analysis is in progress.

Ten UST Sites require additional evaluation and action for site closure. These 10 sites have been included in this SMP and are discussed in more detail in Section 23.0. Figure 1-2 identifies the UST Sites discussed in this SMP.

1.4.3 Resource Conservation and Recovery Act Program

Subtitles C and D of the Resource Conservation and Recovery Act (RCRA) establish the national strategy for the management of "ongoing" hazardous and solid waste operations, respectively. The act seeks to encourage alternatives to land disposal of hazardous wastes through recovery of useful material to reduce water volume. The act provides cradle-to-grave tracking of hazardous

materials and includes record keeping on the generation, transportation, storage, and disposal of hazardous materials. The State of California administers the RCRA program.

CBC Port Hueneme is a large quantity generator of hazardous waste operating under U.S. Environmental Protection Agencies (EPA) Hazardous Waste Permit No. CA6170023323. The facility generates a pollution prevention annual data summary as well as an annual report to California Department of Toxic Substances Control (DTSC). CBC Port Hueneme generates approximately 200 to 250 tons of hazardous waste annually. These wastes consisted primarily of waste oil, grease, fuels, paints, batteries, antifreeze, and rags. The CBC Port Hueneme maintains a hazardous waste management plan to guide all hazardous-waste-related issues.

Once generated, the hazardous wastes are temporarily stored either at Building 1428, at satellite accumulation areas at or near the point of generation, or at 90-day accumulation areas at various locations throughout the base. In addition to these accumulation areas, CBC Port Hueneme also has a separate storage facility in Building 328 for polychlorinated biphenyl (PCB)-contaminated items. When the time limit or quantity limit is about to be reached, the wastes are routinely manifested and transported off base by a commercial licensed hazardous waste hauler, contracted by the Defense Reutilization and Marketing Office, to a RCRA-permitted treatment, storage, and disposal facility.

1.4.4 Solid Waste Management Units and Points of Interest

CBC Port Hueneme initiated a program to identify and assess solid waste management units (SWMU) and points of interest in 1991 as a result of an EPA inspection related to issuance of a RCRA Part B permit for the base. The base later determined that the RCRA Part B permit was not needed. EPA prepared a RCRA facility assessment (RFA) report as a result of the inspection (Scientific Applications International Corporation 1993). This report identified 61 SWMUs and 39 areas of concern (AOC) that required assessment and possible cleanup. The report did not provide recommendations for future investigation or action. Accordingly, technical memoranda prepared as supplements to the EPA 1993 RFA were completed on SWMUs 22 through 61 and AOCs 1 through 39 in 1997 (Bechtel National Inc. [Bechtel] 1996, 1997).

1.4.5 Storm Water Program

CBC Port Hueneme is required to comply with federal and state storm water regulations, in particular the California General Industrial Activities Storm Water Permit (general permit). The general permit regulates storm water associated with industrial activity and sets requirements to reduce pollutants in industrial storm water discharges. CBC Port Hueneme has demonstrated its intent to comply with the regulations by submitting a Notice of Intent to the RWQCB on July 1, 1997.

CBC Port Hueneme personnel currently implements specific best management practices (BMP) at each Industrial Activity and general basewide BMPs to reduce pollutants in storm water discharges from the site. The BMPs for CBC Port Hueneme include the following:

- Pollutant source controls,
- Management practices other than source controls,
- Preventive maintenance,
- Spill prevention and response,
- Erosion and sediment controls,
- Identification of storm water pollution prevention personnel, and
- Structural controls for runoff.

CBC Port Hueneme trains personnel routinely on the goals and components of the Storm Water Pollution Prevention Plan. This training includes proper implementation of BMPs, inventory control procedures, procurement of less toxic materials, proper use and storage procedures, recycling and reuse of materials, spill response and reporting procedures, and other requirements of the storm water pollution prevention program.

FIGURES

Legend

- Airport
- County Boundary
- U.S. Highway
- Interstate Highway

Federal Lands

- Bureau of Land Management
- Department of Defense
- Forest Service
- National Park Service

10 0 10 20
Miles

SulTech

CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 1-1
REGIONAL LOCATION MAP
CBC PORT HUENEME

Site Management Plan

Fig1-1_PHFSMP_Regional_Locator_Map_121704.mxd TtEMI-HE Ed Madej
Data Source: ESRI North American GIS Databases

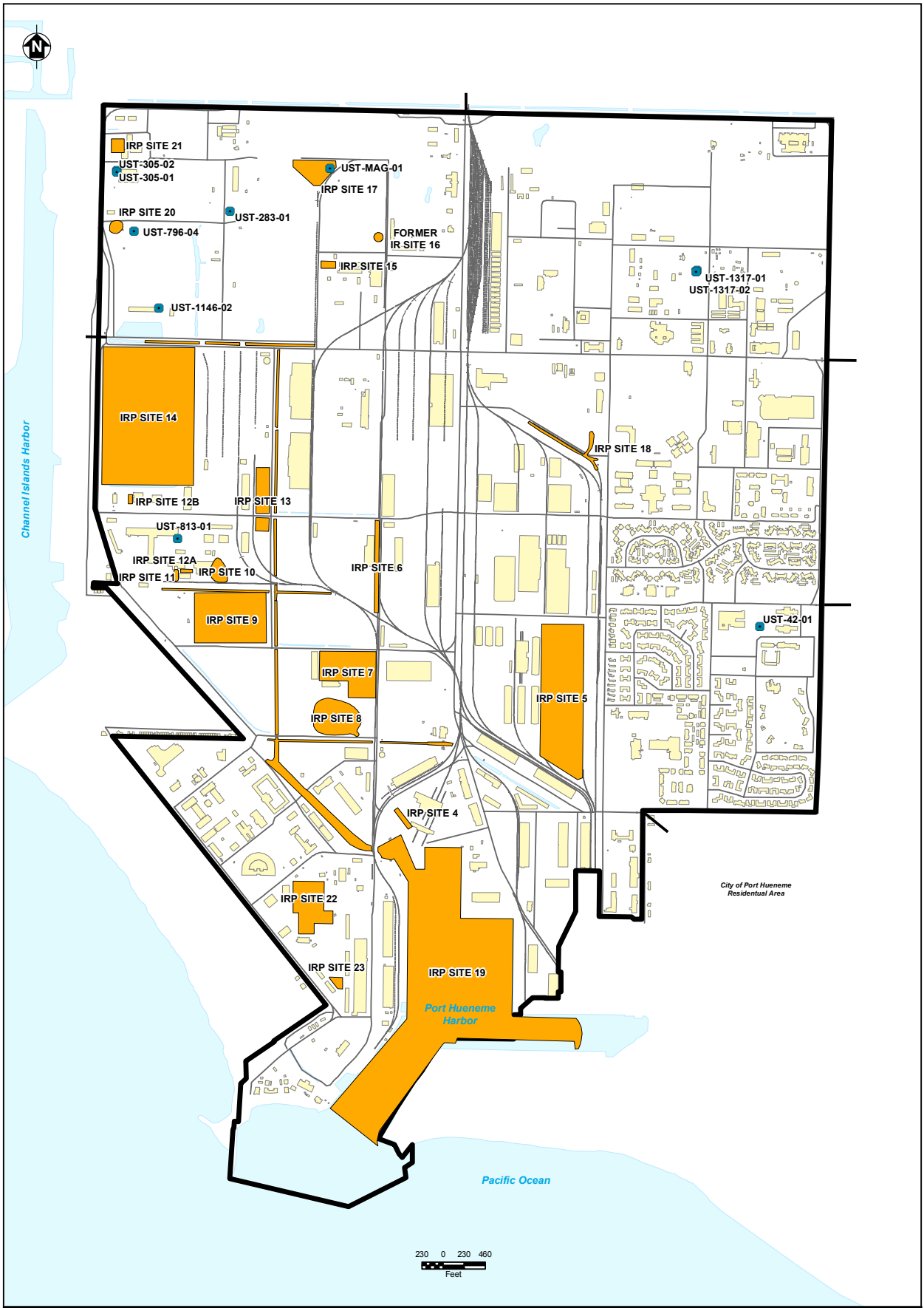


fig1-2_PHFSMP_IRP_UST_sites_total_122304.mxd TtEMI-HE Ed Madej
Data Source: SulTech GIS databases

2.0 IRP SITE 4 – SEWAGE SLUDGE PITS

This section provides the site background and description for IRP Site 4; summarizes the previous investigations, activities, and existing data; and discusses data gap findings and strategies for eliminating data gaps at IRP Site 4.

2.1 SITE BACKGROUND

The following sections discuss the site background for IRP Site 4, including a general site description, discussion of previous and current site activities, and a summary of previous investigations that have been completed at the site.

2.1.1 Site Description

IRP Site 4, situated south of Cargo Road and west of Building 1393 in the southern potion of CBC Port Hueneme, is the location of former sewage sludge pits (Figure 2-1). The site currently consists of a relatively flat unpaved area, most of which is enclosed by a fence. There is no surface indication of the former pits and no surface staining has been observed during previous investigations. Currently, miscellaneous equipment, including anchors and metal framing, is stored at the site. Hueneme Harbor lies approximately 150 feet south of IRP Site 4 (PRC Environmental Management, Inc. [PRC] and Montgomery Watson 1996).

2.1.2 Site Activities

IRP Site 4 was used for drying sewage sludge generated by the former CBC Port Hueneme sewage treatment plant, located at the far north end of Hueneme Harbor. The sewage sludge pits and treatment plant operated from 1942 to 1972, when the base sanitary system was connected to the CBC Port Hueneme Sanitary District sewage treatment system. When the former base sewage treatment plant was demolished in 1972, the sludge contained in the pits was buried. The sewage sludge pits encompassed an area approximately 60 feet by 260 feet. Wastes included solvents, pesticide rinsate, photographic developer and fixer, mercury, industrial detergents, oil, and grease. The sewage treatment plant generated an estimated 20 to 500 cubic yards (yd^3) of dried sludge per year. A 1942 contractor's drawing includes a typical cross section through the sludge pits, indicating that the sludge pits were 3 feet deep and separated by sloping earthen dikes (Naval Base Ventura County [NBVC] Port Hueneme 1942). A 1.5-foot-thick gravel layer covered the bottom of each pit and gravel extended up the lower half of each dike (PRC and Montgomery Watson 1996).

2.1.3 Previous Investigations

Previous investigations that have been completed at IRP Site 4 include an initial site assessment (IAS) (SCS and Landau Associates 1985), a site investigation (SI) (PRC and Montgomery Watson 1996), a basewide groundwater investigation (Tetra Tech and LFR 2001), and a revised risk assessment (Bechtel 2002a).

2.1.3.1 Initial Assessment Study (SCS and Landau Associates 1985)

The IAS process included a review of archival and activity records, interviews with activity personnel, and on-site surveys. Assumptions on contamination migration were based on general geochemical properties. No confirmatory samples were collected. The IAS concluded that most residual contaminants in the sludge disposed of at IRP Site 4 have an affinity for the sludge or surrounding soil and would not migrate readily. In addition, soluble contaminants would have likely passed through the treatment plant with the wastewater and been discharged to Hueneme Harbor and to the Pacific Ocean.

2.1.3.2 Final Site Inspection Report (PRC and Montgomery Watson 1996)

In 1993, an SI was completed for eight IRP sites on CBC Port Hueneme, including IRP Site 4. In December 1996, PRC and Montgomery Watson issued the final SI report for IRP Sites 4, 8, 10, 11, 16, 18, 22, and 23. Between April and November 1993, four soil borings (S4-B1 through S4-B4) were drilled at IRP Site 4. One boring (S4-B4) was converted to monitoring well S04MW01. Two test pits (S4-TP1 and S4-TP2) were also excavated with a backhoe to search for debris and sewage sludge (Figure 2-1). The borings were drilled to groundwater, approximately 10 feet below ground surface (bgs) for S4-B1 through S4-B3, and 16 feet bgs for S04MW01, and sampled for chemical analysis at 0.5, 5.0, and 8.0 feet bgs. Geotechnical samples were also collected at 4.0, 9.5, and 15 feet bgs in S04MW01. Soil samples were analyzed for volatile organic compounds (VOC), semivolatile organic compounds (SVOC), total petroleum hydrocarbons (TPH) purgeable and extractable (TPH-p and TPH-e), pesticides, PCBs, and metals. The geotechnical analysis consisted of soil organic-carbon fraction, soil density, soil porosity, moisture content, grain size, and permeability.

Groundwater samples were collected from S04MW01 in August and November 1993. The groundwater samples were also analyzed for VOCs, SVOCs, TPH-p and TPH-e, pesticides, PCBs, and metals.

A baseline human health risk assessment (BHHRA) was completed for the site because an initial human health screening evaluation had exceeded screening level criteria. Samples were screened against EPA preliminary remediation goals (PRG), EPA National Ambient Water Quality Criteria (NAWQC) for the protection of saltwater aquatic life, primary maximum contaminant levels (MCL) established by the California Department of Health Services and the EPA Office of Drinking Water, background metal concentrations for CBC Port Hueneme (see Appendix B); and soluble threshold limit concentrations (STLC) for metals. However, the BHHRA was limited to potential soil exposures. The exposure pathways evaluated included ingestion of soil, dermal contact with soil, and inhalation of VOCs and particulates released to outdoor air from soil. Chemicals of concern (COC) identified in the BHHRA included polynuclear aromatic hydrocarbons (PAH) (benzo[a]pyrene, benzo[b]fluoranthene), PCBs (Aroclor 1260), and metals (beryllium). Results of the BHHRA for soil indicated that the reasonable maximum exposure (RME) cancer risks for both industrial and hypothetical residential exposures were within the EPA risk management range of 1×10^{-4} to 1×10^{-6}. The

hazard indices (HI) were below the threshold value of 1.0 (PRC and Montgomery Watson 1996). Based on results of the BHHRA, no action was recommended for IRP Site 4.

2.1.3.3 Draft Groundwater Remedial Investigation Report (Tetra Tech and LFR 2001)

From 1997 to 2001, a basewide groundwater investigation evaluated the condition of the groundwater and surface water at CBC Port Hueneme. As part of the investigation, groundwater samples were collected from S04MW01 (Figure 2-1) to help evaluate the Semi-Perched Aquifer. Four rounds of samples were collected from S04MW01 in May and June 1997, October 1997, January 1998, and April 1998. No additional groundwater monitoring wells were discovered or installed on or near IRP Site 4. Samples were analyzed for VOCs, SVOCs, TPH-p and TPH-e, metals, total dissolved solids (TDS), and geochemical properties such as salinity, anions, cations, alkalinity, hardness, and pH.

Chemical concentrations in groundwater were screened against criteria developed for protection of ecological receptors and human health. These criteria included NAWQC and MCLs. If concentrations of an organic compound exceeded the NAWQC and/or MCL in at least one sampling round at a given location, that compound was considered a chemical of potential ecological concern (COPEC) and/or a chemical of potential concern (COPC), respectively, at that location. If concentrations of an inorganic compound exceeded the NAWQC and/or MCL in more than one sampling at a given location, that compound was considered a COPEC and/or a COPC, respectively, at that location. Inorganics were screened differently because they often occur naturally. No COPECs or COPCs were identified for the samples collected from the IRP Site 4 monitoring wells. No further evaluation of groundwater within the Semi-Perched Aquifer was recommended for IRP Site 4.

Following submittal of the draft basewide groundwater investigation report, and review of the groundwater model, DTSC requested that additional site-specific groundwater data be collected (if necessary) and site-specific groundwater data be evaluated to adequately characterize the site.

2.1.3.4 Risk Assessment Technical Memorandum (Bechtel 2002a)

In 2002, Bechtel revised the BHHRA completed during the SI for IRP Site 4. The BHHRA was revised to address DTSC comments, dated July 28, 1995, regarding the methodology used in SI to identify metals as COPCs. Bechtel revised the BHHRA to incorporate DTSCs suggested methodology for identifying metals as COPCs. The revisions did not change the cancer risk estimates for the industrial or hypothetical residential exposure scenarios. The revised noncancer HI decreased slightly for IRP Site 4. Bechtel concluded that the results of the revised risk calculations did not significantly change the cancer risk or noncancer HI for IRP Site 4. The estimated cancer risks for the industrial or hypothetical residential scenarios at the site were still within the EPA risk management range of 1×10^{-4} to 1×10^{-6}, and the nonhazard HIs were still less than 1.0.

2.2 COMPILATION OF EXISTING SITE DATA

Available data, typically that collected after 1993, has been compiled and tabulated for use in identifying data gaps and additional site activities required to obtain site closure. The available data were screened against the EPA residential soil and tap water PRGs. Additional data may be available in previous reports prepared for this site. Dependent upon the site activities identified to obtain site closure, this data may also be reviewed to determine if it is suitable for use in additional evaluations.

Table 2-1 summarizes the samples collected at IRP Site 4. Table 2-2 includes the soil analytical results for IRP Site 4, and Figure 2-2 shows the concentrations in soil samples that exceed screening criteria. Table 2-3 includes the groundwater analytical results for IRP Site 4, and Figure 2-3 shows the concentrations of constituents in groundwater samples at IRP Site 4 that exceed screening criteria.

2.3 DATA GAPS

For this SMP, the previous investigations and collected data for IRP Site 4 were reviewed to verify that sufficient information is available to support the final actions and documentation needed to close the site. Identified data gaps and proposed actions to eliminate those data gaps are discussed below.

2.3.1 Soil Data Gaps

Based on a review of the existing soil data for the site, the number of soil samples is insufficient to provide an adequately sized data set for a human health risk assessment (HHRA) and ecological risk assessment (ERA). Additional soil samples are needed to adequately characterize the site and perform a HHRA and ERA.

2.3.2 Groundwater Data Gaps

Because only one groundwater monitoring well is located on IRP Site 4 (Figure 2-1), the basewide groundwater investigation has not adequately characterized site risks resulting from potential contaminants in perched groundwater. Additional monitoring wells are necessary at IRP Site 4. Additional groundwater sampling is required in both new and existing monitoring wells to assess groundwater conditions and support a HHRA and ERA.

2.3.3 Human Health Risk Assessment Data Gaps

Only soil exposures were evaluated in the 1996 BHHRA (PRC and Montgomery Watson 1996) and the revised 2002 BHHRA (Bechtel 2002a) completed for IRP Site 4. Potential risks from exposure to groundwater have not been evaluated for the site. Additional soil and groundwater sampling is proposed at the site; therefore, existing and new soil data, as well as existing and

new groundwater data, will be evaluated in a new HHRA. The HHRA will evaluate potential risks for exposure to both soil and groundwater at the site. The HHRA will use contemporary EPA, DTSC, and Navy risk assessment guidance to ensure that soil and groundwater risk assessments are based on current methodology.

2.3.4 Ecological Risk Assessment Data Gaps

An ERA has not been completed for this site, and a habitat survey of IRP Site 4 will be completed to determine if a viable habitat exists for ecological receptors.

2.4 STRATEGY FOR ELIMINATING DATA GAPS

To eliminate the data gaps identified for IRP Site 4, two additional monitoring wells will be installed on the site, one well upgradient (S04MW02) and one well downgradient (S04MW03) (see Figure 2-4). Moreover, four additional quarters of groundwater samples will be collected from the one existing (S04MW01) and two proposed groundwater monitoring wells. The samples will be analyzed for VOCs, SVOCs, TPH-p, TPH-e, pesticides/PCBs, and metals. The proposed groundwater monitoring well installations and groundwater sampling schemes for IRP 4 are as follows:

Well Identification (ID)	Borehole Diameter (inches)	Well Diameter (inches)	Well Depth (feet bgs)	Screened Interval (feet bgs)	Up/Down Gradient	Estimated Water Level (feet bgs)
S04MW02	8.0	2.0	20	10-20	Up	11-12
S04MW03	8.0	2.0	20	10-20	Down	12-13

Well ID	Well Diameter (inches)	Well Depth (feet bgs)	Screened Interval (feet bgs)	Analyses
S04MW01	4.0	16	6-16	VOC, SVOC, TPH-purgeable, TPH-extractable, pesticides/PCB, metals
S04MW02	2.0	20	10-20	Same as above
S04MW03	2.0	20	10-20	Same as above

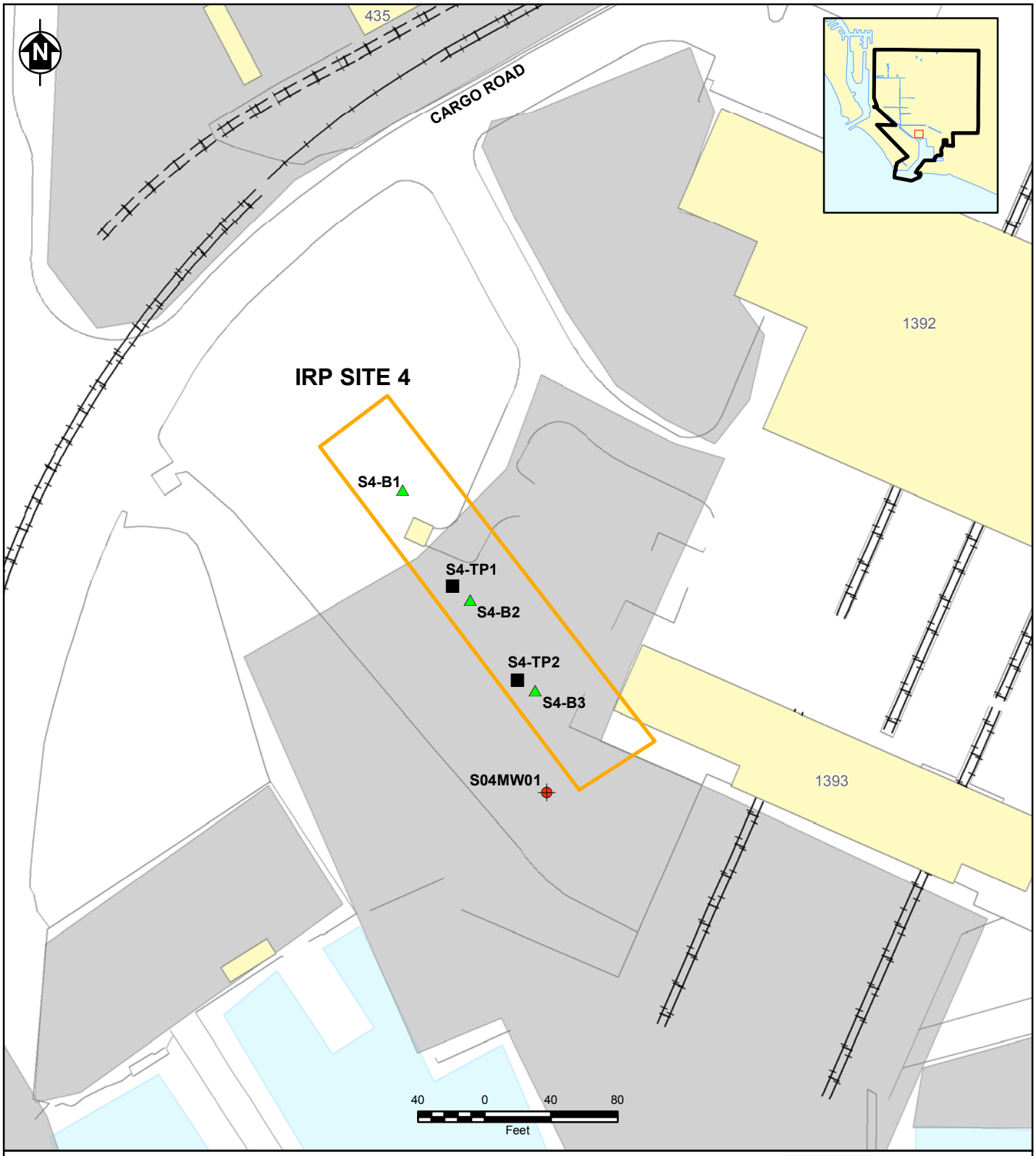
To provide an adequately sized data set for an HHRA and ERA, five additional surface samples will be collected from IRP Site 4, from 0.0 to 2.0 feet bgs (Figure 2-4). The samples will be analyzed for VOCs, SVOCs, PAHs, TPH-p, TPH-e, pesticides/PCBs, and metals. The following table shows the proposed soil sampling scheme for IRP Site 4:

Sample Point ID	Depth (feet bgs)	Analytical Group	Rationale/Comment
S04SB01	Surface (0-2)	VOC, SVOC, PAH, TPH-purgeable, TPH-extractable, pesticides/PCB, metals	Provide additional data for HHRA and ERA
S04SB02	Surface (0-2)	Same as above	Same as above
S04SB03	Surface (0-2)	Same as above	Same as above
S04MW02	Surface (0-2)	Same as above	Same as above
S04MW03	Surface (0-2)	Same as above	Same as above

The new soil and groundwater data will be compiled, combined with previously collected data presented in Tables 2-2 and 2-3, and evaluated for cumulative risk using EPA Region 9 PRGs. The data will be evaluated in an HHRA to identify site-specific risks to human health from soil and groundwater. In addition, a habitat survey of IRP Site 4 will be completed to determine if there is viable habitat for ecological receptors. If viable habitat does exist, a screening level ERA will be conducted based on surface soil data collected at the site. If there is evidence of burrowing animals at the site, the ERA will include an evaluation of vapor exposure for these animals in their burrows. To establish whether a complete vapor exposure pathway exists for burrowing animals, the depth to the Semi-Perched Aquifer will also be considered in this analysis.

The results of these evaluations, as well as conclusions and recommendations for any additional site activities, will be presented in a remedial investigation (RI) report.

FIGURES



SOIL BORING
TEST PIT
MONITORING WELL
IRP SITE
RAILROAD
CURB
BUILDING
PAVED AREA (NOT ROAD)

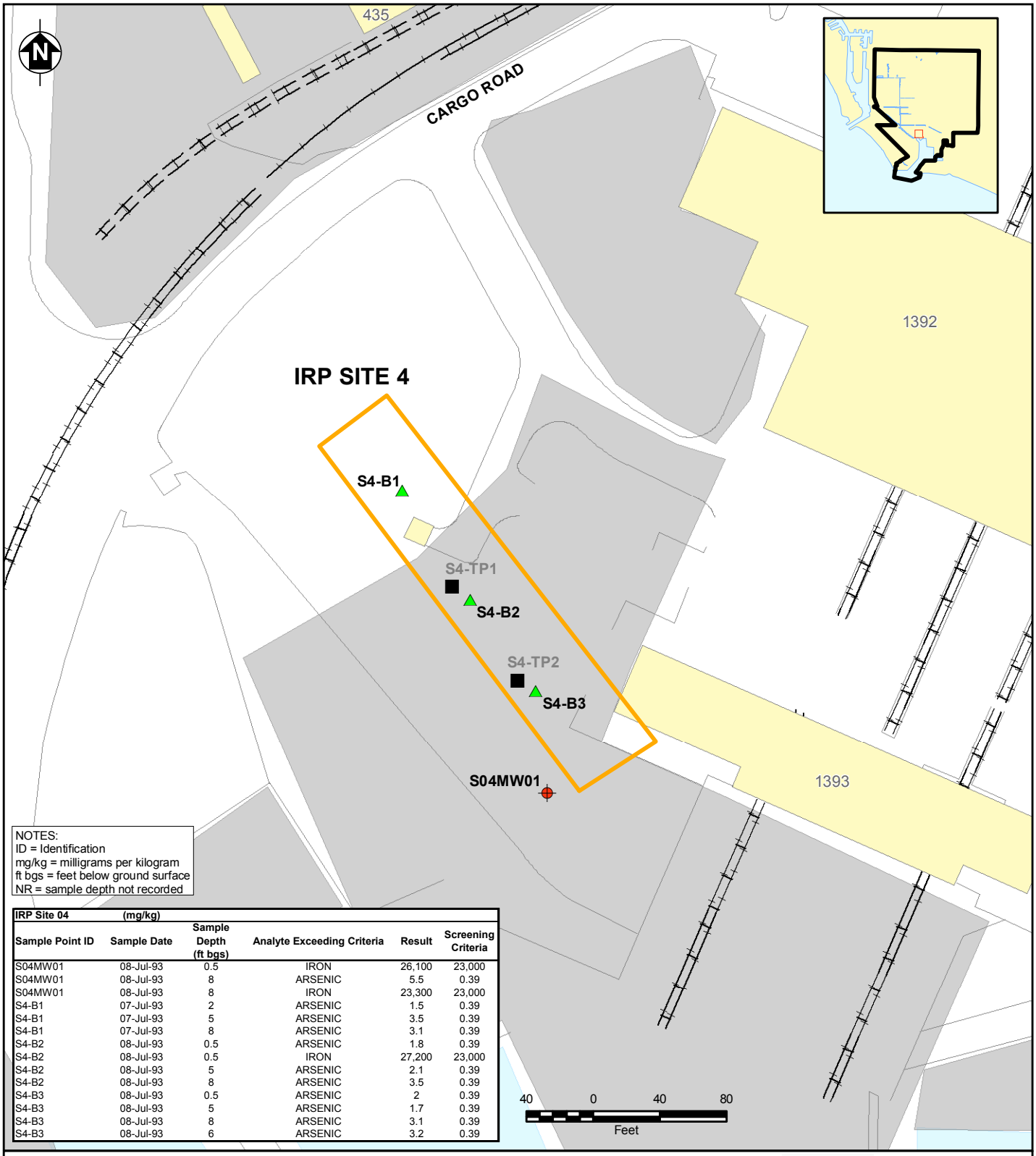
SulTech

CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 2-1
IRP SITE 4 - SEWAGE SLUDGE PITS
SITE MAP

Site Management Plan

fig2-1_PHFSMP_IRPsite4_sitemap_111604.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases



NOTES:
ID = Identification
mg/kg = milligrams per kilogram
ft bgs = feet below ground surface
NR = sample depth not recorded

IRP Site 04	(mg/kg)				
Sample Point ID	Sample Date	Sample Depth (ft bgs)	Analyte Exceeding Criteria	Result	Screening Criteria
S04MW01	08-Jul-93	0.5	IRON	26,100	23,000
S04MW01	08-Jul-93	8	ARSENIC	5.5	0.39
S04MW01	08-Jul-93	8	IRON	23,300	23,000
S4-B1	07-Jul-93	2	ARSENIC	1.5	0.39
S4-B1	07-Jul-93	5	ARSENIC	3.5	0.39
S4-B1	07-Jul-93	8	ARSENIC	3.1	0.39
S4-B2	08-Jul-93	0.5	ARSENIC	1.8	0.39
S4-B2	08-Jul-93	0.5	IRON	27,200	23,000
S4-B2	08-Jul-93	5	ARSENIC	2.1	0.39
S4-B2	08-Jul-93	8	ARSENIC	3.5	0.39
S4-B3	08-Jul-93	0.5	ARSENIC	2	0.39
S4-B3	08-Jul-93	5	ARSENIC	1.7	0.39
S4-B3	08-Jul-93	8	ARSENIC	3.1	0.39
S4-B3	08-Jul-93	6	ARSENIC	3.2	0.39

▲ SOIL BORING
■ TEST PIT
⊕ MONITORING WELL
S4-01 SAMPLE EXCEEDING SCREENING CRITERIA IN BOLD

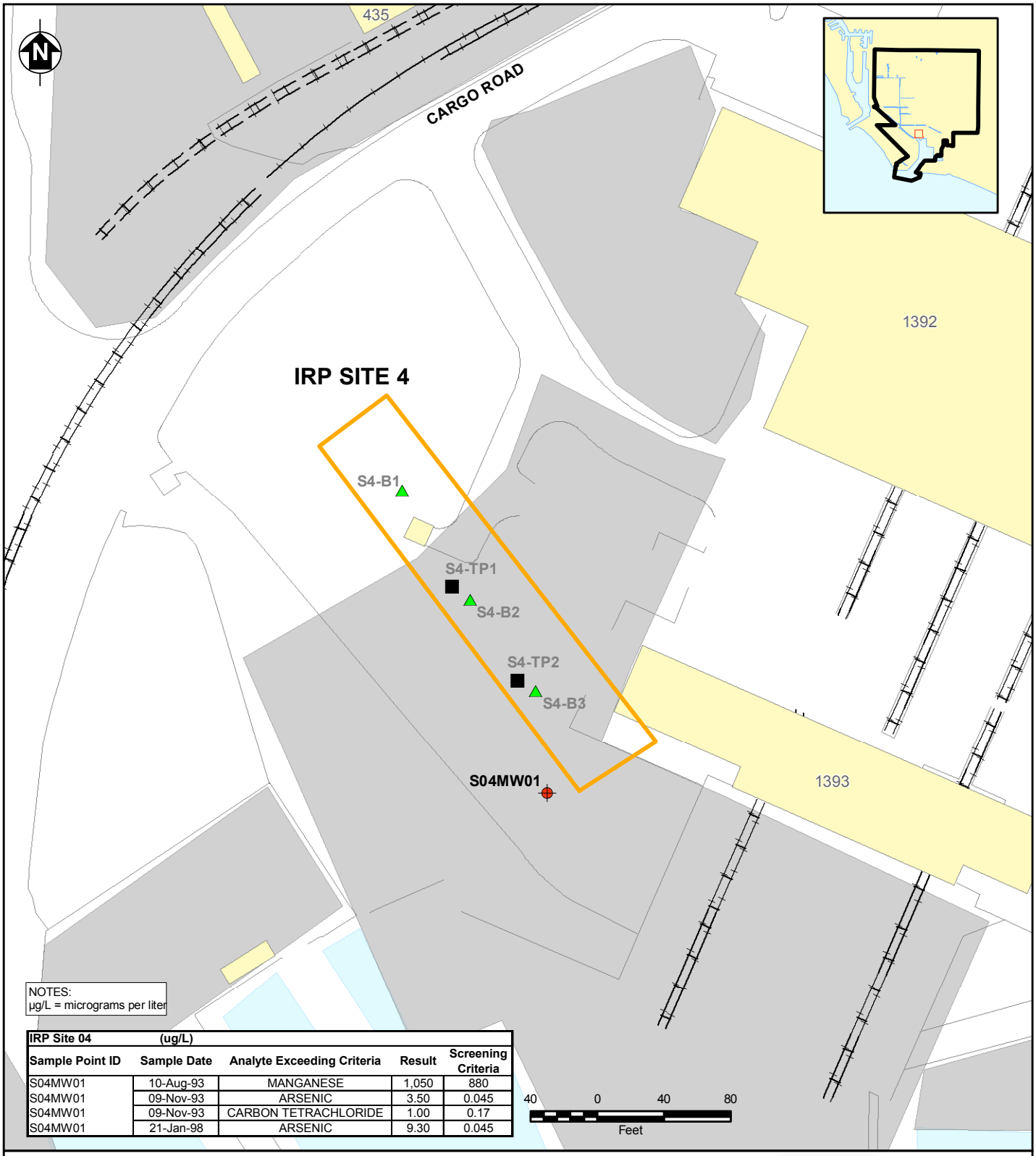
IRP SITE
RAILROAD
CURB
BUILDING
PAVED AREA (NOT ROAD)

SulTech

CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 2-2
IRP SITE 4 - SEWAGE SLUDGE PITS
ANALYTES IN SOIL
EXCEEDING SCREENING CRITERIA
Site Management Plan

fig2-2_PHFSMP_IRPsite4_soil_111604.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases



IRP Site 04	(ug/L)			
Sample Point ID	**Sample Date**	**Analyte Exceeding Criteria**	**Result**	**Screening Criteria**
S04MW01	10-Aug-93	MANGANESE	1,050	880
S04MW01	09-Nov-93	ARSENIC	3.50	0.045
S04MW01	09-Nov-93	CARBON TETRACHLORIDE	1.00	0.17
S04MW01	21-Jan-98	ARSENIC	9.30	0.045

▲ SOIL BORING
■ TEST PIT
⊕ MONITORING WELL
S4-01 SAMPLE EXCEEDING SCREENING CRITERIA IN BOLD

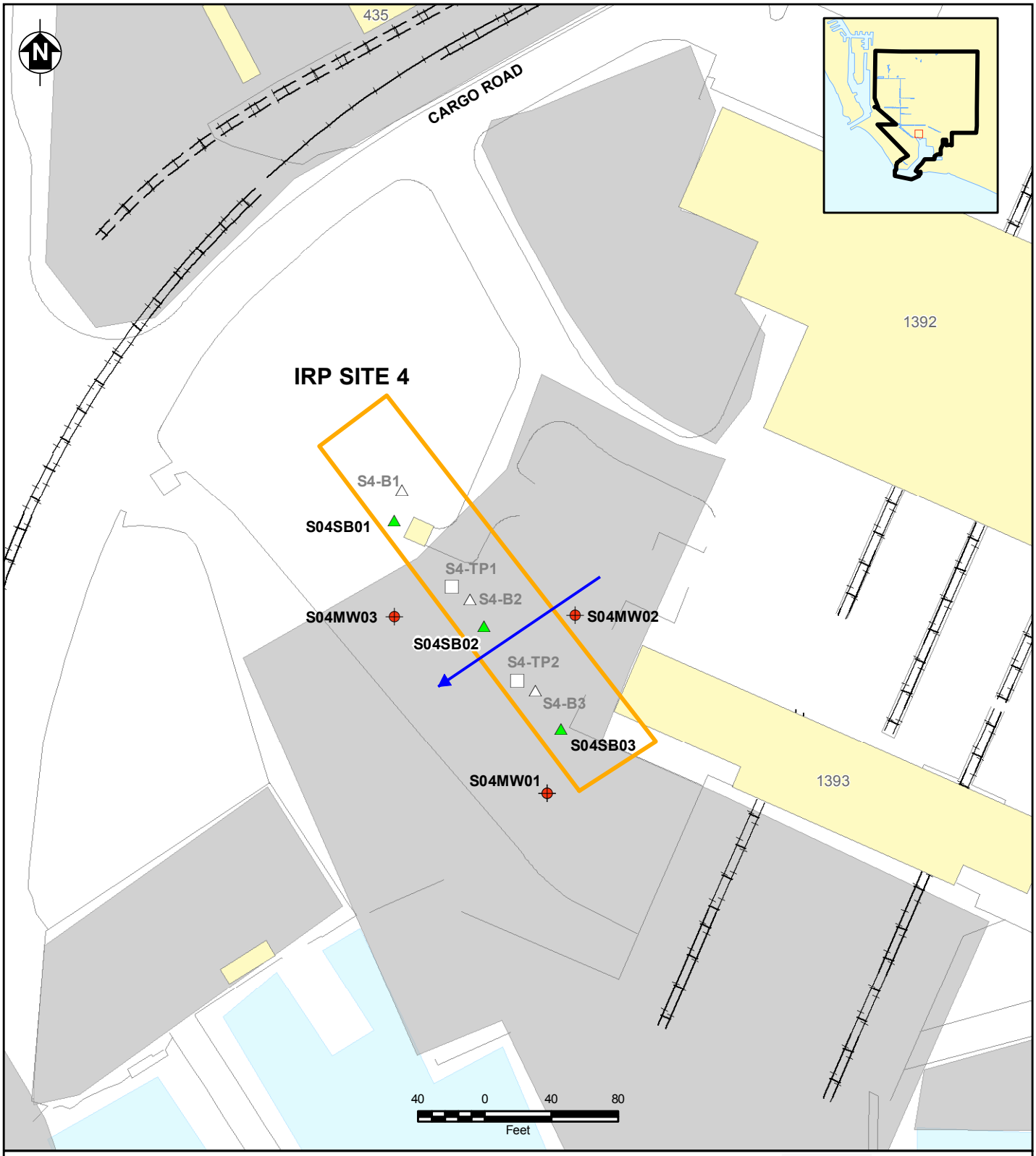
IRP SITE
RAILROAD
CURB
BUILDING
PAVED AREA (NOT ROAD)

SulTech

CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 2-3
IRP SITE 4 - SEWAGE SLUDGE PITS
ANALYTES IN GROUNDWATER
EXCEEDING SCREENING CRITERIA
Site Management Plan

fig2-3_PHFSMP_IRPsite4_gw_121704.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases



PROPOSED SAMPLE LOCATIONS
In black text
SOIL BORING
MONITORING WELL
PREVIOUS SAMPLE LOCATIONS
In gray text
SOIL SAMPLE
MONITORING WELL
TEST PIT

IRP SITE
RAILROAD
CURB
GROUNDWATER FLOW
BUILDING
PAVED AREA (NOT ROAD)

SulTech

CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 2-4
IRP SITE 4 - SEWAGE SLUDGE PITS PROPOSED GROUNDWATER AND SOIL SAMPLING LOCATIONS
Site Management Plan

fig2-4_PHFSMP_IRPsite4_sitemap_122004.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases

TABLES

TABLE 2-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 04

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
234-S04-011	SOIL	07/08/93	S04MW01	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
234-S04-012	SOIL	07/08/93	S04MW01	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓						
234-S04-013	SOIL	07/08/93	S04MW01	ORIG	8.00 - 8.00	✓	✓	✓	✓	✓	✓	✓					
234-S04-001	SOIL	07/07/93	S4-B01	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
234-S04-002	SOIL	07/07/93	S4-B01	DUP	2.00 - 2.00	✓	✓	✓	✓	✓	✓	✓					
234-S04-003	SOIL	07/07/93	S4-B01	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
234-S04-004	SOIL	07/07/93	S4-B01	ORIG	8.00 - 8.00	✓	✓	✓	✓	✓	✓	✓					
234-S04-005	SOIL	07/08/93	S4-B02	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
234-S04-006	SOIL	07/08/93	S4-B02	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
234-S04-007	SOIL	07/08/93	S4-B02	ORIG	8.00 - 8.00	✓	✓	✓	✓	✓	✓	✓					
234-S04-008	SOIL	07/08/93	S4-B03	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
234-S04-009	SOIL	07/08/93	S4-B03	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
234-S04-010	SOIL	07/08/93	S4-B03	ORIG	8.00 - 8.00	✓	✓	✓	✓	✓	✓	✓					
234-S04-025	SOIL	07/08/93	S4-B03	DUP	6.00 - 6.00	✓	✓	✓	✓	✓	✓	✓					
234-S04-014	WATER	08/10/93	S04MW01	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
234-S04-015	WATER	11/09/93	S04MW01	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
08797051323GDT	WATER	05/13/97	S04MW01	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797051323GDTF	WATER	05/13/97	S04MW01	FIL	NA								✓				
08797051324GDT	WATER	05/13/97	S04MW01	DUP	NA	✓	✓	✓	✓			✓		✓			
08797051324GDTF	WATER	05/13/97	S04MW01	FILD	NA								✓				
08797102025S	WATER	10/20/97	S04MW01	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798012136B	WATER	01/21/98	S04MW01	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798040317W	WATER	04/03/98	S04MW01	ORIG	NA	✓	✓	✓	✓				✓	✓			

TABLE 2-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 04 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
TOTAL						21	21	21	21	16	16	17	5	5	0	0	0

Notes:

DMETL	Metals (filtered)	ORGPB	Organic Lead	SVOC	Semivolatile organic compound
GMETL	General mineral	PCB	Polychlorinated biphenyls	TPH-e	Total petroleum hydrocarbons, extractables
METL	Metals (total - unfiltered)	PEST	Pesticides	TPH-p	Total petroleum hydrocarbons, purgeables
NA	Not applicable	PESTO	Organophosphorus pesticides	VOC	Volatile organic compound
				✓	Sample collected and analyzed; blank cell indicates no sample collected.

TABLE 2-2: ANALYTICAL RESULTS FOR IRP SITE 04 SOIL SAMPLES

Site Management Plan, CBC Port Hueneme

Sample Location ID	S04MW01	S04MW01	S04MW01	S4-B01	S4-B01	S4-B01	S4-B01	EPA Residential Soil PRGs
Sample ID	234-S04-011	234-S04-012	234-S04-013	234-S04-001	234-S04-002	234-S04-003	234-S04-004	
Sample Date	07/08/1993	07/08/1993	07/08/1993	07/07/1993	07/07/1993	07/07/1993	07/07/1993	
Sample Depth	0.50 - 0.50	5.00 - 5.00	8.00 - 8.00	0.50 - 0.50	2.00 - 2.00	5.00 - 5.00	8.00 - 8.00	
Volatile Organic Compounds (mg/kg)								
ACETONE	< 0.011 U	< 0.01 U	< 0.013 U	< 0.01 U	< 0.011 U	0.02 J	< 0.012 U	14,000
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	470 J	< 10 U	< 13 U	< 10 U	< 11 U	< 14 U	< 12 U	NC
MOTOR OIL RANGE ORGANICS	560 J	< 31 U	< 39 U	< 31 U	< 33 U	< 41 U	< 36 U	NC
TPH - NAVY SPECIAL FUEL OIL	800 J	< 10 U	13	< 10 U	< 11 U	< 14 U	< 12 U	NC
Gasoline Range (purgeables)								
None Detected	ND	ND	ND	ND	ND	ND	ND	NC
Semivolatile Organic Compounds (mg/kg)								
ANTHRACENE	< 0.36 U	< 0.34 U	< 0.43 U	< 0.34 U	< 0.36 U	< 0.45 U	< 0.4 U	22,000
BENZO(A)ANTHRACENE	< 0.36 U	< 0.34 U	< 0.43 U	< 0.34 U	< 0.36 U	< 0.45 U	< 0.4 U	0.62
BENZO(A)PYRENE	< 0.36 U	< 0.34 U	< 0.43 U	< 0.34 U	< 0.36 U	< 0.45 U	< 0.4 U	0.062
BENZO(B)FLUORANTHENE	< 0.36 U	< 0.34 U	< 0.43 U	< 0.34 U	< 0.36 U	< 0.45 U	< 0.4 U	0.62
BENZO(K)FLUORANTHENE	< 0.36 U	< 0.34 U	< 0.43 U	< 0.34 U	< 0.36 U	< 0.45 U	< 0.4 U	0.38 *
CHRYSENE	< 0.36 U	< 0.34 U	< 0.43 U	< 0.34 U	< 0.36 U	< 0.45 U	< 0.4 U	3.8 *
FLUORANTHENE	< 0.36 U	< 0.34 U	< 0.43 U	< 0.34 U	< 0.36 U	< 0.45 U	< 0.4 U	2,300
INDENO(1,2,3-CD)PYRENE	< 0.36 U	< 0.34 U	< 0.43 U	< 0.34 U	< 0.36 U	< 0.45 U	< 0.4 U	0.62
PENTACHLOROPHENOL	< 0.87 U	< 0.82 U	< 1.1 U	< 0.83 U	< 0.87 U	1	0.22	3.0
PHENANTHRENE	< 0.36 U	< 0.34 U	< 0.43 U	< 0.34 U	< 0.36 U	< 0.45 U	< 0.4 U	NC
PYRENE	0.041	< 0.34 U	< 0.43 U	< 0.34 U	< 0.36 U	0.039	< 0.4 U	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.018 U	0.0023 J	< 0.0043 U	< 0.0034 U	< 0.0036 U	< 0.0045 U	< 0.004 U	2.4
4,4'-DDT	< 0.018 U	0.0034	< 0.0043 U	< 0.0034 U	< 0.0036 U	< 0.0045 U	< 0.004 U	1.7
ALPHA-CHLORDANE	< 0.0092 U	< 0.0018 U	< 0.0022 U	< 0.0018 U	< 0.0018 U	< 0.0023 U	< 0.002 U	1.6
AROCLOR-1260	< 0.18 U	< 0.034 U	< 0.043 U	< 0.034 U	< 0.036 U	< 0.045 U	< 0.04 U	0.22
GAMMA-CHLORDANE	< 0.0092 U	< 0.0018 U	< 0.0022 U	< 0.0018 U	< 0.0018 U	< 0.0023 U	< 0.002 U	1.6
Metals (mg/kg)								
ALUMINUM	11,300	NA	13,100	3,490	4,590	11,900	6,460	76,000
ARSENIC	< 1.1 UJ	NA	**5.5 J**	< 1.7 UJ	**1.5 J**	**3.5 J**	**3.1 J**	0.39
BARIUM	24.1	NA	114	39.2	58.2	109	101	5,400
BERYLLIUM	0.62 J	NA	1	< 0.41 U	< 0.43 U	1.1	0.83	150
CADMIUM	0.87 J	NA	< 1.1 U	< 0.83 U	< 0.87 U	1.1	< 0.96 U	37 *

TABLE 2-2: ANALYTICAL RESULTS FOR IRP SITE 04 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S04MW01	S04MW01	S04MW01	S4-B01	S4-B01	S4-B01	S4-B01	EPA Residential Soil PRGs
Sample ID	234-S04-011	234-S04-012	234-S04-013	234-S04-001	234-S04-002	234-S04-003	234-S04-004	
Sample Date	07/08/1993	07/08/1993	07/08/1993	07/07/1993	07/07/1993	07/07/1993	07/07/1993	
Sample Depth	0.50 - 0.50	5.00 - 5.00	8.00 - 8.00	0.50 - 0.50	2.00 - 2.00	5.00 - 5.00	8.00 - 8.00	
Metals (mg/kg)								
CALCIUM	9,540	NA	11,300	6,370	6,940	11,100	49,900	NC
CHROMIUM	17.1	NA	22.6	7.1	8.5	21.1	11.1	210
COBALT	14.4	NA	10.7	3.9	4.5	11	6.6	900
COPPER	23.8	NA	23.6	< 7 U	< 8.9 U	22.7	< 9.9 U	3,100
IRON	**26,100**	NA	**23,300**	7,830	9,510	21,100	16,500	23,000
LEAD	6.1 J	NA	9 J	3.9 J	6.2 J	7.7 J	4.4 J	150 *
MAGNESIUM	8,700	NA	9,090	2,370	3,070	8,750	5,470	NC
MANGANESE	400 J	NA	436 J	120 J	151 J	219 J	1,080 J	1,800
MERCURY	< 0.16 U	NA	< 0.2 U	< 0.16 U	< 0.16 U	< 0.2 U	< 0.18 U	23
NICKEL	17.9	NA	22.4	7.4	8.1	25.4	12.2	1,600
POTASSIUM	811	NA	4,660	984	1,230	4,670	2,320	NC
SODIUM	965 J	NA	3,990 J	< 413 UJ	< 433 UJ	2,720 J	1,470 J	NC
THALLIUM	< 0.42 UJ	NA	0.54 J	< 0.41 UJ	< 0.43 UJ	< 0.54 UJ	< 0.47 UJ	5.2
VANADIUM	43.9 J	NA	43.7	< 16.3 U	< 18.6 U	42.5	< 26.9 U	550
ZINC	54.8	NA	103	30.9	44.9	74.1	38.1	23,000

TABLE 2-2: ANALYTICAL RESULTS FOR IRP SITE 04 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S4-B02	S4-B02	S4-B02	S4-B03	S4-B03	S4-B03	S4-B03	EPA Residential Soil PRGs
Sample ID	234-S04-005	234-S04-006	234-S04-007	234-S04-008	234-S04-009	234-S04-025	234-S04-010	
Sample Date	07/08/1993	07/08/1993	07/08/1993	07/08/1993	07/08/1993	07/08/1993	07/08/1993	
Sample Depth	0.50 - 0.50	5.00 - 5.00	8.00 - 8.00	0.50 - 0.50	5.00 - 5.00	6.00 - 6.00	8.00 - 8.00	
Volatile Organic Compounds (mg/kg)								
ACETONE	< 0.011 U	< 0.012 U	0.014 J	0.011 J	< 0.012 U	0.09 J	0.035 J	14,000
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	< 11 U	< 12 U	< 12 U	< 11 U	< 12 U	< 14 U	< 13 U	NC
MOTOR OIL RANGE ORGANICS	430	< 38 U	< 38 U	460	150	< 43 U	< 38 U	NC
TPH - NAVY SPECIAL FUEL OIL	< 11 U	< 12 U	< 12 U	< 11 U	< 12 U	< 14 U	< 13 U	NC
Gasoline Range (purgeables)								
None Detected	ND	ND	ND	ND	ND	ND	ND	NC
Semivolatile Organic Compounds (mg/kg)								
ANTHRACENE	< 0.36 U	< 0.41 U	< 0.41 U	0.027	< 0.4 U	< 0.41 U	< 0.42 U	22,000
BENZO(A)ANTHRACENE	< 0.36 U	< 0.41 U	< 0.41 U	0.063	< 0.4 U	< 0.41 U	< 0.42 U	0.62
BENZO(A)PYRENE	< 0.36 U	< 0.41 U	< 0.41 U	0.048	< 0.4 U	< 0.41 U	< 0.42 U	0.062
BENZO(B)FLUORANTHENE	< 0.36 U	< 0.41 U	< 0.41 U	0.11	< 0.4 U	< 0.41 U	< 0.42 U	0.62
BENZO(K)FLUORANTHENE	< 0.36 U	< 0.41 U	< 0.41 U	0.04	< 0.4 U	< 0.41 U	< 0.42 U	0.38 *
CHRYSENE	< 0.36 U	< 0.41 U	< 0.41 U	0.088	< 0.4 U	< 0.41 U	< 0.42 U	3.8 *
FLUORANTHENE	< 0.36 U	< 0.41 U	< 0.41 U	0.079	< 0.4 U	< 0.41 U	< 0.42 U	2,300
INDENO(1,2,3-CD)PYRENE	< 0.36 U	< 0.41 U	< 0.41 U	0.033	< 0.4 U	< 0.41 U	< 0.42 U	0.62
PENTACHLOROPHENOL	< 0.87 U	< 1 U	< 1 U	< 0.87 U	< 0.96 U	< 1 U	< 1 U	3.0
PHENANTHRENE	< 0.36 U	< 0.41 U	< 0.41 U	0.026	< 0.4 U	< 0.41 U	< 0.42 U	NC
PYRENE	< 0.36 U	< 0.41 U	< 0.41 U	0.072	< 0.4 U	< 0.41 U	< 0.42 U	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.0036 U	< 0.0041 U	< 0.0041 U	< 0.014 U	< 0.004 U	< 0.0041 U	< 0.0042 U	2.4
4,4'-DDT	< 0.0036 U	< 0.0041 U	< 0.0041 U	< 0.014 U	0.0028 J	< 0.0041 U	< 0.0042 U	1.7
ALPHA-CHLORDANE	0.0015 J	< 0.0021 U	< 0.0021 U	< 0.0074 U	< 0.002 U	< 0.0021 U	< 0.0022 U	1.6
AROCLOR-1260	0.03	< 0.041 U	< 0.041 U	< 0.14 U	< 0.04 U	< 0.041 U	< 0.042 U	0.22
GAMMA-CHLORDANE	0.0012 J	< 0.0021 U	< 0.0021 U	< 0.0074 U	< 0.002 U	< 0.0021 U	< 0.0022 U	1.6
Metals (mg/kg)								
ALUMINUM	10,900	9,510	7,100	7,280	6,340	7,790	12,100	76,000
ARSENIC	**1.8 J**	**2.1 J**	**3.5 J**	**2 J**	**1.7 J**	**3.2 J**	**3.1 J**	0.39
BARIUM	45.9	70.8	97	61.4	77	101	133	5,400
BERYLLIUM	0.8	0.72	0.63	0.68	0.6	0.89	0.97	150
CADMIUM	< 0.84 U	< 0.97 U	1	< 0.85 U	< 0.94 U	< 0.98 U	< 1 U	37 *

TABLE 2-2: ANALYTICAL RESULTS FOR IRP SITE 04 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S4-B02	S4-B02	S4-B02	S4-B03	S4-B03	S4-B03	S4-B03	EPA Residential Soil PRGs
Sample ID	234-S04-005	234-S04-006	234-S04-007	234-S04-008	234-S04-009	234-S04-025	234-S04-010	
Sample Date	07/08/1993	07/08/1993	07/08/1993	07/08/1993	07/08/1993	07/08/1993	07/08/1993	
Sample Depth	0.50 - 0.50	5.00 - 5.00	8.00 - 8.00	0.50 - 0.50	5.00 - 5.00	6.00 - 6.00	8.00 - 8.00	
Metals (mg/kg)								
CALCIUM	13,200	11,600	28,000	10,800	10,000	18,700	45,900	NC
CHROMIUM	22.1	20.4	13.9	15.3	11.9	15.2	21	210
COBALT	13.8	9.3	7.1	8.6	5.4	8	8.9	900
COPPER	27.2	< 19.4 U	< 21.1 U	23.6	< 14.6 U	< 14.8 U	< 20.5 U	3,100
IRON	**27,200**	20,500	13,900	17,100	13,300	16,400	20,600	23,000
LEAD	11.1 J	6.1 J	4.8 J	12.1 J	4.4 J	6 J	7.1 J	150 *
MAGNESIUM	8,760	6,770	6,560	5,310	5,300	6,390	9,740	NC
MANGANESE	403 J	311 J	413 J	268 J	197 J	359 J	534 J	1,800
MERCURY	< 0.16 U	< 0.19 U	< 0.19 U	0.17	< 0.18 U	< 0.19 U	< 0.19 U	23
NICKEL	19.4	18.5	13.9	12.2	13.6	15.5	20.3	1,600
POTASSIUM	1,120	1,830	2,490	1,290	2,150	2,750	3,840	NC
SODIUM	1,320 J	1,280 J	1,910 J	1,180 J	726 J	1,070 J	2,050 J	NC
THALLIUM	< 0.43 UJ	0.49 J	< 0.49 UJ	< 0.42 UJ	< 0.48 UJ	< 0.49 UJ	< 0.51 UJ	5.2
VANADIUM	44.6	36.6	33.6	36.5	28.8	35.8	44.5	550
ZINC	79.5	72.7	46.5	89	50.8	62.4	63.7	23,000

Notes: Categories of analyses are shown, but only detected compounds are presented. Analyte results in boldface type exceed EPA residential soil PRGs.

*	California modified PRGs
ID	Identification
J	Estimated value
mg/kg	Milligrams per kilogram
NA	Not analyzed
NC	No criteria
ND	None detected
PRG	Preliminary remediation goals
U	Nondetected

TABLE 2-3: ANALYTICAL RESULTS FOR IRP SITE 04 GROUNDWATER SAMPLES

Site Management Plan, CBC Port Hueneme

Sample Location ID	S04MW01	S04MW01	S04MW01	S04MW01	S04MW01	S04MW01	S04MW01	
Sample ID	234-S04-014	234-S04-015	08797051323GD	08797051323GD	08797051324GD	08797051324GD	08797102025S	EPA Tap Water PRGs
Sample Date	08/10/1993	11/09/1993	05/13/1997	05/13/1997	05/13/1997	05/13/1997	10/20/1997	
Volatile Organic Compounds (µg/L)								
ACETONE	< 2 UJ	2 R	< 10 UJ	NA	< 10 UJ	NA	8 J	5,500
CARBON DISULFIDE	< 2 U	< 1 U	< 10 U	NA	< 10 U	NA	0.3 J	1,000
CARBON TETRACHLORIDE	< 2 U	**1**	< 10 U	NA	< 10 U	NA	< 0.5 U	0.17
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
None Detected	ND	ND	ND	NA	ND	NA	ND	NC
Gasoline Range (purgeables)								
OTHER COMPONENTS	0.061	NA	NA	NA	NA	NA	NA	NC
Semivolatile Organic Compounds (µg/L)								
None Detected	ND	ND	ND	NA	ND	NA	ND	NC
PCBs/Pesticides (µg/L)								
None Detected	ND	ND	NA	NA	NA	NA	NA	NC
Metals (µg/L)								
Unfiltered								
ARSENIC	**20 R**	**3.5 J**	< 2.3 UJ	NA	< 2.7 UJ	NA	NA	0.045
BARIUM	48.6	100 R	27.5 J	NA	27.3 J	NA	NA	2,600
CALCIUM	266,000	241,000 J	131,000	NA	129,000	NA	NA	NC
CHROMIUM	< 3 U	7.7	< 0.27 UJ	NA	< 0.27 UJ	NA	NA	NC
COBALT	< 2 U	< 10 U	0.75 J	NA	0.78 J	NA	NA	730
COPPER	< 2 U	18.1	< 0.93 UJ	NA	< 0.83 UJ	NA	NA	1,500
IRON	6,270	3,320	1,780 J	NA	1,780 J	NA	NA	11,000
LEAD	2.9 J	< 2 UJ	1 J	NA	1.9 J	NA	NA	NC
MAGNESIUM	445,000	456,000	209,000	NA	215,000	NA	NA	NC
MANGANESE	**1,050**	725 J	439	NA	431	NA	NA	880
MOLYBDENUM	NA	47.3	60.1	NA	59.1	NA	NA	180
NICKEL	< 7 U	< 20 U	4 J	NA	3.8 J	NA	NA	730
POTASSIUM	144,000	173,000	137,000 J	NA	138,000 J	NA	NA	NC
SELENIUM	87 J	10 R	< 1.4 UJ	NA	< 1.4 UJ	NA	NA	180
SODIUM	4,390,000	4,440,000 J	2,390,000	NA	2,300,000	NA	NA	NC
VANADIUM	< 2 U	< 10 U	1.4 J	NA	1.5 J	NA	NA	260
FIltered								
ARSENIC	NA	NA	NA	< 2.4 UJ	NA	< 2.5 UJ	< 1.2 U	0.045

TABLE 2-3: ANALYTICAL RESULTS FOR IRP SITE 04 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S04MW01	S04MW01	S04MW01	S04MW01	S04MW01	S04MW01	S04MW01	
Sample ID	234-S04-014	234-S04-015	08797051323GD	08797051323GD	08797051324GD	08797051324GD	08797102025S	EPA Tap Water PRGs
Sample Date	08/10/1993	11/09/1993	05/13/1997	05/13/1997	05/13/1997	05/13/1997	10/20/1997	
Metals (µg/L)								
FIltered								
BARIUM	NA	NA	NA	24.2 J	NA	23.2 J	29.5 J	2,600
CADMIUM	NA	NA	NA	0.14 J	NA	0.17 J	< 0.2 U	18
CALCIUM	NA	NA	NA	123,000	NA	119,000	NA	NC
COBALT	NA	NA	NA	0.59 J	NA	0.57 J	< 0.65 U	730
COPPER	NA	NA	NA	0.76 J	NA	0.54 J	1.1 J	1,500
IRON	NA	NA	NA	516 J	NA	454 J	NA	11,000
MAGNESIUM	NA	NA	NA	209,000	NA	202,000	NA	NC
MANGANESE	NA	NA	NA	278	NA	269	252	880
MOLYBDENUM	NA	NA	NA	53.7	NA	52.1	61.9	180
NICKEL	NA	NA	NA	4.4 J	NA	< 4 UJ	< 5 UJ	730
POTASSIUM	NA	NA	NA	125,000 J	NA	123,000 J	NA	NC
SELENIUM	NA	NA	NA	3.3	NA	2.7	3.5	180
SODIUM	NA	NA	NA	2,170,000	NA	2,490,000	NA	NC
VANADIUM	NA	NA	NA	< 1.5 UJ	NA	< 1.4 UJ	< 0.6 U	260
ZINC	NA	NA	NA	< 2.2 UJ	NA	< 1.6 UJ	< 6.5 UJ	11,000
General Mineral								
CALCIUM	NA	NA	50.4	NA	50.4	NA	137,000	NC
IRON	NA	NA	9.1 J	NA	9.1 J	NA	1,080 J	11,000
MAGNESIUM	NA	NA	504	NA	504	NA	226,000	NC
POTASSIUM	NA	NA	544	NA	544	NA	159,000 J	NC
SODIUM	NA	NA	14,100	NA	14,100	NA	2,560,000	NC

TABLE 2-3: ANALYTICAL RESULTS FOR IRP SITE 04 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S04MW01	S04MW01	EPA Tap Water PRGs
Sample ID	08798012136B	08798040317W	
Sample Date	01/21/1998	04/03/1998	
Volatile Organic Compounds (µg/L)			
ACETONE	< 5 UJ	< 4 UJ	5,500
CARBON DISULFIDE	< 1 U	< 1 U	1,000
CARBON TETRACHLORIDE	< 0.5 U	< 0.5 U	0.17
Petroleum Hydrocarbons (mg/L)			
Diesel/Motor Oil Range (extractables)			
None Detected	ND	ND	NC
Gasoline Range (purgeables)			
OTHER COMPONENTS	NA	NA	NC
Semivolatile Organic Compounds (µg/L)			
None Detected	ND	ND	NC
PCBs/Pesticides (µg/L)			
None Detected	NA	NA	NC
Metals (µg/L)			
Unfiltered			
ARSENIC	NA	NA	0.045
BARIUM	NA	NA	2,600
CALCIUM	NA	NA	NC
CHROMIUM	NA	NA	NC
COBALT	NA	NA	730
COPPER	NA	NA	1,500
IRON	NA	NA	11,000
LEAD	NA	NA	NC
MAGNESIUM	NA	NA	NC
MANGANESE	NA	NA	880
MOLYBDENUM	NA	NA	180
NICKEL	NA	NA	730
POTASSIUM	NA	NA	NC
SELENIUM	NA	NA	180
SODIUM	NA	NA	NC
VANADIUM	NA	NA	260
FIltered			
ARSENIC	**9.3 J**	< 1.8 U	0.045

TABLE 2-3: ANALYTICAL RESULTS FOR IRP SITE 04 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S04MW01	S04MW01	EPA Tap Water PRGs
Sample ID	08798012136B	08798040317W	
Sample Date	01/21/1998	04/03/1998	
Metals (µg/L)			
FIltered			
BARIUM	24 J	27.1 J	2,600
CADMIUM	1.9 J	< 0.15 U	18
CALCIUM	NA	NA	NC
COBALT	< 0.85 U	0.71 J	730
COPPER	< 1.4 UJ	0.79 J	1,500
IRON	NA	NA	11,000
MAGNESIUM	NA	NA	NC
MANGANESE	266	308	880
MOLYBDENUM	69.2	60.6	180
NICKEL	3.7 J	< 5 UJ	730
POTASSIUM	NA	NA	NC
SELENIUM	< 2.4 U	2 J	180
SODIUM	NA	NA	NC
VANADIUM	< 0.8 U	0.86 J	260
ZINC	3.4 J	< 5.6 UJ	11,000
General Mineral			
CALCIUM	147,000	147,000	NC
IRON	1,070 J	< 156 UJ	11,000
MAGNESIUM	244,000	227,000	NC
POTASSIUM	151,000	130,000	NC
SODIUM	2,620,000	2,820,000	NC

Notes: Categories of analyses are shown, but only detected compounds are presented. Analyte results in boldface type exceed EPA tap water PRGs.

ID	Identification
J	Estimated value
mg/L	Milligrams per liter
NA	Not analyzed
NC	No criteria
ND	None detected
PRG	Preliminary remediation goals
R	Result rejected during quality assurance review.
U	Nondetected
µg/L	Micrograms per liter

3.0 IRP SITE 5 – OLD DEFENSE PROPERTY DISPOSAL OFFICE YARD

This section provides the site background and description for IRP Site 5; summarizes the previous investigations, activities, and existing data; and discusses data gap findings and strategies for eliminating data gaps at IRP Site 5.

3.1 SITE BACKGROUND

The following sections discuss the site background for IRP Site 5, including a general site description, discussion of previous and current site activities, and a summary of previous investigations that have been completed at the site.

3.1.1 Site Description

IRP Site 5 was a fenced yard used to store salvaged Navy materials for off-site disposal, sale, or reuse (Figure 3-1). The site is bounded by buildings TF3 and TF7 to the west, Pacific Road to the east, Tower Road to south, and 35th Avenue to the north. The site is located north of Building 513. The site covers an area of approximately 16 acres; however, chemical use was limited to 1 or 2 acres (SCS and Landau Associates 1985).

3.1.2 Site Activities

IRP Site 5 is currently used to park large vehicles and access to the site is restricted by a fence and gate. From 1965 to July 1984, IRP Site 5 was used as a staging area for salvaged Navy materials destined for off-base disposal, sale, or reuse. Typical materials stored at the site included empty containers and drums, batteries, oils, solvents, transformers, and asbestos. Approximately 150,000 to 200,000 pounds of hazardous materials may have been stored at the site. Various reported spills have been reported at the site. Spilled substances included battery acid, formaldehyde, hydraulic fluid, tricresyl phosphate, and PCBs (PRC 1997b).

3.1.3 Previous Investigations

Previous investigations that have been completed at Site 5 include an IAS (SCS and Landau Associates 1985), a surface soil investigation (Naval Energy and Environmental Support Activity [NEESA] 1985b), and removal evaluation (PRC 1993), supplemental sampling and analysis (PRC 1997b), an HHRA (Bechtel 2002b), and a basewide groundwater investigation (Tetra Tech and LFR 2001).

3.1.3.1 Initial Assessment Study (SCS and Landau Associates 1985)

IRP Site 5 was initially identified in the IAS conducted in 1985. The IAS process included a review of archival and activity records, interviews with activity personnel, and on-site surveys. Assumptions on contamination migration were based on general geochemical properties. No

confirmatory samples were collected. The IAS concluded that migration from erosion or surface water runoff is unlikely and surface migration would be limited because of the flat nature of the yard. However, because of the potential for direct contact with potentially contaminated dust, recommended additional sampling at IRP Site 5.

3.1.3.2 Surface Soil Investigation (NEESA 1985b)

At the request of the VCEHD, a soil investigation was completed at IRP Site 5 by the Naval Energy and Environmental Support Activity (NEESA) in 1985. The objective of the investigation was to determine whether hazardous residue from chemicals stored at IRP Site 5 were present in the surface soils, and whether construction of a berm was necessary to prevent potentially contaminated surface water from leaving the site.

Eight soil samples were collected at IRP Site 5 from the ground surface to approximately 0.5 foot bgs at randomly selected locations in areas identified as former storage areas (Figure 3-1). One background sample was also collected in an area outside of the yard determined by Defense Property Disposal Office (DPDO) personnel as a location never used for storage of materials. Samples were analyzed for VOCs, SVOCs, pesticides, PCBs, and eight metals: arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver (NEESA 1985b). The only analyte detected in IRP Site 5 soils was the VOC 2-hexanone, which was detected in one sample at a concentration of 0.026 milligrams per kilogram (mg/kg). The compound 2-hexanone is a common laboratory contaminant, and it was likely detected as a result of laboratory contamination. All other VOCs were undetected. Analyses of four samples identified the following SVOC tentatively identified compounds (TIC): carboxylic acid (2 mg/kg), unidentified compound (90 mg/kg), C18 to C35 hydrocarbon (up to 30 mg/kg), and C20 to C30 hydrocarbon (30 mg/kg). Due to the uncertain identities of TICs, they were eliminated from further consideration. All other SVOCs and all pesticides, PCBs, and metals were undetected (NEESA 1985b).

3.1.3.3 Removal Evaluation (PRC 1993)

In 1993, a removal evaluation was conducted at IRP Site 5. The Navy subsequently submitted an evaluation report to DTSC in 1993 that recommended no further action and removal from the IRP for IRP Site 5 (PRC 1993). The removal evaluation report cited a comparison of previous analytical data from IRP Site 5 to current regulatory screening levels, and presented a risk evaluation to support recommendations for no further action and removal of the site from the IRP. However, DTSC indicated need for further data to demonstrate concurrence with the report's recommendations, and the Navy agreed to conduct further sampling and analysis at IRP Site 5 (PRC 1994).

3.1.3.4 Technical Memorandum Supplemental Sampling and Analysis (PRC 1997b)

PRC prepared supplemental sampling and analysis and health and safety addenda following discussions with the Navy and DTSC. In April 1997, PRC collected additional soil samples at IRP Site 5 to confirm previously reported removals. Eight soil borings were advanced at IRP Site 5 (S5-B1 through S5-B8), and surface and subsurface soil samples were collected from areas where spills had been reported (Figure 3-1). Soil borings S5-B1, S5-B2, and S5-B6 were advanced in the area of the PCB spills; S5-B3 was advanced in the area of the hydraulic fuel and tricresyl phosphate spills; S5-B4 and S5-B5 were advanced in the area of the formaldehyde spill; S5-B7 was advanced in the area of the battery acid spill; and S5-B8 was advanced in an area in which no spills have been reported. The borings were terminated at depths ranging from 4.0 to 6.5 feet bgs. Seventeen discrete soil samples were collected at various depths ranging from 1.0 to 6.0 bgs and analyzed for VOCs, SVOCs, TPH-p and TPH-e, PCBs, and metals. The sample results were compared to both residential and industrial EPA Region 9 PRGs and CBC Port Hueneme background metal levels (see Appendix B) (PRC 1993) for initial screening. COPCs detected above the screening criteria included arsenic, beryllium, and PCB (Aroclor 1260). Arsenic and beryllium exceeded the screening criteria in all borings analyzed for metals. However, while results exceeded the PRGs, they were within or below the established background ranges established for CBC Port Hueneme (see Appendix B). PCBs exceeded the screening criteria in two borings. The technical memorandum asserted that IRP Site 5 is suitable for industrial use based on a comparison of IRP Site 5 analytical results to EPA Region 9 PRGs. Therefore, further investigation or remediation was not recommended; however, institutional controls were recommended to maintain the intended industrial usage of the land.

3.1.3.5 Risk Assessment Technical Memorandum (Bechtel 2002b)

In 2002, Bechtel prepared a BHHRA for IRP Site 5. Potential cancer risks and noncancer hazards associated with exposure to COPCs at IRP Site 5 were evaluated for hypothetical residents, industrial, and construction worker exposure scenarios. The cancer risks for all scenarios were less than 1×10^{-6}, and the noncancer HI was below the threshold value of 1.0. Therefore, the site was considered suitable for unrestricted use.

3.1.3.6 Draft Groundwater Remedial Investigation Report (Tetra Tech and LFR 2001)

From 1997 to 2001, a basewide groundwater investigation was completed to evaluate the condition of the groundwater and surface water at CBC Port Hueneme. As part of the investigation, groundwater samples were collected from GWIMW10A to help evaluate the Semi-Perched Aquifer. GWIMW10A is not located on IRP Site 5; however, it is within close proximity of the site in the downgradient direction and therefore considered representative of site conditions (Figure 3-1). Three rounds of samples were collected from GWIMW10A in October 1997, January 1998, and April 1998. No additional groundwater monitoring wells were discovered or installed on or near IRP Site 5. Samples were analyzed for metals, VOCs, SVOCs, TPH-p and TPH-e, metals, TDS, and geochemical properties such as salinity, anions, cations, alkalinity, hardness, and pH.

Chemical concentrations in groundwater were screened against NAWQC for the protection of saltwater aquatic life and MCLs. If concentrations of an organic compound exceeded the NAWQC and/or MCL in at least one sampling round at a given location, that compound was considered a COPEC and/or COPC, respectively, at that location. If concentrations of an inorganic compound exceeded the NAWQC and/or MCL in more than one sampling at a given location, that compound was considered a COPEC and/or COPC, respectively, at that location. Inorganics were screened differently because they often occur naturally. No COPECs or COPCs were identified for the samples collected from the monitoring well near IRP Site 5. No further evaluation of groundwater within the Semi-Perched Aquifer was recommended for IRP Site 5.

Following submittal of the draft basewide groundwater investigation report, and review of the groundwater model, DTSC requested that additional site-specific groundwater data be collected (if necessary) and site-specific groundwater data be evaluated to adequately characterize the site.

3.2 COMPILATION OF EXISTING SITE DATA

Available data, typically that collected after 1993, has been compiled and tabulated for use in identifying data gaps and additional site activities required to obtain site closure. The available data were screened against the EPA residential soil and tap water PRGs. Additional data may be available in previous reports prepared for this site. Dependent upon the site activities identified to obtain site closure, this data may also be reviewed to determine if it is suitable for use in additional evaluations.

Table 3-1 summarizes samples collected at IRP Site 5. Table 3-2 includes soil analytical results for IRP Site 5, and Figure 3-2 shows concentrations of constituents in IRP Site 5 soil samples that exceed respective screening criteria. Table 3-3 includes groundwater analytical results for IRP Site 5, and Figure 3-3 shows concentrations of constituents in groundwater at IRP Site 5 that exceeds the screening criteria.

3.3 DATA GAPS

For this SMP, the previous investigations and collected data for IRP Site 5 were reviewed to verify that sufficient information is available to support the final actions and documentation needed to close the site. Identified data gaps and proposed actions to eliminate those data gaps are discussed below.

3.3.1 Soil Data Gaps

Based on a review of the existing soil data for the site, an insufficient number of surface soil samples exist to provide an adequately sized data set to perform the HHRA and ERA. Additional soil samples are needed to adequately characterize the site and perform the HHRA and ERA.

3.3.2 Groundwater Data Gaps

Because no groundwater monitoring wells are located at IRP Site 5, site risk resulting from potential contaminants in the Semi-Perched Aquifer may not have been adequately evaluated during the basewide groundwater investigation. Only three rounds of groundwater analytical results are available from the nearby off-site well; therefore, groundwater at the site, and site-specific risk associated with groundwater, have not been adequately characterized. On-site monitoring wells are needed at IRP Site 5 and groundwater sampling is required to assess groundwater conditions and support an HHRA and ERA.

3.3.3 Human Health Risk Assessment Data Gaps

Only soil exposures were evaluated in the revised 2002 BHHRA completed for IRP Site 5 (Bechtel 2002b). Potential risks from exposure to groundwater have not been evaluated for the site. Additional soil and groundwater sampling is proposed at the site; therefore, existing and new soil data as well as existing and new groundwater data will be evaluated in a new HHRA. The HHRA will evaluate potential risks for exposure to both soil and groundwater at the site. The HHRA will use contemporary EPA, DTSC, and Navy risk assessment guidance to ensure that site soil and groundwater risk assessments are based on current methodology.

3.3.4 Ecological Risk Assessment Data Gaps

An ERA has not been completed for this site. A habitat survey of IRP Site 5 will be completed to determine if a viable habitat exists for ecological receptors.

3.4 Strategy for Eliminating Data Gaps

To eliminate the data gaps identified for IRP Site 5, three monitoring wells will be installed at the site, one well upgradient (S05MW01) and two wells downgradient (S05MW02 and S05MW03) (Figure 3-4). Furthermore, four additional quarters of groundwater samples should be collected from the one existing off-site well (GWIMW10A) and the three proposed on-site wells. The samples would be analyzed for VOCs, SVOCs, TPH-p, TPH-e, pesticides/PCBs, and metals. The proposed groundwater monitoring well installations and the proposed groundwater sampling scheme for IRP Site 5 are as follows:

Well ID	Borehole Diameter (inches)	Well Diameter (inches)	Well Depth (feet bgs)	Screened Interval (feet bgs)	Up/Down Gradient	Estimated Water Level (feet bgs)
S05MW01	8.0	2.0	15	5-15	Up	7
S05MW02	8.0	2.0	15	5-15	Down	5
S05MW03	8.0	2.0	15	5-15	Down	5

Well ID	Well Diameter (inches)	Well Depth (feet bgs)	Screened Interval (feet bgs)	Analyses
S05MW01	2.0	15	5-15	VOC, SVOC, TPH-purgeable, TPH-extractable, pesticides/PCB, metals
S05MW02	2.0	15	5-15	Same as above
S05MW03	2.0	15	5-15	Same as above
GWIMW10A	Unknown	14	4-14	Same as above

To provide an adequately sized data set for an HHRA and ERA, five surface (from 0.0 to 2.0 feet bgs) and one subsurface (from 5.0 to 7.0 feet bgs) sample will be collected and analyzed for VOCs, SVOCs, PAHs, TPH-p, TPH-e, pesticides/PCBs, and metals (Figure 3-4). The following table shows the proposed soil sampling scheme for IRP Site 5.

Sample Point ID	Depth (feet bgs)	Analytical Group	Rationale/Comment
S05SB01	Surface (0-2)	VOC, SVOC, PAH, TPH-purgeable, TPH-extractable, pesticides/PCB, metals	Provide additional data for HHRA and ERA
S05SB02	Surface (0-2)	Same as above	Same as above
S05MW01	Surface (0-2)	Same as above	Same as above
S05MW01	Subsurface (5-7)	Same as above	Same as above
S05MW02	Surface (0-2)	Same as above	Same as above
S05MW03	Surface (0-2)	Same as above	Same as above

The new soil and groundwater data will be compiled, combined with previously collected data presented in Tables 3-2 and 3-3, and evaluated for cumulative risk using EPA Region 9 PRGs. The data will be evaluated in an HHRA to identify site-specific risks to human health from soil and groundwater. In addition, a habitat survey of IRP Site 5 will be completed to determine if there is viable habitat for ecological receptors. If viable habitat does exist, a screening level ERA, based on surface soil data collected at the site, will be conducted. If there is evidence of burrowing animals at the site, the ERA will include an evaluation of vapor exposure for these animals in their burrows. To establish whether a complete vapor exposure pathway exists for burrowing animals, the depth to the Semi-Perched Aquifer will also be considered in this analysis.

The results of these evaluations, as well as conclusions and recommendations for any additional site activities, will be presented in an RI report.

FIGURES

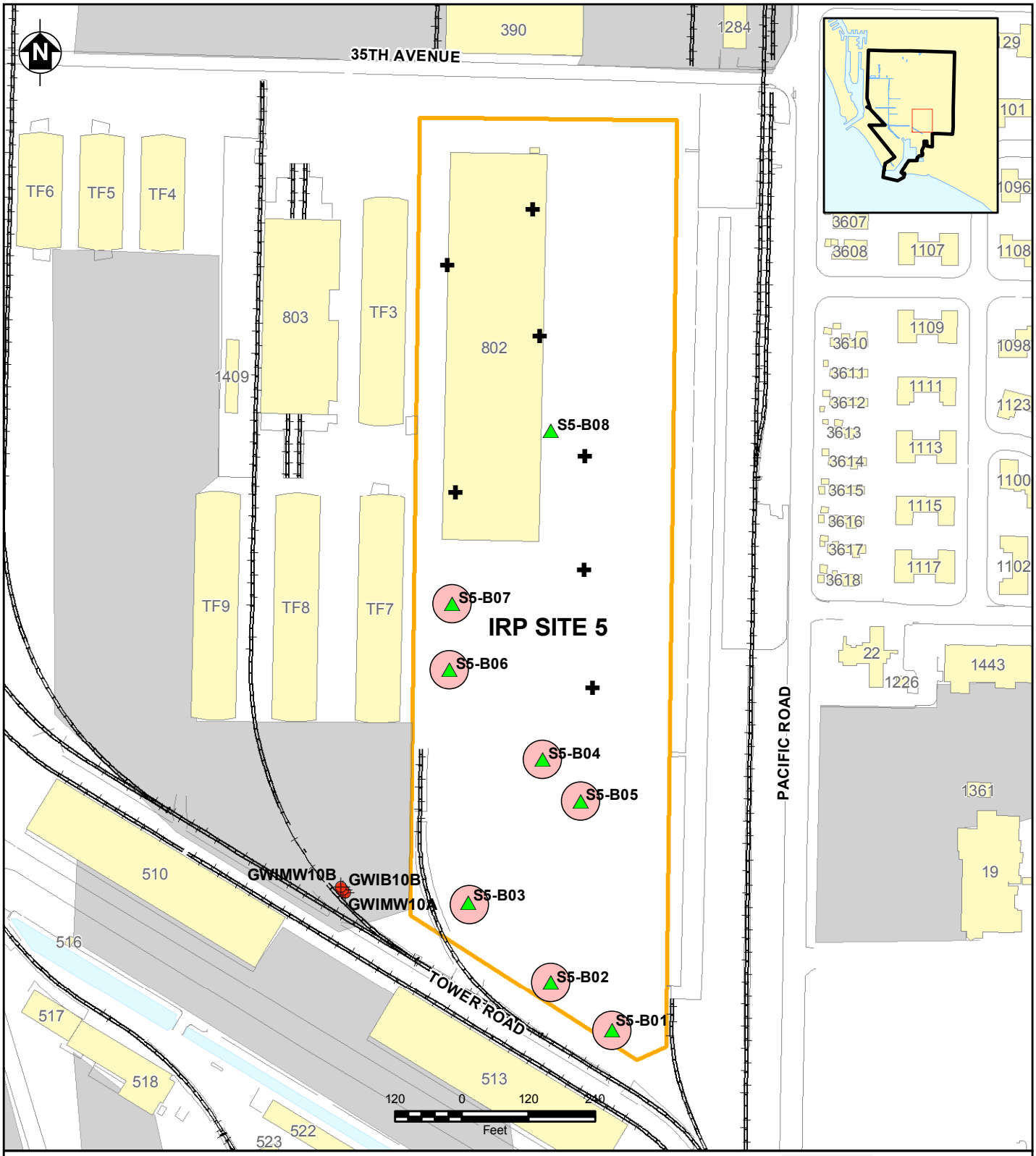


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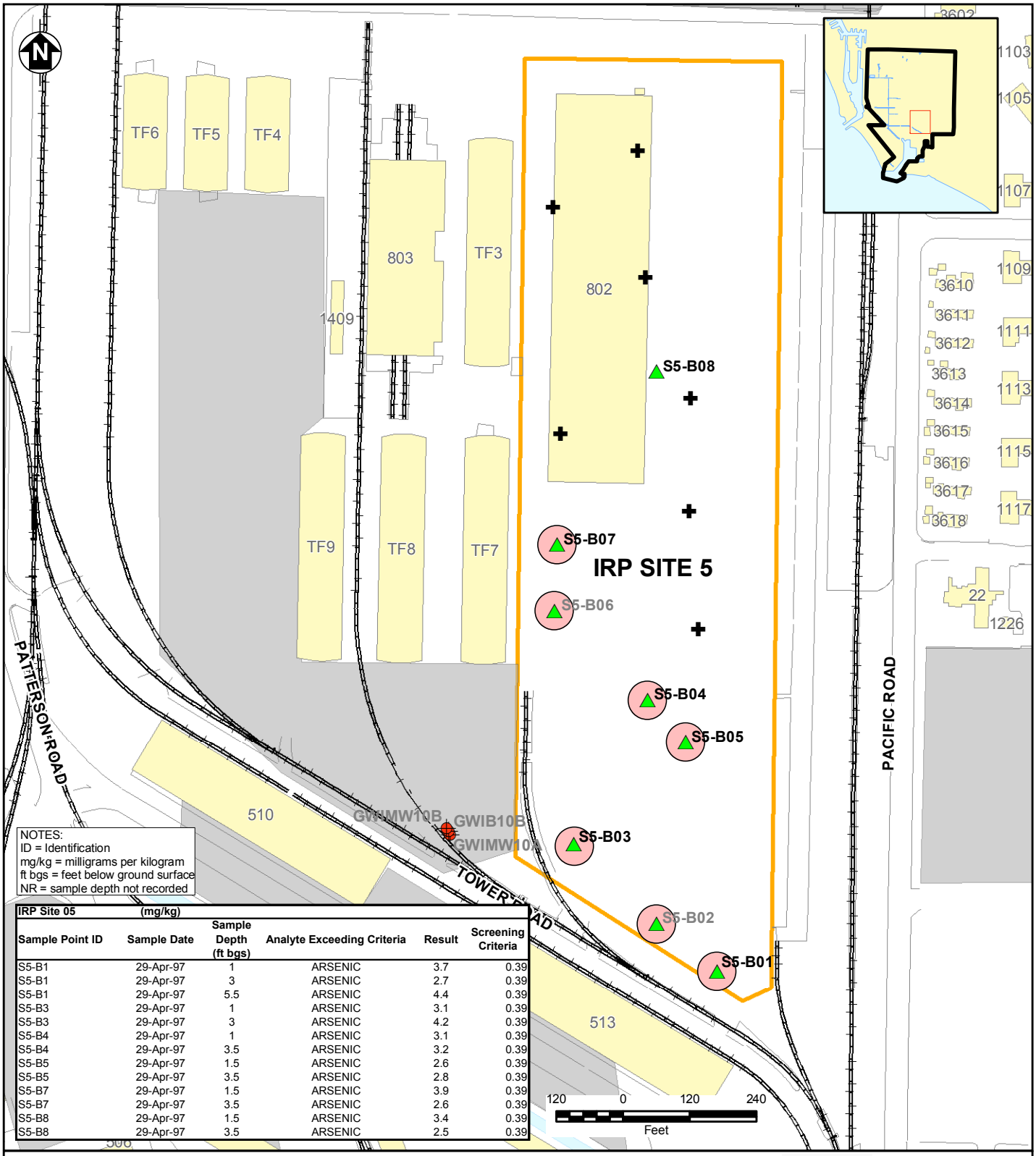
FIGURE 3-1
IRP SITE 5 - FORMER DPDO YARD
SITE MAP
Site Management Plan

fig3-1_PHFSMP_IRPsite5_sitemap_122004.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases



NOTES:
ID = Identification
mg/kg = milligrams per kilogram
ft bgs = feet below ground surface
NR = sample depth not recorded

IRP Site 05	(mg/kg)				
Sample Point ID	Sample Date	Sample Depth (ft bgs)	Analyte Exceeding Criteria	Result	Screening Criteria
S5-B1	29-Apr-97	1	ARSENIC	3.7	0.39
S5-B1	29-Apr-97	3	ARSENIC	2.7	0.39
S5-B1	29-Apr-97	5.5	ARSENIC	4.4	0.39
S5-B3	29-Apr-97	1	ARSENIC	3.1	0.39
S5-B3	29-Apr-97	3	ARSENIC	4.2	0.39
S5-B4	29-Apr-97	1	ARSENIC	3.1	0.39
S5-B4	29-Apr-97	3.5	ARSENIC	3.2	0.39
S5-B5	29-Apr-97	1.5	ARSENIC	2.6	0.39
S5-B5	29-Apr-97	3.5	ARSENIC	2.8	0.39
S5-B7	29-Apr-97	1.5	ARSENIC	3.9	0.39
S5-B7	29-Apr-97	3.5	ARSENIC	2.6	0.39
S5-B8	29-Apr-97	1.5	ARSENIC	3.4	0.39
S5-B8	29-Apr-97	3.5	ARSENIC	2.5	0.39

SOIL BORING
MONITORING WELL
HISTORICAL SAMPLE NEESA 1985
SPILL LOCATION
S5-01 SAMPLE EXCEEDING SCREENING CRITERIA IN BOLD

IRP SITE
RAILROAD
CURB
BUILDING
PAVED AREA (NOT ROAD)

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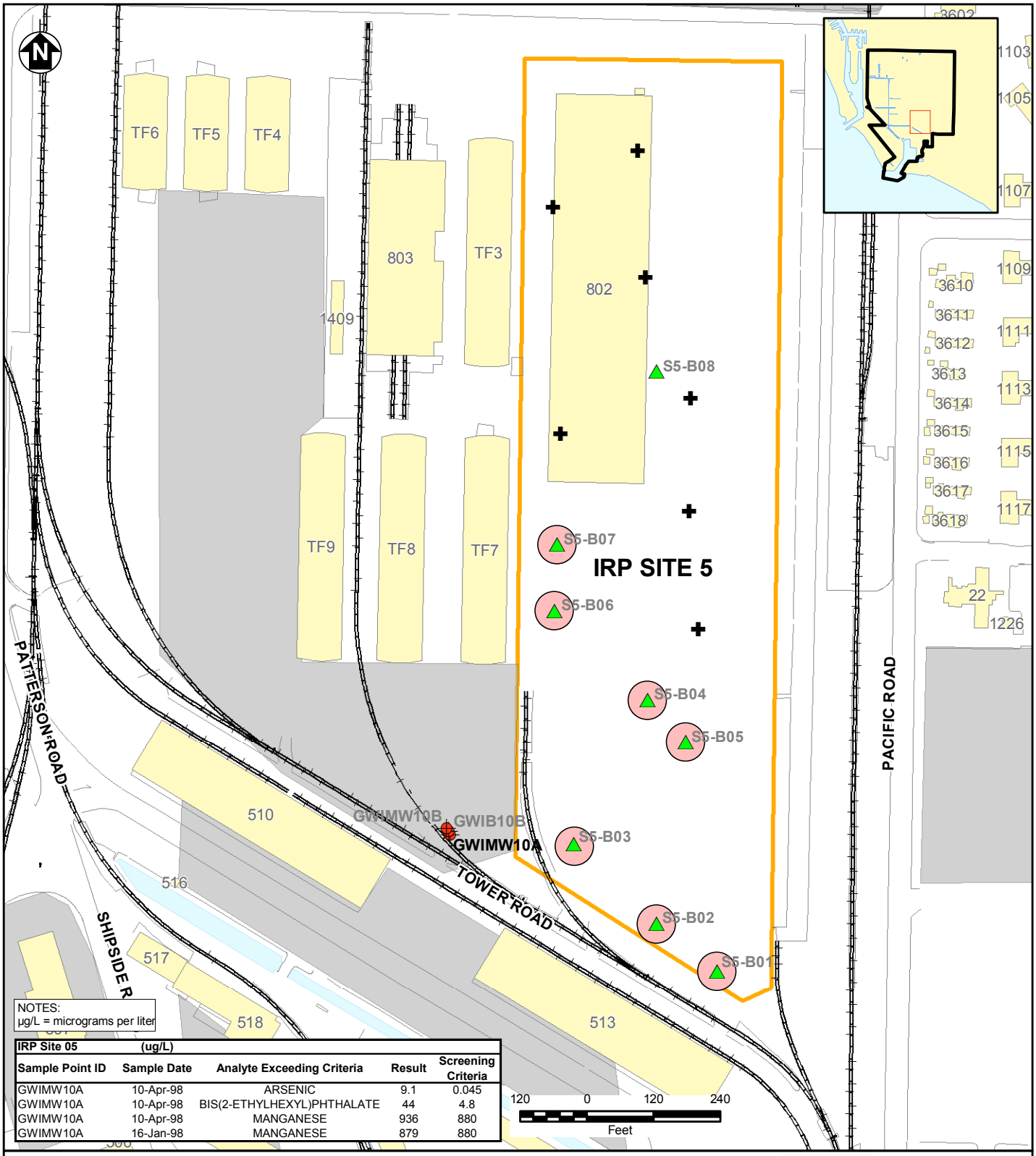
FIGURE 3-2
IRP SITE 5 - FORMER DPDO YARD ANALYTES IN SOIL EXCEEDING SCREENING CRITERIA
Site Management Plan

fig3-2_PHFSMP_IRPsite5_soil_121704.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases



NOTES:
µg/L = micrograms per liter

IRP Site 05	(ug/L)			
Sample Point ID	**Sample Date**	**Analyte Exceeding Criteria**	**Result**	**Screening Criteria**
GWIMW10A	10-Apr-98	ARSENIC	9.1	0.045
GWIMW10A	10-Apr-98	BIS(2-ETHYLHEXYL)PHTHALATE	44	4.8
GWIMW10A	10-Apr-98	MANGANESE	936	880
GWIMW10A	16-Jan-98	MANGANESE	879	880

- SOIL BORING
- MONITORING WELL
- HISTORICAL SAMPLE NEESA 1985
- SPILL LOCATION
- **S5-01** SAMPLE EXCEEDING SCREENING CRITERIA IN BOLD
- IRP SITE
- RAILROAD
- CURB
- BUILDING
- PAVED AREA (NOT ROAD)

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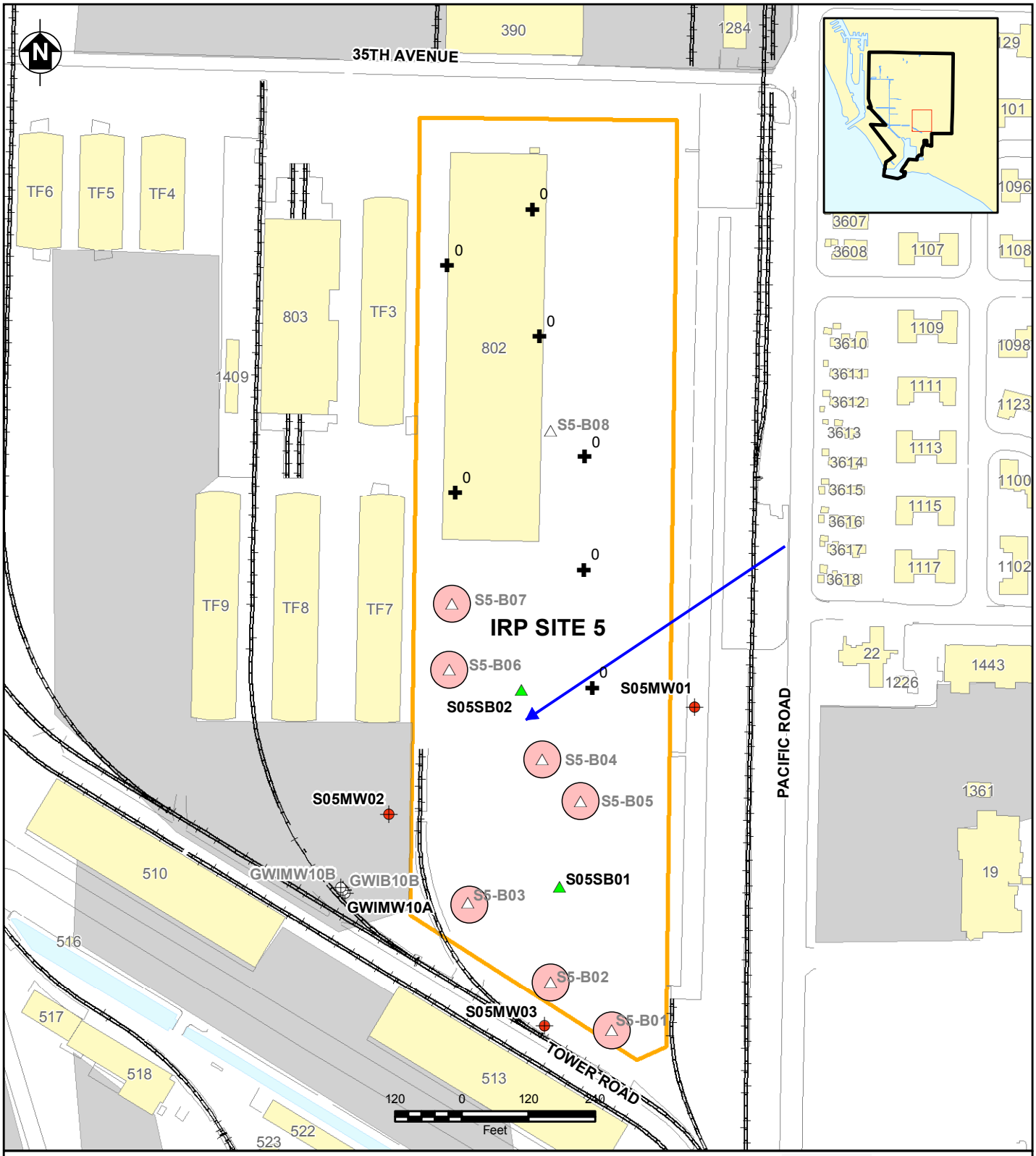
FIGURE 3-3
IRP SITE 5 -FORMER DPDO YARD ANALYTES IN GROUNDWATER EXCEEDING SCREENING CRITERIA

Site Management Plan

fig3-3_PHFSMP_IRPsite5_GW_121704.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases



PROPOSED SAMPLE LOCATIONS
In black text
- SOIL BORING
- MONITORING WELL

PREVIOUS SAMPLE LOCATIONS
In gray text
- SOIL SAMPLE
- MONITORING WELL
- HISTORICAL SAMPLE NEESA 1985

- IRP SITE
- RAILROAD
- CURB
- GROUNDWATER FLOW
- BUILDING
- PAVED AREA (NOT ROAD)
- SPILL LOCATION

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FIGURE 3-4
IRP SITE 5 - FORMER DPDO YARD PROPOSED GROUNDWATER AND SOIL SAMPLING LOCATIONS
Site Management Plan

fig3-4_PHFSMP_IRPsite5_sitemap_122004.mxd TtEMI-HE Ed Madej
Data Source: SulTech GIS databases

TABLES

TABLE 3-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 05

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
23497042921DM	SOIL	04/29/97	S5-B01	ORIG	1.00 - 1.50	✓	✓	✓	✓	✓	✓	✓					
23497042922DM	SOIL	04/29/97	S5-B01	ORIG	3.00 - 3.50	✓	✓	✓	✓	✓	✓	✓					
23497042923DM	SOIL	04/29/97	S5-B01	ORIG	5.50 - 6.00	✓	✓	✓	✓	✓	✓	✓					
23497042924DM	SOIL	04/29/97	S5-B02	ORIG	1.00 - 1.50					✓							
23497042925DM	SOIL	04/29/97	S5-B02	ORIG	3.00 - 3.50					✓							
23497042926DM	SOIL	04/29/97	S5-B03	ORIG	1.00 - 1.50		✓		✓	✓	✓	✓					
23497042927DM	SOIL	04/29/97	S5-B03	ORIG	3.00 - 3.50		✓		✓	✓	✓	✓					
23497042928DM	SOIL	04/29/97	S5-B04	ORIG	1.00 - 1.50	✓			✓			✓					
23497042929DM	SOIL	04/29/97	S5-B04	ORIG	3.50 - 4.00	✓			✓			✓					
23497042930DM	SOIL	04/29/97	S5-B05	ORIG	1.50 - 2.00		✓		✓	✓	✓	✓					
23497042931DM	SOIL	04/29/97	S5-B05	ORIG	3.50 - 4.00		✓		✓	✓	✓	✓					
23497042932DM	SOIL	04/29/97	S5-B06	ORIG	1.50 - 2.00					✓							
23497042933DM	SOIL	04/29/97	S5-B06	ORIG	3.50 - 4.00					✓							
23497042934DM	SOIL	04/29/97	S5-B07	ORIG	1.50 - 2.00							✓					
23497042935DM	SOIL	04/29/97	S5-B07	ORIG	3.50 - 4.00							✓					
23497042936DM	SOIL	04/29/97	S5-B08	ORIG	1.50 - 2.00							✓					
23497042937DM	SOIL	04/29/97	S5-B08	ORIG	3.50 - 4.00							✓					
08797101608S	WATER	10/16/97	GWIMW10A	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798011619B	WATER	01/16/98	GWIMW10A	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798041050W	WATER	04/10/98	GWIMW10A	ORIG	NA	✓	✓	✓	✓				✓	✓			

TABLE 3-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 05 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
TOTAL						8	10	6	12	11	7	13	3	3	0	0	0

Notes:

DMETL	Metals (filtered)	ORGPB	Organic Lead	SVOC	Semivolatile organic compound
GMETL	General mineral	PCB	Polychlorinated biphenyls	TPH-e	Total petroleum hydrocarbons, extractables
METL	Metals (total - unfiltered)	PEST	Pesticides	TPH-p	Total petroleum hydrocarbons, purgeables
NA	Not applicable	PESTO	Organophosphorus pesticides	VOC	Volatile organic compound
				✓	Sample collected and analyzed; blank cell indicates no sample collected.

TABLE 3-2: ANALYTICAL RESULTS FOR IRP SITE 05 SOIL SAMPLES

Site Management Plan, CBC Port Hueneme

Sample Location ID	S5-B01	S5-B01	S5-B01	S5-B02	S5-B02	S5-B03	S5-B03	EPA Residential Soil PRGs
Sample ID	23497042921DM	23497042922DM	23497042923DM	23497042924DM	23497042925DM	23497042926DM	23497042927DM	
Sample Date	04/29/1997	04/29/1997	04/29/1997	04/29/1997	04/29/1997	04/29/1997	04/29/1997	
Sample Depth	1.00 - 1.50	3.00 - 3.50	5.50 - 6.00	1.00 - 1.50	3.00 - 3.50	1.00 - 1.50	3.00 - 3.50	
Volatile Organic Compounds (mg/kg)								
ACETONE	< 0.012 UJ	0.12	< 0.034 UJ	NA	NA	NA	NA	14,000
CARBON DISULFIDE	< 0.012 U	0.001 J	< 0.012 U	NA	NA	NA	NA	360
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables) None Detected	ND	ND	ND	NA	NA	ND	ND	NC
Gasoline Range (purgeables) None Detected	ND	ND	ND	NA	NA	NA	NA	NC
Semivolatile Organic Compounds (mg/kg)								
None Detected	ND	ND	ND	NA	NA	ND	ND	NC
PCBs/Pesticides (mg/kg)								
AROCLOR-1260	< 0.037 U	< 0.038 U	< 0.041 U	0.09	< 0.019 U	< 0.04 U	< 0.042 U	0.22
Metals (mg/kg)								
ALUMINUM	8,390	7,590	9,750	NA	NA	9,140	11,200	76,000
ANTIMONY	0.39 J	0.38 J	0.42 R	NA	NA	0.48 J	0.67 J	31
ARSENIC	**3.7 J**	**2.7 J**	**4.4 J**	NA	NA	**3.1 J**	**4.2 J**	0.39
BARIUM	98.2	82.2	104	NA	NA	99.7	122	5,400
BERYLLIUM	0.21 J	0.21 J	0.24 J	NA	NA	0.22 J	0.25 J	150
CADMIUM	0.62	0.69	0.82	NA	NA	0.82	1.1	37 *
CALCIUM	10,600	24,600	45,000	NA	NA	11,700	35,400	NC
CHROMIUM	15.2	12.9	16	NA	NA	15.6	18.6	210
COBALT	6.2	5.7	7.5	NA	NA	7.1	9.3	900
COPPER	216 J	56.5 J	41.2 J	NA	NA	48.7 J	27.2 J	3,100
IRON	15,500	14,100	18,200	NA	NA	17,100	20,500	23,000
LEAD	5.1	4.2	5.2	NA	NA	5.3	5.9	150 *
MAGNESIUM	4,400	4,520	6,510	NA	NA	6,100	7,890	NC
MANGANESE	311	214	355	NA	NA	268	415	1,800
MOLYBDENUM	2.6	< 0.61 UJ	4.2	NA	NA	1.5	3.1	390
NICKEL	20.4	13	15	NA	NA	16	19.5	1,600
POTASSIUM	2,280	2,680	2,720	NA	NA	3,470	3,550	NC
SELENIUM	< 0.29 U	0.53	< 0.31 U	NA	NA	< 0.3 U	< 0.31 U	390
SODIUM	< 42.7 UJ	< 56.7 UJ	< 75.5 UJ	NA	NA	430 J	762	NC
THALLIUM	0.72 J	0.55 J	0.72 J	NA	NA	0.77 J	1 J	5.2

TABLE 3-2: ANALYTICAL RESULTS FOR IRP SITE 05 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S5-B01	S5-B01	S5-B01	S5-B02	S5-B02	S5-B03	S5-B03	EPA Residential Soil PRGs
Sample ID	23497042921DM	23497042922DM	23497042923DM	23497042924DM	23497042925DM	23497042926DM	23497042927DM	
Sample Date	04/29/1997	04/29/1997	04/29/1997	04/29/1997	04/29/1997	04/29/1997	04/29/1997	
Sample Depth	1.00 - 1.50	3.00 - 3.50	5.50 - 6.00	1.00 - 1.50	3.00 - 3.50	1.00 - 1.50	3.00 - 3.50	
Metals (mg/kg)								
VANADIUM	27.2	25.5	31.2	NA	NA	30.6	36.8	550
ZINC	156	75.2	57.9	NA	NA	72.9	71.5	23,000

TABLE 3-2: ANALYTICAL RESULTS FOR IRP SITE 05 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S5-B04	S5-B04	S5-B05	S5-B05	S5-B06	S5-B06	S5-B07	EPA Residential Soil PRGs
Sample ID	23497042928DM	23497042929DM	23497042930DM	23497042931DM	23497042932DM	23497042933DM	23497042934DM	
Sample Date	04/29/1997	04/29/1997	04/29/1997	04/29/1997	04/29/1997	04/29/1997	04/29/1997	
Sample Depth	1.00 - 1.50	3.50 - 4.00	1.50 - 2.00	3.50 - 4.00	1.50 - 2.00	3.50 - 4.00	1.50 - 2.00	
Volatile Organic Compounds (mg/kg)								
ACETONE	< 0.011 U	< 0.012 U	NA	NA	NA	NA	NA	14,000
CARBON DISULFIDE	< 0.011 U	< 0.012 U	NA	NA	NA	NA	NA	360
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables) None Detected	NA	NA	ND	ND	NA	NA	NA	NC
Gasoline Range (purgeables) None Detected	NA	NA	NA	NA	NA	NA	NA	NC
Semivolatile Organic Compounds (mg/kg)								
None Detected	ND	ND	ND	ND	NA	NA	NA	NC
PCBs/Pesticides (mg/kg)								
AROCLOR-1260	NA	NA	< 0.037 U	< 0.038 U	0.11	< 0.018 U	NA	0.22
Metals (mg/kg)								
ALUMINUM	8,290	6,820	8,070	6,860	NA	NA	5,550	76,000
ANTIMONY	< 0.39 UJ	0.55 J	0.39 R	0.4 R	NA	NA	0.45 J	31
ARSENIC	**3.1**	**3.2**	**2.6 J**	**2.8 J**	NA	NA	**3.9**	0.39
BARIUM	90.7	84.4	79.1	87	NA	NA	90.2	5,400
BERYLLIUM	0.11 J	0.19 J	0.15 J	0.21 J	NA	NA	0.12 J	150
CADMIUM	0.88	0.65	0.9	0.61	NA	NA	0.44 J	37 *
CALCIUM	19,800 J	18,400 J	11,700	11,000	NA	NA	49,200 J	NC
CHROMIUM	15.5 J	11.6 J	13.2	11.5	NA	NA	11.1 J	210
COBALT	7.9	5.8 J	6.9	5.3 J	NA	NA	3 J	900
COPPER	39.4 J	13.5 J	52.2 J	22.8 J	NA	NA	35 J	3,100
IRON	19,500	14,100	15,900	13,400	NA	NA	8,350	23,000
LEAD	8.9	4.3	4.1	4.1	NA	NA	6.7	150 *
MAGNESIUM	8,410	4,810	5,120	4,140	NA	NA	3,940	NC
MANGANESE	360	261	236	182	NA	NA	151	1,800
MOLYBDENUM	1 J	2	1.3	1.7	NA	NA	1 J	390
NICKEL	13.8	12.5	13.7	10.6	NA	NA	8.9	1,600
POTASSIUM	1,600	2,450	2,600	1,930	NA	NA	1,070	NC
SELENIUM	0.38 J	< 0.31 U	< 0.29 U	< 0.29 U	NA	NA	< 0.29 U	390
SODIUM	248 J	228 J	319 J	254 J	NA	NA	274 J	NC
THALLIUM	0.86 J	0.61 J	< 0.45 U	< 0.46 U	NA	NA	< 0.46 U	5.2

TABLE 3-2: ANALYTICAL RESULTS FOR IRP SITE 05 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S5-B04	S5-B04	S5-B05	S5-B05	S5-B06	S5-B06	S5-B07	EPA Residential Soil PRGs
Sample ID	23497042928DM	23497042929DM	23497042930DM	23497042931DM	23497042932DM	23497042933DM	23497042934DM	
Sample Date	04/29/1997	04/29/1997	04/29/1997	04/29/1997	04/29/1997	04/29/1997	04/29/1997	
Sample Depth	1.00 - 1.50	3.50 - 4.00	1.50 - 2.00	3.50 - 4.00	1.50 - 2.00	3.50 - 4.00	1.50 - 2.00	
Metals (mg/kg)								
VANADIUM	30.3	23.3	26.6	22.3	NA	NA	23.9	550
ZINC	69.4 J	39.4 J	64.9	44.9	NA	NA	36.3 J	23,000

TABLE 3-2: ANALYTICAL RESULTS FOR IRP SITE 05 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S5-B07	S5-B08	S5-B08	
Sample ID	23497042935DM	23497042936DM	23497042937DM	EPA Residential Soil PRGs
Sample Date	04/29/1997	04/29/1997	04/29/1997	
Sample Depth	3.50 - 4.00	1.50 - 2.00	3.50 - 4.00	
Volatile Organic Compounds (mg/kg)				
ACETONE	NA	NA	NA	14,000
CARBON DISULFIDE	NA	NA	NA	360
Petroleum Hydrocarbons (mg/kg)				
Diesel/Motor Oil Range (extractables) None Detected	NA	NA	NA	NC
Gasoline Range (purgeables) None Detected	NA	NA	NA	NC
Semivolatile Organic Compounds (mg/kg)				
None Detected	NA	NA	NA	NC
PCBs/Pesticides (mg/kg)				
AROCLOR-1260	NA	NA	NA	0.22
Metals (mg/kg)				
ALUMINUM	5,870	5,360	6,370	76,000
ANTIMONY	< 0.4 UJ	< 0.37 UJ	< 0.38 UJ	31
ARSENIC	**2.6**	**3.4**	**2.5**	0.39
BARIUM	78.7	99.7	72.5	5,400
BERYLLIUM	0.17 J	0.11 J	0.18 J	150
CADMIUM	0.54 J	0.65	0.52 J	37 *
CALCIUM	9,970 J	57,400 J	7,490 J	NC
CHROMIUM	10.1 J	12.1 J	11 J	210
COBALT	4.8 J	3.3 J	5.1 J	900
COPPER	12.3 J	27.9 J	72.3 J	3,100
IRON	11,900	10,600	12,800	23,000
LEAD	3.5	7	3.9	150 *
MAGNESIUM	3,330	17,900	3,510	NC
MANGANESE	166	242	196	1,800
MOLYBDENUM	1.5	1 J	1 J	390
NICKEL	9.6	11.8	10.7	1,600
POTASSIUM	1,520	1,320	1,830	NC
SELENIUM	< 0.3 U	< 0.27 U	< 0.28 U	390
SODIUM	102 J	441 J	104 J	NC
THALLIUM	0.67 J	0.62 J	< 0.44 U	5.2

TABLE 3-2: ANALYTICAL RESULTS FOR IRP SITE 05 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S5-B07	S5-B08	S5-B08	EPA Residential Soil PRGs
Sample ID	23497042935DM	23497042936DM	23497042937DM	
Sample Date	04/29/1997	04/29/1997	04/29/1997	
Sample Depth	3.50 - 4.00	1.50 - 2.00	3.50 - 4.00	
Metals (mg/kg)				
VANADIUM	20.3	25.8	21.9	550
ZINC	33 J	37.7 J	71.1 J	23,000

Notes: Categories of analyses are shown, but only detected compounds are presented. Analyte results in boldface type exceed EPA residential soil PRGs.

*	California modified PRGs
ID	Identification
J	Estimated value
mg/kg	Milligrams per kilogram
NA	Not analyzed
NC	No criteria
ND	None detected
PRG	Preliminary remediation goals
R	Result rejected during quality assurance review.
U	Nondetected

TABLE 3-3: ANALYTICAL RESULTS FOR IRP SITE 05 GROUNDWATER SAMPLES

Site Management Plan, CBC Port Hueneme

Sample Location ID	GWIMW10A	GWIMW10A	GWIMW10A	
Sample ID	08797101608S	08798011619B	08798041050W	EPA Tap Water PRGs
Sample Date	10/16/1997	01/16/1998	04/10/1998	
Volatile Organic Compounds (µg/L)				
None Detected	ND	ND	ND	NC
Petroleum Hydrocarbons (mg/L)				
Diesel/Motor Oil Range (extractables)				
None Detected	ND	ND	ND	NC
Gasoline Range (purgeables)				
None Detected	ND	ND	ND	NC
Semivolatile Organic Compounds (µg/L)				
BIS(2-ETHYLHEXYL)PHTHALATE	< 4 UJ	< 4 UJ	**44**	4.8
Metals (µg/L)				
FIltered				
ALUMINUM	< 11 U	< 6.2 U	30.1 J	36,000
ANTIMONY	< 1.4 U	< 1.8 U	7.4 J	15
ARSENIC	< 1.2 U	< 5.5 UJ	**9.1**	0.045
BARIUM	25.3 J	22.6 J	174	2,600
BERYLLIUM	< 0.05 U	< 0.13 UJ	0.16 J	73
CHROMIUM	0.68 J	< 0.55 U	< 0.5 U	NC
COBALT	0.93 J	< 1.7 U	2.5 J	730
COPPER	0.93 J	< 1.2 U	< 0.8 U	1,500
MANGANESE	730	**879 J**	**936**	880
MOLYBDENUM	47.1	49.6	50.9	180
NICKEL	2.3 J	< 2.1 U	2.2 J	730
SELENIUM	4.7	< 4.7 UJ	8.7 J	180
VANADIUM	2.3 J	< 0.8 U	7.2 J	260
ZINC	1.8 J	< 3.8 UJ	123	11,000
General Mineral				
CALCIUM	260,000	247,000	264,000	NC
IRON	1,970 J	4,480 J	< 72.8 U	11,000
MAGNESIUM	151,000	138,000	151,000	NC
POTASSIUM	8,820 J	8,140 J	7,360 J	NC
SODIUM	75,800	359,000 J	380,000	NC

TABLE 3-3: ANALYTICAL RESULTS FOR IRP SITE 05 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Notes: Categories of analyses are shown, but only detected compounds are presented. Analyte results in boldface type exceed EPA tap water PRGs.

ID	Identification
J	Estimated value
mg/L	Milligrams per liter
NC	No criteria
ND	None detected
PRG	Preliminary remediation goals
U	Nondetected
µg/L	Micrograms per liter

4.0 IRP SITE 6 – TRACK NO. 13 ROAD FENCE LINE

This section provides the site background and description for IRP Site 6; summarizes the previous investigations, activities, and existing data; and discusses data gap findings and strategies for eliminating data gaps at IRP Site 6.

4.1 SITE BACKGROUND

The following sections discuss the site background for IRP Site 6, including a general site description, discussion of previous and current site activities, and a summary of previous investigations that have been completed at the site.

4.1.1 Site Description

IRP Site 6 is a fence line area consisting of a strip of exposed soil that is approximately 900 feet long and less than 5 feet wide. IRP Site 6 is located west of Track No. 13 Road Fenceline, between 32nd and 35th avenues (Figure 4-1) (SCS and Landau Associates 1985).

4.1.2 Site Activities

Chemicals used for weed control were applied to the ground surface along the road fence line between 1980 and 1983. Less than 100 gallons of waste thinners, kerosene, and cosmoline were used during the weed control activities over an area of approximately 4,500 square feet. Herbicides were generally not mixed with the solvents. The site is not currently used for any Navy activities.

4.1.3 Previous Investigations

Previous investigations that have been completed at IRP Site 6 include IAS (SCS and Landau Associates 1985), a removal evaluation (PRC 1993), supplemental sampling and analysis (PRC 1997b), an HHRA (Bechtel 2002b), and a basewide groundwater investigation (Tetra Tech and LFR 2001).

4.1.3.1 Initial Assessment Study (SCS and Landau Associates 1985)

The IAS reported that less than 100 gallons of waste thinners, kerosene, and cosmoline were used during the weed control activities over an area of approximately 4,500 square feet. Herbicides generally were not mixed with the solvents. A letter in Navy files indicates that the chemicals used for weed control were applied using a gardening sprayer. Soil samples were collected in December 1983 from four locations at IRP Site 6 at the request of the VCEHD. The objectives of the soil sampling were to determine if contamination existed and if any remedial action was required. The soil samples were collected at the ground surface and at 0.5, 2.0, and 3.0 feet bgs. Three sampling locations were along the fence line, and one sample was collected

at a background location (Figure 4-1). Samples were analyzed for the metals cadmium, chromium, copper, lead, and silver.

Cadmium, chromium, copper, lead, and silver were detected in IRP Site 6 samples at concentrations comparable to the background sample results (see Appendix B), except for one surface sample that contained copper, chromium, and lead at levels approximately double the concentrations detected in other samples. The metals detected were not attributed to site activities, and VCEHD did not recommend additional sampling or remedial action for IRP Site 6.

4.1.3.2 Removal Evaluation (PRC 1993)

In 1993, a removal evaluation was conducted for IRP Sites 5, 6, 12, 13, and 15. The report presented the site background, sampling activities, analytical results, land use, and potential pathways and receptors to support risk evaluations and recommendations for removal of the sites from the IRP. The evaluation report presented a risk evaluation to support recommendations for no further action and removal of IRP Site 6 from the IRP; however, DTSC requested an additional investigation at the site.

4.1.3.3 Technical Memorandum Supplemental Sampling and Analysis (PRC 1997b)

On April 29, 1997, PRC collected soil samples at IRP Site 6 to confirm presence of site contaminants. Four borings were advanced at IRP Site 6 (S6-B1 through S6-B4), and surface and subsurface-soil samples were collected from the borings to check for presence of metals, VOCs, SVOCs, and TPH. The borings were advanced along the fence line located on the eastern portion of IRP Site 6 and east of railroad track 13 (Figure 4-1). The borings were terminated at depths ranging from 4.0 to 6.5 feet bgs. Ten discrete soil samples were collected at various depths ranging from 1.0 to 6.5 feet bgs. For initial screening, the sample results were compared to both residential and industrial EPA Region 9 PRGs and CBC Port Hueneme background metal levels (see Appendix B) (PRC 1993). COPCs detected above their screening criteria included arsenic, beryllium, and benzo(a)pyrene. Arsenic exceeded its screening criteria in all borings analyzed for metals. Beryllium exceeded its screening criteria in one boring (S6-B1). However, while metal results exceeded the PRGs, they were within or below the established background ranges established for CBC Port Hueneme (see Appendix B). Benzo(a)pyrene exceeded its screening criteria in one boring (S6-B2). The technical memorandum asserted that IRP Site 6 is suitable for industrial use based on a comparison of IRP Site 6 analytical results to EPA Region 9 PRGs. Therefore, further investigation or remediation was not recommended; however, institutional controls were recommended to maintain the intended industrial usage of the land.

4.1.3.4 *Risk Assessment Technical Memorandum (Bechtel 2002b)*

In 2002, Bechtel prepared a BHHRA for IRP Site 6. Potential cancer risks and noncancer hazards associated with exposure to COPCs at IRP Site 6 were evaluated for hypothetical residents, industrial, and construction worker exposure scenarios. The risks for the residential and industrial scenarios were within the EPA risk management range of 1×10^{-4} to 1×10^{-6}. The risk for the construction worker scenario was below 1×10^{-6}. The noncancer HI for all scenarios was below the threshold value of 1.0. Therefore, the site was considered suitable for industrial use.

4.1.3.5 *Draft Groundwater Remedial Investigation Report (Tetra Tech and LFR 2001)*

From 1997 to 2001, a basewide RI was completed to evaluate the condition of the groundwater and surface water at CBC Port Hueneme. No groundwater wells were installed at IRP Site 6. Also, no existing wells on the site could be used for sampling; therefore, no groundwater samples specific to IRP Site 6 were collected. However, the available analytical data and groundwater modeling were utilized to evaluate the Semi-Perched Aquifer in the vicinity of IRP Site 6.

Chemical concentrations in groundwater were screened against NAWQC for the protection of saltwater aquatic life and MCLs. If concentrations of an organic compound exceeded the NAWQC and/or MCL in at least one sampling round at a given location, that compound was considered a COPEC and/or COPC, respectively, at that location. If concentrations of an inorganic compound exceeded the NAWQC and/or MCL in more than one sampling at a given location, that compound was considered a COPEC and/or a COPC, respectively, at that location. Inorganics were screened differently because they often occur naturally. No COPECs or COPCs were identified in the vicinity of IRP Site 6. No further evaluation of groundwater within the Semi-Perched Aquifer was recommended in the vicinity of IRP Site 6.

Following submittal of the draft basewide groundwater investigation report, and review of the groundwater model, DTSC requested that additional site-specific groundwater data be collected (if necessary) and site-specific groundwater data be evaluated to adequately characterize the site.

4.2 COMPILATION OF EXISTING SITE DATA

Available data, typically that collected after 1993, has been compiled and tabulated for use in identifying data gaps and additional site activities required to obtain site closure. The available data were screened against the EPA residential soil PRGs. Additional data may be available within previous reports prepared for this site. Dependent upon the site activities identified to obtain site closure, this data may also be reviewed to determine if it is suitable for use in additional evaluations.

Table 4-1 summarizes the samples collected at IRP Site 6. Table 4-2 includes the soil analytical results for IRP Site 6, and Figure 4-2 shows concentrations of constituents in IRP Site 6 soil samples detected above the respective screening criteria.

4.3 DATA GAPS

For this SMP, the previous investigations and collected data for IRP Site 6 were reviewed to verify that sufficient information is available to support the final actions and documentation needed to close the site. Identified data gaps and proposed actions to eliminate those data gaps are discussed below.

4.3.1 Soil Data Gaps

Based on a review of the existing soil data for the site, an insufficient number of surface soil samples exist to provide an adequately sized data set to perform the HHRA and ERA. Additional soil samples are needed to adequately characterize the site and to perform the HHRA and ERA.

4.3.2 Groundwater Data Gaps

Because no groundwater monitoring wells are located on IRP Site 6, site risks resulting from potential contaminants in the Semi-Perched Aquifer have not been adequately characterized. On-site monitoring wells are needed on IRP Site 6 and groundwater sampling is required to assess groundwater conditions and support an HHRA and ERA.

4.3.3 Human Health Risk Assessment Data Gaps

Only soil exposures were evaluated in the revised 2002 BHHRA (Bechtel 2002b). Potential risks from exposure to groundwater have not been evaluated for the site. Additional soil and groundwater sampling is proposed at the site; therefore, existing and new soil data as well as existing and new groundwater data will be evaluated in a new HHRA. The HHRA will evaluate potential risks for exposure to both soil and groundwater at the site. The HHRA will use contemporary EPA, DTSC, and Navy risk assessment guidance to ensure that site soil and groundwater risk assessments are based on current methodology.

4.3.4 Ecological Risk Assessment Data Gaps

An ERA has not been completed for this site. A habitat survey of IRP Site 6 will be completed to determine if a viable habitat exists for ecological receptors.

4.4 STRATEGY FOR ELIMINATING DATA GAPS

To eliminate the data gaps identified at IRP Site 6, three monitoring wells will be installed at IRP Site 6, one well upgradient (S06MW01) and two wells downgradient (S06MW02 and S06MW03) (Figure 4-3). Moreover, four quarters of groundwater samples should be collected from the three proposed wells and analyzed for VOCs, SVOCs, TPH-p, TPH-e, pesticides/PCBs, and metals. The proposed groundwater monitoring well installations and the proposed groundwater sampling scheme for IRP Site 6 are as follows:

Well ID	Borehole Diameter (inches)	Well Diameter (inches)	Well Depth (feet bgs)	Screened Interval (feet bgs)	Up/Down Gradient	Estimated Water Level (feet bgs)
S06MW01	8.0	2.0	15	5-15	Up	7
S06MW02	8.0	2.0	15	5-15	Down	7
S06MW03	8.0	2.0	15	5-15	Down	7

Well ID	Well Diameter (inches)	Well Depth (feet bgs)	Screened Interval (feet bgs)	Analyses
S06MW01	2.0	15	5-15	VOC, SVOC, TPH-purgeable, TPH-extractable, pesticides/PCB, metals
S06MW02	2.0	15	5-15	Same as above
S06MW03	2.0	15	5-15	Same as above

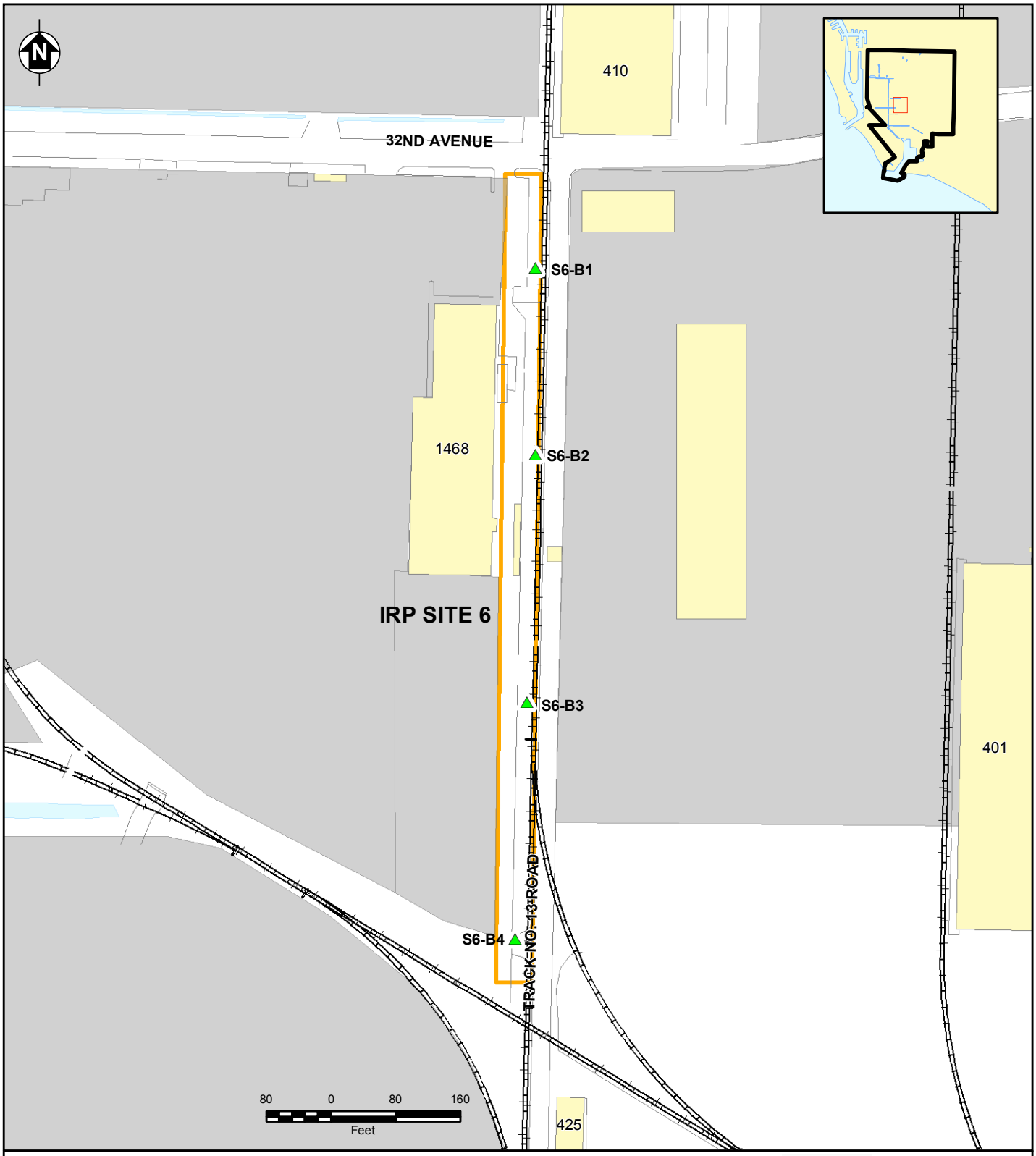
To provide an adequately sized data set to complete an ERA, five surface (0.0 to 2.0 feet bgs) and one subsurface (5.0 to 7.0 feet bgs) soil sample will be collected and analyzed for VOCs, SVOCs, PAHs, TPH-p, TPH-e, pesticides/PCBs, and metals (Figure 4-3). The following table shows the proposed soil sampling scheme for IRP Site 6:

Sample Location ID	Depth (feet bgs)	Analytical Group	Rationale/Comment
S06SB01	Surface (0-2)	VOC, SVOC, PAH, TPH-purgeable, TPH-extractable, pesticides/PCB, metals	Provide additional data for HHRA and ERA
S06SB02	Surface (0-2)	Same as above	Same as above
S06MW01	Surface (0-2)	Same as above	Same as above
S06MW01	Subsurface (5-7)	Same as above	Same as above
S06MW02	Surface (0-2)	Same as above	Same as above
S06MW03	Surface (0-2)	Same as above	Same as above

The new soil and groundwater data will be compiled, combined with previously collected data presented in Table 4-2, and evaluated for cumulative risk using EPA Region 9 PRGs. The data will be evaluated in an HHRA to identify site-specific risks to human health from soil and groundwater. In addition, a habitat survey of IRP Site 6 will be completed to determine if there is viable habitat for ecological receptors. If viable habitat does exist, a screening level ERA, based on surface soil data collected at the site, will be conducted. If there is evidence of burrowing animals at the site, the ERA will include an evaluation of vapor exposure for these animals in their burrows. To establish whether a complete vapor exposure pathway exists for burrowing animals, the depth to the Semi-Perched Aquifer will also be considered in this analysis.

The results of these evaluations, along with conclusions and recommendations for any additional site activities, will be presented in an RI report.

FIGURES



▲ SOIL BORING
✚ HISTORICAL SAMPLE NEESA 1985

IRP SITE
CBC PORT HUENEME BOUNDARY
RAILROAD
CURB
BUILDING
PAVED AREA (NOT ROAD)

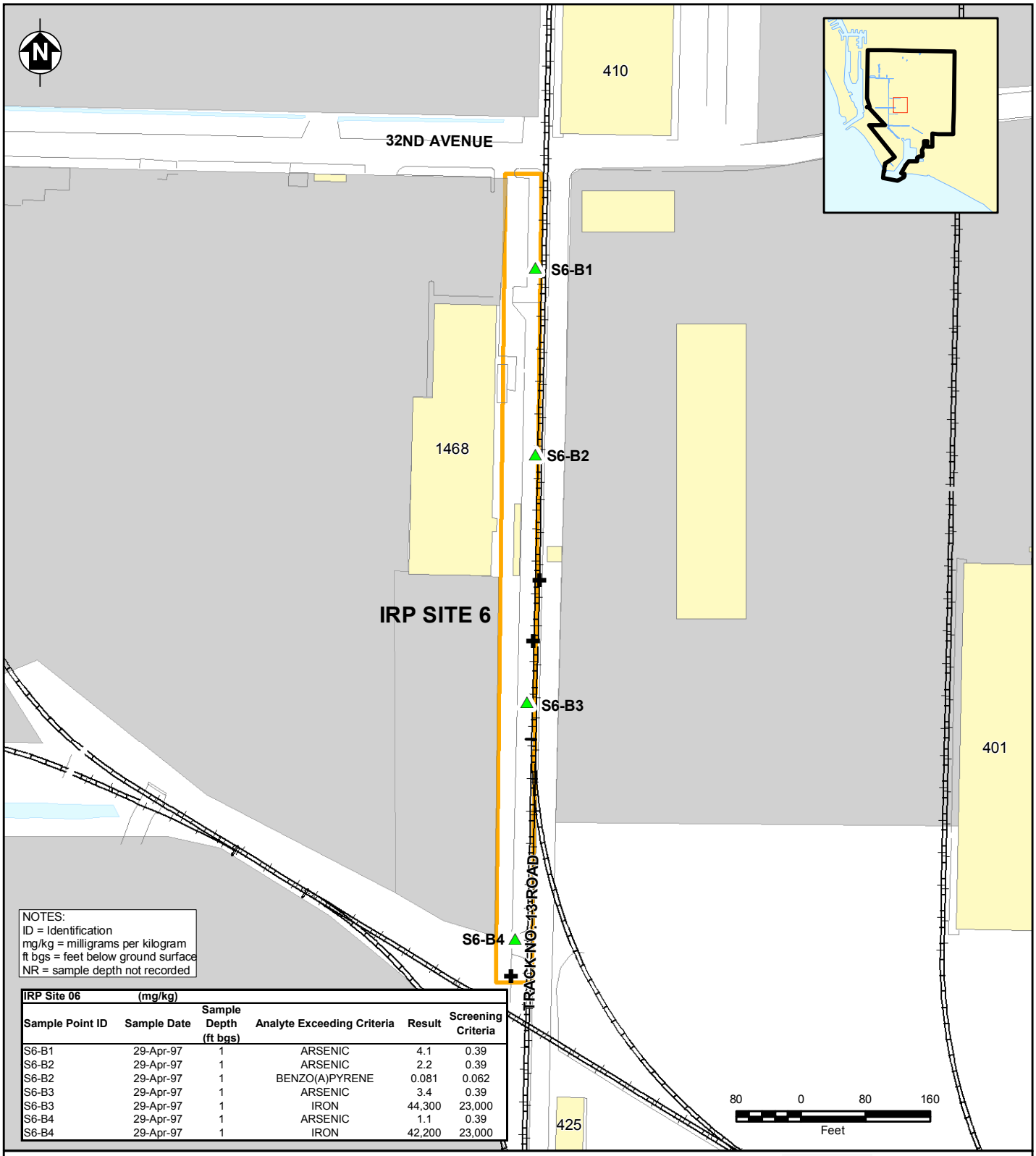
SulTech

CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 4-1
IRP SITE 6 - TRACK 13 ROAD FENCELINE SITE MAP

Site Management Plan

fig4-1_PHFSMP_IRPsite6_sitemap_122004.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases



NOTES:
ID = Identification
mg/kg = milligrams per kilogram
ft bgs = feet below ground surface
NR = sample depth not recorded

IRP Site 06 (mg/kg)

Sample Point ID	Sample Date	Sample Depth (ft bgs)	Analyte Exceeding Criteria	Result	Screening Criteria
S6-B1	29-Apr-97	1	ARSENIC	4.1	0.39
S6-B2	29-Apr-97	1	ARSENIC	2.2	0.39
S6-B2	29-Apr-97	1	BENZO(A)PYRENE	0.081	0.062
S6-B3	29-Apr-97	1	ARSENIC	3.4	0.39
S6-B3	29-Apr-97	1	IRON	44,300	23,000
S6-B4	29-Apr-97	1	ARSENIC	1.1	0.39
S6-B4	29-Apr-97	1	IRON	42,200	23,000

▲ SOIL BORING
✚ HISTORICAL SAMPLE NEESA 1985
S6-B1 SAMPLE EXCEEDING SCREENING CRITERIA IN BOLD

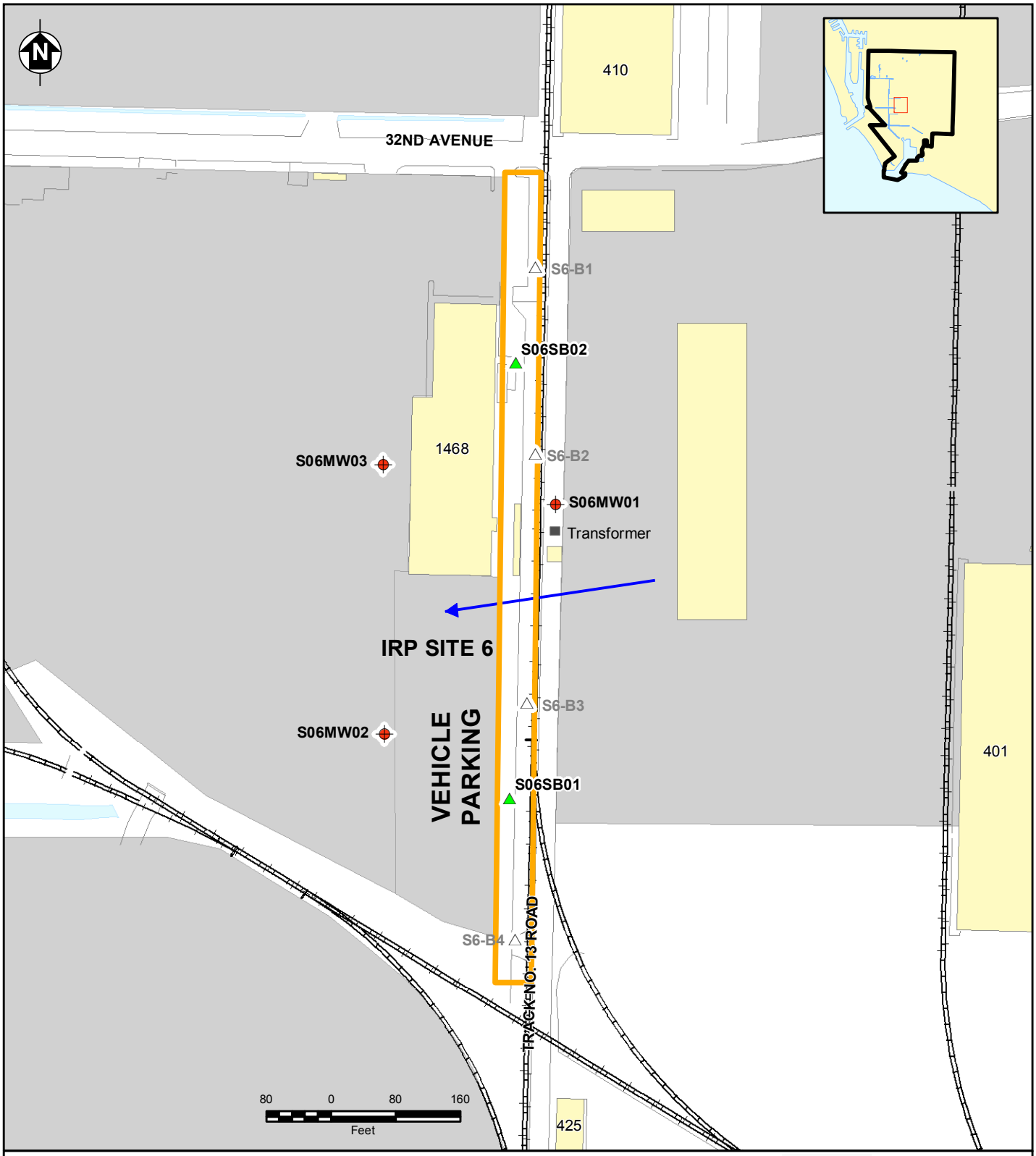
IRP SITE
RAILROAD
CURB
BUILDING
PAVED AREA (NOT ROAD)

SulTech

CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 4-2
IRP SITE 6 - TRACK 13 ROAD FENCELINE
ANALYTES IN SOIL
EXCEEDING SCREENING CRITERIA
Site Management Plan

fig4-2_PHFSMP_IRPsite6_soil_010405.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases



PROPOSED SAMPLE LOCATIONS
In black text
SOIL BORING
MONITORING WELL
PREVIOUS SAMPLE LOCATIONS
In gray text
SOIL SAMPLE
TEST PIT

IRP SITE
RAILROAD
CURB
GROUNDWATER FLOW
BUILDING
PAVED AREA (NOT ROAD)

SulTech

CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 4-3
IRP SITE 6 - TRACK 13 ROAD FENCELINE PROPOSED GROUNDWATER AND SOIL SAMPLING LOCATIONS
Site Management Plan

fig5_PHFSMP_IRPsite6_sitemap_122004.mxd TtEMI-HE Ed Madej
Data Source: SulTech GIS databases

TABLES

TABLE 4-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 06

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
23497042911DM	SOIL	04/29/97	S6-B01	ORIG	1.00 - 1.50		✓		✓			✓					
23497042912DM	SOIL	04/29/97	S6-B01	ORIG	3.00 - 3.50	✓	✓		✓								
23497042913DM	SOIL	04/29/97	S6-B02	ORIG	1.00 - 1.50		✓		✓			✓					
23497042914DM	SOIL	04/29/97	S6-B02	ORIG	3.00 - 3.50	✓	✓		✓								
23497042915DM	SOIL	04/29/97	S6-B02	ORIG	5.50 - 6.00	✓	✓		✓								
23497042916DM	SOIL	04/29/97	S6-B03	ORIG	1.00 - 1.50		✓		✓			✓					
23497042917DM	SOIL	04/29/97	S6-B03	ORIG	3.00 - 3.50	✓	✓		✓								
23497042918DM	SOIL	04/29/97	S6-B03	ORIG	5.50 - 6.00	✓	✓		✓								
23497042919DM	SOIL	04/29/97	S6-B04	ORIG	1.00 - 1.50		✓		✓			✓					
23497042920DM	SOIL	04/29/97	S6-B04	ORIG	3.00 - 3.50	✓	✓		✓								
TOTAL						6	10	0	10	0	0	4	0	0	0	0	0

Notes:

DMETL	Metals (filtered)	ORGPB	Organic Lead	SVOC	Semivolatile organic compound
GMETL	General mineral	PCB	Polychlorinated biphenyls	TPH-e	Total petroleum hydrocarbons, extractables
METL	Metals (total - unfiltered)	PEST	Pesticides	TPH-p	Total petroleum hydrocarbons, purgeables
NA	Not applicable	PESTO	Organophosphorus pesticides	VOC	Volatile organic compound
				✓	Sample collected and analyzed; blank cell indicates no sample collected.

TABLE 4-2: ANALYTICAL RESULTS FOR IRP SITE 06 SOIL SAMPLES

Site Management Plan, CBC Port Hueneme

Sample Location ID	S6-B01	S6-B01	S6-B02	S6-B02	S6-B02	S6-B03	S6-B03	EPA Residential Soil PRGs
Sample ID	23497042911DM	23497042912DM	23497042913DM	23497042914DM	23497042915DM	23497042916DM	23497042917DM	
Sample Date	04/29/1997	04/29/1997	04/29/1997	04/29/1997	04/29/1997	04/29/1997	04/29/1997	
Sample Depth	1.00 - 1.50	3.00 - 3.50	1.00 - 1.50	3.00 - 3.50	5.50 - 6.00	1.00 - 1.50	3.00 - 3.50	
Volatile Organic Compounds (mg/kg)								
None Detected	NA	ND	NA	ND	ND	NA	ND	NC
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
MOTOR OIL RANGE ORGANICS	< 54 U	< 60 U	730	< 60 U	< 64 U	< 58 U	< 59 U	NC
Semivolatile Organic Compounds (mg/kg)								
ANTHRACENE	< 0.36 U	< 0.41 U	0.019 J	< 0.4 U	< 0.43 U	< 0.38 U	< 0.39 U	22,000
BENZO(A)ANTHRACENE	< 0.36 U	< 0.41 U	0.078 J	< 0.4 U	< 0.43 U	< 0.38 U	< 0.39 U	0.62
BENZO(A)PYRENE	< 0.36 U	< 0.41 U	**0.081 J**	< 0.4 U	< 0.43 U	< 0.38 U	< 0.39 U	0.062
BENZO(B)FLUORANTHENE	< 0.36 U	< 0.41 U	0.12 J	< 0.4 U	< 0.43 U	< 0.38 U	< 0.39 U	0.62
BENZO(G,H,I)PERYLENE	< 0.36 U	< 0.41 U	0.074 J	< 0.4 U	< 0.43 U	< 0.38 U	< 0.39 U	NC
BENZO(K)FLUORANTHENE	< 0.36 U	< 0.41 U	0.11 J	< 0.4 U	< 0.43 U	< 0.38 U	< 0.39 U	0.38 *
BUTYLBENZYLPHTHALATE	< 0.36 U	< 0.41 U	0.021 J	< 0.4 U	< 0.43 U	< 0.38 U	< 0.39 U	12,000
CARBAZOLE	< 0.36 U	< 0.41 U	0.024 J	< 0.4 U	< 0.43 U	< 0.38 U	< 0.39 U	24
CHRYSENE	< 0.36 U	< 0.41 U	0.12 J	< 0.4 U	< 0.43 U	< 0.38 U	< 0.39 U	3.8 *
FLUORANTHENE	< 0.36 U	< 0.41 U	0.2 J	< 0.4 U	< 0.43 U	< 0.38 U	< 0.39 U	2,300
INDENO(1,2,3-CD)PYRENE	< 0.36 U	< 0.41 U	0.058 J	< 0.4 U	< 0.43 U	< 0.38 U	< 0.39 U	0.62
NAPHTHALENE	< 0.36 U	< 0.41 U	0.015 J	< 0.4 U	< 0.43 U	< 0.38 U	< 0.39 U	1.7 *
PHENANTHRENE	< 0.36 U	< 0.41 U	0.15 J	< 0.4 U	< 0.43 U	< 0.38 U	< 0.39 U	NC
PYRENE	< 0.36 U	< 0.41 U	0.2 J	< 0.4 U	< 0.43 U	< 0.38 U	< 0.39 U	2,300
Metals (mg/kg)								
ALUMINUM	8,660	NA	4,920	NA	NA	20,000	NA	76,000
ANTIMONY	< 0.38 UJ	NA	0.57 J	NA	NA	0.45 J	NA	31
ARSENIC	**4.1**	NA	**2.2**	NA	NA	**3.4**	NA	0.39
BARIUM	98.4	NA	70.3	NA	NA	3.7 J	NA	5,400
BERYLLIUM	0.26 J	NA	< 0.02 U	NA	NA	< 0.02 U	NA	150
CADMIUM	0.82	NA	0.94	NA	NA	1.1	NA	37 *
CALCIUM	6,210 J	NA	10,200 J	NA	NA	15,000 J	NA	NC
CHROMIUM	16.2 J	NA	14.1 J	NA	NA	19.3 J	NA	210
COBALT	7	NA	5.1	NA	NA	22.6	NA	900
COPPER	100 J	NA	76.5 J	NA	NA	64.8 J	NA	3,100
IRON	16,900	NA	13,400	NA	NA	**44,300**	NA	23,000
LEAD	5.5	NA	40.7	NA	NA	1.6	NA	150 *
MAGNESIUM	4,850	NA	3,670	NA	NA	12,800	NA	NC

TABLE 4-2: ANALYTICAL RESULTS FOR IRP SITE 06 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S6-B01	S6-B01	S6-B02	S6-B02	S6-B02	S6-B03	S6-B03	EPA Residential Soil PRGs
Sample ID	23497042911DM	23497042912DM	23497042913DM	23497042914DM	23497042915DM	23497042916DM	23497042917DM	
Sample Date	04/29/1997	04/29/1997	04/29/1997	04/29/1997	04/29/1997	04/29/1997	04/29/1997	
Sample Depth	1.00 - 1.50	3.00 - 3.50	1.00 - 1.50	3.00 - 3.50	5.50 - 6.00	1.00 - 1.50	3.00 - 3.50	
Metals (mg/kg)								
MANGANESE	276	NA	248	NA	NA	604	NA	1,800
MOLYBDENUM	1.9	NA	1	NA	NA	< 0.14 U	NA	390
NICKEL	15.7	NA	10.9	NA	NA	18	NA	1,600
POTASSIUM	2,520	NA	1,130	NA	NA	319 J	NA	NC
SELENIUM	< 0.28 U	NA	0.27 J	NA	NA	< 0.29 U	NA	390
SODIUM	< 24.5 U	NA	91.2 J	NA	NA	912	NA	NC
THALLIUM	0.76 J	NA	0.49 J	NA	NA	1.2	NA	5.2
VANADIUM	28.6	NA	22	NA	NA	53.1	NA	550
ZINC	83.4 J	NA	174 J	NA	NA	90.1 J	NA	23,000

TABLE 4-2: ANALYTICAL RESULTS FOR IRP SITE 06 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S6-B03	S6-B04	S6-B04	
Sample ID	23497042918DM	23497042919DM	23497042920DM	EPA Residential Soil PRGs
Sample Date	04/29/1997	04/29/1997	04/29/1997	
Sample Depth	5.50 - 6.00	1.00 - 1.50	3.00 - 3.50	
Volatile Organic Compounds (mg/kg)				
None Detected	ND	NA	ND	NC
Petroleum Hydrocarbons (mg/kg)				
Diesel/Motor Oil Range (extractables) MOTOR OIL RANGE ORGANICS	< 61 U	160	< 59 U	NC
Semivolatile Organic Compounds (mg/kg)				
ANTHRACENE	< 0.41 U	< 0.36 U	< 0.4 U	22,000
BENZO(A)ANTHRACENE	< 0.41 U	< 0.36 U	< 0.4 U	0.62
BENZO(A)PYRENE	< 0.41 U	< 0.36 U	< 0.4 U	0.062
BENZO(B)FLUORANTHENE	< 0.41 U	< 0.36 U	< 0.4 U	0.62
BENZO(G,H,I)PERYLENE	< 0.41 U	< 0.36 U	< 0.4 U	NC
BENZO(K)FLUORANTHENE	< 0.41 U	< 0.36 U	< 0.4 U	0.38 *
BUTYLBENZYLPHTHALATE	< 0.41 U	< 0.36 U	< 0.4 U	12,000
CARBAZOLE	< 0.41 U	< 0.36 U	< 0.4 U	24
CHRYSENE	< 0.41 U	< 0.36 U	< 0.4 U	3.8 *
FLUORANTHENE	< 0.41 U	< 0.36 U	< 0.4 U	2,300
INDENO(1,2,3-CD)PYRENE	< 0.41 U	< 0.36 U	< 0.4 U	0.62
NAPHTHALENE	< 0.41 U	< 0.36 U	< 0.4 U	1.7 *
PHENANTHRENE	< 0.41 U	< 0.36 U	< 0.4 U	NC
PYRENE	< 0.41 U	< 0.36 U	< 0.4 U	2,300
Metals (mg/kg)				
ALUMINUM	NA	14,500	NA	76,000
ANTIMONY	NA	0.39 J	NA	31
ARSENIC	NA	**1.1**	NA	0.39
BARIUM	NA	504	NA	5,400
BERYLLIUM	NA	< 0.02 U	NA	150
CADMIUM	NA	1.4	NA	37 *
CALCIUM	NA	11,000 J	NA	NC
CHROMIUM	NA	25.1 J	NA	210
COBALT	NA	20	NA	900
COPPER	NA	62.6 J	NA	3,100
IRON	NA	**42,200**	NA	23,000
LEAD	NA	14	NA	150 *
MAGNESIUM	NA	12,600	NA	NC

TABLE 4-2: ANALYTICAL RESULTS FOR IRP SITE 06 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S6-B03	S6-B04	S6-B04	EPA Residential Soil PRGs
Sample ID	23497042918DM	23497042919DM	23497042920DM	
Sample Date	04/29/1997	04/29/1997	04/29/1997	
Sample Depth	5.50 - 6.00	1.00 - 1.50	3.00 - 3.50	
Metals (mg/kg)				
MANGANESE	NA	573	NA	1,800
MOLYBDENUM	NA	< 0.33 UJ	NA	390
NICKEL	NA	23.1	NA	1,600
POTASSIUM	NA	561	NA	NC
SELENIUM	NA	< 0.28 U	NA	390
SODIUM	NA	437 J	NA	NC
THALLIUM	NA	1.1	NA	5.2
VANADIUM	NA	56.5	NA	550
ZINC	NA	78.8 J	NA	23,000

Notes: Categories of analyses are shown, but only detected compounds are presented. Analyte results in boldface type exceed EPA residential soil PRGs.

*	California modified PRGs
ID	Identification
J	Estimated value
mg/kg	Milligrams per kilogram
NA	Not analyzed
NC	No criteria
ND	None detected
PRG	Preliminary remediation goals
U	Nondetected

5.0 IRP SITE 7 – ANTARCTIC ROCKS

This section provides the site background and description for IRP Site 7; summarizes the previous investigations, activities, and existing data; and discusses data gap findings and strategies for eliminating data gaps at IRP Site 7.

5.1 SITE BACKGROUND

The following sections discuss the site background for IRP Site 7, including a general site description, discussion of previous and current site activities, and a summary of previous investigations that have been completed at the site.

5.1.1 Site Description

IRP Site 7 is located in the southwestern portion of the base and encompasses approximately 5.5 acres (Figure 5-1). The site is bounded by Lehman Road to the north, Pleasant Valley Channel Road to the south, Track No. 13 Road to the east, and Buildings 1492 and 1360 to the west. No structures are on IRP Site 7 and the area currently serves as a parking lot (Scientific Services, Inc. 1978).

5.1.2 Site Activities

Upon approval by the Nuclear Regulatory Commission (NRC), CBC Port Hueneme received low-level radioactive crushed rock from the Antarctic in 1977, 1978, and 1979; the material was initially stored at IRP Site 9. The crushed rock was from the Navy's former PM-3A nuclear power plant at McMurdo Station, Antarctica. During operation of the plant, effluents were discharged into adjacent areas and, over the years, rock in that area absorbed minute quantities of radioactivity (cesium-137 and strontium-90) at levels below the background levels for CBC Port Hueneme (see Appendix B). In 1980, based on results of independent studies, NRC and the State of California approved use of the low-level radioactive crushed rocks to form a base for asphalt pavement at IRP Site 7. In the early 1980s, the crushed rock was removed from IRP Site 9 and spread over an area approximately 500 feet by 600 feet at IRP Site 7. The material was then paved over with 4 inches of asphalt (Scientific Services, Inc. 1978).

The area is under federal NRC jurisdiction and is controlled under a Navy Radioactive Materials Permit that requires collection and analysis of groundwater samples.

5.1.3 Previous Investigations

Previous investigations at IRP Site 07 included an environmental assessment (Scientific Services, Inc. 1978). Independent studies of the Antarctic crushed rock were made by the California State Department of Health Services, the Department of Health Physics at Stanford University, and LFE Environmental Laboratories. A 1978 environmental assessment report

prepared for the California Solid Waste Management Board by Scientific Services, Inc. concluded that the crushed rock posed "no threat to the environment or to human life," "may be used as road-fill material," and "may be safely handled by humans and machinery."

5.2 EXISTING SITE DATA

No soil samples have been collected from this site. The NRC Radiological Affairs Office collected and analyzed water samples from six groundwater monitoring wells (US11, US12, US15, US19, US20, and US23) every year from 1982 until 1986. The monitoring schedule was then changed to every 4 years and testing was repeated in 1990. All analytical results were forwarded to the California Department of Health Services, the RWQCB, and the NRC. No concentrations of radioactive material above background have been detected since testing began in 1982. Groundwater samples were collected in 1994, 1998, and 2002.

5.3 DATA GAPS

For this SMP, the previous investigations for IRP Site 7 were reviewed to verify that sufficient information is available to support the final actions and documentation needed to close the site. Identified data gaps and proposed actions to eliminate those data gaps are discussed below.

5.3.1 Soil Data Gaps

No soil data gaps were identified for IRP Site 7. Original studies of the crushed rock show that they contain minute levels of radioactivity, below the background levels.

5.3.2 Groundwater Data Gaps

No groundwater data gaps were identified for IRP Site 7. Monitoring of site groundwater continues by the NRC Radiological Affairs Office. The site is now monitored every 4 years under a Navy Radioactive Materials Permit, and was last sampled in 2002. All analytical results are forwarded to the California Department of Health Services, the RWQCB, and the NRC. No concentrations of radioactive material above background have been detected since monitoring began in 1982.

5.3.3 Human Health Risk Assessment Data Gaps

There has been no HHRA completed for IRP Site 7; however, existing data and information indicates that an HHRA is not necessary because no concentrations of radioactive material have been detected in groundwater above background levels and because the radioactive material itself was previously determined to pose no threat to human life. Further evaluation of human health risk is not needed to formulate decisions regarding site closure.

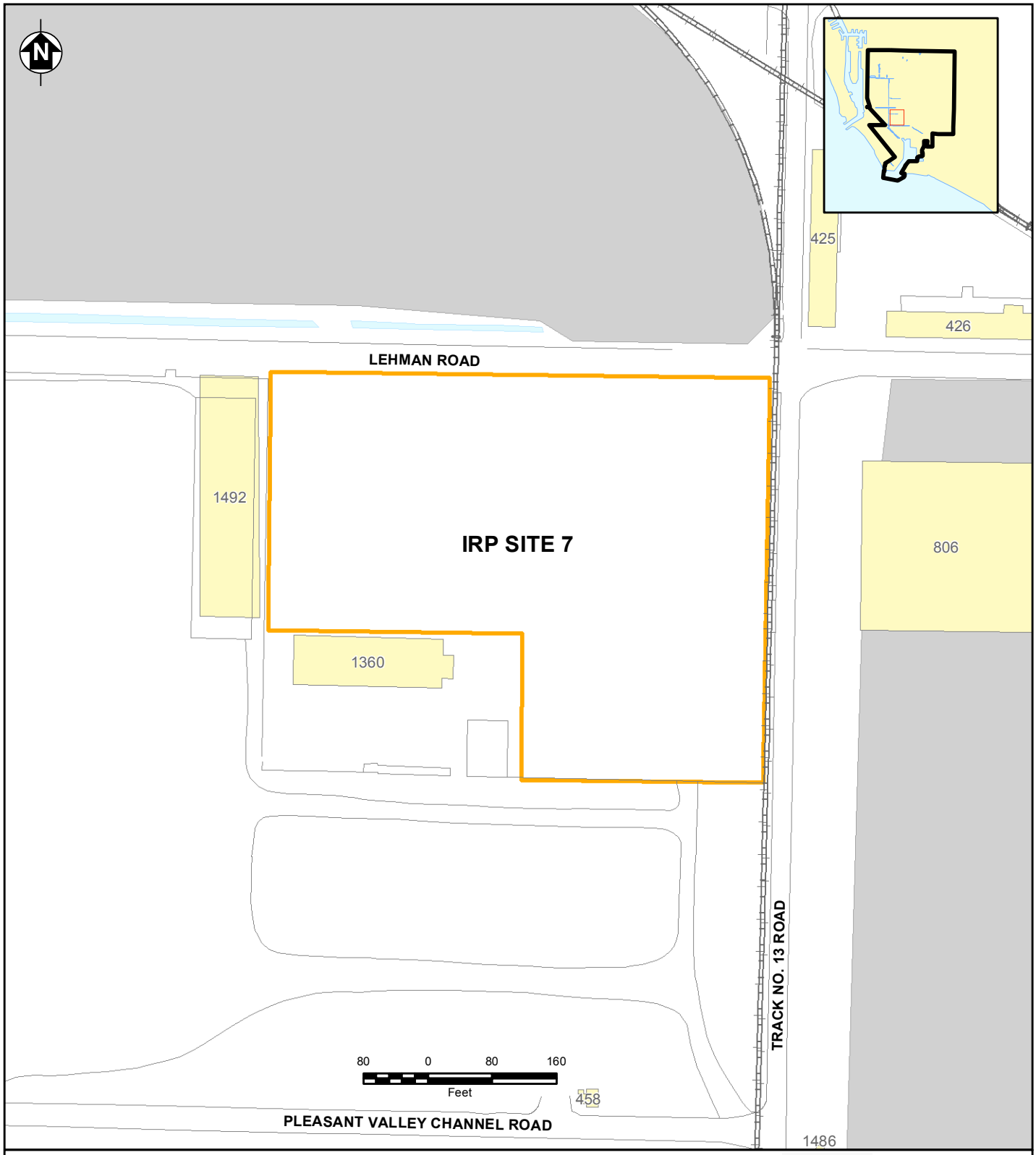
5.3.4 Ecological Risk Assessment Data Gaps

An ERA has not been completed for this site; however, existing data and information indicates that ERA is not necessary because no concentrations of radioactive material have been detected in groundwater above background levels and because the radioactive material itself was previously determined to pose no threat to the environment. Further ERA is not needed to formulate decisions regarding site closure.

5.4 STRATEGY FOR ELIMINATING DATA GAPS

No additional soil or groundwater data is proposed for IRP Site 7. The data does not indicate the need to evaluate remedial alternatives. A proposed plan (PP) and no further action decision document (DD) can be prepared based on existing information; however, the Navy Radioactive Materials Permit should be reviewed to ensure that the no further action DD is consistent with the requirement for site closeout under that permit.

FIGURES



IRP SITE
RAILROAD
CURB
BUILDING
PAVED AREA (NOT ROAD)

SulTech

CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 5-1
IRP SITE 7 - ANTARCTIC ROCKS SITE MAP
Site Management Plan

fig5-1_PHFSMP_IRPsite7_sitemap_122004.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases

6.0 IRP SITE 8 – OLY'S LAKE

This section provides the site background and description for IRP Site 8; summarizes the previous investigations, activities, and existing data; and discusses data gap findings and strategies for eliminating data gaps at IRP Site 8.

6.1 SITE BACKGROUND

The following sections discuss the site background for IRP Site 8, including a general site description, discussion of previous and current site activities, and a summary of previous investigations that have been completed at the site.

6.1.1 Site Description

Oly's Lake is a flat, unpaved area located in the southwestern portion of CBC Port Hueneme, south of Lehman Road, east of Pennsylvania Ditch, north of Pleasant Valley Channel Road, and west of Track No. 13 Road (Figure 6-1). The site occupies an area of approximately 13 acres. Most of the site, except for the southern portion, is presently used for storing landing craft and metal structures (PRC and Montgomery Watson 1996).

6.1.2 Site Activities

The term "lake" originated after this area was flooded with water diverted from the Pennsylvania surface-water ditch. The ditch was diverted once in the mid-1960s because of a spill of sulfuric acid and cleaning solvents into the storm water system that discharged to the ditch. An estimated 20,000 to 40,000 gallons of solvent and sulfuric acid were diverted to the ditch. These wastes also included paint residues, oils, and grease from the equipment being cleaned. A second diversion to Oly's Lake occurred in the late 1960s, when a sewage pump failed and raw sewage flowed into the ditch. The quantity of waste released to the ditch from this second spill is unknown. The diverted water was allowed to evaporate, and the area was covered with dirt both times (PRC and Montgomery Watson 1996).

A skeet range was located in the vicinity of Oly's Lake. In addition, a 250-gallon UST, reportedly installed in 1945 in the southeastern portion of IRP Site 8 near Sewage Pump Pit C, was used to store diesel fuel. Navy documentation dated April 1991 indicates that the tank was removed and replaced by an aboveground storage tank. The UST was reported to have been leaking, but no investigation has occurred to determine the extent of contamination. An oil spill also occurred in the southeast corner of the site in 1983. An estimated quantity of between 10 and 20 gallons of oil was discharged at this location (SCS and Landau Associates 1985). The oil was subsequently removed, but no soil or groundwater sampling was conducted following the cleanup (PRC and Montgomery Watson 1996).

The site has subsequently been covered with approximately 2.0 feet of soil that originated from the berms located at IRP Site 9. Results of field sampling at IRP Site 9 indicated that soil taken from berms and a stockpile at IRP Site 9 was suitable for use as clean fill. The soil was excavated and transported to IRP Site 8 to provide a base for a planned asphalt parking lot. Results of the field sampling for the berms and stockpile area at IRP Site 9 are included in Appendix C (West Coast Environmental and Engineering [West Coast] 2003a, 2003b).

6.1.3 Previous Investigations

Previous investigations that have been completed at IRP Site 8 include an IAS (SCS and Landau Associates 1985), a final SI (PRC and Montgomery Watson 1996), a basewide groundwater investigation (Tetra Tech and LFR 2001), and a revised BHHRA (Bechtel 2002a).

6.1.3.1 Initial Assessment Study (SCS and Landau Associates 1985)

The IAS suggested that water and chemicals that infiltrated into the ground would reach shallow groundwater hydraulically connected to the harbor and ditches. Presence of contaminants in both Pennsylvania and Pleasant Valley Ditches was investigated as part of IRP Site 19 in an SI and supplemental SI (Earth Technology Corporation [ERTEC] 1991a, 1991b). VOCs, SVOCs, and metals were detected in sediment samples collected from Pleasant Valley Ditch near Oly's Lake, while pesticides and metals were detected in sediment samples collected from Pennsylvania Ditch in the vicinity of IRP Site 8. Metals were detected in surface-water samples from both Pleasant Valley and Pennsylvania Ditches.

6.1.3.2 Final Site Inspection Report (PRC and Montgomery Watson 1996)

Between April and November 1993, 31 soil borings (including 4 monitoring wells) were drilled and sampled at IRP Site 8 (Figure 6-1). The borings consisted of S8-B1 through S8-B11; S8-B12 (completed as S08MW04); S8-B13 through S8-B28; and S08MW01, S08MW02, and S08MW03 (Figure 6-1). Two sediment samples were also collected (S8-G1 and S8-G2). Sixteen of the borings (S8-B1 to S8-B11, S8-B13, S08MW01, S08MW02, S08MW03, and S08MW04) were drilled in the reported spill containment area of Oly's Lake. Five of these borings (S8-B1, S8-B5, S8-B6, S08MW02, and S08MW03) were also within the former skeet range area. Borings S8-B13 and S8-B14 were located in the vicinity of Sewage Pump Pit C and the former UST. Soil borings S8-B15 to S8-B28 were placed throughout the remaining portion of the site in order to assess potential impact of the spill diversions. All soil borings were drilled to the water table. Samples were collected from 0.5 and 5.0 feet bgs, and just above the water table, and analyzed for VOCs, SVOCs, TPH-p and TPH-e, pesticides, PCBs, and metals. In addition, samples were collected at 2.5 feet bgs in borings S8-B13 and S8-B14 and analyzed for TPH-p and TPH-e to assess presence of lubricating oil reportedly disposed of in the area of the pump pit. All samples from each boring in the outlying areas of IRP Site 8 (S8-B15 to S8-B28) were composited into a final sample by the laboratory prior to analysis, except for a subsample of the sample collected just above the water table that was obtained for VOC analysis. Due to poor recovery, only one geotechnical sample was collected in well S08MW03 at 6.0 to 7.0 feet bgs. The sediment samples collected were also analyzed for VOCs, SVOCs, TPH-p and TPH-e, pesticides, PCBs, and metals.

Groundwater samples were collected from S08MW01 through S08MW04 in August and November 1993, and analyzed for VOCs, SVOCs, TPH-p and TPH-e, pesticides, and metals.

During the SI, a BHHRA was completed for the site because an initial human health screening evaluation had exceeded screening level criteria. Samples were screened against EPA PRGs, MCLs, and NAWQC; background metal concentrations for CBC Port Hueneme (see Appendix B); and STLCs for metals. However, the BHHRA was limited to potential soil exposures. The exposure pathways evaluated included ingestion of soil, dermal contact with soil, and inhalation of VOCs and particulates released to outdoor air from soil. COCs identified in the BHHRA included PAHs (benzo[a]pyrene, benzo[b]fluoranthene, dibenzo[a,h,]anthracene, indeno[1,2,3-cd]pyrene), PCBs (Aroclor 1260), pesticides (dieldrin), and metals (beryllium). Results of the BHHRA for soil indicated that the RME cancer risks for both industrial and hypothetical residential exposures were within the EPA risk management range of 1×10^{-4} to 1×10^{-6}. The HIs were below the threshold value of 1.0. Based on the results of the BHHRA, no action was recommended for IRP Site 8.

6.1.3.3 Draft Groundwater Remedial Investigation Report (Tetra Tech and LFR 2001)

From 1997 to 2001, a basewide groundwater investigation was completed to evaluate the condition of the groundwater and surface water at CBC Port Hueneme. As part of the investigation, groundwater samples were collected from S08MW01, S08MW02, S08MW03, and S08MW04 to help the evaluation of the Semi-Perched Aquifer (Figure 6-1). Four rounds of samples were collected from S08MW02 in May 1997, October 1997, January 1994, and April 1998. One round of samples was collected from S08MW01, S08MW03, and S08MW04 in May 1997. Samples were analyzed for metals, VOCs, SVOCs, TPH-p, metals, TDS, and geochemical properties such as salinity, anions, cations, alkalinity, hardness, and pH.

Chemical concentrations in groundwater were screened against NAWQC for the protection of saltwater aquatic life and MCLs. If concentrations of an organic compound exceeded the NAWQC and/or MCL in at least one sampling round at a given location, that compound was considered a COPEC and/or COPC, respectively, at that location. If concentrations of an inorganic compound exceeded the NAWQC and/or MCL in more than one sampling at a given location, that compound was considered a COPEC and/or a COPC, respectively, at that location. Inorganics were screened differently because they often occur naturally. No COPECs or COPCs were identified for the samples collected from the IRP Site 8 monitoring wells. No further evaluation of groundwater within the Semi-Perched Aquifer was recommended for IRP Site 8.

Following submittal of the draft basewide groundwater investigation report, and review of the groundwater model, DTSC requested that additional site-specific groundwater data be collected (if necessary) and site-specific groundwater data be evaluated to adequately characterize the site.

6.1.3.4 *Risk Assessment Technical Memorandum (Bechtel 2002a)*

In 2002, Bechtel revised the BHHRA completed during the SI for IRP Site 8. The BHHRA was revised to address DTSC comments, dated July 28, 1995, regarding the methodology used in SI to identify metals as COPCs. Bechtel revised the BHHRA to incorporate DTSCs suggested methodology for identifying metals as COPCs. The revisions did not change the cancer risk estimates for the industrial or hypothetical residential exposure scenarios. The revised noncancer HI increased slightly for IRP Site 8. Bechtel concluded that the results of the revised risk calculations did not significantly change the cancer risk or noncancer HI for IRP Site 8. The estimated cancer risks for the industrial or hypothetical residential scenarios at the site were still within the EPA risk management range of 1×10^{-4} to 1×10^{-6}, and the nonhazard HIs were still less than 1.0.

6.2 COMPILATION OF EXISTING SITE DATA

Available data, typically that collected after 1993, has been compiled and tabulated for use in identifying data gaps and additional site activities required to obtain site closure. The available data were screened against the EPA residential soil and tapwater PRGs. Additional data may be available in previous reports prepared for this site. Dependent upon the site activities identified to obtain site closure, this data may also be reviewed to determine if it is suitable for use in additional evaluations.

Table 6-1 summarizes the samples collected at IRP Site 8. Table 6-2 includes soil analytical results for IRP Site 8, and Figure 6-2 shows the concentrations in IRP Site 8 soil samples detected above the respective screening criteria. Table 6-3 includes the groundwater analytical results for IRP Site 8, and Figure 6-3 shows the concentrations of constituents in groundwater samples at IRP Site 8 that exceed screening criteria. Since the soil samples were collected, approximately 2.0 feet of fill has been placed on the site. Therefore, the depths of the samples shown do not reflect current site conditions. The fill material originated from soil berms initially located at IRP Site 9; samples collected from these berms during a field sampling effort completed in 2003 (West Coast 2003a) will be referenced as surface-soil samples for IRP Site 8 during re-evaluation of the site. The field sampling report, including the analytical results, is included as Appendix C.

6.3 DATA GAPS

For this SMP, the previous investigations and collected data for IRP Site 8 were reviewed to verify that sufficient information is available to support the final actions and documentation needed to close the site. Identified data gaps and proposed actions to eliminate those data gaps are discussed below.

6.3.1 Soil Data Gaps

Based on a review of the existing soil data for the site, the number of soil samples previously collected is sufficient for further evaluating environmental conditions at IRP Site 8. No additional soil borings or soil sampling is recommended for this site.

6.3.2 Groundwater Data Gaps

Additional groundwater sampling is needed to adequately characterize IRP Site 8 and to complete an HHRA and ERA.

6.3.3 Human Health Risk Assessment Data Gaps

Only soil exposures were evaluated in the 1996 BHHRA (PRC and Montgomery Watson 1996) and the revised 2002 BHHRA (Bechtel 2002a). In addition, since the completion of the 2002 BHHRA, 2.0 feet of fill material has been placed on the site. The material originated from soil berms removed from IRP Site 9. Therefore, the surface soil samples previously utilized in the 2002 BHHRA are now subsurface samples, and new analytical data is available from soil samples collected from the IRP Site 9 berms prior to their excavation and placement on IRP Site 8 (Appendix C). This analytical data is now considered representative of surface soil data for IRP Site 8 for HHRA and ERA purposes.

Potential risks from exposure to groundwater have not been evaluated for the site. Additional groundwater sampling is proposed at the site; therefore, existing and new soil data as well as existing and new groundwater data will be evaluated in a new HHRA. The HHRA will evaluate potential risks for exposure to both soil and groundwater at the site. The HHRA will use contemporary EPA, DTSC, and Navy risk assessment guidance to ensure that site soil and groundwater risk assessments are based on current methodology.

6.3.4 Ecological Risk Assessment Data Gaps

An ERA has not been completed for this site. A habitat survey of IRP Site 8 will be completed to determine if a viable habitat exists for ecological receptors.

6.4 Strategy for Eliminating Data Gaps

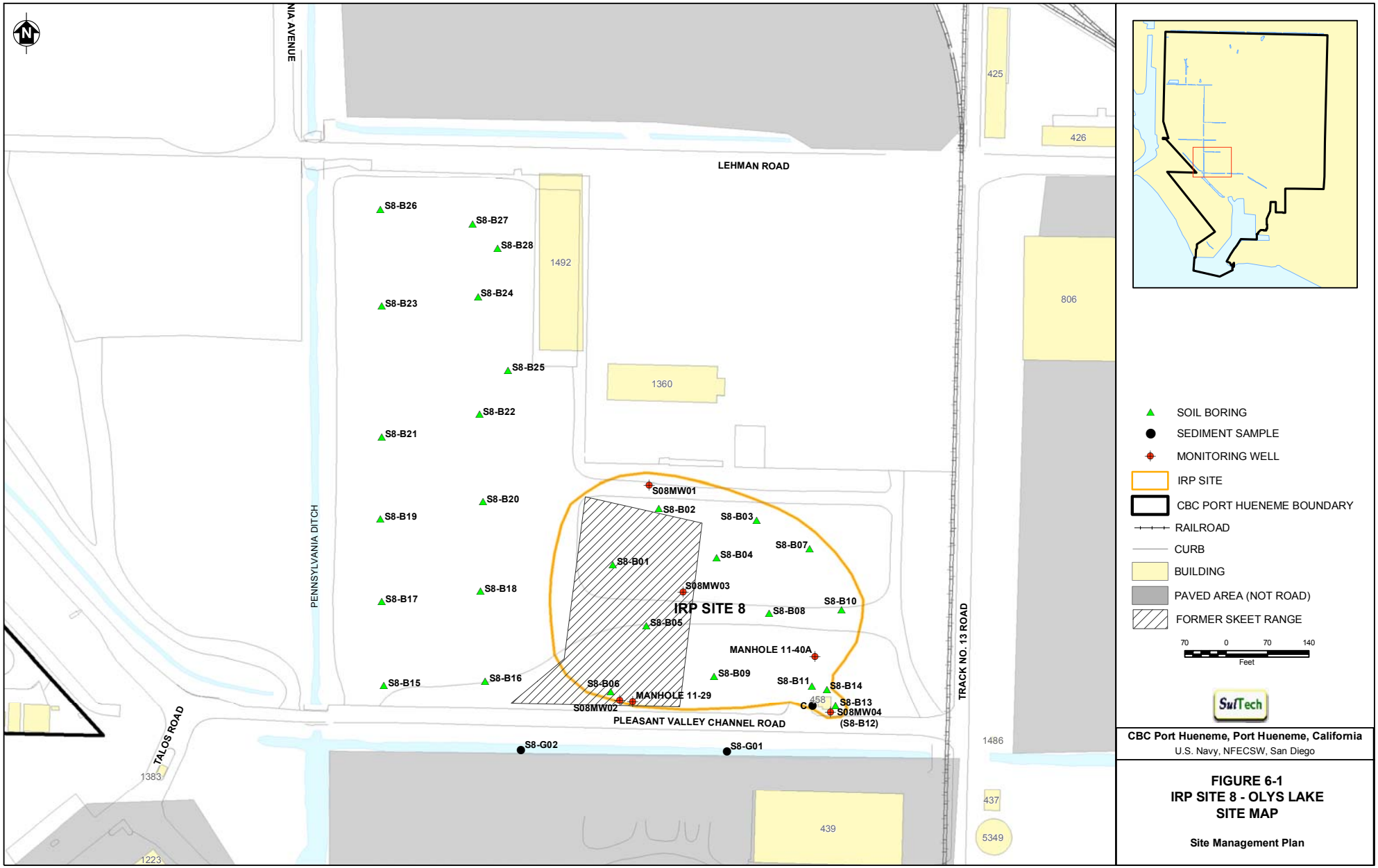
To eliminate the data gaps identified for IRP Site 8, one round of groundwater samples will be collected from three remaining groundwater monitoring wells on IRP Site 8 (S08MW04 could not be field verified during recent site visits) (Figure 6-4). The samples will be analyzed for VOCs, SVOCs, TPH-p, TPH-e, pesticides/PCBs, and metals. The following table shows the proposed groundwater sampling scheme for IRP Site 8.

Well ID	Well Diameter (inches)	Well Depth (feet bgs)	Screened Interval (feet bgs)	Analyses
S08MW01	2.0	14	4-14	VOC, SVOC, TPH-purgeable, TPH-extractable, pesticides/PCB, metals
S08MW02	2.0	14	4-14	Same as above
S08MW03	2.0	14.2	4.2-14.2	Same as above

The new groundwater data will be compiled, combined with previously collected data presented in Tables 6-2 and 6-3, and evaluated for cumulative risk using EPA Region 9 PRGs. The data will be evaluated in an HHRA to identify site-specific risks to human health from soil and groundwater. In addition, a habitat survey of IRP Site 8 will be completed to determine if there is viable habitat for ecological receptors. If viable habitat does exist, a screening level ERA, based on surface soil data collected at the site, will be conducted. If there is evidence of burrowing animals at the site, the ERA will include an evaluation of vapor exposure for these animals in their burrows. To establish whether a complete vapor exposure pathway exists for burrowing animals, the depth to the Semi-Perched Aquifer will also be considered in this analysis.

The results of these evaluations, along with conclusions and recommendations for any additional site activities, will be presented in an RI report.

FIGURES



CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

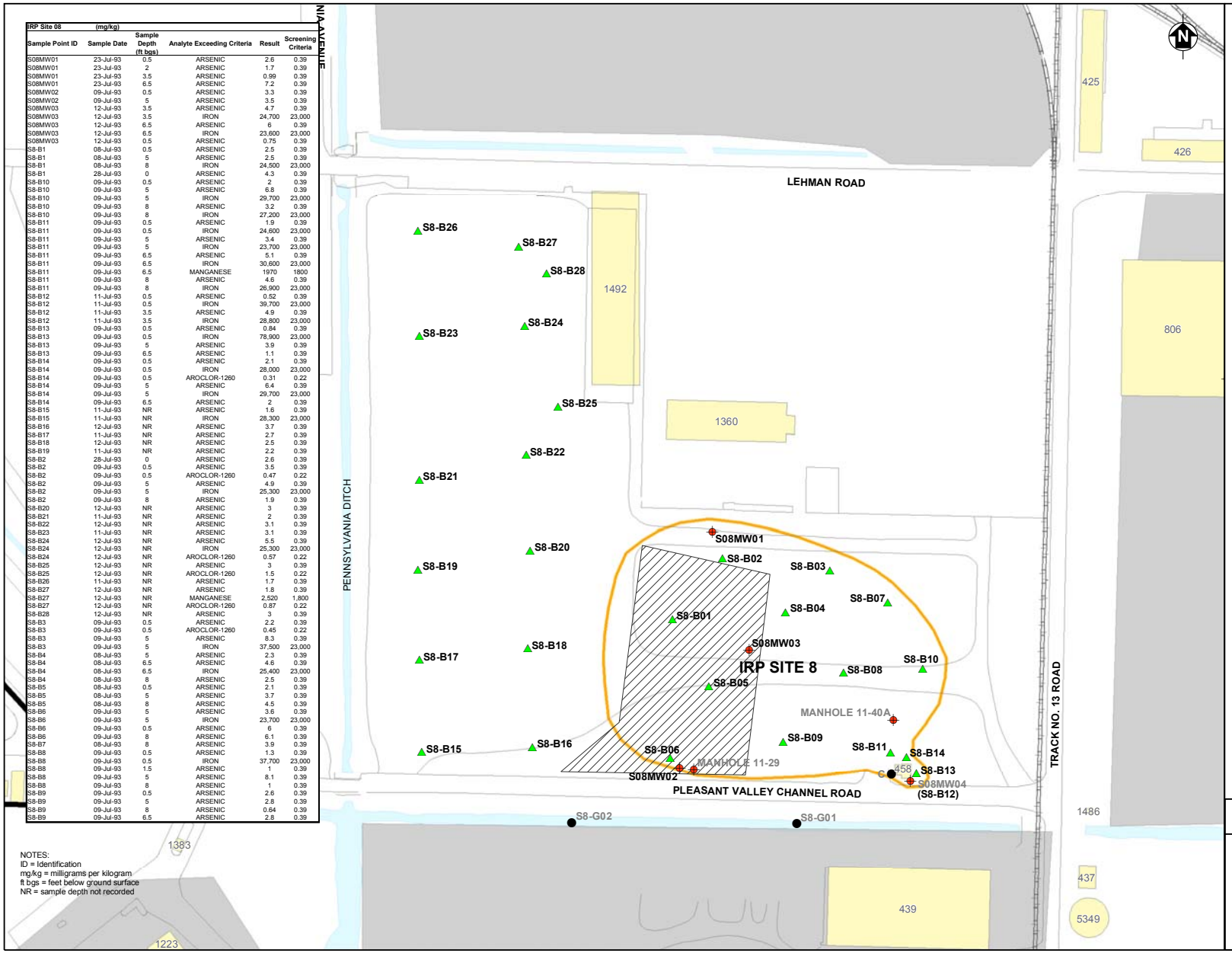
FIGURE 6-1
IRP SITE 8 - OLYS LAKE
SITE MAP

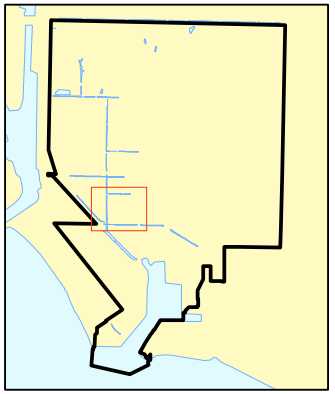
Site Management Plan

fig6-1_PHFSMP_IRPsite8_sitemap_122004.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases

IRP Site 08	(mg/kg)				
Sample Point ID	Sample Date	Sample Depth (ft bgs)	Analyte Exceeding Criteria	Result	Screening Criteria
S08MW01	23-Jul-93	0.5	ARSENIC	2.6	0.39
S08MW01	23-Jul-93	2	ARSENIC	1.7	0.39
S08MW01	23-Jul-93	3.5	ARSENIC	0.99	0.39
S08MW01	23-Jul-93	6.5	ARSENIC	7.2	0.39
S08MW02	09-Jul-93	0.5	ARSENIC	3.3	0.39
S08MW02	09-Jul-93	5	ARSENIC	3.5	0.39
S08MW03	12-Jul-93	3.5	ARSENIC	4.7	0.39
S08MW03	12-Jul-93	3.5	IRON	24,700	23,000
S08MW03	12-Jul-93	6.5	ARSENIC	6	0.39
S08MW03	12-Jul-93	6.5	IRON	23,600	23,000
S08MW03	12-Jul-93	0.5	ARSENIC	0.75	0.39
S8-B1	08-Jul-93	0.5	ARSENIC	2.5	0.39
S8-B1	08-Jul-93	5	ARSENIC	2.5	0.39
S8-B1	08-Jul-93	8	IRON	24,500	23,000
S8-B1	28-Jul-93	0	ARSENIC	4.3	0.39
S8-B10	09-Jul-93	0.5	ARSENIC	2	0.39
S8-B10	09-Jul-93	5	ARSENIC	6.8	0.39
S8-B10	09-Jul-93	5	IRON	29,700	23,000
S8-B10	09-Jul-93	8	ARSENIC	3.2	0.39
S8-B10	09-Jul-93	8	IRON	27,200	23,000
S8-B11	09-Jul-93	0.5	ARSENIC	1.9	0.39
S8-B11	09-Jul-93	0.5	IRON	24,600	23,000
S8-B11	09-Jul-93	5	ARSENIC	3.4	0.39
S8-B11	09-Jul-93	5	IRON	23,700	23,000
S8-B11	09-Jul-93	6.5	ARSENIC	5.1	0.39
S8-B11	09-Jul-93	6.5	IRON	30,600	23,000
S8-B11	09-Jul-93	6.5	MANGANESE	1970	1800
S8-B11	09-Jul-93	8	ARSENIC	4.6	0.39
S8-B11	09-Jul-93	8	IRON	26,900	23,000
S8-B12	11-Jul-93	0.5	ARSENIC	0.52	0.39
S8-B12	11-Jul-93	0.5	IRON	39,700	23,000
S8-B12	11-Jul-93	3.5	ARSENIC	4.9	0.39
S8-B12	11-Jul-93	3.5	IRON	28,800	23,000
S8-B13	09-Jul-93	0.5	ARSENIC	0.84	0.39
S8-B13	09-Jul-93	0.5	IRON	78,900	23,000
S8-B13	09-Jul-93	5	ARSENIC	3.9	0.39
S8-B13	09-Jul-93	6.5	ARSENIC	1.1	0.39
S8-B14	09-Jul-93	0.5	ARSENIC	2.1	0.39
S8-B14	09-Jul-93	0.5	IRON	28,000	23,000
S8-B14	09-Jul-93	0.5	AROCLOR-1260	0.31	0.22
S8-B14	09-Jul-93	5	ARSENIC	6.4	0.39
S8-B14	09-Jul-93	5	IRON	29,700	23,000
S8-B14	09-Jul-93	6.5	ARSENIC	2	0.39
S8-B15	11-Jul-93	NR	ARSENIC	1.6	0.39
S8-B15	11-Jul-93	NR	IRON	28,300	23,000
S8-B16	12-Jul-93	NR	ARSENIC	3.7	0.39
S8-B17	11-Jul-93	NR	ARSENIC	2.7	0.39
S8-B18	12-Jul-93	NR	ARSENIC	2.5	0.39
S8-B19	11-Jul-93	NR	ARSENIC	2.2	0.39
S8-B2	28-Jul-93	0	ARSENIC	2.6	0.39
S8-B2	09-Jul-93	0.5	ARSENIC	3.5	0.39
S8-B2	09-Jul-93	0.5	AROCLOR-1260	0.47	0.22
S8-B2	09-Jul-93	5	ARSENIC	4.9	0.39
S8-B2	09-Jul-93	5	IRON	25,300	23,000
S8-B2	09-Jul-93	8	ARSENIC	1.9	0.39
S8-B20	12-Jul-93	NR	ARSENIC	3	0.39
S8-B21	11-Jul-93	NR	ARSENIC	2	0.39
S8-B22	12-Jul-93	NR	ARSENIC	3.1	0.39
S8-B23	11-Jul-93	NR	ARSENIC	3.1	0.39
S8-B24	12-Jul-93	NR	ARSENIC	5.5	0.39
S8-B24	12-Jul-93	NR	IRON	25,300	23,000
S8-B24	12-Jul-93	NR	AROCLOR-1260	0.57	0.22
S8-B25	12-Jul-93	NR	ARSENIC	3	0.39
S8-B25	12-Jul-93	NR	AROCLOR-1260	1.5	0.22
S8-B26	11-Jul-93	NR	ARSENIC	1.7	0.39
S8-B27	12-Jul-93	NR	ARSENIC	1.8	0.39
S8-B27	12-Jul-93	NR	MANGANESE	2,520	1,800
S8-B27	12-Jul-93	NR	AROCLOR-1260	0.87	0.22
S8-B28	12-Jul-93	NR	ARSENIC	3	0.39
S8-B3	09-Jul-93	0.5	ARSENIC	2.2	0.39
S8-B3	09-Jul-93	0.5	AROCLOR-1260	0.45	0.22
S8-B3	09-Jul-93	5	ARSENIC	8.3	0.39
S8-B3	09-Jul-93	5	IRON	37,500	23,000
S8-B4	08-Jul-93	5	ARSENIC	2.3	0.39
S8-B4	08-Jul-93	6.5	ARSENIC	4.6	0.39
S8-B4	08-Jul-93	6.5	IRON	25,400	23,000
S8-B4	08-Jul-93	8	ARSENIC	2.5	0.39
S8-B5	08-Jul-93	0.5	ARSENIC	2.1	0.39
S8-B5	08-Jul-93	5	ARSENIC	3.7	0.39
S8-B5	08-Jul-93	8	ARSENIC	4.5	0.39
S8-B6	09-Jul-93	5	ARSENIC	3.6	0.39
S8-B6	09-Jul-93	5	IRON	23,700	23,000
S8-B6	09-Jul-93	0.5	ARSENIC	6	0.39
S8-B6	09-Jul-93	8	ARSENIC	6.1	0.39
S8-B7	08-Jul-93	8	ARSENIC	3.9	0.39
S8-B8	09-Jul-93	0.5	ARSENIC	1.3	0.39
S8-B8	09-Jul-93	0.5	IRON	37,700	23,000
S8-B8	09-Jul-93	1.5	ARSENIC	1	0.39
S8-B8	09-Jul-93	5	ARSENIC	8.1	0.39
S8-B8	09-Jul-93	8	ARSENIC	1	0.39
S8-B9	09-Jul-93	0.5	ARSENIC	2.6	0.39
S8-B9	09-Jul-93	5	ARSENIC	2.8	0.39
S8-B9	09-Jul-93	8	ARSENIC	0.64	0.39
S8-B9	09-Jul-93	6.5	ARSENIC	2.8	0.39

NOTES:
ID = Identification
mg/kg = milligrams per kilogram
ft bgs = feet below ground surface
NR = sample depth not recorded





SOIL BORING
SEDIMENT SAMPLE
MONITORING WELL
S8-01 SAMPLE EXCEEDING SCREENING CRITERIA IN BOLD

IRP SITE
CBC PORT HUENEME BOUNDARY
RAILROAD
CURB
BUILDING
PAVED AREA (NOT ROAD)
FORMER SKEET RANGE

70 0 70 140
Feet

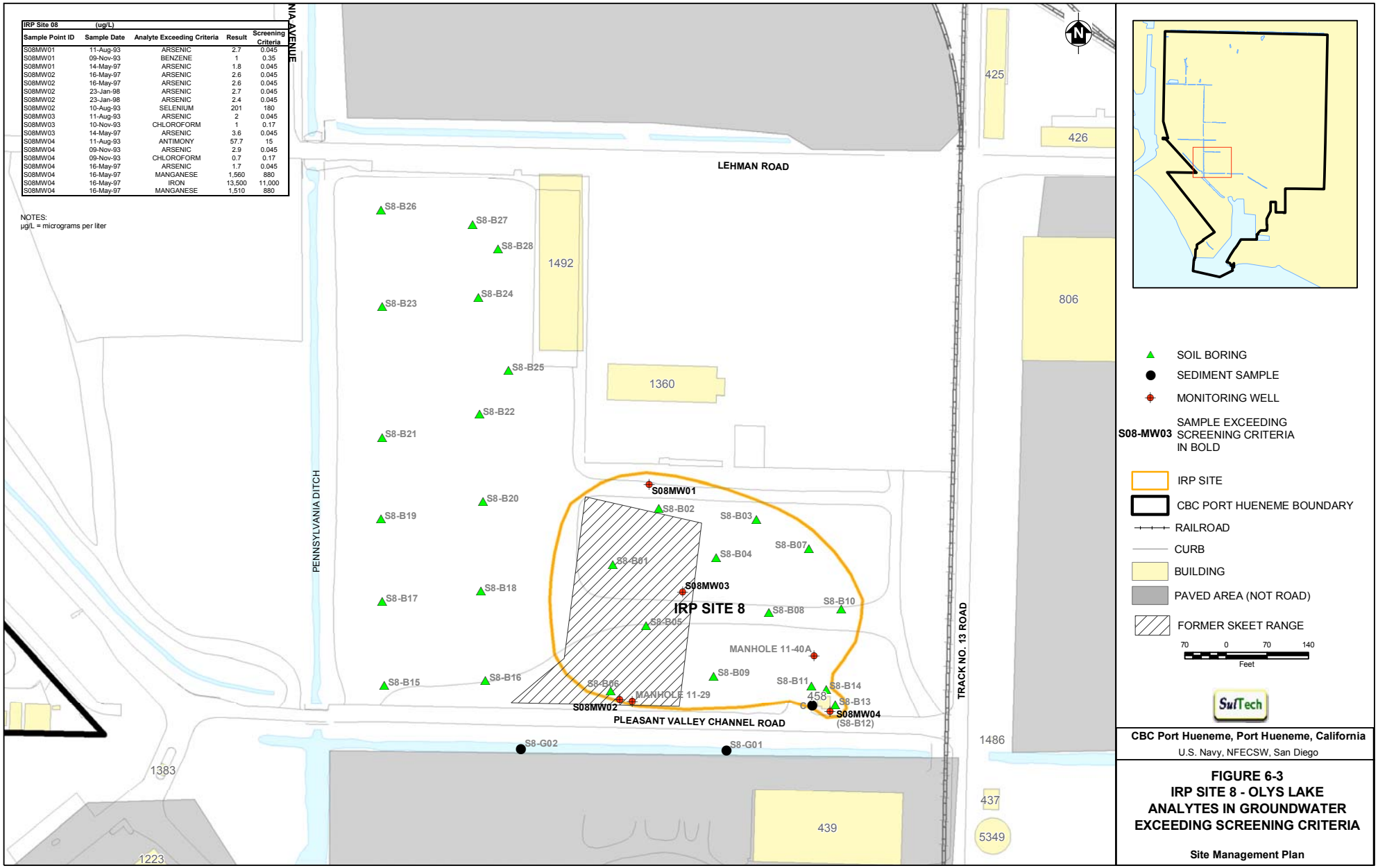
SulTech

CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 6-2
IRP SITE 8 - OLYS LAKE
ANALYTES IN SOIL EXCEEDING SCREENING CRITERIA

Site Management Plan

fig6-2_PHFSMP_IRPsite8_soil_010405.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases



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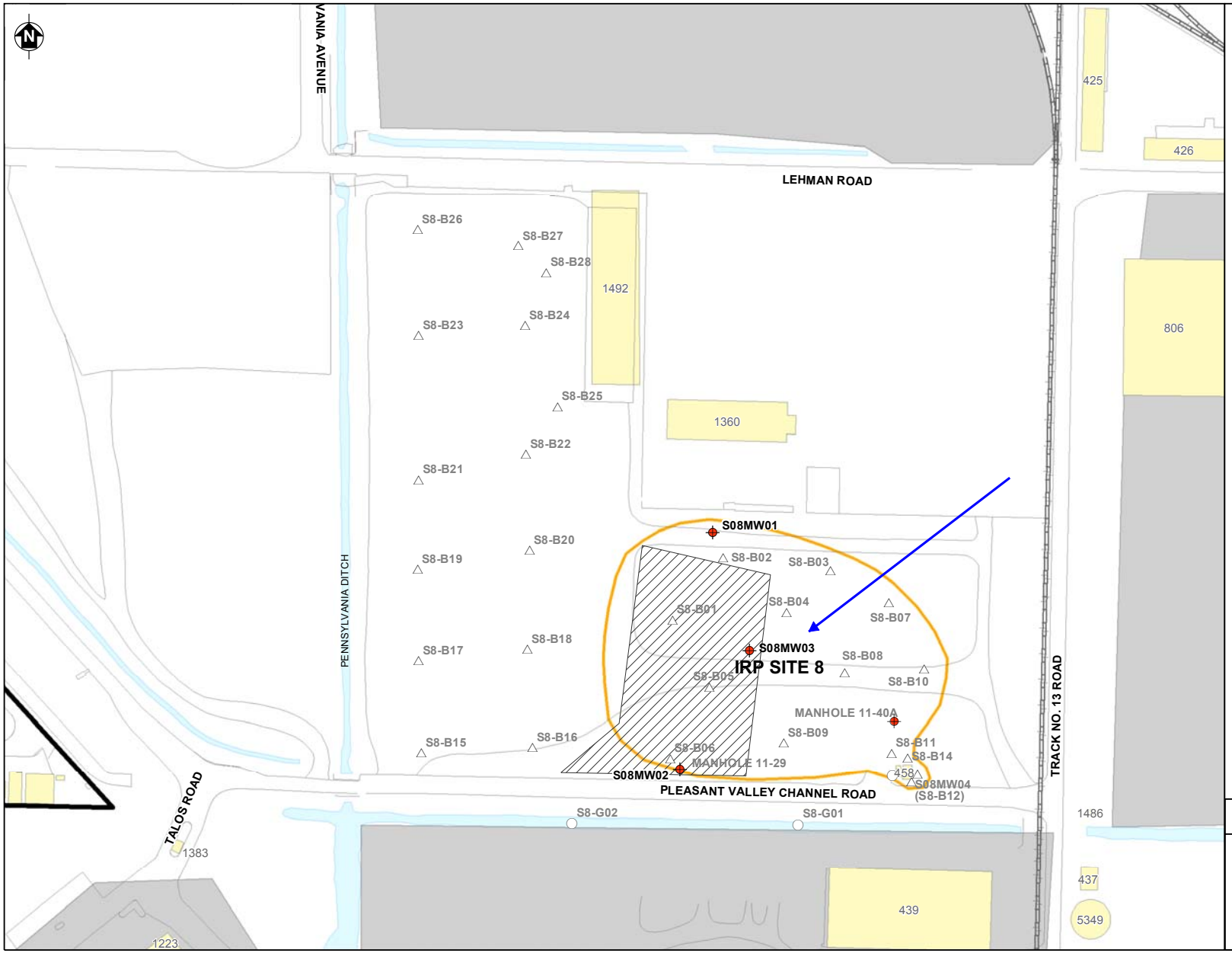
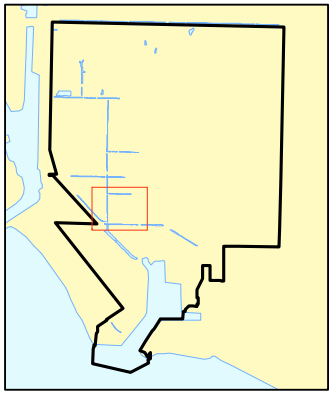




PROPOSED SAMPLE LOCATIONS
In black text
SOIL BORING
MONITORING WELL
PREVIOUS SAMPLE LOCATIONS
In gray text
SOIL SAMPLE
MONITORING WELL
SEDIMENT SAMPLE

IRP SITE
CBC PORT HUENEME BOUNDARY
RAILROAD
CURB
GROUNDWATER FLOW
BUILDING
PAVED AREA (NOT ROAD)
FORMER SKEET SHOOTING AREA

70 0 70 140
Feet

SulTech

CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 6-4
IRP SITE 8 - OLYS LAKE
PROPOSED GROUNDWATER SAMPLING LOCATIONS

Site Management Plan

fig6-4_PHFSMP_IRPsite8_sitemap_121704.mxd TtEMI-HE Ed Madej
Data Source: SulTech GIS databases

TABLES

TABLE 6-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 08

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
234-S08-107	SEDIMENT	07/28/93	S8-G1	ORIG	0.00 - 0.00	✓	✓	✓	✓	✓	✓	✓					
234-S08-108	SEDIMENT	07/28/93	S8-G2	ORIG	0.00 - 0.00	✓	✓	✓	✓	✓	✓	✓					
234-S08-093	SOIL	07/23/93	S08MW01	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
234-S08-094	SOIL	07/23/93	S08MW01	DUP	2.00 - 2.00	✓	✓	✓	✓	✓	✓	✓					
234-S08-095	SOIL	07/23/93	S08MW01	ORIG	3.50 - 3.50	✓	✓	✓	✓	✓	✓	✓					
234-S08-096	SOIL	07/23/93	S08MW01	ORIG	6.50 - 6.50	✓	✓	✓	✓	✓	✓	✓					
234-S08-097	SOIL	07/09/93	S08MW02	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
234-S08-098	SOIL	07/09/93	S08MW02	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
234-S08-100	SOIL	07/12/93	S08MW03	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
234-S08-101	SOIL	07/12/93	S08MW03	ORIG	3.50 - 3.50	✓	✓	✓	✓	✓	✓	✓					
234-S08-102	SOIL	07/12/93	S08MW03	ORIG	5.50 - 5.50	✓	✓	✓	✓	✓	✓	✓					
234-S08-103	SOIL	07/12/93	S08MW03	DUP	6.50 - 6.50	✓	✓	✓	✓	✓	✓	✓					
234-S08-001	SOIL	07/08/93	S8-B01	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
234-S08-002	SOIL	07/08/93	S8-B01	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
234-S08-003	SOIL	07/08/93	S8-B01	ORIG	8.00 - 8.00	✓	✓	✓	✓	✓	✓	✓					
234-S08-004	SOIL	07/09/93	S8-B02	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
234-S08-005	SOIL	07/09/93	S8-B02	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
234-S08-006	SOIL	07/09/93	S8-B02	ORIG	8.00 - 8.00	✓	✓	✓	✓	✓	✓	✓					
234-S08-007	SOIL	07/09/93	S8-B03	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
234-S08-008	SOIL	07/09/93	S8-B03	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
234-S08-009	SOIL	07/09/93	S8-B03	ORIG	8.00 - 8.00	✓	✓	✓	✓	✓	✓	✓					
234-S08-010	SOIL	07/08/93	S8-B04	ORIG	1.00 - 1.00	✓	✓	✓	✓	✓	✓	✓					
234-S08-011	SOIL	07/08/93	S8-B04	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
234-S08-012	SOIL	07/08/93	S8-B04	ORIG	6.50 - 6.50	✓	✓	✓	✓	✓	✓	✓					
234-S08-013	SOIL	07/08/93	S8-B04	DUP	8.00 - 8.00	✓	✓	✓	✓	✓	✓	✓					

TABLE 6-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 08 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
234-S08-014	SOIL	07/08/93	S8-B05	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
234-S08-015	SOIL	07/08/93	S8-B05	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
234-S08-016	SOIL	07/08/93	S8-B05	ORIG	8.00 - 8.00	✓	✓	✓	✓	✓	✓	✓					
234-S08-017	SOIL	07/09/93	S8-B06	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
234-S08-018	SOIL	07/09/93	S8-B06	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
234-S08-019	SOIL	07/09/93	S8-B06	ORIG	8.00 - 8.00	✓	✓	✓	✓	✓	✓	✓					
234-S08-020	SOIL	07/08/93	S8-B07	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
234-S08-021	SOIL	07/08/93	S8-B07	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
234-S08-022	SOIL	07/08/93	S8-B07	ORIG	8.00 - 8.00	✓	✓	✓	✓	✓	✓	✓					
234-S08-023	SOIL	07/09/93	S8-B08	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
234-S08-024	SOIL	07/09/93	S8-B08	DUP	1.50 - 1.50	✓	✓	✓	✓	✓	✓	✓					
234-S08-025	SOIL	07/09/93	S8-B08	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
234-S08-026	SOIL	07/09/93	S8-B08	ORIG	8.00 - 8.00	✓	✓	✓	✓	✓	✓	✓					
234-S08-027	SOIL	07/09/93	S8-B09	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
234-S08-028	SOIL	07/09/93	S8-B09	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
234-S08-029	SOIL	07/09/93	S8-B09	ORIG	8.00 - 8.00	✓	✓	✓	✓	✓	✓	✓					
234-S08-148	SOIL	07/09/93	S8-B09	DUP	6.50 - 6.50	✓	✓	✓	✓	✓	✓	✓					
234-S08-030	SOIL	07/09/93	S8-B10	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
234-S08-031	SOIL	07/09/93	S8-B10	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
234-S08-032	SOIL	07/09/93	S8-B10	ORIG	8.00 - 8.00	✓	✓	✓	✓	✓	✓	✓					
234-S08-033	SOIL	07/09/93	S8-B11	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
234-S08-034	SOIL	07/09/93	S8-B11	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
234-S08-035	SOIL	07/09/93	S8-B11	DUP	6.50 - 6.50	✓	✓	✓	✓	✓	✓	✓					
234-S08-036	SOIL	07/09/93	S8-B11	ORIG	8.00 - 8.00	✓	✓	✓	✓	✓	✓	✓					
234-S08-037	SOIL	07/11/93	S8-B12	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					

TABLE 6-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 08 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
234-S08-039	SOIL	07/11/93	S8-B12	ORIG	2.00 - 2.00		✓	✓									
234-S08-040	SOIL	07/11/93	S8-B12	ORIG	3.50 - 3.50	✓	✓	✓	✓	✓	✓	✓					
234-S08-041	SOIL	07/11/93	S8-B12	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
234-S08-042	SOIL	07/09/93	S8-B13	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
234-S08-043	SOIL	07/09/93	S8-B13	ORIG	2.50 - 2.50		✓	✓									
234-S08-044	SOIL	07/09/93	S8-B13	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
234-S08-045	SOIL	07/09/93	S8-B13	ORIG	6.50 - 6.50	✓	✓	✓	✓	✓	✓	✓					
234-S08-046	SOIL	07/09/93	S8-B14	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
234-S08-047	SOIL	07/09/93	S8-B14	ORIG	2.50 - 2.50		✓	✓									
234-S08-048	SOIL	07/09/93	S8-B14	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
234-S08-049	SOIL	07/09/93	S8-B14	ORIG	6.50 - 6.50	✓	✓	✓	✓	✓	✓	✓					
234-S08-053	SOIL	07/11/93	S8-B15	ORIG	6.50 - 6.50	✓											
234COMP051-053	SOIL	07/11/93	S8-B15	ORIG			✓	✓	✓	✓	✓	✓					
234-S08-056	SOIL	07/12/93	S8-B16	ORIG	6.50 - 6.50	✓											
234COMP054-056	SOIL	07/12/93	S8-B16	ORIG			✓	✓	✓	✓	✓	✓					
234-S08-059	SOIL	07/11/93	S8-B17	ORIG	6.50 - 6.50	✓											
234COMP057-059	SOIL	07/11/93	S8-B17	ORIG			✓	✓	✓	✓	✓	✓					
234-S08-062	SOIL	07/12/93	S8-B18	ORIG	6.50 - 6.50	✓											
234COMP060-062	SOIL	07/12/93	S8-B18	ORIG			✓	✓	✓	✓	✓	✓					
234-S08-065	SOIL	07/11/93	S8-B19	ORIG	8.00 - 8.00	✓											
234COMP063-065	SOIL	07/11/93	S8-B19	ORIG			✓	✓	✓	✓	✓	✓					
234-S08-068	SOIL	07/12/93	S8-B20	ORIG	6.50 - 6.50	✓											
234COMP066-068	SOIL	07/12/93	S8-B20	ORIG			✓	✓	✓	✓	✓	✓					
234-S08-071	SOIL	07/11/93	S8-B21	ORIG	6.50 - 6.50	✓											
234COMP069-071	SOIL	07/11/93	S8-B21	ORIG			✓	✓	✓	✓	✓	✓					

TABLE 6-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 08 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
234-S08-074	SOIL	07/12/93	S8-B22	ORIG	6.50 - 6.50	✓											
234COMP072-074	SOIL	07/12/93	S8-B22	ORIG			✓	✓	✓	✓	✓	✓					
234-S08-077	SOIL	07/11/93	S8-B23	ORIG	6.50 - 6.50	✓											
234COMP075-077	SOIL	07/11/93	S8-B23	ORIG			✓	✓	✓	✓	✓	✓					
234-S08-080	SOIL	07/12/93	S8-B24	ORIG	6.50 - 6.50	✓											
234COMP078-080	SOIL	07/12/93	S8-B24	ORIG			✓	✓	✓	✓	✓	✓					
234-S08-083	SOIL	07/12/93	S8-B25	ORIG	6.50 - 6.50	✓											
234COMP081-083	SOIL	07/12/93	S8-B25	ORIG			✓	✓	✓	✓	✓	✓					
234-S08-086	SOIL	07/11/93	S8-B26	ORIG	6.50 - 6.50	✓											
234COMP084-086	SOIL	07/11/93	S8-B26	ORIG			✓	✓	✓	✓	✓	✓					
234-S08-089	SOIL	07/12/93	S8-B27	ORIG	6.50 - 6.50	✓											
234COMP087-089	SOIL	07/12/93	S8-B27	ORIG			✓	✓	✓	✓	✓	✓					
234-S08-092	SOIL	07/12/93	S8-B28	ORIG	6.50 - 6.50	✓											
234COMP090-092	SOIL	07/12/93	S8-B28	ORIG			✓	✓	✓	✓	✓	✓					
234-S08-109	WATER	08/11/93	S08MW01	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
234-S08-110	WATER	11/09/93	S08MW01	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
08797051405GDT	WATER	05/14/97	S08MW01	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797051405GDTF	WATER	05/14/97	S08MW01	FIL	NA								✓				
234-S08-111	WATER	08/10/93	S08MW02	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
234-S08-112	WATER	11/09/93	S08MW02	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
08797051603GDT	WATER	05/16/97	S08MW02	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797051603GDTF	WATER	05/16/97	S08MW02	FIL	NA								✓				
08797102454S	WATER	10/24/97	S08MW02	ORIG	NA	✓	✓	✓	✓				✓	✓			
08797102455S	WATER	10/24/97	S08MW02	ORIG	NA							✓					
08797102456S	WATER	10/24/97	S08MW02	ORIG	NA							✓					

TABLE 6-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 08 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
08798012336D	WATER	01/23/98	S08MW02	ORIG	NA	✓	✓	✓	✓			✓	✓	✓			
08798012337D	WATER	01/23/98	S08MW02	DUP	NA	✓	✓	✓	✓			✓	✓	✓			
08798040203J	WATER	04/02/98	S08MW02	ORIG	NA	✓	✓	✓	✓				✓	✓			
234-S08-113	WATER	08/11/93	S08MW03	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
234-S08-114	WATER	11/10/93	S08MW03	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
234-S08-115	WATER	11/10/93	S08MW03	DUP	NA	✓	✓	✓	✓	✓	✓	✓					
08797051406GDT	WATER	05/14/97	S08MW03	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797051406GDTF	WATER	05/14/97	S08MW03	FIL	NA								✓				
234-S08-116	WATER	08/11/93	S08MW04	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
234-S08-117	WATER	11/09/93	S08MW04	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
08797051601GDT	WATER	05/16/97	S08MW04	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797051601GDTF	WATER	05/16/97	S08MW04	FIL	NA								✓				
TOTAL						89	92	92	89	81	81	89	8	8	0	0	0

Notes:

DMETL	Metals (filtered)	ORGPB	Organic Lead	SVOC	Semivolatile organic compound
GMETL	General mineral	PCB	Polychlorinated biphenyls	TPH-e	Total petroleum hydrocarbons, extractables
METL	Metals (total - unfiltered)	PEST	Pesticides	TPH-p	Total petroleum hydrocarbons, purgeables
NA	Not applicable	PESTO	Organophosphorus pesticides	VOC	Volatile organic compound
				✓	Sample collected and analyzed; blank cell indicates no sample collected.

TABLE 6-2: ANALYTICAL RESULTS FOR IRP SITE 08 SOIL SAMPLES

Site Management Plan, CBC Port Hueneme

Sample Location ID	S08MW01	S08MW01	S08MW01	S08MW01	S08MW02	S08MW02	S08MW03	EPA Residential Soil PRGs
Sample ID	234-S08-093	234-S08-094	234-S08-095	234-S08-096	234-S08-097	234-S08-098	234-S08-100	
Sample Date	07/23/1993	07/23/1993	07/23/1993	07/23/1993	07/09/1993	07/09/1993	07/12/1993	
Sample Depth	0.50 - 0.50	2.00 - 2.00	3.50 - 3.50	6.50 - 6.50	0.50 - 0.50	5.00 - 5.00	0.50 - 0.50	
Volatile Organic Compounds (mg/kg)								
2-BUTANONE	< 0.012 U	< 0.011 U	< 0.012 U	< 0.013 U	< 0.011 U	< 0.012 U	< 0.011 U	22,000
2-HEXANONE	< 0.012 U	< 0.011 U	< 0.012 U	< 0.013 U	< 0.011 U	< 0.012 U	< 0.011 U	NC
4-METHYL-2-PENTANONE	< 0.012 U	< 0.011 U	< 0.012 U	< 0.013 U	< 0.011 U	< 0.012 U	< 0.011 U	5,300
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	< 12 U	27	24	< 13 U	NA	NA	< 11 U	NC
MOTOR OIL RANGE ORGANICS	< 35 U	32	< 30 U	< 39 U	NA	NA	40	NC
OTHER COMPONENTS	NA	NA	NA	NA	< 1.1 U	< 1.2 U	NA	NC
TPH - MOTOR OIL	NA	NA	NA	NA	22	< 12 U	NA	NC
TPH - NAVY SPECIAL FUEL OIL	< 12 U	46	40	< 13 U	< 11 U	< 12 U	< 11 U	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	< 1.2 U	< 1.1 U	13	< 1.3 U	NA	NA	< 1.1 U	NC
OTHER COMPONENTS	NA	NA	NA	NA	< 0.006 U	< 0.006 U	NA	NC
Semivolatile Organic Compounds (mg/kg)								
2-METHYLNAPHTHALENE	< 0.38 U	< 0.37 U	< 0.39 U	< 0.43 U	< 0.38 U	< 0.41 U	< 0.36 U	NC
4-NITROPHENOL	< 0.93 U	< 0.89 U	< 0.95 U	< 1.1 U	< 0.92 U	< 1 U	< 0.87 U	NC
ACENAPHTHENE	< 0.38 U	< 0.37 U	< 0.39 U	< 0.43 U	< 0.38 U	< 0.41 U	< 0.36 U	3,700
ANTHRACENE	0.021	< 0.37 U	< 0.39 U	< 0.43 U	< 0.38 U	< 0.41 U	< 0.36 U	22,000
BENZO(A)ANTHRACENE	< 0.38 U	< 0.37 U	< 0.39 U	< 0.43 U	< 0.38 U	< 0.41 U	< 0.36 U	0.62
BENZO(A)PYRENE	0.062	< 0.37 U	< 0.39 U	< 0.43 U	< 0.38 U	< 0.41 U	< 0.36 U	0.062
BENZO(B)FLUORANTHENE	0.15	< 0.37 U	< 0.39 U	< 0.43 U	< 0.38 U	< 0.41 U	< 0.36 U	0.62
BENZO(K)FLUORANTHENE	0.047	< 0.37 U	< 0.39 U	< 0.43 U	< 0.38 U	< 0.41 U	< 0.36 U	0.38 *
CARBAZOLE	0.019	< 0.37 U	< 0.39 U	< 0.43 U	< 0.38 U	< 0.41 U	< 0.36 U	24
CHRYSENE	0.08	< 0.37 U	< 0.39 U	< 0.43 U	< 0.38 U	< 0.41 U	< 0.36 U	3.8 *
DIBENZ(A,H)ANTHRACENE	0.033	< 0.37 U	< 0.39 U	< 0.43 U	< 0.38 U	< 0.41 U	< 0.36 U	0.062
DIBENZOFURAN	< 0.38 U	< 0.37 U	< 0.39 U	< 0.43 U	< 0.38 U	< 0.41 U	< 0.36 U	150
FLUORANTHENE	0.028	< 0.37 U	< 0.39 U	< 0.43 U	< 0.38 U	< 0.41 U	< 0.36 U	2,300
FLUORENE	< 0.38 U	< 0.37 U	< 0.39 U	< 0.43 U	< 0.38 U	< 0.41 U	< 0.36 U	2,700
INDENO(1,2,3-CD)PYRENE	0.11	< 0.37 U	< 0.39 U	< 0.43 U	< 0.38 U	< 0.41 U	< 0.36 U	0.62
NAPHTHALENE	< 0.38 U	< 0.37 U	< 0.39 U	< 0.43 U	< 0.38 U	< 0.41 U	< 0.36 U	1.7 *
PENTACHLOROPHENOL	< 0.93 U	< 0.89 U	< 0.95 U	< 1.1 U	< 0.92 U	< 1 U	< 0.87 U	3.0
PHENANTHRENE	< 0.38 U	< 0.37 U	0.024	< 0.43 U	< 0.38 U	< 0.41 U	< 0.36 U	NC

TABLE 6-2: ANALYTICAL RESULTS FOR IRP SITE 08 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S08MW01	S08MW01	S08MW01	S08MW01	S08MW02	S08MW02	S08MW03	EPA Residential Soil PRGs
Sample ID	234-S08-093	234-S08-094	234-S08-095	234-S08-096	234-S08-097	234-S08-098	234-S08-100	
Sample Date	07/23/1993	07/23/1993	07/23/1993	07/23/1993	07/09/1993	07/09/1993	07/12/1993	
Sample Depth	0.50 - 0.50	2.00 - 2.00	3.50 - 3.50	6.50 - 6.50	0.50 - 0.50	5.00 - 5.00	0.50 - 0.50	
Semivolatile Organic Compounds (mg/kg)								
PYRENE	0.031	< 0.37 U	0.024	< 0.43 U	< 0.38 U	< 0.41 U	< 0.36 U	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.0038 U	< 0.0037 U	< 0.0039 U	< 0.0043 U	< 0.0038 UJ	< 0.0041 UJ	< 0.0036 U	2.4
4,4'-DDE	< 0.0038 U	< 0.0037 U	< 0.0039 U	< 0.0043 U	< 0.0038 UJ	< 0.0041 UJ	< 0.0036 U	1.7
4,4'-DDT	< 0.0038 U	< 0.0037 U	< 0.0039 U	< 0.0043 U	< 0.0038 UJ	< 0.0041 UJ	0.0034	1.7
ALPHA-CHLORDANE	< 0.002 U	< 0.0019 U	< 0.002 U	< 0.0022 U	< 0.002 UJ	< 0.0021 UJ	0.0017	1.6
AROCLOR-1260	< 0.038 U	< 0.037 U	< 0.039 U	< 0.043 U	< 0.038 UJ	< 0.041 UJ	0.019	0.22
DIELDRIN	< 0.0038 U	< 0.0037 U	< 0.0039 U	< 0.0043 U	< 0.0038 UJ	< 0.0041 UJ	< 0.0036 U	0.030
ENDOSULFAN II	< 0.0038 U	< 0.0037 U	< 0.0039 U	< 0.0043 U	< 0.0038 UJ	< 0.0041 UJ	< 0.0036 U	NC
ENDRIN	< 0.0038 U	< 0.0037 U	< 0.0039 U	< 0.0043 U	< 0.0038 UJ	< 0.0041 UJ	< 0.0036 U	18
ENDRIN ALDEHYDE	< 0.0038 U	< 0.0037 U	< 0.0039 U	< 0.0043 U	< 0.0038 UJ	< 0.0041 UJ	< 0.0036 U	NC
GAMMA-CHLORDANE	< 0.002 U	< 0.0019 U	< 0.002 U	< 0.0022 U	< 0.002 UJ	< 0.0021 UJ	0.001	1.6
Metals (mg/kg)								
ALUMINUM	6,910	4,220	5,310	12,000	11,200	8,270	7,010	76,000
ARSENIC	**2.6**	**1.7**	**0.99**	**7.2**	**3.3**	**3.5**	**0.75 J**	0.39
BARIUM	61	39.6	42.2	139	77.2	97.5	47.9	5,400
BERYLLIUM	0.55	< 0.44 U	< 0.47 U	1	0.36	0.41	< 0.43 U	150
CADMIUM	< 0.9 U	< 0.88 U	< 0.94 U	< 1 U	< 0.92 U	5.3	< 0.86 U	37 *
CALCIUM	7,480	8,030	7,860	25,000	13,700	13,000	7,140	NC
CHROMIUM	12.5	6.9	7.6	21.6	16.3	15.2	11.3	210
COBALT	7.1	5	7.1	9.9	7.4	4.6	< 8.4 U	900
COPPER	< 14.7 U	< 12.5 U	< 9.9 U	32.1	16.3	13.7	< 11.2 U	3,100
IRON	15,000	8,500	11,700	22,900	21,400	17,000	15,300	23,000
LEAD	7.9 J	2.5 J	3.8 J	7.7 J	4.4 J	4.1 J	18.2	150 *
MAGNESIUM	4,850	2,950	4,010	9,530	8,070	6,330	4,970	NC
MANGANESE	250	173	174	374	360 J	307 J	223 J	1,800
MERCURY	< 0.17 U	< 0.17 U	< 0.18 U	< 0.2 U	< 0.11 U	< 0.13 U	< 0.15 U	23
NICKEL	14.5	7.3	10.5	22.9	16.3	16.1	11.6	1,600
POTASSIUM	1,820	1,070	1,340	4,130	2,490	3,010	1,590	NC
SELENIUM	< 0.45 U	0.73	0.87	0.8	< 0.69 UJ	< 0.75 UJ	< 0.43 U	390
SILVER	< 1.1 U	< 1.1 U	< 1.2 U	< 1.3 U	< 0.46 U	< 0.5 U	< 1.1 U	390
SODIUM	613 J	593 J	< 470 UJ	3,010 J	521	1,270	609 J	NC

TABLE 6-2: ANALYTICAL RESULTS FOR IRP SITE 08 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S08MW01	S08MW01	S08MW01	S08MW01	S08MW02	S08MW02	S08MW03	EPA Residential Soil PRGs
Sample ID	234-S08-093	234-S08-094	234-S08-095	234-S08-096	234-S08-097	234-S08-098	234-S08-100	
Sample Date	07/23/1993	07/23/1993	07/23/1993	07/23/1993	07/09/1993	07/09/1993	07/12/1993	
Sample Depth	0.50 - 0.50	2.00 - 2.00	3.50 - 3.50	6.50 - 6.50	0.50 - 0.50	5.00 - 5.00	0.50 - 0.50	
Metals (mg/kg)								
THALLIUM	< 0.67 U	< 0.64 U	< 0.71 U	< 0.77 U	< 0.69 U	< 0.75 U	< 0.64 U	5.2
VANADIUM	25.6	14.8	18.6	42	33.8	30.8	24.6	550
ZINC	43	26.8	33.2	72.7	49.5 J	48 J	52.7	23,000

TABLE 6-2: ANALYTICAL RESULTS FOR IRP SITE 08 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S08MW03	S08MW03	S08MW03	S8-B01	S8-B01	S8-B01	S8-B02	EPA Residential Soil PRGs
Sample ID	234-S08-101	234-S08-102	234-S08-103	234-S08-001	234-S08-002	234-S08-003	234-S08-004	
Sample Date	07/12/1993	07/12/1993	07/12/1993	07/08/1993	07/08/1993	07/08/1993	07/09/1993	
Sample Depth	3.50 - 3.50	5.50 - 5.50	6.50 - 6.50	0.50 - 0.50	5.00 - 5.00	8.00 - 8.00	0.50 - 0.50	
Volatile Organic Compounds (mg/kg)								
2-BUTANONE	< 0.013 U	< 0.012 U	< 0.013 U	< 0.012 U	< 0.012 U	< 0.013 U	< 0.011 U	22,000
2-HEXANONE	< 0.013 U	< 0.012 U	< 0.013 U	< 0.012 U	< 0.012 U	< 0.013 U	< 0.011 U	NC
4-METHYL-2-PENTANONE	< 0.013 U	< 0.012 U	< 0.013 U	< 0.012 U	< 0.012 U	< 0.013 U	< 0.011 U	5,300
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	< 13 U	< 12 U	< 13 U	< 12 U	< 12 U	< 13 U	NA	NC
MOTOR OIL RANGE ORGANICS	< 39 U	< 38 U	< 39 U	110	< 36 U	< 38 U	NA	NC
OTHER COMPONENTS	NA	NA	NA	NA	NA	NA	< 1.1 U	NC
TPH - MOTOR OIL	NA	NA	NA	NA	NA	NA	290	NC
TPH - NAVY SPECIAL FUEL OIL	< 13 U	< 12 U	< 13 U	< 12 U	< 12 U	< 13 U	< 11 U	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	< 1.3 U	< 1.2 U	< 1.3 U	< 1.2 U	< 1.2 U	< 1.3 U	NA	NC
OTHER COMPONENTS	NA	NA	NA	NA	NA	NA	< 0.005 U	NC
Semivolatile Organic Compounds (mg/kg)								
2-METHYLNAPHTHALENE	< 0.43 U	< 0.41 U	< 0.43 U	< 0.39 U	< 0.39 U	< 0.42 U	< 0.35 U	NC
4-NITROPHENOL	1 R	1 R	1.1 R	< 0.94 U	< 0.95 U	< 1 U	< 0.85 U	NC
ACENAPHTHENE	< 0.43 U	< 0.41 U	< 0.43 U	< 0.39 U	< 0.39 U	< 0.42 U	< 0.35 U	3,700
ANTHRACENE	< 0.43 U	< 0.41 U	< 0.43 U	< 0.39 U	< 0.39 U	< 0.42 U	< 0.35 U	22,000
BENZO(A)ANTHRACENE	< 0.43 U	< 0.41 U	< 0.43 U	0.056	< 0.39 U	< 0.42 U	< 0.35 U	0.62
BENZO(A)PYRENE	< 0.43 U	< 0.41 U	< 0.43 U	0.052	< 0.39 U	< 0.42 U	< 0.35 U	0.062
BENZO(B)FLUORANTHENE	< 0.43 U	< 0.41 U	< 0.43 U	0.087	< 0.39 U	< 0.42 U	< 0.35 U	0.62
BENZO(K)FLUORANTHENE	< 0.43 U	< 0.41 U	< 0.43 U	0.037	< 0.39 U	< 0.42 U	< 0.35 U	0.38 *
CARBAZOLE	< 0.43 U	< 0.41 U	< 0.43 U	< 0.39 U	< 0.39 U	< 0.42 U	< 0.35 U	24
CHRYSENE	< 0.43 U	< 0.41 U	< 0.43 U	0.072	< 0.39 U	< 0.42 U	< 0.35 U	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.43 U	< 0.41 U	< 0.43 U	< 0.39 U	< 0.39 U	< 0.42 U	< 0.35 U	0.062
DIBENZOFURAN	< 0.43 U	< 0.41 U	< 0.43 U	< 0.39 U	< 0.39 U	< 0.42 U	< 0.35 U	150
FLUORANTHENE	< 0.43 U	< 0.41 U	< 0.43 U	0.068	< 0.39 U	< 0.42 U	0.031	2,300
FLUORENE	< 0.43 U	< 0.41 U	< 0.43 U	< 0.39 U	< 0.39 U	< 0.42 U	< 0.35 U	2,700
INDENO(1,2,3-CD)PYRENE	< 0.43 U	< 0.41 U	< 0.43 U	0.029	< 0.39 U	< 0.42 U	< 0.35 U	0.62
NAPHTHALENE	< 0.43 U	< 0.41 U	< 0.43 U	< 0.39 U	< 0.39 U	< 0.42 U	< 0.35 U	1.7 *
PENTACHLOROPHENOL	< 1 U	< 1 U	< 1.1 U	< 0.94 U	0.43	< 1 U	< 0.85 U	3.0
PHENANTHRENE	< 0.43 U	< 0.41 U	< 0.43 U	0.03	< 0.39 U	< 0.42 U	< 0.35 U	NC

TABLE 6-2: ANALYTICAL RESULTS FOR IRP SITE 08 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S08MW03	S08MW03	S08MW03	S8-B01	S8-B01	S8-B01	S8-B02	EPA Residential Soil PRGs
Sample ID	234-S08-101	234-S08-102	234-S08-103	234-S08-001	234-S08-002	234-S08-003	234-S08-004	
Sample Date	07/12/1993	07/12/1993	07/12/1993	07/08/1993	07/08/1993	07/08/1993	07/09/1993	
Sample Depth	3.50 - 3.50	5.50 - 5.50	6.50 - 6.50	0.50 - 0.50	5.00 - 5.00	8.00 - 8.00	0.50 - 0.50	
Semivolatile Organic Compounds (mg/kg)								
PYRENE	< 0.43 U	< 0.41 U	< 0.43 U	0.07	0.02	< 0.42 U	0.033	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.0043 U	< 0.0041 U	< 0.0043 U	< 0.0039 U	< 0.0039 UJ	< 0.0042 U	< 0.0035 U	2.4
4,4'-DDE	< 0.0043 U	< 0.0041 U	< 0.0043 U	< 0.0039 U	< 0.0039 UJ	< 0.0042 U	< 0.0035 U	1.7
4,4'-DDT	< 0.0043 U	< 0.0041 U	< 0.0043 U	0.009	< 0.0039 UJ	< 0.0042 U	0.0074 J	1.7
ALPHA-CHLORDANE	< 0.0022 U	< 0.0021 U	< 0.0022 U	< 0.002 U	< 0.002 UJ	< 0.0022 U	0.005 J	1.6
AROCLOR-1260	< 0.043 U	< 0.041 U	< 0.043 U	< 0.039 U	< 0.039 UJ	< 0.042 U	**0.47**	0.22
DIELDRIN	< 0.0043 U	< 0.0041 U	< 0.0043 U	< 0.0039 U	< 0.0039 UJ	< 0.0042 U	< 0.0035 U	0.030
ENDOSULFAN II	< 0.0043 U	< 0.0041 U	< 0.0043 U	< 0.0039 U	< 0.0039 UJ	< 0.0042 U	0.015 J	NC
ENDRIN	< 0.0043 U	< 0.0041 U	< 0.0043 U	< 0.0039 U	< 0.0039 UJ	< 0.0042 U	0.0036	18
ENDRIN ALDEHYDE	< 0.0043 U	< 0.0041 U	< 0.0043 U	< 0.0039 U	< 0.0039 UJ	< 0.0042 U	0.014 J	NC
GAMMA-CHLORDANE	< 0.0022 U	< 0.0021 U	< 0.0022 U	< 0.002 U	< 0.002 UJ	< 0.0022 U	0.0064 J	1.6
Metals (mg/kg)								
ALUMINUM	16,500	13,000	15,700	7,770	10,100	14,100	9,800	76,000
ARSENIC	**4.7**	< 1.4 U	**6**	**2.5 J**	**2.5 J**	< 2 UJ	**3.5**	0.39
BARIUM	157	136	149	59	115	154	55.3	5,400
BERYLLIUM	1.1	0.96	1.3	0.65	0.84	1.1	0.21	150
CADMIUM	< 1 U	< 0.98 U	< 1 U	< 0.93 U	< 0.95 U	< 1 U	1.7	37 *
CALCIUM	29,500	11,400	50,900	8,600	14,400	16,700	11,000	NC
CHROMIUM	26.8	21.4	25.3	13.5	17.9	25.8	16.3	210
COBALT	10.1	9.9	9.7	9	9.9	11.4	6.5	900
COPPER	22.1	27	22.3	< 18.2 U	< 20 U	26.8	16.8	3,100
IRON	**24,700**	20,600	**23,600**	17,800	19,900	**24,500**	19,200	23,000
LEAD	9.3	6.8	8.8	23 J	4.9 J	8.5 J	14.6	150 *
MAGNESIUM	9,360	6,780	8,450	6,110	8,710	10,200	5,990	NC
MANGANESE	428 J	222 J	361 J	325 J	314 J	322 J	298 J	1,800
MERCURY	< 0.19 U	< 0.18 U	< 0.19 U	< 0.18 U	< 0.18 U	< 0.19 U	< 0.11 U	23
NICKEL	23.6	18.1	21.9	15.5	19.4	24.6	13.2	1,600
POTASSIUM	4,480	3,670	3,910	1,730	3,570	4,810	1,870	NC
SELENIUM	< 0.51 U	0.52	0.67	< 0.66 UJ	< 0.57 UJ	< 0.62 UJ	< 0.64 U	390
SILVER	< 1.3 U	< 1.2 U	< 1.3 U	< 1.2 U	< 1.2 U	< 1.2 U	< 0.43 U	390
SODIUM	504 J	< 488 UJ	< 508 UJ	1,400 J	1,630 J	1,510 J	1,070	NC

TABLE 6-2: ANALYTICAL RESULTS FOR IRP SITE 08 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S08MW03	S08MW03	S08MW03	S8-B01	S8-B01	S8-B01	S8-B02	EPA Residential Soil PRGs
Sample ID	234-S08-101	234-S08-102	234-S08-103	234-S08-001	234-S08-002	234-S08-003	234-S08-004	
Sample Date	07/12/1993	07/12/1993	07/12/1993	07/08/1993	07/08/1993	07/08/1993	07/09/1993	
Sample Depth	3.50 - 3.50	5.50 - 5.50	6.50 - 6.50	0.50 - 0.50	5.00 - 5.00	8.00 - 8.00	0.50 - 0.50	
Metals (mg/kg)								
THALLIUM	< 0.51 U	< 0.49 U	< 0.52 U	< 0.47 UJ	< 0.47 UJ	< 0.5 UJ	< 0.64 UJ	5.2
VANADIUM	53.6	43.3	48.1	29.7	35.9	48.7	32.7	550
ZINC	69	59.1	60.3	53.1	66.6	81.1	50.9 J	23,000

TABLE 6-2: ANALYTICAL RESULTS FOR IRP SITE 08 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S8-B02	S8-B02	S8-B03	S8-B03	S8-B03	S8-B04	S8-B04	EPA Residential Soil PRGs
Sample ID	234-S08-005	234-S08-006	234-S08-007	234-S08-008	234-S08-009	234-S08-010	234-S08-011	
Sample Date	07/09/1993	07/09/1993	07/09/1993	07/09/1993	07/09/1993	07/08/1993	07/08/1993	
Sample Depth	5.00 - 5.00	8.00 - 8.00	0.50 - 0.50	5.00 - 5.00	8.00 - 8.00	1.00 - 1.00	5.00 - 5.00	
Volatile Organic Compounds (mg/kg)								
2-BUTANONE	< 0.013 U	< 0.013 U	< 0.011 U	< 0.014 U	< 0.012 U	< 0.011 U	< 0.012 U	22,000
2-HEXANONE	< 0.013 U	< 0.013 U	< 0.011 U	< 0.014 U	< 0.012 U	< 0.011 U	< 0.012 U	NC
4-METHYL-2-PENTANONE	< 0.013 U	< 0.013 U	< 0.011 U	< 0.014 U	< 0.012 U	< 0.011 U	< 0.012 U	5,300
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NC
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NC
OTHER COMPONENTS	< 1.3 U	< 1.3 U	< 2.2 U	< 1.4 U	< 1.2 U	< 1.1 U	< 1.2 U	NC
TPH - MOTOR OIL	< 13 U	< 13 U	340	< 14 U	< 12 U	65 J	< 12 U	NC
TPH - NAVY SPECIAL FUEL OIL	< 13 U	< 13 U	< 22 U	< 14 U	< 12 U	< 11 U	< 12 U	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NC
OTHER COMPONENTS	< 0.006 U	< 0.007 U	< 0.005 U	< 0.007 U	< 0.006 U	< 0.005 U	< 0.006 U	NC
Semivolatile Organic Compounds (mg/kg)								
2-METHYLNAPHTHALENE	< 0.42 U	< 0.43 U	< 0.36 U	< 0.48 U	< 0.4 U	< 0.35 U	< 0.41 U	NC
4-NITROPHENOL	< 1 U	< 1.1 U	< 0.88 U	< 1.2 U	< 0.98 U	< 0.86 U	< 0.99 U	NC
ACENAPHTHENE	< 0.42 U	< 0.43 U	< 0.36 U	< 0.48 U	< 0.4 U	< 0.35 U	< 0.41 U	3,700
ANTHRACENE	< 0.42 U	< 0.43 U	< 0.36 U	< 0.48 U	< 0.4 U	< 0.35 U	< 0.41 U	22,000
BENZO(A)ANTHRACENE	< 0.42 U	< 0.43 U	< 0.36 U	< 0.48 U	< 0.4 U	< 0.35 U	< 0.41 U	0.62
BENZO(A)PYRENE	< 0.42 U	< 0.43 U	< 0.36 U	< 0.48 U	< 0.4 U	< 0.35 U	< 0.41 U	0.062
BENZO(B)FLUORANTHENE	< 0.42 U	< 0.43 U	< 0.36 U	< 0.48 U	< 0.4 U	< 0.35 U	< 0.41 U	0.62
BENZO(K)FLUORANTHENE	< 0.42 U	< 0.43 U	< 0.36 U	< 0.48 U	< 0.4 U	< 0.35 U	< 0.41 U	0.38 *
CARBAZOLE	< 0.42 U	< 0.43 U	< 0.36 U	< 0.48 U	< 0.4 U	< 0.35 U	< 0.41 U	24
CHRYSENE	< 0.42 U	< 0.43 U	< 0.36 U	< 0.48 U	< 0.4 U	< 0.35 U	< 0.41 U	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.42 U	< 0.43 U	< 0.36 U	< 0.48 U	< 0.4 U	< 0.35 U	< 0.41 U	0.062
DIBENZOFURAN	< 0.42 U	< 0.43 U	< 0.36 U	< 0.48 U	< 0.4 U	< 0.35 U	< 0.41 U	150
FLUORANTHENE	< 0.42 U	< 0.43 U	0.059	< 0.48 U	< 0.4 U	< 0.35 U	< 0.41 U	2,300
FLUORENE	< 0.42 U	< 0.43 U	< 0.36 U	< 0.48 U	< 0.4 U	< 0.35 U	< 0.41 U	2,700
INDENO(1,2,3-CD)PYRENE	< 0.42 U	< 0.43 U	< 0.36 U	< 0.48 U	< 0.4 U	< 0.35 U	< 0.41 U	0.62
NAPHTHALENE	< 0.42 U	< 0.43 U	< 0.36 U	< 0.48 U	< 0.4 U	< 0.35 U	< 0.41 U	1.7 *
PENTACHLOROPHENOL	< 1 U	< 1.1 U	< 0.88 U	< 1.2 U	< 0.98 U	< 0.86 U	< 0.99 U	3.0
PHENANTHRENE	< 0.42 U	< 0.43 U	< 0.36 U	< 0.48 U	< 0.4 U	< 0.35 U	< 0.41 U	NC

TABLE 6-2: ANALYTICAL RESULTS FOR IRP SITE 08 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S8-B02	S8-B02	S8-B03	S8-B03	S8-B03	S8-B04	S8-B04	EPA Residential Soil PRGs
Sample ID	234-S08-005	234-S08-006	234-S08-007	234-S08-008	234-S08-009	234-S08-010	234-S08-011	
Sample Date	07/09/1993	07/09/1993	07/09/1993	07/09/1993	07/09/1993	07/08/1993	07/08/1993	
Sample Depth	5.00 - 5.00	8.00 - 8.00	0.50 - 0.50	5.00 - 5.00	8.00 - 8.00	1.00 - 1.00	5.00 - 5.00	
Semivolatile Organic Compounds (mg/kg)								
PYRENE	< 0.42 U	< 0.43 U	0.056	< 0.48 U	< 0.4 U	< 0.35 U	< 0.41 U	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.0042 U	< 0.0043 U	0.0056 J	< 0.0048 U	< 0.004 U	< 0.0035 U	< 0.0041 UJ	2.4
4,4'-DDE	< 0.0042 U	< 0.0043 U	< 0.0036 U	< 0.0048 U	< 0.004 U	< 0.0035 U	< 0.0041 UJ	1.7
4,4'-DDT	< 0.0042 U	< 0.0043 U	0.02 J	< 0.0048 U	< 0.004 U	< 0.0035 U	< 0.0041 UJ	1.7
ALPHA-CHLORDANE	< 0.0022 U	< 0.0022 U	0.0044 J	< 0.0025 U	< 0.0021 U	< 0.0018 U	< 0.0021 UJ	1.6
AROCLOR-1260	< 0.042 U	< 0.043 U	**0.45**	< 0.048 U	< 0.04 U	< 0.035 U	< 0.041 UJ	0.22
DIELDRIN	< 0.0042 U	< 0.0043 U	< 0.0036 U	< 0.0048 U	< 0.004 U	< 0.0035 U	< 0.0041 UJ	0.030
ENDOSULFAN II	< 0.0042 U	< 0.0043 U	< 0.0036 U	< 0.0048 U	< 0.004 U	< 0.0035 U	< 0.0041 UJ	NC
ENDRIN	< 0.0042 U	< 0.0043 U	0.0059 J	< 0.0048 U	< 0.004 U	< 0.0035 U	< 0.0041 UJ	18
ENDRIN ALDEHYDE	< 0.0042 U	< 0.0043 U	< 0.0036 U	< 0.0048 U	< 0.004 U	< 0.0035 U	< 0.0041 UJ	NC
GAMMA-CHLORDANE	< 0.0022 U	< 0.0022 U	< 0.0019 U	< 0.0025 U	< 0.0021 U	< 0.0018 U	< 0.0021 UJ	1.6
Metals (mg/kg)								
ALUMINUM	14,500	8,880	9,200	30,300	6,360	6,450	5,430	76,000
ARSENIC	**4.9**	**1.9**	**2.2**	**8.3**	< 0.49 U	< 1.2 UJ	**2.3**	0.39
BARIUM	137	114	49.4	187	84.4	43.5	95.8	5,400
BERYLLIUM	0.57	0.32	< 0.22 U	0.95	< 0.24 U	< 0.21 U	0.25	150
CADMIUM	3.2	2.6	1.6	5	2.1	< 1.2 U	< 1.5 U	37 *
CALCIUM	46,500	11,500	11,500	42,400	7,520	11,600	44,100	NC
CHROMIUM	23.2	18.5	14.6	49.6	11.8	10.1	8.6	210
COBALT	8.1	4.6	8.8	10.8	3.1	6.7	2.9	900
COPPER	22.4	13.4	17.4	35	8.3	13.2	8.8	3,100
IRON	**25,300**	17,300	21,800	**37,500**	11,700	17,500	12,800	23,000
LEAD	8.7 J	5 J	19 J	13.4 J	4.7 J	9.1 J	4.5 J	150 *
MAGNESIUM	12,000	6,390	7,380	17,800	3,850	5,060	5,160	NC
MANGANESE	431	416	315	637	166	258 J	231 J	1,800
MERCURY	< 0.13 U	< 0.13 U	< 0.11 U	< 0.14 U	< 0.12 U	< 0.11 U	< 0.12 U	23
NICKEL	22.3	17.5	13.3	36.3	< 9.8 U	10.2 J	10.3 J	1,600
POTASSIUM	4,840	3,320	1,600	7,320	2,030	1,470	1,940	NC
SELENIUM	1.6	1	0.88	2	1.6	< 0.64 UJ	< 0.74 U	390
SILVER	< 0.51 U	< 0.52 U	< 0.44 U	< 0.58 U	< 0.49 U	< 0.43 U	< 0.5 U	390
SODIUM	2,990	2,190	2,230	4,710	563	1,070	926	NC

TABLE 6-2: ANALYTICAL RESULTS FOR IRP SITE 08 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S8-B02	S8-B02	S8-B03	S8-B03	S8-B03	S8-B04	S8-B04	EPA Residential Soil PRGs
Sample ID	234-S08-005	234-S08-006	234-S08-007	234-S08-008	234-S08-009	234-S08-010	234-S08-011	
Sample Date	07/09/1993	07/09/1993	07/09/1993	07/09/1993	07/09/1993	07/08/1993	07/08/1993	
Sample Depth	5.00 - 5.00	8.00 - 8.00	0.50 - 0.50	5.00 - 5.00	8.00 - 8.00	1.00 - 1.00	5.00 - 5.00	
Metals (mg/kg)								
THALLIUM	< 0.77 UJ	< 0.79 UJ	< 0.66 UJ	< 0.87 UJ	< 0.73 UJ	< 0.64 UJ	< 0.74 U	5.2
VANADIUM	42.6	28.4	31.4	84.7	22.2	27.4	21.4	550
ZINC	69.4 J	47 J	53.8 J	102 J	28.8 J	40	32.4	23,000

TABLE 6-2: ANALYTICAL RESULTS FOR IRP SITE 08 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S8-B04	S8-B04	S8-B05	S8-B05	S8-B05	S8-B06	S8-B06	EPA Residential Soil PRGs
Sample ID	234-S08-012	234-S08-013	234-S08-014	234-S08-015	234-S08-016	234-S08-017	234-S08-018	
Sample Date	07/08/1993	07/08/1993	07/08/1993	07/08/1993	07/08/1993	07/09/1993	07/09/1993	
Sample Depth	6.50 - 6.50	8.00 - 8.00	0.50 - 0.50	5.00 - 5.00	8.00 - 8.00	0.50 - 0.50	5.00 - 5.00	
Volatile Organic Compounds (mg/kg)								
2-BUTANONE	< 0.013 U	< 0.013 U	< 0.011 U	< 0.013 U	< 0.013 U	< 0.012 U	< 0.013 U	22,000
2-HEXANONE	< 0.013 U	< 0.013 U	< 0.011 U	< 0.013 U	< 0.013 U	< 0.012 U	< 0.013 U	NC
4-METHYL-2-PENTANONE	< 0.013 U	< 0.013 U	< 0.011 U	< 0.013 U	< 0.013 U	< 0.012 U	< 0.013 U	5,300
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	NA	< 11 U	< 13 U	< 13 U	NA	NA	NC
MOTOR OIL RANGE ORGANICS	NA	NA	160	< 39 U	< 39 U	NA	NA	NC
OTHER COMPONENTS	< 1.3 U	< 1.3 U	NA	NA	NA	< 1.2 U	< 1.3 U	NC
TPH - MOTOR OIL	< 13 U	< 13 U	NA	NA	NA	46 J	< 13 U	NC
TPH - NAVY SPECIAL FUEL OIL	< 13 U	< 13 U	230	< 13 U	< 13 U	< 12 U	< 13 U	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	NA	< 1.1 U	< 1.3 U	< 1.3 U	NA	NA	NC
OTHER COMPONENTS	< 0.007 U	< 0.006 U	NA	NA	NA	< 0.006 U	< 0.007 U	NC
Semivolatile Organic Compounds (mg/kg)								
2-METHYLNAPHTHALENE	< 0.44 U	< 0.43 U	< 1.8 U	< 0.42 U	< 0.42 U	< 0.39 U	< 0.43 U	NC
4-NITROPHENOL	< 1.1 U	< 1 U	< 4.3 U	< 1 U	< 1 U	< 0.94 U	< 1.1 U	NC
ACENAPHTHENE	< 0.44 U	< 0.43 U	< 1.8 U	< 0.42 U	< 0.42 U	< 0.39 U	< 0.43 U	3,700
ANTHRACENE	< 0.44 U	< 0.43 U	< 1.8 U	< 0.42 U	< 0.42 U	< 0.39 U	< 0.43 U	22,000
BENZO(A)ANTHRACENE	< 0.44 U	< 0.43 U	< 1.8 U	< 0.42 U	< 0.42 U	< 0.39 U	< 0.43 U	0.62
BENZO(A)PYRENE	< 0.44 U	< 0.43 U	< 1.8 U	< 0.42 U	< 0.42 U	< 0.39 U	< 0.43 U	0.062
BENZO(B)FLUORANTHENE	< 0.44 U	< 0.43 U	< 1.8 U	< 0.42 U	< 0.42 U	< 0.39 U	< 0.43 U	0.62
BENZO(K)FLUORANTHENE	< 0.44 U	< 0.43 U	< 1.8 U	< 0.42 U	< 0.42 U	< 0.39 U	< 0.43 U	0.38 *
CARBAZOLE	< 0.44 U	< 0.43 U	< 1.8 U	< 0.42 U	< 0.42 U	< 0.39 U	< 0.43 U	24
CHRYSENE	< 0.44 U	< 0.43 U	0.17	< 0.42 U	< 0.42 U	< 0.39 U	< 0.43 U	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.44 U	< 0.43 U	< 1.8 U	< 0.42 U	< 0.42 U	< 0.39 U	< 0.43 U	0.062
DIBENZOFURAN	< 0.44 U	< 0.43 U	< 1.8 U	< 0.42 U	< 0.42 U	< 0.39 U	< 0.43 U	150
FLUORANTHENE	< 0.44 U	< 0.43 U	< 1.8 U	< 0.42 U	< 0.42 U	< 0.39 U	< 0.43 U	2,300
FLUORENE	< 0.44 U	< 0.43 U	< 1.8 U	< 0.42 U	< 0.42 U	< 0.39 U	< 0.43 U	2,700
INDENO(1,2,3-CD)PYRENE	< 0.44 U	< 0.43 U	< 1.8 U	< 0.42 U	< 0.42 U	< 0.39 U	< 0.43 U	0.62
NAPHTHALENE	< 0.44 U	< 0.43 U	< 1.8 U	< 0.42 U	< 0.42 U	< 0.39 U	< 0.43 U	1.7 *
PENTACHLOROPHENOL	< 1.1 U	< 1 U	< 4.3 U	< 1 U	< 1 U	< 0.94 U	< 1.1 U	3.0
PHENANTHRENE	< 0.44 U	< 0.43 U	< 1.8 U	< 0.42 U	< 0.42 U	< 0.39 U	< 0.43 U	NC

TABLE 6-2: ANALYTICAL RESULTS FOR IRP SITE 08 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S8-B04	S8-B04	S8-B05	S8-B05	S8-B05	S8-B06	S8-B06	EPA Residential Soil PRGs
Sample ID	234-S08-012	234-S08-013	234-S08-014	234-S08-015	234-S08-016	234-S08-017	234-S08-018	
Sample Date	07/08/1993	07/08/1993	07/08/1993	07/08/1993	07/08/1993	07/09/1993	07/09/1993	
Sample Depth	6.50 - 6.50	8.00 - 8.00	0.50 - 0.50	5.00 - 5.00	8.00 - 8.00	0.50 - 0.50	5.00 - 5.00	
Semivolatile Organic Compounds (mg/kg)								
PYRENE	< 0.44 U	< 0.43 U	< 1.8 U	< 0.42 U	< 0.42 U	< 0.39 U	< 0.43 U	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.0044 UJ	< 0.0043 U	< 0.0036 U	< 0.0042 U	< 0.0042 U	< 0.0039 UJ	< 0.0043 U	2.4
4,4'-DDE	< 0.0044 UJ	< 0.0043 U	< 0.0036 U	< 0.0042 U	< 0.0042 U	< 0.0039 UJ	< 0.0043 U	1.7
4,4'-DDT	< 0.0044 UJ	< 0.0043 U	0.0029 J	< 0.0042 U	< 0.0042 U	< 0.0039 UJ	< 0.0043 U	1.7
ALPHA-CHLORDANE	< 0.0023 UJ	< 0.0022 U	0.0028	< 0.0022 U	< 0.0022 U	< 0.002 UJ	< 0.0022 U	1.6
AROCLOR-1260	< 0.044 UJ	< 0.043 U	0.037	< 0.042 U	< 0.042 U	< 0.039 UJ	< 0.043 U	0.22
DIELDRIN	< 0.0044 UJ	< 0.0043 U	< 0.0036 U	< 0.0042 U	< 0.0042 U	< 0.0039 UJ	< 0.0043 U	0.030
ENDOSULFAN II	< 0.0044 UJ	< 0.0043 U	< 0.0036 U	< 0.0042 U	< 0.0042 U	< 0.0039 UJ	< 0.0043 U	NC
ENDRIN	< 0.0044 UJ	< 0.0043 U	< 0.0036 U	< 0.0042 U	< 0.0042 U	< 0.0039 UJ	< 0.0043 U	18
ENDRIN ALDEHYDE	< 0.0044 UJ	< 0.0043 U	< 0.0036 U	< 0.0042 U	< 0.0042 U	< 0.0039 UJ	< 0.0043 U	NC
GAMMA-CHLORDANE	< 0.0023 UJ	< 0.0022 U	0.0025	< 0.0022 U	< 0.0022 U	< 0.002 UJ	< 0.0022 U	1.6
Metals (mg/kg)								
ALUMINUM	10,200	7,830	8,080	8,280	7,620	12,300	14,700	76,000
ARSENIC	**4.6**	**2.5**	**2.1 J**	**3.7 J**	**4.5 J**	**6**	**3.6**	0.39
BARIUM	128	109	58.1	119	104	117	138	5,400
BERYLLIUM	0.52	0.36	0.54	0.73	0.89	0.43	0.45	150
CADMIUM	< 1.6 U	< 1.5 U	< 0.85 U	< 1 U	1.5	0.96	3	37 *
CALCIUM	8,200	9,970	9,230	12,200	3,500	21,300	8,020	NC
CHROMIUM	19.7	14.8	13.6	15.9	14.9	21.9	28.3	210
COBALT	7.8	4.7	8.5	7.7	7.7	4.9	6.4	900
COPPER	23.3	13.3	< 14.6 U	< 13.1 U	21.5	16.7	19.4	3,100
IRON	**25,400**	18,100	17,000	17,700	15,900	18,900	**23,700**	23,000
LEAD	8.3 J	9.3 J	6.6 J	5.6 J	4.1 J	6.6 J	9.1 J	150 *
MAGNESIUM	7,730	5,250	5,840	6,020	4,950	10,200	8,100	NC
MANGANESE	327 J	216 J	240 J	346 J	141 J	295 J	260	1,800
MERCURY	< 0.13 U	< 0.13 U	< 0.16 U	< 0.19 U	< 0.19 U	< 0.12 U	< 0.13 U	23
NICKEL	24.1	14	14.3	14.9	13	18.8	21.6	1,600
POTASSIUM	4,440	2,970	1,810	3,070	2,800	4,210	4,840	NC
SELENIUM	< 0.8 U	< 0.78 U	< 0.61 UJ	< 0.5 UJ	< 0.56 UJ	< 0.7 UJ	< 0.79 U	390
SILVER	< 0.53 U	< 0.52 U	< 1.1 U	< 1.3 U	< 1.3 U	< 0.47 U	< 0.62 U	390
SODIUM	1,360	717	851 J	739 J	< 515 UJ	870	1,780	NC

TABLE 6-2: ANALYTICAL RESULTS FOR IRP SITE 08 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S8-B04	S8-B04	S8-B05	S8-B05	S8-B05	S8-B06	S8-B06	EPA Residential Soil PRGs
Sample ID	234-S08-012	234-S08-013	234-S08-014	234-S08-015	234-S08-016	234-S08-017	234-S08-018	
Sample Date	07/08/1993	07/08/1993	07/08/1993	07/08/1993	07/08/1993	07/09/1993	07/09/1993	
Sample Depth	6.50 - 6.50	8.00 - 8.00	0.50 - 0.50	5.00 - 5.00	8.00 - 8.00	0.50 - 0.50	5.00 - 5.00	
Metals (mg/kg)								
THALLIUM	< 0.8 U	< 0.78 U	< 0.42 UJ	< 0.5 UJ	< 0.51 UJ	< 0.7 U	< 0.79 UJ	5.2
VANADIUM	37.8	29.8	30.3	< 27.7 U	34.1	40.1	50.5	550
ZINC	70	45.9	47.3	49.6	44.5	59.3 J	63.5 J	23,000

TABLE 6-2: ANALYTICAL RESULTS FOR IRP SITE 08 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S8-B06	S8-B07	S8-B07	S8-B07	S8-B08	S8-B08	S8-B08	EPA Residential Soil PRGs
Sample ID	234-S08-019	234-S08-020	234-S08-021	234-S08-022	234-S08-023	234-S08-024	234-S08-025	
Sample Date	07/09/1993	07/08/1993	07/08/1993	07/08/1993	07/09/1993	07/09/1993	07/09/1993	
Sample Depth	8.00 - 8.00	0.50 - 0.50	5.00 - 5.00	8.00 - 8.00	0.50 - 0.50	1.50 - 1.50	5.00 - 5.00	
Volatile Organic Compounds (mg/kg)								
2-BUTANONE	< 0.013 U	< 0.011 U	< 0.012 U	< 0.012 U	< 0.011 U	0.007	< 0.014 U	22,000
2-HEXANONE	< 0.013 U	< 0.011 U	< 0.012 U	< 0.012 U	< 0.011 U	< 0.01 U	< 0.014 U	NC
4-METHYL-2-PENTANONE	< 0.013 U	< 0.011 U	< 0.012 U	< 0.012 U	< 0.011 U	< 0.01 U	< 0.014 U	5,300
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NC
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NC
OTHER COMPONENTS	12 J	< 1.1 U	< 1.2 U	< 1.2 U	< 1.1 U	< 1 U	< 1.4 U	NC
TPH - MOTOR OIL	< 13 U	210	< 12 U	< 12 U	< 11 U	< 10 U	< 14 U	NC
TPH - NAVY SPECIAL FUEL OIL	< 13 U	< 11 U	< 12 U	< 12 U	< 11 U	< 10 U	< 14 U	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NC
OTHER COMPONENTS	< 0.007 U	1.4 J	< 0.006 U	< 0.006 U	< 0.005 U	< 0.005 U	< 0.007 U	NC
Semivolatile Organic Compounds (mg/kg)								
2-METHYLNAPHTHALENE	< 0.44 U	< 0.35 U	< 0.41 U	< 0.41 U	< 0.36 U	< 0.34 U	< 0.46 U	NC
4-NITROPHENOL	< 1.1 U	< 0.84 U	< 0.99 U	< 1 U	< 0.87 U	< 0.83 U	< 1.1 U	NC
ACENAPHTHENE	< 0.44 U	< 0.35 U	< 0.41 U	< 0.41 U	< 0.36 U	< 0.34 U	< 0.46 U	3,700
ANTHRACENE	< 0.44 U	< 0.35 U	< 0.41 U	< 0.41 U	< 0.36 U	< 0.34 U	< 0.46 U	22,000
BENZO(A)ANTHRACENE	< 0.44 U	< 0.35 U	< 0.41 U	< 0.41 U	< 0.36 U	< 0.34 U	< 0.46 U	0.62
BENZO(A)PYRENE	< 0.44 U	< 0.35 U	< 0.41 U	< 0.41 U	< 0.36 U	< 0.34 U	< 0.46 U	0.062
BENZO(B)FLUORANTHENE	< 0.44 U	< 0.35 U	< 0.41 U	< 0.41 U	< 0.36 U	< 0.34 U	< 0.46 U	0.62
BENZO(K)FLUORANTHENE	< 0.44 U	< 0.35 U	< 0.41 U	< 0.41 U	< 0.36 U	< 0.34 U	< 0.46 U	0.38 *
CARBAZOLE	< 0.44 U	< 0.35 U	< 0.41 U	< 0.41 U	< 0.36 U	< 0.34 U	< 0.46 U	24
CHRYSENE	< 0.44 U	< 0.35 U	< 0.41 U	< 0.41 U	< 0.36 U	< 0.34 U	< 0.46 U	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.44 U	< 0.35 U	< 0.41 U	< 0.41 U	< 0.36 U	< 0.34 U	< 0.46 U	0.062
DIBENZOFURAN	< 0.44 U	< 0.35 U	< 0.41 U	< 0.41 U	< 0.36 U	< 0.34 U	< 0.46 U	150
FLUORANTHENE	< 0.44 U	0.069	< 0.41 U	< 0.41 U	< 0.36 U	< 0.34 U	< 0.46 U	2,300
FLUORENE	< 0.44 U	< 0.35 U	< 0.41 U	< 0.41 U	< 0.36 U	< 0.34 U	< 0.46 U	2,700
INDENO(1,2,3-CD)PYRENE	< 0.44 U	< 0.35 U	< 0.41 U	< 0.41 U	< 0.36 U	< 0.34 U	< 0.46 U	0.62
NAPHTHALENE	< 0.44 U	< 0.35 U	< 0.41 U	< 0.41 U	< 0.36 U	< 0.34 U	< 0.46 U	1.7 *
PENTACHLOROPHENOL	< 1.1 U	< 0.84 U	< 0.99 U	< 1 U	< 0.87 U	< 0.83 U	< 1.1 U	3.0
PHENANTHRENE	< 0.44 U	0.06	< 0.41 U	< 0.41 U	< 0.36 U	< 0.34 U	< 0.46 U	NC

TABLE 6-2: ANALYTICAL RESULTS FOR IRP SITE 08 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S8-B06	S8-B07	S8-B07	S8-B07	S8-B08	S8-B08	S8-B08	EPA Residential Soil PRGs
Sample ID	234-S08-019	234-S08-020	234-S08-021	234-S08-022	234-S08-023	234-S08-024	234-S08-025	
Sample Date	07/09/1993	07/08/1993	07/08/1993	07/08/1993	07/09/1993	07/09/1993	07/09/1993	
Sample Depth	8.00 - 8.00	0.50 - 0.50	5.00 - 5.00	8.00 - 8.00	0.50 - 0.50	1.50 - 1.50	5.00 - 5.00	
Semivolatile Organic Compounds (mg/kg)								
PYRENE	< 0.44 U	0.068	< 0.41 U	< 0.41 U	< 0.36 U	< 0.34 U	< 0.46 U	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.0044 UJ	0.0055 J	< 0.0041 U	< 0.0041 U	< 0.0036 U	< 0.0034 U	< 0.0046 UJ	2.4
4,4'-DDE	< 0.0044 UJ	< 0.0035 U	< 0.0041 U	< 0.0041 U	< 0.0036 U	< 0.0034 U	< 0.0046 UJ	1.7
4,4'-DDT	< 0.0044 UJ	0.004 J	< 0.0041 U	< 0.0041 U	< 0.0036 U	0.0038 J	< 0.0046 UJ	1.7
ALPHA-CHLORDANE	< 0.0023 UJ	0.0068 J	< 0.0021 U	< 0.0021 U	< 0.0018 U	< 0.0018 U	< 0.0024 UJ	1.6
AROCLOR-1260	< 0.044 UJ	0.088 J	< 0.041 U	< 0.041 U	< 0.036 U	< 0.034 U	< 0.046 UJ	0.22
DIELDRIN	< 0.0044 UJ	0.006 J	< 0.0041 U	< 0.0041 U	< 0.0036 U	< 0.0034 U	< 0.0046 UJ	0.030
ENDOSULFAN II	< 0.0044 UJ	< 0.0035 U	< 0.0041 U	< 0.0041 U	< 0.0036 U	< 0.0034 U	< 0.0046 UJ	NC
ENDRIN	< 0.0044 UJ	< 0.0035 U	< 0.0041 U	< 0.0041 U	< 0.0036 U	< 0.0034 U	< 0.0046 UJ	18
ENDRIN ALDEHYDE	< 0.0044 UJ	< 0.0035 U	< 0.0041 U	< 0.0041 U	< 0.0036 U	< 0.0034 U	< 0.0046 UJ	NC
GAMMA-CHLORDANE	< 0.0023 UJ	0.0065 J	< 0.0021 U	< 0.0021 U	< 0.0018 U	< 0.0018 U	< 0.0024 UJ	1.6
Metals (mg/kg)								
ALUMINUM	13,300	7,670	12,100	13,400	14,500	6,850	12,500	76,000
ARSENIC	**6.1**	< 2.2 U	< 2.6 U	**3.9**	**1.3**	**1**	**8.1**	0.39
BARIUM	155	47.8	117	132	30.2	26.7	128	5,400
BERYLLIUM	0.7	0.22	0.54	0.59	< 0.22 U	< 0.21 U	0.48	150
CADMIUM	1.2	< 0.84 U	1.6	2	2.2	< 0.83 U	1.7	37 *
CALCIUM	9,480	8,250	19,900	20,400	14,400	6,540	20,600	NC
CHROMIUM	22.7	16	20.2	22.8	15.8	11.5	22.3	210
COBALT	5.1	5	5.5	5	17.3	6.5	6.3	900
COPPER	20.6	17.1	17.6	18.9	25.8	12.3	16.8	3,100
IRON	22,700	16,000	21,100	21,600	**37,700**	17,500	22,600	23,000
LEAD	7.8 J	25.5	7.7	< 5 U	3.3 J	5 J	11.3 J	150 *
MAGNESIUM	8,340	4,820	8,420	8,640	12,400	4,850	8,500	NC
MANGANESE	339 J	233 J	372 J	379 J	790	224	406	1,800
MERCURY	< 0.13 U	< 0.11 U	< 0.12 U	< 0.12 U	< 0.11 U	< 0.1 U	< 0.14 U	23
NICKEL	23.6	11.4	19	21.4	20.3	11.9	23.3	1,600
POTASSIUM	4,270	1,510	3,570	4,110	1,550	1,230	4,170	NC
SELENIUM	1.4 J	0.72 J	< 0.76 U	< 0.75 U	1.3	0.78	1.9	390
SILVER	< 0.53 U	< 0.42 U	< 0.49 U	< 0.5 U	< 0.44 U	< 1 U	< 1.2 U	390
SODIUM	1,040	993	1,830	1,250	2,730	1,120	1,520	NC

TABLE 6-2: ANALYTICAL RESULTS FOR IRP SITE 08 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S8-B06	S8-B07	S8-B07	S8-B07	S8-B08	S8-B08	S8-B08	EPA Residential Soil PRGs
Sample ID	234-S08-019	234-S08-020	234-S08-021	234-S08-022	234-S08-023	234-S08-024	234-S08-025	
Sample Date	07/09/1993	07/08/1993	07/08/1993	07/08/1993	07/09/1993	07/09/1993	07/09/1993	
Sample Depth	8.00 - 8.00	0.50 - 0.50	5.00 - 5.00	8.00 - 8.00	0.50 - 0.50	1.50 - 1.50	5.00 - 5.00	
Metals (mg/kg)								
THALLIUM	< 0.8 U	< 0.63 UJ	< 0.74 UJ	< 0.75 UJ	< 0.66 UJ	< 0.62 UJ	< 0.84 UJ	5.2
VANADIUM	40.5	27.8	39.8	44.4	46.7	30.5	40.2	550
ZINC	66.5 J	58 J	59.7 J	59.6 J	50.6 J	29.4 J	59 J	23,000

TABLE 6-2: ANALYTICAL RESULTS FOR IRP SITE 08 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S8-B08	S8-B09	S8-B09	S8-B09	S8-B09	S8-B10	S8-B10	EPA Residential Soil PRGs
Sample ID	234-S08-026	234-S08-027	234-S08-028	234-S08-148	234-S08-029	234-S08-030	234-S08-031	
Sample Date	07/09/1993	07/09/1993	07/09/1993	07/09/1993	07/09/1993	07/09/1993	07/09/1993	
Sample Depth	8.00 - 8.00	0.50 - 0.50	5.00 - 5.00	6.50 - 6.50	8.00 - 8.00	0.50 - 0.50	5.00 - 5.00	
Volatile Organic Compounds (mg/kg)								
2-BUTANONE	< 0.013 U	< 0.011 U	< 0.012 U	< 0.013 U	< 0.013 U	< 0.011 U	< 0.014 U	22,000
2-HEXANONE	< 0.013 U	< 0.011 U	< 0.012 U	< 0.013 U	< 0.013 U	< 0.011 U	< 0.014 U	NC
4-METHYL-2-PENTANONE	< 0.013 U	< 0.011 U	< 0.012 U	< 0.013 U	< 0.013 U	< 0.011 U	< 0.014 U	5,300
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NC
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NC
OTHER COMPONENTS	< 1.3 U	< 1.1 U	< 1.2 U	< 1.3 U	< 1.3 U	< 1.1 U	< 1.4 U	NC
TPH - MOTOR OIL	< 13 U	51	< 12 U	< 13 U	< 13 U	24 J	< 14 U	NC
TPH - NAVY SPECIAL FUEL OIL	< 13 U	< 11 U	< 12 U	< 13 U	< 13 U	< 11 U	< 14 U	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NC
OTHER COMPONENTS	< 0.006 U	< 0.005 U	< 0.006 U	< 0.006 U	< 0.006 U	< 0.005 U	< 0.007 U	NC
Semivolatile Organic Compounds (mg/kg)								
2-METHYLNAPHTHALENE	< 0.43 U	< 0.36 U	< 0.4 U	< 0.43 U	< 0.42 U	< 0.36 U	< 0.46 U	NC
4-NITROPHENOL	< 1 U	< 0.88 U	< 0.98 U	< 1 U	< 1 U	< 0.87 U	< 1.1 U	NC
ACENAPHTHENE	< 0.43 U	< 0.36 U	< 0.4 U	< 0.43 U	< 0.42 U	< 0.36 U	< 0.46 U	3,700
ANTHRACENE	< 0.43 U	< 0.36 U	< 0.4 U	< 0.43 U	< 0.42 U	< 0.36 U	< 0.46 U	22,000
BENZO(A)ANTHRACENE	< 0.43 U	< 0.36 U	< 0.4 U	< 0.43 U	< 0.42 U	< 0.36 U	< 0.46 U	0.62
BENZO(A)PYRENE	< 0.43 U	< 0.36 U	< 0.4 U	< 0.43 U	< 0.42 U	< 0.36 U	< 0.46 U	0.062
BENZO(B)FLUORANTHENE	< 0.43 U	< 0.36 U	< 0.4 U	< 0.43 U	< 0.42 U	< 0.36 U	< 0.46 U	0.62
BENZO(K)FLUORANTHENE	< 0.43 U	< 0.36 U	< 0.4 U	< 0.43 U	< 0.42 U	< 0.36 U	< 0.46 U	0.38 *
CARBAZOLE	< 0.43 U	< 0.36 U	< 0.4 U	< 0.43 U	< 0.42 U	< 0.36 U	< 0.46 U	24
CHRYSENE	< 0.43 U	< 0.36 U	< 0.4 U	< 0.43 U	< 0.42 U	< 0.36 U	< 0.46 U	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.43 U	< 0.36 U	< 0.4 U	< 0.43 U	< 0.42 U	< 0.36 U	< 0.46 U	0.062
DIBENZOFURAN	< 0.43 U	< 0.36 U	< 0.4 U	< 0.43 U	< 0.42 U	< 0.36 U	< 0.46 U	150
FLUORANTHENE	< 0.43 U	< 0.36 U	< 0.4 U	< 0.43 U	< 0.42 U	< 0.36 U	< 0.46 U	2,300
FLUORENE	< 0.43 U	< 0.36 U	< 0.4 U	< 0.43 U	< 0.42 U	< 0.36 U	< 0.46 U	2,700
INDENO(1,2,3-CD)PYRENE	< 0.43 U	< 0.36 U	< 0.4 U	< 0.43 U	< 0.42 U	< 0.36 U	< 0.46 U	0.62
NAPHTHALENE	< 0.43 U	< 0.36 U	< 0.4 U	< 0.43 U	< 0.42 U	< 0.36 U	< 0.46 U	1.7 *
PENTACHLOROPHENOL	< 1 U	< 0.88 U	< 0.98 U	< 1 U	< 1 U	< 0.87 U	< 1.1 U	3.0
PHENANTHRENE	< 0.43 U	< 0.36 U	< 0.4 U	< 0.43 U	< 0.42 U	< 0.36 U	< 0.46 U	NC

TABLE 6-2: ANALYTICAL RESULTS FOR IRP SITE 08 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S8-B08	S8-B09	S8-B09	S8-B09	S8-B09	S8-B10	S8-B10	EPA Residential Soil PRGs
Sample ID	234-S08-026	234-S08-027	234-S08-028	234-S08-148	234-S08-029	234-S08-030	234-S08-031	
Sample Date	07/09/1993	07/09/1993	07/09/1993	07/09/1993	07/09/1993	07/09/1993	07/09/1993	
Sample Depth	8.00 - 8.00	0.50 - 0.50	5.00 - 5.00	6.50 - 6.50	8.00 - 8.00	0.50 - 0.50	5.00 - 5.00	
Semivolatile Organic Compounds (mg/kg)								
PYRENE	< 0.43 U	< 0.36 U	< 0.4 U	< 0.43 U	< 0.42 U	< 0.36 U	< 0.46 U	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.0043 UJ	< 0.0036 U	< 0.004 U	< 0.0043 U	< 0.0042 U	< 0.0036 UJ	< 0.0046 UJ	2.4
4,4'-DDE	< 0.0043 UJ	< 0.0036 U	< 0.004 U	< 0.0043 U	< 0.0042 U	< 0.0036 UJ	< 0.0046 UJ	1.7
4,4'-DDT	< 0.0043 UJ	< 0.0036 U	< 0.004 U	< 0.0043 U	< 0.0042 U	< 0.0036 UJ	< 0.0046 UJ	1.7
ALPHA-CHLORDANE	< 0.0022 UJ	< 0.0019 U	< 0.0021 U	< 0.0022 U	< 0.0022 U	< 0.0018 UJ	< 0.0024 UJ	1.6
AROCLOR-1260	< 0.043 UJ	< 0.036 U	< 0.04 U	< 0.043 U	< 0.042 U	< 0.036 UJ	< 0.046 UJ	0.22
DIELDRIN	< 0.0043 UJ	< 0.0036 U	< 0.004 U	< 0.0043 U	< 0.0042 U	< 0.0036 UJ	< 0.0046 UJ	0.030
ENDOSULFAN II	< 0.0043 UJ	< 0.0036 U	< 0.004 U	< 0.0043 U	< 0.0042 U	< 0.0036 UJ	< 0.0046 UJ	NC
ENDRIN	< 0.0043 UJ	< 0.0036 U	< 0.004 U	< 0.0043 U	< 0.0042 U	< 0.0036 UJ	< 0.0046 UJ	18
ENDRIN ALDEHYDE	< 0.0043 UJ	< 0.0036 U	< 0.004 U	< 0.0043 U	< 0.0042 U	< 0.0036 UJ	< 0.0046 UJ	NC
GAMMA-CHLORDANE	< 0.0022 UJ	< 0.0019 U	< 0.0021 U	< 0.0022 U	< 0.0022 U	< 0.0018 UJ	< 0.0024 UJ	1.6
Metals (mg/kg)								
ALUMINUM	13,100	11,200	8,740	13,600	7,390	9,680	16,600	76,000
ARSENIC	**1**	**2.6**	**2.8**	**2.8**	**0.64 J**	**2**	**6.8**	0.39
BARIUM	130	83.3	113	113	73.6	55.3	157	5,400
BERYLLIUM	0.55	0.46	0.45	0.78	0.34	0.23	0.7	150
CADMIUM	2.3	1.1	1.6	< 1 U	< 1 U	1.8 J	3.4	37 *
CALCIUM	15,300	12,100	20,100	5,500	7,500	10,000	29,600	NC
CHROMIUM	24.3	18.1	15.6	26	13.3	12.4	29.5	210
COBALT	6.6	5.5	2.8 J	5.6	1.8 J	7.3	9.4	900
COPPER	18.8	14.8	12.4	17.8	6.5	13.3	27.7	3,100
IRON	22,400	19,400	16,300	22,300	12,700	19,000	**29,700**	23,000
LEAD	6 J	18 J	5.1 J	8.2 J	5.1 J	4.4 J	8.9 J	150 *
MAGNESIUM	8,280	6,910	5,760	8,430	3,560	7,020	12,800	NC
MANGANESE	275	286 J	273 J	222 J	140 J	292	610	1,800
MERCURY	< 0.13 U	< 0.11 U	< 0.12 U	< 0.13 U	< 0.13 U	< 0.11 U	< 0.14 U	23
NICKEL	21.8	16.6	15.7	20.5	10.1	12 J	32.1	1,600
POTASSIUM	4,430	2,670	2,820	4,400	2,220	2,060	5,080	NC
SELENIUM	< 0.78 U	< 0.66 UJ	< 0.74 UJ	1.9 J	2.2 J	< 0.65 UJ	< 0.84 U	390
SILVER	< 1.2 U	< 0.44 U	< 0.49 U	< 0.52 U	< 0.51 U	< 0.53 UJ	< 0.72 U	390
SODIUM	1,170	1,160	1,060	1,240	750	2,390	3,190	NC

TABLE 6-2: ANALYTICAL RESULTS FOR IRP SITE 08 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S8-B08	S8-B09	S8-B09	S8-B09	S8-B09	S8-B10	S8-B10	EPA Residential Soil PRGs
Sample ID	234-S08-026	234-S08-027	234-S08-028	234-S08-148	234-S08-029	234-S08-030	234-S08-031	
Sample Date	07/09/1993	07/09/1993	07/09/1993	07/09/1993	07/09/1993	07/09/1993	07/09/1993	
Sample Depth	8.00 - 8.00	0.50 - 0.50	5.00 - 5.00	6.50 - 6.50	8.00 - 8.00	0.50 - 0.50	5.00 - 5.00	
Metals (mg/kg)								
THALLIUM	< 0.78 UJ	< 0.66 U	< 0.74 U	< 0.78 U	< 0.76 U	< 0.65 UJ	< 0.84 UJ	5.2
VANADIUM	42.2	36.9	31.6	44.4	28.4	28.3	52.2	550
ZINC	61.5 J	46.7 J	40.6 J	65.5 J	27.5 J	39.3 J	82 J	23,000

TABLE 6-2: ANALYTICAL RESULTS FOR IRP SITE 08 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S8-B10	S8-B11	S8-B11	S8-B11	S8-B11	S8-B12	S8-B12	EPA Residential Soil PRGs
Sample ID	234-S08-032	234-S08-033	234-S08-034	234-S08-035	234-S08-036	234-S08-037	234-S08-039	
Sample Date	07/09/1993	07/09/1993	07/09/1993	07/09/1993	07/09/1993	07/11/1993	07/11/1993	
Sample Depth	8.00 - 8.00	0.50 - 0.50	5.00 - 5.00	6.50 - 6.50	8.00 - 8.00	0.50 - 0.50	2.00 - 2.00	
Volatile Organic Compounds (mg/kg)								
2-BUTANONE	< 0.014 U	< 0.01 U	< 0.013 U	< 0.014 U	< 0.013 U	< 0.011 U	NA	22,000
2-HEXANONE	< 0.014 U	< 0.01 U	< 0.013 U	< 0.014 U	< 0.013 U	< 0.011 U	NA	NC
4-METHYL-2-PENTANONE	< 0.014 U	< 0.01 U	< 0.013 U	< 0.014 U	< 0.013 U	< 0.011 U	NA	5,300
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	< 11 U	< 12 U	NC
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	280	< 36 U	NC
OTHER COMPONENTS	< 1.4 U	120 J	< 1.3 U	< 1.4 U	< 1.3 U	NA	NA	NC
TPH - MOTOR OIL	< 14 U	< 10 U	< 13 U	< 14 U	< 13 U	NA	NA	NC
TPH - NAVY SPECIAL FUEL OIL	< 14 U	< 10 U	< 13 U	< 14 U	< 13 U	< 11 U	< 12 U	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	< 1.1 U	< 1.2 U	NC
OTHER COMPONENTS	< 0.007 U	< 0.005 U	< 0.006 U	< 0.007 U	< 0.007 U	NA	NA	NC
Semivolatile Organic Compounds (mg/kg)								
2-METHYLNAPHTHALENE	< 0.46 U	< 0.34 U	< 0.42 U	< 0.45 U	< 0.44 U	< 0.37 U	NA	NC
4-NITROPHENOL	< 1.1 U	< 0.83 U	< 1 U	< 1.1 U	< 1.1 U	< 0.89 U	NA	NC
ACENAPHTHENE	< 0.46 U	< 0.34 U	< 0.42 U	< 0.45 U	< 0.44 U	< 0.37 U	NA	3,700
ANTHRACENE	< 0.46 U	< 0.34 U	< 0.42 U	< 0.45 U	< 0.44 U	< 0.37 U	NA	22,000
BENZO(A)ANTHRACENE	< 0.46 U	< 0.34 U	< 0.42 U	< 0.45 U	< 0.44 U	< 0.37 U	NA	0.62
BENZO(A)PYRENE	< 0.46 U	< 0.34 U	< 0.42 U	< 0.45 U	< 0.44 U	< 0.37 U	NA	0.062
BENZO(B)FLUORANTHENE	< 0.46 U	< 0.34 U	< 0.42 U	< 0.45 U	< 0.44 U	< 0.37 U	NA	0.62
BENZO(K)FLUORANTHENE	< 0.46 U	< 0.34 U	< 0.42 U	< 0.45 U	< 0.44 U	< 0.37 U	NA	0.38 *
CARBAZOLE	< 0.46 U	< 0.34 U	< 0.42 U	< 0.45 U	< 0.44 U	< 0.37 U	NA	24
CHRYSENE	< 0.46 U	< 0.34 U	< 0.42 U	< 0.45 U	< 0.44 U	< 0.37 U	NA	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.46 U	< 0.34 U	< 0.42 U	< 0.45 U	< 0.44 U	< 0.37 U	NA	0.062
DIBENZOFURAN	< 0.46 U	< 0.34 U	< 0.42 U	< 0.45 U	< 0.44 U	< 0.37 U	NA	150
FLUORANTHENE	< 0.46 U	< 0.34 U	< 0.42 U	< 0.45 U	< 0.44 U	< 0.37 U	NA	2,300
FLUORENE	< 0.46 U	< 0.34 U	< 0.42 U	< 0.45 U	< 0.44 U	< 0.37 U	NA	2,700
INDENO(1,2,3-CD)PYRENE	< 0.46 U	< 0.34 U	< 0.42 U	< 0.45 U	< 0.44 U	< 0.37 U	NA	0.62
NAPHTHALENE	< 0.46 U	< 0.34 U	< 0.42 U	< 0.45 U	< 0.44 U	< 0.37 U	NA	1.7 *
PENTACHLOROPHENOL	< 1.1 U	< 0.83 U	< 1 U	< 1.1 U	< 1.1 U	< 0.89 U	NA	3.0
PHENANTHRENE	< 0.46 U	< 0.34 U	< 0.42 U	< 0.45 U	< 0.44 U	< 0.37 U	NA	NC

TABLE 6-2: ANALYTICAL RESULTS FOR IRP SITE 08 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S8-B10	S8-B11	S8-B11	S8-B11	S8-B11	S8-B12	S8-B12	EPA Residential Soil PRGs
Sample ID	234-S08-032	234-S08-033	234-S08-034	234-S08-035	234-S08-036	234-S08-037	234-S08-039	
Sample Date	07/09/1993	07/09/1993	07/09/1993	07/09/1993	07/09/1993	07/11/1993	07/11/1993	
Sample Depth	8.00 - 8.00	0.50 - 0.50	5.00 - 5.00	6.50 - 6.50	8.00 - 8.00	0.50 - 0.50	2.00 - 2.00	
Semivolatile Organic Compounds (mg/kg)								
PYRENE	< 0.46 U	< 0.34 U	< 0.42 U	< 0.45 U	< 0.44 U	< 0.37 U	NA	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.0046 U	< 0.0034 U	< 0.0042 UJ	< 0.0045 UJ	< 0.0044 U	< 0.0037 U	NA	2.4
4,4'-DDE	< 0.0046 U	< 0.0034 U	< 0.0042 UJ	< 0.0045 UJ	< 0.0044 U	< 0.0037 U	NA	1.7
4,4'-DDT	< 0.0046 U	< 0.0034 U	< 0.0042 UJ	< 0.0045 UJ	< 0.0044 U	0.0047 J	NA	1.7
ALPHA-CHLORDANE	< 0.0024 U	< 0.0018 U	< 0.0022 UJ	< 0.0023 UJ	< 0.0023 U	< 0.0019 U	NA	1.6
AROCLOR-1260	< 0.046 U	< 0.034 U	< 0.042 UJ	< 0.045 UJ	< 0.044 U	< 0.037 U	NA	0.22
DIELDRIN	< 0.0046 U	< 0.0034 U	< 0.0042 UJ	< 0.0045 UJ	< 0.0044 U	< 0.0037 U	NA	0.030
ENDOSULFAN II	< 0.0046 U	< 0.0034 U	< 0.0042 UJ	< 0.0045 UJ	< 0.0044 U	< 0.0037 U	NA	NC
ENDRIN	< 0.0046 U	< 0.0034 U	< 0.0042 UJ	< 0.0045 UJ	< 0.0044 U	< 0.0037 U	NA	18
ENDRIN ALDEHYDE	< 0.0046 U	< 0.0034 U	< 0.0042 UJ	< 0.0045 UJ	< 0.0044 U	< 0.0037 U	NA	NC
GAMMA-CHLORDANE	< 0.0024 U	< 0.0018 U	< 0.0022 UJ	< 0.0023 UJ	< 0.0023 U	< 0.0019 U	NA	1.6
Metals (mg/kg)								
ALUMINUM	15,600	10,900	13,900	21,600	14,900	29,900	NA	76,000
ARSENIC	**3.2**	**1.9**	**3.4**	**5.1**	**4.6**	**0.52 J**	NA	0.39
BARIUM	140	131	117	164	139	< 21.9 U	NA	5,400
BERYLLIUM	0.63	< 0.21 U	0.45	0.8	0.58	1.4	NA	150
CADMIUM	2.9	1.2	3	3.4	3	< 0.87 U	NA	37 *
CALCIUM	13,900	15,900	22,200	80,100	13,500	21,200	NA	NC
CHROMIUM	29.7	12.9	23.7	37	28.3	23.8	NA	210
COBALT	7.2	9.2	7.1	9.5	6.7	22.6	NA	900
COPPER	21.2	19.6	18.7	30.7	23.2	27.4	NA	3,100
IRON	**27,200**	**24,600**	**23,700**	**30,600**	**26,900**	**39,700**	NA	23,000
LEAD	8.8 J	10.1 J	5.9 J	8.7 J	7.7 J	6.3	NA	150 *
MAGNESIUM	10,300	8,250	11,000	15,000	9,070	11,400	NA	NC
MANGANESE	372	384	460	**1,970**	252	648 J	NA	1,800
MERCURY	< 0.14 U	< 0.1 U	< 0.13 U	< 0.14 U	< 0.13 U	< 0.17 U	NA	23
NICKEL	25.3	14.7	21.9	37.7	28.3	21	NA	1,600
POTASSIUM	5,040	1,690	3,950	5,740	4,720	749	NA	NC
SELENIUM	0.96	0.72	< 0.77 U	< 8.2 U	1.4	< 0.43 U	NA	390
SILVER	< 0.56 U	< 0.42 U	< 0.51 U	< 0.54 U	< 0.53 U	< 1.1 U	NA	390
SODIUM	1,050	582	624	942	625	810 J	NA	NC

TABLE 6-2: ANALYTICAL RESULTS FOR IRP SITE 08 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S8-B10	S8-B11	S8-B11	S8-B11	S8-B11	S8-B12	S8-B12	EPA Residential Soil PRGs
Sample ID	234-S08-032	234-S08-033	234-S08-034	234-S08-035	234-S08-036	234-S08-037	234-S08-039	
Sample Date	07/09/1993	07/09/1993	07/09/1993	07/09/1993	07/09/1993	07/11/1993	07/11/1993	
Sample Depth	8.00 - 8.00	0.50 - 0.50	5.00 - 5.00	6.50 - 6.50	8.00 - 8.00	0.50 - 0.50	2.00 - 2.00	
Metals (mg/kg)								
THALLIUM	< 0.83 UJ	< 0.63 UJ	< 0.77 UJ	< 0.82 UJ	< 0.8 UJ	< 0.43 U	NA	5.2
VANADIUM	52.4	40.3	45	65.6	49.8	57.5	NA	550
ZINC	72.3 J	59.6 J	61.2 J	88 J	73.4 J	147	NA	23,000

TABLE 6-2: ANALYTICAL RESULTS FOR IRP SITE 08 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S8-B12	S8-B12	S8-B13	S8-B13	S8-B13	S8-B13	S8-B14	EPA Residential Soil PRGs
Sample ID	234-S08-040	234-S08-041	234-S08-042	234-S08-043	234-S08-044	234-S08-045	234-S08-046	
Sample Date	07/11/1993	07/11/1993	07/09/1993	07/09/1993	07/09/1993	07/09/1993	07/09/1993	
Sample Depth	3.50 - 3.50	5.00 - 5.00	0.50 - 0.50	2.50 - 2.50	5.00 - 5.00	6.50 - 6.50	0.50 - 0.50	
Volatile Organic Compounds (mg/kg)								
2-BUTANONE	< 0.013 U	< 0.013 U	< 0.011 U	NA	< 0.013 U	< 0.013 U	< 0.011 U	22,000
2-HEXANONE	< 0.013 U	< 0.013 U	< 0.011 U	NA	0.021 J	< 0.013 U	< 0.011 U	NC
4-METHYL-2-PENTANONE	< 0.013 U	< 0.013 U	< 0.011 U	NA	0.007 J	< 0.013 U	< 0.011 U	5,300
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	< 13 U	< 13 U	NA	NA	NA	NA	NA	NC
MOTOR OIL RANGE ORGANICS	< 39 U	< 39 U	NA	NA	NA	NA	NA	NC
OTHER COMPONENTS	NA	NA	< 1.1 U	< 1.2 U	< 1.3 U	< 1.3 U	< 4.3 U	NC
TPH - MOTOR OIL	NA	NA	24 J	< 12 U	< 13 U	< 13 U	590	NC
TPH - NAVY SPECIAL FUEL OIL	< 13 U	< 13 U	< 11 U	< 12 U	< 13 U	< 13 U	< 43 U	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	< 1.3 U	< 1.3 U	NA	NA	NA	NA	NA	NC
OTHER COMPONENTS	NA	NA	< 0.006 U	< 0.006 U	< 0.007 U	< 0.006 U	< 0.005 U	NC
Semivolatile Organic Compounds (mg/kg)								
2-METHYLNAPHTHALENE	< 0.43 U	< 0.43 U	< 0.37 U	NA	< 0.44 U	< 0.42 U	< 0.35 U	NC
4-NITROPHENOL	< 1.1 U	< 1.1 U	< 0.9 U	NA	< 1.1 U	< 1 U	< 0.86 U	NC
ACENAPHTHENE	< 0.43 U	< 0.43 U	< 0.37 U	NA	< 0.44 U	< 0.42 U	< 0.35 U	3,700
ANTHRACENE	< 0.43 U	< 0.43 U	< 0.37 U	NA	< 0.44 U	< 0.42 U	< 0.35 U	22,000
BENZO(A)ANTHRACENE	< 0.43 U	< 0.43 U	< 0.37 U	NA	< 0.44 U	< 0.42 U	< 0.35 U	0.62
BENZO(A)PYRENE	< 0.43 U	< 0.43 U	< 0.37 U	NA	< 0.44 U	< 0.42 U	< 0.35 U	0.062
BENZO(B)FLUORANTHENE	< 0.43 U	< 0.43 U	< 0.37 U	NA	< 0.44 U	< 0.42 U	< 0.35 U	0.62
BENZO(K)FLUORANTHENE	< 0.43 U	< 0.43 U	< 0.37 U	NA	< 0.44 U	< 0.42 U	< 0.35 U	0.38 *
CARBAZOLE	< 0.43 U	< 0.43 U	< 0.37 U	NA	< 0.44 U	< 0.42 U	< 0.35 U	24
CHRYSENE	< 0.43 U	< 0.43 U	< 0.37 U	NA	< 0.44 U	< 0.42 U	< 0.35 U	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.43 U	< 0.43 U	< 0.37 U	NA	< 0.44 U	< 0.42 U	< 0.35 U	0.062
DIBENZOFURAN	< 0.43 U	< 0.43 U	< 0.37 U	NA	< 0.44 U	< 0.42 U	< 0.35 U	150
FLUORANTHENE	< 0.43 U	< 0.43 U	< 0.37 U	NA	< 0.44 U	< 0.42 U	< 0.35 U	2,300
FLUORENE	< 0.43 U	< 0.43 U	< 0.37 U	NA	< 0.44 U	< 0.42 U	< 0.35 U	2,700
INDENO(1,2,3-CD)PYRENE	< 0.43 U	< 0.43 U	< 0.37 U	NA	< 0.44 U	< 0.42 U	< 0.35 U	0.62
NAPHTHALENE	< 0.43 U	< 0.43 U	< 0.37 U	NA	< 0.44 U	< 0.42 U	< 0.35 U	1.7 *
PENTACHLOROPHENOL	0.024 J	< 1.1 U	< 0.9 U	NA	< 1.1 U	< 1 U	< 0.86 U	3.0
PHENANTHRENE	< 0.43 U	< 0.43 U	< 0.37 U	NA	< 0.44 U	< 0.42 U	< 0.35 U	NC

TABLE 6-2: ANALYTICAL RESULTS FOR IRP SITE 08 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S8-B12	S8-B12	S8-B13	S8-B13	S8-B13	S8-B13	S8-B14	EPA Residential Soil PRGs
Sample ID	234-S08-040	234-S08-041	234-S08-042	234-S08-043	234-S08-044	234-S08-045	234-S08-046	
Sample Date	07/11/1993	07/11/1993	07/09/1993	07/09/1993	07/09/1993	07/09/1993	07/09/1993	
Sample Depth	3.50 - 3.50	5.00 - 5.00	0.50 - 0.50	2.50 - 2.50	5.00 - 5.00	6.50 - 6.50	0.50 - 0.50	
Semivolatile Organic Compounds (mg/kg)								
PYRENE	< 0.43 U	< 0.43 U	< 0.37 U	NA	< 0.44 U	< 0.42 U	< 0.35 U	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.0043 U	< 0.0043 U	< 0.0037 U	NA	< 0.0044 U	< 0.0042 U	< 0.018 U	2.4
4,4'-DDE	< 0.0043 U	< 0.0043 U	< 0.0037 U	NA	< 0.0044 U	< 0.0042 U	< 0.018 U	1.7
4,4'-DDT	< 0.0043 U	< 0.0043 U	< 0.0037 U	NA	< 0.0044 U	< 0.0042 U	< 0.018 U	1.7
ALPHA-CHLORDANE	< 0.0022 U	< 0.0022 U	< 0.0019 U	NA	< 0.0023 U	< 0.0022 U	0.057	1.6
AROCLOR-1260	< 0.043 U	< 0.043 U	< 0.037 U	NA	< 0.044 U	< 0.042 U	**0.31**	0.22
DIELDRIN	< 0.0043 U	< 0.0043 U	< 0.0037 U	NA	< 0.0044 U	< 0.0042 U	0.022	0.030
ENDOSULFAN II	< 0.0043 U	< 0.0043 U	< 0.0037 U	NA	< 0.0044 U	< 0.0042 U	< 0.018 U	NC
ENDRIN	< 0.0043 U	< 0.0043 U	< 0.0037 U	NA	< 0.0044 U	< 0.0042 U	< 0.018 U	18
ENDRIN ALDEHYDE	< 0.0043 U	< 0.0043 U	< 0.0037 U	NA	< 0.0044 U	< 0.0042 U	< 0.018 U	NC
GAMMA-CHLORDANE	< 0.0022 U	< 0.0022 U	< 0.0019 U	NA	< 0.0023 U	< 0.0022 U	0.069	1.6
Metals (mg/kg)								
ALUMINUM	19,200	10,600	30,100	NA	11,500	8,610	15,400	76,000
ARSENIC	**4.9**	< 3.7 U	**0.84 J**	NA	**3.9**	**1.1 J**	**2.1 J**	0.39
BARIUM	150	115	9.4	NA	108	109	61.8	5,400
BERYLLIUM	1.5	0.99	0.23	NA	0.51	0.45	0.26	150
CADMIUM	< 1 U	< 1 U	< 3 U	NA	1.8	< 1 U	< 2.1 U	37 *
CALCIUM	13,500	27,600	25,700	NA	48,900	28,800	14,300	NC
CHROMIUM	29.6	17.9	26	NA	18.9	14.4	20.4	210
COBALT	12.3	9.6	29.6	NA	4.8	3.1	11.2	900
COPPER	23.8	< 16.9 U	50.6	NA	16.6	11.6	23.2	3,100
IRON	**28,800**	19,000	**78,900**	NA	18,600	16,900	**28,000**	23,000
LEAD	10.1	6.6	3.4 J	NA	7.7 J	5.3 J	54.3 J	150 *
MAGNESIUM	11,400	8,450	20,700	NA	10,000	6,250	8,570	NC
MANGANESE	460 J	309 J	1,020 J	NA	404 J	299 J	431 J	1,800
MERCURY	< 0.21 U	< 0.2 U	< 0.11 U	NA	< 0.13 U	< 0.13 U	0.11	23
NICKEL	28	16.5	31.5	NA	17.2	13.4	16.5	1,600
POTASSIUM	4,710	3,360	776	NA	3,720	3,170	1,520	NC
SELENIUM	0.61	0.69	< 0.67 UJ	NA	< 0.8 UJ	< 0.77 UJ	0.83 J	390
SILVER	< 1.3 U	< 1.3 U	< 0.45 U	NA	< 0.53 U	< 0.52 U	< 0.43 U	390
SODIUM	< 511 UJ	< 512 UJ	3,280	NA	507	460	1,360	NC

TABLE 6-2: ANALYTICAL RESULTS FOR IRP SITE 08 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S8-B12	S8-B12	S8-B13	S8-B13	S8-B13	S8-B13	S8-B14	EPA Residential Soil PRGs
Sample ID	234-S08-040	234-S08-041	234-S08-042	234-S08-043	234-S08-044	234-S08-045	234-S08-046	
Sample Date	07/11/1993	07/11/1993	07/09/1993	07/09/1993	07/09/1993	07/09/1993	07/09/1993	
Sample Depth	3.50 - 3.50	5.00 - 5.00	0.50 - 0.50	2.50 - 2.50	5.00 - 5.00	6.50 - 6.50	0.50 - 0.50	
Metals (mg/kg)								
THALLIUM	< 0.51 U	< 0.51 U	< 0.67 U	NA	< 0.8 U	< 0.77 U	< 0.65 U	5.2
VANADIUM	59	38	96.3	NA	37.5	30.9	40.7	550
ZINC	83.3	59.3	92 J	NA	51.7 J	42.2 J	67.8 J	23,000

TABLE 6-2: ANALYTICAL RESULTS FOR IRP SITE 08 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S8-B14	S8-B14	S8-B14	S8-B15	S8-B15	S8-B16	S8-B16	EPA Residential Soil PRGs
Sample ID	234-S08-047	234-S08-048	234-S08-049	234COMP051-05	234-S08-053	234COMP054-05	234-S08-056	
Sample Date	07/09/1993	07/09/1993	07/09/1993	07/11/1993	07/11/1993	07/12/1993	07/12/1993	
Sample Depth	2.50 - 2.50	5.00 - 5.00	6.50 - 6.50		6.50 - 6.50		6.50 - 6.50	
Volatile Organic Compounds (mg/kg)								
2-BUTANONE	NA	< 0.014 U	< 0.013 U	NA	< 0.012 U	NA	< 0.013 U	22,000
2-HEXANONE	NA	< 0.014 U	< 0.013 U	NA	< 0.012 U	NA	< 0.013 U	NC
4-METHYL-2-PENTANONE	NA	< 0.014 U	< 0.013 U	NA	< 0.012 U	NA	< 0.013 U	5,300
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	NA	NA	< 12 U	NA	< 12 U	NA	NC
MOTOR OIL RANGE ORGANICS	NA	NA	NA	< 35 U	NA	< 36 U	NA	NC
OTHER COMPONENTS	600 J	< 1.4 U	< 1.3 U	NA	NA	NA	NA	NC
TPH - MOTOR OIL	920	< 14 U	< 13 U	NA	NA	NA	NA	NC
TPH - NAVY SPECIAL FUEL OIL	< 60 U	< 14 U	< 13 U	< 12 U	NA	< 12 U	NA	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	NA	NA	< 1.2 U	NA	< 1.2 U	NA	NC
OTHER COMPONENTS	< 0.006 U	< 0.007 U	< 0.006 U	NA	NA	NA	NA	NC
Semivolatile Organic Compounds (mg/kg)								
2-METHYLNAPHTHALENE	NA	< 0.45 U	< 0.42 U	< 0.38 U	NA	< 0.4 U	NA	NC
4-NITROPHENOL	NA	< 1.1 U	< 1 U	0.93 R	NA	< 0.96 U	NA	NC
ACENAPHTHENE	NA	< 0.45 U	< 0.42 U	< 0.38 U	NA	< 0.4 U	NA	3,700
ANTHRACENE	NA	< 0.45 U	< 0.42 U	< 0.38 U	NA	< 0.4 U	NA	22,000
BENZO(A)ANTHRACENE	NA	< 0.45 U	< 0.42 U	< 0.38 U	NA	< 0.4 U	NA	0.62
BENZO(A)PYRENE	NA	< 0.45 U	< 0.42 U	< 0.38 U	NA	< 0.4 U	NA	0.062
BENZO(B)FLUORANTHENE	NA	< 0.45 U	< 0.42 U	< 0.38 U	NA	< 0.4 U	NA	0.62
BENZO(K)FLUORANTHENE	NA	< 0.45 U	< 0.42 U	< 0.38 U	NA	< 0.4 U	NA	0.38 *
CARBAZOLE	NA	< 0.45 U	< 0.42 U	< 0.38 U	NA	< 0.4 U	NA	24
CHRYSENE	NA	< 0.45 U	< 0.42 U	< 0.38 U	NA	< 0.4 U	NA	3.8 *
DIBENZ(A,H)ANTHRACENE	NA	< 0.45 U	< 0.42 U	< 0.38 U	NA	< 0.4 U	NA	0.062
DIBENZOFURAN	NA	< 0.45 U	< 0.42 U	< 0.38 U	NA	< 0.4 U	NA	150
FLUORANTHENE	NA	< 0.45 U	< 0.42 U	< 0.38 U	NA	< 0.4 U	NA	2,300
FLUORENE	NA	< 0.45 U	< 0.42 U	< 0.38 U	NA	< 0.4 U	NA	2,700
INDENO(1,2,3-CD)PYRENE	NA	< 0.45 U	< 0.42 U	< 0.38 U	NA	< 0.4 U	NA	0.62
NAPHTHALENE	NA	< 0.45 U	< 0.42 U	< 0.38 U	NA	< 0.4 U	NA	1.7 *
PENTACHLOROPHENOL	NA	< 1.1 U	< 1 U	< 0.93 U	NA	< 0.96 U	NA	3.0
PHENANTHRENE	NA	< 0.45 U	< 0.42 U	< 0.38 U	NA	< 0.4 U	NA	NC

TABLE 6-2: ANALYTICAL RESULTS FOR IRP SITE 08 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S8-B14	S8-B14	S8-B14	S8-B15	S8-B15	S8-B16	S8-B16	EPA Residential Soil PRGs
Sample ID	234-S08-047	234-S08-048	234-S08-049	234COMP051-05	234-S08-053	234COMP054-05	234-S08-056	
Sample Date	07/09/1993	07/09/1993	07/09/1993	07/11/1993	07/11/1993	07/12/1993	07/12/1993	
Sample Depth	2.50 - 2.50	5.00 - 5.00	6.50 - 6.50		6.50 - 6.50		6.50 - 6.50	
Semivolatile Organic Compounds (mg/kg)								
PYRENE	NA	< 0.45 U	< 0.42 U	< 0.38 U	NA	< 0.4 U	NA	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	NA	< 0.0045 U	< 0.0042 U	< 0.0038 U	NA	< 0.004 U	NA	2.4
4,4'-DDE	NA	< 0.0045 U	< 0.0042 U	< 0.0038 U	NA	0.0041	NA	1.7
4,4'-DDT	NA	< 0.0045 U	< 0.0042 U	< 0.0038 U	NA	0.006 J	NA	1.7
ALPHA-CHLORDANE	NA	< 0.0023 U	< 0.0022 U	< 0.002 U	NA	< 0.012 U	NA	1.6
AROCLOR-1260	NA	< 0.045 U	< 0.042 U	< 0.038 U	NA	0.18	NA	0.22
DIELDRIN	NA	< 0.0045 U	< 0.0042 U	< 0.0038 U	NA	< 0.004 U	NA	0.030
ENDOSULFAN II	NA	< 0.0045 U	< 0.0042 U	< 0.0038 U	NA	< 0.004 U	NA	NC
ENDRIN	NA	< 0.0045 U	< 0.0042 U	< 0.0038 U	NA	< 0.004 U	NA	18
ENDRIN ALDEHYDE	NA	< 0.0045 U	< 0.0042 U	< 0.0038 U	NA	< 0.004 U	NA	NC
GAMMA-CHLORDANE	NA	< 0.0023 U	< 0.0022 U	< 0.002 U	NA	0.0066 J	NA	1.6
Metals (mg/kg)								
ALUMINUM	NA	19,500	7,950	11,800	NA	8,090	NA	76,000
ARSENIC	NA	**6.4**	**2 J**	**1.6 J**	NA	**3.7**	NA	0.39
BARIUM	NA	155	102	58.5	NA	84.1	NA	5,400
BERYLLIUM	NA	0.83	0.27	0.7 J	NA	0.53	NA	150
CADMIUM	NA	< 2.1 U	< 2 U	< 0.92 U	NA	< 0.95 U	NA	37 *
CALCIUM	NA	15,600	27,000	9,330	NA	10,400	NA	NC
CHROMIUM	NA	36.9	14.2	16.7	NA	16.1	NA	210
COBALT	NA	8.4	4.4	15.9	NA	< 7.2 U	NA	900
COPPER	NA	28	12.6	21	NA	< 11.3 U	NA	3,100
IRON	NA	**29,700**	14,800	**28,300**	NA	16,300	NA	23,000
LEAD	NA	12.4 J	6.7 J	3.8	NA	15.2	NA	150 *
MAGNESIUM	NA	11,900	7,350	9,480	NA	5,780	NA	NC
MANGANESE	NA	527 J	291 J	402 J	NA	371 J	NA	1,800
MERCURY	NA	0.14	< 0.13 U	< 0.18 U	NA	< 0.18 U	NA	23
NICKEL	NA	34.8	13.9	19.5	NA	16	NA	1,600
POTASSIUM	NA	5,400	2,250	2,000	NA	2,320	NA	NC
SELENIUM	NA	2 J	1.8 J	0.83 J	NA	0.53	NA	390
SILVER	NA	7.1	< 0.51 U	< 1.2 U	NA	< 1.2 U	NA	390
SODIUM	NA	504	329	2,410 J	NA	695 J	NA	NC

TABLE 6-2: ANALYTICAL RESULTS FOR IRP SITE 08 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S8-B14	S8-B14	S8-B14	S8-B15	S8-B15	S8-B16	S8-B16	EPA Residential Soil PRGs
Sample ID	234-S08-047	234-S08-048	234-S08-049	234COMP051-05	234-S08-053	234COMP054-05	234-S08-056	
Sample Date	07/09/1993	07/09/1993	07/09/1993	07/11/1993	07/11/1993	07/12/1993	07/12/1993	
Sample Depth	2.50 - 2.50	5.00 - 5.00	6.50 - 6.50		6.50 - 6.50		6.50 - 6.50	
Metals (mg/kg)								
THALLIUM	NA	< 0.82 U	< 0.76 U	0.78 J	NA	< 0.72 U	NA	5.2
VANADIUM	NA	62.5	26.1	58.1	NA	30.5	NA	550
ZINC	NA	90.6 J	40.6 J	60.2	NA	56.7	NA	23,000

TABLE 6-2: ANALYTICAL RESULTS FOR IRP SITE 08 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S8-B17	S8-B17	S8-B18	S8-B18	S8-B19	S8-B19	S8-B20	EPA Residential Soil PRGs
Sample ID	234COMP057-05	234-S08-059	234COMP060-06	234-S08-062	234COMP063-06	234-S08-065	234-S08-068	
Sample Date	07/11/1993	07/11/1993	07/12/1993	07/12/1993	07/11/1993	07/11/1993	07/12/1993	
Sample Depth		6.50 - 6.50		6.50 - 6.50		8.00 - 8.00	6.50 - 6.50	
Volatile Organic Compounds (mg/kg)								
2-BUTANONE	NA	< 0.015 U	NA	< 0.013 U	NA	< 0.016 U	< 0.013 U	22,000
2-HEXANONE	NA	< 0.015 U	NA	< 0.013 U	NA	< 0.016 U	< 0.013 U	NC
4-METHYL-2-PENTANONE	NA	< 0.015 U	NA	< 0.013 U	NA	< 0.016 U	< 0.013 U	5,300
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	< 13 U	NA	< 13 U	NA	< 14 U	NA	NA	NC
MOTOR OIL RANGE ORGANICS	61	NA	< 39 U	NA	< 40 U	NA	NA	NC
OTHER COMPONENTS	NA	NA	NA	NA	NA	NA	NA	NC
TPH - MOTOR OIL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - NAVY SPECIAL FUEL OIL	< 13 U	NA	< 13 U	NA	< 14 U	NA	NA	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	< 1.3 U	NA	< 1.2 U	NA	< 1.4 U	NA	NA	NC
OTHER COMPONENTS	NA	NA	NA	NA	NA	NA	NA	NC
Semivolatile Organic Compounds (mg/kg)								
2-METHYLNAPHTHALENE	< 0.42 U	NA	< 0.43 U	NA	< 0.45 U	NA	NA	NC
4-NITROPHENOL	0.049	NA	< 1.1 U	NA	< 1.1 U	NA	NA	NC
ACENAPHTHENE	0.022	NA	< 0.43 U	NA	< 0.45 U	NA	NA	3,700
ANTHRACENE	< 0.42 U	NA	< 0.43 U	NA	< 0.45 U	NA	NA	22,000
BENZO(A)ANTHRACENE	< 0.42 U	NA	< 0.43 U	NA	< 0.45 U	NA	NA	0.62
BENZO(A)PYRENE	< 0.42 U	NA	< 0.43 U	NA	< 0.45 U	NA	NA	0.062
BENZO(B)FLUORANTHENE	< 0.42 U	NA	< 0.43 U	NA	< 0.45 U	NA	NA	0.62
BENZO(K)FLUORANTHENE	< 0.42 U	NA	< 0.43 U	NA	< 0.45 U	NA	NA	0.38 *
CARBAZOLE	< 0.42 U	NA	< 0.43 U	NA	< 0.45 U	NA	NA	24
CHRYSENE	< 0.42 U	NA	< 0.43 U	NA	< 0.45 U	NA	NA	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.42 U	NA	< 0.43 U	NA	< 0.45 U	NA	NA	0.062
DIBENZOFURAN	< 0.42 U	NA	< 0.43 U	NA	< 0.45 U	NA	NA	150
FLUORANTHENE	< 0.42 U	NA	< 0.43 U	NA	< 0.45 U	NA	NA	2,300
FLUORENE	< 0.42 U	NA	< 0.43 U	NA	< 0.45 U	NA	NA	2,700
INDENO(1,2,3-CD)PYRENE	< 0.42 U	NA	< 0.43 U	NA	< 0.45 U	NA	NA	0.62
NAPHTHALENE	< 0.42 U	NA	< 0.43 U	NA	< 0.45 U	NA	NA	1.7 *
PENTACHLOROPHENOL	0.7	NA	0.022	NA	< 1.1 U	NA	NA	3.0
PHENANTHRENE	< 0.42 U	NA	< 0.43 U	NA	< 0.45 U	NA	NA	NC

TABLE 6-2: ANALYTICAL RESULTS FOR IRP SITE 08 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S8-B17	S8-B17	S8-B18	S8-B18	S8-B19	S8-B19	S8-B20	EPA Residential Soil PRGs
Sample ID	234COMP057-05	234-S08-059	234COMP060-06	234-S08-062	234COMP063-06	234-S08-065	234-S08-068	
Sample Date	07/11/1993	07/11/1993	07/12/1993	07/12/1993	07/11/1993	07/11/1993	07/12/1993	
Sample Depth		6.50 - 6.50		6.50 - 6.50		8.00 - 8.00	6.50 - 6.50	
Semivolatile Organic Compounds (mg/kg)								
PYRENE	0.045	NA	0.035	NA	< 0.45 U	NA	NA	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.0042 U	NA	< 0.0043 U	NA	< 0.0045 U	NA	NA	2.4
4,4'-DDE	< 0.0042 U	NA	< 0.0043 U	NA	< 0.0045 U	NA	NA	1.7
4,4'-DDT	0.002	NA	< 0.0043 U	NA	< 0.0045 U	NA	NA	1.7
ALPHA-CHLORDANE	< 0.0022 U	NA	< 0.0022 U	NA	< 0.0023 U	NA	NA	1.6
AROCLOR-1260	0.025	NA	< 0.043 U	NA	< 0.045 U	NA	NA	0.22
DIELDRIN	< 0.0042 U	NA	< 0.0043 U	NA	< 0.0045 U	NA	NA	0.030
ENDOSULFAN II	< 0.0042 U	NA	< 0.0043 U	NA	< 0.0045 U	NA	NA	NC
ENDRIN	< 0.0042 U	NA	< 0.0043 U	NA	< 0.0045 U	NA	NA	18
ENDRIN ALDEHYDE	< 0.0042 U	NA	< 0.0043 U	NA	< 0.0045 U	NA	NA	NC
GAMMA-CHLORDANE	< 0.0022 U	NA	< 0.0022 U	NA	< 0.0023 U	NA	NA	1.6
Metals (mg/kg)								
ALUMINUM	9,150	NA	13,400	NA	10,500	NA	NA	76,000
ARSENIC	**2.7 J**	NA	**2.5 J**	NA	**2.2 J**	NA	NA	0.39
BARIUM	82.7	NA	111	NA	109	NA	NA	5,400
BERYLLIUM	0.66	NA	0.82	NA	0.69	NA	NA	150
CADMIUM	< 0.99 U	NA	< 1 U	NA	< 1.1 U	NA	NA	37 *
CALCIUM	12,900	NA	29,300	NA	15,500	NA	NA	NC
CHROMIUM	15.8	NA	23.9	NA	18.5	NA	NA	210
COBALT	< 7.8 U	NA	< 10.2 U	NA	< 8.8 U	NA	NA	900
COPPER	< 14.3 U	NA	< 17.2 U	NA	< 18.4 U	NA	NA	3,100
IRON	17,600	NA	21,600	NA	18,500	NA	NA	23,000
LEAD	8.5	NA	7.7	NA	5	NA	NA	150 *
MAGNESIUM	7,090	NA	8,790	NA	7,660	NA	NA	NC
MANGANESE	326 J	NA	443 J	NA	257 J	NA	NA	1,800
MERCURY	< 0.17 U	NA	< 0.21 U	NA	< 0.21 U	NA	NA	23
NICKEL	17.5	NA	23.5	NA	19.1	NA	NA	1,600
POTASSIUM	2,620	NA	3,700	NA	2,770	NA	NA	NC
SELENIUM	1.1	NA	< 0.52 U	NA	< 0.53 U	NA	NA	390
SILVER	< 1.2 U	NA	< 1.3 U	NA	< 1.3 U	NA	NA	390
SODIUM	2,540 J	NA	2,730 J	NA	1,460 J	NA	NA	NC

TABLE 6-2: ANALYTICAL RESULTS FOR IRP SITE 08 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S8-B17	S8-B17	S8-B18	S8-B18	S8-B19	S8-B19	S8-B20	EPA Residential Soil PRGs
Sample ID	234COMP057-05	234-S08-059	234COMP060-06	234-S08-062	234COMP063-06	234-S08-065	234-S08-068	
Sample Date	07/11/1993	07/11/1993	07/12/1993	07/12/1993	07/11/1993	07/11/1993	07/12/1993	
Sample Depth		6.50 - 6.50		6.50 - 6.50		8.00 - 8.00	6.50 - 6.50	
Metals (mg/kg)								
THALLIUM	< 0.75 U	NA	< 0.79 U	NA	< 0.79 U	NA	NA	5.2
VANADIUM	31.6	NA	44.7	NA	40.9	NA	NA	550
ZINC	55.7	NA	65.1	NA	62.3	NA	NA	23,000

TABLE 6-2: ANALYTICAL RESULTS FOR IRP SITE 08 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S8-B20	S8-B21	S8-B21	S8-B22	S8-B22	S8-B23	S8-B23	EPA Residential Soil PRGs
Sample ID	234COMP066-06	234COMP069-07	234-S08-071	234COMP072-07	234-S08-074	234COMP075-07	234-S08-077	
Sample Date	07/12/1993	07/11/1993	07/11/1993	07/12/1993	07/12/1993	07/11/1993	07/11/1993	
Sample Depth			6.50 - 6.50		6.50 - 6.50		6.50 - 6.50	
Volatile Organic Compounds (mg/kg)								
2-BUTANONE	NA	NA	< 0.012 U	NA	< 0.013 U	NA	< 0.014 U	22,000
2-HEXANONE	NA	NA	< 0.012 U	NA	< 0.013 U	NA	< 0.014 U	NC
4-METHYL-2-PENTANONE	NA	NA	< 0.012 U	NA	< 0.013 U	NA	< 0.014 U	5,300
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	< 12 U	< 11 U	NA	< 12 U	NA	< 13 U	NA	NC
MOTOR OIL RANGE ORGANICS	< 36 U	< 34 U	NA	< 38 U	NA	< 38 U	NA	NC
OTHER COMPONENTS	NA	NA	NA	NA	NA	NA	NA	NC
TPH - MOTOR OIL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - NAVY SPECIAL FUEL OIL	< 12 U	< 11 U	NA	< 12 U	NA	< 13 U	NA	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	< 1.3 U	< 1.2 U	NA	< 1.3 U	NA	< 1.2 U	NA	NC
OTHER COMPONENTS	NA	NA	NA	NA	NA	NA	NA	NC
Semivolatile Organic Compounds (mg/kg)								
2-METHYLNAPHTHALENE	< 0.4 U	< 0.37 U	NA	< 0.41 U	NA	0.12	NA	NC
4-NITROPHENOL	< 0.98 U	< 0.91 U	NA	< 1 U	NA	< 1 U	NA	NC
ACENAPHTHENE	< 0.4 U	< 0.37 U	NA	< 0.41 U	NA	< 0.41 U	NA	3,700
ANTHRACENE	< 0.4 U	< 0.37 U	NA	< 0.41 U	NA	< 0.41 U	NA	22,000
BENZO(A)ANTHRACENE	< 0.4 U	< 0.37 U	NA	< 0.41 U	NA	< 0.41 U	NA	0.62
BENZO(A)PYRENE	< 0.4 U	< 0.37 U	NA	< 0.41 U	NA	< 0.41 U	NA	0.062
BENZO(B)FLUORANTHENE	< 0.4 U	< 0.37 U	NA	< 0.41 U	NA	< 0.41 U	NA	0.62
BENZO(K)FLUORANTHENE	< 0.4 U	< 0.37 U	NA	< 0.41 U	NA	< 0.41 U	NA	0.38 *
CARBAZOLE	< 0.4 U	< 0.37 U	NA	< 0.41 U	NA	< 0.41 U	NA	24
CHRYSENE	< 0.4 U	< 0.37 U	NA	< 0.41 U	NA	< 0.41 U	NA	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.4 U	< 0.37 U	NA	< 0.41 U	NA	< 0.41 U	NA	0.062
DIBENZOFURAN	< 0.4 U	< 0.37 U	NA	< 0.41 U	NA	< 0.41 U	NA	150
FLUORANTHENE	< 0.4 U	0.031	NA	< 0.41 U	NA	< 0.41 U	NA	2,300
FLUORENE	< 0.4 U	< 0.37 U	NA	< 0.41 U	NA	< 0.41 U	NA	2,700
INDENO(1,2,3-CD)PYRENE	< 0.4 U	< 0.37 U	NA	< 0.41 U	NA	< 0.41 U	NA	0.62
NAPHTHALENE	< 0.4 U	< 0.37 U	NA	< 0.41 U	NA	0.04	NA	1.7 *
PENTACHLOROPHENOL	< 0.98 U	< 0.91 U	NA	< 1 U	NA	< 1 U	NA	3.0
PHENANTHRENE	< 0.4 U	< 0.37 U	NA	< 0.41 U	NA	0.03	NA	NC

TABLE 6-2: ANALYTICAL RESULTS FOR IRP SITE 08 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S8-B20	S8-B21	S8-B21	S8-B22	S8-B22	S8-B23	S8-B23	EPA Residential Soil PRGs
Sample ID	234COMP066-06	234COMP069-07	234-S08-071	234COMP072-07	234-S08-074	234COMP075-07	234-S08-077	
Sample Date	07/12/1993	07/11/1993	07/11/1993	07/12/1993	07/12/1993	07/11/1993	07/11/1993	
Sample Depth			6.50 - 6.50		6.50 - 6.50		6.50 - 6.50	
Semivolatile Organic Compounds (mg/kg)								
PYRENE	< 0.4 U	0.06	NA	< 0.41 U	NA	< 0.41 U	NA	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.004 U	0.047	NA	0.042	NA	0.0082 J	NA	2.4
4,4'-DDE	< 0.004 U	0.0024	NA	0.021	NA	< 0.0041 U	NA	1.7
4,4'-DDT	< 0.004 U	0.0016	NA	0.088 J	NA	0.0023	NA	1.7
ALPHA-CHLORDANE	< 0.0021 U	0.0041 J	NA	< 0.0021 U	NA	< 0.0021 U	NA	1.6
AROCLOR-1260	0.016	0.086	NA	0.021	NA	0.023	NA	0.22
DIELDRIN	< 0.004 U	< 0.0037 U	NA	< 0.0041 U	NA	< 0.0041 U	NA	0.030
ENDOSULFAN II	< 0.004 U	< 0.0037 U	NA	< 0.0041 U	NA	< 0.0041 U	NA	NC
ENDRIN	< 0.004 U	< 0.0037 U	NA	< 0.0041 U	NA	< 0.0041 U	NA	18
ENDRIN ALDEHYDE	< 0.004 U	< 0.0037 U	NA	< 0.0041 U	NA	< 0.0041 U	NA	NC
GAMMA-CHLORDANE	< 0.0021 U	0.0015	NA	< 0.0021 U	NA	< 0.0021 U	NA	1.6
Metals (mg/kg)								
ALUMINUM	10,400	7,460	NA	8,870	NA	8,310	NA	76,000
ARSENIC	**3 J**	**2 J**	NA	**3.1 J**	NA	**3.1 J**	NA	0.39
BARIUM	101	74.8	NA	86	NA	77.9	NA	5,400
BERYLLIUM	0.91	< 0.45 U	NA	0.59	NA	< 0.49 U	NA	150
CADMIUM	< 0.94 U	< 0.9 U	NA	5.7	NA	5.5	NA	37 *
CALCIUM	17,000	13,100	NA	11,300	NA	25,100	NA	NC
CHROMIUM	18	12	NA	18.3	NA	15.5	NA	210
COBALT	< 9.4 U	< 7.3 U	NA	< 7.4 U	NA	< 7.8 U	NA	900
COPPER	< 14.5 U	< 11.3 U	NA	28.2	NA	26	NA	3,100
IRON	19,200	14,700	NA	16,700	NA	16,300	NA	23,000
LEAD	8.3	7.3	NA	8.1	NA	6.8	NA	150 *
MAGNESIUM	7,450	5,140	NA	7,820	NA	6,100	NA	NC
MANGANESE	371 J	199 J	NA	231 J	NA	298 J	NA	1,800
MERCURY	< 0.19 U	< 0.18 U	NA	< 0.2 U	NA	< 0.18 U	NA	23
NICKEL	18.9	14.2	NA	17	NA	14.1	NA	1,600
POTASSIUM	3,230	1,850	NA	2,790	NA	2,240	NA	NC
SELENIUM	< 0.48 U	0.5	NA	< 0.49 U	NA	< 0.49 U	NA	390
SILVER	< 1.2 U	< 1.1 U	NA	< 1.3 U	NA	< 1.2 U	NA	390
SODIUM	954 J	902 J	NA	1,690 J	NA	969 J	NA	NC

TABLE 6-2: ANALYTICAL RESULTS FOR IRP SITE 08 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S8-B20	S8-B21	S8-B21	S8-B22	S8-B22	S8-B23	S8-B23	EPA Residential Soil PRGs
Sample ID	234COMP066-06	234COMP069-07	234-S08-071	234COMP072-07	234-S08-074	234COMP075-07	234-S08-077	
Sample Date	07/12/1993	07/11/1993	07/11/1993	07/12/1993	07/12/1993	07/11/1993	07/11/1993	
Sample Depth			6.50 - 6.50		6.50 - 6.50		6.50 - 6.50	
Metals (mg/kg)								
THALLIUM	< 0.72 U	< 0.68 U	NA	< 0.74 U	NA	< 0.73 U	NA	5.2
VANADIUM	34.6	31.7	NA	33.9	NA	30.4	NA	550
ZINC	58.4	44.6	NA	60.3	NA	53.4	NA	23,000

TABLE 6-2: ANALYTICAL RESULTS FOR IRP SITE 08 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S8-B24	S8-B24	S8-B25	S8-B25	S8-B26	S8-B26	S8-B27	EPA Residential Soil PRGs
Sample ID	234COMP078-08	234-S08-080	234COMP081-08	234-S08-083	234COMP084-08	234-S08-086	234-S08-089	
Sample Date	07/12/1993	07/12/1993	07/12/1993	07/12/1993	07/11/1993	07/11/1993	07/12/1993	
Sample Depth		6.50 - 6.50		6.50 - 6.50		6.50 - 6.50	6.50 - 6.50	
Volatile Organic Compounds (mg/kg)								
2-BUTANONE	NA	< 0.014 U	NA	< 0.015 U	NA	< 0.013 U	< 0.012 U	22,000
2-HEXANONE	NA	< 0.014 U	NA	< 0.015 U	NA	< 0.013 U	< 0.012 U	NC
4-METHYL-2-PENTANONE	NA	< 0.014 U	NA	< 0.015 U	NA	< 0.013 U	< 0.012 U	5,300
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	< 13 U	NA	< 12 U	NA	< 12 U	NA	NA	NC
MOTOR OIL RANGE ORGANICS	155	NA	250	NA	< 36 U	NA	NA	NC
OTHER COMPONENTS	NA	NA	NA	NA	NA	NA	NA	NC
TPH - MOTOR OIL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - NAVY SPECIAL FUEL OIL	< 13 U	NA	< 12 U	NA	< 12 U	NA	NA	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	< 1.4 U	NA	< 1.2 U	NA	< 1.3 U	NA	NA	NC
OTHER COMPONENTS	NA	NA	NA	NA	NA	NA	NA	NC
Semivolatile Organic Compounds (mg/kg)								
2-METHYLNAPHTHALENE	< 0.43 U	NA	< 0.39 U	NA	< 0.39 U	NA	NA	NC
4-NITROPHENOL	< 1.1 U	NA	< 0.94 U	NA	0.95 R	NA	NA	NC
ACENAPHTHENE	< 0.43 U	NA	< 0.39 U	NA	< 0.39 U	NA	NA	3,700
ANTHRACENE	< 0.43 U	NA	< 0.39 U	NA	< 0.39 U	NA	NA	22,000
BENZO(A)ANTHRACENE	< 0.43 U	NA	< 0.39 U	NA	< 0.39 U	NA	NA	0.62
BENZO(A)PYRENE	< 0.43 U	NA	< 0.39 U	NA	< 0.39 U	NA	NA	0.062
BENZO(B)FLUORANTHENE	< 0.43 U	NA	< 0.39 U	NA	< 0.39 U	NA	NA	0.62
BENZO(K)FLUORANTHENE	< 0.43 U	NA	< 0.39 U	NA	< 0.39 U	NA	NA	0.38 *
CARBAZOLE	< 0.43 U	NA	< 0.39 U	NA	< 0.39 U	NA	NA	24
CHRYSENE	< 0.43 U	NA	< 0.39 U	NA	< 0.39 U	NA	NA	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.43 U	NA	< 0.39 U	NA	< 0.39 U	NA	NA	0.062
DIBENZOFURAN	< 0.43 U	NA	< 0.39 U	NA	< 0.39 U	NA	NA	150
FLUORANTHENE	0.024	NA	< 0.39 U	NA	< 0.39 U	NA	NA	2,300
FLUORENE	< 0.43 U	NA	< 0.39 U	NA	< 0.39 U	NA	NA	2,700
INDENO(1,2,3-CD)PYRENE	< 0.43 U	NA	< 0.39 U	NA	< 0.39 U	NA	NA	0.62
NAPHTHALENE	< 0.43 U	NA	< 0.39 U	NA	< 0.39 U	NA	NA	1.7 *
PENTACHLOROPHENOL	< 1.1 U	NA	< 0.94 U	NA	< 0.95 UJ	NA	NA	3.0
PHENANTHRENE	< 0.43 U	NA	< 0.39 U	NA	< 0.39 U	NA	NA	NC

TABLE 6-2: ANALYTICAL RESULTS FOR IRP SITE 08 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S8-B24	S8-B24	S8-B25	S8-B25	S8-B26	S8-B26	S8-B27	EPA Residential Soil PRGs
Sample ID	234COMP078-08	234-S08-080	234COMP081-08	234-S08-083	234COMP084-08	234-S08-086	234-S08-089	
Sample Date	07/12/1993	07/12/1993	07/12/1993	07/12/1993	07/11/1993	07/11/1993	07/12/1993	
Sample Depth		6.50 - 6.50		6.50 - 6.50		6.50 - 6.50	6.50 - 6.50	
Semivolatile Organic Compounds (mg/kg)								
PYRENE	< 0.43 U	NA	0.03	NA	< 0.39 U	NA	NA	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.0043 U	NA	< 0.019 U	NA	< 0.0039 U	NA	NA	2.4
4,4'-DDE	0.013	NA	< 0.019 U	NA	< 0.0039 U	NA	NA	1.7
4,4'-DDT	0.028 J	NA	< 0.019 U	NA	< 0.0039 U	NA	NA	1.7
ALPHA-CHLORDANE	0.016 J	NA	< 0.01 U	NA	< 0.002 U	NA	NA	1.6
AROCLOR-1260	**0.57**	NA	**1.5 J**	NA	0.026	NA	NA	0.22
DIELDRIN	0.017 J	NA	< 0.019 U	NA	< 0.0039 U	NA	NA	0.030
ENDOSULFAN II	< 0.0043 U	NA	< 0.019 U	NA	< 0.0039 U	NA	NA	NC
ENDRIN	< 0.0043 U	NA	< 0.019 U	NA	< 0.0039 U	NA	NA	18
ENDRIN ALDEHYDE	< 0.0043 U	NA	< 0.019 U	NA	< 0.0039 U	NA	NA	NC
GAMMA-CHLORDANE	0.0085 J	NA	< 0.01 U	NA	< 0.002 U	NA	NA	1.6
Metals (mg/kg)								
ALUMINUM	12,800	NA	9,850	NA	10,800	NA	NA	76,000
ARSENIC	**5.5**	NA	**3 J**	NA	**1.7 J**	NA	NA	0.39
BARIUM	116	NA	90.2	NA	60.4	NA	NA	5,400
BERYLLIUM	0.75	NA	0.56	NA	0.49	NA	NA	150
CADMIUM	< 1.6 U	NA	< 0.93 U	NA	< 1.8 U	NA	NA	37 *
CALCIUM	21,100	NA	12,500	NA	25,000	NA	NA	NC
CHROMIUM	24.5	NA	17.7	NA	12.4	NA	NA	210
COBALT	< 11.4 U	NA	< 9.7 U	NA	< 11.6 U	NA	NA	900
COPPER	27.4	NA	< 19.2 U	NA	< 19.6 U	NA	NA	3,100
IRON	**25,300**	NA	17,700	NA	21,200	NA	NA	23,000
LEAD	61.2	NA	21.6	NA	3.7	NA	NA	150 *
MAGNESIUM	9,180	NA	7,160	NA	8,570	NA	NA	NC
MANGANESE	504 J	NA	274 J	NA	415 J	NA	NA	1,800
MERCURY	< 0.2 U	NA	< 0.16 U	NA	< 0.19 U	NA	NA	23
NICKEL	22.2	NA	17.1	NA	17.7	NA	NA	1,600
POTASSIUM	3,140	NA	2,680	NA	1,820	NA	NA	NC
SELENIUM	0.95	NA	< 0.46 U	NA	< 0.47 U	NA	NA	390
SILVER	< 1.3 U	NA	< 1.2 U	NA	< 1.2 U	NA	NA	390
SODIUM	2,250 J	NA	1,660 J	NA	1,980 J	NA	NA	NC

TABLE 6-2: ANALYTICAL RESULTS FOR IRP SITE 08 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S8-B24	S8-B24	S8-B25	S8-B25	S8-B26	S8-B26	S8-B27	EPA Residential Soil PRGs
Sample ID	234COMP078-08	234-S08-080	234COMP081-08	234-S08-083	234COMP084-08	234-S08-086	234-S08-089	
Sample Date	07/12/1993	07/12/1993	07/12/1993	07/12/1993	07/11/1993	07/11/1993	07/12/1993	
Sample Depth		6.50 - 6.50		6.50 - 6.50		6.50 - 6.50	6.50 - 6.50	
Metals (mg/kg)								
THALLIUM	< 0.77 U	NA	< 0.69 U	NA	< 0.7 U	NA	NA	5.2
VANADIUM	55.9	NA	34.5	NA	32.4	NA	NA	550
ZINC	131	NA	75.9	NA	50.5	NA	NA	23,000

TABLE 6-2: ANALYTICAL RESULTS FOR IRP SITE 08 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S8-B27	S8-B28	S8-B28	S8-G1	S8-G2	EPA Residential Soil PRGs
Sample ID	234COMP087-08	234COMP090-09	234-S08-092	234-S08-107	234-S08-108	
Sample Date	07/12/1993	07/12/1993	07/12/1993	07/28/1993	07/28/1993	
Sample Depth			6.50 - 6.50	0.00 - 0.00	0.00 - 0.00	
Volatile Organic Compounds (mg/kg)						
2-BUTANONE	NA	NA	< 0.013 U	< 0.014 U	< 0.012 U	22,000
2-HEXANONE	NA	NA	< 0.013 U	< 0.014 U	< 0.012 U	NC
4-METHYL-2-PENTANONE	NA	NA	< 0.013 U	< 0.014 U	< 0.012 U	5,300
Petroleum Hydrocarbons (mg/kg)						
Diesel/Motor Oil Range (extractables)						
DIESEL RANGE ORGANICS	< 12 U	< 12 U	NA	82	36	NC
MOTOR OIL RANGE ORGANICS	40	< 36 U	NA	97	< 37 U	NC
OTHER COMPONENTS	NA	NA	NA	NA	NA	NC
TPH - MOTOR OIL	NA	NA	NA	NA	NA	NC
TPH - NAVY SPECIAL FUEL OIL	< 12 U	< 12 U	NA	140	61	NC
Gasoline Range (purgeables)						
GASOLINE RANGE ORGANICS	< 1.2 U	< 1.2 U	NA	< 1.4 U	< 1.2 U	NC
OTHER COMPONENTS	NA	NA	NA	NA	NA	NC
Semivolatile Organic Compounds (mg/kg)						
2-METHYLNAPHTHALENE	< 0.39 U	< 0.4 U	NA	< 0.46 U	< 0.4 U	NC
4-NITROPHENOL	< 0.94 U	< 0.98 U	NA	< 1.1 U	< 0.98 U	NC
ACENAPHTHENE	< 0.39 U	< 0.4 U	NA	< 0.46 U	0.035	3,700
ANTHRACENE	< 0.39 U	< 0.4 U	NA	< 0.46 U	0.031	22,000
BENZO(A)ANTHRACENE	< 0.39 U	< 0.4 U	NA	0.058	0.052	0.62
BENZO(A)PYRENE	< 0.39 U	< 0.4 U	NA	0.053	0.03	0.062
BENZO(B)FLUORANTHENE	< 0.39 U	< 0.4 U	NA	0.12	0.11	0.62
BENZO(K)FLUORANTHENE	< 0.39 U	< 0.4 U	NA	< 0.46 U	0.047	0.38 *
CARBAZOLE	< 0.39 U	< 0.4 U	NA	< 0.46 U	0.052	24
CHRYSENE	< 0.39 U	0.026	NA	0.089	0.14	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.39 U	< 0.4 U	NA	< 0.46 U	< 0.4 U	0.062
DIBENZOFURAN	< 0.39 U	< 0.4 U	NA	< 0.46 U	0.067	150
FLUORANTHENE	< 0.39 U	< 0.4 U	NA	0.17	0.62	2,300
FLUORENE	< 0.39 U	< 0.4 U	NA	< 0.46 U	0.058	2,700
INDENO(1,2,3-CD)PYRENE	< 0.39 U	< 0.4 U	NA	0.07	0.04	0.62
NAPHTHALENE	< 0.39 U	< 0.4 U	NA	< 0.46 U	< 0.4 U	1.7 *
PENTACHLOROPHENOL	< 0.94 U	< 0.98 U	NA	< 1.1 U	< 0.98 U	3.0
PHENANTHRENE	< 0.39 U	< 0.4 U	NA	0.07	0.79	NC

TABLE 6-2: ANALYTICAL RESULTS FOR IRP SITE 08 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S8-B27	S8-B28	S8-B28	S8-G1	S8-G2	EPA Residential Soil PRGs
Sample ID	234COMP087-08	234COMP090-09	234-S08-092	234-S08-107	234-S08-108	
Sample Date	07/12/1993	07/12/1993	07/12/1993	07/28/1993	07/28/1993	
Sample Depth			6.50 - 6.50	0.00 - 0.00	0.00 - 0.00	
Semivolatile Organic Compounds (mg/kg)						
PYRENE	0.02	< 0.4 U	NA	0.12	0.35	2,300
PCBs/Pesticides (mg/kg)						
4,4'-DDD	0.17	< 0.004 UJ	NA	0.01 J	0.0099 J	2.4
4,4'-DDE	0.026	< 0.004 UJ	NA	0.0033	0.0046 J	1.7
4,4'-DDT	< 0.0078 U	< 0.004 UJ	NA	0.037 J	0.02 J	1.7
ALPHA-CHLORDANE	0.038	< 0.0021 UJ	NA	0.0064 J	0.0039 J	1.6
AROCLOR-1260	**0.87**	0.043 J	NA	0.22	0.11	0.22
DIELDRIN	0.0035	< 0.004 UJ	NA	< 0.0046 U	< 0.004 U	0.030
ENDOSULFAN II	< 0.0078 U	< 0.004 UJ	NA	< 0.0046 U	< 0.004 U	NC
ENDRIN	0.04	< 0.004 UJ	NA	0.0085 J	0.01 J	18
ENDRIN ALDEHYDE	< 0.0078 U	< 0.004 UJ	NA	< 0.0046 U	< 0.004 U	NC
GAMMA-CHLORDANE	0.018 J	< 0.0021 UJ	NA	0.0066	0.0044	1.6
Metals (mg/kg)						
ALUMINUM	5,780	8,300	NA	9,590 J	6,720 J	76,000
ARSENIC	**1.8 J**	**3 J**	NA	**4.3**	**2.6**	0.39
BARIUM	59.9	88.9	NA	1,400 J	328 J	5,400
BERYLLIUM	< 0.46 U	< 0.48 U	NA	0.68	< 0.48 U	150
CADMIUM	8.6	< 0.96 U	NA	< 1.1 U	< 0.96 U	37 *
CALCIUM	23,300	12,100	NA	9,270 J	15,300 J	NC
CHROMIUM	11.2	14.8	NA	25.7 J	11.8 J	210
COBALT	< 9.2 U	< 8.8 U	NA	11.1	6.7	900
COPPER	< 11.5 U	< 13.9 U	NA	31.1	21.6	3,100
IRON	13,900	16,200	NA	21,700 J	13,100 J	23,000
LEAD	24.2	7.7	NA	87.1	36.2 J	150 *
MAGNESIUM	4,360	6,450	NA	6,520 J	4,670 J	NC
MANGANESE	**2,520 J**	320 J	NA	364 J	197 J	1,800
MERCURY	< 0.18 U	< 0.18 U	NA	< 0.21 U	< 0.18 U	23
NICKEL	10.7	16.9	NA	16	10.6	1,600
POTASSIUM	1,530	2,350	NA	2,080	1,460	NC
SELENIUM	0.61	< 0.47 U	NA	< 0.27 U	< 0.23 U	390
SILVER	< 1.1 U	< 1.2 U	NA	< 1.4 U	< 1.2 U	390
SODIUM	861 J	1,350 J	NA	739 J	849 J	NC

TABLE 6-2: ANALYTICAL RESULTS FOR IRP SITE 08 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S8-B27	S8-B28	S8-B28	S8-G1	S8-G2	EPA Residential Soil PRGs
Sample ID	234COMP087-08	234COMP090-09	234-S08-092	234-S08-107	234-S08-108	
Sample Date	07/12/1993	07/12/1993	07/12/1993	07/28/1993	07/28/1993	
Sample Depth			6.50 - 6.50	0.00 - 0.00	0.00 - 0.00	
Metals (mg/kg)						
THALLIUM	< 0.71 U	< 0.71 U	NA	< 0.81 U	< 0.69 U	5.2
VANADIUM	24.9	31	NA	39.4	25.1	550
ZINC	66.2	56.3	NA	167 J	99.3 J	23,000

Notes: Categories of analyses are shown, but only detected compounds are presented. Analyte results in boldface type exceed EPA residential soil PRGs.

*	California modified PRGs
ID	Identification
J	Estimated value
mg/kg	Milligrams per kilogram
NA	Not analyzed
NC	No criteria
PRG	Preliminary remediation goals
R	Result rejected during quality assurance review.
U	Nondetected

TABLE 6-3: ANALYTICAL RESULTS FOR IRP SITE 08 GROUNDWATER SAMPLES

Site Management Plan, CBC Port Hueneme

Sample Location ID	S08MW01	S08MW01	S08MW01	S08MW01	S08MW02	S08MW02	S08MW02	EPA Tap Water PRGs
Sample ID	234-S08-109	234-S08-110	08797051405GD	08797051405GD	234-S08-111	234-S08-112	08797051603GD	
Sample Date	08/11/1993	11/09/1993	05/14/1997	05/14/1997	08/10/1993	11/09/1993	05/16/1997	
Volatile Organic Compounds (µg/L)								
ACETONE	< 2 U	2 R	< 10 UJ	NA	< 2 UJ	2 R	< 10 UJ	5,500
BENZENE	< 1 U	**1**	< 10 U	NA	< 2 U	< 1 U	< 10 U	0.35
CHLOROFORM	< 1 U	< 1 U	< 10 U	NA	< 2 U	< 1 U	< 10 U	0.17
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
TPH - NAVY SPECIAL FUEL OIL	< 0.25 U	< 0.25 U	NA	NA	< 0.5 U	< 0.25 U	NA	NC
Gasoline Range (purgeables)								
None Detected	ND	ND	ND	NA	ND	ND	ND	NC
Semivolatile Organic Compounds (µg/L)								
None Detected	ND	ND	ND	NA	ND	ND	ND	NC
PCBs/Pesticides (µg/L)								
None Detected	ND	ND	NA	NA	ND	ND	NA	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	< 241 U	< 100 U	< 134 UJ	NA	< 27.2 U	< 100 U	< 133 UJ	36,000
ANTIMONY	< 50 U	< 50 U	< 1.4 U	NA	< 31 UJ	< 50 U	< 1.4 U	15
ARSENIC	**2.7 J**	< 2 U	**1.8 J**	NA	**20 R**	< 2 U	**2.6 J**	0.045
BARIUM	100 R	100 R	37.8 J	NA	44.6 J	100 R	57.1 J	2,600
CADMIUM	< 4 U	< 4 U	< 0.13 U	NA	< 4 UJ	< 4 U	< 0.18 UJ	18
CALCIUM	57,700	58,900 J	56,900	NA	174,000	174,000 J	167,000	NC
CHROMIUM	5.3	< 5 U	< 0.27 U	NA	< 3 U	< 5 U	< 0.27 U	NC
COBALT	< 10 U	< 10 U	< 0.4 U	NA	< 2 UJ	< 10 U	< 0.4 U	730
COPPER	< 10 U	< 10 U	< 0.63 UJ	NA	< 2 U	< 10 U	< 1.1 UJ	1,500
IRON	451 J	661	2,390	NA	1,530	2,020	5,070	11,000
LEAD	< 2 UJ	< 2 U	1.5	NA	< 1 UJ	2.7	< 1 U	NC
MAGNESIUM	126,000	146,000	152,000	NA	255,000	249,000	231,000	NC
MANGANESE	187 J	229	276	NA	446	427 J	446	880
MOLYBDENUM	NA	25.2	25.7	NA	NA	23.3	24.7	180
POTASSIUM	20,200	23,100	25,500	NA	57,600	56,400	58,200 J	NC
SELENIUM	1 R	2 R	< 1.4 U	NA	**201 J**	2 R	< 1.4 UJ	180
SODIUM	619,000	6,950,000 J	571,000	NA	1,890,000	1,620,000 J	1,500,000	NC
VANADIUM	< 43.5 U	< 10 U	1.2 J	NA	< 2.2 UJ	< 10 U	1.4 J	260

TABLE 6-3: ANALYTICAL RESULTS FOR IRP SITE 08 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S08MW01	S08MW01	S08MW01	S08MW01	S08MW02	S08MW02	S08MW02	
Sample ID	234-S08-109	234-S08-110	08797051405GD	08797051405GD	234-S08-111	234-S08-112	08797051603GD	EPA Tap Water PRGs
Sample Date	08/11/1993	11/09/1993	05/14/1997	05/14/1997	08/10/1993	11/09/1993	05/16/1997	
Metals (µg/L)								
Unfiltered								
ZINC	76.9	< 10 U	2.5 J	NA	< 10.3 UJ	< 10 U	2.4 J	11,000
FIltered								
ARSENIC	NA	NA	NA	< 1.3 UJ	NA	NA	NA	0.045
BARIUM	NA	NA	NA	26.1 J	NA	NA	NA	2,600
CALCIUM	NA	NA	NA	51,000	NA	NA	NA	NC
CHROMIUM	NA	NA	NA	< 0.27 U	NA	NA	NA	NC
COPPER	NA	NA	NA	< 0.46 UJ	NA	NA	NA	1,500
IRON	NA	NA	NA	641	NA	NA	NA	11,000
MAGNESIUM	NA	NA	NA	134,000	NA	NA	NA	NC
MANGANESE	NA	NA	NA	213	NA	NA	NA	880
MOLYBDENUM	NA	NA	NA	23	NA	NA	NA	180
NICKEL	NA	NA	NA	< 0.77 U	NA	NA	NA	730
POTASSIUM	NA	NA	NA	25,400	NA	NA	NA	NC
SELENIUM	NA	NA	NA	< 2.1 UJ	NA	NA	NA	180
SILVER	NA	NA	NA	< 0.43 U	NA	NA	NA	180
SODIUM	NA	NA	NA	626,000	NA	NA	NA	NC
THALLIUM	NA	NA	NA	< 1.4 U	NA	NA	NA	2.4
VANADIUM	NA	NA	NA	0.72 J	NA	NA	NA	260
ZINC	NA	NA	NA	< 0.81 UJ	NA	NA	NA	11,000
General Mineral								
CALCIUM	NA	NA	54,200	NA	NA	NA	205,000	NC
IRON	NA	NA	137 J	NA	NA	NA	780	11,000
MAGNESIUM	NA	NA	143,000	NA	NA	NA	278,000	NC
POTASSIUM	NA	NA	22,600 J	NA	NA	NA	70,600	NC
SODIUM	NA	NA	641,000 J	NA	NA	NA	1,590,000 J	NC

TABLE 6-3: ANALYTICAL RESULTS FOR IRP SITE 08 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S08MW02	S08MW02	S08MW02	S08MW02	S08MW02	S08MW02	S08MW02	
Sample ID	08797051603GD	08797102454S	08797102455S	08797102456S	08798012336D	08798012337D	08798040203J	EPA Tap Water PRGs
Sample Date	05/16/1997	10/24/1997	10/24/1997	10/24/1997	01/23/1998	01/23/1998	04/02/1998	
Volatile Organic Compounds (µg/L)								
ACETONE	NA	1 R	NA	NA	5	< 1 U	< 1 U	5,500
BENZENE	NA	< 0.5 U	NA	NA	< 0.5 U	< 0.5 U	< 0.5 U	0.35
CHLOROFORM	NA	< 1 U	NA	NA	< 1 U	< 1 U	< 1 UJ	0.17
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
TPH - NAVY SPECIAL FUEL OIL	NA	NA	NA	NA	NA	NA	NA	NC
Gasoline Range (purgeables)								
None Detected	NA	ND	NA	NA	ND	ND	ND	NC
Semivolatile Organic Compounds (µg/L)								
None Detected	NA	ND	NA	NA	ND	ND	ND	NC
PCBs/Pesticides (µg/L)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	NA	NA	90 J	43.9 J	< 6.2 U	< 6.2 U	NA	36,000
ANTIMONY	NA	NA	< 1.4 U	< 1.4 U	< 1.8 U	< 1.8 U	NA	15
ARSENIC	NA	NA	< 3.8 UJ	< 3.5 UJ	**2.7**	**2.4**	NA	0.045
BARIUM	NA	NA	58.4 J	55.2 J	46.6	48.1	NA	2,600
CADMIUM	NA	NA	< 0.2 U	< 0.2 U	0.72	2.6	NA	18
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NC
CHROMIUM	NA	NA	0.56 J	< 0.45 U	< 0.55 U	< 0.55 U	NA	NC
COBALT	NA	NA	< 0.65 U	< 0.65 U	< 0.85 U	< 0.85 U	NA	730
COPPER	NA	NA	< 0.8 UJ	< 0.55 U	< 1.2 U	< 1.2 U	NA	1,500
IRON	NA	NA	NA	NA	NA	NA	NA	11,000
LEAD	NA	NA	< 0.85 U	< 0.85 U	< 0.9 U	< 0.9 U	NA	NC
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NC
MANGANESE	NA	NA	534	506	387	395	NA	880
MOLYBDENUM	NA	NA	25.8	28.3	25.2	25.8	NA	180
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NC
SELENIUM	NA	NA	< 2 U	< 2 U	< 2.4 U	< 2.4 U	NA	180
SODIUM	NA	NA	NA	NA	NA	NA	NA	NC
VANADIUM	NA	NA	1.4 J	< 0.6 U	< 0.8 U	< 0.8 U	NA	260

TABLE 6-3: ANALYTICAL RESULTS FOR IRP SITE 08 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S08MW02	S08MW02	S08MW02	S08MW02	S08MW02	S08MW02	S08MW02	
Sample ID	08797051603GD	08797102454S	08797102455S	08797102456S	08798012336D	08798012337D	08798040203J	EPA Tap Water PRGs
Sample Date	05/16/1997	10/24/1997	10/24/1997	10/24/1997	01/23/1998	01/23/1998	04/02/1998	
Metals (µg/L)								
Unfiltered								
ZINC	NA	NA	< 7.2 UJ	< 6.2 UJ	8	14.3	NA	11,000
Fltered								
ARSENIC	**2.6 J**	< 6.4 UJ	NA	NA	NA	NA	< 1.8 U	0.045
BARIUM	50.8 J	49.7 J	NA	NA	NA	NA	55 J	2,600
CALCIUM	185,000	NA	NA	NA	NA	NA	NA	NC
CHROMIUM	0.55 J	< 0.45 U	NA	NA	NA	NA	< 0.45 U	NC
COPPER	0.57 J	< 0.55 U	NA	NA	NA	NA	< 0.6 U	1,500
IRON	2,660	NA	NA	NA	NA	NA	NA	11,000
MAGNESIUM	262,000	NA	NA	NA	NA	NA	NA	NC
MANGANESE	452	532	NA	NA	NA	NA	408	880
MOLYBDENUM	26.6	29.2	NA	NA	NA	NA	26.7	180
NICKEL	< 0.7 U	< 0.45 U	NA	NA	NA	NA	1.9 J	730
POTASSIUM	68,000	NA	NA	NA	NA	NA	NA	NC
SELENIUM	< 1.3 UJ	< 2 U	NA	NA	NA	NA	3.4 J	180
SILVER	0.62 J	< 0.55 U	NA	NA	NA	NA	< 0.65 U	180
SODIUM	1,690,000	NA	NA	NA	NA	NA	NA	NC
THALLIUM	< 1.4 U	< 3 U	NA	NA	NA	NA	< 3.4 U	2.4
VANADIUM	< 0.57 U	< 0.6 U	NA	NA	NA	NA	< 0.75 U	260
ZINC	2 J	< 8 UJ	NA	NA	NA	NA	< 0.8 U	11,000
General Mineral								
CALCIUM	NA	231,000	NA	NA	198,000	194,000	200,000	NC
IRON	NA	< 102 U	NA	NA	1,640	1,300	1,120 J	11,000
MAGNESIUM	NA	299,000	NA	NA	247,000	243,000	255,000	NC
POTASSIUM	NA	82,000	NA	NA	65,400 J	63,900 J	58,200 J	NC
SODIUM	NA	1,760,000	NA	NA	1,330,000	1,410,000	1,560,000	NC

TABLE 6-3: ANALYTICAL RESULTS FOR IRP SITE 08 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S08MW03	S08MW03	S08MW03	S08MW03	S08MW03	S08MW04	S08MW04	
Sample ID	234-S08-113	234-S08-114	234-S08-115	08797051406GD	08797051406GD	234-S08-116	234-S08-117	EPA Tap Water PRGs
Sample Date	08/11/1993	11/10/1993	11/10/1993	05/14/1997	05/14/1997	08/11/1993	11/09/1993	
Volatile Organic Compounds (µg/L)								
ACETONE	< 2 U	2 R	2 R	< 10 UJ	NA	< 2 U	2 R	5,500
BENZENE	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 1 U	< 1 U	0.35
CHLOROFORM	< 1 U	< 1 U	**1**	< 10 U	NA	< 1 U	**0.7**	0.17
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
TPH - NAVY SPECIAL FUEL OIL	< 0.25 U	< 0.25 U	0.42	NA	NA	0.26	< 0.25 U	NC
Gasoline Range (purgeables)								
None Detected	ND	ND	ND	ND	NA	ND	ND	NC
Semivolatile Organic Compounds (µg/L)								
None Detected	ND	ND	ND	ND	NA	ND	ND	NC
PCBs/Pesticides (µg/L)								
None Detected	ND	ND	ND	NA	NA	ND	ND	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	< 166 U	< 100 U	< 100 U	< 118 UJ	NA	< 223 U	< 100 U	36,000
ANTIMONY	< 50 U	< 50 U	< 50 U	< 1.4 U	NA	**57.7**	< 50 U	15
ARSENIC	**2 J**	< 2 U	< 2 U	**3.6**	NA	< 2 UJ	**2.9**	0.045
BARIUM	100 R	100 R	100 R	39.6 J	NA	100 R	100 R	2,600
CADMIUM	< 4 U	< 4 U	< 4 U	< 0.13 U	NA	< 4 U	< 4 U	18
CALCIUM	107,000	103,000 J	106,000 J	122,000	NA	324,000	231,000 J	NC
CHROMIUM	< 5 U	< 5 U	< 5 U	< 0.27 U	NA	5.3	< 5 U	NC
COBALT	< 10 U	< 10 U	< 10 U	< 0.4 U	NA	< 10 U	< 10 U	730
COPPER	< 10 U	< 10 U	< 10 U	< 0.64 UJ	NA	< 10 U	< 10 U	1,500
IRON	197 J	< 82.1 U	< 85.6 U	666	NA	3,010 J	2,290	11,000
LEAD	< 2 UJ	2.6	5.1	< 1 U	NA	3.7 J	5	NC
MAGNESIUM	47,700	46,500	47,800	60,100	NA	220,000	161,000	NC
MANGANESE	186 J	186	189	251	NA	871 J	650 J	880
MOLYBDENUM	NA	18.9	18.2	28.6	NA	NA	17.2	180
POTASSIUM	15,700	16,700	17,500	19,200	NA	56,900	52,700	NC
SELENIUM	1 R	2 R	2 R	< 1.4 U	NA	1 R	2 R	180
SODIUM	160,000	159,000 J	164,000 J	194,000	NA	1,320,000	11,700,000 J	NC
VANADIUM	< 30.6 U	< 10 U	< 10 U	1.4 J	NA	< 41.1 U	< 10 U	260

TABLE 6-3: ANALYTICAL RESULTS FOR IRP SITE 08 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S08MW03	S08MW03	S08MW03	S08MW03	S08MW03	S08MW04	S08MW04	
Sample ID	234-S08-113	234-S08-114	234-S08-115	08797051406GD	08797051406GD	234-S08-116	234-S08-117	EPA Tap Water PRGs
Sample Date	08/11/1993	11/10/1993	11/10/1993	05/14/1997	05/14/1997	08/11/1993	11/09/1993	
Metals (µg/L)								
Unfiltered								
ZINC	13.3	< 10 U	< 10 U	< 2 UJ	NA	53.3	< 10 U	11,000
FIltered								
ARSENIC	NA	NA	NA	NA	< 3.5 UJ	NA	NA	0.045
BARIUM	NA	NA	NA	NA	37.1 J	NA	NA	2,600
CALCIUM	NA	NA	NA	NA	124,000	NA	NA	NC
CHROMIUM	NA	NA	NA	NA	< 0.27 U	NA	NA	NC
COPPER	NA	NA	NA	NA	< 0.4 U	NA	NA	1,500
IRON	NA	NA	NA	NA	192	NA	NA	11,000
MAGNESIUM	NA	NA	NA	NA	60,200	NA	NA	NC
MANGANESE	NA	NA	NA	NA	198	NA	NA	880
MOLYBDENUM	NA	NA	NA	NA	29.1	NA	NA	180
NICKEL	NA	NA	NA	NA	< 0.77 U	NA	NA	730
POTASSIUM	NA	NA	NA	NA	19,000	NA	NA	NC
SELENIUM	NA	NA	NA	NA	< 1.4 U	NA	NA	180
SILVER	NA	NA	NA	NA	< 0.43 U	NA	NA	180
SODIUM	NA	NA	NA	NA	199,000	NA	NA	NC
THALLIUM	NA	NA	NA	NA	< 1.4 U	NA	NA	2.4
VANADIUM	NA	NA	NA	NA	0.83 J	NA	NA	260
ZINC	NA	NA	NA	NA	< 1.1 UJ	NA	NA	11,000
General Mineral								
CALCIUM	NA	NA	NA	130,000	NA	NA	NA	NC
IRON	NA	NA	NA	71.3 J	NA	NA	NA	11,000
MAGNESIUM	NA	NA	NA	64,500	NA	NA	NA	NC
POTASSIUM	NA	NA	NA	19,600 J	NA	NA	NA	NC
SODIUM	NA	NA	NA	244,000 J	NA	NA	NA	NC

TABLE 6-3: ANALYTICAL RESULTS FOR IRP SITE 08 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S08MW04	S08MW04	EPA Tap Water PRGs
Sample ID	08797051601GD	08797051601GD	
Sample Date	05/16/1997	05/16/1997	
Volatile Organic Compounds (µg/L)			
ACETONE	< 10 UJ	NA	5,500
BENZENE	< 10 U	NA	0.35
CHLOROFORM	< 10 U	NA	0.17
Petroleum Hydrocarbons (mg/L)			
Diesel/Motor Oil Range (extractables)			
TPH - NAVY SPECIAL FUEL OIL	NA	NA	NC
Gasoline Range (purgeables)			
None Detected	ND	NA	NC
Semivolatile Organic Compounds (µg/L)			
None Detected	ND	NA	NC
PCBs/Pesticides (µg/L)			
None Detected	NA	NA	NC
Metals (µg/L)			
Unfiltered			
ALUMINUM	< 83.5 UJ	NA	36,000
ANTIMONY	< 1.4 UJ	NA	15
ARSENIC	< 1.6 UJ	NA	0.045
BARIUM	41.7 J	NA	2,600
CADMIUM	< 0.35 UJ	NA	18
CALCIUM	274,000 J	NA	NC
CHROMIUM	< 0.27 UJ	NA	NC
COBALT	0.56 J	NA	730
COPPER	0.86 J	NA	1,500
IRON	**13,500 J**	NA	11,000
LEAD	< 1 UJ	NA	NC
MAGNESIUM	160,000 J	NA	NC
MANGANESE	**1,510 J**	NA	880
MOLYBDENUM	7.7 J	NA	180
POTASSIUM	39,100 J	NA	NC
SELENIUM	< 1.4 UJ	NA	180
SODIUM	582,000 J	NA	NC
VANADIUM	0.9 J	NA	260

TABLE 6-3: ANALYTICAL RESULTS FOR IRP SITE 08 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S08MW04	S08MW04	EPA Tap Water PRGs
Sample ID	08797051601GD	08797051601GD	
Sample Date	05/16/1997	05/16/1997	
Metals (µg/L)			
Unfiltered			
ZINC	42.9 J	NA	11,000
FIltered			
ARSENIC	NA	**1.7 J**	0.045
BARIUM	NA	28 J	2,600
CALCIUM	NA	299,000	NC
CHROMIUM	NA	0.41 J	NC
COPPER	NA	< 0.4 U	1,500
IRON	NA	6,140	11,000
MAGNESIUM	NA	178,000	NC
MANGANESE	NA	**1,560**	880
MOLYBDENUM	NA	7.7	180
NICKEL	NA	< 0.7 U	730
POTASSIUM	NA	43,400	NC
SELENIUM	NA	< 1.3 UJ	180
SILVER	NA	< 0.5 U	180
SODIUM	NA	677,000	NC
THALLIUM	NA	2 J	2.4
VANADIUM	NA	< 0.57 U	260
ZINC	NA	2.8 J	11,000
General Mineral			
CALCIUM	353,000	NA	NC
IRON	297	NA	11,000
MAGNESIUM	207,000	NA	NC
POTASSIUM	49,400	NA	NC
SODIUM	644,000 J	NA	NC

TABLE 6-3: ANALYTICAL RESULTS FOR IRP SITE 08 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Notes: Categories of analyses are shown, but only detected compounds are presented. Analyte results in boldface type exceed EPA tap water PRGs.

ID	Identification
J	Estimated value
mg/L	Milligrams per liter
NA	Not analyzed
NC	No criteria
ND	None detected
PRG	Preliminary remediation goals
R	Result rejected during quality assurance review.
U	Nondetected
µg/L	Micrograms per liter

7.0 IRP SITE 9 – BURNING PITS

This section provides the site background and description for IRP Site 9; summarizes the previous investigations, activities, and existing data; and discusses data gap findings and strategies for eliminating data gaps at IRP Site 9.

7.1 SITE BACKGROUND

The following sections discuss the site background for IRP Site 9, including a general site description, discussion of previous and current site activities, and a summary of previous investigations that have been completed at the site.

7.1.1 Site Description

IRP Site 9, Burning Pits located on the western side of CBC Port Hueneme (Figure 7-1). The Burning Pit consists of a bermed area approximately 500 by 750 feet. The berm was approximately 12.5 to 14 feet tall; however, it is now approximately 1.0 to 2.0 feet high following excavation. The site is bounded by Lehman Road on the south and Pennsylvania Avenue on the east. Surface water ditches are north and east of the site. Undeveloped land lies west and south of the site. No permanent structures are within the site boundary. Intermittent partial flooding of the site occurs during precipitation events. A fire-fighting training pad occupies an area of approximately 55 by 115 feet in the northeastern corner of the Burning Pit (PRC 1997a). Two soil stockpiles were also located on the site.

7.1.2 Site Activities

This area was used from the late 1950s to the late 1960s to burn base trash and waste. Approximately 125 tons of trash was burned at the site during this period, and small amounts of hazardous wastes may have been present in the trash. Hazardous wastes included adhesives, cement, wood preservatives, asbestos, mercury, solvents, and acids. From 1970 to 1994, IRP Site 9 was used as a solid waste transfer station, accepting a variety of solid wastes but no hazardous wastes. In 1979, this area was used to temporarily store rocks from Antarctica before final disposal at IRP Site 7. The rocks contained low levels of cesium-137 and strontium-90; however, confirmation sampling conducted after the rocks were removed concluded that the area was free of residual radioactivity. Between 1985 and 1987, firefighter training was conducted in this area. Training consisted of releasing flammable liquids such as fuels, hydraulic fluid, and waste oil onto a concrete pad and igniting the liquid. The firefighters would then put out the fire, which created an oil-water mixture that was discharged to an unlined pit. In 1987, after the training had stopped, an off-site contractor pumped the oil-water mixture from the pit (PRC 1997a).

In 2003, a field sampling effort was completed at IRP Site 9 to determine if the soil berms and Stockpiles A and B were suitable for use as clean fill material. The results of the soil sampling indicated that the soil from the berms and Stockpile A were suitable for reuse. The soil from

Stockpile B was not suitable for use as clean fill because PCBs and metals were detected in concentrations in excess of EPA Region 9 PRGs (West Coast 2003a, 2003b). Approximately 95 percent of the soil from the berms and 100 percent of the soil from Stockpile A was excavated and used as fill material at IRP Site 8 to provide a base for a planned asphalt parking lot.

7.1.3 Previous Investigations

Previous investigations that have been completed at IRP Site 9 include an IAS (SCS and Landau Associates 1985), a final SI (ERTEC 1991a), hazardous materials survey (Fugro-McClelland 1991), an RI (PRC 1997a), and engineering evaluation/cost analysis (EE/CA) (Tetra Tech 1998c), a preliminary ecological risk evaluation (Fisher 1999), confirmation sampling (Tetra Tech 1999b), a basewide groundwater investigation (Tetra Tech and LFR 2001), field sampling (West Coast 2003a), long-term maintenance (West Coast 2003b), and an action memorandum (AM) (Navy 2004).

7.1.3.1 Initial Assessment Study (SCS and Landau Associates 1985)

The IAS performed in 1985 included a records search and personnel interviews that evaluated potential for contamination at IRP Site 9. The IAS concluded that the small quantities of waste residues remaining on the site were not likely to create hazardous leachate. Therefore, an additional study was not recommended.

7.1.3.2 Final Site Inspection Study (ERTEC 1991a)

To confirm the findings of the IAS, an SI was performed at the site in 1990. The SI objectives were to assess whether chemicals were present in the soil and groundwater at the site and to investigate tidal influence on groundwater. Eight borings (S09-SB01 through S09-SB08) and three monitoring wells (S09MW01 through S09MW03) were installed during the SI (Figure 7-1). Soil borings S09-SB03, S09-SB05, and S09-SB08 were analyzed for metals only. The remaining soil borings were analyzed for VOCs, SVOCs, TPH diesel, TPH gasoline, pesticides/PCBs, and metals. VOCs, SVOCs, pesticides, diesel fuel, and metals were detected in one or more samples collected during the SI. Most of these were detected in boring S09-SB04, located in the vicinity of the fire fighting training pad, drainage ditch, and pit area. VOCs and metals were also detected in the groundwater samples from the SI.

7.1.3.3 Hazardous Materials Survey and Site Assessment (Fugro-McClelland 1991)

Further sampling at IRP Site 9 was conducted in January 1991 in conjunction with a hazardous materials survey and site assessment (HMSSA) of property located immediately south and east of IRP Site 9. The assessment evaluated suitability of the property for family housing. The HMSSA at IRP Site 9 included a soil gas survey at 11 locations, surface-soil sampling at 4 locations, and groundwater sampling at the 3 existing monitoring wells (Figure 7-1). The soil-gas survey detected VOCs throughout the site. Pesticides/PCBs, total recoverable petroleum

hydrocarbons (TRPH), and metals were detected in the four surface soil sampling locations. Groundwater samples were collected in March and August 1991 to evaluate residual radioactivity at the site resulting from temporary storage of the Antarctic rocks. Detectable levels of alpha and beta activities in dissolved or suspended particles were found in IRP Site 9 groundwater samples from the three monitoring wells. A significant uncertainty was associated with the reported radionuclide concentrations in the August 1991 samples due to analytical interference from high levels of dissolved solids in the samples.

7.1.3.4 Final Remedial Investigation Report (PRC 1997a)

An RI was completed at the site to verify the findings of previous investigations and characterize the extent of soil and groundwater contamination. Seventeen soil borings (S09-SB09 through S09-SB25) and three monitoring wells (S09MW04 through S09MW06) were installed during the RI (Figure 7-1). The soil borings were drilled to groundwater, which typically occurred at approximately 5 feet bgs. The SI monitoring well S09MW03 was abandoned because of previous damage to the protective surface casing; a replacement well (S09MW03R) was installed a few feet away. Seventy-three soil samples were collected at IRP Site 9. Except for the surface-soil samples, IRP Site 9 soil samples were analyzed for VOCs, SVOCs, pesticides/PCBs, TPH-e and TPH-p, and metals. The surface soil samples were not analyzed for VOCs. Five samples from the burn area (collected from borings S09-SB11, S09-SB12, and S09-SB16) were analyzed for dioxins and furans. Groundwater samples were also collected from both the existing and new monitoring wells, and were analyzed for VOCs, SVOCs, pesticides/PCBs, metals, general chemistry parameters, and gross alpha and beta. In addition, first-quarter samples collected from S09MW01 were analyzed for dioxins and furans. VOCs, SVOCs, PAHs, pesticides/PCBs, TPH-e and TPH-p, and metals were detected at various locations from soil samples collected across the site. Groundwater samples collected during the RI indicated the presence of organic constituents including VOCs, SVOCs, pesticides, and petroleum hydrocarbons.

A BHHRA was performed for IRP Site 9 during the RI. Current and potential future land-use conditions were evaluated. The cancer risk for the future industrial exposure scenario at IRP Site 9 was found to be above the EPA risk management range of 1×10^{-4} to 1×10^{-6}. COCs identified during the HHRA included PAHs, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, dibenzo(a,h)anthracene, indeno(1,2,3-cd)pyrene, and PCB (Aroclor-1260). Based on the results of a BHHRA, the RI report concluded that additional soil sampling should be conducted adjacent to four sample locations in the southeast berm area and central portion of the primary burning and disposal area to delineate the extent of contamination detected during the RI. The HHRA results also indicated the need for a removal action. Contaminant levels in groundwater were also found to exceed EPA MCLs and NAWQC screening criteria, but a risk evaluation for groundwater was deferred to the basewide groundwater study.

7.1.3.5 Final EE/CA, Non-Time-Critical Removal Action for IRP Sites 9, 12B, and 23 (Tetra Tech 1998c)

An EE/CA was completed in 1998 to evaluate removal action alternatives for IRP Sites 9, 12B, and 23. COCs identified for IRP Site 9 were PAHs and PCBs. Four alternatives were identified and considered: soil removal and off-site disposal; soil removal and ex-situ physical treatment; in-situ biological treatment; and in-situ thermal treatment. Groundwater was not addressed by the removal action because groundwater issues were to be addressed by a basewide groundwater investigation. The proposed alternative for IRP Site 9 was soil removal and off-site disposal. Determination was that this alternative would reduce human health risks at the sites to acceptable levels for continued industrial land use. However, subsequent to the issuance of the EE/CA, risk assessments for each site were recalculated to apply updated risk assessment methodologies and provide specific rationale for the removal action. The revised risk assessment showed that cancer risk to a future resident is within the acceptable risk range and the noncancer HI at IRP Site 9 is less 1, thus eliminating valid rationale for removal action at this site. A follow-on action memorandum was prepared for IRP Sites 12B and 23; IRP Site 9 was not included because of the re-evaluation of site conditions (Navy 2002a).

7.1.3.6 Preliminary Ecological Risk Evaluation at IRP Site 9, 12B, and 23 (Fisher 1999)

The Navy conducted a preliminary ERA at IRP Site 9 in January 1999, to determine whether the site presents a risk to nearby ecological receptors. The purpose of the preliminary risk evaluation was to determine if sufficient natural resources would be at risk from site contamination or proposed removal actions to warrant a Phase 1 ERA. Results of the preliminary ecological risk evaluation indicated that there are no sensitive species at this site and no clear pathways for contaminants to cause long-term damage to natural resources; therefore, a Phase I ERA was not warranted for IRP Site 9, and that the proposed removal action should proceed as planned.

7.1.3.7 Preliminary Draft Post-Field Investigation Technical Memorandum, Confirmation Sampling, IRP Sites 9, 12A, and 15 (Tetra Tech 1999b)

The objective of the investigation was to collect soil samples in areas of IRP Sites 9, 12A, and 15 (identified as requiring further sampling and analysis) to confirm delineation of previously detected contamination. Four areas of IRP Site 9, surrounding previous sample locations SB19, SB21, SB22, and MW04, underwent confirmation sampling and analysis to determine whether previously detected chemical constituents in soil had been adequately delineated. Eleven soil borings were advanced at IRP Site 9 (S09-SB19-GB01 through S09-SB19-GB03; S09-SB21-GB01 through S09-SB21-GB03; S09-SB22-GB01 through S09-SB22-GB03; and S09MW04-GB01 and S09MW04-GB02 (Figure 7-1). Soil samples at IRP Site 9 were collected at depths ranging from approximately 0.5 to 15 feet bgs. Soil samples from IRP Site 9 were analyzed for VOCs, SVOCs, pesticides, PCBs, TPH-e, TPH-p, and metals. PCB (Aroclor 1260), dieldrin, arsenic, lead, and barium were detected in soil samples collected from IRP Site 9 at levels that exceeded basewide background levels (see Appendix B), EPA PRGs, or Toxic Substance Control Act (TSCA) screening criteria. TPH concentrations at IRP Site 9 ranged from 0.51 to 3,800 mg/kg. Based on

evaluation of the analytical results, the draft technical memorandum recommended no further action at IRP Site 9 in the areas of investigation addressed by the confirmation sampling and analysis effort.

7.1.3.8 Draft Groundwater Remedial Investigation Report (Tetra Tech and LFR 2001)

From 1997 to 2001, a basewide groundwater investigation was completed to evaluate the condition of the groundwater and surface water at CBC Port Hueneme. As part of the investigation, groundwater samples were collected from S09MW01, S09MW02, S09MW03R, S09MW04, S09MW05, and S09MW06 to help evaluate the Semi-Perched Aquifer (Figure 7-1). Four rounds of samples were collected from S09MW05 and S09MW06 in May 1997, October 1997, January 1998, and April 1998. One round of samples was collected from S09MW01, S09MW02, S09MW03R, and S09MW04 in May and June 1997. Samples were analyzed for metals, VOCs, SVOCs, TPH-p and TPH-e, TDS, and geochemical properties such as salinity, anions, cations, alkalinity, hardness, and pH.

Chemical concentrations in groundwater were screened against NAWQC for the protection of saltwater aquatic life and MCLs. If concentrations of an organic compound exceeded the NAWQC and/or MCL in at least one sampling round at a given location, that compound was considered a COPEC and/or COPC, respectively, at that location. If concentrations of an inorganic compound exceeded the NAWQC and/or MCL in more than one sampling at a given location, that compound was considered a COPEC and/or a COPC, respectively, at that location. Inorganics were screened differently because they often occur naturally. Mercury, nickel, silver, 1,2-dichloroethane, 1,2-dichloroethene (total), benzene, cis-1,2-dichloroethene, and vinyl chloride were identified as COPECs and/or COPCs for the samples collected from the IRP Site 9 monitoring wells.

The data indicated that the Semi-Perched Aquifer may have been affected by VOCs and metals in the vicinity of IRP Site 9. The basewide groundwater investigation recommended an additional ERA and HHRA to evaluate impacts of VOCs and metals in the groundwater at IRP Site 9.

7.1.3.9 Results of Field Sampling, Parcel 15, IRP Site 9 (West Coast 2003a)

In 2003, a field sampling effort was conducted at IRP Site 9 to evaluate if the berms and the existing soil Stockpiles Areas A and B may be used as clean fill on other areas of the base. A total of 42 soil borings were advanced within the berms and Stockpiles Areas A and B. One sample was collected from each boring. Soil samples were collected from 1.0, 3.0, 5.0, 7.0, and 9.0 feet bgs, determined by the soil depth in the sampling area. Ten borings and samples were advanced and collected from Stockpile A, 7 borings and samples were advanced and collected from Stockpile B, and 25 borings and samples were advanced and collected from the berms. Samples were analyzed for TPH, VOCs, SVOCs, pesticides/PCBs, and metals. Analytical results were compared to various screening criteria and action levels to determine how the excavated soil could be reused or disposed. Screening criteria included *California Code of Regulations* (CCR) Title 22, threshold concentration limits (TTLC), STLCs, and toxicity

characteristic leaching procedures (TCLP); RWQCB guidance levels for benzene, toluene, ethylbenzene, and xylene (BTEX) and TPH; EPA PRGs; Southern California ambient background levels for arsenic; and DTSC 2001 guidance levels.

Various concentrations of analytes were detected in samples from Stockpile A. All detected concentrations were below the EPA PRGs for residential soil and RWQCB guidelines, and the CCR Title 22 were applicable, thus satisfying the data quality objectives (DQO) for the project. Arsenic was also detected, but at levels well within the expected range for background levels for CBC Port Hueneme. Therefore, the soil from Stockpile A was determined to be suitable for use as clean fill.

Various concentrations of analytes were detected in samples collected from Stockpile B. PCBs were detected in three samples at levels exceeding the EPA PRGs for residential soil; however below the CCR Title 22 TTLC limits. Arsenic was detected in the samples, but at levels well within the expected range for background levels for CBC Port Hueneme. Elevated levels of TPH, lead, and zinc were also detected in samples from Stockpile B. The TPH levels exceeded the RWQCB guidelines for protection of groundwater. Lead and zinc were detected above EPA PRGs for residential use, but below the PRGs for industrial use. In a subsequent waste extraction test (WET), zinc was not found to be above the California Hazard Waste level for zinc in soil. In accordance with the DQOs for the project, since the levels of lead were below EPA PRGs for industrial use, the soil from Stockpile B could be used as fill material; however because PCBs were detected at levels exceeding the EPA industrial PRGs, the soil from Stockpile B was eliminated as a source for clean fill.

Analytes detected in soil samples collected from the berms were all below the EPA PRGs for residential soil with the exception of a slightly elevated level of PCB detected in one sample. Based on the results of statistical analysis, it was determined that the soil from the berms could be used as clean fill. Arsenic was also detected, but at levels well within the expected range for background levels for CBC Port Hueneme.

Soil from Stockpile A was excavated and used as fill material at IRP Site 8 to provide a base for a planned asphalt parking lot. Approximately 95 percent of the soil from the berms was excavated and also used as fill at IRP Site 8. The field sampling report for this investigation is included as Appendix C.

7.1.3.10 Long-Term Maintenance LTM#P7, Project 2, Limited Soil Sampling Assessment, Stockpile B, Parcel 15, IR Site 9 (West Coast 2003b)

Also in 2003, an additional investigation was conducted at Stockpile B at IRP Site 9. The investigation included excavating three trenches in Stockpile B (Slot 1, Slot 2, and Slot 3). Two planned soil samples were collected from the side walls of each trench—one from the northern end of the cut and one from the southern end of the cut. One composite sample was collected from each of three stockpiles created from the trench excavations. Additional samples were taken from the trenches based on observed changes in soil conditions. Five samples were collected from Slot 1, three samples were collected from Slot 2, and four samples were collected

from Slot 3. The samples were analyzed for TPH, SVOCs, metals, and PCBs. Soil sampling results compared to screening criteria including CCR, Title 22, TTLC for characterizing hazardous waste; STLCs for metals; RWQCB guidance levels for TPH; and EPA PRGs.

TPH, metals (arsenic, chromium, copper, lead, nickel, cadmium, zinc), and PCBs were detected at concentrations that exceeded or had the potential to exceed (based on a laboratory dilution factor) their applicable screening criteria. The investigation confirmed that the soil from Stockpile B does not meet the criteria for clean fill and recommended that the stockpile be treated as part of a proposed removal action for IRP Site 9.

7.1.3.11 Final Action Memorandum for a Time-Critical Removal Action at IRP Site 9, Stockpile B (Navy 2004)

In 2004, the Navy submitted a final AM to document, for the administrative record, the decision to undertake a time-critical removal action for contaminated soil contained in what is known as Stockpile B at IRP Site 9.

7.2 COMPILATION OF EXISTING SITE DATA

Available data, typically that collected after 1993, has been compiled and tabulated for use in identifying data gaps and additional site activities required to obtain site closure. The available data were screened against the EPA residential soil and tap water PRGs. Additional data may be available in previous reports prepared for this site. Dependent upon the site activities identified to obtain site closure, this data may also be reviewed to determine if it is suitable for use in additional evaluations.

Table 7-1 summarizes the samples collected at IRP Site 9. Table 7-2 includes the soil analytical data for IRP Site 9, and Figure 7-2 shows the concentrations of constituents in soil samples that exceed screening criteria. Table 7-3 includes the groundwater analytical data for IRP Site 9, and Figure 7-3 shows the concentrations of constituents in groundwater samples that exceed screening criteria.

7.3 DATA GAPS

For this SMP, the previous investigations and collected data for IRP Site 9 were reviewed to verify that sufficient information is available to support the final actions and documentation needed to close the site. Identified data gaps and proposed actions to eliminate those data gaps are discussed below.

7.3.1 Soil Data Gaps

A removal action is proposed for IRP Site 9 to remove Stockpile B, which has been identified as a possible source of contaminants in groundwater. Confirmation sampling data from this removal will be incorporated into an HHRA and ERA.

7.3.2 Groundwater Data Gaps

Additional monitoring wells are needed at IRP Site 9. Groundwater sampling in both new and existing monitoring wells is required to assess groundwater conditions and support an HHRA and ERA.

7.3.3 Human Health Risk Assessment Data Gaps

Only soil exposures were evaluated in a BHHRA completed for IRP Site 9 (PRC 1997a). Potential risks from exposure to groundwater have not been evaluated for the site. Additional groundwater sampling and soil confirmation sampling is proposed at the site; therefore, existing and new soil data as well as existing and new groundwater data will be evaluated in a new HHRA. The HHRA will evaluate potential risks for exposure to both soil and groundwater at the site. The HHRA will use contemporary EPA, DTSC, and Navy risk assessment guidance to ensure that site soil and groundwater risk assessments are based on current methodology.

7.3.4 Ecological Risk Assessment Data Gaps

An ERA has not been completed for this site. A habitat survey of IRP Site 9 will be completed to determine if a viable habitat exists for ecological receptors. Further risk evaluation in conjunction with a removal action has been proposed for Stockpile B at IRP Site 9. To supplement these activities, additional monitoring wells are needed on IRP Site 9 and additional groundwater sampling in both new and existing monitoring wells is required to assess groundwater conditions and support an HHRA and ERA.

7.4 STRATEGY FOR ELIMINATING DATA GAPS

To eliminate the data gaps identified for IRP Site 9, three additional groundwater monitoring wells; S09MW07, S09MW08, and S09MW09, will be installed downgradient of Stockpile B at IRP Site 9 (Figure 7-4). Existing monitoring well S09MW05 will be decommissioned as part of the Stockpile B removal action and replacement well S09MW05R will be installed as a fourth downgradient well (Figure 7-4). Existing monitoring wells S09MW02 and S09MW03R will function as upgradient wells. Four quarters of groundwater sampling will be conducted at two of the existing groundwater monitoring wells (S09MW02 and S09MW03R), the three proposed monitoring wells (S09MW07, S09MW08, and S09MW09), and the replacement well (S09MW05R) at IRP Site 9. The samples will be analyzed for VOCs, SVOCs, TPH-p and TPH-e, pesticides/PCBs, and dissolved metals. The proposed monitoring well installations and groundwater sampling schemes for IRP Site 9 are as follows:

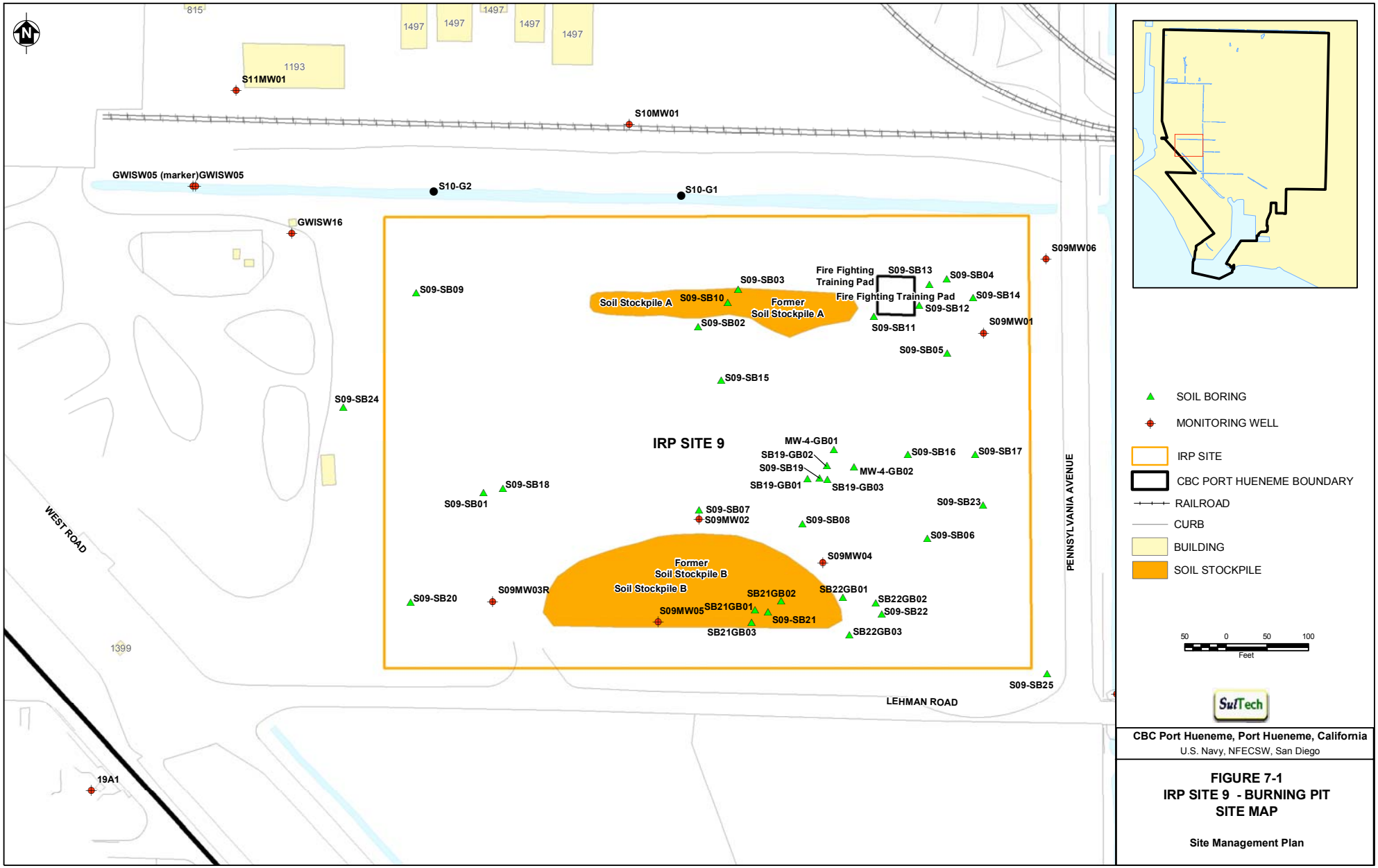
Well ID	Borehole Diameter (inches)	Well Diameter (inches)	Well Depth (feet bgs)	Screened Interval (feet bgs)	Up/Down Gradient	Estimated Water Level (feet bgs)
S09MW07	8.0	2.0	20	5.0-15	Down	8
S09MW08	8.0	2.0	20	5.0-15	Down	8
S09MW09	8.0	2.0	20	5.0-15	Down	8
S09MW05R	8.0	2.0	20	5.0-15	Down	8

Well ID	Well Diameter (inches)	Well Depth (feet bgs)	Screened Interval (feet bgs)	Estimated Depth to Water (feet bgs)	Analyses
S09MW02	4.0	19	3.5-18.5	4.6	VOC, SVOC, TPH-purgeable, TPH-extractable, pesticides/PCB, metals
S09MW03R	4.0	14	4.0-14.4	5.7	Same as above
S09MW05R	2.0	20	10-20	8	Same as above
S09MW07	2.0	20	5.0-15	8	Same as above
S09MW08	2.0	20	5.0-15	8	Same as above
S09MW09	2.0	20	5.0-15	8	Same as above

The new groundwater data will be compiled, combined with previously collected data presented in Tables 7-2 and 7-3, and evaluated for cumulative risk using EPA PRGs. The data will be evaluated in an HHRA to identify site-specific risks to human health from soil and groundwater. Soil data from post-removal confirmation sampling associated with Stockpile B will be combined with existing data for the site to complete the soil portion of the HHRA. A habitat survey of IRP Site 9 will be completed to determine if there is viable habitat for ecological receptors. If viable habitat does exist, a screening level ERA, based on surface soil data collected at the site, will be conducted. If there is evidence of burrowing animals at the site, the ERA will include an evaluation of vapor exposure for these animals in their burrows. To establish whether a complete vapor exposure pathway exists for burrowing animals, the depth to the Semi-Perched Aquifer will also be considered in this analysis.

The results of these evaluations, as well as conclusions and recommendations for any additional site activities, will be presented in an RI report.

FIGURES



CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

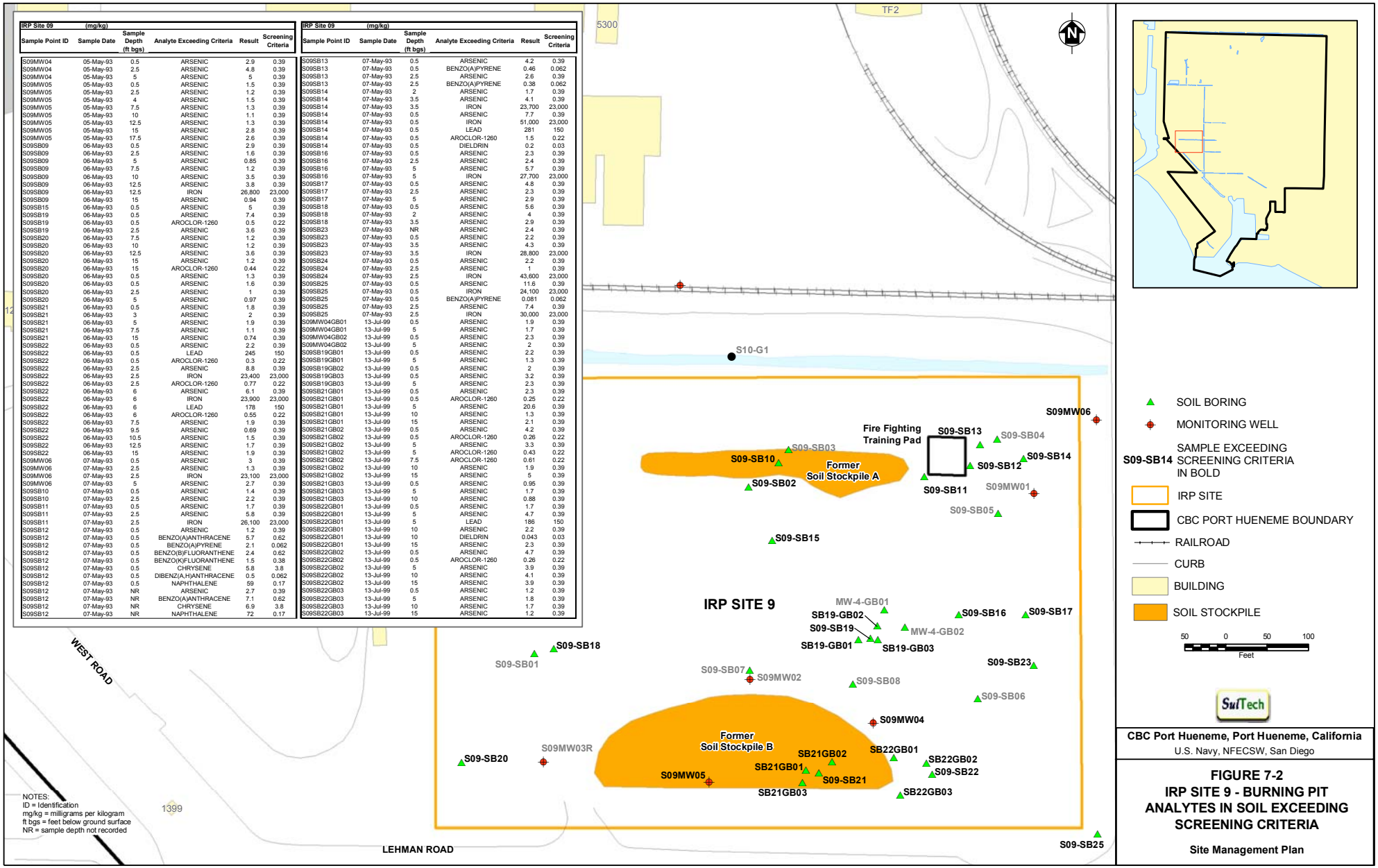
FIGURE 7-1
IRP SITE 9 - BURNING PIT
SITE MAP

Site Management Plan

fig7-1_PHSMP_IRPSite9_sitemap_121704.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases

IRP Site 09	(mg/kg)				
Sample Point ID	Sample Date	Sample Depth (ft bgs)	Analyte Exceeding Criteria	Result	Screening Criteria
S09MW04	05-May-93	0.5	ARSENIC	2.9	0.39
S09MW04	05-May-93	2.5	ARSENIC	4.8	0.39
S09MW04	05-May-93	5	ARSENIC	5	0.39
S09MW05	05-May-93	0.5	ARSENIC	1.5	0.39
S09MW05	05-May-93	2.5	ARSENIC	1.2	0.39
S09MW05	05-May-93	4	ARSENIC	1.5	0.39
S09MW05	05-May-93	7.5	ARSENIC	1.3	0.39
S09MW05	05-May-93	10	ARSENIC	1.1	0.39
S09MW05	05-May-93	12.5	ARSENIC	1.3	0.39
S09MW05	05-May-93	15	ARSENIC	2.8	0.39
S09MW05	05-May-93	17.5	ARSENIC	2.6	0.39
S09SB09	06-May-93	0.5	ARSENIC	2.9	0.39
S09SB09	06-May-93	2.5	ARSENIC	1.6	0.39
S09SB09	06-May-93	5	ARSENIC	0.85	0.39
S09SB09	06-May-93	7.5	ARSENIC	1.2	0.39
S09SB09	06-May-93	10	ARSENIC	3.5	0.39
S09SB09	06-May-93	12.5	ARSENIC	3.8	0.39
S09SB09	06-May-93	12.5	IRON	26,800	23,000
S09SB09	06-May-93	15	ARSENIC	0.94	0.39
S09SB15	06-May-93	0.5	ARSENIC	5	0.39
S09SB19	06-May-93	0.5	ARSENIC	7.4	0.39
S09SB19	06-May-93	0.5	AROCLOR-1260	0.5	0.22
S09SB19	06-May-93	2.5	ARSENIC	3.6	0.39
S09SB20	06-May-93	7.5	ARSENIC	1.2	0.39
S09SB20	06-May-93	10	ARSENIC	1.2	0.39
S09SB20	06-May-93	12.5	ARSENIC	3.6	0.39
S09SB20	06-May-93	15	ARSENIC	1.2	0.39
S09SB20	06-May-93	15	AROCLOR-1260	0.44	0.22
S09SB20	06-May-93	0.5	ARSENIC	1.3	0.39
S09SB20	06-May-93	0.5	ARSENIC	1.6	0.39
S09SB20	06-May-93	2.5	ARSENIC	1	0.39
S09SB20	06-May-93	5	ARSENIC	0.97	0.39
S09SB21	06-May-93	0.5	ARSENIC	1.8	0.39
S09SB21	06-May-93	3	ARSENIC	2	0.39
S09SB21	06-May-93	5	ARSENIC	1.9	0.39
S09SB21	06-May-93	7.5	ARSENIC	1.1	0.39
S09SB21	06-May-93	15	ARSENIC	0.74	0.39
S09SB22	06-May-93	0.5	ARSENIC	2.2	0.39
S09SB22	06-May-93	0.5	LEAD	245	150
S09SB22	06-May-93	0.5	AROCLOR-1260	0.3	0.22
S09SB22	06-May-93	2.5	ARSENIC	8.8	0.39
S09SB22	06-May-93	2.5	IRON	23,400	23,000
S09SB22	06-May-93	2.5	AROCLOR-1260	0.77	0.22
S09SB22	06-May-93	6	ARSENIC	6.1	0.39
S09SB22	06-May-93	6	IRON	23,900	23,000
S09SB22	06-May-93	6	LEAD	178	150
S09SB22	06-May-93	6	AROCLOR-1260	0.55	0.22
S09SB22	06-May-93	7.5	ARSENIC	1.9	0.39
S09SB22	06-May-93	9.5	ARSENIC	0.69	0.39
S09SB22	06-May-93	10.5	ARSENIC	1.5	0.39
S09SB22	06-May-93	12.5	ARSENIC	1.7	0.39
S09SB22	06-May-93	15	ARSENIC	1.9	0.39
S09MW06	07-May-93	0.5	ARSENIC	3	0.39
S09MW06	07-May-93	2.5	ARSENIC	1.3	0.39
S09MW06	07-May-93	2.5	IRON	23,100	23,000
S09MW06	07-May-93	5	ARSENIC	2.7	0.39
S09SB10	07-May-93	0.5	ARSENIC	1.4	0.39
S09SB10	07-May-93	2.5	ARSENIC	2.2	0.39
S09SB11	07-May-93	0.5	ARSENIC	1.7	0.39
S09SB11	07-May-93	2.5	ARSENIC	5.8	0.39
S09SB11	07-May-93	2.5	IRON	26,100	23,000
S09SB12	07-May-93	0.5	ARSENIC	1.2	0.39
S09SB12	07-May-93	0.5	BENZO(A)ANTHRACENE	5.7	0.62
S09SB12	07-May-93	0.5	BENZO(A)PYRENE	2.1	0.062
S09SB12	07-May-93	0.5	BENZO(B)FLUORANTHENE	2.4	0.62
S09SB12	07-May-93	0.5	BENZO(K)FLUORANTHENE	1.5	0.38
S09SB12	07-May-93	0.5	CHRYSENE	5.8	3.8
S09SB12	07-May-93	0.5	DIBENZ(A,H)ANTHRACENE	0.5	0.062
S09SB12	07-May-93	0.5	NAPHTHALENE	59	0.17
S09SB12	07-May-93	NR	ARSENIC	2.7	0.39
S09SB12	07-May-93	NR	BENZO(A)ANTHRACENE	7.1	0.62
S09SB12	07-May-93	NR	CHRYSENE	6.9	3.8
S09SB12	07-May-93	NR	NAPHTHALENE	72	0.17

IRP Site 09	(mg/kg)				
Sample Point ID	Sample Date	Sample Depth (ft bgs)	Analyte Exceeding Criteria	Result	Screening Criteria
S09SB13	07-May-93	0.5	ARSENIC	4.2	0.39
S09SB13	07-May-93	0.5	BENZO(A)PYRENE	0.46	0.062
S09SB13	07-May-93	2.5	ARSENIC	2.6	0.39
S09SB13	07-May-93	2.5	BENZO(A)PYRENE	0.38	0.062
S09SB14	07-May-93	2	ARSENIC	1.7	0.39
S09SB14	07-May-93	3.5	ARSENIC	4.1	0.39
S09SB14	07-May-93	3.5	IRON	23,700	23,000
S09SB14	07-May-93	0.5	ARSENIC	7.7	0.39
S09SB14	07-May-93	0.5	IRON	51,000	23,000
S09SB14	07-May-93	0.5	LEAD	281	150
S09SB14	07-May-93	0.5	AROCLOR-1260	1.5	0.22
S09SB14	07-May-93	0.5	DIELDRIN	0.2	0.03
S09SB16	07-May-93	0.5	ARSENIC	2.3	0.39
S09SB16	07-May-93	2.5	ARSENIC	2.4	0.39
S09SB16	07-May-93	5	ARSENIC	5.7	0.39
S09SB16	07-May-93	5	IRON	27,700	23,000
S09SB17	07-May-93	0.5	ARSENIC	4.8	0.39
S09SB17	07-May-93	2.5	ARSENIC	2.3	0.39
S09SB17	07-May-93	5	ARSENIC	2.9	0.39
S09SB18	07-May-93	0.5	ARSENIC	5.6	0.39
S09SB18	07-May-93	2	ARSENIC	4	0.39
S09SB18	07-May-93	3.5	ARSENIC	2.9	0.39
S09SB23	07-May-93	NR	ARSENIC	2.4	0.39
S09SB23	07-May-93	0.5	ARSENIC	2.2	0.39
S09SB23	07-May-93	3.5	ARSENIC	4.3	0.39
S09SB23	07-May-93	3.5	IRON	28,800	23,000
S09SB24	07-May-93	0.5	ARSENIC	2.2	0.39
S09SB24	07-May-93	2.5	ARSENIC	1	0.39
S09SB24	07-May-93	2.5	IRON	43,600	23,000
S09SB25	07-May-93	0.5	ARSENIC	11.6	0.39
S09SB25	07-May-93	0.5	IRON	24,100	23,000
S09SB25	07-May-93	0.5	BENZO(A)PYRENE	0.081	0.062
S09SB25	07-May-93	2.5	ARSENIC	7.4	0.39
S09SB25	07-May-93	2.5	IRON	30,000	23,000
S09MW04GB01	13-Jul-99	0.5	ARSENIC	1.9	0.39
S09MW04GB01	13-Jul-99	5	ARSENIC	1.7	0.39
S09MW04GB02	13-Jul-99	0.5	ARSENIC	2.3	0.39
S09MW04GB02	13-Jul-99	5	ARSENIC	2	0.39
S09SB19GB01	13-Jul-99	0.5	ARSENIC	2.2	0.39
S09SB19GB01	13-Jul-99	5	ARSENIC	1.3	0.39
S09SB19GB02	13-Jul-99	0.5	ARSENIC	2	0.39
S09SB19GB03	13-Jul-99	0.5	ARSENIC	3.2	0.39
S09SB19GB03	13-Jul-99	5	ARSENIC	2.3	0.39
S09SB21GB01	13-Jul-99	0.5	ARSENIC	2.3	0.39
S09SB21GB01	13-Jul-99	0.5	AROCLOR-1260	0.25	0.22
S09SB21GB01	13-Jul-99	5	ARSENIC	20.6	0.39
S09SB21GB01	13-Jul-99	10	ARSENIC	1.3	0.39
S09SB21GB01	13-Jul-99	15	ARSENIC	2.1	0.39
S09SB21GB02	13-Jul-99	0.5	ARSENIC	4.2	0.39
S09SB21GB02	13-Jul-99	0.5	AROCLOR-1260	0.26	0.22
S09SB21GB02	13-Jul-99	5	ARSENIC	3.3	0.39
S09SB21GB02	13-Jul-99	5	AROCLOR-1260	0.43	0.22
S09SB21GB02	13-Jul-99	7.5	AROCLOR-1260	0.61	0.22
S09SB21GB02	13-Jul-99	10	ARSENIC	1.9	0.39
S09SB21GB02	13-Jul-99	15	ARSENIC	5	0.39
S09SB21GB03	13-Jul-99	0.5	ARSENIC	0.95	0.39
S09SB21GB03	13-Jul-99	5	ARSENIC	1.7	0.39
S09SB21GB03	13-Jul-99	10	ARSENIC	0.88	0.39
S09SB22GB01	13-Jul-99	0.5	ARSENIC	1.7	0.39
S09SB22GB01	13-Jul-99	5	ARSENIC	4.7	0.39
S09SB22GB01	13-Jul-99	5	LEAD	186	150
S09SB22GB01	13-Jul-99	10	ARSENIC	2.2	0.39
S09SB22GB01	13-Jul-99	10	DIELDRIN	0.043	0.03
S09SB22GB01	13-Jul-99	15	ARSENIC	2.3	0.39
S09SB22GB02	13-Jul-99	0.5	ARSENIC	4.7	0.39
S09SB22GB02	13-Jul-99	0.5	AROCLOR-1260	0.26	0.22
S09SB22GB02	13-Jul-99	5	ARSENIC	3.9	0.39
S09SB22GB02	13-Jul-99	10	ARSENIC	4.1	0.39
S09SB22GB02	13-Jul-99	15	ARSENIC	3.9	0.39
S09SB22GB03	13-Jul-99	0.5	ARSENIC	1.2	0.39
S09SB22GB03	13-Jul-99	5	ARSENIC	1.8	0.39
S09SB22GB03	13-Jul-99	10	ARSENIC	1.7	0.39
S09SB22GB03	13-Jul-99	15	ARSENIC	1.2	0.39



NOTES:
ID = Identification
mg/kg = milligrams per kilogram
ft bgs = feet below ground surface
NR = sample depth not recorded

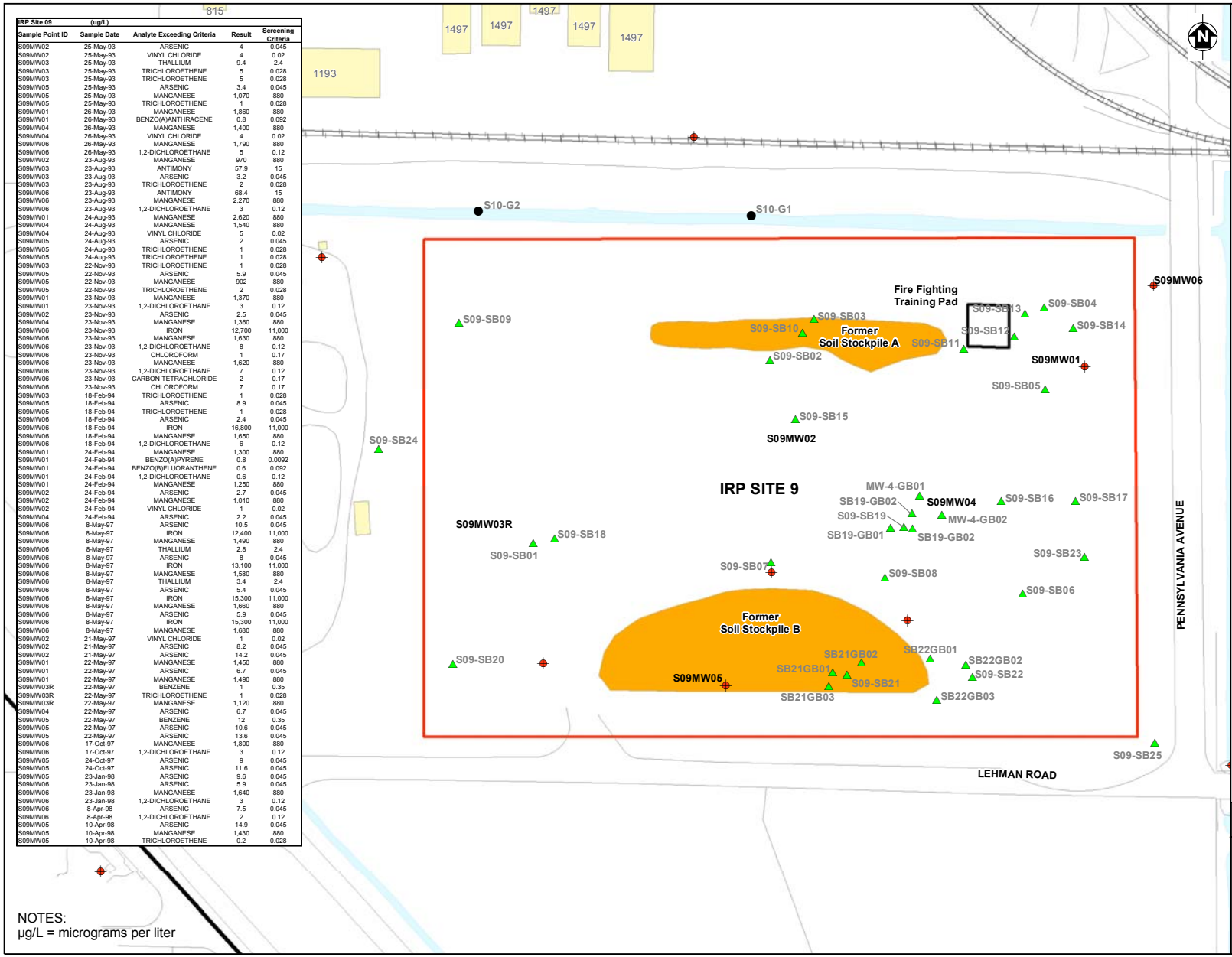
CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

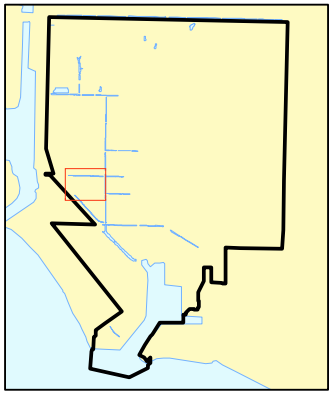
FIGURE 7-2
IRP SITE 9 - BURNING PIT
ANALYTES IN SOIL EXCEEDING SCREENING CRITERIA

Site Management Plan

fig7-2_PHFSMP_IRPSite9_soil_010405.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases

IRP Site 09	(ug/L)			
Sample Point ID	Sample Date	Analyte Exceeding Criteria	Result	Screening Criteria
S09MW02	25-May-93	ARSENIC	4	0.045
S09MW02	25-May-93	VINYL CHLORIDE	4	0.02
S09MW03	25-May-93	THALLIUM	9.4	2.4
S09MW03	25-May-93	TRICHLOROETHENE	5	0.028
S09MW03	25-May-93	TRICHLOROETHENE	5	0.028
S09MW05	25-May-93	ARSENIC	3.4	0.045
S09MW05	25-May-93	MANGANESE	1,070	880
S09MW05	25-May-93	TRICHLOROETHENE	1	0.028
S09MW01	26-May-93	MANGANESE	1,860	880
S09MW01	26-May-93	BENZO(A)ANTHRACENE	0.8	0.092
S09MW04	26-May-93	MANGANESE	1,400	880
S09MW04	26-May-93	VINYL CHLORIDE	4	0.02
S09MW06	26-May-93	MANGANESE	1,790	880
S09MW06	26-May-93	1,2-DICHLOROETHANE	5	0.12
S09MW02	23-Aug-93	MANGANESE	970	880
S09MW03	23-Aug-93	ANTIMONY	57.9	15
S09MW03	23-Aug-93	ARSENIC	3.2	0.045
S09MW03	23-Aug-93	TRICHLOROETHENE	2	0.028
S09MW06	23-Aug-93	ANTIMONY	68.4	15
S09MW06	23-Aug-93	MANGANESE	2,270	880
S09MW06	23-Aug-93	1,2-DICHLOROETHANE	3	0.12
S09MW01	24-Aug-93	MANGANESE	2,620	880
S09MW04	24-Aug-93	MANGANESE	1,540	880
S09MW04	24-Aug-93	VINYL CHLORIDE	5	0.02
S09MW05	24-Aug-93	ARSENIC	2	0.045
S09MW05	24-Aug-93	TRICHLOROETHENE	1	0.028
S09MW05	24-Aug-93	TRICHLOROETHENE	1	0.028
S09MW03	22-Nov-93	TRICHLOROETHENE	1	0.028
S09MW05	22-Nov-93	ARSENIC	5.9	0.045
S09MW05	22-Nov-93	MANGANESE	902	880
S09MW05	22-Nov-93	TRICHLOROETHENE	2	0.028
S09MW01	23-Nov-93	MANGANESE	1,370	880
S09MW01	23-Nov-93	1,2-DICHLOROETHANE	3	0.12
S09MW02	23-Nov-93	ARSENIC	2.5	0.045
S09MW04	23-Nov-93	MANGANESE	1,360	880
S09MW06	23-Nov-93	IRON	12,700	11,000
S09MW06	23-Nov-93	MANGANESE	1,630	880
S09MW06	23-Nov-93	1,2-DICHLOROETHANE	8	0.12
S09MW06	23-Nov-93	CHLOROFORM	1	0.17
S09MW06	23-Nov-93	MANGANESE	1,620	880
S09MW06	23-Nov-93	1,2-DICHLOROETHANE	7	0.12
S09MW06	23-Nov-93	CARBON TETRACHLORIDE	2	0.17
S09MW06	23-Nov-93	CHLOROFORM	7	0.17
S09MW03	18-Feb-94	TRICHLOROETHENE	1	0.028
S09MW05	18-Feb-94	ARSENIC	8.9	0.045
S09MW05	18-Feb-94	TRICHLOROETHENE	1	0.028
S09MW06	18-Feb-94	ARSENIC	2.4	0.045
S09MW06	18-Feb-94	IRON	16,800	11,000
S09MW06	18-Feb-94	MANGANESE	1,650	880
S09MW06	18-Feb-94	1,2-DICHLOROETHANE	6	0.12
S09MW01	24-Feb-94	MANGANESE	1,300	880
S09MW01	24-Feb-94	BENZO(A)PYRENE	0.8	0.0092
S09MW01	24-Feb-94	BENZO(B)FLUORANTHENE	0.6	0.092
S09MW01	24-Feb-94	1,2-DICHLOROETHANE	0.6	0.12
S09MW01	24-Feb-94	MANGANESE	1,250	880
S09MW02	24-Feb-94	ARSENIC	2.7	0.045
S09MW02	24-Feb-94	MANGANESE	1,010	880
S09MW02	24-Feb-94	VINYL CHLORIDE	1	0.02
S09MW04	24-Feb-94	ARSENIC	2.2	0.045
S09MW06	8-May-97	ARSENIC	10.5	0.045
S09MW06	8-May-97	IRON	12,400	11,000
S09MW06	8-May-97	MANGANESE	1,490	880
S09MW06	8-May-97	THALLIUM	2.8	2.4
S09MW06	8-May-97	ARSENIC	8	0.045
S09MW06	8-May-97	IRON	13,100	11,000
S09MW06	8-May-97	MANGANESE	1,580	880
S09MW06	8-May-97	THALLIUM	3.4	2.4
S09MW06	8-May-97	ARSENIC	5.4	0.045
S09MW06	8-May-97	IRON	15,300	11,000
S09MW06	8-May-97	MANGANESE	1,660	880
S09MW06	8-May-97	ARSENIC	5.9	0.045
S09MW06	8-May-97	IRON	15,300	11,000
S09MW06	8-May-97	MANGANESE	1,680	880
S09MW02	21-May-97	VINYL CHLORIDE	1	0.02
S09MW02	21-May-97	ARSENIC	8.2	0.045
S09MW02	21-May-97	ARSENIC	14.2	0.045
S09MW01	22-May-97	MANGANESE	1,450	880
S09MW01	22-May-97	ARSENIC	6.7	0.045
S09MW01	22-May-97	MANGANESE	1,490	880
S09MW03R	22-May-97	BENZENE	1	0.35
S09MW03R	22-May-97	TRICHLOROETHENE	1	0.028
S09MW03R	22-May-97	MANGANESE	1,120	880
S09MW04	22-May-97	ARSENIC	6.7	0.045
S09MW05	22-May-97	BENZENE	12	0.35
S09MW05	22-May-97	ARSENIC	10.6	0.045
S09MW05	22-May-97	ARSENIC	13.6	0.045
S09MW06	17-Oct-97	MANGANESE	1,800	880
S09MW06	17-Oct-97	1,2-DICHLOROETHANE	3	0.12
S09MW05	24-Oct-97	ARSENIC	9	0.045
S09MW05	24-Oct-97	ARSENIC	11.6	0.045
S09MW05	23-Jan-98	ARSENIC	9.6	0.045
S09MW06	23-Jan-98	ARSENIC	5.9	0.045
S09MW06	23-Jan-98	MANGANESE	1,640	880
S09MW06	23-Jan-98	1,2-DICHLOROETHANE	3	0.12
S09MW06	8-Apr-98	ARSENIC	7.5	0.045
S09MW06	8-Apr-98	1,2-DICHLOROETHANE	2	0.12
S09MW05	10-Apr-98	ARSENIC	14.9	0.045
S09MW05	10-Apr-98	MANGANESE	1,430	880
S09MW05	10-Apr-98	TRICHLOROETHENE	0.2	0.028





SOIL BORING

MONITORING WELL

S09MW01 SAMPLE EXCEEDING SCREENING CRITERIA IN BOLD

IRP SITE

CBC PORT HUENEME BOUNDARY

RAILROAD

CURB

BUILDING

SOIL STOCKPILE

50 0 50 100
Feet

SulTech

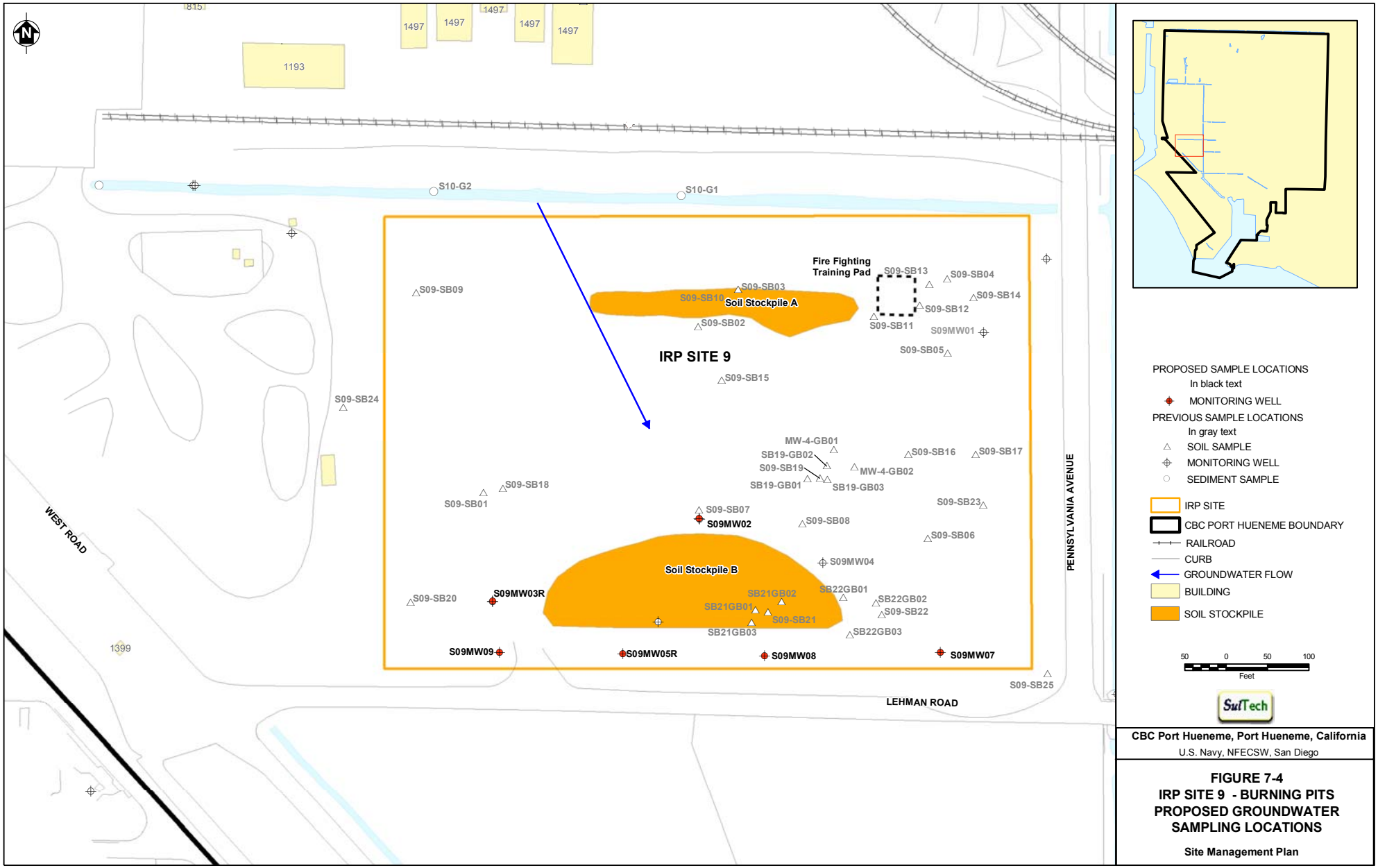
CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 7-3
IRP SITE 9 - BURNING PIT
ANALYTES IN GROUNDWATER
EXCEEDING SCREENING CRITERIA

Site Management Plan

NOTES:
µg/L = micrograms per liter

fig7-3_PHFSMP_IRPSite9_GW_010405.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases



CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 7-4
IRP SITE 9 - BURNING PITS
PROPOSED GROUNDWATER SAMPLING LOCATIONS

Site Management Plan

fig7-4_PHFSMP_IRPSite9_sitemap_121704.mxd TtEMI-HE Ed Madej
Data Source: SulTech GIS databases

TABLES

TABLE 7-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 09

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
123-S09-095	SOIL	05/05/93	S09MW04	ORIG	0.50 - 0.50		✓	✓	✓	✓	✓	✓					
123-S09-096	SOIL	05/05/93	S09MW04	ORIG	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
123-S09-097	SOIL	05/05/93	S09MW04	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
274045	SOIL	07/13/99	S09MW04GB01	ORIG	0.50 - 1.50		✓	✓				✓					
274046	SOIL	07/13/99	S09MW04GB01	ORIG	5.00 - 6.50							✓					
274049	SOIL	07/13/99	S09MW04GB02	ORIG	0.50 - 1.50		✓	✓				✓					
274050	SOIL	07/13/99	S09MW04GB02	ORIG	5.00 - 6.50							✓					
123-S09-100	SOIL	05/05/93	S09MW05	ORIG	0.50 - 0.50		✓	✓	✓	✓	✓	✓					
123-S09-101	SOIL	05/05/93	S09MW05	ORIG	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
123-S09-102	SOIL	05/05/93	S09MW05	DUP	4.00 - 4.00	✓	✓	✓	✓	✓	✓	✓					
123-S09-103	SOIL	05/05/93	S09MW05	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S09-104	SOIL	05/05/93	S09MW05	ORIG	7.50 - 7.50	✓	✓	✓	✓	✓	✓	✓					
123-S09-105	SOIL	05/05/93	S09MW05	ORIG	10.00 - 10.00	✓	✓	✓	✓	✓	✓	✓					
123-S09-176	SOIL	05/05/93	S09MW05	ORIG	12.50 - 12.50	✓	✓	✓	✓	✓	✓	✓					
123-S09-177	SOIL	05/05/93	S09MW05	ORIG	15.00 - 15.00	✓	✓	✓	✓	✓	✓	✓					
123-S09-178	SOIL	05/05/93	S09MW05	ORIG	17.50 - 17.50	✓	✓	✓	✓	✓	✓	✓					
123-S09-106	SOIL	05/07/93	S09MW06	ORIG	0.50 - 0.50		✓	✓	✓	✓	✓	✓					
123-S09-107	SOIL	05/07/93	S09MW06	ORIG	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
123-S09-108	SOIL	05/07/93	S09MW06	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S09-001	SOIL	05/06/93	S09SB09	ORIG	0.50 - 0.50		✓	✓	✓	✓	✓	✓					
123-S09-002	SOIL	05/06/93	S09SB09	ORIG	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
123-S09-003	SOIL	05/06/93	S09SB09	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S09-004	SOIL	05/06/93	S09SB09	ORIG	7.50 - 7.50	✓	✓	✓	✓	✓	✓	✓					
123-S09-005	SOIL	05/06/93	S09SB09	ORIG	10.00 - 10.00	✓	✓	✓	✓	✓	✓	✓					
123-S09-183	SOIL	05/06/93	S09SB09	ORIG	12.50 - 12.50	✓	✓	✓	✓	✓	✓	✓					

TABLE 7-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 09 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
123-S09-184	SOIL	05/06/93	S09SB09	ORIG	15.00 - 15.00	✓	✓	✓	✓	✓	✓	✓					
123-S09-006	SOIL	05/07/93	S09SB10	ORIG	0.50 - 0.50		✓	✓	✓	✓	✓	✓					
123-S09-007	SOIL	05/07/93	S09SB10	ORIG	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
123-S09-011	SOIL	05/07/93	S09SB11	ORIG	0.50 - 0.50		✓	✓	✓	✓	✓	✓				✓	
123-S09-012	SOIL	05/07/93	S09SB11	ORIG	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
123-S09-017	SOIL	05/07/93	S09SB12	ORIG	0.50 - 0.50		✓	✓	✓	✓	✓	✓				✓	
123-S09-188A	SOIL	05/07/93	S09SB12	DUP	0.00 - 0.00				✓	✓	✓	✓					
123-S09-023	SOIL	05/07/93	S09SB13	ORIG	0.50 - 0.50		✓	✓	✓	✓	✓	✓					
123-S09-024	SOIL	05/07/93	S09SB13	ORIG	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
123-S09-028	SOIL	05/07/93	S09SB14	ORIG	0.50 - 0.50		✓	✓	✓	✓	✓	✓					
123-S09-029	SOIL	05/07/93	S09SB14	ORIG	2.00 - 2.00	✓	✓	✓	✓	✓	✓	✓					
123-S09-030	SOIL	05/07/93	S09SB14	ORIG	3.50 - 3.50	✓	✓	✓	✓	✓	✓	✓					
123-S09-034	SOIL	05/06/93	S09SB15	ORIG	0.50 - 0.50		✓	✓	✓	✓	✓	✓					
123-S09-039	SOIL	05/07/93	S09SB16	ORIG	0.50 - 0.50		✓	✓	✓	✓	✓	✓				✓	
123-S09-040	SOIL	05/07/93	S09SB16	ORIG	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
123-S09-041	SOIL	05/07/93	S09SB16	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓				✓	
123-S09-045	SOIL	05/07/93	S09SB17	ORIG	0.50 - 0.50		✓	✓	✓	✓	✓	✓					
123-S09-046	SOIL	05/07/93	S09SB17	ORIG	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
123-S09-047	SOIL	05/07/93	S09SB17	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S09-050	SOIL	05/07/93	S09SB18	ORIG	0.50 - 0.50		✓	✓	✓	✓	✓	✓					
123-S09-051	SOIL	05/07/93	S09SB18	ORIG	2.00 - 2.00	✓	✓	✓	✓	✓	✓	✓					
123-S09-052	SOIL	05/07/93	S09SB18	DUP	3.50 - 3.50	✓	✓	✓	✓	✓	✓	✓					
123-S09-056	SOIL	05/06/93	S09SB19	ORIG	0.50 - 0.50		✓	✓	✓	✓	✓	✓					
123-S09-057	SOIL	05/06/93	S09SB19	ORIG	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
274042	SOIL	07/13/99	S09SB19GB01	ORIG	0.50 - 1.50		✓	✓	✓	✓	✓	✓					

TABLE 7-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 09 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
274043	SOIL	07/13/99	S09SB19GB01	ORIG	5.00 - 6.50		✓	✓				✓					
274044	SOIL	07/13/99	S09SB19GB02	ORIG	0.50 - 1.50		✓	✓	✓	✓	✓	✓					
274061	SOIL	07/13/99	S09SB19GB02	ORIG	5.00 - 5.00		✓	✓		✓	✓						
274047	SOIL	07/13/99	S09SB19GB03	ORIG	0.50 - 1.50		✓	✓	✓	✓	✓	✓					
274048	SOIL	07/13/99	S09SB19GB03	ORIG	5.00 - 6.50		✓	✓				✓					
123-S09-061	SOIL	05/06/93	S09SB20	ORIG	0.50 - 0.50		✓	✓	✓	✓	✓	✓					
123-S09-062	SOIL	05/06/93	S09SB20	DUP	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
123-S09-063	SOIL	05/06/93	S09SB20	ORIG	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
123-S09-064	SOIL	05/06/93	S09SB20	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S09-065	SOIL	05/06/93	S09SB20	ORIG	7.50 - 7.50	✓	✓	✓	✓	✓	✓	✓					
123-S09-066	SOIL	05/06/93	S09SB20	ORIG	10.00 - 10.00	✓	✓	✓	✓	✓	✓	✓					
123-S09-185	SOIL	05/06/93	S09SB20	ORIG	12.50 - 12.50	✓	✓	✓	✓	✓	✓	✓					
123-S09-186	SOIL	05/06/93	S09SB20	ORIG	15.00 - 15.00	✓	✓	✓	✓	✓	✓	✓					
123-S09-067	SOIL	05/06/93	S09SB21	ORIG	0.50 - 0.50		✓	✓	✓	✓	✓	✓					
123-S09-068	SOIL	05/06/93	S09SB21	ORIG	3.00 - 3.00	✓	✓	✓	✓	✓	✓	✓					
123-S09-069	SOIL	05/06/93	S09SB21	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S09-070	SOIL	05/06/93	S09SB21	ORIG	7.50 - 7.50	✓	✓	✓	✓	✓	✓	✓					
123-S09-179	SOIL	05/06/93	S09SB21	ORIG	15.00 - 15.00	✓	✓	✓	✓	✓	✓	✓					
274072	SOIL	07/13/99	S09SB21GB01	ORIG	0.50 - 2.50		✓	✓		✓	✓	✓					
274073	SOIL	07/13/99	S09SB21GB01	ORIG	3.00 - 5.00	✓	✓	✓									
274074	SOIL	07/13/99	S09SB21GB01	ORIG	5.00 - 7.00	✓				✓	✓	✓					
274075	SOIL	07/13/99	S09SB21GB01	ORIG	7.50 - 9.50					✓	✓						
274076	SOIL	07/13/99	S09SB21GB01	ORIG	10.00 - 12.00							✓					
274077	SOIL	07/13/99	S09SB21GB01	ORIG	15.00 - 17.00	✓	✓	✓				✓					
274078	SOIL	07/13/99	S09SB21GB02	ORIG	0.50 - 2.50		✓	✓		✓	✓	✓					

TABLE 7-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 09 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
274079	SOIL	07/13/99	S09SB21GB02	ORIG	3.00 - 5.00	✓	✓	✓									
274080	SOIL	07/13/99	S09SB21GB02	ORIG	5.00 - 7.00	✓				✓	✓	✓					
274081	SOIL	07/13/99	S09SB21GB02	ORIG	7.50 - 9.50					✓	✓						
274082	SOIL	07/13/99	S09SB21GB02	ORIG	10.00 - 12.00							✓					
274083	SOIL	07/13/99	S09SB21GB02	ORIG	15.00 - 17.00	✓	✓	✓				✓					
274084	SOIL	07/13/99	S09SB21GB03	ORIG	0.50 - 2.50		✓	✓		✓	✓	✓					
274085	SOIL	07/13/99	S09SB21GB03	ORIG	2.50 - 4.50	✓	✓	✓									
274086	SOIL	07/13/99	S09SB21GB03	ORIG	5.00 - 7.00	✓				✓	✓	✓					
274087	SOIL	07/13/99	S09SB21GB03	ORIG	7.50 - 9.50					✓	✓						
274088	SOIL	07/13/99	S09SB21GB03	ORIG	10.00 - 12.00							✓					
274089	SOIL	07/13/99	S09SB21GB03	ORIG	15.00 - 17.00	✓	✓	✓				✓					
123-S09-073	SOIL	05/06/93	S09SB22	ORIG	0.50 - 0.50		✓	✓	✓	✓	✓	✓					
123-S09-074	SOIL	05/06/93	S09SB22	ORIG	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
123-S09-075	SOIL	05/06/93	S09SB22	ORIG	6.00 - 6.00	✓	✓	✓	✓	✓	✓	✓					
123-S09-076	SOIL	05/06/93	S09SB22	ORIG	7.50 - 7.50	✓	✓	✓	✓	✓	✓	✓					
123-S09-077	SOIL	05/06/93	S09SB22	ORIG	9.50 - 9.50	✓	✓	✓	✓	✓	✓	✓					
123-S09-180	SOIL	05/06/93	S09SB22	ORIG	10.50 - 10.50	✓	✓	✓	✓	✓	✓	✓					
123-S09-181	SOIL	05/06/93	S09SB22	ORIG	12.50 - 12.50	✓	✓	✓	✓	✓	✓	✓					
123-S09-182	SOIL	05/06/93	S09SB22	ORIG	15.00 - 15.00	✓	✓	✓	✓	✓	✓	✓					
274051	SOIL	07/13/99	S09SB22GB01	ORIG	0.50 - 2.50		✓	✓	✓	✓	✓	✓					
274052	SOIL	07/13/99	S09SB22GB01	ORIG	2.50 - 4.50	✓			✓								
274053	SOIL	07/13/99	S09SB22GB01	ORIG	5.00 - 7.00	✓	✓	✓				✓					
274054	SOIL	07/13/99	S09SB22GB01	ORIG	7.50 - 9.50		✓	✓		✓	✓						
274055	SOIL	07/13/99	S09SB22GB01	ORIG	10.00 - 12.00					✓	✓	✓					
274056	SOIL	07/13/99	S09SB22GB01	ORIG	12.50 - 14.50					✓	✓						

TABLE 7-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 09 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
274057	SOIL	07/13/99	S09SB22GB01	ORIG	15.00 - 17.00	✓	✓	✓				✓					
274058	SOIL	07/13/99	S09SB22GB02	ORIG	0.50 - 2.50		✓	✓	✓	✓	✓	✓					
274059	SOIL	07/13/99	S09SB22GB02	ORIG	2.50 - 4.50	✓			✓								
274060	SOIL	07/13/99	S09SB22GB02	ORIG	5.00 - 7.00	✓	✓	✓				✓					
274062	SOIL	07/13/99	S09SB22GB02	ORIG	10.00 - 12.00					✓	✓	✓					
274063	SOIL	07/13/99	S09SB22GB02	ORIG	12.50 - 14.50					✓	✓						
274064	SOIL	07/13/99	S09SB22GB02	ORIG	15.00 - 17.00	✓	✓	✓				✓					
274065	SOIL	07/13/99	S09SB22GB03	ORIG	0.50 - 2.50		✓	✓	✓	✓	✓	✓					
274066	SOIL	07/13/99	S09SB22GB03	ORIG	2.50 - 4.50	✓			✓								
274067	SOIL	07/13/99	S09SB22GB03	ORIG	5.00 - 7.00	✓	✓	✓				✓					
274068	SOIL	07/13/99	S09SB22GB03	ORIG	7.50 - 9.50		✓	✓		✓	✓						
274069	SOIL	07/13/99	S09SB22GB03	ORIG	10.00 - 12.00					✓	✓	✓					
274070	SOIL	07/13/99	S09SB22GB03	ORIG	12.50 - 14.50					✓	✓						
274071	SOIL	07/13/99	S09SB22GB03	ORIG	15.00 - 17.00	✓	✓	✓				✓					
123-S09-078	SOIL	05/07/93	S09SB23	ORIG	0.50 - 0.50		✓	✓	✓	✓	✓	✓					
123-S09-079	SOIL	05/07/93	S09SB23	ORIG	3.50 - 3.50	✓	✓	✓	✓	✓	✓	✓					
123-S09-187A	SOIL	05/07/93	S09SB23	ORIG	0.00 - 0.00				✓	✓	✓	✓					
123-S09-084	SOIL	05/07/93	S09SB24	ORIG	0.50 - 0.50		✓	✓	✓	✓	✓	✓					
123-S09-085	SOIL	05/07/93	S09SB24	ORIG	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
123-S09-089	SOIL	05/07/93	S09SB25	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
123-S09-090	SOIL	05/07/93	S09SB25	ORIG	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
123-S09-111	WATER	05/26/93	S09MW01	ORIG	NA	✓			✓	✓	✓	✓				✓	
123-S09-112	WATER	08/24/93	S09MW01	ORIG	NA	✓			✓	✓	✓	✓					
123-S09-113	WATER	11/23/93	S09MW01	ORIG	NA	✓			✓	✓	✓	✓					
123-S09-114	WATER	02/24/94	S09MW01	ORIG	NA	✓			✓	✓	✓	✓					

TABLE 7-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 09 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
123-S09-114R	WATER	02/24/94	S09MW01	ORIG	NA					✓	✓						
123-S09-115	WATER	02/24/94	S09MW01	DUP	NA	✓			✓	✓	✓	✓					
123-S09-115R	WATER	02/24/94	S09MW01	ORIG	NA					✓	✓						
123-S09-187	WATER	04/28/94	S09MW01	ORIG	NA		✓	✓									
08797052204GDT	WATER	05/22/97	S09MW01	ORIG	NA		✓		✓			✓		✓			
08797052204GDTF	WATER	05/22/97	S09MW01	FIL	NA								✓				
08797060504GDT	WATER	06/05/97	S09MW01	ORIG	NA	✓		✓									
123-S09-116	WATER	05/25/93	S09MW02	ORIG	NA	✓			✓	✓	✓	✓					
123-S09-117	WATER	08/23/93	S09MW02	ORIG	NA	✓			✓	✓	✓	✓					
123-S09-118	WATER	11/23/93	S09MW02	ORIG	NA	✓			✓	✓	✓	✓					
123-S09-119	WATER	02/24/94	S09MW02	ORIG	NA	✓			✓	✓	✓	✓					
123-S09-119R	WATER	02/24/94	S09MW02	ORIG	NA					✓	✓						
123-S09-188	WATER	04/28/94	S09MW02	ORIG	NA		✓	✓									
08797052106GDT	WATER	05/21/97	S09MW02	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797052106GDTF	WATER	05/21/97	S09MW02	FIL	NA								✓				
123-S09-120	WATER	05/25/93	S09MW03	ORIG	NA	✓			✓	✓	✓	✓					
123-S09-121	WATER	05/25/93	S09MW03	DUP	NA	✓			✓	✓	✓	✓					
123-S09-122	WATER	08/23/93	S09MW03	ORIG	NA	✓			✓	✓	✓	✓					
123-S09-123	WATER	11/22/93	S09MW03	ORIG	NA	✓			✓	✓	✓	✓					
123-S09-124	WATER	02/18/94	S09MW03	ORIG	NA	✓			✓	✓	✓	✓					
123-S09-189	WATER	04/28/94	S09MW03	ORIG	NA		✓	✓									
08797052206GDT	WATER	05/22/97	S09MW03R	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797052206GDTF	WATER	05/22/97	S09MW03R	FIL	NA								✓				
123-S09-125	WATER	05/26/93	S09MW04	ORIG	NA	✓			✓	✓	✓	✓					
123-S09-126	WATER	08/24/93	S09MW04	ORIG	NA	✓			✓	✓	✓	✓					

TABLE 7-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 09 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
123-S09-127	WATER	11/23/93	S09MW04	ORIG	NA	✓			✓	✓	✓	✓					
123-S09-128	WATER	02/24/94	S09MW04	ORIG	NA	✓			✓	✓	✓	✓					
123-S09-128R	WATER	02/24/94	S09MW04	ORIG	NA					✓	✓						
123-S09-190	WATER	04/28/94	S09MW04	ORIG	NA		✓	✓									
08797052202GDT	WATER	05/22/97	S09MW04	ORIG	NA		✓		✓			✓		✓			
08797052202GDTF	WATER	05/22/97	S09MW04	FIL	NA								✓				
08797060503GDT	WATER	06/05/97	S09MW04	ORIG	NA	✓		✓									
123-S09-129	WATER	05/25/93	S09MW05	ORIG	NA	✓			✓	✓	✓	✓					
123-S09-130	WATER	08/24/93	S09MW05	ORIG	NA	✓			✓	✓	✓	✓					
123-S09-131	WATER	08/24/93	S09MW05	DUP	NA	✓			✓	✓	✓	✓					
123-S09-132	WATER	11/22/93	S09MW05	ORIG	NA	✓			✓	✓	✓	✓					
123-S09-133	WATER	02/18/94	S09MW05	ORIG	NA	✓			✓	✓	✓	✓					
123-S09-191	WATER	04/28/94	S09MW05	ORIG	NA		✓	✓									
08797052203GDT	WATER	05/22/97	S09MW05	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797052203GDTF	WATER	05/22/97	S09MW05	FIL	NA								✓				
08797102452S	WATER	10/24/97	S09MW05	ORIG	NA	✓	✓	✓	✓				✓	✓			
08797102453S	WATER	10/24/97	S09MW05	DUP	NA	✓	✓	✓	✓				✓	✓			
08798012338D	WATER	01/23/98	S09MW05	ORIG	NA	✓	✓	✓	✓			✓	✓	✓			
08798041049W	WATER	04/10/98	S09MW05	ORIG	NA	✓	✓	✓	✓				✓	✓			
123-S09-134	WATER	05/26/93	S09MW06	ORIG	NA	✓			✓	✓	✓	✓					
123-S09-135	WATER	08/23/93	S09MW06	ORIG	NA	✓			✓	✓	✓	✓					
123-S09-136	WATER	11/23/93	S09MW06	ORIG	NA	✓			✓	✓	✓	✓					
123-S09-137	WATER	11/23/93	S09MW06	DUP	NA	✓			✓	✓	✓	✓					
123-S09-138	WATER	02/18/94	S09MW06	ORIG	NA	✓			✓	✓	✓	✓					
123-S09-192	WATER	04/28/94	S09MW06	ORIG	NA		✓	✓									

TABLE 7-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 09 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
08797050803BJM	WATER	05/08/97	S09MW06	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797050803BJMF	WATER	05/08/97	S09MW06	FIL	NA								✓				
08797050804BJM	WATER	05/08/97	S09MW06	DUP	NA	✓	✓	✓	✓			✓		✓			
08797050804BJMF	WATER	05/08/97	S09MW06	FILD	NA								✓				
08797101717S	WATER	10/17/97	S09MW06	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798012339D	WATER	01/23/98	S09MW06	ORIG	NA	✓	✓	✓	✓			✓	✓	✓			
08798040837W	WATER	04/08/98	S09MW06	ORIG	NA	✓	✓	✓	✓				✓	✓			
TOTAL						112	119	119	124	129	129	143	14	14	0	5	0

Notes:

DMETL	Metals (filtered)	ORGPB	Organic Lead	SVOC	Semivolatile organic compound
GMETL	General mineral	PCB	Polychlorinated biphenyls	TPH-e	Total petroleum hydrocarbons, extractables
METL	Metals (total - unfiltered)	PEST	Pesticides	TPH-p	Total petroleum hydrocarbons, purgeables
NA	Not applicable	PESTO	Organophosphorus pesticides	VOC	Volatile organic compound
				✓	Sample collected and analyzed; blank cell indicates no sample collected.

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW04	S09MW04	S09MW04	S09MW04GB01	S09MW04GB01	S09MW04GB02	S09MW04GB02	EPA Residential Soil PRGs
Sample ID	123-S09-095	123-S09-096	123-S09-097	274045	274046	274049	274050	
Sample Date	05/05/93	05/05/93	05/05/93	07/13/99	07/13/99	07/13/99	07/13/99	
Sample Depth	0.50 - 0.50	2.50 - 2.50	5.00 - 5.00	0.50 - 1.50	5.00 - 6.50	0.50 - 1.50	5.00 - 6.50	
Volatile Organic Compounds (mg/kg)								
1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NC
1,2-DICHLOROETHENE (TOTAL)	NA	< 0.012 U	< 0.013 U	NA	NA	NA	NA	NC
2-HEXANONE	NA	< 0.012 U	< 0.013 U	NA	NA	NA	NA	NC
4-METHYL-2-PENTANONE	NA	< 0.012 U	< 0.013 U	NA	NA	NA	NA	5,300
BENZENE	NA	< 0.012 U	< 0.013 U	NA	NA	NA	NA	0.64
CARBON DISULFIDE	NA	< 0.012 U	< 0.013 U	NA	NA	NA	NA	360
CHLOROBENZENE	NA	< 0.012 U	< 0.013 U	NA	NA	NA	NA	150
ETHYLBENZENE	NA	< 0.012 U	< 0.013 U	NA	NA	NA	NA	400
TETRACHLOROETHENE	NA	< 0.012 U	< 0.013 U	NA	NA	NA	NA	0.48
TOLUENE	NA	< 0.012 U	< 0.013 U	NA	NA	NA	NA	520
TRICHLOROETHENE	NA	< 0.012 U	< 0.013 U	NA	NA	NA	NA	0.052
XYLENE (TOTAL)	NA	< 0.012 U	< 0.013 U	NA	NA	NA	NA	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	NA	NA	< 11 U	NA	< 11 U	NA	NC
MOTOR OIL RANGE ORGANICS	NA	NA	NA	10 JY	NA	28 Y	NA	NC
OTHER COMPONENTS *	< 2.2 U	< 1.2 U	< 1.3 U	NA	NA	NA	NA	NC
TPH - DIESEL	< 2.2 U	< 1.2 U	< 1.3 U	NA	NA	NA	NA	NC
TPH - MOTOR OIL	340	< 12 U	< 13 U	NA	NA	NA	NA	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	NA	NA	< 0.55 U	NA	< 0.57 U	NA	NC
OTHER COMPONENTS *	< 0.005 U	< 0.006 U	< 0.007 U	NA	NA	NA	NA	NC
Semivolatile Organic Compounds (mg/kg)								
2-METHYLNAPHTHALENE	< 0.36 U	< 0.41 U	< 0.43 U	NA	NA	NA	NA	NC
4-METHYLPHENOL	< 0.36 U	< 0.41 U	< 0.43 U	NA	NA	NA	NA	310
ACENAPHTHENE	< 0.36 U	< 0.41 U	< 0.43 U	NA	NA	NA	NA	3,700
ANTHRACENE	< 0.36 U	< 0.41 U	< 0.43 U	NA	NA	NA	NA	22,000
BENZO(A)ANTHRACENE	< 0.36 U	< 0.41 U	< 0.43 U	NA	NA	NA	NA	0.62
BENZO(A)PYRENE	< 0.36 U	< 0.41 U	< 0.43 U	NA	NA	NA	NA	0.062
BENZO(B)FLUORANTHENE	< 0.36 U	< 0.41 U	< 0.43 U	NA	NA	NA	NA	0.62
BENZO(G,H,I)PERYLENE	< 0.36 U	< 0.41 U	< 0.43 U	NA	NA	NA	NA	NC
BENZO(K)FLUORANTHENE	< 0.36 U	< 0.41 U	< 0.43 U	NA	NA	NA	NA	0.38 *

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW04	S09MW04	S09MW04	S09MW04GB01	S09MW04GB01	S09MW04GB02	S09MW04GB02	EPA Residential Soil PRGs
Sample ID	123-S09-095	123-S09-096	123-S09-097	274045	274046	274049	274050	
Sample Date	05/05/93	05/05/93	05/05/93	07/13/99	07/13/99	07/13/99	07/13/99	
Sample Depth	0.50 - 0.50	2.50 - 2.50	5.00 - 5.00	0.50 - 1.50	5.00 - 6.50	0.50 - 1.50	5.00 - 6.50	
Semivolatile Organic Compounds (mg/kg)								
CARBAZOLE	< 0.36 U	< 0.41 U	< 0.43 U	NA	NA	NA	NA	24
CHRYSENE	< 0.36 U	< 0.41 U	< 0.43 U	NA	NA	NA	NA	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.36 U	< 0.41 U	< 0.43 U	NA	NA	NA	NA	0.062
DIBENZOFURAN	< 0.36 U	< 0.41 U	< 0.43 U	NA	NA	NA	NA	150
FLUORANTHENE	< 0.36 U	< 0.41 U	< 0.43 U	NA	NA	NA	NA	2,300
FLUORENE	< 0.36 U	< 0.41 U	< 0.43 U	NA	NA	NA	NA	2,700
INDENO(1,2,3-CD)PYRENE	< 0.36 U	< 0.41 U	< 0.43 U	NA	NA	NA	NA	0.62
N-NITROSODIPHENYLAMINE	< 0.36 U	< 0.41 U	< 0.43 U	NA	NA	NA	NA	99
NAPHTHALENE	< 0.36 U	< 0.41 U	< 0.43 U	NA	NA	NA	NA	1.7 *
PHENANTHRENE	< 0.36 U	< 0.41 U	< 0.43 U	NA	NA	NA	NA	NC
PYRENE	< 0.36 U	< 0.41 U	< 0.43 U	NA	NA	NA	NA	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	0.007 J	< 0.0041 U	< 0.0043 U	NA	NA	NA	NA	2.4
4,4'-DDE	0.0026 J	< 0.0041 U	< 0.0043 U	NA	NA	NA	NA	1.7
4,4'-DDT	0.004 J	< 0.0041 U	< 0.0043 U	NA	NA	NA	NA	1.7
ALDRIN	< 0.0019 U	< 0.0021 U	< 0.0022 U	NA	NA	NA	NA	0.029
ALPHA-CHLORDANE	< 0.0019 U	< 0.0021 U	< 0.0022 U	NA	NA	NA	NA	1.6
AROCLOR-1260	< 0.022 UJ	< 0.041 U	< 0.043 U	NA	NA	NA	NA	0.22
BETA-BHC	< 0.0019 U	< 0.0021 U	< 0.0022 U	NA	NA	NA	NA	0.32
DELTA-BHC	< 0.0019 U	< 0.0021 U	< 0.0022 U	NA	NA	NA	NA	NC
DIELDRIN	< 0.0036 U	< 0.0041 U	< 0.0043 U	NA	NA	NA	NA	0.030
ENDOSULFAN II	< 0.0036 U	< 0.0041 U	< 0.0043 U	NA	NA	NA	NA	NC
ENDOSULFAN SULFATE	< 0.0036 U	< 0.0041 U	< 0.0043 U	NA	NA	NA	NA	NC
ENDRIN	< 0.0036 U	< 0.0041 U	< 0.0043 U	NA	NA	NA	NA	18
ENDRIN ALDEHYDE	< 0.0036 U	< 0.0041 U	< 0.0043 U	NA	NA	NA	NA	NC
GAMMA-CHLORDANE	< 0.0019 U	< 0.0021 U	< 0.0022 U	NA	NA	NA	NA	1.6
HEPTACHLOR EPOXIDE	< 0.0019 U	< 0.0021 U	< 0.0022 U	NA	NA	NA	NA	0.053
Metals (mg/kg)								
ALUMINUM	5,440	9,120	10,100	NA	NA	NA	NA	76,000
ANTIMONY	< 6.8 UJ	< 7.7 UJ	< 8.1 UJ	< 0.12 U	< 0.13 U	< 0.12 U	< 0.14 U	31
ARSENIC	**2.9**	**4.8**	**5**	**1.9 J**	**1.7 J**	**2.3**	**2 J**	0.39
BARIUM	66.1	128	142	54 J	53.4 J	64.5 J	73.2 J	5,400

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW04	S09MW04	S09MW04	S09MW04GB01	S09MW04GB01	S09MW04GB02	S09MW04GB02	EPA Residential Soil PRGs
Sample ID	123-S09-095	123-S09-096	123-S09-097	274045	274046	274049	274050	
Sample Date	05/05/93	05/05/93	05/05/93	07/13/99	07/13/99	07/13/99	07/13/99	
Sample Depth	0.50 - 0.50	2.50 - 2.50	5.00 - 5.00	0.50 - 1.50	5.00 - 6.50	0.50 - 1.50	5.00 - 6.50	
Metals (mg/kg)								
BERYLLIUM	< 0.22 U	0.39	0.37	< 0.003 U	< 0.0033 U	< 0.0031 U	< 0.0034 U	150
CADMIUM	< 0.88 U	1.5	< 1 U	< 0.26 UJ	< 0.091 UJ	< 0.24 UJ	< 0.035 UJ	37 *
CALCIUM	8,400	17,400	14,900	NA	NA	NA	NA	NC
CHROMIUM	9.8	13.8	14.6	9.4 J	6.1 J	12.7 J	8.4 J	210
COBALT	3 J	5.3 J	3.3 J	5.1 J	2.3 J	6.1 J	3.3 J	900
COPPER	< 8.5 U	16.3	14.3	9.7 J	3 J	8.5 J	4.9 J	3,100
IRON	12,000	18,400	19,100	NA	NA	NA	NA	23,000
LEAD	5.5	6.5	7.7	5.1	2.1	4.2	2.9	150 *
MAGNESIUM	3,510	9,240	6,970	NA	NA	NA	NA	NC
MANGANESE	169	339	316	NA	NA	NA	NA	1,800
MERCURY	< 0.11 U	< 0.12 U	< 0.13 U	0.043	0.029	0.034	0.033	23
MOLYBDENUM	NA	NA	NA	0.39 J	1.2	1 J	2	390
NICKEL	9.5	16.6	16.1	8.7 J	4.3 J	11 J	6.1 J	1,600
POTASSIUM	< 1,360 U	< 2,720 U	< 2,760 U	NA	NA	NA	NA	NC
SELENIUM	< 0.66 U	< 0.74 U	< 0.79 U	0.66 J	1.7	1.4	2.1	390
SILVER	< 0.44 U	< 0.49 U	< 0.52 U	< 0.052 U	< 0.057 U	< 0.053 U	< 0.059 U	390
SODIUM	483	996	1,040	NA	NA	NA	NA	NC
THALLIUM	0.72	< 0.74 U	< 0.79 U	< 0.11 U	< 0.12 U	< 0.11 U	< 0.13 U	5.2
VANADIUM	18.5	28.5	28.1	21.1 J	13.9 J	24.4 J	18.9 J	78
ZINC	30.4 J	61.2 J	53.7 J	27.1 J	14.1 J	30.4 J	20 J	23,000
Dioxin (mg/kg)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW05	S09MW05	S09MW05	S09MW05	S09MW05	S09MW05	S09MW05	
Sample ID	123-S09-100	123-S09-101	123-S09-102	123-S09-103	123-S09-104	123-S09-105	123-S09-176	EPA Residential Soil PRGs
Sample Date	05/05/93	05/05/93	05/05/93	05/05/93	05/05/93	05/05/93	05/05/93	
Sample Depth	0.50 - 0.50	2.50 - 2.50	4.00 - 4.00	5.00 - 5.00	7.50 - 7.50	10.00 - 10.00	12.50 - 12.50	
Volatile Organic Compounds (mg/kg)								
1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NC
1,2-DICHLOROETHENE (TOTAL)	NA	< 0.01 U	< 0.011 U	< 0.01 U	< 0.011 U	< 0.01 U	< 0.011 U	NC
2-HEXANONE	NA	< 0.01 U	< 0.011 U	0.028	< 0.011 U	< 0.01 U	< 0.011 U	NC
4-METHYL-2-PENTANONE	NA	< 0.01 U	< 0.011 U	0.012	< 0.011 U	< 0.01 U	< 0.011 U	5,300
BENZENE	NA	< 0.01 U	< 0.011 U	< 0.01 U	< 0.011 U	< 0.01 U	< 0.011 U	0.64
CARBON DISULFIDE	NA	< 0.01 U	< 0.011 U	< 0.01 U	< 0.011 U	< 0.01 U	< 0.011 U	360
CHLOROBENZENE	NA	< 0.01 U	< 0.011 U	< 0.01 U	< 0.011 U	< 0.01 U	< 0.011 U	150
ETHYLBENZENE	NA	< 0.01 U	< 0.011 U	< 0.01 U	< 0.011 U	< 0.01 U	< 0.011 U	400
TETRACHLOROETHENE	NA	< 0.01 U	< 0.011 U	< 0.01 U	< 0.011 U	< 0.01 U	< 0.011 U	0.48
TOLUENE	NA	< 0.01 U	< 0.011 U	< 0.01 U	< 0.011 U	< 0.01 U	< 0.011 U	520
TRICHLOROETHENE	NA	< 0.01 U	< 0.011 U	< 0.01 U	< 0.011 U	< 0.01 U	< 0.011 U	0.052
XYLENE (TOTAL)	NA	< 0.01 U	< 0.011 U	< 0.01 U	< 0.011 U	< 0.01 U	< 0.011 U	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NC
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NC
OTHER COMPONENTS *	< 1 U	< 1 U	< 1.1 U	< 1 U	< 1.1 U	< 1 U	< 1.1 U	NC
TPH - DIESEL	< 1 U	< 1 U	< 1.1 U	< 1 U	< 1.1 U	< 1 U	< 1.1 U	NC
TPH - MOTOR OIL	40	< 10 U	16	< 10 U	< 11 U	< 10 U	18	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NC
OTHER COMPONENTS *	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	NC
Semivolatile Organic Compounds (mg/kg)								
2-METHYLNAPHTHALENE	< 0.34 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	NC
4-METHYLPHENOL	< 0.34 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	310
ACENAPHTHENE	< 0.34 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	3,700
ANTHRACENE	< 0.34 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	22,000
BENZO(A)ANTHRACENE	< 0.34 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	0.62
BENZO(A)PYRENE	< 0.34 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	0.062
BENZO(B)FLUORANTHENE	< 0.34 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	0.62
BENZO(G,H,I)PERYLENE	< 0.34 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	NC
BENZO(K)FLUORANTHENE	< 0.34 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	0.38 *

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW05	S09MW05	S09MW05	S09MW05	S09MW05	S09MW05	S09MW05	
Sample ID	123-S09-100	123-S09-101	123-S09-102	123-S09-103	123-S09-104	123-S09-105	123-S09-176	EPA Residential Soil PRGs
Sample Date	05/05/93	05/05/93	05/05/93	05/05/93	05/05/93	05/05/93	05/05/93	
Sample Depth	0.50 - 0.50	2.50 - 2.50	4.00 - 4.00	5.00 - 5.00	7.50 - 7.50	10.00 - 10.00	12.50 - 12.50	
Semivolatile Organic Compounds (mg/kg)								
CARBAZOLE	< 0.34 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	24
CHRYSENE	< 0.34 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.34 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	0.062
DIBENZOFURAN	< 0.34 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	150
FLUORANTHENE	< 0.34 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	2,300
FLUORENE	< 0.34 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	2,700
INDENO(1,2,3-CD)PYRENE	< 0.34 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	0.62
N-NITROSODIPHENYLAMINE	< 0.34 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	99
NAPHTHALENE	< 0.34 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	1.7 *
PHENANTHRENE	< 0.34 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	NC
PYRENE	< 0.34 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	< 0.34 U	< 0.35 U	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.0034 U	< 0.0034 U	< 0.0035 UJ	< 0.0034 U	< 0.0027 UJ	< 0.0034 U	< 0.0029 UJ	2.4
4,4'-DDE	0.0019 J	< 0.0034 U	0.0016 J	< 0.0034 U	0.0021 J	< 0.0034 U	0.0035	1.7
4,4'-DDT	0.0026 J	< 0.0034 U	0.0041 J	< 0.0017 UJ	0.0039 J	< 0.002 UJ	0.0085 J	1.7
ALDRIN	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	0.029
ALPHA-CHLORDANE	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	1.6
AROCLOR-1260	< 0.034 U	< 0.034 U	0.019 J	< 0.034 U	< 0.021 UJ	< 0.034 U	< 0.035 U	0.22
BETA-BHC	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	0.32
DELTA-BHC	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	NC
DIELDRIN	< 0.0034 U	< 0.0034 U	< 0.0035 U	< 0.0034 U	< 0.0035 U	< 0.0034 U	< 0.0035 U	0.030
ENDOSULFAN II	< 0.0034 U	< 0.0034 U	< 0.0035 U	< 0.0034 U	< 0.0035 U	< 0.0034 U	< 0.0035 U	NC
ENDOSULFAN SULFATE	< 0.0034 U	< 0.0034 U	< 0.0035 U	< 0.0034 U	< 0.0035 U	< 0.0034 U	< 0.0035 U	NC
ENDRIN	< 0.0034 U	< 0.0034 U	< 0.0035 U	< 0.0034 U	< 0.0035 U	< 0.0034 U	< 0.0035 U	18
ENDRIN ALDEHYDE	< 0.0034 U	< 0.0034 U	< 0.0035 U	< 0.0034 U	< 0.0035 U	< 0.0034 U	< 0.0035 U	NC
GAMMA-CHLORDANE	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	1.6
HEPTACHLOR EPOXIDE	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	0.053
Metals (mg/kg)								
ALUMINUM	4,520	2,850	5,680	3,030	4,050	3,260	2,970	76,000
ANTIMONY	< 6.5 UJ	< 6.4 UJ	< 6.6 UJ	< 6.4 UJ	< 6.6 UJ	< 6.4 UJ	< 6.5 UJ	31
ARSENIC	**1.5**	**1.2**	**1.5**	< 0.41 U	**1.3**	**1.1**	**1.3**	0.39
BARIUM	36.8	31.4	58.6	34.3	36.1	37.8	32.6	5,400

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW05	S09MW05	S09MW05	S09MW05	S09MW05	S09MW05	S09MW05	EPA Residential Soil PRGs
Sample ID	123-S09-100	123-S09-101	123-S09-102	123-S09-103	123-S09-104	123-S09-105	123-S09-176	
Sample Date	05/05/93	05/05/93	05/05/93	05/05/93	05/05/93	05/05/93	05/05/93	
Sample Depth	0.50 - 0.50	2.50 - 2.50	4.00 - 4.00	5.00 - 5.00	7.50 - 7.50	10.00 - 10.00	12.50 - 12.50	
Metals (mg/kg)								
BERYLLIUM	0.22	< 0.21 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.21 U	< 0.21 U	150
CADMIUM	1	1.2	0.89	1.4	0.92	< 0.83 U	1.1	37 *
CALCIUM	6,940	5,430	7,650	5,950	7,130	6,640	5,690	NC
CHROMIUM	10.7	4.6 J	9.1	5.3 J	6.2	4.7 J	4.3 J	210
COBALT	3.5 J	0.95 J	2.8 J	1.4 J	2 J	1 J	0.58 J	900
COPPER	< 7.7 U	3.9 J	< 8 U	3.7 J	< 6.1 U	< 4.3 U	3.2 J	3,100
IRON	11,500	6,000	12,000	6,860	9,620	7,810	7,150	23,000
LEAD	5.5	4.7	6	4.8	4.9	2.9	2.6	150 *
MAGNESIUM	3,180	1,750	3,750	1,870	3,040	2,200	1,970	NC
MANGANESE	178	87.2	167	99	142	115	97.4	1,800
MERCURY	0.21	0.17	0.15	0.15	< 0.11 U	0.13	0.11	23
MOLYBDENUM	NA	NA	NA	NA	NA	NA	NA	390
NICKEL	< 6.2 U	< 4.8 U	9.4	< 4.8 U	8.8	< 4.8 U	< 5.1 U	1,600
POTASSIUM	< 1,150 U	< 610 U	< 1,460 U	< 704 U	< 1,080 U	< 864 U	< 656 U	NC
SELENIUM	< 0.62 U	< 0.62 U	< 0.64 U	< 0.62 U	< 0.64 U	< 0.62 U	< 0.63 U	390
SILVER	< 0.42 U	< 0.41 U	< 0.43 U	< 0.41 U	< 0.43 U	< 0.42 U	< 0.42 U	390
SODIUM	628	< 274 U	914	474	940	670	536	NC
THALLIUM	< 0.62 U	< 0.62 U	< 0.64 U	< 0.62 U	< 0.64 U	< 0.62 U	< 0.63 U	5.2
VANADIUM	18.7	8.2	22.2	10	13.9	11.3	9.9	78
ZINC	27.4 J	17.2 J	31 J	18.7 J	24.2 J	19.4 J	15.9 J	23,000
Dioxin (mg/kg)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW05	S09MW05	S09MW06	S09MW06	S09MW06	S09SB09	S09SB09	EPA Residential Soil PRGs
Sample ID	123-S09-177	123-S09-178	123-S09-106	123-S09-107	123-S09-108	123-S09-001	123-S09-002	
Sample Date	05/05/93	05/05/93	05/07/93	05/07/93	05/07/93	05/06/93	05/06/93	
Sample Depth	15.00 - 15.00	17.50 - 17.50	0.50 - 0.50	2.50 - 2.50	5.00 - 5.00	0.50 - 0.50	2.50 - 2.50	
Volatile Organic Compounds (mg/kg)								
1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NC
1,2-DICHLOROETHENE (TOTAL)	< 0.011 U	< 0.012 U	NA	< 0.011 U	< 0.012 U	NA	< 0.01 U	NC
2-HEXANONE	< 0.011 U	< 0.012 U	NA	< 0.011 U	< 0.012 U	NA	< 0.01 U	NC
4-METHYL-2-PENTANONE	< 0.011 U	< 0.012 U	NA	< 0.011 U	< 0.012 U	NA	< 0.01 U	5,300
BENZENE	< 0.011 U	< 0.012 U	NA	< 0.011 U	< 0.012 U	NA	< 0.01 U	0.64
CARBON DISULFIDE	< 0.011 U	< 0.012 U	NA	< 0.011 U	< 0.012 U	NA	< 0.01 U	360
CHLOROBENZENE	< 0.011 U	< 0.012 U	NA	< 0.011 U	< 0.012 U	NA	< 0.01 U	150
ETHYLBENZENE	< 0.011 U	< 0.012 U	NA	< 0.011 U	< 0.012 U	NA	< 0.01 U	400
TETRACHLOROETHENE	< 0.011 U	< 0.012 U	NA	< 0.011 U	< 0.012 U	NA	0.002 J	0.48
TOLUENE	< 0.011 U	< 0.012 U	NA	< 0.011 U	< 0.012 U	NA	< 0.01 U	520
TRICHLOROETHENE	< 0.011 U	< 0.012 U	NA	< 0.011 U	< 0.012 U	NA	< 0.01 U	0.052
XYLENE (TOTAL)	< 0.011 U	< 0.012 U	NA	< 0.011 U	< 0.012 U	NA	< 0.01 U	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NC
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NC
OTHER COMPONENTS *	< 1.1 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U	< 1.1 U	< 1 U	NC
TPH - DIESEL	< 1.1 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U	< 1.1 U	< 1 U	NC
TPH - MOTOR OIL	< 11 U	< 12 U	< 11 U	< 11 U	< 12 U	< 11 U	< 10 U	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NC
OTHER COMPONENTS *	< 0.006 U	< 0.006 U	< 0.005 U	< 0.006 U	< 0.006 U	< 0.005 U	< 0.005 U	NC
Semivolatile Organic Compounds (mg/kg)								
2-METHYLNAPHTHALENE	< 0.37 U	< 0.41 U	< 0.36 U	< 0.37 U	< 0.41 U	< 0.35 U	< 0.34 U	NC
4-METHYLPHENOL	< 0.37 U	< 0.41 U	< 0.36 U	< 0.37 U	< 0.41 U	< 0.35 U	< 0.34 U	310
ACENAPHTHENE	< 0.37 U	< 0.41 U	< 0.36 U	< 0.37 U	< 0.41 U	< 0.35 U	< 0.34 U	3,700
ANTHRACENE	< 0.37 U	< 0.41 U	< 0.36 U	< 0.37 U	< 0.41 U	< 0.35 U	< 0.34 U	22,000
BENZO(A)ANTHRACENE	< 0.37 U	< 0.41 U	< 0.36 U	< 0.37 U	< 0.41 U	< 0.35 U	< 0.34 U	0.62
BENZO(A)PYRENE	< 0.37 U	< 0.41 U	< 0.36 U	< 0.37 U	< 0.41 U	< 0.35 U	< 0.34 U	0.062
BENZO(B)FLUORANTHENE	< 0.37 U	< 0.41 U	< 0.36 U	< 0.37 U	< 0.41 U	< 0.35 U	< 0.34 U	0.62
BENZO(G,H,I)PERYLENE	< 0.37 U	< 0.41 U	< 0.36 U	< 0.37 U	< 0.41 U	< 0.35 U	< 0.34 U	NC
BENZO(K)FLUORANTHENE	< 0.37 U	< 0.41 U	< 0.36 U	< 0.37 U	< 0.41 U	< 0.35 U	< 0.34 U	0.38 *

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW05	S09MW05	S09MW06	S09MW06	S09MW06	S09SB09	S09SB09	EPA Residential Soil PRGs
Sample ID	123-S09-177	123-S09-178	123-S09-106	123-S09-107	123-S09-108	123-S09-001	123-S09-002	
Sample Date	05/05/93	05/05/93	05/07/93	05/07/93	05/07/93	05/06/93	05/06/93	
Sample Depth	15.00 - 15.00	17.50 - 17.50	0.50 - 0.50	2.50 - 2.50	5.00 - 5.00	0.50 - 0.50	2.50 - 2.50	
Semivolatile Organic Compounds (mg/kg)								
CARBAZOLE	< 0.37 U	< 0.41 U	< 0.36 U	< 0.37 U	< 0.41 U	< 0.35 U	< 0.34 U	24
CHRYSENE	< 0.37 U	< 0.41 U	< 0.36 U	< 0.37 U	< 0.41 U	< 0.35 U	< 0.34 U	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.37 U	< 0.41 U	< 0.36 U	< 0.37 U	< 0.41 U	< 0.35 U	< 0.34 U	0.062
DIBENZOFURAN	< 0.37 U	< 0.41 U	< 0.36 U	< 0.37 U	< 0.41 U	< 0.35 U	< 0.34 U	150
FLUORANTHENE	< 0.37 U	< 0.41 U	< 0.36 U	< 0.37 U	< 0.41 U	< 0.35 U	< 0.34 U	2,300
FLUORENE	< 0.37 U	< 0.41 U	< 0.36 U	< 0.37 U	< 0.41 U	< 0.35 U	< 0.34 U	2,700
INDENO(1,2,3-CD)PYRENE	< 0.37 U	< 0.41 U	< 0.36 U	< 0.37 U	< 0.41 U	< 0.35 U	< 0.34 U	0.62
N-NITROSODIPHENYLAMINE	< 0.37 U	< 0.41 U	< 0.36 U	< 0.37 U	< 0.41 U	< 0.35 U	< 0.34 U	99
NAPHTHALENE	< 0.37 U	< 0.41 U	< 0.36 U	< 0.37 U	< 0.41 U	< 0.35 U	< 0.34 U	1.7 *
PHENANTHRENE	< 0.37 U	< 0.41 U	< 0.36 U	< 0.37 U	< 0.41 U	< 0.35 U	< 0.34 U	NC
PYRENE	< 0.37 U	< 0.41 U	< 0.36 U	< 0.37 U	< 0.41 U	< 0.35 U	< 0.34 U	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.0037 U	< 0.0041 U	0.0039 J	< 0.0037 U	< 0.0041 U	0.0082	0.0065 J	2.4
4,4'-DDE	< 0.0037 U	< 0.0041 U	0.0027 J	< 0.0037 U	< 0.0041 U	0.0019 J	< 0.0034 U	1.7
4,4'-DDT	< 0.0037 U	< 0.0041 U	0.0093 J	< 0.0037 U	< 0.0041 U	0.002 J	0.0033 J	1.7
ALDRIN	< 0.0019 U	< 0.0021 U	< 0.0019 U	< 0.0019 U	< 0.0021 U	< 0.0018 U	< 0.0018 U	0.029
ALPHA-CHLORDANE	< 0.0019 U	< 0.0021 U	< 0.0019 U	< 0.0019 U	< 0.0021 U	< 0.0018 U	< 0.0018 U	1.6
AROCLOR-1260	< 0.037 U	< 0.041 U	0.032 J	< 0.037 U	< 0.041 U	0.023 J	0.018 J	0.22
BETA-BHC	< 0.0019 U	< 0.0021 U	< 0.0019 U	< 0.0019 U	< 0.0021 U	< 0.0018 U	< 0.0018 U	0.32
DELTA-BHC	< 0.0019 U	< 0.0021 U	< 0.0019 U	< 0.0019 U	< 0.0021 U	< 0.0018 U	< 0.0018 U	NC
DIELDRIN	< 0.0037 U	< 0.0041 U	< 0.0036 U	< 0.0037 U	< 0.0041 U	< 0.0033 U	< 0.0034 U	0.030
ENDOSULFAN II	< 0.0037 U	< 0.0041 U	< 0.0036 U	< 0.0037 U	< 0.0041 U	< 0.0035 U	< 0.0034 U	NC
ENDOSULFAN SULFATE	< 0.0037 U	< 0.0041 U	< 0.0036 U	< 0.0037 U	< 0.0041 U	< 0.0035 U	< 0.0034 U	NC
ENDRIN	< 0.0037 U	< 0.0041 U	< 0.0036 U	< 0.0037 U	< 0.0041 U	< 0.0033 U	< 0.0034 U	18
ENDRIN ALDEHYDE	< 0.0037 U	< 0.0041 U	< 0.0036 U	< 0.0037 U	< 0.0041 U	< 0.0035 U	< 0.0034 U	NC
GAMMA-CHLORDANE	< 0.0019 U	< 0.0021 U	< 0.0019 U	< 0.0019 U	< 0.0021 U	< 0.0017 U	< 0.0018 U	1.6
HEPTACHLOR EPOXIDE	< 0.0019 U	< 0.0021 U	< 0.0019 U	< 0.0019 U	< 0.0021 U	< 0.0018 U	< 0.0018 U	0.053
Metals (mg/kg)								
ALUMINUM	10,400	7,120	8,390	11,500	15,400	6,150	4,790	76,000
ANTIMONY	< 6.8 UJ	< 7.7 UJ	< 6.8 U	< 7 U	< 7.7 U	< 6.7 U	< 6.5 U	31
ARSENIC	**2.8**	**2.6**	**3**	**1.3**	**2.7**	**2.9**	**1.6**	0.39
BARIUM	59.1	91	63.6	72	108	61.6	45	5,400

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW05	S09MW05	S09MW06	S09MW06	S09MW06	S09SB09	S09SB09	EPA Residential Soil PRGs
Sample ID	123-S09-177	123-S09-178	123-S09-106	123-S09-107	123-S09-108	123-S09-001	123-S09-002	
Sample Date	05/05/93	05/05/93	05/07/93	05/07/93	05/07/93	05/06/93	05/06/93	
Sample Depth	15.00 - 15.00	17.50 - 17.50	0.50 - 0.50	2.50 - 2.50	5.00 - 5.00	0.50 - 0.50	2.50 - 2.50	
Metals (mg/kg)								
BERYLLIUM	< 0.22 U	0.53	0.34	0.33	0.66	0.28	0.23	150
CADMIUM	1.1	< 1 U	< 0.88 U	< 0.9 U	1.2	1.6	0.99	37 *
CALCIUM	10,000	11,400	8,060	8,370	32,600	8,040	7,020	NC
CHROMIUM	13.2	13.3	14.9	17.6	25.5	11.3	8.6	210
COBALT	6.7	5 J	5.1	8.2	7.6	5.3	3.5	900
COPPER	15.3	12.9	10.7	15.2	17.2	10.4	< 7.6 U	3,100
IRON	21,500	15,100	14,500	**23,100**	22,100	12,400	10,100	23,000
LEAD	4	4.3	4 J	3.3 J	4 J	7.4	5.2	150 *
MAGNESIUM	6,550	5,800	4,590	7,730	8,960	4,020	2,980	NC
MANGANESE	223	208	213	304	483	185 J	136 J	1,800
MERCURY	0.12	< 0.12 U	< 0.11 U	< 0.11 U	< 0.12 U	< 0.11 U	< 0.1 U	23
MOLYBDENUM	NA	NA	NA	NA	NA	NA	NA	390
NICKEL	12.1	15.2	12.1	15.5	22.4	9.8	6.7	1,600
POTASSIUM	< 1,680 U	3,540	1,950	2,490	3,890	1,870	1,330	NC
SELENIUM	0.67	< 0.75 U	< 0.66 UJ	< 0.67 UJ	< 0.75 UJ	< 0.64 U	< 0.63 U	390
SILVER	< 0.44 U	< 0.5 U	< 0.44 U	< 0.45 U	< 0.5 U	< 0.43 U	< 0.42 U	390
SODIUM	1,270	1,120	469	1,190	1,330	864	1,020	NC
THALLIUM	< 0.66 U	< 0.75 U	< 0.66 UJ	< 0.67 UJ	< 0.75 UJ	< 0.64 UJ	< 0.63 UJ	5.2
VANADIUM	34.7	24	27.3	36.3	49	21	16.7	78
ZINC	37.4 J	45 J	35.2 J	45.7 J	56.4 J	38.9 J	26.5 J	23,000
Dioxin (mg/kg)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB09	S09SB09	S09SB09	S09SB09	S09SB09	S09SB10	S09SB10	EPA Residential Soil PRGs
Sample ID	123-S09-003	123-S09-004	123-S09-005	123-S09-183	123-S09-184	123-S09-006	123-S09-007	
Sample Date	05/06/93	05/06/93	05/06/93	05/06/93	05/06/93	05/07/93	05/07/93	
Sample Depth	5.00 - 5.00	7.50 - 7.50	10.00 - 10.00	12.50 - 12.50	15.00 - 15.00	0.50 - 0.50	2.50 - 2.50	
Volatile Organic Compounds (mg/kg)								
1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NC
1,2-DICHLOROETHENE (TOTAL)	< 0.01 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.01 U	NA	< 0.013 U	NC
2-HEXANONE	< 0.01 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.01 U	NA	< 0.013 U	NC
4-METHYL-2-PENTANONE	< 0.01 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.01 U	NA	< 0.013 U	5,300
BENZENE	< 0.01 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.01 U	NA	< 0.013 U	0.64
CARBON DISULFIDE	< 0.01 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.01 U	NA	< 0.013 U	360
CHLOROBENZENE	< 0.01 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.01 U	NA	< 0.013 U	150
ETHYLBENZENE	< 0.01 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.01 U	NA	< 0.013 U	400
TETRACHLOROETHENE	0.002 J	< 0.011 U	0.004 J	< 0.012 U	< 0.01 U	NA	< 0.013 U	0.48
TOLUENE	< 0.01 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.01 U	NA	< 0.013 U	520
TRICHLOROETHENE	< 0.01 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.01 U	NA	< 0.013 U	0.052
XYLENE (TOTAL)	< 0.01 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.01 U	NA	< 0.013 U	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NC
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NC
OTHER COMPONENTS *	< 1 U	< 1.1 U	< 1.1 U	< 1.2 U	< 1 U	< 1.1 U	< 1.3 U	NC
TPH - DIESEL	< 1 U	< 1.1 U	< 1.1 U	< 1.2 U	< 1 U	< 1.1 U	< 1.3 U	NC
TPH - MOTOR OIL	< 10 U	< 11 U	< 11 U	< 12 U	< 10 U	< 11 U	< 13 U	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NC
OTHER COMPONENTS *	< 0.005 U	< 0.005 U	< 0.006 U	< 0.006 U	< 0.005 U	< 0.005 U	< 0.006 U	NC
Semivolatile Organic Compounds (mg/kg)								
2-METHYLNAPHTHALENE	< 0.34 U	< 0.35 U	< 0.37 U	< 0.39 U	< 0.34 U	< 0.36 U	< 0.42 U	NC
4-METHYLPHENOL	< 0.34 U	< 0.35 U	< 0.37 U	< 0.39 U	< 0.34 U	< 0.36 U	< 0.42 U	310
ACENAPHTHENE	< 0.34 U	< 0.35 U	< 0.37 U	< 0.39 U	< 0.34 U	< 0.36 U	< 0.42 U	3,700
ANTHRACENE	< 0.34 U	< 0.35 U	< 0.37 U	< 0.39 U	< 0.34 U	< 0.36 U	< 0.42 U	22,000
BENZO(A)ANTHRACENE	< 0.34 U	< 0.35 U	< 0.37 U	< 0.39 U	< 0.34 U	< 0.36 U	< 0.42 U	0.62
BENZO(A)PYRENE	< 0.34 U	< 0.35 U	< 0.37 U	< 0.39 U	< 0.34 U	< 0.36 U	< 0.42 U	0.062
BENZO(B)FLUORANTHENE	< 0.34 U	< 0.35 U	< 0.37 U	< 0.39 U	< 0.34 U	< 0.36 U	< 0.42 U	0.62
BENZO(G,H,I)PERYLENE	< 0.34 U	< 0.35 U	< 0.37 U	< 0.39 U	< 0.34 U	< 0.36 U	< 0.42 U	NC
BENZO(K)FLUORANTHENE	< 0.34 U	< 0.35 U	< 0.37 U	< 0.39 U	< 0.34 U	< 0.36 U	< 0.42 U	0.38 *

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB09	S09SB09	S09SB09	S09SB09	S09SB09	S09SB10	S09SB10	EPA Residential Soil PRGs
Sample ID	123-S09-003	123-S09-004	123-S09-005	123-S09-183	123-S09-184	123-S09-006	123-S09-007	
Sample Date	05/06/93	05/06/93	05/06/93	05/06/93	05/06/93	05/07/93	05/07/93	
Sample Depth	5.00 - 5.00	7.50 - 7.50	10.00 - 10.00	12.50 - 12.50	15.00 - 15.00	0.50 - 0.50	2.50 - 2.50	
Semivolatile Organic Compounds (mg/kg)								
CARBAZOLE	< 0.34 U	< 0.35 U	< 0.37 U	< 0.39 U	< 0.34 U	< 0.36 U	< 0.42 U	24
CHRYSENE	< 0.34 U	< 0.35 U	< 0.37 U	< 0.39 U	< 0.34 U	< 0.36 U	< 0.42 U	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.34 U	< 0.35 U	< 0.37 U	< 0.39 U	< 0.34 U	< 0.36 U	< 0.42 U	0.062
DIBENZOFURAN	< 0.34 U	< 0.35 U	< 0.37 U	< 0.39 U	< 0.34 U	< 0.36 U	< 0.42 U	150
FLUORANTHENE	< 0.34 U	< 0.35 U	< 0.37 U	< 0.39 U	< 0.34 U	< 0.36 U	< 0.42 U	2,300
FLUORENE	< 0.34 U	< 0.35 U	< 0.37 U	< 0.39 U	< 0.34 U	< 0.36 U	< 0.42 U	2,700
INDENO(1,2,3-CD)PYRENE	< 0.34 U	< 0.35 U	< 0.37 U	< 0.39 U	< 0.34 U	< 0.36 U	< 0.42 U	0.62
N-NITROSODIPHENYLAMINE	< 0.34 U	< 0.35 U	< 0.37 U	< 0.39 U	< 0.34 U	< 0.36 U	< 0.42 U	99
NAPHTHALENE	< 0.34 U	< 0.35 U	< 0.37 U	< 0.39 U	< 0.34 U	< 0.36 U	< 0.42 U	1.7 *
PHENANTHRENE	< 0.34 U	< 0.35 U	< 0.37 U	< 0.39 U	< 0.34 U	< 0.36 U	< 0.42 U	NC
PYRENE	< 0.34 U	< 0.35 U	< 0.37 U	0.04 J	< 0.34 U	< 0.36 U	< 0.42 U	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.0034 U	0.0034 J	0.0031 J	0.0061	< 0.0034 U	< 0.0036 U	< 0.0042 U	2.4
4,4'-DDE	< 0.0034 U	< 0.0035 U	0.0053	0.0025 J	< 0.0034 U	< 0.0036 U	< 0.0042 U	1.7
4,4'-DDT	< 0.0034 U	0.0034 J	0.0063 J	0.0024 J	< 0.0034 U	< 0.0036 U	0.0046	1.7
ALDRIN	< 0.0017 U	< 0.0018 U	< 0.0019 U	< 0.002 U	< 0.0018 U	< 0.0018 U	< 0.0022 U	0.029
ALPHA-CHLORDANE	< 0.0017 U	< 0.0018 U	< 0.0019 U	< 0.002 U	< 0.0018 U	< 0.0018 U	< 0.0022 U	1.6
AROCLOR-1260	< 0.034 U	< 0.033 U	0.081	< 0.039 U	< 0.034 U	< 0.036 U	< 0.042 U	0.22
BETA-BHC	< 0.0017 U	< 0.0018 U	< 0.0019 U	< 0.002 U	< 0.0018 U	< 0.0018 U	< 0.0022 U	0.32
DELTA-BHC	< 0.0017 U	< 0.0018 U	< 0.0019 U	< 0.002 U	< 0.0018 U	< 0.0018 U	< 0.0022 U	NC
DIELDRIN	< 0.0034 U	< 0.0035 U	< 0.0037 U	< 0.0039 U	< 0.0034 U	< 0.0036 U	< 0.0042 U	0.030
ENDOSULFAN II	< 0.0034 U	< 0.0035 U	< 0.0037 U	< 0.0039 U	< 0.0034 U	< 0.0036 U	< 0.0042 U	NC
ENDOSULFAN SULFATE	< 0.0034 U	< 0.0035 U	< 0.0037 U	< 0.0039 U	< 0.0034 U	< 0.0036 U	< 0.0042 U	NC
ENDRIN	< 0.0034 U	< 0.0035 U	0.0018 J	< 0.0039 U	< 0.0034 U	< 0.0036 U	< 0.0042 U	18
ENDRIN ALDEHYDE	< 0.0034 U	< 0.0035 U	< 0.0037 U	< 0.0039 U	< 0.0034 U	< 0.0036 U	< 0.0042 U	NC
GAMMA-CHLORDANE	< 0.0017 U	< 0.0018 U	< 0.0019 U	< 0.002 U	< 0.0018 U	< 0.0018 U	< 0.0022 U	1.6
HEPTACHLOR EPOXIDE	< 0.0017 U	< 0.0018 U	< 0.0019 U	< 0.002 U	< 0.0018 U	< 0.0018 U	< 0.0022 U	0.053
Metals (mg/kg)								
ALUMINUM	3,030	4,100	5,780	10,200	2,300	1,830	9,100	76,000
ANTIMONY	< 6.3 U	< 6.6 U	< 7 U	< 7.4 U	< 6.4 U	NA	NA	31
ARSENIC	**0.85**	**1.2**	**3.5**	**3.8**	**0.94**	**1.4 J**	**2.2 J**	0.39
BARIUM	72	43.1	77.5	68.7	43.8	20.8	110	5,400

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB09	S09SB09	S09SB09	S09SB09	S09SB09	S09SB10	S09SB10	EPA Residential Soil PRGs
Sample ID	123-S09-003	123-S09-004	123-S09-005	123-S09-183	123-S09-184	123-S09-006	123-S09-007	
Sample Date	05/06/93	05/06/93	05/06/93	05/06/93	05/06/93	05/07/93	05/07/93	
Sample Depth	5.00 - 5.00	7.50 - 7.50	10.00 - 10.00	12.50 - 12.50	15.00 - 15.00	0.50 - 0.50	2.50 - 2.50	
Metals (mg/kg)								
BERYLLIUM	< 0.2 U	< 0.21 U	0.28	0.33	< 0.21 U	< 0.22 U	0.4	150
CADMIUM	2.5	< 0.85 U	1.3	3.5	1	< 0.87 U	< 1 U	37 *
CALCIUM	16,000	10,500	11,300	9,840	5,020	4,790	10,400	NC
CHROMIUM	6.1	6.8	11.5	40.3	4.9	3.1	17.2	210
COBALT	< 3.2 U	3.7	5.4	9.1	< 1.8 U	< 1 U	5.7	900
COPPER	< 5.2 U	< 6.1 U	11.4	16.1	< 4 U	< 3.9 U	12.3	3,100
IRON	7,480	8,630	13,400	**26,800**	4,900	4,520	16,800	23,000
LEAD	1.9	3.6	4	7	1.7	1.6 J	4 J	150 *
MAGNESIUM	7,410	2,620	4,820	6,840	1,220	1,400	6,220	NC
MANGANESE	159 J	166 J	196 J	291 J	105 J	77.8	261	1,800
MERCURY	< 0.1 U	< 0.11 U	< 0.11 U	< 0.12 U	< 0.1 U	< 0.11 U	< 0.13 U	23
MOLYBDENUM	NA	NA	NA	NA	NA	NA	NA	390
NICKEL	6.1	4.7	13.6	11.6	4.1	2.7	12.9	1,600
POTASSIUM	847	1,160	2,210	2,590	700	528	2,830	NC
SELENIUM	< 0.61 U	0.64	< 0.68 U	0.82	< 0.62 U	< 0.66 UJ	< 0.77 UJ	390
SILVER	< 0.41 U	< 0.42 U	< 0.45 U	< 0.48 U	< 0.41 U	< 0.44 U	< 0.52 U	390
SODIUM	770	839	1,560	817	301	245	418	NC
THALLIUM	< 0.61 UJ	< 0.99 UJ	< 1 UJ	< 1.3 UJ	< 0.89 UJ	< 0.66 UJ	< 0.77 UJ	5.2
VANADIUM	18.5	14.3	21.9	55.3	10	7.1	29.9	78
ZINC	18.6 J	23.2 J	37.9 J	43.9 J	11.8 J	13.2 J	44.7 J	23,000
Dioxin (mg/kg)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB11	S09SB11	S09SB12	S09SB12	S09SB13	S09SB13	S09SB14	EPA Residential Soil PRGs
Sample ID	123-S09-011	123-S09-012	123-S09-188A	123-S09-017	123-S09-023	123-S09-024	123-S09-028	
Sample Date	05/07/93	05/07/93	05/07/93	05/07/93	05/07/93	05/07/93	05/07/93	
Sample Depth	0.50 - 0.50	2.50 - 2.50	0.00 - 0.00	0.50 - 0.50	0.50 - 0.50	2.50 - 2.50	0.50 - 0.50	
Volatile Organic Compounds (mg/kg)								
1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NC
1,2-DICHLOROETHENE (TOTAL)	NA	< 0.014 U	NA	NA	NA	< 0.012 U	NA	NC
2-HEXANONE	NA	< 0.014 U	NA	NA	NA	< 0.012 U	NA	NC
4-METHYL-2-PENTANONE	NA	< 0.014 U	NA	NA	NA	< 0.012 U	NA	5,300
BENZENE	NA	0.0008 J	NA	NA	NA	0.0009 J	NA	0.64
CARBON DISULFIDE	NA	< 0.014 U	NA	NA	NA	< 0.012 U	NA	360
CHLOROBENZENE	NA	< 0.014 U	NA	NA	NA	< 0.012 U	NA	150
ETHYLBENZENE	NA	0.016	NA	NA	NA	0.002 J	NA	400
TETRACHLOROETHENE	NA	< 0.014 U	NA	NA	NA	< 0.012 U	NA	0.48
TOLUENE	NA	< 0.014 U	NA	NA	NA	< 0.012 U	NA	520
TRICHLOROETHENE	NA	< 0.014 U	NA	NA	NA	< 0.012 U	NA	0.052
XYLENE (TOTAL)	NA	0.01 J	NA	NA	NA	0.001 J	NA	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NC
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NC
OTHER COMPONENTS *	< 1.1 U	< 1.4 U	NA	9,100 J	240 J	1,500 J	< 14 U	NC
TPH - DIESEL	< 1.1 U	< 1.4 U	NA	< 26 U	< 1.3 U	< 12 U	< 14 U	NC
TPH - MOTOR OIL	110	< 14 U	NA	< 260 U	< 13 U	< 120 U	1,700	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NC
OTHER COMPONENTS *	1.2 J	0.77 J	NA	3,100 J	110 J	52 J	2.9 J	NC
Semivolatile Organic Compounds (mg/kg)								
2-METHYLNAPHTHALENE	< 0.36 U	< 0.47 U	35	33 D	< 0.42 U	1.1	< 2.3 U	NC
4-METHYLPHENOL	< 0.36 U	< 0.47 U	< 22 U	< 0.35 U	< 0.42 U	< 0.41 U	< 2.3 U	310
ACENAPHTHENE	< 0.36 U	< 0.47 U	50	43 D	< 0.42 U	0.55	< 2.3 U	3,700
ANTHRACENE	< 0.36 U	< 0.47 U	< 22 U	< 0.35 U	< 0.42 U	0.17 J	< 2.3 U	22,000
BENZO(A)ANTHRACENE	< 0.36 U	< 0.47 U	**7.1 J**	**5.7 D**	< 0.42 U	0.2 J	< 2.3 U	0.62
BENZO(A)PYRENE	< 0.36 U	< 0.47 U	< 22 U	**2.1**	**0.46**	**0.38 J**	< 2.3 U	0.062
BENZO(B)FLUORANTHENE	< 0.36 U	< 0.47 U	< 22 U	**2.4**	< 0.42 U	0.39 J	< 2.3 U	0.62
BENZO(G,H,I)PERYLENE	< 0.36 U	< 0.47 U	< 22 U	0.49	< 0.42 U	< 0.41 U	< 2.3 U	NC
BENZO(K)FLUORANTHENE	< 0.36 U	< 0.47 U	< 22 U	**1.5**	< 0.42 U	< 0.41 U	< 2.3 U	0.38 *

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB11	S09SB11	S09SB12	S09SB12	S09SB13	S09SB13	S09SB14	EPA Residential Soil PRGs
Sample ID	123-S09-011	123-S09-012	123-S09-188A	123-S09-017	123-S09-023	123-S09-024	123-S09-028	
Sample Date	05/07/93	05/07/93	05/07/93	05/07/93	05/07/93	05/07/93	05/07/93	
Sample Depth	0.50 - 0.50	2.50 - 2.50	0.00 - 0.00	0.50 - 0.50	0.50 - 0.50	2.50 - 2.50	0.50 - 0.50	
Semivolatile Organic Compounds (mg/kg)								
CARBAZOLE	< 0.36 U	< 0.47 U	4.1 J	< 0.35 U	< 0.42 U	< 0.41 U	< 2.3 U	24
CHRYSENE	< 0.36 U	< 0.47 U	**6.9 J**	**5.8 D**	0.12 J	0.37 J	< 2.3 U	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.36 U	< 0.47 U	< 22 U	**0.5**	< 0.42 U	< 0.41 U	< 2.3 U	0.062
DIBENZOFURAN	< 0.36 U	< 0.47 U	27	23 D	< 0.42 U	0.35 J	< 2.3 U	150
FLUORANTHENE	< 0.36 U	< 0.47 U	36	30	< 0.42 U	0.56	0.2 J	2,300
FLUORENE	< 0.36 U	< 0.47 U	34	28 D	< 0.42 U	0.41 J	< 2.3 U	2,700
INDENO(1,2,3-CD)PYRENE	< 0.36 U	< 0.47 U	< 22 U	< 0.35 U	0.42	< 0.41 U	< 2.3 U	0.62
N-NITROSODIPHENYLAMINE	0.046 J	0.059 J	< 22 U	< 0.35 U	0.057 J	< 0.41 U	0.32 J	99
NAPHTHALENE	< 0.36 U	< 0.47 U	**72**	**59 D**	< 0.42 U	0.38 J	< 2.3 U	1.7 *
PHENANTHRENE	< 0.36 U	< 0.47 U	98	87 D	< 0.42 U	1.3	< 2.3 U	NC
PYRENE	< 0.36 U	< 0.47 U	30	24 D	0.15 J	0.99	0.26 J	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	0.014 J	0.0025 J	0.19 J	0.12 J	0.022 J	0.026 J	0.053 J	2.4
4,4'-DDE	0.0024 J	< 0.0047 UJ	< 0.011 U	< 0.0087 U	< 0.01 UJ	< 0.0041 U	0.29 J	1.7
4,4'-DDT	< 0.0036 U	< 0.0047 UJ	< 0.011 U	< 0.0087 U	0.0033 J	< 0.0041 U	< 0.0046 UJ	1.7
ALDRIN	< 0.0019 U	< 0.0024 UJ	0.012 J	0.013 J	< 0.0054 UJ	0.0016 J	< 0.0024 UJ	0.029
ALPHA-CHLORDANE	0.0046 J	< 0.0027 UJ	0.5 D	0.41 J	0.44 J	0.25 J	0.11 J	1.6
AROCLOR-1260	0.055 J	< 0.047 UJ	< 0.11 U	< 0.087 U	< 0.1 UJ	< 0.041 U	**1.5 D**	0.22
BETA-BHC	< 0.0019 U	< 0.0024 UJ	< 0.0057 U	< 0.0045 U	< 0.0054 UJ	< 0.0021 U	< 0.0024 UJ	0.32
DELTA-BHC	< 0.0019 U	< 0.0024 UJ	0.02 J	0.021 J	0.015 J	< 0.0021 U	< 0.0024 UJ	NC
DIELDRIN	< 0.0019 U	< 0.0047 UJ	< 0.011 U	< 0.0087 U	< 0.01 UJ	< 0.0041 U	**0.2 J**	0.030
ENDOSULFAN II	< 0.0036 U	< 0.0047 UJ	< 0.011 U	< 0.0087 U	< 0.01 UJ	< 0.0041 U	< 0.0046 UJ	NC
ENDOSULFAN SULFATE	< 0.0036 U	< 0.0047 UJ	< 0.011 U	< 0.0087 U	0.0019 J	< 0.0041 U	< 0.0046 UJ	NC
ENDRIN	< 0.0019 UJ	< 0.0047 UJ	< 0.011 U	< 0.0087 U	< 0.01 UJ	< 0.0041 U	0.083 J	18
ENDRIN ALDEHYDE	< 0.0036 U	0.00036 J	< 0.011 U	< 0.0087 U	< 0.01 UJ	< 0.0041 U	< 0.0046 UJ	NC
GAMMA-CHLORDANE	0.0057 J	< 0.0027 UJ	0.54 D	0.53 J	0.58 J	0.25 J	0.11 J	1.6
HEPTACHLOR EPOXIDE	< 0.0019 U	< 0.0024 UJ	< 0.0057 U	< 0.0045 U	< 0.0054 UJ	< 0.0021 U	< 0.0024 UJ	0.053
Metals (mg/kg)								
ALUMINUM	4,700	12,800	13,800	2,640	12,000	6,840	3,430	76,000
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	31
ARSENIC	**1.7 J**	**5.8**	**2.7**	**1.2 J**	**4.2**	**2.6**	**7.7**	0.39
BARIUM	74	129	157	35.1	127	92	831	5,400

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB11	S09SB11	S09SB12	S09SB12	S09SB13	S09SB13	S09SB14	EPA Residential Soil PRGs
Sample ID	123-S09-011	123-S09-012	123-S09-188A	123-S09-017	123-S09-023	123-S09-024	123-S09-028	
Sample Date	05/07/93	05/07/93	05/07/93	05/07/93	05/07/93	05/07/93	05/07/93	
Sample Depth	0.50 - 0.50	2.50 - 2.50	0.00 - 0.00	0.50 - 0.50	0.50 - 0.50	2.50 - 2.50	0.50 - 0.50	
Metals (mg/kg)								
BERYLLIUM	< 0.22 U	0.52	0.62	< 0.21 U	0.52	0.31	< 0.28 U	150
CADMIUM	< 0.88 U	< 1.1 U	< 1.1 U	< 0.84 U	< 1 U	< 1 U	13.4	37 *
CALCIUM	11,000	12,500	19,900	4,800	12,100	12,900	38,000	NC
CHROMIUM	8.4	23.4	22	4	20.9	12.1	99.8	210
COBALT	< 3.3 U	8.6	6.5	< 2 U	7.6	5.5	3.9	900
COPPER	11.2	23.6	25.7	< 4.4 U	30.9	15.1	636	3,100
IRON	10,800	**26,100**	21,800	7,700	22,900	15,600	**51,000**	23,000
LEAD	4.8 J	6.2 J	8.1 J	5 J	11.3 J	7.2 J	**281 J**	150 *
MAGNESIUM	3,200	9,050	13,200	1,650	10,200	6,420	1,800	NC
MANGANESE	187	330	312	82.9	295	269	85.7	1,800
MERCURY	< 0.11 U	< 0.14 U	< 0.13 U	< 0.11 U	< 0.13 U	< 0.12 U	7.1 J	23
MOLYBDENUM	NA	NA	NA	NA	NA	NA	NA	390
NICKEL	9.9	23.7	19.2	5.5	20.1	14.2	29.4	1,600
POTASSIUM	1,530	4,090	3,680	580	4,180	2,420	344	NC
SELENIUM	< 0.66 UJ	< 0.86 UJ	< 0.8 UJ	< 0.63 UJ	< 0.76 UJ	< 0.75 UJ	3.1 J	390
SILVER	< 0.44 U	< 0.57 U	< 0.53 U	< 0.42 U	< 0.51 U	< 0.5 U	211	390
SODIUM	1,130	2,850	4,800	584	6,800	837	650	NC
THALLIUM	< 0.66 UJ	< 0.86 UJ	< 0.8 UJ	< 0.63 UJ	< 0.76 UJ	< 0.75 UJ	< 8.4 UJ	5.2
VANADIUM	16.9	42.7	43.1	10.8	41.9	24.5	28	78
ZINC	33.4 J	76.4 J	73.6 J	18.2 J	73.9 J	49.2 J	630 J	23,000
Dioxin (mg/kg)								
None Detected	ND	NA	NA	ND	NA	NA	NA	NC

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB14	S09SB14	S09SB15	S09SB16	S09SB16	S09SB16	S09SB17	EPA Residential Soil PRGs
Sample ID	123-S09-029	123-S09-030	123-S09-034	123-S09-039	123-S09-040	123-S09-041	123-S09-045	
Sample Date	05/07/93	05/07/93	05/06/93	05/07/93	05/07/93	05/07/93	05/07/93	
Sample Depth	2.00 - 2.00	3.50 - 3.50	0.50 - 0.50	0.50 - 0.50	2.50 - 2.50	5.00 - 5.00	0.50 - 0.50	
Volatile Organic Compounds (mg/kg)								
1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NC
1,2-DICHLOROETHENE (TOTAL)	< 0.012 U	< 0.014 U	NA	NA	< 0.013 U	< 0.015 U	NA	NC
2-HEXANONE	< 0.012 U	< 0.014 U	NA	NA	< 0.013 U	< 0.015 U	NA	NC
4-METHYL-2-PENTANONE	< 0.012 U	< 0.014 U	NA	NA	< 0.013 U	< 0.015 U	NA	5,300
BENZENE	< 0.012 U	< 0.014 U	NA	NA	< 0.013 U	< 0.015 U	NA	0.64
CARBON DISULFIDE	< 0.012 U	< 0.014 U	NA	NA	< 0.013 U	< 0.015 U	NA	360
CHLOROBENZENE	< 0.012 U	< 0.014 U	NA	NA	< 0.013 U	< 0.015 U	NA	150
ETHYLBENZENE	< 0.012 U	< 0.014 U	NA	NA	< 0.013 U	< 0.015 U	NA	400
TETRACHLOROETHENE	< 0.012 U	< 0.014 U	NA	NA	< 0.013 U	< 0.015 U	NA	0.48
TOLUENE	< 0.012 U	< 0.014 U	NA	NA	< 0.013 U	< 0.015 U	NA	520
TRICHLOROETHENE	< 0.012 U	< 0.014 U	NA	NA	< 0.013 U	< 0.015 U	NA	0.052
XYLENE (TOTAL)	< 0.012 U	< 0.014 U	NA	NA	< 0.013 U	< 0.015 U	NA	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NC
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NC
OTHER COMPONENTS *	< 1.2 U	0.55 J	< 1.1 U	2.9 J	2.4 J	3.6 J	< 1.2 U	NC
TPH - DIESEL	< 1.2 U	73	16	< 1.2 U	< 1.3 U	< 1.5 U	< 1.2 U	NC
TPH - MOTOR OIL	< 12 U	< 14 U	37	< 12 U	< 13 U	< 15 U	120	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NC
OTHER COMPONENTS *	< 0.006 U	23 J	130 J	< 0.006 U	< 0.008 U	< 0.006 U	< 0.006 U	NC
Semivolatile Organic Compounds (mg/kg)								
2-METHYLNAPHTHALENE	< 0.39 U	< 0.47 U	0.009 J	< 0.38 U	< 0.43 U	< 0.5 U	< 0.78 U	NC
4-METHYLPHENOL	< 0.39 U	< 0.47 U	< 0.37 U	< 0.38 U	< 0.43 U	< 0.5 U	< 0.78 U	310
ACENAPHTHENE	< 0.39 U	< 0.47 U	0.049 J	< 0.38 U	< 0.43 U	< 0.5 U	< 0.78 U	3,700
ANTHRACENE	< 0.39 U	< 0.47 U	< 0.37 U	< 0.38 U	< 0.43 U	< 0.5 U	< 0.78 U	22,000
BENZO(A)ANTHRACENE	< 0.39 U	< 0.47 U	< 0.37 U	< 0.38 U	< 0.43 U	< 0.5 U	< 0.78 U	0.62
BENZO(A)PYRENE	< 0.39 U	< 0.47 U	< 0.37 U	< 0.38 U	< 0.43 U	< 0.5 U	< 0.78 U	0.062
BENZO(B)FLUORANTHENE	< 0.39 U	< 0.47 U	< 0.37 U	< 0.38 U	< 0.43 U	< 0.5 U	< 0.78 U	0.62
BENZO(G,H,I)PERYLENE	< 0.39 U	< 0.47 U	< 0.37 U	< 0.38 U	< 0.43 U	< 0.5 U	< 0.78 U	NC
BENZO(K)FLUORANTHENE	< 0.39 U	< 0.47 U	< 0.37 U	< 0.38 U	< 0.43 U	< 0.5 U	< 0.78 U	0.38 *

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB14	S09SB14	S09SB15	S09SB16	S09SB16	S09SB16	S09SB17	EPA Residential Soil PRGs
Sample ID	123-S09-029	123-S09-030	123-S09-034	123-S09-039	123-S09-040	123-S09-041	123-S09-045	
Sample Date	05/07/93	05/07/93	05/06/93	05/07/93	05/07/93	05/07/93	05/07/93	
Sample Depth	2.00 - 2.00	3.50 - 3.50	0.50 - 0.50	0.50 - 0.50	2.50 - 2.50	5.00 - 5.00	0.50 - 0.50	
Semivolatile Organic Compounds (mg/kg)								
CARBAZOLE	< 0.39 U	< 0.47 U	< 0.37 U	< 0.38 U	< 0.43 U	< 0.5 U	< 0.78 U	24
CHRYSENE	< 0.39 U	< 0.47 U	< 0.37 U	< 0.38 U	< 0.43 U	< 0.5 U	< 0.78 U	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.39 U	< 0.47 U	< 0.37 U	< 0.38 U	< 0.43 U	< 0.5 U	< 0.78 U	0.062
DIBENZOFURAN	< 0.39 U	< 0.47 U	< 0.37 U	< 0.38 U	< 0.43 U	< 0.5 U	< 0.78 U	150
FLUORANTHENE	< 0.39 U	< 0.47 U	0.088 J	< 0.38 U	< 0.43 U	< 0.5 U	< 0.78 U	2,300
FLUORENE	< 0.39 U	< 0.47 U	< 0.37 U	< 0.38 U	< 0.43 U	< 0.5 U	< 0.78 U	2,700
INDENO(1,2,3-CD)PYRENE	< 0.39 U	< 0.47 U	< 0.37 U	< 0.38 U	< 0.43 U	< 0.5 U	< 0.78 U	0.62
N-NITROSODIPHENYLAMINE	< 0.39 U	< 0.47 U	< 0.37 U	0.036 J	< 0.43 U	< 0.5 U	0.085 J	99
NAPHTHALENE	< 0.39 U	< 0.47 U	< 0.37 U	< 0.38 U	< 0.43 U	< 0.5 U	< 0.78 U	1.7 *
PHENANTHRENE	< 0.39 U	< 0.47 U	0.096 J	< 0.38 U	< 0.43 U	< 0.5 U	< 0.78 U	NC
PYRENE	< 0.39 U	< 0.47 U	0.12 J	< 0.38 U	< 0.43 U	< 0.5 U	< 0.78 U	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.0033 U	< 0.0047 U	0.032	< 0.0038 U	< 0.0043 U	< 0.005 U	< 0.0021 UJ	2.4
4,4'-DDE	0.0016 J	< 0.0047 U	0.012	< 0.0038 U	< 0.0043 U	< 0.005 U	< 0.0039 U	1.7
4,4'-DDT	< 0.0039 U	< 0.0047 U	< 0.0037 U	< 0.0038 U	< 0.0043 U	< 0.005 U	0.0047 J	1.7
ALDRIN	< 0.002 U	< 0.0024 U	< 0.0019 U	< 0.002 U	< 0.0022 U	< 0.0026 U	< 0.002 U	0.029
ALPHA-CHLORDANE	0.0013 J	< 0.0017 U	< 0.0019 U	< 0.002 U	< 0.0022 U	< 0.0026 U	0.001 J	1.6
AROCLOR-1260	< 0.033 U	< 0.047 U	0.021 J	< 0.038 U	< 0.043 U	< 0.05 U	0.028 J	0.22
BETA-BHC	< 0.002 U	< 0.0024 U	< 0.0019 U	< 0.002 U	< 0.0022 U	< 0.0026 U	< 0.002 U	0.32
DELTA-BHC	< 0.002 U	< 0.0024 U	< 0.0019 U	< 0.002 U	< 0.0022 U	< 0.0026 U	< 0.002 U	NC
DIELDRIN	< 0.0039 U	< 0.0047 U	< 0.0037 U	< 0.0038 U	< 0.0043 U	< 0.005 U	0.0012 J	0.030
ENDOSULFAN II	< 0.0039 U	< 0.0047 U	< 0.0037 U	< 0.0038 U	< 0.0043 U	< 0.005 U	< 0.0039 U	NC
ENDOSULFAN SULFATE	< 0.0039 U	< 0.0047 U	< 0.0037 U	< 0.0038 U	< 0.0043 U	< 0.005 U	< 0.0039 U	NC
ENDRIN	< 0.0039 U	< 0.0047 U	< 0.0037 U	< 0.0038 U	< 0.0043 U	< 0.005 U	< 0.0039 U	18
ENDRIN ALDEHYDE	< 0.0039 U	< 0.0047 U	< 0.0037 U	< 0.0038 U	< 0.0043 U	< 0.005 U	< 0.0039 U	NC
GAMMA-CHLORDANE	0.0012 J	< 0.0017 U	< 0.0019 U	< 0.002 U	< 0.0022 U	< 0.0026 U	0.0011 J	1.6
HEPTACHLOR EPOXIDE	< 0.002 U	< 0.0024 U	< 0.0019 U	< 0.002 U	< 0.0022 U	< 0.0026 U	< 0.002 U	0.053
Metals (mg/kg)								
ALUMINUM	9,620	14,600	6,990	8,860	8,640	12,100	7,610	76,000
ANTIMONY	< 7.3 U	< 8.9 U	< 7.1 U	NA	NA	NA	NA	31
ARSENIC	**1.7 J**	**4.1**	**5**	**2.3 J**	**2.4**	**5.7**	**4.8**	0.39
BARIUM	79.2	146	85.2	95.5	106	207	65.3	5,400

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB14	S09SB14	S09SB15	S09SB16	S09SB16	S09SB16	S09SB17	EPA Residential Soil PRGs
Sample ID	123-S09-029	123-S09-030	123-S09-034	123-S09-039	123-S09-040	123-S09-041	123-S09-045	
Sample Date	05/07/93	05/07/93	05/06/93	05/07/93	05/07/93	05/07/93	05/07/93	
Sample Depth	2.00 - 2.00	3.50 - 3.50	0.50 - 0.50	0.50 - 0.50	2.50 - 2.50	5.00 - 5.00	0.50 - 0.50	
Metals (mg/kg)								
BERYLLIUM	0.41	0.68	0.28	0.31	0.36	0.55	0.26	150
CADMIUM	2.8	2.5	2	< 0.93 U	< 1 U	2 J	1.8 J	37 *
CALCIUM	5,780	23,400	8,970	12,000	32,700	19,900	14,900	NC
CHROMIUM	16	28.6	12.7	15.1	13.8	21.2	18	210
COBALT	6.4	9	5.2	5.1	5.5	9.8	8.6	900
COPPER	14.7	40.4	15.1	12	17.3	23.3	17.7	3,100
IRON	15,900	**23,700**	13,200	15,400	16,800	**27,700**	17,400	23,000
LEAD	4.8	10.2	15.5	3.2 J	3.9 J	1.2 J	0.21 J	150 *
MAGNESIUM	5,090	9,300	5,820	7,330	9,230	10,100	6,360	NC
MANGANESE	154 J	666 J	210 J	256	317	601	346	1,800
MERCURY	< 0.12 U	0.33	< 0.11 U	< 0.12 U	< 0.13 U	< 0.15 U	< 0.12 U	23
MOLYBDENUM	NA	NA	NA	NA	NA	NA	NA	390
NICKEL	14.2	22.7	9.6	12.9	14.4	24.8	16	1,600
POTASSIUM	2,550	3,790	2,440	2,720	2,650	4,710	1,750	NC
SELENIUM	< 0.7 U	1.2	< 0.68 U	< 0.7 UJ	< 0.78 UJ	< 0.9 UJ	< 0.71 UJ	390
SILVER	0.75	7.9	< 0.46 U	< 0.46 U	< 0.52 U	< 0.6 U	< 0.47 U	390
SODIUM	617	1,480	501	962	1,160	1,690	657	NC
THALLIUM	< 0.7 UJ	< 0.86 UJ	< 0.68 UJ	< 0.7 UJ	< 7.8 UJ	< 9 UJ	< 0.71 UJ	5.2
VANADIUM	33.1	46.9	23.8	29.2	27.5	43.3	27.4	78
ZINC	335 J	117 J	71.1 J	41.6 J	60 J	76.3 J	48.7 J	23,000
Dioxin (mg/kg)								
None Detected	NA	NA	NA	ND	NA	ND	NA	NC

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB17	S09SB17	S09SB18	S09SB18	S09SB18	S09SB19	S09SB19	EPA Residential Soil PRGs
Sample ID	123-S09-046	123-S09-047	123-S09-050	123-S09-051	123-S09-052	123-S09-056	123-S09-057	
Sample Date	05/07/93	05/07/93	05/07/93	05/07/93	05/07/93	05/06/93	05/06/93	
Sample Depth	2.50 - 2.50	5.00 - 5.00	0.50 - 0.50	2.00 - 2.00	3.50 - 3.50	0.50 - 0.50	2.50 - 2.50	
Volatile Organic Compounds (mg/kg)								
1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NC
1,2-DICHLOROETHENE (TOTAL)	< 0.012 U	< 0.013 U	NA	< 0.011 U	0.002 J	NA	< 0.012 U	NC
2-HEXANONE	< 0.012 U	< 0.013 U	NA	< 0.011 U	< 0.013 U	NA	< 0.012 U	NC
4-METHYL-2-PENTANONE	< 0.012 U	< 0.013 U	NA	< 0.011 U	< 0.013 U	NA	< 0.012 U	5,300
BENZENE	< 0.012 U	< 0.013 U	NA	< 0.011 U	< 0.013 U	NA	< 0.012 U	0.64
CARBON DISULFIDE	< 0.012 U	< 0.013 U	NA	< 0.011 U	0.0006 J	NA	< 0.012 U	360
CHLOROBENZENE	< 0.012 U	< 0.013 U	NA	< 0.011 U	< 0.013 U	NA	< 0.012 U	150
ETHYLBENZENE	< 0.012 U	< 0.013 U	NA	< 0.011 U	< 0.013 U	NA	< 0.012 U	400
TETRACHLOROETHENE	< 0.012 U	< 0.013 U	NA	< 0.011 U	< 0.013 U	NA	< 0.012 U	0.48
TOLUENE	< 0.012 U	< 0.013 U	NA	< 0.011 U	< 0.013 U	NA	< 0.014 U	520
TRICHLOROETHENE	< 0.012 U	< 0.013 U	NA	< 0.011 U	< 0.013 U	NA	< 0.012 U	0.052
XYLENE (TOTAL)	< 0.012 U	< 0.013 U	NA	< 0.011 U	< 0.013 U	NA	< 0.012 U	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NC
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NC
OTHER COMPONENTS *	3.1 J	6 J	< 1.1 U	5.5 J	2.3 J	< 1.9 U	< 2 U	NC
TPH - DIESEL	< 1.2 U	< 1.3 U	55	< 1.1 U	< 1.3 U	240 J	< 2 U	NC
TPH - MOTOR OIL	< 12 U	< 13 U	150	< 11 U	< 13 U	2,700 J	14 J	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NC
OTHER COMPONENTS *	< 0.007 U	< 0.007 U	< 0.006 U	< 0.006 U	< 0.007 U	< 0.006 U	< 0.006 U	NC
Semivolatile Organic Compounds (mg/kg)								
2-METHYLNAPHTHALENE	< 0.4 U	< 0.44 U	< 0.37 U	< 0.37 U	< 0.44 U	0.12 J	< 0.39 U	NC
4-METHYLPHENOL	< 0.4 U	< 0.44 U	< 0.37 U	< 0.37 U	< 0.44 U	< 0.37 U	< 0.39 U	310
ACENAPHTHENE	< 0.4 U	< 0.44 U	< 0.37 U	< 0.37 U	< 0.44 U	< 0.37 U	< 0.39 U	3,700
ANTHRACENE	< 0.4 U	< 0.44 U	< 0.37 U	< 0.37 U	< 0.44 U	< 0.37 U	< 0.39 U	22,000
BENZO(A)ANTHRACENE	< 0.4 U	< 0.44 U	< 0.37 U	< 0.37 U	< 0.44 U	0.092 J	< 0.39 U	0.62
BENZO(A)PYRENE	< 0.4 U	< 0.44 U	< 0.37 U	< 0.37 U	< 0.44 U	< 0.37 UJ	< 0.39 U	0.062
BENZO(B)FLUORANTHENE	< 0.4 U	< 0.44 U	< 0.37 U	< 0.37 U	< 0.44 U	< 0.37 UJ	< 0.39 U	0.62
BENZO(G,H,I)PERYLENE	< 0.4 U	< 0.44 U	< 0.37 U	< 0.37 U	< 0.44 U	< 0.37 UJ	< 0.39 U	NC
BENZO(K)FLUORANTHENE	< 0.4 U	< 0.44 U	< 0.37 U	< 0.37 U	< 0.44 U	< 0.37 UJ	< 0.39 U	0.38 *

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB17	S09SB17	S09SB18	S09SB18	S09SB18	S09SB19	S09SB19	EPA Residential Soil PRGs
Sample ID	123-S09-046	123-S09-047	123-S09-050	123-S09-051	123-S09-052	123-S09-056	123-S09-057	
Sample Date	05/07/93	05/07/93	05/07/93	05/07/93	05/07/93	05/06/93	05/06/93	
Sample Depth	2.50 - 2.50	5.00 - 5.00	0.50 - 0.50	2.00 - 2.00	3.50 - 3.50	0.50 - 0.50	2.50 - 2.50	
Semivolatile Organic Compounds (mg/kg)								
CARBAZOLE	< 0.4 U	< 0.44 U	< 0.37 U	< 0.37 U	< 0.44 U	< 0.37 U	< 0.39 U	24
CHRYSENE	< 0.4 U	< 0.44 U	< 0.37 U	< 0.37 U	< 0.44 U	0.19 J	< 0.39 U	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.4 U	< 0.44 U	< 0.37 U	< 0.37 U	< 0.44 U	< 0.37 UJ	< 0.39 U	0.062
DIBENZOFURAN	< 0.4 U	< 0.44 U	< 0.37 U	< 0.37 U	< 0.44 U	< 0.37 U	< 0.39 U	150
FLUORANTHENE	< 0.4 U	< 0.44 U	< 0.37 U	< 0.37 U	< 0.44 U	0.18 J	< 0.39 U	2,300
FLUORENE	< 0.4 U	< 0.44 U	< 0.37 U	< 0.37 U	< 0.44 U	0.094 J	< 0.39 U	2,700
INDENO(1,2,3-CD)PYRENE	< 0.4 U	< 0.44 U	< 0.37 U	< 0.37 U	< 0.44 U	< 0.37 UJ	< 0.39 U	0.62
N-NITROSODIPHENYLAMINE	< 0.4 U	< 0.44 U	0.089 J	< 0.37 U	< 0.44 U	< 0.37 U	< 0.39 U	99
NAPHTHALENE	< 0.4 U	< 0.44 U	< 0.37 U	< 0.37 U	< 0.44 U	< 0.37 U	< 0.39 U	1.7 *
PHENANTHRENE	< 0.4 U	< 0.44 U	< 0.37 U	< 0.37 U	< 0.44 U	0.28 J	< 0.39 U	NC
PYRENE	< 0.4 U	< 0.44 U	0.043 J	< 0.37 U	< 0.44 U	0.36 J	< 0.39 U	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.004 U	< 0.0044 U	0.033 J	< 0.0037 UJ	< 0.0044 U	0.071	< 0.0039 U	2.4
4,4'-DDE	< 0.004 U	< 0.0044 U	0.017 J	< 0.0037 UJ	< 0.0044 U	0.02	< 0.0039 U	1.7
4,4'-DDT	< 0.004 U	< 0.0044 U	< 0.0037 UJ	< 0.0037 UJ	< 0.0044 U	0.0012 J	< 0.0039 U	1.7
ALDRIN	< 0.0021 U	< 0.0023 U	< 0.0019 UJ	< 0.0019 UJ	< 0.0023 U	< 0.0019 U	< 0.002 U	0.029
ALPHA-CHLORDANE	< 0.0021 U	< 0.0023 U	0.0032 J	< 0.0019 UJ	< 0.0023 U	0.011	< 0.002 U	1.6
AROCLOR-1260	< 0.04 U	< 0.044 U	0.061 J	< 0.037 UJ	< 0.044 U	**0.5 J**	< 0.039 U	0.22
BETA-BHC	< 0.0021 U	< 0.0023 U	< 0.0019 UJ	< 0.0019 UJ	< 0.0023 U	< 0.0019 U	< 0.002 U	0.32
DELTA-BHC	< 0.0021 U	< 0.0023 U	< 0.0019 UJ	< 0.0019 UJ	< 0.0023 U	< 0.0019 U	< 0.002 U	NC
DIELDRIN	< 0.004 U	< 0.0044 U	0.0079 J	< 0.0037 UJ	< 0.0044 U	0.0039 J	< 0.0039 U	0.030
ENDOSULFAN II	< 0.004 U	< 0.0044 U	< 0.0037 UJ	< 0.0037 UJ	< 0.0044 U	< 0.0037 U	< 0.0039 U	NC
ENDOSULFAN SULFATE	< 0.004 U	< 0.0044 U	< 0.0037 UJ	< 0.0037 UJ	< 0.0044 U	0.0049 J	< 0.0039 U	NC
ENDRIN	< 0.004 U	< 0.0044 U	0.0031 J	< 0.0037 UJ	< 0.0044 U	0.0037 J	< 0.0039 U	18
ENDRIN ALDEHYDE	< 0.004 U	< 0.0044 U	< 0.0037 UJ	< 0.0037 UJ	< 0.0044 U	< 0.0037 U	< 0.0039 U	NC
GAMMA-CHLORDANE	< 0.0021 U	< 0.0023 U	0.0032 J	< 0.0019 UJ	< 0.0023 U	0.01 J	< 0.002 U	1.6
HEPTACHLOR EPOXIDE	< 0.0021 U	< 0.0023 U	< 0.0019 UJ	< 0.0019 UJ	< 0.0023 U	0.0013 J	< 0.002 U	0.053
Metals (mg/kg)								
ALUMINUM	8,740	6,570	10,100	7,040	13,200	9,110	8,980	76,000
ANTIMONY	NA	NA	NA	NA	NA	< 7.8 UJ	< 8.4 UJ	31
ARSENIC	**2.3 J**	**2.9**	**5.6**	**4**	**2.9**	**7.4**	**3.6**	0.39
BARIUM	98.9	94.7	89.8	89.8	114	887	112	5,400

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB17	S09SB17	S09SB18	S09SB18	S09SB18	S09SB19	S09SB19	EPA Residential Soil PRGs
Sample ID	123-S09-046	123-S09-047	123-S09-050	123-S09-051	123-S09-052	123-S09-056	123-S09-057	
Sample Date	05/07/93	05/07/93	05/07/93	05/07/93	05/07/93	05/06/93	05/06/93	
Sample Depth	2.50 - 2.50	5.00 - 5.00	0.50 - 0.50	2.00 - 2.00	3.50 - 3.50	0.50 - 0.50	2.50 - 2.50	
Metals (mg/kg)								
BERYLLIUM	0.33	< 0.27 U	0.28	0.32	0.68	0.77	0.89	150
CADMIUM	< 0.97 U	< 1.1 U	< 0.91 U	< 0.91 U	< 1.1 U	1.3	< 1 U	37 *
CALCIUM	8,110	21,600	11,800	7,610	15,000	40,100	10,300	NC
CHROMIUM	15.4	11.4	21.5	12.1	21.1	19.8	15	210
COBALT	4.8	4.4	6.7	4	7.6	10.6	8	900
COPPER	11	9.3	38.9	10.2	18.9	35	13.4	3,100
IRON	15,100	14,900	20,000	12,800	22,500	17,800	16,300	23,000
LEAD	3.7 J	1.7 J	26.7 J	3.3 J	6.6 J	56.5	5	150 *
MAGNESIUM	6,270	6,690	6,460	5,240	8,510	6,040	6,600	NC
MANGANESE	239	374	311	189	449	974	261	1,800
MERCURY	< 0.12 U	< 0.13 U	< 0.11 U	< 0.11 U	< 0.13 U	< 0.1 U	< 0.1 U	23
MOLYBDENUM	NA	NA	NA	NA	NA	NA	NA	390
NICKEL	12.4	9.8	17.5	10.8	22.1	20.8	19	1,600
POTASSIUM	2,570	1,890	2,170	2,360	3,780	2,230	2,710	NC
SELENIUM	< 0.73 UJ	< 0.8 UJ	< 0.68 UJ	< 0.68 UJ	< 0.8 UJ	< 0.61 U	< 0.63 U	390
SILVER	< 0.49 U	< 0.53 U	0.84	< 0.46 U	< 0.53 U	2.3	< 2.1 U	390
SODIUM	690	496	1,210	561	832	1,060	892	NC
THALLIUM	< 0.73 UJ	< 0.8 UJ	< 0.68 UJ	< 0.68 UJ	< 0.8 UJ	< 0.41 U	< 0.42 U	5.2
VANADIUM	29.7	22.7	34.6	23.3	41	30.9	30.7	78
ZINC	39.1 J	34.3 J	226 J	36.9 J	65.1 J	102	46.1	23,000
Dioxin (mg/kg)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB19GB01	S09SB19GB01	S09SB19GB02	S09SB19GB02	S09SB19GB03	S09SB19GB03	S09SB20	EPA Residential Soil PRGs
Sample ID	274042	274043	274044	274061	274047	274048	123-S09-061	
Sample Date	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	05/06/93	
Sample Depth	0.50 - 1.50	5.00 - 6.50	0.50 - 1.50	5.00 - 5.00	0.50 - 1.50	5.00 - 6.50	0.50 - 0.50	
Volatile Organic Compounds (mg/kg)								
1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NC
1,2-DICHLOROETHENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA	NC
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA	NC
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA	5,300
BENZENE	NA	NA	NA	NA	NA	NA	NA	0.64
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA	360
CHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	150
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	400
TETRACHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	0.48
TOLUENE	NA	NA	NA	NA	NA	NA	NA	520
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	0.052
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	< 11 U	< 13 U	< 12 U	< 15 U	< 12 U	< 12 U	NA	NC
MOTOR OIL RANGE ORGANICS	9 JY	< 13 U	12 Y	38 Y	< 12 U	16 Y	NA	NC
OTHER COMPONENTS *	NA	NA	NA	NA	NA	NA	0.44 J	NC
TPH - DIESEL	NA	NA	NA	NA	NA	NA	< 1.1 U	NC
TPH - MOTOR OIL	NA	NA	NA	NA	NA	NA	< 11 U	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	< 0.55 U	< 0.63 U	< 0.59 U	< 0.74 U	< 0.6 U	< 0.61 U	NA	NC
OTHER COMPONENTS *	NA	NA	NA	NA	NA	NA	< 0.005 U	NC
Semivolatile Organic Compounds (mg/kg)								
2-METHYLNAPHTHALENE	< 0.36 U	NA	< 0.39 U	NA	< 0.39 U	NA	< 0.36 U	NC
4-METHYLPHENOL	< 0.36 U	NA	< 0.39 U	NA	< 0.39 U	NA	< 0.36 U	310
ACENAPHTHENE	< 0.36 U	NA	< 0.39 U	NA	< 0.39 U	NA	< 0.36 U	3,700
ANTHRACENE	< 0.36 U	NA	< 0.39 U	NA	< 0.39 U	NA	< 0.36 U	22,000
BENZO(A)ANTHRACENE	< 0.36 U	NA	< 0.39 U	NA	< 0.39 U	NA	< 0.36 U	0.62
BENZO(A)PYRENE	< 0.36 U	NA	< 0.39 U	NA	< 0.39 U	NA	< 0.36 U	0.062
BENZO(B)FLUORANTHENE	< 0.36 U	NA	< 0.39 U	NA	< 0.39 U	NA	< 0.36 U	0.62
BENZO(G,H,I)PERYLENE	< 0.36 U	NA	< 0.39 U	NA	< 0.39 U	NA	< 0.36 U	NC
BENZO(K)FLUORANTHENE	< 0.36 U	NA	< 0.39 U	NA	< 0.39 U	NA	< 0.36 U	0.38 *

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB19GB01	S09SB19GB01	S09SB19GB02	S09SB19GB02	S09SB19GB03	S09SB19GB03	S09SB20	EPA Residential Soil PRGs
Sample ID	274042	274043	274044	274061	274047	274048	123-S09-061	
Sample Date	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	05/06/93	
Sample Depth	0.50 - 1.50	5.00 - 6.50	0.50 - 1.50	5.00 - 5.00	0.50 - 1.50	5.00 - 6.50	0.50 - 0.50	
Semivolatile Organic Compounds (mg/kg)								
CARBAZOLE	NA	NA	NA	NA	NA	NA	< 0.36 U	24
CHRYSENE	< 0.36 U	NA	< 0.39 U	NA	< 0.39 U	NA	< 0.36 U	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.36 U	NA	< 0.39 U	NA	< 0.39 U	NA	< 0.36 U	0.062
DIBENZOFURAN	< 0.36 U	NA	< 0.39 U	NA	< 0.39 U	NA	< 0.36 U	150
FLUORANTHENE	< 0.36 U	NA	< 0.39 U	NA	< 0.39 U	NA	< 0.36 U	2,300
FLUORENE	< 0.36 U	NA	< 0.39 U	NA	< 0.39 U	NA	< 0.36 U	2,700
INDENO(1,2,3-CD)PYRENE	< 0.36 U	NA	< 0.39 U	NA	< 0.39 U	NA	< 0.36 U	0.62
N-NITROSODIPHENYLAMINE	< 0.36 U	NA	< 0.39 U	NA	< 0.39 U	NA	< 0.36 U	99
NAPHTHALENE	< 0.36 U	NA	< 0.39 U	NA	< 0.39 U	NA	< 0.36 U	1.7 *
PHENANTHRENE	< 0.36 U	NA	< 0.39 U	NA	< 0.39 U	NA	< 0.36 U	NC
PYRENE	< 0.36 U	NA	< 0.39 U	NA	< 0.39 U	NA	< 0.36 U	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.0036 U	NA	< 0.0039 U	< 0.0049 UJ	< 0.0039 U	NA	0.003 J	2.4
4,4'-DDE	< 0.0036 U	NA	< 0.0039 U	< 0.0049 UJ	< 0.0039 U	NA	0.0027 J	1.7
4,4'-DDT	< 0.0036 U	NA	< 0.0039 U	< 0.0049 UJ	< 0.0039 U	NA	0.0042	1.7
ALDRIN	< 0.0019 U	NA	< 0.002 U	< 0.0025 UJ	< 0.002 U	NA	< 0.0019 U	0.029
ALPHA-CHLORDANE	< 0.0019 U	NA	< 0.002 U	< 0.0025 UJ	< 0.002 U	NA	< 0.0019 U	1.6
AROCLOR-1260	< 0.018 U	NA	< 0.019 U	< 0.024 UJ	< 0.019 U	NA	0.035 J	0.22
BETA-BHC	< 0.0019 U	NA	< 0.002 U	< 0.0025 UJ	< 0.002 U	NA	< 0.0019 U	0.32
DELTA-BHC	< 0.0019 U	NA	< 0.002 U	< 0.0025 UJ	< 0.002 U	NA	< 0.0019 U	NC
DIELDRIN	< 0.00033 U	NA	< 0.00035 U	< 0.00044 UJ	< 0.00036 U	NA	< 0.0036 U	0.030
ENDOSULFAN II	< 0.0036 U	NA	< 0.0039 U	< 0.0049 UJ	< 0.0039 U	NA	< 0.0036 U	NC
ENDOSULFAN SULFATE	< 0.0036 U	NA	< 0.0039 U	< 0.0049 UJ	< 0.0039 U	NA	< 0.0036 U	NC
ENDRIN	0.0003	NA	< 0.0039 U	< 0.0049 UJ	< 0.0039 U	NA	< 0.0036 U	18
ENDRIN ALDEHYDE	< 0.0036 UJ	NA	< 0.0039 UJ	< 0.0049 UJ	< 0.0039 UJ	NA	< 0.0036 U	NC
GAMMA-CHLORDANE	< 0.0019 U	NA	< 0.002 U	< 0.0025 UJ	< 0.002 U	NA	< 0.0019 U	1.6
HEPTACHLOR EPOXIDE	< 0.00033 U	NA	< 0.00035 U	< 0.00044 UJ	< 0.00036 U	NA	< 0.0019 U	0.053
Metals (mg/kg)								
ALUMINUM	NA	NA	NA	NA	NA	NA	4,210	76,000
ANTIMONY	< 0.12 U	< 0.14 U	< 0.13 U	NA	< 0.13 U	< 0.13 U	< 6.8 U	31
ARSENIC	**2.2**	**1.3 J**	**2 J**	NA	**3.2**	**2.3 J**	**1.3**	0.39
BARIUM	56.7 J	51.7 J	61.2 J	NA	107 J	47.2 J	55	5,400

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB19GB01	S09SB19GB01	S09SB19GB02	S09SB19GB02	S09SB19GB03	S09SB19GB03	S09SB20	EPA Residential Soil PRGs
Sample ID	274042	274043	274044	274061	274047	274048	123-S09-061	
Sample Date	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	05/06/93	
Sample Depth	0.50 - 1.50	5.00 - 6.50	0.50 - 1.50	5.00 - 5.00	0.50 - 1.50	5.00 - 6.50	0.50 - 0.50	
Metals (mg/kg)								
BERYLLIUM	< 0.003 U	< 0.0034 U	< 0.0032 U	NA	< 0.0032 U	< 0.0033 U	< 0.22 U	150
CADMIUM	< 0.38 UJ	< 0.017 UJ	< 0.26 UJ	NA	< 0.29 UJ	< 0.013 U	< 0.88 U	37 *
CALCIUM	NA	NA	NA	NA	NA	NA	9,860	NC
CHROMIUM	11.4 J	6 J	9.8 J	NA	24.1 J	8.8 J	7.4	210
COBALT	5.4 J	2.3 J	3.7 J	NA	7.8 J	3.2 J	3.5	900
COPPER	17.7 J	3.6 J	6.5 J	NA	11.5 J	5.9 J	< 6.4 U	3,100
IRON	NA	NA	NA	NA	NA	NA	8,230	23,000
LEAD	8.1	2	3.1	NA	4.7	2.9	4.8	150 *
MAGNESIUM	NA	NA	NA	NA	NA	NA	2,930	NC
MANGANESE	NA	NA	NA	NA	NA	NA	145 J	1,800
MERCURY	0.083 J	< 0.088 U	0.033	NA	0.029	< 0.085 U	< 0.11 U	23
MOLYBDENUM	0.36 J	1.2 J	0.74 J	NA	0.61 J	1.4	NA	390
NICKEL	15.9 J	4.4 J	8.1 J	NA	16.5 J	7 J	7.4	1,600
POTASSIUM	NA	NA	NA	NA	NA	NA	1,320	NC
SELENIUM	1.5	0.36 J	< 0.2 U	NA	0.88 J	0.85 J	< 0.66 U	390
SILVER	< 0.051 U	< 0.059 U	< 0.056 U	NA	< 0.056 U	< 0.057 U	< 0.44 U	390
SODIUM	NA	NA	NA	NA	NA	NA	1,060	NC
THALLIUM	< 0.11 U	< 0.13 U	< 0.12 U	NA	< 0.12 U	< 0.12 U	< 0.86 UJ	5.2
VANADIUM	31.5 J	14.5 J	18.1 J	NA	33.7 J	18.3 J	13.6	78
ZINC	32.7 J	13.4 J	21.6 J	NA	41.9 J	21.2 J	23.9 J	23,000
Dioxin (mg/kg)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB20	S09SB20	S09SB20	S09SB20	S09SB20	S09SB20	S09SB20	
Sample ID	123-S09-062	123-S09-063	123-S09-064	123-S09-065	123-S09-066	123-S09-185	123-S09-186	EPA Residential Soil PRGs
Sample Date	05/06/93	05/06/93	05/06/93	05/06/93	05/06/93	05/06/93	05/06/93	
Sample Depth	0.50 - 0.50	2.50 - 2.50	5.00 - 5.00	7.50 - 7.50	10.00 - 10.00	12.50 - 12.50	15.00 - 15.00	
Volatile Organic Compounds (mg/kg)								
1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NC
1,2-DICHLOROETHENE (TOTAL)	< 0.01 U	< 0.01 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	NC
2-HEXANONE	< 0.01 U	< 0.01 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	NC
4-METHYL-2-PENTANONE	< 0.01 U	< 0.01 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	5,300
BENZENE	< 0.01 U	< 0.01 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	0.64
CARBON DISULFIDE	< 0.01 U	< 0.01 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	360
CHLOROBENZENE	< 0.01 U	< 0.01 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	150
ETHYLBENZENE	< 0.01 U	< 0.01 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	400
TETRACHLOROETHENE	< 0.01 U	< 0.01 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	0.48
TOLUENE	< 0.01 U	< 0.01 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	520
TRICHLOROETHENE	< 0.01 U	< 0.01 U	< 0.011 U	< 0.011 U	0.002 J	0.005 J	< 0.011 U	0.052
XYLENE (TOTAL)	< 0.01 U	< 0.01 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NC
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NC
OTHER COMPONENTS *	< 1 U	< 1 U	< 1.1 U	< 1.8 U	< 1.9 U	< 2.1 U	< 1.9 U	NC
TPH - DIESEL	< 1 U	< 1 U	< 1.1 U	< 1.8 U	< 1.9 U	< 2.1 U	< 1.9 U	NC
TPH - MOTOR OIL	< 10 U	< 10 U	< 11 U	24 J	41 J	42 J	68 J	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NC
OTHER COMPONENTS *	< 0.005 U	< 0.005 U	< 0.006 U	< 0.005 U	< 0.006 U	< 0.006 U	< 0.006 U	NC
Semivolatile Organic Compounds (mg/kg)								
2-METHYLNAPHTHALENE	< 0.34 U	< 0.34 U	< 0.37 U	< 0.35 U	< 0.37 U	< 0.41 U	< 0.37 U	NC
4-METHYLPHENOL	< 0.34 U	< 0.34 U	< 0.37 U	< 0.35 U	< 0.37 U	< 0.41 U	< 0.37 U	310
ACENAPHTHENE	< 0.34 U	< 0.34 U	< 0.37 U	< 0.35 U	< 0.37 U	< 0.41 U	< 0.37 U	3,700
ANTHRACENE	< 0.34 U	< 0.34 U	< 0.37 U	< 0.35 U	< 0.37 U	< 0.41 U	< 0.37 U	22,000
BENZO(A)ANTHRACENE	< 0.34 U	< 0.34 U	< 0.37 U	< 0.35 U	< 0.37 U	< 0.41 U	< 0.37 U	0.62
BENZO(A)PYRENE	< 0.34 U	< 0.34 U	< 0.37 U	< 0.35 U	< 0.37 U	< 0.41 U	< 0.37 U	0.062
BENZO(B)FLUORANTHENE	< 0.34 U	< 0.34 U	< 0.37 U	< 0.35 U	< 0.37 U	< 0.41 U	< 0.37 U	0.62
BENZO(G,H,I)PERYLENE	< 0.34 U	< 0.34 U	< 0.37 U	< 0.35 U	< 0.37 U	< 0.41 U	< 0.37 U	NC
BENZO(K)FLUORANTHENE	< 0.34 U	< 0.34 U	< 0.37 U	< 0.35 U	< 0.37 U	< 0.41 U	< 0.37 U	0.38 *

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB20	S09SB20	S09SB20	S09SB20	S09SB20	S09SB20	S09SB20	
Sample ID	123-S09-062	123-S09-063	123-S09-064	123-S09-065	123-S09-066	123-S09-185	123-S09-186	EPA Residential Soil PRGs
Sample Date	05/06/93	05/06/93	05/06/93	05/06/93	05/06/93	05/06/93	05/06/93	
Sample Depth	0.50 - 0.50	2.50 - 2.50	5.00 - 5.00	7.50 - 7.50	10.00 - 10.00	12.50 - 12.50	15.00 - 15.00	
Semivolatile Organic Compounds (mg/kg)								
CARBAZOLE	< 0.34 U	< 0.34 U	< 0.37 U	< 0.35 U	< 0.37 U	< 0.41 U	< 0.37 U	24
CHRYSENE	< 0.34 U	< 0.34 U	< 0.37 U	< 0.35 U	< 0.37 U	< 0.41 U	< 0.37 U	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.34 U	< 0.34 U	< 0.37 U	< 0.35 U	< 0.37 U	< 0.41 U	< 0.37 U	0.062
DIBENZOFURAN	< 0.34 U	< 0.34 U	< 0.37 U	< 0.35 U	< 0.37 U	< 0.41 U	< 0.37 U	150
FLUORANTHENE	< 0.34 U	< 0.34 U	< 0.37 U	< 0.35 U	< 0.37 U	< 0.41 U	< 0.37 U	2,300
FLUORENE	< 0.34 U	< 0.34 U	< 0.37 U	< 0.35 U	< 0.37 U	< 0.41 U	< 0.37 U	2,700
INDENO(1,2,3-CD)PYRENE	< 0.34 U	< 0.34 U	< 0.37 U	< 0.35 U	< 0.37 U	< 0.41 U	< 0.37 U	0.62
N-NITROSODIPHENYLAMINE	< 0.34 U	< 0.34 U	< 0.37 U	< 0.35 U	< 0.37 U	< 0.41 U	< 0.37 U	99
NAPHTHALENE	< 0.34 U	< 0.34 U	< 0.37 U	< 0.35 U	< 0.37 U	< 0.41 U	< 0.37 U	1.7 *
PHENANTHRENE	< 0.34 U	< 0.34 U	< 0.37 U	< 0.35 U	< 0.37 U	< 0.41 U	< 0.37 U	NC
PYRENE	< 0.34 U	< 0.34 U	< 0.37 U	< 0.35 U	< 0.37 U	< 0.41 U	< 0.37 U	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	0.0021 J	< 0.0034 U	< 0.0037 U	0.0024 J	0.0023 J	0.0017 J	0.017 J	2.4
4,4'-DDE	< 0.0034 U	< 0.0034 U	< 0.0037 U	< 0.0035 U	0.0017 J	< 0.0041 UJ	0.0035 J	1.7
4,4'-DDT	0.0019 J	< 0.0034 U	< 0.0037 U	0.0044 J	0.0052 J	0.002 J	0.002 J	1.7
ALDRIN	< 0.0018 U	< 0.0017 U	< 0.0019 U	< 0.0018 U	< 0.0019 U	< 0.0021 UJ	< 0.0019 U	0.029
ALPHA-CHLORDANE	< 0.0019 U	< 0.0017 U	< 0.0019 U	< 0.0018 U	< 0.0019 U	< 0.0021 UJ	< 0.0019 U	1.6
AROCLOR-1260	< 0.034 U	< 0.034 U	< 0.037 U	< 0.035 U	0.031 J	0.03 J	**0.44 J**	0.22
BETA-BHC	< 0.0018 U	< 0.0017 U	< 0.0019 U	< 0.0018 U	< 0.0019 U	< 0.0021 UJ	< 0.0019 U	0.32
DELTA-BHC	< 0.0018 U	< 0.0017 U	< 0.0019 U	< 0.0018 U	< 0.0019 U	< 0.0021 UJ	< 0.0019 U	NC
DIELDRIN	< 0.0034 U	< 0.0034 U	< 0.0037 U	< 0.0035 U	< 0.0037 U	< 0.0041 UJ	< 0.0037 U	0.030
ENDOSULFAN II	< 0.0034 U	< 0.0034 U	< 0.0037 U	< 0.0035 U	< 0.0037 U	< 0.0041 UJ	< 0.0037 U	NC
ENDOSULFAN SULFATE	< 0.0034 U	< 0.0034 U	< 0.0037 U	< 0.0035 U	< 0.0037 U	< 0.0041 UJ	< 0.0037 U	NC
ENDRIN	< 0.0034 U	< 0.0034 U	< 0.0037 U	< 0.0035 U	< 0.0037 U	< 0.0041 UJ	< 0.0037 U	18
ENDRIN ALDEHYDE	< 0.0034 U	< 0.0034 U	< 0.0037 U	< 0.0035 U	< 0.0037 U	< 0.0041 UJ	< 0.0037 U	NC
GAMMA-CHLORDANE	< 0.0019 U	< 0.0017 U	< 0.0019 U	< 0.0018 U	< 0.0019 U	< 0.0021 UJ	< 0.0019 U	1.6
HEPTACHLOR EPOXIDE	< 0.0018 U	< 0.0017 U	< 0.0019 U	< 0.0018 U	< 0.0019 U	< 0.0021 UJ	< 0.0019 U	0.053
Metals (mg/kg)								
ALUMINUM	4,300	2,230	4,980	4,480	3,640	4,650	4,750	76,000
ANTIMONY	< 6.4 U	< 6.3 U	< 7 U	< 7.9 UJ	< 7.4 UJ	< 8.6 UJ	< 8.3 UJ	31
ARSENIC	**1.6**	**1**	**0.97**	**1.2**	**1.2**	**3.6**	**1.2**	0.39
BARIUM	40.8	32.9	47.8	41.5	36.2	49.8	35.2	5,400

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB20	S09SB20	S09SB20	S09SB20	S09SB20	S09SB20	S09SB20	EPA Residential Soil PRGs
Sample ID	123-S09-062	123-S09-063	123-S09-064	123-S09-065	123-S09-066	123-S09-185	123-S09-186	
Sample Date	05/06/93	05/06/93	05/06/93	05/06/93	05/06/93	05/06/93	05/06/93	
Sample Depth	0.50 - 0.50	2.50 - 2.50	5.00 - 5.00	7.50 - 7.50	10.00 - 10.00	12.50 - 12.50	15.00 - 15.00	
Metals (mg/kg)								
BERYLLIUM	< 0.21 U	< 0.2 U	< 0.23 U	0.48	0.45	0.52	0.5	150
CADMIUM	1.1	< 0.82 U	0.93	< 0.99 U	< 0.92 U	< 1.1 U	< 1 U	37 *
CALCIUM	7,030	7,200	7,370	5,640	5,420	7,940	6,840	NC
CHROMIUM	7.7	3.9	8.6	7.2	6.9	8.3	7.3	210
COBALT	< 2.8 U	< 1.9 U	3.7	4.3	3.5	4.6	4.7	900
COPPER	< 5.9 U	< 3.7 U	< 6.8 U	5.9	5	7.1	6.9	3,100
IRON	7,950	5,010	9,580	8,700	7,190	11,100	9,040	23,000
LEAD	3.5	2.6	4.8	2.6	3.1	4.9	11.5	150 *
MAGNESIUM	2,460	1,510	2,920	2,560	2,290	2,700	2,980	NC
MANGANESE	114 J	119 J	147 J	119	114	135	139	1,800
MERCURY	< 0.1 U	< 0.1 U	< 0.11 U	< 0.11 U	< 0.1 U	< 0.13 U	< 0.11 U	23
MOLYBDENUM	NA	NA	NA	NA	NA	NA	NA	390
NICKEL	6.5	3.9	8.1	8.6	6.6	10.4	10.3	1,600
POTASSIUM	1,170	770	1,490	1,280	< 1,020 U	1,500	1,110	NC
SELENIUM	< 0.62 U	< 0.61 U	< 0.68 U	< 0.64 U	< 0.58 U	< 0.74 U	< 0.66 U	390
SILVER	< 0.41 U	< 0.41 U	< 0.45 U	< 2 U	< 1.8 U	< 2.2 U	< 2.1 U	390
SODIUM	905	506	1,050	812	996	1,380	1,280	NC
THALLIUM	< 0.62 UJ	< 0.61 UJ	< 0.68 UJ	< 0.42 U	< 0.39 U	< 0.49 U	< 0.44 U	5.2
VANADIUM	15	7.6	16.9	15.9	13.5	17.1	13.8	78
ZINC	20.7 J	14.5 J	25.9 J	20.5	18.3	25.7	28.7	23,000
Dioxin (mg/kg)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB21	S09SB21	S09SB21	S09SB21	S09SB21	S09SB21GB01	S09SB21GB01	EPA Residential Soil PRGs
Sample ID	123-S09-067	123-S09-068	123-S09-069	123-S09-070	123-S09-179	274072	274073	
Sample Date	05/06/93	05/06/93	05/06/93	05/06/93	05/06/93	07/13/99	07/13/99	
Sample Depth	0.50 - 0.50	3.00 - 3.00	5.00 - 5.00	7.50 - 7.50	15.00 - 15.00	0.50 - 2.50	3.00 - 5.00	
Volatile Organic Compounds (mg/kg)								
1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	< 0.01 U	NC
1,2-DICHLOROETHENE (TOTAL)	NA	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	NA	NA	NC
2-HEXANONE	NA	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	NA	< 0.01 U	NC
4-METHYL-2-PENTANONE	NA	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	NA	< 0.01 U	5,300
BENZENE	NA	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	NA	< 0.01 U	0.64
CARBON DISULFIDE	NA	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	NA	< 0.01 U	360
CHLOROBENZENE	NA	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	NA	< 0.01 U	150
ETHYLBENZENE	NA	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	NA	< 0.01 U	400
TETRACHLOROETHENE	NA	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	NA	< 0.01 U	0.48
TOLUENE	NA	0.003 J	0.001 J	< 0.012 U	0.001 J	NA	< 0.01 U	520
TRICHLOROETHENE	NA	0.004 J	0.001 J	< 0.012 U	< 0.011 U	NA	0.039	0.052
XYLENE (TOTAL)	NA	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	NA	< 0.01 U	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	< 10 U	< 100 U	NC
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	221 Y	770 Y	NC
OTHER COMPONENTS *	< 1.7 U	< 1.8 U	< 1.9 U	< 1.9 U	< 1.8 U	NA	NA	NC
TPH - DIESEL	1.6 J	11	< 1.9 U	< 1.9 U	2.7	NA	NA	NC
TPH - MOTOR OIL	150 J	3,300 J	41 J	43 J	20 J	NA	NA	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	< 0.52 U	< 0.52 U	NC
OTHER COMPONENTS *	< 0.005 U	< 0.005 U	< 0.006 U	< 0.006 U	< 0.005 U	NA	NA	NC
Semivolatile Organic Compounds (mg/kg)								
2-METHYLNAPHTHALENE	< 0.34 U	< 0.36 U	< 0.37 U	< 0.38 U	< 0.35 U	NA	NA	NC
4-METHYLPHENOL	< 0.34 U	< 0.36 U	< 0.37 U	< 0.38 U	< 0.35 U	NA	NA	310
ACENAPHTHENE	< 0.34 U	< 0.36 U	< 0.37 U	< 0.38 U	< 0.35 U	NA	NA	3,700
ANTHRACENE	< 0.34 U	< 0.36 U	< 0.37 U	< 0.38 U	< 0.35 U	NA	NA	22,000
BENZO(A)ANTHRACENE	< 0.34 U	< 0.36 U	< 0.37 U	< 0.38 U	< 0.35 U	NA	NA	0.62
BENZO(A)PYRENE	< 0.34 U	< 0.36 U	< 0.37 U	< 0.38 U	< 0.35 U	NA	NA	0.062
BENZO(B)FLUORANTHENE	< 0.34 U	< 0.36 U	< 0.37 U	< 0.38 U	< 0.35 U	NA	NA	0.62
BENZO(G,H,I)PERYLENE	< 0.34 U	< 0.36 U	< 0.37 U	< 0.38 U	< 0.35 U	NA	NA	NC
BENZO(K)FLUORANTHENE	< 0.34 U	< 0.36 U	< 0.37 U	< 0.38 U	< 0.35 U	NA	NA	0.38 *

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB21	S09SB21	S09SB21	S09SB21	S09SB21	S09SB21GB01	S09SB21GB01	EPA Residential Soil PRGs
Sample ID	123-S09-067	123-S09-068	123-S09-069	123-S09-070	123-S09-179	274072	274073	
Sample Date	05/06/93	05/06/93	05/06/93	05/06/93	05/06/93	07/13/99	07/13/99	
Sample Depth	0.50 - 0.50	3.00 - 3.00	5.00 - 5.00	7.50 - 7.50	15.00 - 15.00	0.50 - 2.50	3.00 - 5.00	
Semivolatile Organic Compounds (mg/kg)								
CARBAZOLE	< 0.34 U	< 0.36 U	< 0.37 U	< 0.38 U	< 0.35 U	NA	NA	24
CHRYSENE	< 0.34 U	< 0.36 U	< 0.37 U	< 0.38 U	< 0.35 U	NA	NA	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.34 U	< 0.36 U	< 0.37 U	< 0.38 U	< 0.35 U	NA	NA	0.062
DIBENZOFURAN	< 0.34 U	< 0.36 U	< 0.37 U	< 0.38 U	< 0.35 U	NA	NA	150
FLUORANTHENE	< 0.34 U	< 0.36 U	< 0.37 U	< 0.38 U	< 0.35 U	NA	NA	2,300
FLUORENE	< 0.34 U	< 0.36 U	< 0.37 U	< 0.38 U	< 0.35 U	NA	NA	2,700
INDENO(1,2,3-CD)PYRENE	< 0.34 U	< 0.36 U	< 0.37 U	< 0.38 U	< 0.35 U	NA	NA	0.62
N-NITROSODIPHENYLAMINE	< 0.34 U	< 0.36 U	< 0.37 U	< 0.38 U	< 0.35 U	NA	NA	99
NAPHTHALENE	< 0.34 U	< 0.36 U	< 0.37 U	< 0.38 U	< 0.35 U	NA	NA	1.7 *
PHENANTHRENE	< 0.34 U	< 0.36 U	< 0.37 U	< 0.38 U	< 0.35 U	NA	NA	NC
PYRENE	< 0.34 U	< 0.36 U	< 0.37 U	< 0.38 U	< 0.35 U	NA	NA	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	0.0055 J	0.0055	0.0058	0.0026 J	< 0.0035 UJ	0.018 J	NA	2.4
4,4'-DDE	0.012	0.0034 J	0.0062	0.0018 J	< 0.0035 UJ	0.022 J	NA	1.7
4,4'-DDT	0.063 J	0.011 J	0.015 J	0.0051 J	< 0.0035 UJ	0.048 J	NA	1.7
ALDRIN	< 0.0017 U	< 0.0019 U	< 0.0019 U	< 0.002 U	< 0.0018 UJ	< 0.0018 UJ	NA	0.029
ALPHA-CHLORDANE	0.0015 J	0.0014 J	0.0012 J	< 0.002 U	< 0.0018 UJ	< 0.0018 UJ	NA	1.6
AROCLOR-1260	0.041 J	0.13	0.072	0.057	< 0.035 UJ	**0.25 J**	NA	0.22
BETA-BHC	< 0.0017 U	< 0.0019 U	< 0.0019 U	< 0.002 U	< 0.0018 UJ	< 0.0018 UJ	NA	0.32
DELTA-BHC	< 0.0017 U	< 0.0019 U	< 0.0019 U	< 0.002 U	< 0.0018 UJ	< 0.0018 UJ	NA	NC
DIELDRIN	0.0031 J	< 0.0036 U	< 0.0037 U	< 0.0038 U	< 0.0035 UJ	< 0.00031 UJ	NA	0.030
ENDOSULFAN II	< 0.0034 U	< 0.0036 U	< 0.0037 U	< 0.0038 U	< 0.0035 UJ	< 0.0034 UJ	NA	NC
ENDOSULFAN SULFATE	0.00092 J	< 0.0036 U	< 0.0037 U	< 0.0038 U	< 0.0035 UJ	< 0.0034 UJ	NA	NC
ENDRIN	< 0.0017 U	< 0.0036 U	< 0.0037 U	< 0.0038 U	< 0.0035 UJ	< 0.0034 UJ	NA	18
ENDRIN ALDEHYDE	< 0.0034 U	< 0.0036 U	< 0.0037 U	< 0.0038 U	< 0.0035 UJ	< 0.0034 UJ	NA	NC
GAMMA-CHLORDANE	0.0013 J	0.0014 J	0.0014 J	< 0.002 U	< 0.0018 UJ	0.003 J	NA	1.6
HEPTACHLOR EPOXIDE	< 0.0017 U	< 0.0019 U	< 0.0019 U	< 0.002 U	< 0.0018 UJ	< 0.00031 UJ	NA	0.053
Metals (mg/kg)								
ALUMINUM	4,650	6,540	5,990	3,100	2,390	NA	NA	76,000
ANTIMONY	< 7.3 UJ	< 7.8 UJ	< 8.3 UJ	< 9.3 UJ	< 7.5 UJ	< 0.11 U	NA	31
ARSENIC	**1.8**	**2**	**1.9**	**1.1**	**0.74**	**2.3**	NA	0.39
BARIUM	43.6	55.3	48.4	31.6	37.6	60.3	NA	5,400

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB21	S09SB21	S09SB21	S09SB21	S09SB21	S09SB21GB01	S09SB21GB01	EPA Residential Soil PRGs
Sample ID	123-S09-067	123-S09-068	123-S09-069	123-S09-070	123-S09-179	274072	274073	
Sample Date	05/06/93	05/06/93	05/06/93	05/06/93	05/06/93	07/13/99	07/13/99	
Sample Depth	0.50 - 0.50	3.00 - 3.00	5.00 - 5.00	7.50 - 7.50	15.00 - 15.00	0.50 - 2.50	3.00 - 5.00	
Metals (mg/kg)								
BERYLLIUM	0.43	0.47	0.5	0.57	0.45	< 0.0028 U	NA	150
CADMIUM	< 0.91 U	< 0.98 U	< 1 U	< 1.2 U	< 0.93 U	< 0.33 UJ	NA	37 *
CALCIUM	12,800	8,300	6,860	4,980	5,340	NA	NA	NC
CHROMIUM	8.2	11.4	10.2	5.6	3.7	12.2	NA	210
COBALT	4.9	7	6	3.2	< 1.9 U	6.6 J	NA	900
COPPER	8.7	10.1	16.8	4.9	2.8	13.6	NA	3,100
IRON	9,170	12,500	11,900	6,430	4,620	NA	NA	23,000
LEAD	11.3	10.2	34.3	5.6	1.6	30.3	NA	150 *
MAGNESIUM	2,550	3,570	3,230	1,670	1,260	NA	NA	NC
MANGANESE	242	240	184	99.8	71.6	NA	NA	1,800
MERCURY	0.17	< 0.11 U	< 0.1 U	< 0.1 U	< 0.1 U	0.049 J	NA	23
MOLYBDENUM	NA	NA	NA	NA	NA	0.73 J	NA	390
NICKEL	9.8	11.3	12.1	6.8	4.8	11.2	NA	1,600
POTASSIUM	< 1,040 U	1,470	1,490	< 806 U	< 652 U	NA	NA	NC
SELENIUM	< 0.56 U	< 0.6 U	< 0.58 U	< 0.65 U	< 0.63 U	0.43 J	NA	390
SILVER	< 1.8 U	< 2 U	< 2.1 U	< 2.3 U	< 1.9 U	< 0.049 U	NA	390
SODIUM	147	245	225	118	124	NA	NA	NC
THALLIUM	< 0.37 U	< 0.4 U	< 0.39 U	< 0.43 U	< 0.42 U	< 0.1 U	NA	5.2
VANADIUM	16.6	22.4	22.2	12.2	8.1	26.1	NA	78
ZINC	34.6	35.7	51.7	19.2	11.2	63.7	NA	23,000
Dioxin (mg/kg)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB21GB01	S09SB21GB01	S09SB21GB01	S09SB21GB01	S09SB21GB02	S09SB21GB02	S09SB21GB02	EPA Residential Soil PRGs
Sample ID	274074	274075	274076	274077	274078	274079	274080	
Sample Date	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	
Sample Depth	5.00 - 7.00	7.50 - 9.50	10.00 - 12.00	15.00 - 17.00	0.50 - 2.50	3.00 - 5.00	5.00 - 7.00	
Volatile Organic Compounds (mg/kg)								
1,2-DICHLOROETHENE	< 0.01 U	NA	NA	< 0.012 U	NA	< 0.01 U	< 0.01 U	NC
1,2-DICHLOROETHENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA	NC
2-HEXANONE	< 0.01 U	NA	NA	< 0.012 U	NA	< 0.01 U	< 0.01 U	NC
4-METHYL-2-PENTANONE	< 0.01 U	NA	NA	< 0.012 U	NA	< 0.01 U	< 0.01 U	5,300
BENZENE	< 0.01 U	NA	NA	< 0.012 U	NA	< 0.01 U	< 0.01 U	0.64
CARBON DISULFIDE	< 0.01 U	NA	NA	< 0.012 U	NA	< 0.01 U	< 0.01 U	360
CHLOROBENZENE	< 0.01 U	NA	NA	0.056	NA	< 0.01 U	< 0.01 U	150
ETHYLBENZENE	< 0.01 U	NA	NA	< 0.012 U	NA	< 0.01 U	< 0.01 U	400
TETRACHLOROETHENE	< 0.01 U	NA	NA	< 0.012 U	NA	< 0.01 U	< 0.01 U	0.48
TOLUENE	< 0.01 U	NA	NA	< 0.012 U	NA	< 0.01 U	< 0.01 U	520
TRICHLOROETHENE	< 0.01 U	NA	NA	< 0.012 U	NA	< 0.01 U	< 0.01 U	0.052
XYLENE (TOTAL)	< 0.01 U	NA	NA	< 0.012 U	NA	< 0.01 U	< 0.01 U	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	NA	NA	3,200 Y	< 51 U	< 52 U	NA	NC
MOTOR OIL RANGE ORGANICS	NA	NA	NA	3,800 Y	350 Y	510 Y	NA	NC
OTHER COMPONENTS *	NA	NA	NA	NA	NA	NA	NA	NC
TPH - DIESEL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - MOTOR OIL	NA	NA	NA	NA	NA	NA	NA	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	NA	NA	5 Z	< 0.51 U	< 0.52 U	NA	NC
OTHER COMPONENTS *	NA	NA	NA	NA	NA	NA	NA	NC
Semivolatile Organic Compounds (mg/kg)								
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NC
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	310
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	3,700
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	22,000
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	0.62
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA	0.062
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	0.62
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA	NC
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	0.38 *

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB21GB01	S09SB21GB01	S09SB21GB01	S09SB21GB01	S09SB21GB02	S09SB21GB02	S09SB21GB02	EPA Residential Soil PRGs
Sample ID	274074	274075	274076	274077	274078	274079	274080	
Sample Date	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	
Sample Depth	5.00 - 7.00	7.50 - 9.50	10.00 - 12.00	15.00 - 17.00	0.50 - 2.50	3.00 - 5.00	5.00 - 7.00	
Semivolatile Organic Compounds (mg/kg)								
CARBAZOLE	NA	NA	NA	NA	NA	NA	NA	24
CHRYSENE	NA	NA	NA	NA	NA	NA	NA	3.8 *
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	0.062
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	150
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	2,300
FLUORENE	NA	NA	NA	NA	NA	NA	NA	2,700
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA	0.62
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA	NA	NA	99
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	1.7 *
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	NC
PYRENE	NA	NA	NA	NA	NA	NA	NA	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.0034 UJ	0.0073 J	NA	NA	0.033	NA	0.11	2.4
4,4'-DDE	< 0.0034 UJ	< 0.0034 UJ	NA	NA	0.067	NA	0.097	1.7
4,4'-DDT	0.002 J	0.03 J	NA	NA	< 0.017 UJ	NA	0.12 J	1.7
ALDRIN	< 0.0018 UJ	< 0.0017 UJ	NA	NA	< 0.0088 UJ	NA	< 0.018 U	0.029
ALPHA-CHLORDANE	< 0.0018 UJ	0.001 J	NA	NA	0.005 J	NA	< 0.018 UJ	1.6
AROCLOR-1260	0.043 J	0.14 J	NA	NA	**0.26**	NA	**0.43**	0.22
BETA-BHC	< 0.0018 UJ	< 0.0017 UJ	NA	NA	< 0.0088 U	NA	< 0.018 U	0.32
DELTA-BHC	< 0.0018 UJ	< 0.0017 UJ	NA	NA	< 0.0088 U	NA	< 0.018 U	NC
DIELDRIN	0.0021 J	< 0.00031 UJ	NA	NA	0.0035	NA	0.006	0.030
ENDOSULFAN II	< 0.0034 UJ	< 0.0034 UJ	NA	NA	< 0.017 U	NA	< 0.034 U	NC
ENDOSULFAN SULFATE	< 0.0034 UJ	< 0.0034 UJ	NA	NA	< 0.017 U	NA	< 0.034 U	NC
ENDRIN	< 0.0034 UJ	< 0.0034 UJ	NA	NA	< 0.017 U	NA	< 0.034 U	18
ENDRIN ALDEHYDE	< 0.0034 UJ	< 0.0034 UJ	NA	NA	< 0.017 UJ	NA	< 0.034 UJ	NC
GAMMA-CHLORDANE	< 0.0018 UJ	0.0023 J	NA	NA	0.006 J	NA	0.009 J	1.6
HEPTACHLOR EPOXIDE	< 0.00031 UJ	< 0.00031 UJ	NA	NA	< 0.0015 U	NA	< 0.0031 U	0.053
Metals (mg/kg)								
ALUMINUM	NA	NA	NA	NA	NA	NA	NA	76,000
ANTIMONY	< 0.11 U	NA	0.19 J	< 0.13 U	< 0.11 U	NA	< 0.11 U	31
ARSENIC	**20.6**	NA	**1.3 J**	**2.1 J**	**4.2**	NA	**3.3**	0.39
BARIUM	38.3 J	NA	43.6	63.6	57.5	NA	70.5	5,400

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB21GB01	S09SB21GB01	S09SB21GB01	S09SB21GB01	S09SB21GB02	S09SB21GB02	S09SB21GB02	EPA Residential Soil PRGs
Sample ID	274074	274075	274076	274077	274078	274079	274080	
Sample Date	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	
Sample Depth	5.00 - 7.00	7.50 - 9.50	10.00 - 12.00	15.00 - 17.00	0.50 - 2.50	3.00 - 5.00	5.00 - 7.00	
Metals (mg/kg)								
BERYLLIUM	< 0.0028 U	NA	< 0.0029 U	< 0.0031 U	< 0.0028 U	NA	< 0.0028 U	150
CADMIUM	< 0.37 UJ	NA	< 0.25 UJ	0.57 J	0.58 J	NA	< 0.44 UJ	37 *
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NC
CHROMIUM	6.3	NA	8.6	12.6	12.4	NA	23.1	210
COBALT	2.9 J	NA	4.6 J	7.3 J	7.9 J	NA	13.8	900
COPPER	5.7	NA	7.7	10.2	17.3	NA	23.9	3,100
IRON	NA	NA	NA	NA	NA	NA	NA	23,000
LEAD	12	NA	4.6	4.2	43.8	NA	35.7	150 *
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NC
MANGANESE	NA	NA	NA	NA	NA	NA	NA	1,800
MERCURY	0.037 J	NA	0.053 J	0.032 J	0.073 J	NA	0.13	23
MOLYBDENUM	0.5 J	NA	0.33 J	0.64 J	0.35 J	NA	0.68 J	390
NICKEL	5.4	NA	8.2	11.1	12.5	NA	17.1	1,600
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NC
SELENIUM	0.95 J	NA	0.3 J	0.41 J	0.28 J	NA	0.87 J	390
SILVER	< 0.049 U	NA	< 0.05 U	< 0.054 U	< 0.048 U	NA	< 0.049 U	390
SODIUM	NA	NA	NA	NA	NA	NA	NA	NC
THALLIUM	< 0.1 U	NA	< 0.11 U	< 0.12 U	< 0.1 U	NA	< 0.1 U	5.2
VANADIUM	12.6	NA	18.8	25.6	26.6	NA	43	78
ZINC	18	NA	24.3	33.5	87.5	NA	86.2	23,000
Dioxin (mg/kg)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB21GB02	S09SB21GB02	S09SB21GB02	S09SB21GB03	S09SB21GB03	S09SB21GB03	S09SB21GB03	EPA Residential Soil PRGs
Sample ID	274081	274082	274083	274084	274085	274086	274087	
Sample Date	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	
Sample Depth	7.50 - 9.50	10.00 - 12.00	15.00 - 17.00	0.50 - 2.50	2.50 - 4.50	5.00 - 7.00	7.50 - 9.50	
Volatile Organic Compounds (mg/kg)								
1,2-DICHLOROETHENE	NA	NA	< 0.013 U	NA	< 0.011 U	< 0.011 U	NA	NC
1,2-DICHLOROETHENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA	NC
2-HEXANONE	NA	NA	< 0.013 U	NA	< 0.011 U	< 0.011 U	NA	NC
4-METHYL-2-PENTANONE	NA	NA	< 0.013 U	NA	< 0.011 U	< 0.011 U	NA	5,300
BENZENE	NA	NA	< 0.013 U	NA	< 0.011 U	< 0.011 U	NA	0.64
CARBON DISULFIDE	NA	NA	< 0.013 U	NA	< 0.011 U	< 0.011 U	NA	360
CHLOROBENZENE	NA	NA	< 0.013 U	NA	< 0.011 U	< 0.011 U	NA	150
ETHYLBENZENE	NA	NA	< 0.013 U	NA	< 0.011 U	< 0.011 U	NA	400
TETRACHLOROETHENE	NA	NA	< 0.013 U	NA	< 0.011 U	< 0.011 U	NA	0.48
TOLUENE	NA	NA	< 0.013 U	NA	< 0.011 U	< 0.011 U	NA	520
TRICHLOROETHENE	NA	NA	< 0.013 U	NA	< 0.011 U	< 0.011 U	NA	0.052
XYLENE (TOTAL)	NA	NA	< 0.013 U	NA	< 0.011 U	0.002 J	NA	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	NA	21 Y	< 11 U	< 11 U	NA	NA	NC
MOTOR OIL RANGE ORGANICS	NA	NA	31 Y	9 JY	19 Y	NA	NA	NC
OTHER COMPONENTS *	NA	NA	NA	NA	NA	NA	NA	NC
TPH - DIESEL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - MOTOR OIL	NA	NA	NA	NA	NA	NA	NA	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	NA	0.3 JZ	< 0.53 U	< 0.53 U	NA	NA	NC
OTHER COMPONENTS *	NA	NA	NA	NA	NA	NA	NA	NC
Semivolatile Organic Compounds (mg/kg)								
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NC
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	310
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	3,700
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	22,000
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	0.62
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA	0.062
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	0.62
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA	NC
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	0.38 *

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB21GB02	S09SB21GB02	S09SB21GB02	S09SB21GB03	S09SB21GB03	S09SB21GB03	S09SB21GB03	EPA Residential Soil PRGs
Sample ID	274081	274082	274083	274084	274085	274086	274087	
Sample Date	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	
Sample Depth	7.50 - 9.50	10.00 - 12.00	15.00 - 17.00	0.50 - 2.50	2.50 - 4.50	5.00 - 7.00	7.50 - 9.50	
Semivolatile Organic Compounds (mg/kg)								
CARBAZOLE	NA	NA	NA	NA	NA	NA	NA	24
CHRYSENE	NA	NA	NA	NA	NA	NA	NA	3.8 *
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	0.062
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	150
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	2,300
FLUORENE	NA	NA	NA	NA	NA	NA	NA	2,700
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA	0.62
N-NITROSODIPHENYLAMINE	NA	NA	NA	NA	NA	NA	NA	99
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	1.7 *
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	NC
PYRENE	NA	NA	NA	NA	NA	NA	NA	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	0.041 J	NA	NA	< 0.0035 U	NA	< 0.0037 UJ	0.002 J	2.4
4,4'-DDE	0.042 J	NA	NA	< 0.0035 UJ	NA	< 0.0037 UJ	< 0.0037 UJ	1.7
4,4'-DDT	< 0.035 UJ	NA	NA	< 0.0035 UJ	NA	0.003 J	0.003 J	1.7
ALDRIN	< 0.018 UJ	NA	NA	< 0.0018 U	NA	< 0.0019 UJ	< 0.0019 UJ	0.029
ALPHA-CHLORDANE	< 0.018 UJ	NA	NA	< 0.0018 U	NA	< 0.0019 UJ	< 0.0019 UJ	1.6
AROCLOR-1260	**0.61 J**	NA	NA	< 0.017 U	NA	0.021 J	0.023 J	0.22
BETA-BHC	< 0.018 UJ	NA	NA	< 0.0018 U	NA	< 0.0019 UJ	< 0.0019 UJ	0.32
DELTA-BHC	< 0.018 UJ	NA	NA	< 0.0018 U	NA	< 0.0019 UJ	< 0.0019 UJ	NC
DIELDRIN	0.007 J	NA	NA	< 0.00032 U	NA	< 0.00034 UJ	< 0.00034 UJ	0.030
ENDOSULFAN II	< 0.035 UJ	NA	NA	< 0.0035 U	NA	< 0.0037 UJ	< 0.0037 UJ	NC
ENDOSULFAN SULFATE	< 0.035 UJ	NA	NA	< 0.0035 U	NA	< 0.0037 UJ	< 0.0037 UJ	NC
ENDRIN	< 0.035 UJ	NA	NA	< 0.0035 U	NA	< 0.0037 UJ	< 0.0037 UJ	18
ENDRIN ALDEHYDE	< 0.035 UJ	NA	NA	< 0.0035 UJ	NA	< 0.0037 UJ	< 0.0037 UJ	NC
GAMMA-CHLORDANE	< 0.018 UJ	NA	NA	< 0.0018 U	NA	< 0.0019 UJ	< 0.0019 UJ	1.6
HEPTACHLOR EPOXIDE	< 0.0032 UJ	NA	NA	< 0.00032 U	NA	< 0.00034 UJ	< 0.00034 UJ	0.053
Metals (mg/kg)								
ALUMINUM	NA	NA	NA	NA	NA	NA	NA	76,000
ANTIMONY	NA	< 0.12 U	< 0.14 U	< 0.12 U	NA	< 0.12 U	NA	31
ARSENIC	NA	**1.9 J**	**5**	**0.95 J**	NA	**1.7 J**	NA	0.39
BARIUM	NA	59.7	160	23.6 J	NA	47.8	NA	5,400

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB21GB02	S09SB21GB02	S09SB21GB02	S09SB21GB03	S09SB21GB03	S09SB21GB03	S09SB21GB03	EPA Residential Soil PRGs
Sample ID	274081	274082	274083	274084	274085	274086	274087	
Sample Date	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	
Sample Depth	7.50 - 9.50	10.00 - 12.00	15.00 - 17.00	0.50 - 2.50	2.50 - 4.50	5.00 - 7.00	7.50 - 9.50	
Metals (mg/kg)								
BERYLLIUM	NA	< 0.003 U	0.043 J	< 0.0028 U	NA	< 0.003 U	NA	150
CADMIUM	NA	< 0.22 UJ	< 0.42 UJ	< 0.064 UJ	NA	< 0.24 UJ	NA	37 *
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NC
CHROMIUM	NA	11	25	5.1	NA	9.7	NA	210
COBALT	NA	6 J	12 J	2.7 J	NA	6.5 J	NA	900
COPPER	NA	10.6	22.4	4.7	NA	9.5	NA	3,100
IRON	NA	NA	NA	NA	NA	NA	NA	23,000
LEAD	NA	8.1	10.1	2.3	NA	4.5	NA	150 *
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NC
MANGANESE	NA	NA	NA	NA	NA	NA	NA	1,800
MERCURY	NA	0.048 J	0.042 J	< 0.074 U	NA	0.033 J	NA	23
MOLYBDENUM	NA	0.71 J	1.7	0.19 J	NA	0.66 J	NA	390
NICKEL	NA	11	25.1	5.1	NA	9.7	NA	1,600
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NC
SELENIUM	NA	0.25 J	< 0.22 U	< 0.18 U	NA	0.94 J	NA	390
SILVER	NA	< 0.052 U	< 0.062 U	< 0.049 U	NA	< 0.053 U	NA	390
SODIUM	NA	NA	NA	NA	NA	NA	NA	NC
THALLIUM	NA	< 0.11 U	< 0.13 U	< 0.11 U	NA	< 0.11 U	NA	5.2
VANADIUM	NA	25.3	51.7	12.1	NA	26.2	NA	78
ZINC	NA	32.8	74.7	14.5	NA	30.2	NA	23,000
Dioxin (mg/kg)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB21GB03	S09SB21GB03	S09SB22	S09SB22	S09SB22	S09SB22	S09SB22	EPA Residential Soil PRGs
Sample ID	274088	274089	123-S09-073	123-S09-074	123-S09-075	123-S09-076	123-S09-077	
Sample Date	07/13/99	07/13/99	05/06/93	05/06/93	05/06/93	05/06/93	05/06/93	
Sample Depth	10.00 - 12.00	15.00 - 17.00	0.50 - 0.50	2.50 - 2.50	6.00 - 6.00	7.50 - 7.50	9.50 - 9.50	
Volatile Organic Compounds (mg/kg)								
1,2-DICHLOROETHENE	NA	< 0.012 U	NA	NA	NA	NA	NA	NC
1,2-DICHLOROETHENE (TOTAL)	NA	NA	NA	< 0.012 U	< 0.012 U	< 0.012 U	< 0.011 U	NC
2-HEXANONE	NA	< 0.012 U	NA	< 0.012 U	< 0.012 U	< 0.012 U	< 0.011 U	NC
4-METHYL-2-PENTANONE	NA	< 0.012 U	NA	< 0.012 U	< 0.012 U	< 0.012 U	< 0.011 U	5,300
BENZENE	NA	< 0.012 U	NA	< 0.012 U	< 0.012 U	< 0.012 U	< 0.011 U	0.64
CARBON DISULFIDE	NA	< 0.012 U	NA	< 0.012 U	< 0.012 U	< 0.012 U	< 0.011 U	360
CHLOROBENZENE	NA	< 0.012 U	NA	< 0.012 U	< 0.012 U	< 0.012 U	< 0.011 U	150
ETHYLBENZENE	NA	< 0.012 U	NA	< 0.012 U	< 0.012 U	< 0.012 U	< 0.011 U	400
TETRACHLOROETHENE	NA	< 0.012 U	NA	< 0.012 U	< 0.012 U	< 0.012 U	< 0.011 U	0.48
TOLUENE	NA	< 0.012 U	NA	0.001 J	0.002 J	0.001 J	< 0.011 U	520
TRICHLOROETHENE	NA	< 0.012 U	NA	< 0.012 U	< 0.012 U	< 0.012 U	< 0.011 U	0.052
XYLENE (TOTAL)	NA	< 0.012 U	NA	< 0.012 U	< 0.012 U	< 0.012 U	< 0.011 U	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	< 12 U	NA	NA	NA	NA	NA	NC
MOTOR OIL RANGE ORGANICS	NA	39 Y	NA	NA	NA	NA	NA	NC
OTHER COMPONENTS *	NA	NA	< 1.8 U	< 2 U	< 2.1 U	< 2 U	< 1.8 U	NC
TPH - DIESEL	NA	NA	40	18	110 J	4.4	0.98 J	NC
TPH - MOTOR OIL	NA	NA	1,900 J	750 J	3,900 J	60 J	17 J	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	< 0.59 U	NA	NA	NA	NA	NA	NC
OTHER COMPONENTS *	NA	NA	< 0.005 U	< 0.006 U	< 0.012 U	< 0.048 U	< 0.005 U	NC
Semivolatile Organic Compounds (mg/kg)								
2-METHYLNAPHTHALENE	NA	NA	< 0.36 U	< 0.39 U	< 2 U	< 0.4 U	< 0.35 U	NC
4-METHYLPHENOL	NA	NA	0.051 J	< 0.39 U	< 2 U	< 0.4 U	< 0.35 U	310
ACENAPHTHENE	NA	NA	< 0.36 U	< 0.39 U	< 2 U	< 0.4 U	< 0.35 U	3,700
ANTHRACENE	NA	NA	0.053 J	< 0.39 U	< 2 U	< 0.4 U	< 0.35 U	22,000
BENZO(A)ANTHRACENE	NA	NA	0.14 J	0.047 J	< 2 U	< 0.4 U	< 0.35 U	0.62
BENZO(A)PYRENE	NA	NA	< 0.12 UJ	0.044 J	< 2 U	< 0.4 U	< 0.35 U	0.062
BENZO(B)FLUORANTHENE	NA	NA	< 0.36 UJ	< 0.39 U	< 2 U	< 0.4 U	< 0.35 U	0.62
BENZO(G,H,I)PERYLENE	NA	NA	< 0.36 UJ	< 0.39 U	< 2 U	< 0.4 U	< 0.35 U	NC
BENZO(K)FLUORANTHENE	NA	NA	< 0.36 UJ	< 0.39 U	< 2 U	< 0.4 U	< 0.35 U	0.38 *

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB21GB03	S09SB21GB03	S09SB22	S09SB22	S09SB22	S09SB22	S09SB22	EPA Residential Soil PRGs
Sample ID	274088	274089	123-S09-073	123-S09-074	123-S09-075	123-S09-076	123-S09-077	
Sample Date	07/13/99	07/13/99	05/06/93	05/06/93	05/06/93	05/06/93	05/06/93	
Sample Depth	10.00 - 12.00	15.00 - 17.00	0.50 - 0.50	2.50 - 2.50	6.00 - 6.00	7.50 - 7.50	9.50 - 9.50	
Semivolatile Organic Compounds (mg/kg)								
CARBAZOLE	NA	NA	0.043 J	< 0.39 U	< 2 U	< 0.4 U	< 0.35 U	24
CHRYSENE	NA	NA	0.2 J	0.084 J	< 2 U	< 0.4 U	< 0.35 U	3.8 *
DIBENZ(A,H)ANTHRACENE	NA	NA	< 0.36 UJ	< 0.39 U	< 2 U	< 0.4 U	< 0.35 U	0.062
DIBENZOFURAN	NA	NA	< 0.36 U	< 0.39 U	< 2 U	< 0.4 U	< 0.35 U	150
FLUORANTHENE	NA	NA	0.34 J	0.083 J	< 2 U	< 0.4 U	< 0.35 U	2,300
FLUORENE	NA	NA	< 0.36 U	< 0.39 U	< 2 U	< 0.4 U	< 0.35 U	2,700
INDENO(1,2,3-CD)PYRENE	NA	NA	< 0.059 UJ	< 0.39 U	< 2 U	< 0.4 U	< 0.35 U	0.62
N-NITROSODIPHENYLAMINE	NA	NA	< 0.36 U	< 0.39 U	< 2 U	< 0.4 U	< 0.35 U	99
NAPHTHALENE	NA	NA	< 0.36 U	< 0.39 U	< 2 U	< 0.4 U	< 0.35 U	1.7 *
PHENANTHRENE	NA	NA	0.25 J	0.049 J	< 2 U	< 0.4 U	< 0.35 U	NC
PYRENE	NA	NA	0.34 J	0.1 J	< 2 U	< 0.4 U	< 0.35 U	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	NA	NA	0.12	0.046	0.076 J	0.002 J	< 0.0035 U	2.4
4,4'-DDE	NA	NA	0.011 J	0.038 J	0.037	< 0.004 U	< 0.0035 U	1.7
4,4'-DDT	NA	NA	0.012 J	0.066 J	0.0071 J	0.0066 J	< 0.0035 U	1.7
ALDRIN	NA	NA	< 0.0019 U	< 0.002 U	< 0.0021 U	< 0.002 U	< 0.0018 U	0.029
ALPHA-CHLORDANE	NA	NA	0.016 J	0.025	0.046	< 0.002 U	< 0.0018 U	1.6
AROCLOR-1260	NA	NA	**0.3 J**	**0.77 J**	**0.55 J**	0.025 J	< 0.035 U	0.22
BETA-BHC	NA	NA	< 0.0019 U	< 0.002 U	0.002 J	< 0.002 U	< 0.0018 U	0.32
DELTA-BHC	NA	NA	< 0.0019 U	< 0.002 U	< 0.0021 U	< 0.002 U	< 0.0018 U	NC
DIELDRIN	NA	NA	0.0053 J	0.014	0.016 J	< 0.004 U	< 0.0035 U	0.030
ENDOSULFAN II	NA	NA	< 0.0036 U	< 0.0039 U	< 0.0041 U	< 0.004 U	< 0.0035 U	NC
ENDOSULFAN SULFATE	NA	NA	0.0057	< 0.0039 U	0.0073	< 0.004 U	< 0.0035 U	NC
ENDRIN	NA	NA	0.0077	0.009	0.019 J	< 0.004 U	< 0.0035 U	18
ENDRIN ALDEHYDE	NA	NA	< 0.0036 U	< 0.0039 U	< 0.0041 U	< 0.004 U	< 0.0035 U	NC
GAMMA-CHLORDANE	NA	NA	0.013 J	0.021 J	0.036 J	< 0.002 U	< 0.0018 U	1.6
HEPTACHLOR EPOXIDE	NA	NA	< 0.0019 U	< 0.002 U	< 0.0021 U	< 0.002 U	< 0.0018 U	0.053
Metals (mg/kg)								
ALUMINUM	NA	NA	7,460	12,600	12,100	11,200	2,800	76,000
ANTIMONY	< 0.12 U	< 0.13 U	< 7.4 UJ	< 9.4 UJ	< 8.8 UJ	< 8.6 UJ	< 7.5 UJ	31
ARSENIC	**0.88 J**	0.26 J	**2.2**	**8.8**	**6.1**	**1.9**	**0.69**	0.39
BARIUM	19.9 J	6.7 J	66.5	87	94.2	51	20.1	5,400

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB21GB03	S09SB21GB03	S09SB22	S09SB22	S09SB22	S09SB22	S09SB22	EPA Residential Soil PRGs
Sample ID	274088	274089	123-S09-073	123-S09-074	123-S09-075	123-S09-076	123-S09-077	
Sample Date	07/13/99	07/13/99	05/06/93	05/06/93	05/06/93	05/06/93	05/06/93	
Sample Depth	10.00 - 12.00	15.00 - 17.00	0.50 - 0.50	2.50 - 2.50	6.00 - 6.00	7.50 - 7.50	9.50 - 9.50	
Metals (mg/kg)								
BERYLLIUM	< 0.0031 U	< 0.0032 U	0.44	0.85	1.1	0.78	0.46	150
CADMIUM	< 0.088 UJ	< 0.013 U	1.1	1.4	1.8	< 1.1 U	< 0.94 U	37 *
CALCIUM	NA	NA	9,750	11,400	15,400	9,820	6,260	NC
CHROMIUM	5.8	41	26.6	22.7	30.5	15.1	4.8	210
COBALT	3.5 J	31	7.8	12.1	12.4	13	2.8	900
COPPER	5.3	41.9	25.3	37.4	49.1	18.2	3.4	3,100
IRON	NA	NA	16,000	**23,400**	**23,900**	22,900	5,520	23,000
LEAD	2.2	1 J	**245**	143	**178**	6.5	1.7	150 *
MAGNESIUM	NA	NA	4,170	7,010	7,190	7,040	1,500	NC
MANGANESE	NA	NA	206	342	351	380	76.1	1,800
MERCURY	< 0.079 U	< 0.082 U	< 0.11 U	0.17	0.13	< 0.11 U	< 0.1 U	23
MOLYBDENUM	< 0.045 U	< 0.047 U	NA	NA	NA	NA	NA	390
NICKEL	5.7	32.4	15.7	22.2	26.6	18.8	6	1,600
POTASSIUM	NA	NA	1,190	2,690	2,640	2,180	< 739 U	NC
SELENIUM	< 0.19 U	0.62 J	< 0.65 U	< 0.66 U	< 0.69 U	< 0.67 U	< 0.55 UJ	390
SILVER	< 0.053 U	< 0.055 U	< 1.9 U	< 2.3 U	< 2.2 U	< 2.1 U	< 1.9 U	390
SODIUM	NA	NA	431	598	571	633	220	NC
THALLIUM	< 0.11 U	< 0.12 U	< 0.43 U	< 0.44 U	< 0.46 U	< 0.45 U	< 0.37 U	5.2
VANADIUM	14.4	59.3	31.9	43.2	42.7	36.5	9.5	78
ZINC	17.1	54	339	126	181	48	12.6	23,000
Dioxin (mg/kg)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB22	S09SB22	S09SB22	S09SB22GB01	S09SB22GB01	S09SB22GB01	S09SB22GB01	EPA Residential Soil PRGs
Sample ID	123-S09-180	123-S09-181	123-S09-182	274051	274052	274053	274054	
Sample Date	05/06/93	05/06/93	05/06/93	07/13/99	07/13/99	07/13/99	07/13/99	
Sample Depth	10.50 - 10.50	12.50 - 12.50	15.00 - 15.00	0.50 - 2.50	2.50 - 4.50	5.00 - 7.00	7.50 - 9.50	
Volatile Organic Compounds (mg/kg)								
1,2-DICHLOROETHENE	NA	NA	NA	NA	< 0.012 U	< 0.011 U	NA	NC
1,2-DICHLOROETHENE (TOTAL)	< 0.011 U	< 0.011 U	< 0.012 U	NA	NA	NA	NA	NC
2-HEXANONE	< 0.011 U	< 0.011 U	0.001 J	NA	< 0.012 U	< 0.011 U	NA	NC
4-METHYL-2-PENTANONE	< 0.011 U	< 0.011 U	< 0.012 U	NA	< 0.012 U	< 0.011 U	NA	5,300
BENZENE	< 0.011 U	< 0.011 U	< 0.012 U	NA	< 0.012 U	< 0.011 U	NA	0.64
CARBON DISULFIDE	< 0.011 U	< 0.011 U	< 0.012 U	NA	< 0.012 U	< 0.011 U	NA	360
CHLOROBENZENE	< 0.011 U	< 0.011 U	< 0.012 U	NA	< 0.012 U	< 0.011 U	NA	150
ETHYLBENZENE	< 0.011 U	< 0.011 U	< 0.012 U	NA	0.004 J	< 0.011 U	NA	400
TETRACHLOROETHENE	< 0.011 U	< 0.011 U	< 0.012 U	NA	< 0.012 U	< 0.011 U	NA	0.48
TOLUENE	< 0.011 U	< 0.011 U	< 0.012 U	NA	< 0.012 U	< 0.011 U	NA	520
TRICHLOROETHENE	< 0.011 U	< 0.011 U	< 0.012 U	NA	< 0.012 U	0.014	NA	0.052
XYLENE (TOTAL)	< 0.011 U	< 0.011 U	< 0.012 U	NA	0.028	< 0.011 U	NA	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	NA	NA	< 11 U	NA	< 11 U	< 12 U	NC
MOTOR OIL RANGE ORGANICS	NA	NA	NA	26 Y	NA	200 J	257 Y	NC
OTHER COMPONENTS *	< 1.9 U	< 1.9 U	< 1.2 U	NA	NA	NA	NA	NC
TPH - DIESEL	0.96 J	< 1.9 U	< 1.2 U	NA	NA	NA	NA	NC
TPH - MOTOR OIL	61 J	2.9 J	< 12 U	NA	NA	NA	NA	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	NA	NA	< 0.53 U	NA	< 0.55 U	< 0.6 U	NC
OTHER COMPONENTS *	< 0.006 U	< 0.006 U	< 0.006 U	NA	NA	NA	NA	NC
Semivolatile Organic Compounds (mg/kg)								
2-METHYLNAPHTHALENE	< 0.38 U	< 0.37 U	< 0.41 U	< 0.35 U	< 0.39 U	NA	NA	NC
4-METHYLPHENOL	< 0.38 U	< 0.37 U	< 0.41 U	< 0.35 U	< 0.39 U	NA	NA	310
ACENAPHTHENE	< 0.38 U	< 0.37 U	< 0.41 U	< 0.35 U	< 0.39 U	NA	NA	3,700
ANTHRACENE	< 0.38 U	< 0.37 U	< 0.41 U	< 0.35 U	< 0.39 U	NA	NA	22,000
BENZO(A)ANTHRACENE	< 0.38 U	< 0.37 U	< 0.41 U	< 0.35 U	< 0.39 U	NA	NA	0.62
BENZO(A)PYRENE	< 0.38 U	< 0.37 U	< 0.41 U	< 0.35 U	< 0.39 U	NA	NA	0.062
BENZO(B)FLUORANTHENE	< 0.38 U	< 0.37 U	< 0.41 U	< 0.35 U	< 0.39 U	NA	NA	0.62
BENZO(G,H,I)PERYLENE	< 0.38 U	< 0.37 U	< 0.41 U	< 0.35 U	< 0.39 U	NA	NA	NC
BENZO(K)FLUORANTHENE	< 0.38 U	< 0.37 U	< 0.41 U	< 0.35 U	< 0.39 U	NA	NA	0.38 *

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB22	S09SB22	S09SB22	S09SB22GB01	S09SB22GB01	S09SB22GB01	S09SB22GB01	EPA Residential Soil PRGs
Sample ID	123-S09-180	123-S09-181	123-S09-182	274051	274052	274053	274054	
Sample Date	05/06/93	05/06/93	05/06/93	07/13/99	07/13/99	07/13/99	07/13/99	
Sample Depth	10.50 - 10.50	12.50 - 12.50	15.00 - 15.00	0.50 - 2.50	2.50 - 4.50	5.00 - 7.00	7.50 - 9.50	
Semivolatile Organic Compounds (mg/kg)								
CARBAZOLE	< 0.38 U	< 0.37 U	< 0.41 U	NA	NA	NA	NA	24
CHRYSENE	< 0.38 U	< 0.37 U	< 0.41 U	< 0.35 U	< 0.39 U	NA	NA	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.38 U	< 0.37 U	< 0.41 U	< 0.35 U	< 0.39 U	NA	NA	0.062
DIBENZOFURAN	< 0.38 U	< 0.37 U	< 0.41 U	< 0.35 U	< 0.39 U	NA	NA	150
FLUORANTHENE	< 0.38 U	< 0.37 U	< 0.41 U	< 0.35 U	< 0.39 U	NA	NA	2,300
FLUORENE	< 0.38 U	< 0.37 U	< 0.41 U	< 0.35 U	< 0.39 U	NA	NA	2,700
INDENO(1,2,3-CD)PYRENE	< 0.38 U	< 0.37 U	< 0.41 U	< 0.35 U	< 0.39 U	NA	NA	0.62
N-NITROSODIPHENYLAMINE	< 0.38 U	< 0.37 U	< 0.41 U	< 0.35 U	< 0.39 U	NA	NA	99
NAPHTHALENE	< 0.38 U	< 0.37 U	< 0.41 U	< 0.35 U	< 0.39 U	NA	NA	1.7 *
PHENANTHRENE	< 0.38 U	< 0.37 U	< 0.41 U	< 0.35 U	< 0.39 U	NA	NA	NC
PYRENE	< 0.38 U	< 0.37 U	< 0.41 U	< 0.35 U	< 0.39 U	NA	NA	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.0038 U	0.0029 J	< 0.0041 U	0.002 J	NA	NA	0.004 J	2.4
4,4'-DDE	< 0.0038 U	< 0.0037 U	< 0.0041 U	0.001	NA	NA	0.005 J	1.7
4,4'-DDT	< 0.0038 U	0.0022 J	< 0.0041 U	0.0046	NA	NA	0.003 J	1.7
ALDRIN	< 0.002 U	< 0.0019 U	< 0.0021 U	< 0.0018 U	NA	NA	< 0.0021 UJ	0.029
ALPHA-CHLORDANE	< 0.002 U	< 0.0019 U	< 0.0021 U	< 0.0018 U	NA	NA	0.001 J	1.6
AROCLOR-1260	< 0.038 U	< 0.037 U	< 0.041 U	0.02	NA	NA	0.02 J	0.22
BETA-BHC	< 0.002 U	< 0.0019 U	< 0.0021 U	< 0.0018 U	NA	NA	< 0.0021 UJ	0.32
DELTA-BHC	< 0.002 U	< 0.0019 U	< 0.0021 U	< 0.0018 U	NA	NA	< 0.0021 UJ	NC
DIELDRIN	< 0.0038 U	< 0.0037 U	< 0.0041 U	< 0.00032 U	NA	NA	< 0.00036 UJ	0.030
ENDOSULFAN II	< 0.0038 U	< 0.0037 U	< 0.0041 U	< 0.0035 U	NA	NA	< 0.004 UJ	NC
ENDOSULFAN SULFATE	< 0.0038 U	< 0.0037 U	< 0.0041 U	< 0.0035 U	NA	NA	< 0.004 UJ	NC
ENDRIN	< 0.0038 U	< 0.0037 U	< 0.0041 U	< 0.0035 U	NA	NA	< 0.004 UJ	18
ENDRIN ALDEHYDE	< 0.0038 U	< 0.0037 U	< 0.0041 U	< 0.0035 UJ	NA	NA	< 0.004 UJ	NC
GAMMA-CHLORDANE	< 0.002 U	< 0.0019 U	< 0.0021 U	0.0002	NA	NA	0.002 J	1.6
HEPTACHLOR EPOXIDE	< 0.002 U	< 0.0019 U	< 0.0021 U	< 0.00032 U	NA	NA	< 0.00036 UJ	0.053
Metals (mg/kg)								
ALUMINUM	5,510	8,200	6,840	NA	NA	NA	NA	76,000
ANTIMONY	< 7.8 UJ	< 8.9 UJ	< 7.7 U	< 0.12 U	NA	< 0.12 U	NA	31
ARSENIC	**1.5**	**1.7**	**1.9**	**1.7 J**	NA	**4.7**	NA	0.39
BARIUM	55.8	90.4	87.5	50.5 J	NA	85.3 J	NA	5,400

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB22	S09SB22	S09SB22	S09SB22GB01	S09SB22GB01	S09SB22GB01	S09SB22GB01	EPA Residential Soil PRGs
Sample ID	123-S09-180	123-S09-181	123-S09-182	274051	274052	274053	274054	
Sample Date	05/06/93	05/06/93	05/06/93	07/13/99	07/13/99	07/13/99	07/13/99	
Sample Depth	10.50 - 10.50	12.50 - 12.50	15.00 - 15.00	0.50 - 2.50	2.50 - 4.50	5.00 - 7.00	7.50 - 9.50	
Metals (mg/kg)								
BERYLLIUM	0.47	0.8	0.31	< 0.0028 U	NA	< 0.003 U	NA	150
CADMIUM	< 0.97 U	< 1.1 U	1.7	< 0.28 UJ	NA	< 0.84 UJ	NA	37 *
CALCIUM	5,940	13,300	8,750	NA	NA	NA	NA	NC
CHROMIUM	8.2	13.9	12.2	10.4 J	NA	18.9 J	NA	210
COBALT	5.4	6.6	6	5.4 J	NA	9.2 J	NA	900
COPPER	8.7	10.9	10.2	11 J	NA	32 J	NA	3,100
IRON	11,200	13,500	13,000	NA	NA	NA	NA	23,000
LEAD	3.4	4.1	3.5	13.6	NA	**186**	NA	150 *
MAGNESIUM	3,930	5,960	5,350	NA	NA	NA	NA	NC
MANGANESE	168	200	343 J	NA	NA	NA	NA	1,800
MERCURY	< 0.1 U	< 0.11 U	< 0.12 U	0.033	NA	0.057	NA	23
MOLYBDENUM	NA	NA	NA	0.37 J	NA	0.97 J	NA	390
NICKEL	11.9	15.5	10.9	8.9 J	NA	18.7 J	NA	1,600
POTASSIUM	1,440	2,670	2,430	NA	NA	NA	NA	NC
SELENIUM	< 0.62 U	< 0.67 U	< 0.75 U	0.24 J	NA	0.84 J	NA	390
SILVER	< 1.9 U	< 2.2 U	< 0.5 U	< 0.049 U	NA	0.17 J	NA	390
SODIUM	353	738	628	NA	NA	NA	NA	NC
THALLIUM	< 0.41 U	< 0.44 U	< 0.75 UJ	< 0.11 U	NA	< 0.11 U	NA	5.2
VANADIUM	18.2	27.6	23.9	22.5 J	NA	36.7 J	NA	78
ZINC	24.5	37.9	34.5 J	95.4 J	NA	201 J	NA	23,000
Dioxin (mg/kg)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB22GB01	S09SB22GB01	S09SB22GB01	S09SB22GB02	S09SB22GB02	S09SB22GB02	S09SB22GB02	EPA Residential Soil PRGs
Sample ID	274055	274056	274057	274058	274059	274060	274062	
Sample Date	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	
Sample Depth	10.00 - 12.00	12.50 - 14.50	15.00 - 17.00	0.50 - 2.50	2.50 - 4.50	5.00 - 7.00	10.00 - 12.00	
Volatile Organic Compounds (mg/kg)								
1,2-DICHLOROETHENE	NA	NA	0.003 J	NA	< 0.011 U	< 0.011 U	NA	NC
1,2-DICHLOROETHENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA	NC
2-HEXANONE	NA	NA	< 0.012 U	NA	< 0.011 U	< 0.011 U	NA	NC
4-METHYL-2-PENTANONE	NA	NA	< 0.012 U	NA	< 0.011 U	< 0.011 U	NA	5,300
BENZENE	NA	NA	< 0.012 U	NA	< 0.011 U	< 0.011 U	NA	0.64
CARBON DISULFIDE	NA	NA	< 0.012 U	NA	< 0.011 U	< 0.011 U	NA	360
CHLOROBENZENE	NA	NA	< 0.012 U	NA	< 0.011 U	< 0.011 U	NA	150
ETHYLBENZENE	NA	NA	< 0.012 U	NA	< 0.011 U	< 0.011 U	NA	400
TETRACHLOROETHENE	NA	NA	< 0.012 U	NA	< 0.011 U	< 0.011 U	NA	0.48
TOLUENE	NA	NA	0.001 J	NA	< 0.011 U	< 0.011 U	NA	520
TRICHLOROETHENE	NA	NA	0.002 J	NA	< 0.011 U	< 0.011 U	NA	0.052
XYLENE (TOTAL)	NA	NA	< 0.012 U	NA	0.002 J	< 0.011 U	NA	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	NA	< 12 U	< 11 U	NA	< 110 U	NA	NC
MOTOR OIL RANGE ORGANICS	NA	NA	51 Y	160 Y	NA	2,000 Y	NA	NC
OTHER COMPONENTS *	NA	NA	NA	NA	NA	NA	NA	NC
TPH - DIESEL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - MOTOR OIL	NA	NA	NA	NA	NA	NA	NA	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	NA	< 0.62 U	< 0.54 U	NA	< 0.55 U	NA	NC
OTHER COMPONENTS *	NA	NA	NA	NA	NA	NA	NA	NC
Semivolatile Organic Compounds (mg/kg)								
2-METHYLNAPHTHALENE	NA	NA	NA	< 0.35 U	< 12 U	NA	NA	NC
4-METHYLPHENOL	NA	NA	NA	< 0.35 U	< 12 U	NA	NA	310
ACENAPHTHENE	NA	NA	NA	< 0.35 U	< 12 U	NA	NA	3,700
ANTHRACENE	NA	NA	NA	< 0.35 U	< 12 U	NA	NA	22,000
BENZO(A)ANTHRACENE	NA	NA	NA	< 0.35 U	< 12 U	NA	NA	0.62
BENZO(A)PYRENE	NA	NA	NA	< 0.35 U	< 12 UJ	NA	NA	0.062
BENZO(B)FLUORANTHENE	NA	NA	NA	0.096 J	< 12 UJ	NA	NA	0.62
BENZO(G,H,I)PERYLENE	NA	NA	NA	< 0.35 U	< 12 UJ	NA	NA	NC
BENZO(K)FLUORANTHENE	NA	NA	NA	< 0.35 U	< 12 UJ	NA	NA	0.38 *

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB22GB01	S09SB22GB01	S09SB22GB01	S09SB22GB02	S09SB22GB02	S09SB22GB02	S09SB22GB02	EPA Residential Soil PRGs
Sample ID	274055	274056	274057	274058	274059	274060	274062	
Sample Date	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	
Sample Depth	10.00 - 12.00	12.50 - 14.50	15.00 - 17.00	0.50 - 2.50	2.50 - 4.50	5.00 - 7.00	10.00 - 12.00	
Semivolatile Organic Compounds (mg/kg)								
CARBAZOLE	NA	NA	NA	< 0.35 U	< 12 U	NA	NA	24
CHRYSENE	NA	NA	NA	0.053 J	< 12 U	NA	NA	3.8 *
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	< 0.35 U	< 12 UJ	NA	NA	0.062
DIBENZOFURAN	NA	NA	NA	< 0.35 U	< 12 U	NA	NA	150
FLUORANTHENE	NA	NA	NA	0.089 J	< 12 U	NA	NA	2,300
FLUORENE	NA	NA	NA	< 0.35 U	< 12 U	NA	NA	2,700
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	< 0.35 U	< 12 UJ	NA	NA	0.62
N-NITROSODIPHENYLAMINE	NA	NA	NA	< 0.35 U	< 12 U	NA	NA	99
NAPHTHALENE	NA	NA	NA	< 0.35 U	< 12 U	NA	NA	1.7 *
PHENANTHRENE	NA	NA	NA	0.047 J	< 12 U	NA	NA	NC
PYRENE	NA	NA	NA	0.086 J	< 12 U	NA	NA	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	0.44	< 0.0036 U	NA	0.02 J	NA	NA	0.021	2.4
4,4'-DDE	0.11	< 0.0036 U	NA	0.014 J	NA	NA	0.011	1.7
4,4'-DDT	0.037 J	< 0.0036 U	NA	0.031 J	NA	NA	0.015	1.7
ALDRIN	< 0.021 U	< 0.0018 U	NA	< 0.0018 UJ	NA	NA	< 0.0018 U	0.029
ALPHA-CHLORDANE	0.023	0.001 J	NA	0.0057 J	NA	NA	0.004	1.6
AROCLOR-1260	0.2	< 0.017 U	NA	**0.26 J**	NA	NA	0.15	0.22
BETA-BHC	< 0.021 U	< 0.0018 U	NA	< 0.0018 UJ	NA	NA	< 0.0018 U	0.32
DELTA-BHC	< 0.021 U	< 0.0018 U	NA	< 0.0018 UJ	NA	NA	< 0.0018 U	NC
DIELDRIN	**0.043**	< 0.00032 U	NA	< 0.00032 UJ	NA	NA	< 0.00031 U	0.030
ENDOSULFAN II	< 0.041 U	< 0.0036 U	NA	< 0.0035 UJ	NA	NA	< 0.0034 U	NC
ENDOSULFAN SULFATE	< 0.041 U	< 0.0036 U	NA	< 0.0035 UJ	NA	NA	< 0.0034 U	NC
ENDRIN	< 0.041 U	< 0.0036 U	NA	< 0.0035 UJ	NA	NA	< 0.0034 U	18
ENDRIN ALDEHYDE	< 0.041 UJ	< 0.0036 UJ	NA	< 0.0035 UJ	NA	NA	< 0.0034 UJ	NC
GAMMA-CHLORDANE	0.023	0.0002	NA	0.014 J	NA	NA	0.008	1.6
HEPTACHLOR EPOXIDE	< 0.0037 U	< 0.00032 U	NA	< 0.00032 UJ	NA	NA	< 0.00031 U	0.053
Metals (mg/kg)								
ALUMINUM	NA	NA	NA	NA	NA	NA	NA	76,000
ANTIMONY	< 0.14 U	NA	< 0.14 U	< 0.12 U	NA	< 0.12 U	< 0.11 U	31
ARSENIC	**2.2 J**	NA	**2.3 J**	**4.7**	NA	**3.9**	**4.1**	0.39
BARIUM	36.6 J	NA	73.8 J	65	NA	87.3	79.2	5,400

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB22GB01	S09SB22GB01	S09SB22GB01	S09SB22GB02	S09SB22GB02	S09SB22GB02	S09SB22GB02	EPA Residential Soil PRGs
Sample ID	274055	274056	274057	274058	274059	274060	274062	
Sample Date	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	
Sample Depth	10.00 - 12.00	12.50 - 14.50	15.00 - 17.00	0.50 - 2.50	2.50 - 4.50	5.00 - 7.00	10.00 - 12.00	
Metals (mg/kg)								
BERYLLIUM	< 0.0033 U	NA	< 0.0033 U	< 0.0029 U	NA	< 0.0029 U	< 0.0028 U	150
CADMIUM	< 0.37 UJ	NA	< 0.29 UJ	0.7 J	NA	1.5	0.88 J	37 *
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NC
CHROMIUM	30 J	NA	15.1 J	24.2	NA	24.1	24.4	210
COBALT	24.6 J	NA	5.8 J	10.8 J	NA	8.6 J	6.2 J	900
COPPER	41.9 J	NA	9.5 J	95.4	NA	49.7	52.5	3,100
IRON	NA	NA	NA	NA	NA	NA	NA	23,000
LEAD	19.9	NA	10.2	150	NA	125	123	150 *
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NC
MANGANESE	NA	NA	NA	NA	NA	NA	NA	1,800
MERCURY	0.034	NA	0.053	0.097 J	NA	0.12	0.14	23
MOLYBDENUM	< 0.049 U	NA	1.6	1.1	NA	1.9	1.1	390
NICKEL	35 J	NA	13.7 J	20.7	NA	17.8	18.1	1,600
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NC
SELENIUM	0.46 J	NA	0.35 J	0.47 J	NA	1.3	2.4	390
SILVER	0.57	NA	< 0.058 U	< 0.05 U	NA	< 0.14 UJ	< 0.049 U	390
SODIUM	NA	NA	NA	NA	NA	NA	NA	NC
THALLIUM	< 0.12 U	NA	< 0.12 U	< 0.11 U	NA	< 0.11 U	< 0.1 U	5.2
VANADIUM	64.7 J	NA	28 J	44.4	NA	37.7	29.9	78
ZINC	76 J	NA	38.4 J	250	NA	206	227	23,000
Dioxin (mg/kg)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB22GB02	S09SB22GB02	S09SB22GB03	S09SB22GB03	S09SB22GB03	S09SB22GB03	S09SB22GB03	EPA Residential Soil PRGs
Sample ID	274063	274064	274065	274066	274067	274068	274069	
Sample Date	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	
Sample Depth	12.50 - 14.50	15.00 - 17.00	0.50 - 2.50	2.50 - 4.50	5.00 - 7.00	7.50 - 9.50	10.00 - 12.00	
Volatile Organic Compounds (mg/kg)								
1,2-DICHLOROETHENE	NA	< 0.011 U	NA	< 0.011 U	< 0.011 U	NA	NA	NC
1,2-DICHLOROETHENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA	NC
2-HEXANONE	NA	< 0.011 U	NA	< 0.011 U	< 0.011 U	NA	NA	NC
4-METHYL-2-PENTANONE	NA	< 0.011 U	NA	< 0.011 U	< 0.011 U	NA	NA	5,300
BENZENE	NA	< 0.011 U	NA	< 0.011 U	< 0.011 U	NA	NA	0.64
CARBON DISULFIDE	NA	< 0.011 U	NA	< 0.011 U	< 0.011 U	NA	NA	360
CHLOROBENZENE	NA	< 0.011 U	NA	< 0.011 U	< 0.011 U	NA	NA	150
ETHYLBENZENE	NA	< 0.011 U	NA	< 0.011 U	< 0.011 U	NA	NA	400
TETRACHLOROETHENE	NA	< 0.011 U	NA	< 0.011 U	< 0.011 U	NA	NA	0.48
TOLUENE	NA	< 0.011 U	NA	< 0.011 U	< 0.011 U	NA	NA	520
TRICHLOROETHENE	NA	< 0.011 U	NA	< 0.011 U	< 0.011 U	NA	NA	0.052
XYLENE (TOTAL)	NA	0.003 J	NA	0.002 J	< 0.011 U	NA	NA	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	< 11 U	< 10 U	NA	< 11 U	< 10 U	NA	NC
MOTOR OIL RANGE ORGANICS	NA	13 Y	24 Y	NA	61 Y	7 JY	NA	NC
OTHER COMPONENTS *	NA	NA	NA	NA	NA	NA	NA	NC
TPH - DIESEL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - MOTOR OIL	NA	NA	NA	NA	NA	NA	NA	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	< 0.56 U	< 0.52 U	NA	< 0.54 U	< 0.52 U	NA	NC
OTHER COMPONENTS *	NA	NA	NA	NA	NA	NA	NA	NC
Semivolatile Organic Compounds (mg/kg)								
2-METHYLNAPHTHALENE	NA	NA	< 0.34 U	< 0.36 U	NA	NA	NA	NC
4-METHYLPHENOL	NA	NA	< 0.34 U	< 0.36 U	NA	NA	NA	310
ACENAPHTHENE	NA	NA	< 0.34 U	< 0.36 U	NA	NA	NA	3,700
ANTHRACENE	NA	NA	< 0.34 U	< 0.36 U	NA	NA	NA	22,000
BENZO(A)ANTHRACENE	NA	NA	< 0.34 U	< 0.36 U	NA	NA	NA	0.62
BENZO(A)PYRENE	NA	NA	< 0.34 UJ	< 0.36 U	NA	NA	NA	0.062
BENZO(B)FLUORANTHENE	NA	NA	< 0.34 UJ	< 0.36 U	NA	NA	NA	0.62
BENZO(G,H,I)PERYLENE	NA	NA	< 0.34 UJ	< 0.36 U	NA	NA	NA	NC
BENZO(K)FLUORANTHENE	NA	NA	< 0.34 UJ	< 0.36 U	NA	NA	NA	0.38 *

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB22GB02	S09SB22GB02	S09SB22GB03	S09SB22GB03	S09SB22GB03	S09SB22GB03	S09SB22GB03	EPA Residential Soil PRGs
Sample ID	274063	274064	274065	274066	274067	274068	274069	
Sample Date	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	
Sample Depth	12.50 - 14.50	15.00 - 17.00	0.50 - 2.50	2.50 - 4.50	5.00 - 7.00	7.50 - 9.50	10.00 - 12.00	
Semivolatile Organic Compounds (mg/kg)								
CARBAZOLE	NA	NA	< 0.34 U	< 0.36 U	NA	NA	NA	24
CHRYSENE	NA	NA	< 0.34 U	< 0.36 U	NA	NA	NA	3.8 *
DIBENZ(A,H)ANTHRACENE	NA	NA	< 0.34 UJ	< 0.36 U	NA	NA	NA	0.062
DIBENZOFURAN	NA	NA	< 0.34 U	< 0.36 U	NA	NA	NA	150
FLUORANTHENE	NA	NA	< 0.34 U	< 0.36 U	NA	NA	NA	2,300
FLUORENE	NA	NA	< 0.34 U	< 0.36 U	NA	NA	NA	2,700
INDENO(1,2,3-CD)PYRENE	NA	NA	< 0.34 UJ	< 0.36 U	NA	NA	NA	0.62
N-NITROSODIPHENYLAMINE	NA	NA	< 0.34 U	< 0.36 U	NA	NA	NA	99
NAPHTHALENE	NA	NA	< 0.34 U	< 0.36 U	NA	NA	NA	1.7 *
PHENANTHRENE	NA	NA	< 0.34 U	< 0.36 U	NA	NA	NA	NC
PYRENE	NA	NA	< 0.34 U	< 0.36 U	NA	NA	NA	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.0035 U	NA	0.002 J	NA	NA	< 0.0034 UJ	< 0.0034 U	2.4
4,4'-DDE	< 0.0035 U	NA	< 0.0034 UJ	NA	NA	0.0001 J	< 0.0034 U	1.7
4,4'-DDT	< 0.0035 U	NA	0.0064 J	NA	NA	< 0.0034 UJ	0.0002 J	1.7
ALDRIN	< 0.0018 U	NA	< 0.0018 U	NA	NA	< 0.0018 U	< 0.0017 U	0.029
ALPHA-CHLORDANE	< 0.0018 U	NA	< 0.0018 U	NA	NA	< 0.0018 U	< 0.0017 U	1.6
AROCLOR-1260	< 0.017 U	NA	< 0.017 U	NA	NA	< 0.017 U	< 0.016 U	0.22
BETA-BHC	< 0.0018 U	NA	< 0.0018 U	NA	NA	< 0.0018 U	< 0.0017 U	0.32
DELTA-BHC	< 0.0018 U	NA	< 0.0018 U	NA	NA	< 0.0018 U	< 0.0017 U	NC
DIELDRIN	< 0.00032 U	NA	< 0.00031 U	NA	NA	< 0.00031 U	< 0.00031 U	0.030
ENDOSULFAN II	< 0.0035 U	NA	< 0.0034 U	NA	NA	< 0.0034 U	< 0.0034 U	NC
ENDOSULFAN SULFATE	< 0.0035 U	NA	< 0.0034 U	NA	NA	< 0.0034 U	< 0.0034 U	NC
ENDRIN	< 0.0035 U	NA	< 0.0034 U	NA	NA	< 0.0034 U	< 0.0034 U	18
ENDRIN ALDEHYDE	< 0.0035 UJ	NA	< 0.0034 UJ	NA	NA	< 0.0034 UJ	< 0.0034 UJ	NC
GAMMA-CHLORDANE	< 0.0018 U	NA	< 0.0018 UJ	NA	NA	< 0.0018 U	< 0.0017 U	1.6
HEPTACHLOR EPOXIDE	< 0.00032 U	NA	< 0.00031 U	NA	NA	< 0.00031 U	< 0.00031 U	0.053
Metals (mg/kg)								
ALUMINUM	NA	NA	NA	NA	NA	NA	NA	76,000
ANTIMONY	NA	0.23 J	< 0.11 U	NA	< 0.12 U	NA	< 0.11 U	31
ARSENIC	NA	**3.9**	**1.2 J**	NA	**1.8 J**	NA	**1.7 J**	0.39
BARIUM	NA	97.2	49	NA	61.8	NA	56.9	5,400

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB22GB02	S09SB22GB02	S09SB22GB03	S09SB22GB03	S09SB22GB03	S09SB22GB03	S09SB22GB03	EPA Residential Soil PRGs
Sample ID	274063	274064	274065	274066	274067	274068	274069	
Sample Date	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	07/13/99	
Sample Depth	12.50 - 14.50	15.00 - 17.00	0.50 - 2.50	2.50 - 4.50	5.00 - 7.00	7.50 - 9.50	10.00 - 12.00	
Metals (mg/kg)								
BERYLLIUM	NA	< 0.003 U	< 0.0028 U	NA	< 0.0029 U	NA	< 0.0028 U	150
CADMIUM	NA	0.88 J	< 0.12 UJ	NA	< 0.18 UJ	NA	< 0.1 UJ	37 *
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NC
CHROMIUM	NA	26.1	10.2	NA	11	NA	6.5	210
COBALT	NA	6.2 J	13.6	NA	5.8 J	NA	2.9 J	900
COPPER	NA	56.6	16.9	NA	9.3	NA	4	3,100
IRON	NA	NA	NA	NA	NA	NA	NA	23,000
LEAD	NA	120	3.9	NA	5.1	NA	2.2	150 *
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NC
MANGANESE	NA	NA	NA	NA	NA	NA	NA	1,800
MERCURY	NA	0.1 J	0.042 J	NA	0.044 J	NA	0.028 J	23
MOLYBDENUM	NA	1.7	0.12 J	NA	0.66 J	NA	0.091 J	390
NICKEL	NA	15.2	15.2	NA	10.4	NA	5.7	1,600
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NC
SELENIUM	NA	1.8	0.46 J	NA	1.3	NA	0.54 J	390
SILVER	NA	< 0.053 U	< 0.049 U	NA	< 0.051 U	NA	< 0.048 U	390
SODIUM	NA	NA	NA	NA	NA	NA	NA	NC
THALLIUM	NA	< 0.11 U	< 0.1 U	NA	< 0.11 U	NA	< 0.1 U	5.2
VANADIUM	NA	30.5	35.9	NA	25.5	NA	14.2	78
ZINC	NA	312	40.3	NA	31.5	NA	14.5	23,000
Dioxin (mg/kg)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB22GB03	S09SB22GB03	S09SB23	S09SB23	S09SB23	S09SB24	S09SB24	EPA Residential Soil PRGs
Sample ID	274070	274071	123-S09-187A	123-S09-078	123-S09-079	123-S09-084	123-S09-085	
Sample Date	07/13/99	07/13/99	05/07/93	05/07/93	05/07/93	05/07/93	05/07/93	
Sample Depth	12.50 - 14.50	15.00 - 17.00	0.00 - 0.00	0.50 - 0.50	3.50 - 3.50	0.50 - 0.50	2.50 - 2.50	
Volatile Organic Compounds (mg/kg)								
1,2-DICHLOROETHENE	NA	< 0.011 U	NA	NA	NA	NA	NA	NC
1,2-DICHLOROETHENE (TOTAL)	NA	NA	NA	NA	< 0.014 U	NA	< 0.011 U	NC
2-HEXANONE	NA	< 0.011 U	NA	NA	< 0.014 U	NA	< 0.011 U	NC
4-METHYL-2-PENTANONE	NA	< 0.011 U	NA	NA	< 0.014 U	NA	< 0.011 U	5,300
BENZENE	NA	< 0.011 U	NA	NA	< 0.014 U	NA	< 0.011 U	0.64
CARBON DISULFIDE	NA	< 0.011 U	NA	NA	< 0.014 U	NA	< 0.011 U	360
CHLOROBENZENE	NA	< 0.011 U	NA	NA	< 0.014 U	NA	< 0.011 U	150
ETHYLBENZENE	NA	< 0.011 U	NA	NA	< 0.014 U	NA	< 0.011 U	400
TETRACHLOROETHENE	NA	< 0.011 U	NA	NA	< 0.014 U	NA	< 0.011 U	0.48
TOLUENE	NA	< 0.011 U	NA	NA	< 0.014 U	NA	< 0.011 U	520
TRICHLOROETHENE	NA	< 0.011 U	NA	NA	< 0.014 U	NA	< 0.011 U	0.052
XYLENE (TOTAL)	NA	< 0.011 U	NA	NA	< 0.014 U	NA	< 0.011 U	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	8 JY	NA	NA	NA	NA	NA	NC
MOTOR OIL RANGE ORGANICS	NA	15 Y	NA	NA	NA	NA	NA	NC
OTHER COMPONENTS *	NA	NA	NA	< 1.1 U	3.5 J	< 1.1 U	< 1.1 U	NC
TPH - DIESEL	NA	NA	NA	< 1.1 U	< 1.4 U	< 1.1 U	< 1.1 U	NC
TPH - MOTOR OIL	NA	NA	NA	67	< 14 U	< 11 U	< 11 U	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	< 0.54 U	NA	NA	NA	NA	NA	NC
OTHER COMPONENTS *	NA	NA	NA	< 0.006 U	< 0.007 U	< 0.005 U	< 0.006 U	NC
Semivolatile Organic Compounds (mg/kg)								
2-METHYLNAPHTHALENE	NA	NA	< 0.4 U	< 0.37 U	< 0.47 U	< 0.35 U	< 0.37 U	NC
4-METHYLPHENOL	NA	NA	< 0.4 U	< 0.37 U	< 0.47 U	< 0.35 U	< 0.37 U	310
ACENAPHTHENE	NA	NA	< 0.4 U	< 0.37 U	< 0.47 U	< 0.35 U	< 0.37 U	3,700
ANTHRACENE	NA	NA	< 0.4 U	< 0.37 U	< 0.47 U	< 0.35 U	< 0.37 U	22,000
BENZO(A)ANTHRACENE	NA	NA	< 0.4 U	< 0.37 U	< 0.47 U	< 0.35 U	< 0.37 U	0.62
BENZO(A)PYRENE	NA	NA	< 0.4 U	< 0.37 U	< 0.47 U	< 0.35 U	< 0.37 U	0.062
BENZO(B)FLUORANTHENE	NA	NA	< 0.4 U	< 0.37 U	< 0.47 U	< 0.35 U	< 0.37 U	0.62
BENZO(G,H,I)PERYLENE	NA	NA	< 0.4 U	< 0.37 U	< 0.47 U	< 0.35 U	< 0.37 U	NC
BENZO(K)FLUORANTHENE	NA	NA	< 0.4 U	< 0.37 U	< 0.47 U	< 0.35 U	< 0.37 U	0.38 *

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB22GB03	S09SB22GB03	S09SB23	S09SB23	S09SB23	S09SB24	S09SB24	EPA Residential Soil PRGs
Sample ID	274070	274071	123-S09-187A	123-S09-078	123-S09-079	123-S09-084	123-S09-085	
Sample Date	07/13/99	07/13/99	05/07/93	05/07/93	05/07/93	05/07/93	05/07/93	
Sample Depth	12.50 - 14.50	15.00 - 17.00	0.00 - 0.00	0.50 - 0.50	3.50 - 3.50	0.50 - 0.50	2.50 - 2.50	
Semivolatile Organic Compounds (mg/kg)								
CARBAZOLE	NA	NA	< 0.4 U	< 0.37 U	< 0.47 U	< 0.35 U	< 0.37 U	24
CHRYSENE	NA	NA	< 0.4 U	< 0.37 U	< 0.47 U	< 0.35 U	< 0.37 U	3.8 *
DIBENZ(A,H)ANTHRACENE	NA	NA	< 0.4 U	< 0.37 U	< 0.47 U	< 0.35 U	< 0.37 U	0.062
DIBENZOFURAN	NA	NA	< 0.4 U	< 0.37 U	< 0.47 U	< 0.35 U	< 0.37 U	150
FLUORANTHENE	NA	NA	< 0.4 U	< 0.37 U	< 0.47 U	< 0.35 U	< 0.37 U	2,300
FLUORENE	NA	NA	< 0.4 U	< 0.37 U	< 0.47 U	< 0.35 U	< 0.37 U	2,700
INDENO(1,2,3-CD)PYRENE	NA	NA	< 0.4 U	< 0.37 U	< 0.47 U	< 0.35 U	< 0.37 U	0.62
N-NITROSODIPHENYLAMINE	NA	NA	< 0.4 U	< 0.37 U	0.075 J	< 0.35 U	< 0.37 U	99
NAPHTHALENE	NA	NA	< 0.4 U	< 0.37 U	< 0.47 U	< 0.35 U	< 0.37 U	1.7 *
PHENANTHRENE	NA	NA	< 0.4 U	< 0.37 U	< 0.47 U	< 0.35 U	< 0.37 U	NC
PYRENE	NA	NA	< 0.4 U	< 0.37 U	< 0.47 U	< 0.35 U	0.017 J	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.0034 UJ	NA	< 0.004 UJ	0.0057 J	< 0.0047 U	0.0038 J	< 0.0037 U	2.4
4,4'-DDE	< 0.0034 U	NA	< 0.004 UJ	0.0032 J	< 0.0047 U	0.003 J	< 0.0037 U	1.7
4,4'-DDT	< 0.0034 UJ	NA	< 0.004 UJ	0.0031 J	< 0.0047 U	0.0048 J	< 0.0037 U	1.7
ALDRIN	< 0.0018 U	NA	< 0.002 UJ	< 0.0019 UJ	< 0.0024 U	< 0.0018 U	< 0.0019 U	0.029
ALPHA-CHLORDANE	< 0.0018 U	NA	< 0.002 UJ	0.0018 J	< 0.0024 U	< 0.0018 U	< 0.0019 U	1.6
AROCLOR-1260	< 0.016 U	NA	< 0.04 UJ	0.053 J	< 0.047 U	0.05 J	< 0.037 U	0.22
BETA-BHC	< 0.0018 U	NA	< 0.002 UJ	< 0.0019 UJ	< 0.0024 U	< 0.0018 U	< 0.0019 U	0.32
DELTA-BHC	< 0.0018 U	NA	< 0.002 UJ	< 0.0019 UJ	< 0.0024 U	< 0.0018 U	< 0.0019 U	NC
DIELDRIN	< 0.00031 U	NA	< 0.004 UJ	0.003 J	< 0.0047 U	< 0.0038 U	< 0.0037 U	0.030
ENDOSULFAN II	< 0.0034 U	NA	< 0.004 UJ	< 0.0037 UJ	< 0.0047 U	< 0.0035 U	< 0.0037 U	NC
ENDOSULFAN SULFATE	< 0.0034 U	NA	< 0.004 UJ	< 0.0037 UJ	< 0.0047 U	< 0.0035 U	< 0.0037 U	NC
ENDRIN	< 0.0034 U	NA	< 0.004 UJ	< 0.0037 UJ	< 0.0047 U	< 0.0038 U	< 0.0037 U	18
ENDRIN ALDEHYDE	< 0.0034 UJ	NA	< 0.004 UJ	< 0.0037 UJ	< 0.0047 U	< 0.0035 U	< 0.0037 U	NC
GAMMA-CHLORDANE	< 0.0018 U	NA	< 0.002 UJ	0.002 J	< 0.0024 U	< 0.0018 U	< 0.0019 U	1.6
HEPTACHLOR EPOXIDE	< 0.00031 U	NA	< 0.002 UJ	< 0.0019 UJ	< 0.0024 U	< 0.0018 U	< 0.0019 U	0.053
Metals (mg/kg)								
ALUMINUM	NA	NA	12,100	6,670	15,200	8,790	24,000	76,000
ANTIMONY	NA	< 0.12 U	< 7.5 U	NA	NA	< 6.7 U	< 7 U	31
ARSENIC	NA	**1.2 J**	**2.4**	**2.2 J**	**4.3**	**2.2**	**1**	0.39
BARIUM	NA	35.7 J	110	65.1	174	73.3	3.9	5,400

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB22GB03	S09SB22GB03	S09SB23	S09SB23	S09SB23	S09SB24	S09SB24	EPA Residential Soil PRGs
Sample ID	274070	274071	123-S09-187A	123-S09-078	123-S09-079	123-S09-084	123-S09-085	
Sample Date	07/13/99	07/13/99	05/07/93	05/07/93	05/07/93	05/07/93	05/07/93	
Sample Depth	12.50 - 14.50	15.00 - 17.00	0.00 - 0.00	0.50 - 0.50	3.50 - 3.50	0.50 - 0.50	2.50 - 2.50	
Metals (mg/kg)								
BERYLLIUM	NA	< 0.0029 U	0.4	0.23	0.74	0.33	< 0.22 U	150
CADMIUM	NA	< 0.046 UJ	2.2	0.91 J	1.4 J	< 0.86 U	< 0.9 U	37 *
CALCIUM	NA	NA	8,270	10,900	31,600	11,400	17,300	NC
CHROMIUM	NA	6.3	21.9	13.8	24.5	16	9.6	210
COBALT	NA	4.2 J	6.3	5.4	10.7	5.1	22.9	900
COPPER	NA	6.5	13	16.2	26.2	13.7	32.8	3,100
IRON	NA	NA	17,900	14,700	**28,800**	14,500	**43,600**	23,000
LEAD	NA	1.7	3.3	18.3 J	8.8 J	13.1 J	2.4 J	150 *
MAGNESIUM	NA	NA	6,590	4,750	13,100	5,110	16,400	NC
MANGANESE	NA	NA	284 J	272	852	220	629	1,800
MERCURY	NA	0.032 J	< 0.12 U	0.28 J	< 0.14 U	< 0.11 U	< 0.11 U	23
MOLYBDENUM	NA	0.3 J	NA	NA	NA	NA	NA	390
NICKEL	NA	7.5	16.2	14	31.3	11.7	27.8	1,600
POTASSIUM	NA	NA	3,320	1,350	4,100	2,240	627	NC
SELENIUM	NA	0.67 J	< 0.72 U	< 0.68 UJ	< 0.85 UJ	< 0.65 UJ	< 0.67 UJ	390
SILVER	NA	< 0.051 U	< 0.48 U	< 0.46 U	< 0.57 U	< 0.43 U	< 0.45 U	390
SODIUM	NA	NA	697	517	1,160	1,380	6,560	NC
THALLIUM	NA	< 0.11 U	< 0.72 UJ	< 0.68 UJ	< 0.85 UJ	< 0.65 UJ	< 0.67 UJ	5.2
VANADIUM	NA	17.7	41.9	24.9	48.4	27.5	40.6	78
ZINC	NA	19.1	45.3 J	75.3 J	84.1 J	44.1 J	53.7 J	23,000
Dioxin (mg/kg)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB25	S09SB25	EPA Residential Soil PRGs
Sample ID	123-S09-089	123-S09-090	
Sample Date	05/07/93	05/07/93	
Sample Depth	0.50 - 0.50	2.50 - 2.50	
Volatile Organic Compounds (mg/kg)			
1,2-DICHLOROETHENE	NA	NA	NC
1,2-DICHLOROETHENE (TOTAL)	< 0.011 U	< 0.013 U	NC
2-HEXANONE	< 0.011 U	< 0.013 U	NC
4-METHYL-2-PENTANONE	< 0.011 U	< 0.013 U	5,300
BENZENE	< 0.011 U	< 0.013 U	0.64
CARBON DISULFIDE	< 0.011 U	< 0.013 U	360
CHLOROBENZENE	< 0.011 U	< 0.013 U	150
ETHYLBENZENE	< 0.011 U	< 0.013 U	400
TETRACHLOROETHENE	< 0.011 U	< 0.013 U	0.48
TOLUENE	0.002 J	< 0.013 U	520
TRICHLOROETHENE	< 0.011 U	< 0.013 U	0.052
XYLENE (TOTAL)	< 0.011 U	< 0.013 U	270
Petroleum Hydrocarbons (mg/kg)			
Diesel/Motor Oil Range (extractables)			
DIESEL RANGE ORGANICS	NA	NA	NC
MOTOR OIL RANGE ORGANICS	NA	NA	NC
OTHER COMPONENTS *	< 1.1 U	< 1.3 U	NC
TPH - DIESEL	< 1.1 U	< 1.3 U	NC
TPH - MOTOR OIL	89	< 13 U	NC
Gasoline Range (purgeables)			
GASOLINE RANGE ORGANICS	NA	NA	NC
OTHER COMPONENTS *	< 0.005 U	< 0.006 U	NC
Semivolatile Organic Compounds (mg/kg)			
2-METHYLNAPHTHALENE	< 0.35 U	< 0.43 U	NC
4-METHYLPHENOL	< 0.35 U	< 0.43 U	310
ACENAPHTHENE	< 0.35 U	< 0.43 U	3,700
ANTHRACENE	< 0.35 U	< 0.43 U	22,000
BENZO(A)ANTHRACENE	0.039 J	< 0.43 U	0.62
BENZO(A)PYRENE	**0.081 J**	< 0.43 U	0.062
BENZO(B)FLUORANTHENE	0.1 J	< 0.43 U	0.62
BENZO(G,H,I)PERYLENE	< 0.35 U	< 0.43 U	NC
BENZO(K)FLUORANTHENE	0.1 J	< 0.43 U	0.38 *

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB25	S09SB25	EPA Residential Soil PRGs
Sample ID	123-S09-089	123-S09-090	
Sample Date	05/07/93	05/07/93	
Sample Depth	0.50 - 0.50	2.50 - 2.50	
Semivolatile Organic Compounds (mg/kg)			
CARBAZOLE	< 0.35 U	< 0.43 U	24
CHRYSENE	0.06 J	< 0.43 U	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.35 U	< 0.43 U	0.062
DIBENZOFURAN	< 0.35 U	< 0.43 U	150
FLUORANTHENE	0.042 J	< 0.43 U	2,300
FLUORENE	< 0.35 U	< 0.43 U	2,700
INDENO(1,2,3-CD)PYRENE	< 0.35 U	< 0.43 U	0.62
N-NITROSODIPHENYLAMINE	< 0.35 U	< 0.43 U	99
NAPHTHALENE	< 0.35 U	< 0.43 U	1.7 *
PHENANTHRENE	< 0.35 U	< 0.43 U	NC
PYRENE	0.045 J	< 0.43 U	2,300
PCBs/Pesticides (mg/kg)			
4,4'-DDD	0.0036 J	< 0.0043 U	2.4
4,4'-DDE	0.004 J	< 0.0043 U	1.7
4,4'-DDT	0.016 J	< 0.0043 U	1.7
ALDRIN	< 0.0018 UJ	< 0.0022 U	0.029
ALPHA-CHLORDANE	< 0.0018 UJ	< 0.0022 U	1.6
AROCLOR-1260	0.22 J	< 0.043 U	0.22
BETA-BHC	< 0.0018 UJ	< 0.0022 U	0.32
DELTA-BHC	< 0.0018 UJ	< 0.0022 U	NC
DIELDRIN	0.0027 J	< 0.0043 U	0.030
ENDOSULFAN II	0.005 J	< 0.0043 U	NC
ENDOSULFAN SULFATE	< 0.0036 UJ	< 0.0043 U	NC
ENDRIN	0.0084 J	< 0.0043 U	18
ENDRIN ALDEHYDE	< 0.0035 UJ	< 0.0043 U	NC
GAMMA-CHLORDANE	< 0.0018 UJ	< 0.0022 U	1.6
HEPTACHLOR EPOXIDE	< 0.0018 UJ	< 0.0022 U	0.053
Metals (mg/kg)			
ALUMINUM	8,560	22,000	76,000
ANTIMONY	< 6.5 UJ	< 8 U	31
ARSENIC	**11.6**	**7.4**	0.39
BARIUM	181	153	5,400

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09SB25	S09SB25	EPA Residential Soil PRGs
Sample ID	123-S09-089	123-S09-090	
Sample Date	05/07/93	05/07/93	
Sample Depth	0.50 - 0.50	2.50 - 2.50	
Metals (mg/kg)			
BERYLLIUM	0.31	0.91	150
CADMIUM	2.4 J	2.8	37 *
CALCIUM	35,600	25,400	NC
CHROMIUM	26.7	38.3	210
COBALT	6.2	11.5	900
COPPER	29	27.2	3,100
IRON	**24,100**	**30,000**	23,000
LEAD	79.1	7.1	150 *
MAGNESIUM	10,900	12,300	NC
MANGANESE	451 J	489 J	1,800
MERCURY	< 0.11 U	< 0.13 U	23
MOLYBDENUM	NA	NA	390
NICKEL	15.4 J	29	1,600
POTASSIUM	1,460 J	5,760	NC
SELENIUM	< 0.63 U	< 0.78 U	390
SILVER	< 0.42 UJ	< 0.52 U	390
SODIUM	1,550	1,860	NC
THALLIUM	< 0.63 UJ	< 0.78 UJ	5.2
VANADIUM	30.2	67.8	78
ZINC	142 J	84.8 J	23,000
Dioxin (mg/kg)			
None Detected	NA	NA	NC

TABLE 7-2: ANALYTICAL RESULTS FOR IRP SITE 09 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Notes: Categories of analyses are shown, but only detected compounds are presented. Analyte results in boldface type exceed EPA residential soil PRGs.

*	California modified PRGs
D	Chromatographic pattern resembles diesel.
ID	Identification
J	Estimated value
mg/kg	Milligrams per kilogram
NA	Not analyzed
NC	No criteria
ND	None detected
PRG	Preliminary remediation goals
TPH	Total petroleum hydrocarbons
U	Nondetected
Y	Chromatographic pattern resembles hydrocarbon fuel pattern and was quantitated using the standard it resembled most.
Z	Chromatographic pattern does not resemble TPH fuel pattern (individual peaks).

TABLE 7-3: ANALYTICAL RESULTS FOR IRP SITE 09 GROUNDWATER SAMPLES

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW01	S09MW01	S09MW01	S09MW01	S09MW01	S09MW01	S09MW01	
Sample ID	123-S09-111	123-S09-112	123-S09-113	123-S09-114	123-S09-114R	123-S09-115	123-S09-115R	EPA Tap Water PRGs
Sample Date	05/26/93	08/24/93	11/23/93	02/24/94	02/24/94	02/24/94	02/24/94	
Volatile Organic Compounds (µg/L)								
1,1,1-TRICHLOROETHANE	< 2 U	< 2 U	< 1 U	< 1 U	NA	< 1 U	NA	3,200
1,1-DICHLOROETHANE	< 2 U	< 2 U	< 1 U	< 1 U	NA	< 1 U	NA	2.0
1,1-DICHLOROETHENE	< 2 U	< 2 U	< 1 U	< 1 U	NA	< 1 U	NA	340
1,2-DICHLOROETHANE	< 2 U	< 2 U	**3**	**0.6**	NA	< 0.5 U	NA	0.12
1,2-DICHLOROETHENE (TOTAL)	< 2 U	0.3 J	< 1 U	< 1 U	NA	< 1 U	NA	NC
ACETONE	< 3 UJ	< 5 U	2 R	< 7 U	NA	< 2 U	NA	5,500
BENZENE	< 2 U	0.2 J	< 1 U	< 1 U	NA	< 1 U	NA	0.35
CARBON DISULFIDE	< 2 U	< 2 U	< 1 U	< 1 U	NA	< 1 U	NA	1,000
CARBON TETRACHLORIDE	< 2 U	< 2 U	< 0.5 U	< 0.5 U	NA	< 0.5 U	NA	0.17
CHLOROBENZENE	< 2 U	< 2 U	< 1 U	< 1 U	NA	< 1 U	NA	110
CHLOROFORM	< 2 U	< 2 U	< 1 U	< 1 U	NA	< 1 U	NA	0.17
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	61
ETHYLBENZENE	< 2 U	< 2 U	< 1 U	< 1 U	NA	< 1 U	NA	1,300
METHYL TERTIARY BUTYLETHER	NA	NA	NA	NA	NA	NA	NA	6.2
TOLUENE	< 2 U	< 2 U	< 1 U	< 1 U	NA	< 1 U	NA	720
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	120
TRICHLOROETHENE	< 2 U	< 2 U	< 1 U	< 1 U	NA	< 1 U	NA	0.028
VINYL CHLORIDE	< 2 U	< 2 U	< 0.5 U	< 0.5 U	NA	< 0.5 U	NA	0.020
XYLENE (TOTAL)	< 2 U	< 2 U	< 1 U	< 1 U	NA	< 1 U	NA	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NC
Gasoline Range (purgeables)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC
Semivolatile Organic Compounds (µg/L)								
2-METHYLNAPHTHALENE	< 10 U	< 10 U	< 10 U	< 10 U	NA	< 10 U	NA	NC
ACENAPHTHENE	< 10 U	3 J	< 10 U	< 10 U	NA	< 10 U	NA	370
ANTHRACENE	0.6 J	< 10 U	< 10 U	< 10 U	NA	< 10 U	NA	1,800
BENZO(A)ANTHRACENE	**0.8 J**	< 10 U	< 10 U	< 10 U	NA	< 10 U	NA	0.092
BENZO(A)PYRENE	< 10 U	< 10 U	< 10 U	**0.8 J**	NA	< 10 U	NA	0.0092
BENZO(B)FLUORANTHENE	< 10 U	< 10 U	< 10 U	**0.6 J**	NA	< 10 U	NA	0.092
DIBENZOFURAN	< 10 U	< 10 U	< 10 U	< 10 U	NA	< 10 U	NA	12

TABLE 7-3: ANALYTICAL RESULTS FOR IRP SITE 09 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW01	S09MW01	S09MW01	S09MW01	S09MW01	S09MW01	S09MW01	
Sample ID	123-S09-111	123-S09-112	123-S09-113	123-S09-114	123-S09-114R	123-S09-115	123-S09-115R	EPA Tap Water PRGs
Sample Date	05/26/93	08/24/93	11/23/93	02/24/94	02/24/94	02/24/94	02/24/94	
Semivolatile Organic Compounds (µg/L)								
FLUORANTHENE	2 J	2 J	< 10 U	< 10 U	NA	< 10 U	NA	1,500
PYRENE	4 J	4 J	0.7 J	0.7 J	NA	0.6 J	NA	180
PCBs/Pesticides (µg/L)								
4,4'-DDD	< 0.1 U	0.019 J	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	0.28
ALPHA-CHLORDANE	0.94	0.62 J	0.14 P	0.41	0.41	0.39	0.44	NC
ENDRIN ALDEHYDE	< 0.1 U	0.0046 J	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	NC
GAMMA-CHLORDANE	0.85	0.55 J	0.12	0.33	0.32	0.3	0.35	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	< 38.8 U	< 40 U	< 100 U	< 30.1 U	NA	< 30.1 U	NA	36,000
ANTIMONY	< 31 UJ	< 31 UJ	< 50 U	< 2 U	NA	< 2 U	NA	15
ARSENIC	**20 R**	< 20 UJ	< 20 UJ	< 20 U	NA	< 20 U	NA	0.045
BARIUM	63 J	70.4	< 100 UJ	48.4	NA	38	NA	2,600
BERYLLIUM	< 1 U	< 1 U	< 2 U	0.91	NA	0.62	NA	73
CADMIUM	< 4 U	< 4 UJ	< 4 U	< 2.9 U	NA	< 2.9 U	NA	18
CALCIUM	321,000	500,000	353,000	496,000	NA	453,000	NA	NC
CHROMIUM	< 3 U	< 3 U	5.7	8.6	NA	10.5	NA	NC
COBALT	3.3 J	< 2 U	< 10 U	< 3.3 U	NA	< 3.3 U	NA	730
COPPER	< 2 U	< 2 U	32.2	< 3.3 U	NA	< 3.3 U	NA	1,500
IRON	4,690	4,730	6,500	8,350	NA	8,830	NA	11,000
LEAD	< 1 U	< 1 UJ	< 20 UJ	10	NA	18	NA	NC
MAGNESIUM	571,000 J	190,000	1,060,000	997,000	NA	1,110,000	NA	NC
MANGANESE	**1,860**	**2,620**	**1,370 J**	**1,300**	NA	**1,250**	NA	880
MOLYBDENUM	NA	NA	78.3	77.8	NA	75.4	NA	180
NICKEL	< 7 UJ	< 7 U	< 20 U	< 6.8 U	NA	< 6.8 U	NA	730
POTASSIUM	54,000 J	19,400	119,000	84,600	NA	97,300	NA	NC
SELENIUM	< 30 UJ	< 30 UJ	30 R	4.9	NA	5.6	NA	180
SILVER	< 2 UJ	< 2 U	< 6 U	< 5.3 U	NA	< 5.3 U	NA	180
SODIUM	2,910,000 J	685,000	5,470,000 J	4,790,000	NA	5,400,000	NA	NC
THALLIUM	**30 R**	< 30 UJ	< 20 UJ	< 40 U	NA	< 40 U	NA	2.4
VANADIUM	2.8 J	< 2 U	< 10 U	< 3.8 U	NA	< 3.8 U	NA	37
ZINC	< 3.6 U	< 5.3 U	< 10 U	80	NA	114	NA	11,000

TABLE 7-3: ANALYTICAL RESULTS FOR IRP SITE 09 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW01	S09MW01	S09MW01	S09MW01	S09MW01	S09MW01	S09MW01	
Sample ID	123-S09-111	123-S09-112	123-S09-113	123-S09-114	123-S09-114R	123-S09-115	123-S09-115R	EPA Tap Water PRGs
Sample Date	05/26/93	08/24/93	11/23/93	02/24/94	02/24/94	02/24/94	02/24/94	
Metals (µg/L)								
FIltered								
ALUMINUM	NA	NA	NA	NA	NA	NA	NA	36,000
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	15
ARSENIC	NA	NA	NA	NA	NA	NA	NA	0.045
BARIUM	NA	NA	NA	NA	NA	NA	NA	2,600
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	73
CADMIUM	NA	NA	NA	NA	NA	NA	NA	18
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NC
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NC
COBALT	NA	NA	NA	NA	NA	NA	NA	730
COPPER	NA	NA	NA	NA	NA	NA	NA	1,500
IRON	NA	NA	NA	NA	NA	NA	NA	11,000
LEAD	NA	NA	NA	NA	NA	NA	NA	NC
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NC
MANGANESE	NA	NA	NA	NA	NA	NA	NA	880
MERCURY	NA	NA	NA	NA	NA	NA	NA	NC
MOLYBDENUM	NA	NA	NA	NA	NA	NA	NA	180
NICKEL	NA	NA	NA	NA	NA	NA	NA	730
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NC
SELENIUM	NA	NA	NA	NA	NA	NA	NA	180
SILVER	NA	NA	NA	NA	NA	NA	NA	180
SODIUM	NA	NA	NA	NA	NA	NA	NA	NC
THALLIUM	NA	NA	NA	NA	NA	NA	NA	2.4
VANADIUM	NA	NA	NA	NA	NA	NA	NA	37
ZINC	NA	NA	NA	NA	NA	NA	NA	11,000
General Mineral								
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NC
IRON	NA	NA	NA	NA	NA	NA	NA	11,000
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NC
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NC
SODIUM	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 7-3: ANALYTICAL RESULTS FOR IRP SITE 09 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW01	S09MW01	S09MW01	S09MW01	S09MW01	S09MW01	S09MW01	
Sample ID	123-S09-111	123-S09-112	123-S09-113	123-S09-114	123-S09-114R	123-S09-115	123-S09-115R	EPA Tap Water PRGs
Sample Date	05/26/93	08/24/93	11/23/93	02/24/94	02/24/94	02/24/94	02/24/94	
Dioxin (NG/L)								
None Detected	ND	NA	NA	NA	NA	NA	NA	NC

TABLE 7-3: ANALYTICAL RESULTS FOR IRP SITE 09 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW01	S09MW01	S09MW01	S09MW01	S09MW02	S09MW02	S09MW02	EPA Tap Water PRGs
Sample ID	123-S09-187	08797052204GD	08797052204GD	08797060504GD	123-S09-116	123-S09-117	123-S09-118	
Sample Date	04/28/94	05/22/97	05/22/97	06/05/97	05/25/93	08/23/93	11/23/93	
Volatile Organic Compounds (µg/L)								
1,1,1-TRICHLOROETHANE	NA	NA	NA	< 10 U	< 2 U	< 1 U	< 2 U	3,200
1,1-DICHLOROETHANE	NA	NA	NA	< 10 U	0.6 J	< 1 U	< 2 U	2.0
1,1-DICHLOROETHENE	NA	NA	NA	< 10 U	0.5 J	< 1 U	< 2 U	340
1,2-DICHLOROETHANE	NA	NA	NA	< 10 U	< 2 U	< 0.5 U	< 1 U	0.12
1,2-DICHLOROETHENE (TOTAL)	NA	NA	NA	< 10 U	62 D	11	38 J	NC
ACETONE	NA	NA	NA	< 13 UJ	< 2 UJ	< 2 U	< 8 UJ	5,500
BENZENE	NA	NA	NA	< 10 U	0.3 J	< 1 U	< 2 U	0.35
CARBON DISULFIDE	NA	NA	NA	< 10 U	0.3 J	< 1 U	< 2 U	1,000
CARBON TETRACHLORIDE	NA	NA	NA	< 10 U	< 2 U	< 0.5 U	< 1 U	0.17
CHLOROBENZENE	NA	NA	NA	< 10 U	0.6 J	< 1 U	< 2 U	110
CHLOROFORM	NA	NA	NA	< 10 U	< 2 U	< 1 U	< 2 U	0.17
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	61
ETHYLBENZENE	NA	NA	NA	< 10 U	< 2 U	< 1 U	< 2 U	1,300
METHYL TERTIARY BUTYLETHER	NA	NA	NA	**10 R**	NA	NA	NA	6.2
TOLUENE	NA	NA	NA	< 10 U	< 2 U	< 1 U	< 2 U	720
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	120
TRICHLOROETHENE	NA	NA	NA	< 10 U	< 2 U	< 1 U	< 2 U	0.028
VINYL CHLORIDE	NA	NA	NA	< 10 U	**4**	< 0.7 U	< 1 U	0.020
XYLENE (TOTAL)	NA	NA	NA	< 10 U	0.4 J	< 1 U	< 2 U	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	1.12 Y	< 0.1 U	NA	NA	NA	NA	NA	NC
Gasoline Range (purgeables)								
None Detected	ND	NA	NA	ND	NA	NA	NA	NC
Semivolatile Organic Compounds (µg/L)								
2-METHYLNAPHTHALENE	NA	< 10 U	NA	NA	< 10 U	< 10 U	< 10 U	NC
ACENAPHTHENE	NA	< 10 U	NA	NA	< 10 U	< 10 U	< 10 U	370
ANTHRACENE	NA	< 10 U	NA	NA	< 10 U	< 10 U	< 10 U	1,800
BENZO(A)ANTHRACENE	NA	< 10 U	NA	NA	< 10 U	< 10 U	< 10 U	0.092
BENZO(A)PYRENE	NA	< 10 U	NA	NA	< 10 U	< 10 U	< 10 U	0.0092
BENZO(B)FLUORANTHENE	NA	< 10 U	NA	NA	< 10 U	< 10 U	< 10 U	0.092
DIBENZOFURAN	NA	< 10 U	NA	NA	< 10 U	< 10 U	< 10 U	12

TABLE 7-3: ANALYTICAL RESULTS FOR IRP SITE 09 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW01	S09MW01	S09MW01	S09MW01	S09MW02	S09MW02	S09MW02	
Sample ID	123-S09-187	08797052204GD	08797052204GD	08797060504GD	123-S09-116	123-S09-117	123-S09-118	EPA Tap Water PRGs
Sample Date	04/28/94	05/22/97	05/22/97	06/05/97	05/25/93	08/23/93	11/23/93	
Semivolatile Organic Compounds (µg/L)								
FLUORANTHENE	NA	< 10 U	NA	NA	< 10 U	< 10 U	< 10 U	1,500
PYRENE	NA	< 10 U	NA	NA	< 10 U	< 10 U	< 10 U	180
PCBs/Pesticides (µg/L)								
4,4'-DDD	NA	NA	NA	NA	< 0.1 UJ	< 0.1 U	< 0.1 U	0.28
ALPHA-CHLORDANE	NA	NA	NA	NA	< 0.05 UJ	< 0.05 U	< 0.05 U	NC
ENDRIN ALDEHYDE	NA	NA	NA	NA	< 0.1 UJ	< 0.1 U	< 0.1 U	NC
GAMMA-CHLORDANE	NA	NA	NA	NA	< 0.05 UJ	< 0.05 U	< 0.05 U	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	NA	< 121 UJ	NA	NA	< 39.5 U	< 100 UJ	< 100 U	36,000
ANTIMONY	NA	< 3.7 UJ	NA	NA	< 31 U	< 50 U	< 50 U	15
ARSENIC	NA	**6.7 J**	NA	NA	**4 J**	< 20 UJ	**2.5 J**	0.045
BARIUM	NA	85.1 J	NA	NA	17.5 J	< 100 U	< 100 UJ	2,600
BERYLLIUM	NA	< 0.03 U	NA	NA	< 1 U	< 2 U	< 2 U	73
CADMIUM	NA	< 0.13 U	NA	NA	< 4 U	< 4 U	< 4 U	18
CALCIUM	NA	310,000	NA	NA	186,000	260,000 J	209,000	NC
CHROMIUM	NA	< 3.8 UJ	NA	NA	< 3 U	< 5 U	6.2	NC
COBALT	NA	0.56 J	NA	NA	< 2 U	< 10 U	< 10 U	730
COPPER	NA	21.6 J	NA	NA	< 2 U	< 10 U	12.6	1,500
IRON	NA	10,400 J	NA	NA	3,270	6,990	3,960	11,000
LEAD	NA	< 1 U	NA	NA	< 1 U	20 R	< 2 UJ	NC
MAGNESIUM	NA	974,000	NA	NA	121,000 J	1,800,000	318,000	NC
MANGANESE	NA	**1,490**	NA	NA	536	**970 J**	640 J	880
MOLYBDENUM	NA	86.4	NA	NA	NA	NA	80.1	180
NICKEL	NA	5.5 J	NA	NA	< 7 U	< 20 U	< 20 U	730
POTASSIUM	NA	114,000 J	NA	NA	35,200	169,000	60,800	NC
SELENIUM	NA	< 1.4 U	NA	NA	< 30 UJ	10 R	3 R	180
SILVER	NA	0.43 R	NA	NA	< 2 U	< 5 U	< 6 U	180
SODIUM	NA	4,960,000 J	NA	NA	849,000 J	8,350,000	1,820,000 J	NC
THALLIUM	NA	< 1.4 U	NA	NA	**30 R**	< 15 UJ	< 20 UJ	2.4
VANADIUM	NA	2.5 J	NA	NA	< 2 U	24	< 10 U	37
ZINC	NA	22.7 J	NA	NA	< 7.2 U	< 10 U	< 10 U	11,000

TABLE 7-3: ANALYTICAL RESULTS FOR IRP SITE 09 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW01	S09MW01	S09MW01	S09MW01	S09MW02	S09MW02	S09MW02	EPA Tap Water PRGs
Sample ID	123-S09-187	08797052204GD	08797052204GD	08797060504GD	123-S09-116	123-S09-117	123-S09-118	
Sample Date	04/28/94	05/22/97	05/22/97	06/05/97	05/25/93	08/23/93	11/23/93	
Metals (µg/L)								
Filtered								
ALUMINUM	NA	NA	< 3.2 U	NA	NA	NA	NA	36,000
ANTIMONY	NA	NA	4 J	NA	NA	NA	NA	15
ARSENIC	NA	NA	< 1.1 UJ	NA	NA	NA	NA	0.045
BARIUM	NA	NA	80.6	NA	NA	NA	NA	2,600
BERYLLIUM	NA	NA	< 0.03 U	NA	NA	NA	NA	73
CADMIUM	NA	NA	0.29 J	NA	NA	NA	NA	18
CALCIUM	NA	NA	339,000	NA	NA	NA	NA	NC
CHROMIUM	NA	NA	< 0.27 U	NA	NA	NA	NA	NC
COBALT	NA	NA	< 0.4 U	NA	NA	NA	NA	730
COPPER	NA	NA	< 0.4 U	NA	NA	NA	NA	1,500
IRON	NA	NA	8,910 J	NA	NA	NA	NA	11,000
LEAD	NA	NA	< 1 UJ	NA	NA	NA	NA	NC
MAGNESIUM	NA	NA	710,000	NA	NA	NA	NA	NC
MANGANESE	NA	NA	**1,450**	NA	NA	NA	NA	880
MERCURY	NA	NA	< 0.1 U	NA	NA	NA	NA	NC
MOLYBDENUM	NA	NA	96.7	NA	NA	NA	NA	180
NICKEL	NA	NA	2.3 J	NA	NA	NA	NA	730
POTASSIUM	NA	NA	72,700 J	NA	NA	NA	NA	NC
SELENIUM	NA	NA	< 1.4 UJ	NA	NA	NA	NA	180
SILVER	NA	NA	< 0.43 U	NA	NA	NA	NA	180
SODIUM	NA	NA	3,240,000	NA	NA	NA	NA	NC
THALLIUM	NA	NA	< 1.4 U	NA	NA	NA	NA	2.4
VANADIUM	NA	NA	< 0.5 U	NA	NA	NA	NA	37
ZINC	NA	NA	< 2.5 UJ	NA	NA	NA	NA	11,000
General Mineral								
CALCIUM	NA	7,000	NA	NA	NA	NA	NA	NC
IRON	NA	666 J	NA	NA	NA	NA	NA	11,000
MAGNESIUM	NA	1,040,000	NA	NA	NA	NA	NA	NC
POTASSIUM	NA	104,000 J	NA	NA	NA	NA	NA	NC
SODIUM	NA	4,930,000	NA	NA	NA	NA	NA	NC

TABLE 7-3: ANALYTICAL RESULTS FOR IRP SITE 09 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW01	S09MW01	S09MW01	S09MW01	S09MW02	S09MW02	S09MW02	
Sample ID	123-S09-187	08797052204GD	08797052204GD	08797060504GD	123-S09-116	123-S09-117	123-S09-118	EPA Tap Water PRGs
Sample Date	04/28/94	05/22/97	05/22/97	06/05/97	05/25/93	08/23/93	11/23/93	
Dioxin (NG/L)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 7-3: ANALYTICAL RESULTS FOR IRP SITE 09 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW02	S09MW02	S09MW02	S09MW02	S09MW02	S09MW03	S09MW03	EPA Tap Water PRGs
Sample ID	123-S09-119	123-S09-119R	123-S09-188	08797052106GD	08797052106GD	123-S09-120	123-S09-121	
Sample Date	02/24/94	02/24/94	04/28/94	05/21/97	05/21/97	05/25/93	05/25/93	
Volatile Organic Compounds (µg/L)								
1,1,1-TRICHLOROETHANE	< 1 U	NA	NA	< 10 U	NA	< 2 U	< 2 U	3,200
1,1-DICHLOROETHANE	< 1 U	NA	NA	< 10 U	NA	< 2 U	< 2 U	2.0
1,1-DICHLOROETHENE	< 1 U	NA	NA	< 10 U	NA	< 2 U	0.5 J	340
1,2-DICHLOROETHANE	< 0.5 U	NA	NA	< 10 U	NA	< 2 U	< 2 U	0.12
1,2-DICHLOROETHENE (TOTAL)	38	NA	NA	47	NA	20	20	NC
ACETONE	< 5 U	NA	NA	< 10 UJ	NA	< 2 U	< 2 UJ	5,500
BENZENE	< 1 U	NA	NA	< 10 U	NA	< 2 U	< 2 U	0.35
CARBON DISULFIDE	< 1 U	NA	NA	< 10 U	NA	< 2 U	< 2 U	1,000
CARBON TETRACHLORIDE	< 0.5 U	NA	NA	< 10 U	NA	< 2 U	< 2 U	0.17
CHLOROBENZENE	< 1 U	NA	NA	< 10 U	NA	< 2 U	< 2 U	110
CHLOROFORM	< 1 U	NA	NA	< 10 U	NA	< 2 U	< 2 U	0.17
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	61
ETHYLBENZENE	< 1 U	NA	NA	< 10 U	NA	< 2 U	< 2 U	1,300
METHYL TERTIARY BUTYLETHER	NA	NA	NA	< 10 U	NA	NA	NA	6.2
TOLUENE	< 1 U	NA	NA	< 10 U	NA	< 2 U	< 2 U	720
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	120
TRICHLOROETHENE	< 1 U	NA	NA	< 10 U	NA	**5**	**5**	0.028
VINYL CHLORIDE	**1**	NA	NA	**1 J**	NA	< 2 U	< 2 U	0.020
XYLENE (TOTAL)	< 1 U	NA	NA	< 10 U	NA	< 2 U	< 2 U	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	NA	0.67 Y	< 0.1 U	NA	NA	NA	NC
Gasoline Range (purgeables)								
None Detected	NA	NA	ND	ND	NA	NA	NA	NC
Semivolatile Organic Compounds (µg/L)								
2-METHYLNAPHTHALENE	< 10 U	NA	NA	< 10 U	NA	< 10 U	< 10 U	NC
ACENAPHTHENE	< 10 U	NA	NA	< 10 U	NA	< 10 U	< 10 U	370
ANTHRACENE	< 10 U	NA	NA	< 10 U	NA	< 10 U	< 10 U	1,800
BENZO(A)ANTHRACENE	< 10 U	NA	NA	< 10 U	NA	< 10 U	< 10 U	0.092
BENZO(A)PYRENE	< 10 U	NA	NA	< 10 U	NA	< 10 U	< 10 U	0.0092
BENZO(B)FLUORANTHENE	< 10 U	NA	NA	< 10 U	NA	< 10 U	< 10 U	0.092
DIBENZOFURAN	< 10 U	NA	NA	< 10 U	NA	< 10 U	< 10 U	12

TABLE 7-3: ANALYTICAL RESULTS FOR IRP SITE 09 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW02	S09MW02	S09MW02	S09MW02	S09MW02	S09MW03	S09MW03	
Sample ID	123-S09-119	123-S09-119R	123-S09-188	08797052106GD	08797052106GD	123-S09-120	123-S09-121	
Sample Date	02/24/94	02/24/94	04/28/94	05/21/97	05/21/97	05/25/93	05/25/93	EPA Tap Water PRGs
Semivolatile Organic Compounds (µg/L)								
FLUORANTHENE	< 10 U	NA	NA	< 10 U	NA	< 10 U	< 10 U	1,500
PYRENE	< 10 U	NA	NA	< 10 U	NA	< 10 U	< 10 U	180
PCBs/Pesticides (µg/L)								
4,4'-DDD	< 0.1 U	< 0.1 U	NA	NA	NA	< 0.1 U	< 0.1 U	0.28
ALPHA-CHLORDANE	< 0.05 U	< 0.05 U	NA	NA	NA	< 0.05 U	< 0.05 U	NC
ENDRIN ALDEHYDE	< 0.1 U	< 0.1 U	NA	NA	NA	< 0.1 U	< 0.1 U	NC
GAMMA-CHLORDANE	< 0.05 U	< 0.05 U	NA	NA	NA	< 0.05 U	< 0.05 U	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	< 30.1 U	NA	NA	167	NA	< 55.2 U	< 42.3 U	36,000
ANTIMONY	3.1	NA	NA	< 1.4 U	NA	< 31 UJ	< 31 U	15
ARSENIC	**2.7**	NA	NA	**14.2 J**	NA	**20 R**	**2 R**	0.045
BARIUM	35.4	NA	NA	42.2 J	NA	26.1 J	25.8 J	2,600
BERYLLIUM	0.68	NA	NA	< 0.03 U	NA	< 1 U	< 1 U	73
CADMIUM	< 2.9 U	NA	NA	< 0.13 U	NA	< 4 U	< 4 U	18
CALCIUM	300,000	NA	NA	273,000	NA	222,000	222,000	NC
CHROMIUM	5	NA	NA	< 0.3 UJ	NA	< 3 U	< 3 U	NC
COBALT	< 3.3 U	NA	NA	0.69 J	NA	2.3 J	< 2 U	730
COPPER	< 3.3 U	NA	NA	< 0.46 UJ	NA	< 2 U	< 2 U	1,500
IRON	7,950	NA	NA	9,610 J	NA	< 39.7 U	< 28.7 U	11,000
LEAD	< 10 U	NA	NA	< 1 U	NA	< 1 UJ	< 1 U	NC
MAGNESIUM	340,000	NA	NA	285,000	NA	228,000 J	227,000 J	NC
MANGANESE	**1,010**	NA	NA	755	NA	861	861	880
MOLYBDENUM	82.1	NA	NA	74.7	NA	NA	NA	180
NICKEL	< 6.8 U	NA	NA	1.2 J	NA	10.2 J	9	730
POTASSIUM	59,500	NA	NA	70,500 J	NA	54,600 J	54,600	NC
SELENIUM	< 2 U	NA	NA	< 1.4 U	NA	< 30 UJ	< 30 UJ	180
SILVER	< 5.3 U	NA	NA	0.43 R	NA	< 2 UJ	< 2 U	180
SODIUM	1,880,000	NA	NA	1,690,000 J	NA	1,000,000 J	1,000,000 J	NC
THALLIUM	< 40 U	NA	NA	< 1.4 U	NA	**9.4 J**	**30 R**	2.4
VANADIUM	< 3.8 U	NA	NA	0.89 J	NA	< 2 U	< 2 U	37
ZINC	< 1.5 U	NA	NA	< 4 UJ	NA	< 6.4 U	< 3.1 U	11,000

TABLE 7-3: ANALYTICAL RESULTS FOR IRP SITE 09 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW02	S09MW02	S09MW02	S09MW02	S09MW02	S09MW03	S09MW03	
Sample ID	123-S09-119	123-S09-119R	123-S09-188	08797052106GD	08797052106GD	123-S09-120	123-S09-121	EPA Tap Water PRGs
Sample Date	02/24/94	02/24/94	04/28/94	05/21/97	05/21/97	05/25/93	05/25/93	
Metals (µg/L)								
FIltered								
ALUMINUM	NA	NA	NA	NA	< 3.2 U	NA	NA	36,000
ANTIMONY	NA	NA	NA	NA	< 1.4 U	NA	NA	15
ARSENIC	NA	NA	NA	NA	**8.2**	NA	NA	0.045
BARIUM	NA	NA	NA	NA	36.7 J	NA	NA	2,600
BERYLLIUM	NA	NA	NA	NA	< 0.03 U	NA	NA	73
CADMIUM	NA	NA	NA	NA	< 0.13 U	NA	NA	18
CALCIUM	NA	NA	NA	NA	172,000	NA	NA	NC
CHROMIUM	NA	NA	NA	NA	< 0.27 U	NA	NA	NC
COBALT	NA	NA	NA	NA	< 0.4 U	NA	NA	730
COPPER	NA	NA	NA	NA	< 0.4 U	NA	NA	1,500
IRON	NA	NA	NA	NA	5,740 J	NA	NA	11,000
LEAD	NA	NA	NA	NA	< 1 UJ	NA	NA	NC
MAGNESIUM	NA	NA	NA	NA	177,000	NA	NA	NC
MANGANESE	NA	NA	NA	NA	737	NA	NA	880
MERCURY	NA	NA	NA	NA	< 0.1 U	NA	NA	NC
MOLYBDENUM	NA	NA	NA	NA	81.6	NA	NA	180
NICKEL	NA	NA	NA	NA	< 0.77 U	NA	NA	730
POTASSIUM	NA	NA	NA	NA	42,100 J	NA	NA	NC
SELENIUM	NA	NA	NA	NA	< 1.4 UJ	NA	NA	180
SILVER	NA	NA	NA	NA	< 0.43 U	NA	NA	180
SODIUM	NA	NA	NA	NA	1,020,000	NA	NA	NC
THALLIUM	NA	NA	NA	NA	< 1.4 U	NA	NA	2.4
VANADIUM	NA	NA	NA	NA	< 0.5 U	NA	NA	37
ZINC	NA	NA	NA	NA	< 2 UJ	NA	NA	11,000
General Mineral								
CALCIUM	NA	NA	NA	263,000	NA	NA	NA	NC
IRON	NA	NA	NA	452 J	NA	NA	NA	11,000
MAGNESIUM	NA	NA	NA	282,000	NA	NA	NA	NC
POTASSIUM	NA	NA	NA	83,700	NA	NA	NA	NC
SODIUM	NA	NA	NA	1,450,000	NA	NA	NA	NC

TABLE 7-3: ANALYTICAL RESULTS FOR IRP SITE 09 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW02	S09MW02	S09MW02	S09MW02	S09MW02	S09MW03	S09MW03	
Sample ID	123-S09-119	123-S09-119R	123-S09-188	08797052106GD	08797052106GD	123-S09-120	123-S09-121	EPA Tap Water PRGs
Sample Date	02/24/94	02/24/94	04/28/94	05/21/97	05/21/97	05/25/93	05/25/93	
Dioxin (NG/L)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 7-3: ANALYTICAL RESULTS FOR IRP SITE 09 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW03	S09MW03	S09MW03	S09MW03	S09MW03R	S09MW03R	S09MW04	EPA Tap Water PRGs
Sample ID	123-S09-122	123-S09-123	123-S09-124	123-S09-189	08797052206GD	08797052206GD	123-S09-125	
Sample Date	08/23/93	11/22/93	02/18/94	04/28/94	05/22/97	05/22/97	05/26/93	
Volatile Organic Compounds (µg/L)								
1,1,1-TRICHLOROETHANE	< 1 U	< 1 U	< 1 U	NA	< 10 U	NA	< 2 U	3,200
1,1-DICHLOROETHANE	< 1 U	< 1 U	< 1 U	NA	< 10 U	NA	< 2 U	2.0
1,1-DICHLOROETHENE	< 1 U	< 1 U	< 1 U	NA	1 J	NA	< 2 U	340
1,2-DICHLOROETHANE	< 0.5 U	< 0.5 U	< 0.5 U	NA	< 10 U	NA	< 2 U	0.12
1,2-DICHLOROETHENE (TOTAL)	5	3 J	1 J	NA	< 10 U	NA	30	NC
ACETONE	< 2 U	2 R	< 7 UJ	NA	< 10 UJ	NA	< 2 UJ	5,500
BENZENE	< 1 U	< 1 U	< 1 U	NA	**1 J**	NA	< 2 U	0.35
CARBON DISULFIDE	< 1 U	< 1 U	< 1 U	NA	< 10 U	NA	< 2 U	1,000
CARBON TETRACHLORIDE	< 0.5 U	< 0.5 U	< 0.5 U	NA	< 10 U	NA	< 2 U	0.17
CHLOROBENZENE	< 1 U	< 1 U	< 1 U	NA	< 10 U	NA	< 2 U	110
CHLOROFORM	< 1 U	< 1 U	< 1 U	NA	< 10 U	NA	< 2 U	0.17
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	61
ETHYLBENZENE	< 1 U	< 1 U	< 1 U	NA	< 10 U	NA	< 2 U	1,300
METHYL TERTIARY BUTYLETHER	NA	NA	NA	NA	< 10 U	NA	NA	6.2
TOLUENE	< 1 U	< 1 U	< 1 U	NA	1 J	NA	< 2 U	720
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	120
TRICHLOROETHENE	**2**	**1 J**	**1**	NA	**1 J**	NA	< 2 U	0.028
VINYL CHLORIDE	< 0.7 U	< 0.5 U	< 0.5 U	NA	< 10 U	NA	**4**	0.020
XYLENE (TOTAL)	< 1 U	< 1 U	< 1 U	NA	< 10 U	NA	< 2 U	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	NA	NA	0.29 Y	< 0.1 U	NA	NA	NC
Gasoline Range (purgeables)								
None Detected	NA	NA	NA	ND	ND	NA	NA	NC
Semivolatile Organic Compounds (µg/L)								
2-METHYLNAPHTHALENE	< 10 U	< 10 U	< 20 U	NA	< 10 U	NA	< 10 U	NC
ACENAPHTHENE	< 10 U	< 10 U	< 20 U	NA	< 10 U	NA	< 10 U	370
ANTHRACENE	< 10 U	< 10 U	< 20 U	NA	< 10 U	NA	< 10 U	1,800
BENZO(A)ANTHRACENE	< 10 U	< 10 U	< 20 U	NA	< 10 U	NA	< 10 U	0.092
BENZO(A)PYRENE	< 10 U	< 10 U	< 20 U	NA	< 10 U	NA	< 10 U	0.0092
BENZO(B)FLUORANTHENE	< 10 U	< 10 U	< 20 U	NA	< 10 U	NA	< 10 U	0.092
DIBENZOFURAN	< 10 U	< 10 U	< 20 U	NA	< 10 U	NA	< 10 U	12

TABLE 7-3: ANALYTICAL RESULTS FOR IRP SITE 09 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW03	S09MW03	S09MW03	S09MW03	S09MW03R	S09MW03R	S09MW04	EPA Tap Water PRGs
Sample ID	123-S09-122	123-S09-123	123-S09-124	123-S09-189	08797052206GD	08797052206GD	123-S09-125	
Sample Date	08/23/93	11/22/93	02/18/94	04/28/94	05/22/97	05/22/97	05/26/93	
Semivolatile Organic Compounds (µg/L)								
FLUORANTHENE	< 10 U	< 10 U	< 20 U	NA	< 10 U	NA	< 10 U	1,500
PYRENE	< 10 U	< 10 U	< 20 U	NA	< 10 U	NA	< 10 U	180
PCBs/Pesticides (µg/L)								
4,4'-DDD	< 0.1 U	< 0.1 U	< 0.1 U	NA	NA	NA	< 0.1 UJ	0.28
ALPHA-CHLORDANE	< 0.05 U	< 0.05 U	< 0.05 U	NA	NA	NA	< 0.05 UJ	NC
ENDRIN ALDEHYDE	< 0.1 U	< 0.1 U	< 0.1 U	NA	NA	NA	< 0.1 UJ	NC
GAMMA-CHLORDANE	< 0.05 U	< 0.05 U	< 0.05 U	NA	NA	NA	< 0.05 UJ	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	155 J	< 100 U	< 30.1 U	NA	< 12.5 UJ	NA	< 52.8 U	36,000
ANTIMONY	**57.9**	< 50 U	5.6	NA	< 1.4 U	NA	< 31 U	15
ARSENIC	**3.2 J**	< 2 UJ	< 2 U	NA	< 3.5 UJ	NA	**2 R**	0.045
BARIUM	< 100 U	< 100 UJ	25.5	NA	47.1 J	NA	25.9 J	2,600
BERYLLIUM	< 2 U	< 2 U	0.54	NA	< 0.03 U	NA	< 1 U	73
CADMIUM	< 4 U	< 4 U	< 2.9 U	NA	< 0.13 U	NA	< 4 U	18
CALCIUM	251,000 J	159,000	203,000	NA	249,000	NA	391,000	NC
CHROMIUM	< 5 U	< 5 U	< 3.1 U	NA	< 0.27 UJ	NA	< 3 U	NC
COBALT	< 10 U	< 10 U	< 3.3 U	NA	0.79 J	NA	4	730
COPPER	< 10 U	12.3	< 3.3 U	NA	< 0.4 U	NA	< 2 U	1,500
IRON	< 50 U	186	< 28.2 U	NA	372 J	NA	1,790	11,000
LEAD	2.5 J	< 2 UJ	< 3 U	NA	< 1 U	NA	< 1 U	NC
MAGNESIUM	231,000	287,000	158,000	NA	323,000	NA	191,000 J	NC
MANGANESE	824 J	535 J	380	NA	778	NA	**1,400**	880
MOLYBDENUM	NA	67.3	51.4	NA	77.6	NA	NA	180
NICKEL	< 20 U	< 20 U	< 6.8 U	NA	2.3 J	NA	< 7 U	730
POTASSIUM	55,600	65,800	38,900	NA	78,400 J	NA	48,700	NC
SELENIUM	1 R	30 R	< 2 UJ	NA	< 1.4 U	NA	< 30 UJ	180
SILVER	< 5 U	< 6 U	< 5.3 U	NA	0.43 R	NA	< 2 U	180
SODIUM	850,000	1,330,000 J	774,000	NA	1,560,000 J	NA	1,100,000 J	NC
THALLIUM	< 3 UJ	< 20 UJ	< 40 U	NA	< 1.4 U	NA	**3 R**	2.4
VANADIUM	**42.4**	< 10 U	< 3.8 U	NA	0.73 J	NA	< 2 U	37
ZINC	< 10 U	< 10 U	< 5.3 U	NA	< 4.7 UJ	NA	< 14.3 U	11,000

TABLE 7-3: ANALYTICAL RESULTS FOR IRP SITE 09 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW03	S09MW03	S09MW03	S09MW03	S09MW03R	S09MW03R	S09MW04	EPA Tap Water PRGs
Sample ID	123-S09-122	123-S09-123	123-S09-124	123-S09-189	08797052206GD	08797052206GD	123-S09-125	
Sample Date	08/23/93	11/22/93	02/18/94	04/28/94	05/22/97	05/22/97	05/26/93	
Metals (µg/L)								
FIltered								
ALUMINUM	NA	NA	NA	NA	NA	4,700	NA	36,000
ANTIMONY	NA	NA	NA	NA	NA	< 1.4 U	NA	15
ARSENIC	NA	NA	NA	NA	NA	< 4.1 UJ	NA	0.045
BARIUM	NA	NA	NA	NA	NA	70.6	NA	2,600
BERYLLIUM	NA	NA	NA	NA	NA	< 0.11 UJ	NA	73
CADMIUM	NA	NA	NA	NA	NA	1 J	NA	18
CALCIUM	NA	NA	NA	NA	NA	151,000 J	NA	NC
CHROMIUM	NA	NA	NA	NA	NA	8.2	NA	NC
COBALT	NA	NA	NA	NA	NA	4.4 J	NA	730
COPPER	NA	NA	NA	NA	NA	14.6	NA	1,500
IRON	NA	NA	NA	NA	NA	6,820 J	NA	11,000
LEAD	NA	NA	NA	NA	NA	1.1 J	NA	NC
MAGNESIUM	NA	NA	NA	NA	NA	193,000	NA	NC
MANGANESE	NA	NA	NA	NA	NA	**1,120**	NA	880
MERCURY	NA	NA	NA	NA	NA	< 0.1 U	NA	NC
MOLYBDENUM	NA	NA	NA	NA	NA	71.5	NA	180
NICKEL	NA	NA	NA	NA	NA	8.5 J	NA	730
POTASSIUM	NA	NA	NA	NA	NA	46,800 J	NA	NC
SELENIUM	NA	NA	NA	NA	NA	< 1.4 UJ	NA	180
SILVER	NA	NA	NA	NA	NA	< 0.43 U	NA	180
SODIUM	NA	NA	NA	NA	NA	882,000	NA	NC
THALLIUM	NA	NA	NA	NA	NA	< 1.4 U	NA	2.4
VANADIUM	NA	NA	NA	NA	NA	15 J	NA	37
ZINC	NA	NA	NA	NA	NA	27.7	NA	11,000
General Mineral								
CALCIUM	NA	NA	NA	NA	247,000	NA	NA	NC
IRON	NA	NA	NA	NA	308 J	NA	NA	11,000
MAGNESIUM	NA	NA	NA	NA	327,000	NA	NA	NC
POTASSIUM	NA	NA	NA	NA	91,700	NA	NA	NC
SODIUM	NA	NA	NA	NA	1,350,000	NA	NA	NC

TABLE 7-3: ANALYTICAL RESULTS FOR IRP SITE 09 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW03	S09MW03	S09MW03	S09MW03	S09MW03R	S09MW03R	S09MW04	
Sample ID	123-S09-122	123-S09-123	123-S09-124	123-S09-189	08797052206GD	08797052206GD	123-S09-125	EPA Tap Water PRGs
Sample Date	08/23/93	11/22/93	02/18/94	04/28/94	05/22/97	05/22/97	05/26/93	
Dioxin (NG/L)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 7-3: ANALYTICAL RESULTS FOR IRP SITE 09 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW04	S09MW04	S09MW04	S09MW04	S09MW04	S09MW04	S09MW04	
Sample ID	123-S09-126	123-S09-127	123-S09-128	123-S09-128R	123-S09-190	08797052202GD	08797052202GD	EPA Tap Water PRGs
Sample Date	08/24/93	11/23/93	02/24/94	02/24/94	04/28/94	05/22/97	05/22/97	
Volatile Organic Compounds (µg/L)								
1,1,1-TRICHLOROETHANE	< 2 U	0.7 J	< 1 U	NA	NA	NA	NA	3,200
1,1-DICHLOROETHANE	< 2 U	< 1 U	< 1 U	NA	NA	NA	NA	2.0
1,1-DICHLOROETHENE	< 2 U	< 1 U	< 1 U	NA	NA	NA	NA	340
1,2-DICHLOROETHANE	< 2 U	< 0.5 U	< 0.5 U	NA	NA	NA	NA	0.12
1,2-DICHLOROETHENE (TOTAL)	22	25	28	NA	NA	NA	NA	NC
ACETONE	< 4 U	2 R	< 2 U	NA	NA	NA	NA	5,500
BENZENE	< 2 U	< 1 U	< 1 U	NA	NA	NA	NA	0.35
CARBON DISULFIDE	< 2 U	< 1 U	< 1 U	NA	NA	NA	NA	1,000
CARBON TETRACHLORIDE	< 2 U	< 0.5 U	< 0.5 U	NA	NA	NA	NA	0.17
CHLOROBENZENE	< 2 U	< 1 U	< 1 U	NA	NA	NA	NA	110
CHLOROFORM	< 2 U	< 1 U	< 1 U	NA	NA	NA	NA	0.17
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	61
ETHYLBENZENE	< 2 U	< 1 U	< 1 U	NA	NA	NA	NA	1,300
METHYL TERTIARY BUTYLETHER	NA	NA	NA	NA	NA	NA	NA	6.2
TOLUENE	< 2 U	< 1 U	< 1 U	NA	NA	NA	NA	720
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	120
TRICHLOROETHENE	< 2 U	< 1 U	< 1 U	NA	NA	NA	NA	0.028
VINYL CHLORIDE	**5**	< 0.5 U	< 0.5 U	NA	NA	NA	NA	0.020
XYLENE (TOTAL)	< 2 U	< 1 U	< 1 U	NA	NA	NA	NA	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	NA	NA	NA	0.88 Y	< 0.1 U	NA	NC
Gasoline Range (purgeables)								
None Detected	NA	NA	NA	NA	ND	NA	NA	NC
Semivolatile Organic Compounds (µg/L)								
2-METHYLNAPHTHALENE	< 10 U	< 10 U	< 10 U	NA	NA	< 10 U	NA	NC
ACENAPHTHENE	< 10 U	< 10 U	< 10 U	NA	NA	< 10 U	NA	370
ANTHRACENE	< 10 U	< 10 U	< 10 U	NA	NA	< 10 U	NA	1,800
BENZO(A)ANTHRACENE	< 10 U	< 10 U	< 10 U	NA	NA	< 10 U	NA	0.092
BENZO(A)PYRENE	< 10 U	< 10 U	< 10 U	NA	NA	< 10 U	NA	0.0092
BENZO(B)FLUORANTHENE	< 10 U	< 10 U	< 10 U	NA	NA	< 10 U	NA	0.092
DIBENZOFURAN	< 10 U	< 10 U	< 10 U	NA	NA	< 10 U	NA	12

TABLE 7-3: ANALYTICAL RESULTS FOR IRP SITE 09 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW04	S09MW04	S09MW04	S09MW04	S09MW04	S09MW04	S09MW04	
Sample ID	123-S09-126	123-S09-127	123-S09-128	123-S09-128R	123-S09-190	08797052202GD	08797052202GD	EPA Tap Water PRGs
Sample Date	08/24/93	11/23/93	02/24/94	02/24/94	04/28/94	05/22/97	05/22/97	
Semivolatile Organic Compounds (µg/L)								
FLUORANTHENE	< 10 U	< 10 U	< 10 U	NA	NA	< 10 U	NA	1,500
PYRENE	< 10 U	< 10 U	< 10 U	NA	NA	< 10 U	NA	180
PCBs/Pesticides (µg/L)								
4,4'-DDD	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	NA	NA	NA	0.28
ALPHA-CHLORDANE	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	NA	NA	NA	NC
ENDRIN ALDEHYDE	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	NA	NA	NA	NC
GAMMA-CHLORDANE	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	NA	NA	NA	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	< 41.6 U	< 100 U	< 30.1 U	NA	NA	< 86 UJ	NA	36,000
ANTIMONY	< 31 UJ	< 50 U	5.6	NA	NA	< 1.4 U	NA	15
ARSENIC	< 20 UJ	< 2 UJ	**2.2**	NA	NA	**6.7 J**	NA	0.045
BARIUM	25.8	< 100 UJ	20.8	NA	NA	29.7 J	NA	2,600
BERYLLIUM	< 1 U	< 2 U	0.64	NA	NA	< 0.03 U	NA	73
CADMIUM	< 4 UJ	< 4 U	< 2.9 U	NA	NA	< 0.13 U	NA	18
CALCIUM	389,000	423,000	351,000	NA	NA	399,000	NA	NC
CHROMIUM	< 3 U	< 5 U	< 3.1 U	NA	NA	< 8.2 UJ	NA	NC
COBALT	2.7 J	< 10 U	< 3.3 U	NA	NA	0.87 J	NA	730
COPPER	< 2 U	< 10 U	< 3.3 U	NA	NA	< 0.88 UJ	NA	1,500
IRON	908	3,890	3,270	NA	NA	7,010 J	NA	11,000
LEAD	2 J	< 2 UJ	< 1 U	NA	NA	< 1 U	NA	NC
MAGNESIUM	164,000	206,000	185,000	NA	NA	142,000	NA	NC
MANGANESE	**1,540**	**1,360 J**	850	NA	NA	871	NA	880
MOLYBDENUM	NA	47.8	47.6	NA	NA	55.7	NA	180
NICKEL	< 7 U	< 20 U	< 6.8 U	NA	NA	11.3 J	NA	730
POTASSIUM	53,800	54,900	51,700	NA	NA	47,300 J	NA	NC
SELENIUM	32 J	3 R	< 2 U	NA	NA	< 1.4 U	NA	180
SILVER	< 2 U	< 6 U	< 5.3 U	NA	NA	0.43 R	NA	180
SODIUM	1,040,000	1,070,000 J	987,000	NA	NA	426,000 J	NA	NC
THALLIUM	< 30 UJ	< 20 UJ	< 40 U	NA	NA	< 1.4 U	NA	2.4
VANADIUM	< 2 U	< 10 U	< 3.8 U	NA	NA	1.1 J	NA	37
ZINC	< 3 U	< 15.4 U	6.6	NA	NA	18.7 J	NA	11,000

TABLE 7-3: ANALYTICAL RESULTS FOR IRP SITE 09 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW04	S09MW04	S09MW04	S09MW04	S09MW04	S09MW04	S09MW04	
Sample ID	123-S09-126	123-S09-127	123-S09-128	123-S09-128R	123-S09-190	08797052202GD	08797052202GD	EPA Tap Water PRGs
Sample Date	08/24/93	11/23/93	02/24/94	02/24/94	04/28/94	05/22/97	05/22/97	
Metals (µg/L)								
FIltered								
ALUMINUM	NA	NA	NA	NA	NA	NA	< 8.5 UJ	36,000
ANTIMONY	NA	NA	NA	NA	NA	NA	< 1.4 U	15
ARSENIC	NA	NA	NA	NA	NA	NA	< 2.6 UJ	0.045
BARIUM	NA	NA	NA	NA	NA	NA	25.7 J	2,600
BERYLLIUM	NA	NA	NA	NA	NA	NA	< 0.03 U	73
CADMIUM	NA	NA	NA	NA	NA	NA	< 0.13 U	18
CALCIUM	NA	NA	NA	NA	NA	NA	271,000	NC
CHROMIUM	NA	NA	NA	NA	NA	NA	< 0.27 U	NC
COBALT	NA	NA	NA	NA	NA	NA	0.63 J	730
COPPER	NA	NA	NA	NA	NA	NA	< 0.4 U	1,500
IRON	NA	NA	NA	NA	NA	NA	3,590 J	11,000
LEAD	NA	NA	NA	NA	NA	NA	1.2 J	NC
MAGNESIUM	NA	NA	NA	NA	NA	NA	148,000	NC
MANGANESE	NA	NA	NA	NA	NA	NA	856	880
MERCURY	NA	NA	NA	NA	NA	NA	< 0.1 U	NC
MOLYBDENUM	NA	NA	NA	NA	NA	NA	59.8	180
NICKEL	NA	NA	NA	NA	NA	NA	2.4 J	730
POTASSIUM	NA	NA	NA	NA	NA	NA	31,900 J	NC
SELENIUM	NA	NA	NA	NA	NA	NA	< 5.1 UJ	180
SILVER	NA	NA	NA	NA	NA	NA	< 0.67 UJ	180
SODIUM	NA	NA	NA	NA	NA	NA	289,000	NC
THALLIUM	NA	NA	NA	NA	NA	NA	< 1.4 U	2.4
VANADIUM	NA	NA	NA	NA	NA	NA	0.78 J	37
ZINC	NA	NA	NA	NA	NA	NA	< 2.2 UJ	11,000
General Mineral								
CALCIUM	NA	NA	NA	NA	NA	418,000	NA	NC
IRON	NA	NA	NA	NA	NA	404 J	NA	11,000
MAGNESIUM	NA	NA	NA	NA	NA	151,000	NA	NC
POTASSIUM	NA	NA	NA	NA	NA	53,500	NA	NC
SODIUM	NA	NA	NA	NA	NA	432,000 J	NA	NC

TABLE 7-3: ANALYTICAL RESULTS FOR IRP SITE 09 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW04	S09MW04	S09MW04	S09MW04	S09MW04	S09MW04	S09MW04	
Sample ID	123-S09-126	123-S09-127	123-S09-128	123-S09-128R	123-S09-190	08797052202GD	08797052202GD	EPA Tap Water PRGs
Sample Date	08/24/93	11/23/93	02/24/94	02/24/94	04/28/94	05/22/97	05/22/97	
Dioxin (NG/L)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 7-3: ANALYTICAL RESULTS FOR IRP SITE 09 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW04	S09MW05	S09MW05	S09MW05	S09MW05	S09MW05	S09MW05	EPA Tap Water PRGs
Sample ID	08797060503GD	123-S09-129	123-S09-130	123-S09-131	123-S09-132	123-S09-133	123-S09-191	
Sample Date	06/05/97	05/25/93	08/24/93	08/24/93	11/22/93	02/18/94	04/28/94	
Volatile Organic Compounds (µg/L)								
1,1,1-TRICHLOROETHANE	< 10 U	< 2 U	< 2 U	< 2 U	< 1 U	< 1 U	NA	3,200
1,1-DICHLOROETHANE	< 10 U	0.5 J	0.5 J	0.5 J	< 1 U	< 1 U	NA	2.0
1,1-DICHLOROETHENE	< 10 U	< 2 U	< 2 U	< 2 U	< 1 U	< 1 U	NA	340
1,2-DICHLOROETHANE	< 10 U	< 2 U	< 2 U	< 2 U	< 0.5 U	< 0.5 U	NA	0.12
1,2-DICHLOROETHENE (TOTAL)	16	11	9	9	9	8 J	NA	NC
ACETONE	< 8 UJ	< 2 UJ	< 4 U	< 5 U	2 R	2 R	NA	5,500
BENZENE	< 10 U	< 2 U	< 2 U	< 2 U	< 1 U	< 1 U	NA	0.35
CARBON DISULFIDE	< 10 U	< 2 U	< 2 U	< 2 U	< 1 U	< 1 U	NA	1,000
CARBON TETRACHLORIDE	< 10 U	< 2 U	< 2 U	< 2 U	< 0.5 U	< 0.5 U	NA	0.17
CHLOROBENZENE	< 10 U	< 2 U	< 2 U	< 2 U	< 1 U	< 1 U	NA	110
CHLOROFORM	< 10 U	< 2 U	< 2 U	< 2 U	< 1 U	< 1 U	NA	0.17
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	61
ETHYLBENZENE	< 10 U	< 2 U	< 2 U	< 2 U	< 1 U	< 1 U	NA	1,300
METHYL TERTIARY BUTYLETHER	**10 R**	NA	NA	NA	NA	NA	NA	6.2
TOLUENE	< 10 U	< 2 U	< 2 U	< 2 U	< 1 U	< 1 U	NA	720
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	120
TRICHLOROETHENE	< 10 U	**1 J**	**1 J**	**1 J**	**2**	**1**	NA	0.028
VINYL CHLORIDE	< 10 U	< 2 U	< 2 U	< 2 U	< 0.5 U	< 0.5 U	NA	0.020
XYLENE (TOTAL)	< 10 U	< 2 U	< 2 U	< 2 U	< 1 U	< 1 U	NA	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	0.37 Y	NC
Gasoline Range (purgeables)								
None Detected	ND	NA	NA	NA	NA	NA	ND	NC
Semivolatile Organic Compounds (µg/L)								
2-METHYLNAPHTHALENE	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NA	NC
ACENAPHTHENE	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NA	370
ANTHRACENE	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NA	1,800
BENZO(A)ANTHRACENE	NA	< 10 U	< 10 U	< 10 U	< 10 UJ	< 10 U	NA	0.092
BENZO(A)PYRENE	NA	< 10 U	< 10 U	< 10 U	< 10 UJ	< 10 U	NA	0.0092
BENZO(B)FLUORANTHENE	NA	< 10 U	< 10 U	< 10 U	< 10 UJ	< 10 U	NA	0.092
DIBENZOFURAN	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NA	12

TABLE 7-3: ANALYTICAL RESULTS FOR IRP SITE 09 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW04	S09MW05	S09MW05	S09MW05	S09MW05	S09MW05	S09MW05	
Sample ID	08797060503GD	123-S09-129	123-S09-130	123-S09-131	123-S09-132	123-S09-133	123-S09-191	EPA Tap Water PRGs
Sample Date	06/05/97	05/25/93	08/24/93	08/24/93	11/22/93	02/18/94	04/28/94	
Semivolatile Organic Compounds (µg/L)								
FLUORANTHENE	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NA	1,500
PYRENE	NA	< 10 U	< 10 U	< 10 U	< 10 UJ	< 10 U	NA	180
PCBs/Pesticides (µg/L)								
4,4'-DDD	NA	< 0.1 UJ	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	NA	0.28
ALPHA-CHLORDANE	NA	< 0.05 UJ	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	NA	NC
ENDRIN ALDEHYDE	NA	< 0.1 UJ	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	NA	NC
GAMMA-CHLORDANE	NA	< 0.05 UJ	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	NA	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	NA	< 76.2 U	< 26.5 U	< 25.6 U	< 100 U	< 30.1 U	NA	36,000
ANTIMONY	NA	< 31 U	< 31 UJ	< 31 UJ	< 50 U	4.7	NA	15
ARSENIC	NA	**3.4 J**	**2 J**	< 2 UJ	**5.9 J**	**8.9**	NA	0.045
BARIUM	NA	24.6 J	21.6	22.3	< 100 UJ	19.4	NA	2,600
BERYLLIUM	NA	< 1 U	< 1 U	< 1 U	< 2 U	0.74	NA	73
CADMIUM	NA	< 4 U	< 4 UJ	7.2 J	< 4 U	< 2.9 U	NA	18
CALCIUM	NA	254,000	207,000	207,000	217,000	188,000	NA	NC
CHROMIUM	NA	< 3 U	< 3 U	< 3 U	< 5 U	< 3.1 U	NA	NC
COBALT	NA	2.2	< 2 U	< 2 U	< 10 U	< 3.3 U	NA	730
COPPER	NA	< 2 U	< 2 U	< 2 U	< 10 U	< 3.3 U	NA	1,500
IRON	NA	1,010	1,030	1,090	772	989	NA	11,000
LEAD	NA	< 1 U	< 1 UJ	< 1 UJ	< 2 UJ	< 3 U	NA	NC
MAGNESIUM	NA	182,000 J	155,000	166,000	176,000	166,000	NA	NC
MANGANESE	NA	**1,070**	746	761	**902 J**	455	NA	880
MOLYBDENUM	NA	NA	NA	NA	85.8	80.6	NA	180
NICKEL	NA	< 7 U	< 7 U	< 7 U	< 20 U	< 6.8 U	NA	730
POTASSIUM	NA	48,300	47,400	46,400	47,700	49,000	NA	NC
SELENIUM	NA	< 30 UJ	149 J	93.6 J	3 R	< 20 UJ	NA	180
SILVER	NA	3.6	< 2 U	< 2 U	< 6 U	< 5.3 U	NA	180
SODIUM	NA	971,000 J	826,000	885,000	944,000 J	1,000,000	NA	NC
THALLIUM	NA	**3 R**	< 30 UJ	< 30 UJ	< 20 UJ	< 40 U	NA	2.4
VANADIUM	NA	< 2 U	< 2 U	< 2 U	< 10 U	< 3.8 U	NA	37
ZINC	NA	< 8.6 U	< 5.2 U	< 1 U	< 10 U	< 6.4 U	NA	11,000

TABLE 7-3: ANALYTICAL RESULTS FOR IRP SITE 09 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW04	S09MW05	S09MW05	S09MW05	S09MW05	S09MW05	S09MW05	EPA Tap Water PRGs
Sample ID	08797060503GD	123-S09-129	123-S09-130	123-S09-131	123-S09-132	123-S09-133	123-S09-191	
Sample Date	06/05/97	05/25/93	08/24/93	08/24/93	11/22/93	02/18/94	04/28/94	
Metals (µg/L)								
FIltered								
ALUMINUM	NA	NA	NA	NA	NA	NA	NA	36,000
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	15
ARSENIC	NA	NA	NA	NA	NA	NA	NA	0.045
BARIUM	NA	NA	NA	NA	NA	NA	NA	2,600
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	73
CADMIUM	NA	NA	NA	NA	NA	NA	NA	18
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NC
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NC
COBALT	NA	NA	NA	NA	NA	NA	NA	730
COPPER	NA	NA	NA	NA	NA	NA	NA	1,500
IRON	NA	NA	NA	NA	NA	NA	NA	11,000
LEAD	NA	NA	NA	NA	NA	NA	NA	NC
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NC
MANGANESE	NA	NA	NA	NA	NA	NA	NA	880
MERCURY	NA	NA	NA	NA	NA	NA	NA	NC
MOLYBDENUM	NA	NA	NA	NA	NA	NA	NA	180
NICKEL	NA	NA	NA	NA	NA	NA	NA	730
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NC
SELENIUM	NA	NA	NA	NA	NA	NA	NA	180
SILVER	NA	NA	NA	NA	NA	NA	NA	180
SODIUM	NA	NA	NA	NA	NA	NA	NA	NC
THALLIUM	NA	NA	NA	NA	NA	NA	NA	2.4
VANADIUM	NA	NA	NA	NA	NA	NA	NA	37
ZINC	NA	NA	NA	NA	NA	NA	NA	11,000
General Mineral								
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NC
IRON	NA	NA	NA	NA	NA	NA	NA	11,000
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NC
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NC
SODIUM	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 7-3: ANALYTICAL RESULTS FOR IRP SITE 09 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW04	S09MW05	S09MW05	S09MW05	S09MW05	S09MW05	S09MW05	
Sample ID	08797060503GD	123-S09-129	123-S09-130	123-S09-131	123-S09-132	123-S09-133	123-S09-191	EPA Tap Water PRGs
Sample Date	06/05/97	05/25/93	08/24/93	08/24/93	11/22/93	02/18/94	04/28/94	
Dioxin (NG/L)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 7-3: ANALYTICAL RESULTS FOR IRP SITE 09 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW05	S09MW05	S09MW05	S09MW05	S09MW05	S09MW05	S09MW06	EPA Tap Water PRGs
Sample ID	08797052203GD	08797052203GD	08797102452S	08797102453S	08798012338D	08798041049W	123-S09-134	
Sample Date	05/22/97	05/22/97	10/24/97	10/24/97	01/23/98	04/10/98	05/26/93	
Volatile Organic Compounds (µg/L)								
1,1,1-TRICHLOROETHANE	< 10 U	NA	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	3,200
1,1-DICHLOROETHANE	< 10 U	NA	< 1 U	< 1 U	< 1 U	0.6 J	< 2 U	2.0
1,1-DICHLOROETHENE	< 10 U	NA	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	340
1,2-DICHLOROETHANE	< 10 U	NA	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	**5**	0.12
1,2-DICHLOROETHENE (TOTAL)	11	NA	NA	NA	NA	NA	< 2 U	NC
ACETONE	< 11 UJ	NA	1 R	1 R	5	6	< 3 UJ	5,500
BENZENE	**12**	NA	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	0.35
CARBON DISULFIDE	< 10 U	NA	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	1,000
CARBON TETRACHLORIDE	< 10 U	NA	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	0.17
CHLOROBENZENE	< 10 U	NA	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	110
CHLOROFORM	< 10 U	NA	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	0.17
CIS-1,2-DICHLOROETHENE	NA	NA	8	9	9	10	NA	61
ETHYLBENZENE	7 J	NA	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	1,300
METHYL TERTIARY BUTYLETHER	5 J	NA	< 1 U	< 1 U	< 1 U	< 1 U	NA	6.2
TOLUENE	12	NA	< 0.5 UJ	< 1 UJ	< 1 U	< 1 U	< 2 U	720
TRANS-1,2-DICHLOROETHENE	NA	NA	0.8 J	0.9 J	0.9 J	0.9 J	NA	120
TRICHLOROETHENE	< 10 U	NA	< 1 U	< 1 U	< 1 U	**0.2 J**	< 2 U	0.028
VINYL CHLORIDE	< 10 U	NA	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	0.020
XYLENE (TOTAL)	21	NA	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	< 0.1 U	NA	< 0.1 U	< 0.1 U	0.2 Z	0.2 Y	NA	NC
Gasoline Range (purgeables)								
None Detected	ND	NA	ND	ND	ND	ND	NA	NC
Semivolatile Organic Compounds (µg/L)								
2-METHYLNAPHTHALENE	< 10 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NC
ACENAPHTHENE	< 10 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	370
ANTHRACENE	< 10 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	1,800
BENZO(A)ANTHRACENE	< 10 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	0.092
BENZO(A)PYRENE	< 10 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	0.0092
BENZO(B)FLUORANTHENE	< 10 U	NA	< 10 U	< 10 U	< 10 UJ	< 10 U	< 10 U	0.092
DIBENZOFURAN	< 10 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	0.6 J	12

TABLE 7-3: ANALYTICAL RESULTS FOR IRP SITE 09 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW05	S09MW05	S09MW05	S09MW05	S09MW05	S09MW05	S09MW06	
Sample ID	08797052203GD	08797052203GD	08797102452S	08797102453S	08798012338D	08798041049W	123-S09-134	EPA Tap Water PRGs
Sample Date	05/22/97	05/22/97	10/24/97	10/24/97	01/23/98	04/10/98	05/26/93	
Semivolatile Organic Compounds (µg/L)								
FLUORANTHENE	< 10 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	1,500
PYRENE	< 10 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	180
PCBs/Pesticides (µg/L)								
4,4'-DDD	NA	NA	NA	NA	NA	NA	< 0.1 UJ	0.28
ALPHA-CHLORDANE	NA	NA	NA	NA	NA	NA	< 0.05 UJ	NC
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	< 0.1 UJ	NC
GAMMA-CHLORDANE	NA	NA	NA	NA	NA	NA	< 0.05 UJ	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	1,090	NA	NA	NA	29.4	NA	< 53.7 U	36,000
ANTIMONY	< 1.4 U	NA	NA	NA	< 1.8 U	NA	< 31 U	15
ARSENIC	**13.6 J**	NA	NA	NA	**9.6**	NA	**20 R**	0.045
BARIUM	30.9 J	NA	NA	NA	21.6	NA	34.2 J	2,600
BERYLLIUM	< 0.03 U	NA	NA	NA	< 0.05 U	NA	< 1 U	73
CADMIUM	< 0.13 U	NA	NA	NA	0.5	NA	< 4 U	18
CALCIUM	172,000	NA	NA	NA	NA	NA	459,000	NC
CHROMIUM	< 2 UJ	NA	NA	NA	< 0.55 U	NA	5.7	NC
COBALT	1.5 J	NA	NA	NA	< 0.85 U	NA	5.7	730
COPPER	< 2.4 UJ	NA	NA	NA	< 1.2 U	NA	< 2 U	1,500
IRON	2,970 J	NA	NA	NA	NA	NA	8,080	11,000
LEAD	< 1 U	NA	NA	NA	< 0.9 U	NA	< 1 U	NC
MAGNESIUM	206,000	NA	NA	NA	NA	NA	750,000 J	NC
MANGANESE	598	NA	NA	NA	798	NA	**1,790**	880
MOLYBDENUM	87.7	NA	NA	NA	94.6	NA	NA	180
NICKEL	3 J	NA	NA	NA	< 1 U	NA	< 7 U	730
POTASSIUM	54,300 J	NA	NA	NA	NA	NA	79,700	NC
SELENIUM	< 1.4 U	NA	NA	NA	< 2.4 U	NA	< 30 UJ	180
SILVER	0.43 R	NA	NA	NA	< 1 U	NA	< 2 U	180
SODIUM	868,000 J	NA	NA	NA	NA	NA	3,890,000 J	NC
THALLIUM	< 1.4 U	NA	NA	NA	< 3.2 U	NA	**30 R**	2.4
VANADIUM	3.5 J	NA	NA	NA	< 0.8 U	NA	< 2 U	37
ZINC	< 5.2 UJ	NA	NA	NA	10	NA	15.7	11,000

TABLE 7-3: ANALYTICAL RESULTS FOR IRP SITE 09 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW05	S09MW05	S09MW05	S09MW05	S09MW05	S09MW05	S09MW06	EPA Tap Water PRGs
Sample ID	08797052203GD	08797052203GD	08797102452S	08797102453S	08798012338D	08798041049W	123-S09-134	
Sample Date	05/22/97	05/22/97	10/24/97	10/24/97	01/23/98	04/10/98	05/26/93	
Metals (µg/L)								
Filtered								
ALUMINUM	NA	< 15.4 UJ	< 12 UJ	< 11 U	NA	< 17 U	NA	36,000
ANTIMONY	NA	< 1.4 U	< 1.4 U	< 1.4 U	NA	7.2 J	NA	15
ARSENIC	NA	**10.6**	**9**	**11.6**	NA	**14.9**	NA	0.045
BARIUM	NA	20.3 J	18.9 J	20.8 J	NA	174	NA	2,600
BERYLLIUM	NA	< 0.03 U	< 0.05 U	< 0.05 U	NA	0.19 J	NA	73
CADMIUM	NA	< 0.13 U	< 0.2 U	< 0.2 U	NA	< 0.35 U	NA	18
CALCIUM	NA	109,000 J	NA	NA	NA	NA	NA	NC
CHROMIUM	NA	< 0.27 U	< 0.45 U	< 0.45 U	NA	< 0.5 U	NA	NC
COBALT	NA	0.67 J	< 0.65 U	< 0.65 U	NA	3.3 J	NA	730
COPPER	NA	< 0.4 U	< 0.55 U	< 0.55 U	NA	2.8 J	NA	1,500
IRON	NA	738 J	NA	NA	NA	NA	NA	11,000
LEAD	NA	< 1 UJ	< 0.85 UJ	< 0.85 U	NA	< 1.3 U	NA	NC
MAGNESIUM	NA	127,000 J	NA	NA	NA	NA	NA	NC
MANGANESE	NA	551	341	366	NA	**1,430**	NA	880
MERCURY	NA	< 0.1 U	0.1 R	< 0.1 U	< 0.2 U	< 0.1 UJ	NA	NC
MOLYBDENUM	NA	91.9	78.8	86.4	NA	102	NA	180
NICKEL	NA	1.4 J	1.9 J	< 1.8 UJ	NA	6.6 J	NA	730
POTASSIUM	NA	33,800 J	NA	NA	NA	NA	NA	NC
SELENIUM	NA	< 1.4 UJ	< 2 U	< 2 U	NA	5.5 J	NA	180
SILVER	NA	< 0.43 U	< 0.55 U	< 0.55 U	NA	< 1.2 U	NA	180
SODIUM	NA	527,000	NA	NA	NA	NA	NA	NC
THALLIUM	NA	< 1.4 U	< 3 U	< 3 U	NA	< 6.5 UJ	NA	2.4
VANADIUM	NA	< 0.5 U	< 0.6 U	< 0.6 U	NA	10.2 J	NA	37
ZINC	NA	< 0.8 UJ	< 4.6 UJ	< 7.5 UJ	NA	131	NA	11,000
General Mineral								
CALCIUM	171,000	NA	190,000	189,000	226,000	307,000	NA	NC
IRON	299 J	NA	< 102 UJ	146 J	1,210	< 72.8 U	NA	11,000
MAGNESIUM	206,000	NA	241,000	239,000	253,000	282,000	NA	NC
POTASSIUM	62,400	NA	63,200	65,400	66,100 J	61,000	NA	NC
SODIUM	838,000	NA	919,000	872,000	976,000	958,000	NA	NC

TABLE 7-3: ANALYTICAL RESULTS FOR IRP SITE 09 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW05	S09MW05	S09MW05	S09MW05	S09MW05	S09MW05	S09MW06	
Sample ID	08797052203GD	08797052203GD	08797102452S	08797102453S	08798012338D	08798041049W	123-S09-134	EPA Tap Water PRGs
Sample Date	05/22/97	05/22/97	10/24/97	10/24/97	01/23/98	04/10/98	05/26/93	
Dioxin (NG/L)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 7-3: ANALYTICAL RESULTS FOR IRP SITE 09 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW06	S09MW06	S09MW06	S09MW06	S09MW06	S09MW06	S09MW06	
Sample ID	123-S09-135	123-S09-136	123-S09-137	123-S09-138	123-S09-192	08797050803BJ	08797050803BJ	EPA Tap Water PRGs
Sample Date	08/23/93	11/23/93	11/23/93	02/18/94	04/28/94	05/08/97	05/08/97	
Volatile Organic Compounds (µg/L)								
1,1,1-TRICHLOROETHANE	< 1 U	1 J	< 1 U	< 1 U	NA	< 10 U	NA	3,200
1,1-DICHLOROETHANE	< 1 U	< 1 U	< 1 U	< 1 U	NA	< 10 U	NA	2.0
1,1-DICHLOROETHENE	< 1 U	< 1 U	< 1 U	< 1 U	NA	< 10 U	NA	340
1,2-DICHLOROETHANE	**3**	**8 J**	**7 J**	**6 J**	NA	< 10 U	NA	0.12
1,2-DICHLOROETHENE (TOTAL)	< 1 U	< 1 U	< 1 U	< 1 U	NA	< 10 U	NA	NC
ACETONE	< 2 U	2 R	2 R	< 14 U	NA	< 10 UJ	NA	5,500
BENZENE	< 1 U	< 1 U	< 1 U	< 1 U	NA	< 10 U	NA	0.35
CARBON DISULFIDE	< 1 U	< 1 U	< 1 U	< 1 U	NA	< 10 U	NA	1,000
CARBON TETRACHLORIDE	< 0.5 U	< 0.5 U	**2 J**	< 0.5 U	NA	< 10 U	NA	0.17
CHLOROBENZENE	< 1 U	< 1 U	< 1 U	< 1 U	NA	< 10 U	NA	110
CHLOROFORM	< 1 U	**1 J**	**7 J**	< 1 U	NA	< 10 U	NA	0.17
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	61
ETHYLBENZENE	< 1 U	< 1 U	< 1 U	< 1 U	NA	< 10 U	NA	1,300
METHYL TERTIARY BUTYLETHER	NA	NA	NA	NA	NA	< 10 U	NA	6.2
TOLUENE	< 1 U	< 1 U	< 1 U	< 1 U	NA	< 10 U	NA	720
TRANS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	120
TRICHLOROETHENE	< 1 U	< 1 U	< 1 U	< 1 U	NA	< 10 U	NA	0.028
VINYL CHLORIDE	< 0.7 U	< 0.5 U	< 0.5 U	< 0.5 U	NA	< 10 U	NA	0.020
XYLENE (TOTAL)	< 1 U	< 1 U	< 1 U	< 1 U	NA	< 10 U	NA	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	NA	NA	NA	1.16 Y	< 0.1 UJ	NA	NC
Gasoline Range (purgeables)								
None Detected	NA	NA	NA	NA	ND	ND	NA	NC
Semivolatile Organic Compounds (µg/L)								
2-METHYLNAPHTHALENE	1 J	< 40 U	< 10 U	< 10 U	NA	< 10 U	NA	NC
ACENAPHTHENE	< 10 U	< 40 U	< 10 U	< 10 U	NA	< 10 U	NA	370
ANTHRACENE	< 10 U	< 40 U	< 10 U	< 10 U	NA	< 10 U	NA	1,800
BENZO(A)ANTHRACENE	< 10 U	< 40 U	< 10 U	< 10 U	NA	< 10 U	NA	0.092
BENZO(A)PYRENE	< 10 U	< 40 U	< 10 U	< 10 U	NA	< 10 U	NA	0.0092
BENZO(B)FLUORANTHENE	< 10 U	< 40 U	< 10 U	< 10 U	NA	< 10 UJ	NA	0.092
DIBENZOFURAN	< 10 U	< 40 U	< 10 U	< 10 U	NA	< 10 U	NA	12

TABLE 7-3: ANALYTICAL RESULTS FOR IRP SITE 09 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW06	S09MW06	S09MW06	S09MW06	S09MW06	S09MW06	S09MW06	
Sample ID	123-S09-135	123-S09-136	123-S09-137	123-S09-138	123-S09-192	08797050803BJ	08797050803BJ	EPA Tap Water PRGs
Sample Date	08/23/93	11/23/93	11/23/93	02/18/94	04/28/94	05/08/97	05/08/97	
Semivolatile Organic Compounds (µg/L)								
FLUORANTHENE	< 10 U	< 40 U	< 10 U	< 10 U	NA	< 10 U	NA	1,500
PYRENE	< 10 U	< 40 U	< 10 U	< 10 U	NA	< 10 U	NA	180
PCBs/Pesticides (µg/L)								
4,4'-DDD	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	NA	NA	NA	0.28
ALPHA-CHLORDANE	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	NA	NA	NA	NC
ENDRIN ALDEHYDE	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	NA	NA	NA	NC
GAMMA-CHLORDANE	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	NA	NA	NA	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	222 J	< 100 U	< 100 U	< 30.1 U	NA	365 J	NA	36,000
ANTIMONY	**68.4**	< 50 U	< 50 U	< 2 U	NA	1.4 R	NA	15
ARSENIC	< 2 UJ	< 20 UJ	< 20 UJ	**2.4**	NA	**5.4**	NA	0.045
BARIUM	< 100 U	< 100 UJ	< 100 UJ	21.5	NA	61.4 J	NA	2,600
BERYLLIUM	< 2 U	< 2 U	< 2 U	1.3	NA	< 0.1 UJ	NA	73
CADMIUM	< 4 U	< 4 U	< 4 U	< 2.9 U	NA	< 0.49 UJ	NA	18
CALCIUM	595,000 J	536,000	551,000	555,000	NA	552,000	NA	NC
CHROMIUM	< 5 U	6.8	8	7.4	NA	< 0.27 UJ	NA	NC
COBALT	< 10 U	< 10 U	< 10 U	< 3.3 U	NA	2.5 J	NA	730
COPPER	< 10 U	27.2	26.9	< 3.3 U	NA	3.8 J	NA	1,500
IRON	5,570	**12,700**	10,900	**16,800**	NA	**15,300 J**	NA	11,000
LEAD	2 R	< 20 UJ	< 20 UJ	< 15 U	NA	8.4 J	NA	NC
MAGNESIUM	681,000	922,000	955,000	1,180,000	NA	1,010,000	NA	NC
MANGANESE	**2,270 J**	**1,630 J**	**1,620 J**	**1,650**	NA	**1,660**	NA	880
MOLYBDENUM	NA	68.3	72.7	71	NA	91.7	NA	180
NICKEL	22.4	< 20 U	< 20 U	13.2	NA	13.6	NA	730
POTASSIUM	62,800	104,000	107,000	128,000	NA	140,000 J	NA	NC
SELENIUM	10 R	3 R	3 R	< 2 UJ	NA	8.3	NA	180
SILVER	< 5 U	< 6 U	< 6 U	< 5.3 U	NA	1.6 J	NA	180
SODIUM	2,620,000	431,000 J	4,500,000 J	5,740,000	NA	4,990,000	NA	NC
THALLIUM	< 15 UJ	< 20 UJ	< 20 UJ	< 40 U	NA	< 1.4 UJ	NA	2.4
VANADIUM	**61.3**	< 10 U	< 10 U	< 3.8 U	NA	3.4 J	NA	37
ZINC	21.9	< 10 U	< 10 U	30	NA	25.9 J	NA	11,000

TABLE 7-3: ANALYTICAL RESULTS FOR IRP SITE 09 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW06	S09MW06	S09MW06	S09MW06	S09MW06	S09MW06	S09MW06	
Sample ID	123-S09-135	123-S09-136	123-S09-137	123-S09-138	123-S09-192	08797050803BJ	08797050803BJ	EPA Tap Water PRGs
Sample Date	08/23/93	11/23/93	11/23/93	02/18/94	04/28/94	05/08/97	05/08/97	
Metals (µg/L)								
FIltered								
ALUMINUM	NA	NA	NA	NA	NA	NA	< 21.4 UJ	36,000
ANTIMONY	NA	NA	NA	NA	NA	NA	< 1.2 U	15
ARSENIC	NA	NA	NA	NA	NA	NA	**10.5**	0.045
BARIUM	NA	NA	NA	NA	NA	NA	48.8 J	2,600
BERYLLIUM	NA	NA	NA	NA	NA	NA	< 0.07 U	73
CADMIUM	NA	NA	NA	NA	NA	NA	< 0.45 UJ	18
CALCIUM	NA	NA	NA	NA	NA	NA	548,000	NC
CHROMIUM	NA	NA	NA	NA	NA	NA	1.5 J	NC
COBALT	NA	NA	NA	NA	NA	NA	3.6 J	730
COPPER	NA	NA	NA	NA	NA	NA	3.9 J	1,500
IRON	NA	NA	NA	NA	NA	NA	**12,400 J**	11,000
LEAD	NA	NA	NA	NA	NA	NA	< 0.63 U	NC
MAGNESIUM	NA	NA	NA	NA	NA	NA	1,020,000	NC
MANGANESE	NA	NA	NA	NA	NA	NA	**1,490 J**	880
MERCURY	NA	NA	NA	NA	NA	NA	< 0.1 U	NC
MOLYBDENUM	NA	NA	NA	NA	NA	NA	92.2 J	180
NICKEL	NA	NA	NA	NA	NA	NA	11.8 J	730
POTASSIUM	NA	NA	NA	NA	NA	NA	143,000 J	NC
SELENIUM	NA	NA	NA	NA	NA	NA	2.5	180
SILVER	NA	NA	NA	NA	NA	NA	1 J	180
SODIUM	NA	NA	NA	NA	NA	NA	4,750,000 J	NC
THALLIUM	NA	NA	NA	NA	NA	NA	**2.8 J**	2.4
VANADIUM	NA	NA	NA	NA	NA	NA	1.3 J	37
ZINC	NA	NA	NA	NA	NA	NA	12.8	11,000
General Mineral								
CALCIUM	NA	NA	NA	NA	NA	560,000	NA	NC
IRON	NA	NA	NA	NA	NA	448 J	NA	11,000
MAGNESIUM	NA	NA	NA	NA	NA	980,000	NA	NC
POTASSIUM	NA	NA	NA	NA	NA	157,000 J	NA	NC
SODIUM	NA	NA	NA	NA	NA	7,050,000 J	NA	NC

TABLE 7-3: ANALYTICAL RESULTS FOR IRP SITE 09 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW06	S09MW06	S09MW06	S09MW06	S09MW06	S09MW06	S09MW06	
Sample ID	123-S09-135	123-S09-136	123-S09-137	123-S09-138	123-S09-192	08797050803BJ	08797050803BJ	EPA Tap Water PRGs
Sample Date	08/23/93	11/23/93	11/23/93	02/18/94	04/28/94	05/08/97	05/08/97	
Dioxin (NG/L)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 7-3: ANALYTICAL RESULTS FOR IRP SITE 09 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW06	S09MW06	S09MW06	S09MW06	S09MW06	
Sample ID	08797050804BJ	08797050804BJ	08797101717S	08798012339D	08798040837W	EPA Tap Water PRGs
Sample Date	05/08/97	05/08/97	10/17/97	01/23/98	04/08/98	
Volatile Organic Compounds (µg/L)						
1,1,1-TRICHLOROETHANE	< 10 U	NA	< 1 U	< 1 U	< 1 U	3,200
1,1-DICHLOROETHANE	< 10 U	NA	< 1 U	< 1 U	< 1 U	2.0
1,1-DICHLOROETHENE	< 10 U	NA	< 1 U	< 1 U	< 1 U	340
1,2-DICHLOROETHANE	< 10 U	NA	**3**	**3**	**2**	0.12
1,2-DICHLOROETHENE (TOTAL)	< 10 U	NA	NA	NA	NA	NC
ACETONE	< 10 UJ	NA	1 R	8	8	5,500
BENZENE	< 10 U	NA	< 0.5 U	< 0.5 U	< 0.5 U	0.35
CARBON DISULFIDE	< 10 U	NA	< 1 U	< 1 U	< 1 U	1,000
CARBON TETRACHLORIDE	< 10 U	NA	< 0.5 U	< 0.5 U	< 0.5 U	0.17
CHLOROBENZENE	< 10 U	NA	< 1 U	< 1 U	< 1 U	110
CHLOROFORM	< 10 U	NA	< 1 U	< 1 U	< 1 U	0.17
CIS-1,2-DICHLOROETHENE	NA	NA	< 1 U	< 1 U	< 1 U	61
ETHYLBENZENE	< 10 U	NA	< 1 U	< 1 U	< 1 U	1,300
METHYL TERTIARY BUTYLETHER	< 10 U	NA	< 1 U	< 1 U	< 1 U	6.2
TOLUENE	< 10 U	NA	< 1 U	< 1 U	0.6 J	720
TRANS-1,2-DICHLOROETHENE	NA	NA	< 1 U	< 1 U	< 1 U	120
TRICHLOROETHENE	< 10 U	NA	< 1 U	< 1 U	< 1 U	0.028
VINYL CHLORIDE	< 10 U	NA	< 0.5 U	< 0.5 U	< 0.5 U	0.020
XYLENE (TOTAL)	< 10 U	NA	< 1 U	< 1 U	< 1 U	210
Petroleum Hydrocarbons (mg/L)						
Diesel/Motor Oil Range (extractables)						
DIESEL RANGE ORGANICS	< 0.1 UJ	NA	< 0.1 U	0.4 Z	0.8 Y	NC
Gasoline Range (purgeables)						
None Detected	ND	NA	ND	ND	ND	NC
Semivolatile Organic Compounds (µg/L)						
2-METHYLNAPHTHALENE	< 10 U	NA	< 10 U	< 10 U	< 10 U	NC
ACENAPHTHENE	< 10 U	NA	< 10 U	< 10 U	< 10 U	370
ANTHRACENE	< 10 U	NA	< 10 U	< 10 U	< 10 U	1,800
BENZO(A)ANTHRACENE	< 10 U	NA	< 10 U	< 10 U	< 10 U	0.092
BENZO(A)PYRENE	< 10 U	NA	< 10 U	< 10 U	< 10 U	0.0092
BENZO(B)FLUORANTHENE	< 10 U	NA	< 10 U	< 10 U	< 10 U	0.092
DIBENZOFURAN	< 10 U	NA	< 10 U	< 10 U	< 10 U	12

TABLE 7-3: ANALYTICAL RESULTS FOR IRP SITE 09 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW06	S09MW06	S09MW06	S09MW06	S09MW06	
Sample ID	08797050804BJ	08797050804BJ	08797101717S	08798012339D	08798040837W	EPA Tap Water PRGs
Sample Date	05/08/97	05/08/97	10/17/97	01/23/98	04/08/98	
Semivolatile Organic Compounds (µg/L)						
FLUORANTHENE	< 10 U	NA	< 10 U	< 10 U	< 10 U	1,500
PYRENE	< 10 U	NA	< 10 U	< 10 U	< 10 U	180
PCBs/Pesticides (µg/L)						
4,4'-DDD	NA	NA	NA	NA	NA	0.28
ALPHA-CHLORDANE	NA	NA	NA	NA	NA	NC
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NC
GAMMA-CHLORDANE	NA	NA	NA	NA	NA	NC
Metals (µg/L)						
Unfiltered						
ALUMINUM	389 J	NA	NA	< 6.2 U	NA	36,000
ANTIMONY	1.4 R	NA	NA	< 1.8 U	NA	15
ARSENIC	**5.9**	NA	NA	**5.9**	NA	0.045
BARIUM	62.6 J	NA	NA	59.2	NA	2,600
BERYLLIUM	< 0.11 UJ	NA	NA	< 0.05 U	NA	73
CADMIUM	< 0.65 UJ	NA	NA	0.47	NA	18
CALCIUM	562,000	NA	NA	NA	NA	NC
CHROMIUM	< 0.27 UJ	NA	NA	1.3	NA	NC
COBALT	2.9 J	NA	NA	1.7	NA	730
COPPER	3.2 J	NA	NA	1.6	NA	1,500
IRON	**15,300 J**	NA	NA	NA	NA	11,000
LEAD	2 J	NA	NA	< 0.9 U	NA	NC
MAGNESIUM	966,000	NA	NA	NA	NA	NC
MANGANESE	**1,680**	NA	NA	**1,640**	NA	880
MOLYBDENUM	92.6	NA	NA	90	NA	180
NICKEL	13 J	NA	NA	9.1	NA	730
POTASSIUM	133,000 J	NA	NA	NA	NA	NC
SELENIUM	< 3.5 UJ	NA	NA	< 5.3 U	NA	180
SILVER	< 0.43 U	NA	NA	2.1	NA	180
SODIUM	4,330,000	NA	NA	NA	NA	NC
THALLIUM	< 1.4 UJ	NA	NA	< 3.2 U	NA	2.4
VANADIUM	2.2 J	NA	NA	< 0.8 U	NA	37
ZINC	22.8 J	NA	NA	16.5	NA	11,000

TABLE 7-3: ANALYTICAL RESULTS FOR IRP SITE 09 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW06	S09MW06	S09MW06	S09MW06	S09MW06	
Sample ID	08797050804BJ	08797050804BJ	08797101717S	08798012339D	08798040837W	EPA Tap Water PRGs
Sample Date	05/08/97	05/08/97	10/17/97	01/23/98	04/08/98	
Metals (µg/L)						
FIltered						
ALUMINUM	NA	< 13.5 UJ	< 11 U	NA	< 4 U	36,000
ANTIMONY	NA	< 1.2 U	< 1.4 U	NA	< 8.3 UJ	15
ARSENIC	NA	**8**	< 9 UJ	NA	**7.5**	0.045
BARIUM	NA	52 J	52.4 J	NA	267	2,600
BERYLLIUM	NA	< 0.07 U	< 0.05 U	NA	< 0.05 U	73
CADMIUM	NA	< 0.58 UJ	< 0.2 U	NA	< 0.15 U	18
CALCIUM	NA	274,000	NA	NA	NA	NC
CHROMIUM	NA	0.81 J	< 0.97 UJ	NA	< 0.45 U	NC
COBALT	NA	3 J	2.2 J	NA	0.92 J	730
COPPER	NA	< 2.2 UJ	0.89 J	NA	0.92 J	1,500
IRON	NA	**13,100 J**	NA	NA	NA	11,000
LEAD	NA	< 0.63 U	< 0.85 U	NA	< 0.9 U	NC
MAGNESIUM	NA	1,090,000	NA	NA	NA	NC
MANGANESE	NA	**1,580 J**	**1,800**	NA	841	880
MERCURY	NA	< 0.1 U	0.2 J	< 0.2 U	0.1 J	NC
MOLYBDENUM	NA	95.4 J	105	NA	126	180
NICKEL	NA	12 J	17.6 J	NA	28.7	730
POTASSIUM	NA	151,000 J	NA	NA	NA	NC
SELENIUM	NA	2.8	5.8	NA	4.7 J	180
SILVER	NA	0.51 J	< 0.79 UJ	NA	< 0.65 U	180
SODIUM	NA	5,010,000 J	NA	NA	NA	NC
THALLIUM	NA	**3.4**	< 3 U	NA	< 3.4 U	2.4
VANADIUM	NA	< 0.57 U	< 0.6 U	NA	< 0.75 U	37
ZINC	NA	28.6	< 16.4 UJ	NA	148	11,000
General Mineral						
CALCIUM	562,000	NA	616,000	616,000	436,000	NC
IRON	369 J	NA	2,400 J	2,700	< 260 UJ	11,000
MAGNESIUM	1,030,000	NA	1,080,000	980,000	684,000	NC
POTASSIUM	152,000 J	NA	169,000 J	140,000 J	114,000	NC
SODIUM	3,500,000 J	NA	5,480,000	4,330,000	3,660,000	NC

TABLE 7-3: ANALYTICAL RESULTS FOR IRP SITE 09 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S09MW06	S09MW06	S09MW06	S09MW06	S09MW06	
Sample ID	08797050804BJ	08797050804BJ	08797101717S	08798012339D	08798040837W	EPA Tap Water PRGs
Sample Date	05/08/97	05/08/97	10/17/97	01/23/98	04/08/98	
Dioxin (NG/L)						
None Detected	NA	NA	NA	NA	NA	NC

Notes: Categories of analyses are shown, but only detected compounds are presented. Analyte results in boldface type exceed EPA tap water PRGs.

D	Chromatographic pattern resembles diesel.
ID	Identification
J	Estimated value
mg/L	Milligrams per liter
NA	Not analyzed
NC	No criteria
ND	None detected
PRG	Preliminary remediation goals
R	Result rejected during quality assurance review.
TPH	Total petroleum hydrocarbons
U	Nondetected
Y	Chromatographic pattern resembles hydrocarbon fuel pattern and was quantitated using the standard it resembled most.
Z	Chromatographic pattern does not resemble TPH fuel pattern (individual peaks).
µg/L	Micrograms per liter

8.0 IRP SITE 10 – CONSTRUCTION EQUIPMENT DEPARTMENT WASHRACK

This section provides the site background and description for IRP Site 10; summarizes the previous investigations, activities, and existing data; and discusses data gap findings and strategies for eliminating data gaps at IRP Site 10.

8.1 SITE BACKGROUND

The following sections discuss the site background for IRP Site 10, including a general site description, discussion of previous and current site activities, and a summary of previous investigations that have been completed at the site.

8.1.1 Site Description

IRP Site 10, the Construction Equipment Department (CED) Wash Rack site, encompasses over 2 acres. The site is flat, mostly unpaved, and located southeast of Building 1340 (Figure 8-1). The ground surface at IRP Site 10 has been compacted by vehicular traffic. Most of the site is used to store various types of equipment, including vehicles, cargo containers, and roll-off bins containing sandblast grit. The CED Wash Rack is located at the northwestern boundary of the site. The western side of the site is bounded by a high wall of stacked storage containers. This wall forms the back portion of a sandblasting area further west. Sandblast grit was present on the ground surface east of the wall during the fieldwork. Lehman Ditch is approximately 100 feet south of the site, and Pennsylvania Ditch lies approximately 400 feet east of the site (PRC and Montgomery Watson 1996).

8.1.2 Site Activities

From 1959 until the early 1980s, sludge that collected in an oil-water separator and sediment trap was pumped to an unpaved soil area southeast of Building 1340. The sludge was a by-product of vehicle washing activities at the CED, and contained mud, trichloroethene, trichloroacetic acid, oil, grease, detergents, and solvents. Water from the wash rack was discharged to Lehman Ditch via a corrugated metal drainage pipe. According to CED personnel, wastewater flowed to the sanitary sewer system (PRC and Montgomery Watson 1996).

8.1.3 Previous Investigations

Previous investigations that have been completed at IRP Site 10 include an IAS (SCS and Landau Associates 1985), a reconnaissance-level soil sampling investigation (Leedshill-Herkenhoff 1990), a final SI (PRC and Montgomery Watson 1996), a basewide groundwater investigation (Tetra Tech and LFR 2001), and a revised BHHRA (Bechtel 2002a).

8.1.3.1 Initial Assessment Study (SCS and Landau Associates 1985)

The IAS study suggested that approximately 95 percent of the sludge residues disposed of at IRP Site 10 were degraded. However, surface runoff could have carried contaminants from this area directly into Lehman Ditch, or to storm drains leading to Lehman Ditch and eventually Hueneme Harbor.

8.1.3.2 Reconnaissance-Level Soil Sampling Investigation (Leedshill-Herkenhoff 1990)

Two sediment samples were collected in July 1990 during a reconnaissance-level soil sampling investigation. The samples were collected from Lehman Ditch near IRP Sites 10 and 11. They were analyzed for TPH as gasoline and diesel, PCBs, hexavalent chromium, and 13 priority pollutant metals. Sample GS10, located upstream of the former wash rack discharge line, contained 178 mg/kg of TPH as diesel; no TPH as gasoline was detected. Sample GS11, believed to be downstream of the former discharge line, contained TPH as gasoline at 1,100 mg/kg and TPH as diesel at 7,000 mg/kg. Neither sample had detectable concentrations of PCBs.

8.1.3.3 Final Site Inspection Report (PRC and Montgomery Watson 1996)

Between April and November 1993, nine soil borings (S10-B01 through S10-B09) and one monitoring well (S10MW01) were drilled and sampled (Figure 8-1). Soil borings S10-B1 through S10-B7 were located within the presumed area of sludge disposal to access soil contamination due to sludge disposal at the site. Boring S10-B08 was located next to the wash rack, and S10-B09 was placed near the presumed location of the former wash rack drainage line. Soil samples were collected at 0.5 feet and 3.0 feet bgs from all borings. Samples were analyzed for VOCs, SVOCs, TPH-p and TPH-e, metals, and total phosphorus. Groundwater samples were collected from monitoring well S10MW01 in July/August and November 1993, and analyzed for VOCs, SVOCs, TPH-p and TPH-e, pesticides/PCBs, metals, and total phosphorus. Geotechnical soil samples were collected in well S10MW01 at depths of 2.0 to 3.0 and 6.0 to 7.0 feet bgs, and a slug test was conducted in the well to estimate local hydraulic conductivity. Three sediment samples (S10-G1 through S10-G3) were also collected from Lehman Ditch to further evaluate potential of off-site migration to the ditch. The samples were collected from depths of 0.0 to 0.5 feet bgs. The samples were analyzed for VOCs, SVOCs, TPH-p and TPH-e, metals, and total phosphorus. Analytical results for these samples were not available and are not included in the analytical results tables.

During the SI, a BHHRA was completed for the site because results of an initial human health risk screening evaluation had exceeded screening level criteria. Samples were screened against EPA PRGs, MCLs, and NAWQC; background metal concentrations for CBC Port Hueneme (Appendix B); and STLCs for metals. However, the BHHRA was limited to potential soil exposures. The exposure pathways evaluated included ingestion of soil, dermal contact with soil, and inhalation of VOCs and particulates released to outdoor air from soil. COCs identified in the BHHRA included PAHs (benzo(a) pyrene), metals (beryllium), and n-nitroso-di-n-

propylamine. Results of the BHHRA for soil indicated that the RME cancer risks for both industrial and hypothetical residential exposures were within the EPA risk management range of 1×10^{-4} to 1×10^{-6}. The HIs were below the threshold value of 1.0. Based on the results of a BHHRA completed for the site no further action was recommended for IRP Site 10.

8.1.3.4 Draft Groundwater Remedial Investigation Report (Tetra Tech and LFR 2001)

From 1997 to 2001, a basewide RI was completed to evaluate the condition of the groundwater and surface water at CBC Port Hueneme. During the investigation, groundwater samples were collected from monitoring well S10MW01 in January and April 1998 (Figure 8-1). The samples were analyzed for metals, VOCs, SVOCs, TPH-p and TPH-e, TDS, and geochemical properties such as salinity, anions, cations, alkalinity, hardness, and pH.

Chemical concentrations in groundwater were screened against NAWQC for the protection of saltwater aquatic life and MCLs. If concentrations of an organic compound exceeded the NAWQC and/or MCL in at least one sampling round at a given location, that compound was considered a COPEC and/or COPC, respectively, at that location. If concentrations of an inorganic compound exceeded the NAWQC and/or MCL in more than one sampling at a given location, that compound was considered a COPEC and/or a COPC, respectively, at that location. Inorganics were screened differently because they often occur naturally. No COPECs or COPCs were identified for the samples collected from the IRP Site 10 monitoring well. No further evaluation of groundwater within the Semi-Perched Aquifer was recommended for IRP Site 10.

Following submittal of the draft basewide groundwater investigation report, and review of the groundwater model, DTSC requested that additional site-specific groundwater data be collected (if necessary) and site-specific groundwater data be evaluated to adequately characterize the site.

8.1.3.5 Risk Assessment Technical Memorandum (Bechtel 2002a)

In 2002, Bechtel revised the BHHRA completed during the SI for IRP Site 10. The BBHRA was revised to address DTSC comments, dated July 28, 1995, regarding the methodology used in SI to identify metals as COPCs. Bechtel revised the BHHRA to incorporate DTSCs suggested methodology for identifying metals as COPCs. The revisions did not change the cancer risk estimates for the industrial or hypothetical residential exposure scenarios. The revised noncancer HI increased slightly for IRP Site 10. Bechtel concluded that the results of the revised risk calculations did not significantly change the cancer risk or noncancer HI for IRP Site 10. The estimated cancer risks for the industrial or hypothetical residential scenarios at the site were still within the EPA risk management range of 1×10^{-4} to 1×10^{-6}, and the noncancer HIs were still less than 1.0.

8.2 COMPILATION OF EXISTING SITE DATA

Available data, typically that collected after 1993, has been compiled and tabulated for use in identifying data gaps and additional site activities required to obtain site closure. The available data were screened against the EPA residential soil and tap water PRGs. Additional data may be available in previous reports prepared for this site. Dependent upon the site activities identified to obtain site closure, this data may also be reviewed to determine if it is suitable for use in additional evaluations.

Table 8-1 summarizes the samples collected at IRP Site 10. Table 8-2 includes the soil analytical data for IRP Site 10, and Figure 8-2 shows the concentrations of constituents in soil samples detected above screening criteria. Table 8-3 includes the groundwater analytical data for IRP Site 10, and Figure 8-3 shows the concentrations of constituents in groundwater samples that exceed screening criteria.

8.3 DATA GAPS

For this SMP, the previous investigations and collected data for IRP Site 10 were reviewed to verify that sufficient information is available to support the final actions and documentation needed to close the site. Identified data gaps and proposed actions to eliminate those data gaps are discussed below.

8.3.1 Soil Data Gaps

Based on a review of the existing soil data for the site, the number of soil samples previously collected is sufficient for use to further evaluate the environmental conditions at IRP Site 10. No additional soil borings or soil sampling is recommended for this site.

8.3.2 Groundwater Data Gaps

Only one groundwater monitoring well has been installed at IRP Site 10; therefore, site risk resulting from potential contaminants in the Semi-Perched Aquifer has not been adequately evaluated during the basewide groundwater investigation. Additional monitoring wells and groundwater sampling in both new and existing monitoring wells is required to assess groundwater conditions and support an HHRA and ERA.

8.3.3 Human Health Risk Assessment Data Gaps

Only soil exposures were evaluated in the revised 2002 BHHRA completed for IRP Site 10 (Bechtel 2002a). Potential risks from exposure to groundwater have not been evaluated for the site. Additional groundwater sampling is proposed at the site; therefore, existing and new soil data as well as existing and new groundwater data will be evaluated in a new HHRA. The HHRA will evaluate potential risks for exposure to both soil and groundwater at the site. The HHRA will use contemporary EPA, DTSC, and Navy risk assessment guidance to ensure that site soil and groundwater risk assessments are based on current methodology.

8.3.4 Ecological Risk Assessment Data Gaps

An ERA has not been completed for this site. A habitat survey of IRP Site 10 will be completed to determine if a viable habitat exists for ecological receptors.

8.4 STRATEGY FOR ELIMINATING DATA GAPS

To eliminate data gaps identified for IRP Site 10, two additional monitoring wells will be installed at IRP Site 10, one well upgradient (S10MW03) and one well downgradient (S10MW02) (Figure 8-4). Moreover, four additional quarters of groundwater samples should be collected from the existing (S10MW01) and proposed groundwater monitoring wells and analyzed for VOCs, SVOCs, TPH-p and TPH-e, pesticides/PCBs, and metals. The proposed monitoring well installations and groundwater sampling schemes for IRP Site 10 are as follows:

Well ID	Borehole Diameter (inches)	Well Diameter (inches)	Well Depth (feet bgs)	Screened Interval (feet bgs)	Up/Down Gradient	Estimated Water Level (feet bgs)
S10MW02	8.0	2.0	15	5-15	Down	7
S10MW03	8.0	2.0	15	5-15	Up	7

Well ID	Well Diameter (inches)	Well Depth (feet bgs)	Screened Interval (feet bgs)	Analyses
S10MW01	4.0	14	3.5-18.5	VOC, SVOC, TPH-purgeable, TPH-extractable, pesticides/PCB, metals
S10MW02	2.0	15	5-15	Same as above
S10MW03	2.0	15	5-15	Same as above

The new groundwater data will be compiled, combined with previously collected data presented in Tables 8-2 and 8-3, and evaluated for cumulative risk using EPA tap water PRGs. The data will be evaluated in an HHRA to identify site-specific risks to human health from soil and groundwater. In addition, a habitat survey of IRP Site 10 will be completed to determine if there is viable habitat for ecological receptors. If viable habitat does exist, a screening level ERA, based on surface soil data collected at the site, will be conducted. If there is evidence of burrowing animals at the site, the ERA may also include an evaluation of vapor exposure for these animals in their burrows. To establish whether a complete vapor exposure pathway exists for burrowing animals, the depth to the Semi-Perched Aquifer will also be considered in this analysis.

The results of these evaluations, as well as conclusions and recommendations for any additional site activities, will be presented in an RI report.

FIGURES

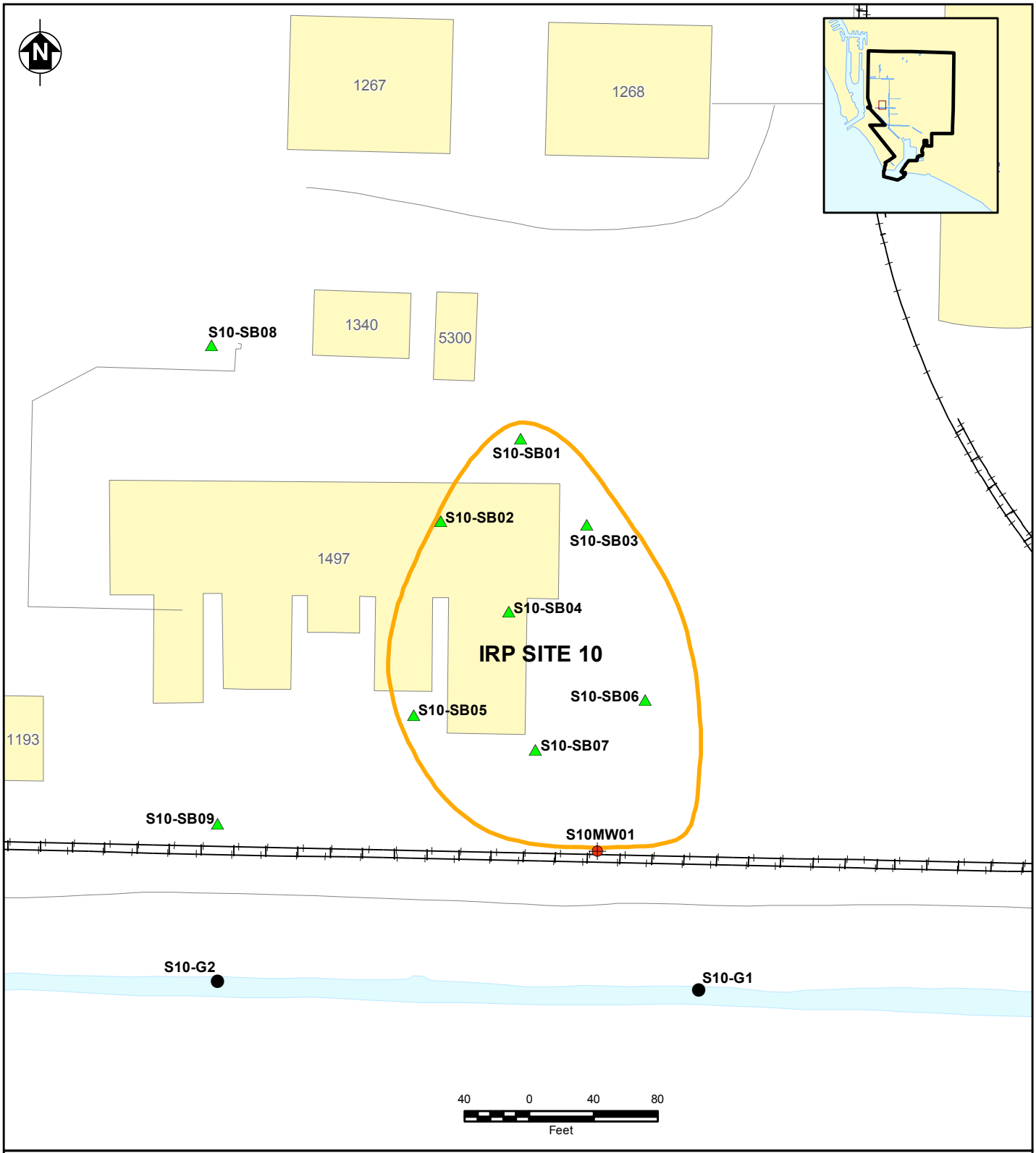


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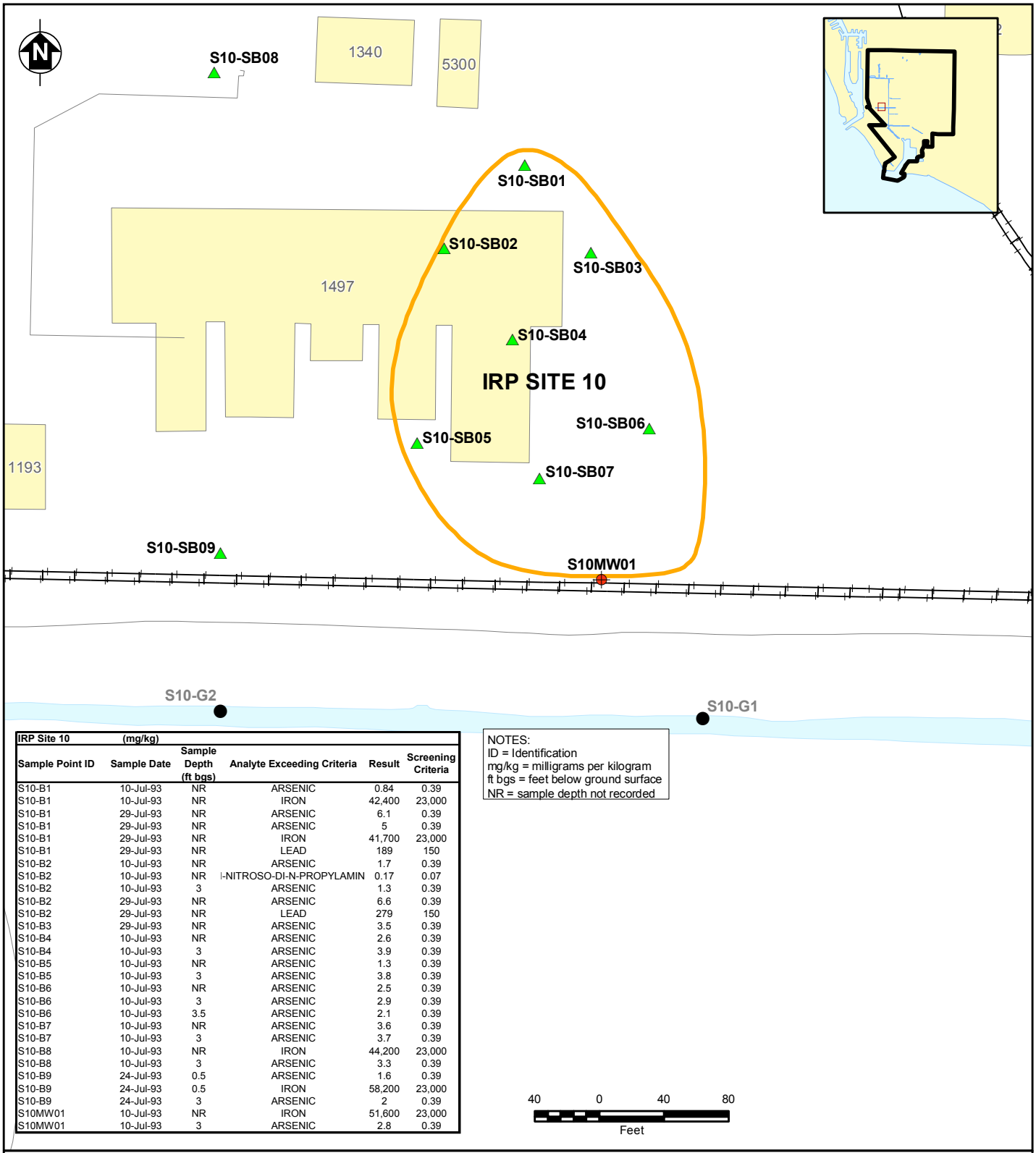
FIGURE 8-1
IRP SITE 10 - CED WASH RACK SITE MAP

Site Management Plan

fig8-1_PHFSMP_IRPsite10_sitemap_122304.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases



IRP Site 10	(mg/kg)				
Sample Point ID	Sample Date	Sample Depth (ft bgs)	Analyte Exceeding Criteria	Result	Screening Criteria
S10-B1	10-Jul-93	NR	ARSENIC	0.84	0.39
S10-B1	10-Jul-93	NR	IRON	42,400	23,000
S10-B1	29-Jul-93	NR	ARSENIC	6.1	0.39
S10-B1	29-Jul-93	NR	ARSENIC	5	0.39
S10-B1	29-Jul-93	NR	IRON	41,700	23,000
S10-B1	29-Jul-93	NR	LEAD	189	150
S10-B2	10-Jul-93	NR	ARSENIC	1.7	0.39
S10-B2	10-Jul-93	NR	I-NITROSO-DI-N-PROPYLAMIN	0.17	0.07
S10-B2	10-Jul-93	3	ARSENIC	1.3	0.39
S10-B2	29-Jul-93	NR	ARSENIC	6.6	0.39
S10-B2	29-Jul-93	NR	LEAD	279	150
S10-B3	29-Jul-93	NR	ARSENIC	3.5	0.39
S10-B4	10-Jul-93	NR	ARSENIC	2.6	0.39
S10-B4	10-Jul-93	3	ARSENIC	3.9	0.39
S10-B5	10-Jul-93	NR	ARSENIC	1.3	0.39
S10-B5	10-Jul-93	3	ARSENIC	3.8	0.39
S10-B6	10-Jul-93	NR	ARSENIC	2.5	0.39
S10-B6	10-Jul-93	3	ARSENIC	2.9	0.39
S10-B6	10-Jul-93	3.5	ARSENIC	2.1	0.39
S10-B7	10-Jul-93	NR	ARSENIC	3.6	0.39
S10-B7	10-Jul-93	3	ARSENIC	3.7	0.39
S10-B8	10-Jul-93	NR	IRON	44,200	23,000
S10-B8	10-Jul-93	3	ARSENIC	3.3	0.39
S10-B9	24-Jul-93	0.5	ARSENIC	1.6	0.39
S10-B9	24-Jul-93	0.5	IRON	58,200	23,000
S10-B9	24-Jul-93	3	ARSENIC	2	0.39
S10MW01	10-Jul-93	NR	IRON	51,600	23,000
S10MW01	10-Jul-93	3	ARSENIC	2.8	0.39

NOTES:
ID = Identification
mg/kg = milligrams per kilogram
ft bgs = feet below ground surface
NR = sample depth not recorded

SOIL BORING
MONITORING WELL
SEDIMENT SAMPLE
S10-SB01 SAMPLE EXCEEDING SCREENING CRITERIA IN BOLD

IRP SITE
RAILROAD
CURB
BUILDING

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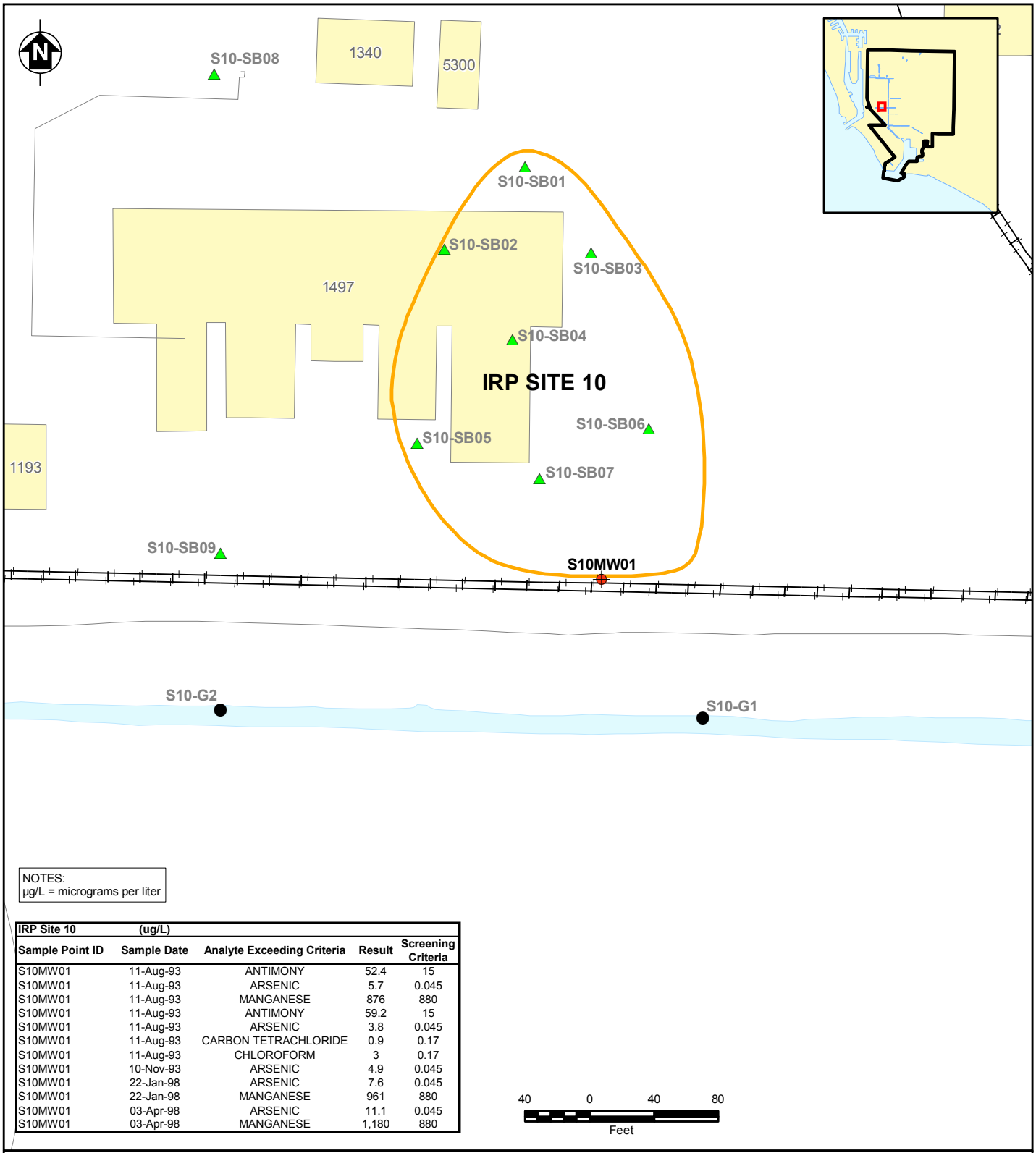
FIGURE 8-2
IRP SITE 10 - CED WASH RACK ANALYTES IN SOIL EXCEEDING SCREENING CRITERIA
Site Management Plan

fig8-2_PHFSMP_IRPsite10_soils_122304.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases



NOTES:
µg/L = micrograms per liter

IRP Site 10	(ug/L)			
Sample Point ID	Sample Date	Analyte Exceeding Criteria	Result	Screening Criteria
S10MW01	11-Aug-93	ANTIMONY	52.4	15
S10MW01	11-Aug-93	ARSENIC	5.7	0.045
S10MW01	11-Aug-93	MANGANESE	876	880
S10MW01	11-Aug-93	ANTIMONY	59.2	15
S10MW01	11-Aug-93	ARSENIC	3.8	0.045
S10MW01	11-Aug-93	CARBON TETRACHLORIDE	0.9	0.17
S10MW01	11-Aug-93	CHLOROFORM	3	0.17
S10MW01	10-Nov-93	ARSENIC	4.9	0.045
S10MW01	22-Jan-98	ARSENIC	7.6	0.045
S10MW01	22-Jan-98	MANGANESE	961	880
S10MW01	03-Apr-98	ARSENIC	11.1	0.045
S10MW01	03-Apr-98	MANGANESE	1,180	880

SOIL BORING
MONITORING WELL
SEDIMENT SAMPLE
S10MW01 SAMPLE EXCEEDING SCREENING CRITERIA IN BOLD

IRP SITE
RAILROAD
CURB
BUILDING

SulTech

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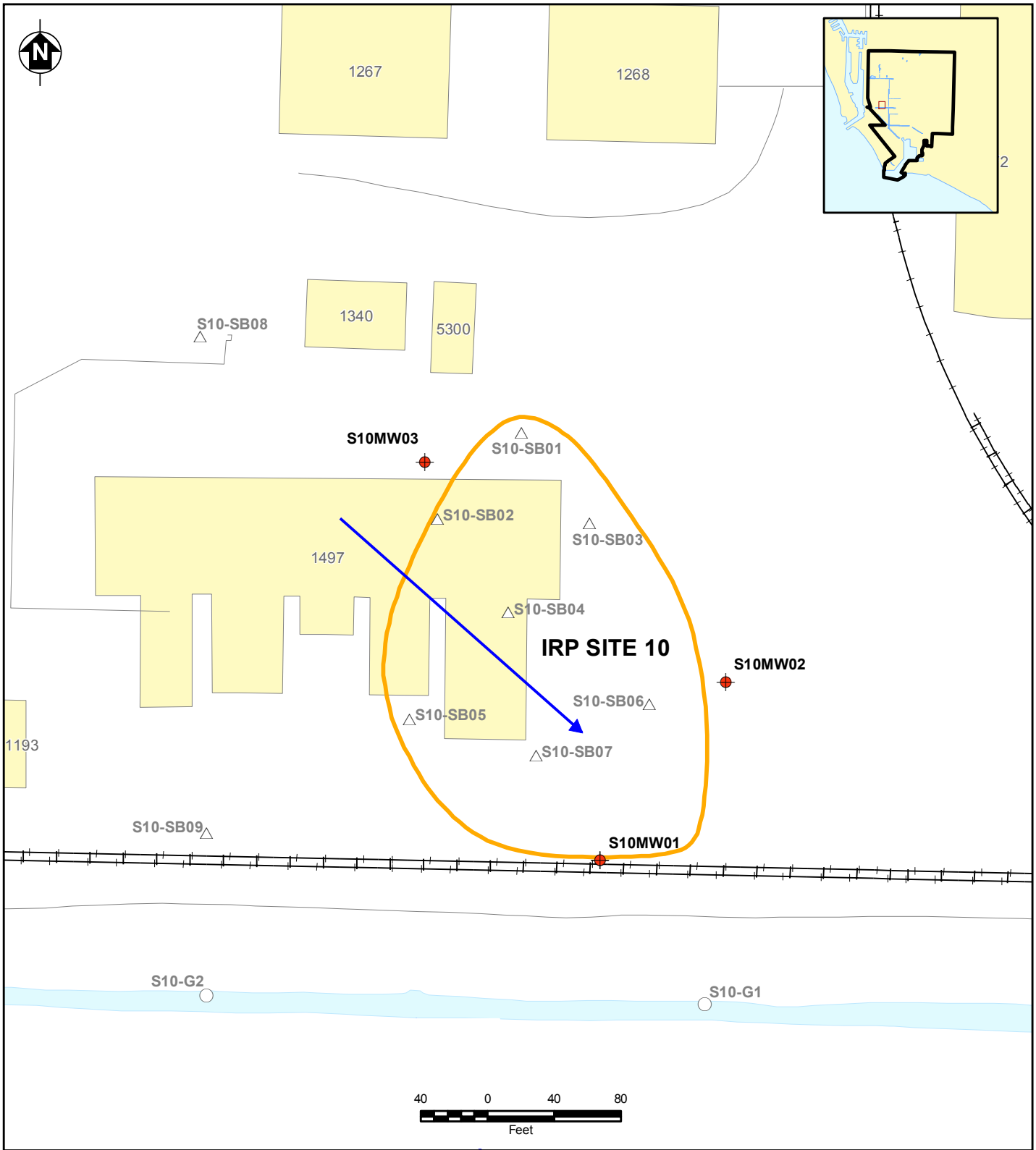
U.S. Navy, NFECSW, San Diego

FIGURE 8-3
IRP SITE 10 - CED WASH RACK ANALYTES IN GROUNDWATER EXCEEDING SCREENING CRITERIA

Site Management Plan

fig8-3_PHFSMP_IRPsite10_GW_010405.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases



PROPOSED SAMPLE LOCATIONS
In black text
MONITORING WELL
PREVIOUS SAMPLE LOCATIONS
In gray text
SOIL SAMPLE
SEDIMENT SAMPLE

IRP SITE
RAILROAD
CURB
GROUNDWATER FLOW
BUILDING

SulTech

CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 8-4
IRP SITE 10 - CED WASH RACK PROPOSED GROUNDWATER SAMPLING LOCATIONS
Site Management Plan

fig8_PHFSMP_IRPsite10_sitemap_122304.mxd TtEMI-HE Ed Madej
Data Source: SulTech GIS databases

TABLES

TABLE 8-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 10

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
234-S10-020	SEDIMENT	07/29/93	S10-G1	ORIG	0.00 - 0.00	✓	✓	✓	✓			✓					
234-S10-021	SEDIMENT	07/29/93	S10-G1	DUP	0.00 - 0.00	✓	✓	✓	✓			✓					
234-S10-022	SEDIMENT	07/29/93	S10-G2	ORIG	0.00 - 0.00	✓	✓	✓	✓			✓					
234-S10-023	SEDIMENT	07/29/93	S10-G3	ORIG	0.00 - 0.00	✓	✓	✓	✓			✓					
234-S10-001	SOIL	07/10/93	S10-B01	ORIG	0.00 - 0.00	✓	✓	✓	✓			✓					
234-S10-002	SOIL	07/10/93	S10-B01	ORIG	3.00 - 3.00	✓	✓	✓	✓			✓					
234-S10-003	SOIL	07/10/93	S10-B02	ORIG	0.00 - 0.00	✓	✓	✓	✓			✓					
234-S10-004	SOIL	07/10/93	S10-B02	ORIG	3.00 - 3.00	✓	✓	✓	✓			✓					
234-S10-005	SOIL	07/10/93	S10-B03	ORIG	0.00 - 0.00	✓	✓	✓	✓			✓					
234-S10-006	SOIL	07/10/93	S10-B03	ORIG	3.00 - 3.00	✓	✓	✓	✓			✓					
234-S10-007	SOIL	07/10/93	S10-B04	ORIG	0.00 - 0.00	✓	✓	✓	✓			✓					
234-S10-008	SOIL	07/10/93	S10-B04	ORIG	3.00 - 3.00	✓	✓	✓	✓			✓					
234-S10-009	SOIL	07/10/93	S10-B05	ORIG	0.00 - 0.00	✓	✓	✓	✓			✓					
234-S10-010	SOIL	07/10/93	S10-B05	ORIG	3.00 - 3.00	✓	✓	✓	✓			✓					
234-S10-011	SOIL	07/10/93	S10-B06	ORIG	0.00 - 0.00	✓	✓	✓	✓			✓					
234-S10-012	SOIL	07/10/93	S10-B06	DUP	3.00 - 3.00	✓	✓	✓	✓			✓					
234-S10-013	SOIL	07/10/93	S10-B06	ORIG	3.50 - 3.50	✓	✓	✓	✓			✓					
234-S10-018	SOIL	07/10/93	S10-B07	ORIG	0.00 - 0.00	✓	✓	✓	✓			✓					
234-S10-019	SOIL	07/10/93	S10-B07	ORIG	3.00 - 3.00	✓	✓	✓	✓			✓					
234-S10-016	SOIL	07/10/93	S10-B08	ORIG	0.00 - 0.00	✓	✓	✓	✓			✓					
234-S10-017	SOIL	07/10/93	S10-B08	ORIG	3.00 - 3.00	✓	✓	✓	✓			✓					
234-S10-039	SOIL	07/24/93	S10-B09	ORIG	0.50 - 0.50	✓	✓	✓	✓			✓					
234-S10-040	SOIL	07/24/93	S10-B09	ORIG	3.00 - 3.00	✓	✓	✓	✓			✓					
234-S10-014	SOIL	07/10/93	S10MW01	ORIG	0.00 - 0.00	✓	✓	✓	✓			✓					
234-S10-015	SOIL	07/10/93	S10MW01	ORIG	3.00 - 3.00	✓	✓	✓	✓			✓					

TABLE 8-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 10 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
234-S10-024	WATER	08/11/93	S10MW01	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
234-S10-025	WATER	08/11/93	S10MW01	DUP	NA	✓	✓	✓	✓	✓	✓	✓					
234-S10-026	WATER	11/10/93	S10MW01	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
08798012242M	WATER	01/22/98	S10MW01	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798040309J	WATER	04/03/98	S10MW01	ORIG	NA	✓	✓	✓	✓				✓	✓			
TOTAL						30	30	30	30	3	3	28	2	2	0	0	0

Notes:

DMETL	Metals (filtered)	ORGPB	Organic Lead	SVOC	Semivolatile organic compound
GMETL	General mineral	PCB	Polychlorinated biphenyls	TPH-e	Total petroleum hydrocarbons, extractables
METL	Metals (total - unfiltered)	PEST	Pesticides	TPH-p	Total petroleum hydrocarbons, purgeables
NA	Not applicable	PESTO	Organophosphorus pesticides	VOC	Volatile organic compound
				✓	Sample collected and analyzed; blank cell indicates no sample collected.

TABLE 8-2: ANALYTICAL RESULTS FOR IRP SITE 10 SOIL SAMPLES

Site Management Plan, CBC Port Hueneme

Sample Location ID	S10-B01	S10-B01	S10-B02	S10-B02	S10-B03	S10-B03	S10-B04	EPA Residential Soil PRGs
Sample ID	234-S10-001	234-S10-002	234-S10-003	234-S10-004	234-S10-005	234-S10-006	234-S10-007	
Sample Date	07/10/93	07/10/93	07/10/93	07/10/93	07/10/93	07/10/93	07/10/93	
Sample Depth	0.00 - 0.00	3.00 - 3.00	0.00 - 0.00	3.00 - 3.00	0.00 - 0.00	3.00 - 3.00	0.00 - 0.00	
Volatile Organic Compounds (mg/kg)								
None Detected	ND	ND	ND	ND	ND	ND	ND	NC
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	330 J	< 13 U	< 11 U	< 12 U	< 11 U	22 J	< 11 U	NC
MOTOR OIL RANGE ORGANICS	390 J	< 40 U	950	< 36 U	< 34 U	< 38 U	< 34 U	NC
OTHER COMPONENTS	NA	NA	NA	NA	NA	NA	NA	NC
TPH - MOTOR OIL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - NAVY SPECIAL FUEL OIL	550 J	< 13 U	< 11 U	< 12 U	< 11 U	29 J	< 11 U	NC
Gasoline Range (purgeables)								
None Detected	ND	ND	ND	ND	ND	ND	ND	NC
Semivolatile Organic Compounds (mg/kg)								
1,2-DICHLOROBENZENE	< 0.36 U	< 0.44 U	1.3	< 0.4 U	< 0.37 U	< 0.42 U	< 0.37 U	600
1,4-DICHLOROBENZENE	< 0.36 U	< 0.44 U	0.21	< 0.4 U	< 0.37 U	< 0.42 U	< 0.37 U	3.4
2-METHYLNAPHTHALENE	< 0.36 U	< 0.44 U	0.66	< 0.4 U	< 0.37 U	< 0.42 U	< 0.37 U	NC
ANTHRACENE	< 0.36 U	< 0.44 U	0.19	< 0.4 U	< 0.37 U	< 0.42 U	< 0.37 U	22,000
BENZO(A)ANTHRACENE	< 0.36 U	< 0.44 U	0.18	< 0.4 U	< 0.37 U	< 0.42 U	< 0.37 U	0.62
BENZO(B)FLUORANTHENE	< 0.36 U	< 0.44 U	< 2.8 U	< 0.4 U	< 0.37 U	< 0.42 U	0.025	0.62
BENZO(K)FLUORANTHENE	< 0.36 U	< 0.44 U	< 2.8 U	< 0.4 U	< 0.37 U	< 0.42 U	< 0.37 U	0.38 *
CARBAZOLE	< 0.36 U	< 0.44 U	< 2.8 U	< 0.4 U	< 0.37 U	< 0.42 U	< 0.37 U	24
CHRYSENE	< 0.36 U	< 0.44 U	< 2.8 U	< 0.4 U	< 0.37 U	< 0.42 U	0.02	3.8 *
FLUORANTHENE	< 0.36 U	< 0.44 U	0.17	< 0.4 U	< 0.37 U	< 0.42 U	0.023	2,300
N-NITROSO-DI-N-PROPYLAMINE	< 0.36 U	< 0.44 U	**0.17**	< 0.4 U	< 0.37 U	< 0.42 U	< 0.37 U	0.070
NAPHTHALENE	< 0.36 U	< 0.44 U	0.21	< 0.4 U	< 0.37 U	< 0.42 U	< 0.37 U	1.7 *
PENTACHLOROPHENOL	0.77	< 1.1 U	< 6.8 U	< 0.98 U	< 0.91 U	< 1 U	< 0.9 U	3.0
PHENANTHRENE	< 0.36 U	< 0.44 U	0.19	< 0.4 U	< 0.37 U	< 0.42 U	< 0.37 U	NC
PYRENE	0.019	< 0.44 U	0.21	< 0.4 U	< 0.37 U	< 0.42 U	0.047	2,300
Metals (mg/kg)								
ALUMINUM	16,400	5,800	8,980	5,160	9,850	10,100	7,150	76,000
ARSENIC	**0.84 J**	< 1.5 U	**1.7**	**1.3**	< 2.9 U	< 4.1 U	**2.6 J**	0.39
BARIUM	< 20.9 U	87.3	53.7	79.1	101	81.1	85.2	5,400
BERYLLIUM	1.4 J	< 0.51 U	0.47	0.57	0.81	0.76	0.82	150
CADMIUM	< 0.84 UJ	< 1 U	< 0.82 U	< 0.94 U	< 0.87 U	< 0.97 U	1.1	37 *

TABLE 8-2: ANALYTICAL RESULTS FOR IRP SITE 10 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S10-B01	S10-B01	S10-B02	S10-B02	S10-B03	S10-B03	S10-B04	EPA Residential Soil PRGs
Sample ID	234-S10-001	234-S10-002	234-S10-003	234-S10-004	234-S10-005	234-S10-006	234-S10-007	
Sample Date	07/10/93	07/10/93	07/10/93	07/10/93	07/10/93	07/10/93	07/10/93	
Sample Depth	0.00 - 0.00	3.00 - 3.00	0.00 - 0.00	3.00 - 3.00	0.00 - 0.00	3.00 - 3.00	0.00 - 0.00	
Metals (mg/kg)								
CALCIUM	< 11,300 U	< 18,400 U	23,500	9,780	10,300	31,300	< 6,400 U	NC
CHROMIUM	11.6	10.8	18.2	8.8	15.2	15.5	13.2	210
COBALT	20.6	6.9	8.3	4.2	7.3	6.2	7	900
COPPER	25.1	< 10.4 U	26.8	< 6.3 U	< 14.5 U	< 11.9 U	< 13 U	3,100
IRON	**42,400**	12,000	17,000	9,580	16,000	14,300	13,700	23,000
LEAD	1.5	3.7	75	3.4	5.4	8.5	4.7	150 *
MAGNESIUM	15,300	< 4,020 U	5,400	2,920	5,850	5,060	5,100	NC
MANGANESE	709	566	333 J	159 J	247 J	426 J	240	1,800
NICKEL	23.8	10.7	11.5	7.7	14.1	12	11.3	1,600
POTASSIUM	823	1,640	838	1,430	2,550	2,330	2,360	NC
SELENIUM	< 0.43 U	< 0.53 U	0.41	< 0.48 U	< 0.45 U	< 0.54 U	< 0.45 U	390
SODIUM	< 1,610 UJ	< 562 UJ	521 J	< 471 UJ	< 437 UJ	< 484 UJ	< 442 UJ	NC
VANADIUM	43.5 J	< 21.8 U	28	19	31	32	< 27.4 U	78
ZINC	< 59.5 U	< 37.8 U	93.7	28.3	51.5	42	< 44.8 U	23,000

TABLE 8-2: ANALYTICAL RESULTS FOR IRP SITE 10 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S10-B04	S10-B05	S10-B05	S10-B06	S10-B06	S10-B06	S10-B07	EPA Residential Soil PRGs
Sample ID	234-S10-008	234-S10-009	234-S10-010	234-S10-011	234-S10-012	234-S10-013	234-S10-018	
Sample Date	07/10/93	07/10/93	07/10/93	07/10/93	07/10/93	07/10/93	07/10/93	
Sample Depth	3.00 - 3.00	0.00 - 0.00	3.00 - 3.00	0.00 - 0.00	3.00 - 3.00	3.50 - 3.50	0.00 - 0.00	
Volatile Organic Compounds (mg/kg)								
None Detected	ND	ND	ND	ND	ND	ND	ND	NC
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	< 13 U	< 11 U	< 13 U	< 12 U	< 14 U	< 14 U	< 11 U	NC
MOTOR OIL RANGE ORGANICS	< 38 U	< 34 U	< 38 U	< 37 U	< 41 U	< 42 U	< 34 U	NC
OTHER COMPONENTS	NA	NA	NA	NA	NA	NA	NA	NC
TPH - MOTOR OIL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - NAVY SPECIAL FUEL OIL	< 13 U	< 11 U	< 13 U	< 12 U	< 14 U	< 14 U	< 11 U	NC
Gasoline Range (purgeables)								
None Detected	ND	ND	ND	ND	ND	ND	ND	NC
Semivolatile Organic Compounds (mg/kg)								
1,2-DICHLOROBENZENE	< 0.42 U	< 0.38 U	< 0.42 U	< 0.4 U	< 0.45 U	< 0.46 U	< 0.37 U	600
1,4-DICHLOROBENZENE	< 0.42 U	< 0.38 U	< 0.42 U	< 0.4 U	< 0.45 U	< 0.46 U	< 0.37 U	3.4
2-METHYLNAPHTHALENE	< 0.42 U	< 0.38 U	< 0.42 U	< 0.4 U	< 0.45 U	< 0.46 U	< 0.37 U	NC
ANTHRACENE	< 0.42 U	< 0.38 U	< 0.42 U	< 0.4 U	< 0.45 U	< 0.46 U	< 0.37 U	22,000
BENZO(A)ANTHRACENE	< 0.42 U	< 0.38 U	< 0.42 U	< 0.4 U	< 0.45 U	< 0.46 U	< 0.37 U	0.62
BENZO(B)FLUORANTHENE	< 0.42 U	< 0.38 U	< 0.42 U	< 0.4 U	< 0.45 U	< 0.46 U	< 0.37 U	0.62
BENZO(K)FLUORANTHENE	< 0.42 U	< 0.38 U	< 0.42 U	< 0.4 U	< 0.45 U	< 0.46 U	< 0.37 U	0.38 *
CARBAZOLE	< 0.42 U	< 0.38 U	< 0.42 U	< 0.4 U	< 0.45 U	< 0.46 U	< 0.37 U	24
CHRYSENE	< 0.42 U	< 0.38 U	< 0.42 U	< 0.4 U	< 0.45 U	< 0.46 U	< 0.37 U	3.8 *
FLUORANTHENE	< 0.42 U	< 0.38 U	< 0.42 U	< 0.4 U	< 0.45 U	< 0.46 U	< 0.37 U	2,300
N-NITROSO-DI-N-PROPYLAMINE	< 0.42 U	< 0.38 U	< 0.42 U	< 0.4 U	< 0.45 U	< 0.46 U	< 0.37 U	0.070
NAPHTHALENE	< 0.42 U	< 0.38 U	< 0.42 U	< 0.4 U	< 0.45 U	< 0.46 U	< 0.37 U	1.7 *
PENTACHLOROPHENOL	< 1 U	< 0.92 U	< 1 U	< 0.98 U	< 1.1 U	< 1.1 U	< 0.9 U	3.0
PHENANTHRENE	< 0.42 U	< 0.38 U	< 0.42 U	< 0.4 U	< 0.45 U	< 0.46 U	< 0.37 U	NC
PYRENE	< 0.42 U	< 0.38 U	< 0.42 U	< 0.4 U	< 0.45 U	< 0.46 U	< 0.37 U	2,300
Metals (mg/kg)								
ALUMINUM	9,210	1,400	5,620	7,420	5,510	5,280	7,410	76,000
ARSENIC	**3.9**	**1.3**	**3.8**	**2.5 J**	**2.9 J**	**2.1 J**	**3.6**	0.39
BARIUM	129	< 22.6 U	72.9	85.7	95.6	77.1	105	5,400
BERYLLIUM	0.99	< 0.45 U	0.63	0.94	< 0.54 U	< 0.55 U	0.89	150
CADMIUM	< 1 U	< 0.9 U	< 0.98 U	< 0.96 U	1.7	1.4	0.91	37 *

TABLE 8-2: ANALYTICAL RESULTS FOR IRP SITE 10 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S10-B04	S10-B05	S10-B05	S10-B06	S10-B06	S10-B06	S10-B07	EPA Residential Soil PRGs
Sample ID	234-S10-008	234-S10-009	234-S10-010	234-S10-011	234-S10-012	234-S10-013	234-S10-018	
Sample Date	07/10/93	07/10/93	07/10/93	07/10/93	07/10/93	07/10/93	07/10/93	
Sample Depth	3.00 - 3.00	0.00 - 0.00	3.00 - 3.00	0.00 - 0.00	3.00 - 3.00	3.50 - 3.50	0.00 - 0.00	
Metals (mg/kg)								
CALCIUM	< 11,300 U	< 3,730 U	< 8,140 U	< 5,530 U	< 10,700 U	19,400	< 10,800 U	NC
CHROMIUM	15.9	4.8	14.4	13.9	11.9	10.9	13.6	210
COBALT	8.3	< 2.3 U	5.6	6.4	6.4	4.4	7.4	900
COPPER	< 16.4 U	< 2.8 U	< 7 U	< 10 U	< 18 U	< 12.4 U	< 14.5 U	3,100
IRON	18,000	3,600	15,700	14,100	12,500	10,600	15,000	23,000
LEAD	6.2	1.4	4	4.6	4	3.3	5.3	150 *
MAGNESIUM	6,540	< 1,030 U	< 3,990 U	5,330	< 4,350 U	< 3,540 U	5,780	NC
MANGANESE	276	54.9	252	241	202	137	286	1,800
NICKEL	17.2	< 4.5 U	12.3	12.9	9.9	10.6	15.5	1,600
POTASSIUM	2,900	< 451 U	2,300	2,400	1,840	1,490	2,330	NC
SELENIUM	< 0.49 U	< 0.44 U	< 0.49 U	< 0.47 U	< 0.53 U	< 0.55 U	< 0.43 U	390
SODIUM	< 509 UJ	< 451 UJ	< 711 UJ	< 482 UJ	< 541 UJ	< 552 UJ	< 502 UJ	NC
VANADIUM	41.7	< 8.7 U	< 26.6 U	< 27.6 U	< 22.8 U	< 21.6 U	< 28 U	78
ZINC	< 58.1 U	< 12.8 U	< 43.8 U	< 46.2 U	< 46.8 U	< 37.5 U	< 51 U	23,000

TABLE 8-2: ANALYTICAL RESULTS FOR IRP SITE 10 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S10-B07	S10-B08	S10-B08	S10-B09	S10-B09	S10-G1	S10-G1	EPA Residential Soil PRGs
Sample ID	234-S10-019	234-S10-016	234-S10-017	234-S10-039	234-S10-040	234-S10-020	234-S10-021	
Sample Date	07/10/93	07/10/93	07/10/93	07/24/93	07/24/93	07/29/93	07/29/93	
Sample Depth	3.00 - 3.00	0.00 - 0.00	3.00 - 3.00	0.50 - 0.50	3.00 - 3.00	0.00 - 0.00	0.00 - 0.00	
Volatile Organic Compounds (mg/kg)								
None Detected	ND	ND	ND	ND	ND	ND	ND	NC
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	< 13 U	< 11 U	< 12 U	NA	NA	NA	NA	NC
MOTOR OIL RANGE ORGANICS	< 39 U	< 34 U	< 35 U	NA	NA	NA	NA	NC
OTHER COMPONENTS	NA	NA	NA	NA	NA	16	30	NC
TPH - MOTOR OIL	NA	NA	NA	NA	NA	280	620	NC
TPH - NAVY SPECIAL FUEL OIL	< 13 U	< 11 U	< 12 U	NA	NA	< 20 U	< 34 U	NC
Gasoline Range (purgeables)								
None Detected	ND	ND	ND	ND	ND	ND	ND	NC
Semivolatile Organic Compounds (mg/kg)								
1,2-DICHLOROBENZENE	< 0.43 U	< 0.37 U	< 0.39 U	< 0.35 U	< 0.39 U	< 0.67 U	< 1.1 U	600
1,4-DICHLOROBENZENE	< 0.43 U	< 0.37 U	< 0.39 U	< 0.35 U	< 0.39 U	< 0.67 U	< 1.1 U	3.4
2-METHYLNAPHTHALENE	< 0.43 U	< 0.37 U	< 0.39 U	< 0.35 U	< 0.39 U	< 0.67 U	< 1.1 U	NC
ANTHRACENE	< 0.43 U	< 0.37 U	< 0.39 U	< 0.35 U	< 0.39 U	< 0.67 U	0.052	22,000
BENZO(A)ANTHRACENE	< 0.43 U	< 0.37 U	< 0.39 U	< 0.35 U	< 0.39 U	< 0.67 U	0.17	0.62
BENZO(B)FLUORANTHENE	< 0.43 U	< 0.37 U	< 0.39 U	< 0.35 U	< 0.39 U	0.086	0.22	0.62
BENZO(K)FLUORANTHENE	< 0.43 U	< 0.37 U	< 0.39 U	< 0.35 U	< 0.39 U	0.068	0.21	0.38 *
CARBAZOLE	< 0.43 U	< 0.37 U	< 0.39 U	< 0.35 U	< 0.39 U	< 0.67 U	0.11 J	24
CHRYSENE	< 0.43 U	< 0.37 U	< 0.39 U	< 0.35 U	< 0.39 U	< 0.67 U	0.21	3.8 *
FLUORANTHENE	< 0.43 U	< 0.37 U	< 0.39 U	< 0.35 U	< 0.39 U	0.11	0.2	2,300
N-NITROSO-DI-N-PROPYLAMINE	< 0.43 U	< 0.37 U	< 0.39 U	< 0.35 U	< 0.39 U	< 0.67 U	< 1.1 U	0.070
NAPHTHALENE	< 0.43 U	< 0.37 U	< 0.39 U	< 0.35 U	< 0.39 U	< 0.67 U	< 1.1 U	1.7 *
PENTACHLOROPHENOL	< 1 U	< 0.91 U	< 0.94 U	< 0.86 U	< 0.94 U	< 1.6 U	< 2.7 U	3.0
PHENANTHRENE	< 0.43 U	< 0.37 U	< 0.39 U	< 0.35 U	< 0.39 U	< 0.67 U	< 1.1 U	NC
PYRENE	< 0.43 U	< 0.37 U	< 0.39 U	< 0.35 U	< 0.39 U	0.11	0.2	2,300
Metals (mg/kg)								
ALUMINUM	8,340	20,700	7,830	23,700	2,970	7,940 J	21,800 J	76,000
ARSENIC	**3.7**	< 0.44 U	**3.3 J**	**1.6**	**2**	**6.1 J**	**5 J**	0.39
BARIUM	111	< 21.8 U	89.2	4.8	65.5	97.8	180	5,400
BERYLLIUM	0.88	1.5	0.77	< 0.22 U	< 0.24 U	0.3	0.64	150
CADMIUM	< 1 U	< 0.87 U	< 0.91 U	1.4	< 0.94 U	2.9 J	4.3	37 *

TABLE 8-2: ANALYTICAL RESULTS FOR IRP SITE 10 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S10-B07	S10-B08	S10-B08	S10-B09	S10-B09	S10-G1	S10-G1	EPA Residential Soil PRGs
Sample ID	234-S10-019	234-S10-016	234-S10-017	234-S10-039	234-S10-040	234-S10-020	234-S10-021	
Sample Date	07/10/93	07/10/93	07/10/93	07/24/93	07/24/93	07/29/93	07/29/93	
Sample Depth	3.00 - 3.00	0.00 - 0.00	3.00 - 3.00	0.50 - 0.50	3.00 - 3.00	0.00 - 0.00	0.00 - 0.00	
Metals (mg/kg)								
CALCIUM	< 12,900 U	< 13,200 U	< 10,800 U	14,100	6,110	10,700	20,300	NC
CHROMIUM	15.9	13.2	14.7	20.2 J	5.8 J	34.3	59.7	210
COBALT	7.1	25.5	6.7	25.1	< 1 U	8.4	18.1	900
COPPER	< 15.9 U	28	< 12.2 U	35.9	< 4.9 U	45.9	90.5	3,100
IRON	16,900	**44,200**	15,100	**58,200 J**	6,870 J	18,600 J	**41,700 J**	23,000
LEAD	6.1	1.1	5.3	1.2	1.6	124 J	**189 J**	150 *
MAGNESIUM	5,890	15,900	5,840	18,000 J	1,790 J	6,610	16,000	NC
MANGANESE	304	623	271	796	116	326	644	1,800
NICKEL	14.5	26.3	15.8	26.8	4	17.3 J	33.5	1,600
POTASSIUM	2,750	500	2,210	< 345 UJ	< 568 UJ	1,800 J	4,570	NC
SELENIUM	< 0.5 U	< 0.44 U	< 0.46 U	< 0.65 UJ	< 0.71 UJ	< 0.61 UJ	< 3.1 U	390
SODIUM	< 680 UJ	< 1,940 UJ	< 454 UJ	1,840	< 174 U	1,890 J	4,050 J	NC
VANADIUM	< 33.5 U	47.9	< 30.9 U	54.2	10.9	29.4	72.1	78
ZINC	< 57.7 U	< 61.4 U	< 48.7 U	60.8	14.9	259	424	23,000

TABLE 8-2: ANALYTICAL RESULTS FOR IRP SITE 10 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S10-G2	S10-G3	S10MW01	S10MW01	
Sample ID	234-S10-022	234-S10-023	234-S10-014	234-S10-015	EPA Residential Soil PRGs
Sample Date	07/29/93	07/29/93	07/10/93	07/10/93	
Sample Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	3.00 - 3.00	
Volatile Organic Compounds (mg/kg)					
None Detected	ND	ND	ND	ND	NC
Petroleum Hydrocarbons (mg/kg)					
Diesel/Motor Oil Range (extractables)					
DIESEL RANGE ORGANICS	NA	NA	< 11 U	< 12 U	NC
MOTOR OIL RANGE ORGANICS	NA	NA	< 33 U	< 38 U	NC
OTHER COMPONENTS	24	29	NA	NA	NC
TPH - MOTOR OIL	< 14 U	620	NA	NA	NC
TPH - NAVY SPECIAL FUEL OIL	240	< 13 U	< 11 U	< 12 U	NC
Gasoline Range (purgeables)					
None Detected	ND	ND	ND	ND	NC
Semivolatile Organic Compounds (mg/kg)					
1,2-DICHLOROBENZENE	< 0.45 U	< 0.44 U	< 0.36 U	< 0.41 U	600
1,4-DICHLOROBENZENE	< 0.45 U	< 0.44 U	< 0.36 U	< 0.41 U	3.4
2-METHYLNAPHTHALENE	< 0.45 U	< 0.44 U	< 0.36 U	< 0.41 U	NC
ANTHRACENE	< 0.45 U	< 0.44 U	< 0.36 U	< 0.41 U	22,000
BENZO(A)ANTHRACENE	< 0.45 U	< 0.44 U	< 0.36 U	< 0.41 U	0.62
BENZO(B)FLUORANTHENE	< 0.45 U	< 0.44 U	< 0.36 U	< 0.41 U	0.62
BENZO(K)FLUORANTHENE	< 0.45 U	< 0.44 U	< 0.36 U	< 0.41 U	0.38 *
CARBAZOLE	< 0.45 U	< 0.44 U	< 0.36 U	< 0.41 U	24
CHRYSENE	0.058	< 0.44 U	< 0.36 U	< 0.41 U	3.8 *
FLUORANTHENE	0.079	< 0.44 U	< 0.36 U	< 0.41 U	2,300
N-NITROSO-DI-N-PROPYLAMINE	< 0.45 U	< 0.44 U	< 0.36 U	< 0.41 U	0.070
NAPHTHALENE	< 0.45 U	< 0.44 U	< 0.36 U	< 0.41 U	1.7 *
PENTACHLOROPHENOL	< 1.1 U	< 1.1 U	< 0.88 U	< 1 U	3.0
PHENANTHRENE	0.04	< 0.44 U	< 0.36 U	< 0.41 U	NC
PYRENE	0.079	0.02	< 0.36 U	< 0.41 U	2,300
Metals (mg/kg)					
ALUMINUM	9,130 J	5,460 J	21,200	10,400	76,000
ARSENIC	**6.6 J**	**3.5 J**	< 0.76 U	**2.8**	0.39
BARIUM	90	68.6 J	< 21.4 U	110	5,400
BERYLLIUM	0.31	< 0.27 U	1.4	0.94	150
CADMIUM	1.1	< 1.1 U	< 0.86 U	< 0.97 U	37 *

TABLE 8-2: ANALYTICAL RESULTS FOR IRP SITE 10 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S10-G2	S10-G3	S10MW01	S10MW01	EPA Residential Soil PRGs
Sample ID	234-S10-022	234-S10-023	234-S10-014	234-S10-015	
Sample Date	07/29/93	07/29/93	07/10/93	07/10/93	
Sample Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	3.00 - 3.00	
Metals (mg/kg)					
CALCIUM	10,400	9,240	14,600	12,800	NC
CHROMIUM	58.7	20.6	14.6	17	210
COBALT	7.5	< 3.5 U	25.1	8.8	900
COPPER	41.8	26.7	30.8	< 13.2 U	3,100
IRON	18,200 J	17,800 J	**51,600**	17,800	23,000
LEAD	**279 J**	51.7	1.6	5.5	150 *
MAGNESIUM	5,830	3,330	14,000	6,420	NC
MANGANESE	253	241 J	676 J	279 J	1,800
NICKEL	13.4	16.9	24.4	16.4	1,600
POTASSIUM	1,900	< 883 U	568	2,850	NC
SELENIUM	< 0.91 U	< 0.8 U	< 0.42 U	0.51	390
SODIUM	2,350 J	1,130 J	1,490 J	< 484 UJ	NC
VANADIUM	27.6	21.1	64.2	35.6	78
ZINC	257	90.7 J	63.5	51.9	23,000

Notes: Categories of analyses are shown, but only detected compounds are presented. Analyte results in boldface type exceed EPA residential soil PRGs.

*	California modified PRGs
ID	Identification
J	Estimated value
mg/kg	Milligrams per kilogram
NA	Not analyzed
NC	No criteria
ND	None detected
PRG	Preliminary remediation goals
U	Nondetected

TABLE 8-3: ANALYTICAL RESULTS FOR IRP SITE 10 GROUNDWATER SAMPLES

Site Management Plan, CBC Port Hueneme

Sample Location ID	S10MW01	S10MW01	S10MW01	S10MW01	S10MW01	
Sample ID	234-S10-024	234-S10-025	234-S10-026	08798012242M	08798040309J	EPA Tap Water PRGs
Sample Date	08/11/93	08/11/93	11/10/93	01/22/98	04/03/98	
Volatile Organic Compounds (µg/L)						
CARBON TETRACHLORIDE	< 0.5 U	**0.9**	< 0.5 U	< 0.5 U	< 0.5 U	0.17
CHLOROFORM	< 1 U	**3**	< 1 U	< 1 U	< 1 U	0.17
METHYL TERTIARY BUTYLETHER	NA	NA	NA	0.4 J	0.5 J	6.2
Petroleum Hydrocarbons (mg/L)						
Diesel/Motor Oil Range (extractables)						
None Detected	ND	ND	ND	ND	ND	NC
Gasoline Range (purgeables)						
None Detected	ND	ND	ND	ND	ND	NC
Semivolatile Organic Compounds (µg/L)						
None Detected	ND	ND	ND	ND	ND	NC
PCBs/Pesticides (µg/L)						
None Detected	ND	ND	ND	NA	NA	NC
Metals (µg/L)						
Unfiltered						
ANTIMONY	**52.4**	**59.2**	< 50 U	NA	NA	15
ARSENIC	**5.7 J**	**3.8 J**	**4.9 J**	NA	NA	0.045
CALCIUM	559,000	594,000	579,000 J	NA	NA	NC
CHROMIUM	< 5 U	7.4	< 5 U	NA	NA	NC
COPPER	< 10 U	< 10 U	17.1	NA	NA	1,500
IRON	1,950 J	797 J	1,160	NA	NA	11,000
MAGNESIUM	614,000	454,000	515,000	NA	NA	NC
MANGANESE	**876 J**	794 J	857 J	NA	NA	880
MERCURY	< 0.2 U	0.37	< 0.2 U	NA	NA	NC
MOLYBDENUM	NA	NA	58.6	NA	NA	180
POTASSIUM	90,600	68,000	82,700	NA	NA	NC
SODIUM	3,430,000	2,210,000	2,930,000 J	NA	NA	NC
ZINC	18	19.4	187	NA	NA	11,000
FItered						
ARSENIC	NA	NA	NA	**7.6**	**11.1**	0.045
BARIUM	NA	NA	NA	76.4 J	70.1 J	2,600
CADMIUM	NA	NA	NA	0.67 J	0.2 J	18

TABLE 8-3: ANALYTICAL RESULTS FOR IRP SITE 10 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S10MW01	S10MW01	S10MW01	S10MW01	S10MW01	
Sample ID	234-S10-024	234-S10-025	234-S10-026	08798012242M	08798040309J	EPA Tap Water PRGs
Sample Date	08/11/93	08/11/93	11/10/93	01/22/98	04/03/98	
Metals (µg/L)						
FIltered						
COPPER	NA	NA	NA	2.3 J	1 J	1,500
MANGANESE	NA	NA	NA	**961**	**1,180**	880
MOLYBDENUM	NA	NA	NA	76.1	92.8	180
NICKEL	NA	NA	NA	< 3.3 UJ	7 J	730
SELENIUM	NA	NA	NA	5.6	2.7	180
SILVER	NA	NA	NA	< 1.6 UJ	2.5 J	180
General Mineral						
CALCIUM	NA	NA	NA	484,000	491,000	NC
IRON	NA	NA	NA	1,850	1,160 J	11,000
MAGNESIUM	NA	NA	NA	797,000	784,000	NC
POTASSIUM	NA	NA	NA	125,000	114,000	NC
SODIUM	NA	NA	NA	3,060,000	3,720,000	NC

Notes: Categories of analyses are shown, but only detected compounds are presented. Analyte results in boldface type exceed EPA tap water PRGs.

ID	Identification
J	Estimated value
mg/L	Milligrams per liter
NA	Not analyzed
NC	No criteria
ND	None detected
PRG	Preliminary remediation goals
U	Nondetected
µg/L	Micrograms per liter

9.0 IRP SITE 11 – CED PAINT SHOP

This section provides the site background and description for IRP Site 11; summarizes the previous investigations, activities, and existing data; and discusses data gap findings and strategies for eliminating data gaps at IRP Site 11.

9.1 SITE BACKGROUND

The following sections discuss the site background for IRP Site 11, including a general site description, discussion of previous and current site activities, and a summary of previous investigations that have been completed at the site.

9.1.1 Site Description

IRP Site 11 is an area south of the CED Paint Shop (Building 815) where waste paint, thinners, solvents, and paint sludge were disposed of on the ground surface (Figure 9-1). The area is flat, unpaved, and encompasses about 10,000 square feet. Lehman Ditch is 100 feet south of the site (PRC and Montgomery Watson 1996).

9.1.2 Site Activities

From 1959 until 1977 or 1978, an estimated 25,000 to 35,000 gallons of waste paint, thinners, solvents, and paint sludge were reportedly disposed of on the ground south of Building 815 (SCS and Landau Associates 1985). The waste paints and thinners may have included zinc chromate, red lead primers, and synthetic green enamel paint. Collection and off-base disposal of these wastes were initiated in the late 1970s. More recently, organotin paint and thinners have been used at the CED Paint Shop to paint aluminum hull boats. Currently, the CED paints vehicles inside Building 815 and the remainder of the site is used to store metal equipment parts (PRC and Montgomery Watson 1996).

9.1.3 Previous Investigations

Previous investigations that have been completed at IRP Site 11 include an IAS (SCS and Landau Associates 1985), an SI (ERTEC 1991b), a final SI (PRC and Montgomery Watson 1996), a basewide groundwater investigation (Tetra Tech and LFR 2001), and a revised BHHRA (Bechtel 2002a).

9.1.3.1 Initial Assessment Study (SCS and Landau Associates 1985)

The IAS found that most solvents and thinners that were disposed of on the ground at Site 11 would have evaporated, and the paint sludges and residues remained in the soil. The IAS further suggested that the paint residues were solidified and non-mobile and would remain in the soil and not migrate to groundwater. Surface runoff could carry residues on eroding soil to storm

drains leading to Lehman Canal, and eventually, Port Hueneme Harbor. However contaminants entering the harbor would have dispersed in the ocean or been sedimented out into harbor sediments, which were removed in 1984 and disposed off base. Furthermore, there is no human or endangered species use of the canals. Therefore, because of the limited potential for migration, and the lack of receptors of concern, this site was not considered a potential threat and a confirmation study was not recommended.

9.1.3.2 Final Site Inspection Study (ERTEC 1991a)

Generators and transformers were serviced between the early 1970s and 1980 in the vicinity of Site 11. During servicing, up to 10 gallons of dielectric fluid containing PCBs were reportedly spilled onto the ground for each transformer serviced. Therefore, this area was studied during an SI as Site 12A, the Spray Paint Shop Area. During the initial SI study at IRP Site 12A, 38 shallow soil samples were composited from 7 grid locations and 14 discrete locations (0.5 to 1.5 feet bgs) from seven boreholes, and were analyzed for PCBs and pesticides (Figure 10-1). PCBs were detected up to a maximum concentration of 3.9 mg/kg in six of seven shallow composite soil samples and in five of the seven borehole samples collected at 0.5 foot bgs. No PCBs were detected in borehole soil samples collected at 1.5 feet bgs. No pesticides were detected in any soil samples collected at IRP Site 12A (ERTEC 1991a). Results of the supplemental SI study at Site 11 (studied as Site 12A) indicated low concentrations of PCBs, less than 5 mg/kg, were detected in shallow soil samples (0.5 foot).

9.1.3.3 Final Site Inspection Report (PRC and Montgomery Watson 1996)

Three soil borings (SB11-B1, SB11-B2, and SB11-B3) and one monitoring well boring (S11MW01) were drilled and sampled within the suspected area of soil contamination at IRP Site 11 (Figure 9-1). The soil borings were drilled to 5.0 feet bgs, and the well boring was drilled to 13 feet bgs. Nine soil samples were collected and analyzed for VOCs, SVOCs, and metals. Surface soil samples (0.0 to 0.5 foot bgs) from borings S11-B1, S11-B2, and S11-B3 were also analyzed for pesticides and PCBs, and surface samples from all four borings were analyzed for tributyltin, a barnacleicide used in marine painting. Two groundwater samples were collected in September and November 1993 from S11MW01 and were analyzed for VOCs, SVOCs, and metals. As part of sediment sampling efforts for nearby IRP Site 10 (CED Wash Rack Sludge), two sediment samples (S10-G2 and S10-G3) were collected from Lehman Ditch, located south and downgradient of IRP Site 11. The sediment samples were collected from 0 to 12 inches bgs and were analyzed for VOCs, SVOCs, TPH-e, TPH-p, metals, and total phosphorus. Results from these samples are reported in Table 8-2.

During the SI, a BHHRA was completed for the site because results of an initial human health screening evaluation had exceeded screening level criteria. However the BHHRA was limited to evaluation of potential soil exposures. Samples were screened against EPA PRGs, MCLs, and NAWQC; and background metal concentrations for CBC Port Hueneme (see Appendix B). Aroclor 1260 was identified as the only COC for IRP Site 11 soil in the BHHRA. Results of the BHHRA for soil indicated that the RME cancer risks for both industrial and hypothetical residential exposures to soil were within the EPA risk management range of 1×10^{-4} to 1×10^{-6}.

The noncancer HIs were below the threshold value of 1.0. A finding of no significant risk to human health was determined in the SI for IRP Site 11 soil. Based on the findings of a BHHRA no further action was recommended for IRP Site 11.

9.1.3.4 Draft Groundwater Remedial Investigation Report (Tetra Tech and LFR 2001)

During the basewide groundwater investigation, one groundwater sample was collected from monitoring well S11MW01 in May 1997 and analyzed for VOCs, SVOCs, metals, TPH-p and TPH-e, and water quality parameters (Figure 9-1). Based on the results of the initial round of sampling, no further sampling was recommended for S11MW01.

Chemical concentrations in groundwater were screened against NAWQC for the protection of saltwater aquatic life and MCLs. If concentrations of an organic compound exceeded the NAWQC and/or MCL in at least one sampling round at a given location, that compound was considered a COPEC and/or COPC, respectively, at that location. If concentrations of an inorganic compound exceeded the NAWQC and/or MCL in more than one sampling at a given location, that compound was considered a COPEC and/or a COPC, respectively, at that location. Inorganics were screened differently because they often occur naturally. No COPECs or COPCs were identified for the samples collected from the IRP Site 11 monitoring well. No further evaluation of groundwater within the Semi-Perched Aquifer was recommended for IRP Site 11.

Following submittal of the draft basewide groundwater investigation report, and review of the groundwater model, DTSC requested that additional site-specific groundwater data be collected (if necessary) and site-specific groundwater data be evaluated to adequately characterize the site.

9.1.3.5 Risk Assessment Technical Memorandum (Bechtel 2002a)

In 2002, Bechtel revised the BHHRA completed during the SI for several IRP sites (including IRP Site 11). The BBHRA was revised to address DTSC comments, dated July 28, 1995, regarding the methodology used in SI to identify metals as COPCs. Bechtel reviewed the BHHRA performed for the SI (PRC and Montgomery Watson 1996) and determined that incorporation of DTSCs suggested methodology for identifying metals as COPCs for IRP Site 11 did not result in a change to the list of metals that were evaluated in the BHHRA. Therefore revisions to the BHHRA were not necessary.

9.2 COMPILATION OF EXISTING SITE DATA

Available data, typically that collected after 1993, has been compiled and tabulated for use in identifying data gaps and additional site activities required to obtain site closure. The available data were screened against the EPA residential soil and tap water PRGs. Additional data may be available in previous reports prepared for this site. Dependent upon the site activities identified to obtain site closure, this data may also be reviewed to determine if it is suitable for use in additional evaluations.

Table 9-1 summarizes the samples collected at IRP Site 11. Table 9-2 includes the soil analytical data for IRP Site 11, and Figure 9-2 shows concentrations of constituents in soil samples that exceed screening criteria. Table 9-3 includes the groundwater analytical data for IRP Site 11, and Figure 9-3 shows concentrations of constituents in groundwater samples at that exceed screening criteria.

9.3 DATA GAPS

For this SMP, the previous investigations and collected data for IRP Site 11 were reviewed to verify that sufficient information is available to support the final actions and documentation needed to close the site. Identified data gaps and proposed actions to eliminate those data gaps are discussed below.

9.3.1 Soil Data Gaps

Based on previous investigations, no source of soil contamination was identified at IRP Site 11. However, upon further inspection, an insufficient number of soil borings and samples exist to provide an adequately sized data set for performing a HHRA and ERA. Additional soil samples are needed to adequately characterize the site and perform a HHRA and ERA.

9.3.2 Groundwater Data Gaps

Only one groundwater monitoring well has been installed on IRP Site 11, with only one round of available data; therefore, site risk resulting from potential contaminants in the Semi-Perched Aquifer may not have been adequately evaluated during the basewide groundwater investigation. Additional monitoring wells and groundwater sampling in both new and existing monitoring wells is required to assess groundwater conditions and support a HHRA and ERA.

9.3.3 Human Health Risk Assessment Data Gaps

Only soil exposures were evaluated in the 1996 BHHRA completed for IRP Site 11 (PRC and Montgomery Watson 1996). Potential risks from exposure to groundwater have not been evaluated for the site. Additional soil and groundwater sampling is proposed at the site; therefore, existing and new soil data as well as existing and new groundwater data will be evaluated in a new HHRA. The HHRA will evaluate potential risks for exposure to both soil and groundwater at the site. The HHRA will use contemporary EPA, DTSC, and Navy risk assessment guidance to ensure that site soil risk and groundwater risk assessments are based on current methodology.

9.3.4 Ecological Risk Assessment Data Gaps

An ERA has not been completed for this site. A habitat survey of IRP Site 11 will be completed to determine if a viable habitat exists for ecological receptors.

9.4 STRATEGY FOR ELIMINATING DATA GAPS

To eliminate data gaps identified for IRP Site 11, two additional monitoring wells will be installed, one downgradient (S11MW02) and one upgradient (S11MW03) (Figure 9-4). Groundwater samples will be collected from the existing monitoring well (S11MW01) and two proposed monitoring wells for four quarters, and analyzed for VOCs, SVOCs, TPH-p and TPH-e, pesticides/PCBs, and metals. The proposed groundwater monitoring well installations and groundwater sampling schemes for IRP Site 11 are as follows:

Well ID	Borehole Diameter (inches)	Well Diameter (inches)	Well Depth (feet bgs)	Screened Interval (feet bgs)	Up/Down Gradient	Estimated Water Level (feet bgs)
S11MW02	8.0	2.0	15	5-15	Down	7
S11MW03	8.0	2.0	15	5-15	Up	7

Well ID	Well Diameter (inches)	Well Depth (feet bgs)	Screened Interval (feet bgs)	Analyses
S11MW01	4.0	13	3-13	VOC, SVOC, TPH-purgeable, TPH-extractable, pesticides/PCB, metals
S11MW02	2.0	15	5-15	Same as above
S11MW03	2.0	15	5-15	Same as above

To provide an adequately sized data set for an HHRA and ERA, five soil borings are recommended at IRP Site 11. One surface and one subsurface soil sample will be collected from each boring at 0.0 to 2.0 and 5.0 to 7.0 feet bgs, respectively. These samples will be analyzed for VOCs, SVOCs, PAHs, TPH-p and TPH-e, pesticides/PCBs, and metals. Two soil samples each (one surface and one subsurface) will also be collected from the two proposed monitoring wells (Figure 9-4). The following table shows the proposed soil sampling scheme for IRP Site 11.

Sample Location ID	Depth (feet bgs)	Analytical Group	Rationale/Comment
S11MW02	Surface (0-2)	VOC, SVOC, PAH, TPH-purgeable, TPH-extractable, pesticides/PCB, metals	Provide additional data for HHRA and ERA
S11MW02	Subsurface (5-7)	Same as above	Same as above
S11MW03	Surface (0-2)	Same as above	Same as above
S11MW03	Subsurface (5-7)	Same as above	Same as above
S11SB1	Surface (0-2)	Same as above	Same as above
S11SB1	Subsurface (5-7)	Same as above	Same as above
S11SB2	Surface (0-2)	Same as above	Same as above
S11SB2	Subsurface (5-7)	Same as above	Same as above
S11SB3	Surface (0-2)	Same as above	Same as above
S11SB3	Subsurface (5-7)	Same as above	Same as above

(Continued)

Sample Location ID	Depth (feet bgs)	Analytical Group	Rationale/Comment
S11SB4	Surface (0-2)	Same as above	Same as above
S11SB4	Subsurface (5-7)	Same as above	Same as above
S11SB5	Surface (0-2)	Same as above	Same as above
S11SB5	Subsurface (5-7)	Same as above	Same as above

The new soil and groundwater data will be compiled, combined with previously collected data presented in Tables 9-2 and 9-3, and evaluated for cumulative risk using EPA residential soil and tap water PRGs. The data will be evaluated in an HHRA to identify site-specific risks to human health from soil and groundwater. In addition, a habitat survey of IRP Site 11 will be completed to determine if there is viable habitat for ecological receptors. If viable habitat does exist, a screening level ERA, based on surface soil data collected at the site, will be conducted. If there is evidence of burrowing animals at the site, the ERA will include an evaluation of vapor exposure for these animals in their burrows. To establish whether a complete vapor exposure pathway exists for burrowing animals, the depth to the Semi-Perched Aquifer will also be considered in this analysis.

The results of these evaluations, as well as conclusions and recommendations for any additional site activities, will be presented in an RI report.

FIGURES

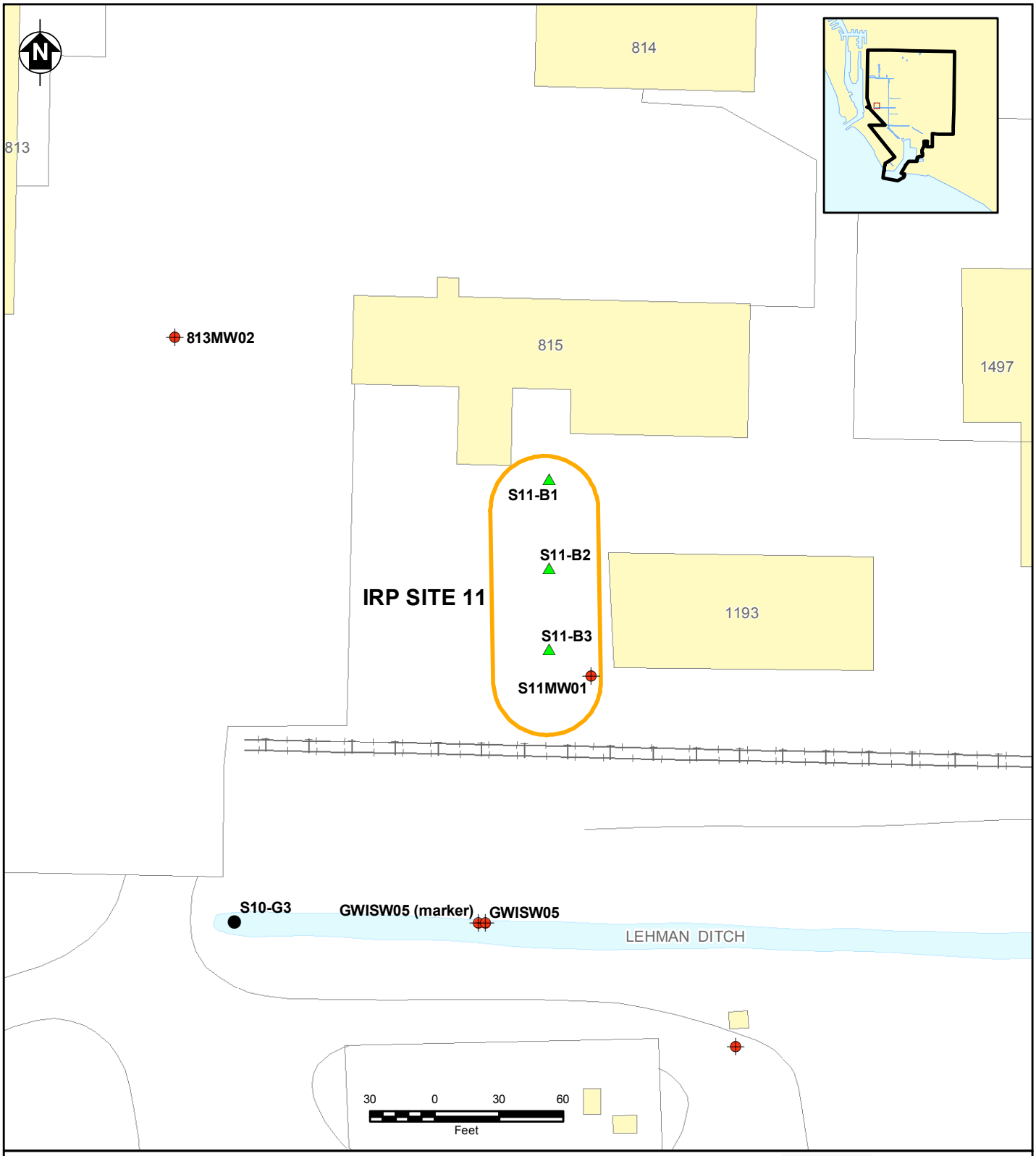


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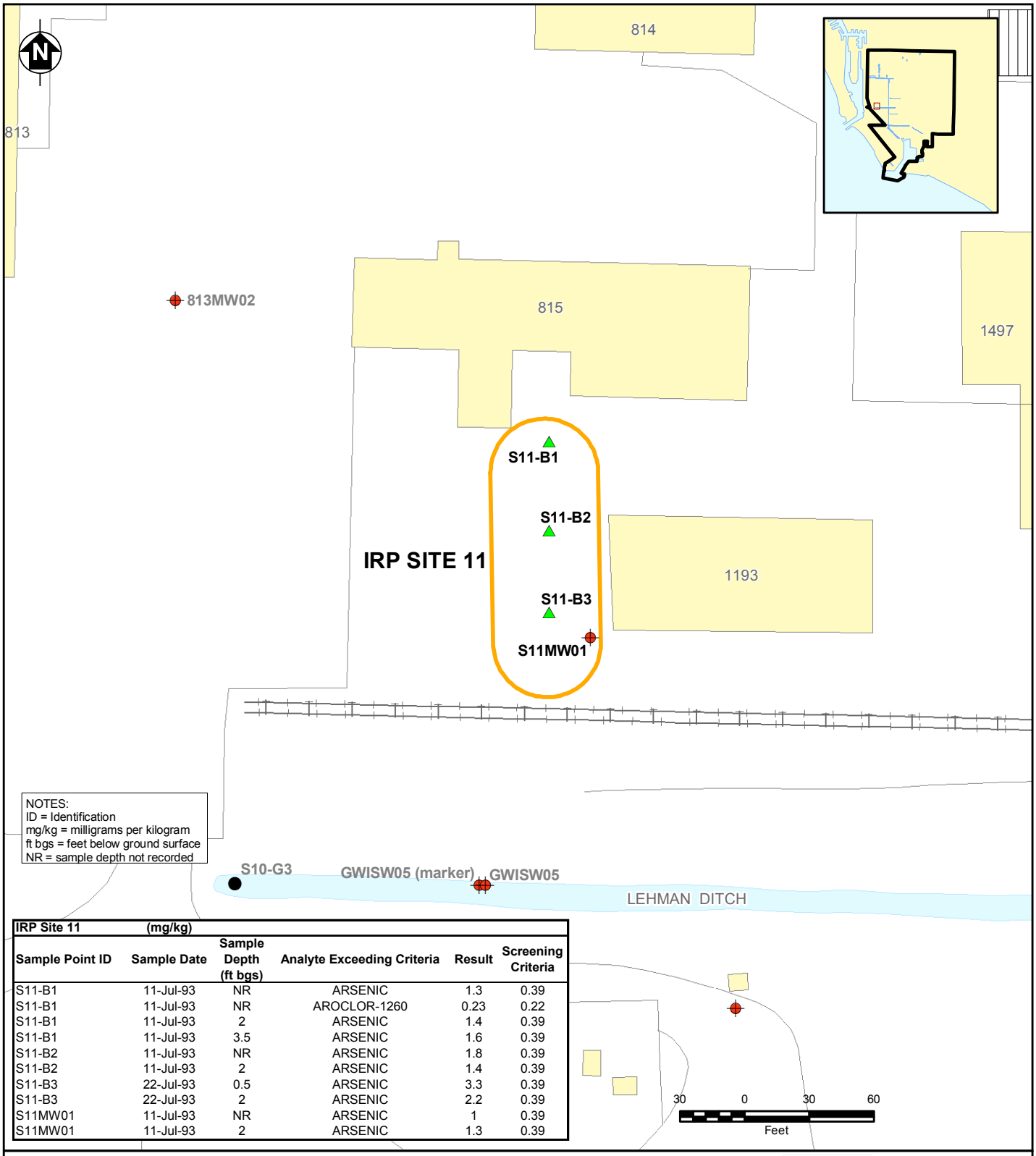
FIGURE 9-1
IRP SITE 11 - CED PAINT SHOP SITE MAP

Site Management Plan

fig9-1_PHFSMP_IRPsite11_sitemap_1122004.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases



IRP Site 11	(mg/kg)				
Sample Point ID	Sample Date	Sample Depth (ft bgs)	Analyte Exceeding Criteria	Result	Screening Criteria
S11-B1	11-Jul-93	NR	ARSENIC	1.3	0.39
S11-B1	11-Jul-93	NR	AROCLOR-1260	0.23	0.22
S11-B1	11-Jul-93	2	ARSENIC	1.4	0.39
S11-B1	11-Jul-93	3.5	ARSENIC	1.6	0.39
S11-B2	11-Jul-93	NR	ARSENIC	1.8	0.39
S11-B2	11-Jul-93	2	ARSENIC	1.4	0.39
S11-B3	22-Jul-93	0.5	ARSENIC	3.3	0.39
S11-B3	22-Jul-93	2	ARSENIC	2.2	0.39
S11MW01	11-Jul-93	NR	ARSENIC	1	0.39
S11MW01	11-Jul-93	2	ARSENIC	1.3	0.39

SOIL BORING
MONITORING WELL
SEDIMENT SAMPLE
S11-1B SAMPLE EXCEEDING SCREENING CRITERIA IN BOLD

IRP SITE
RAILROAD
CURB
BUILDING

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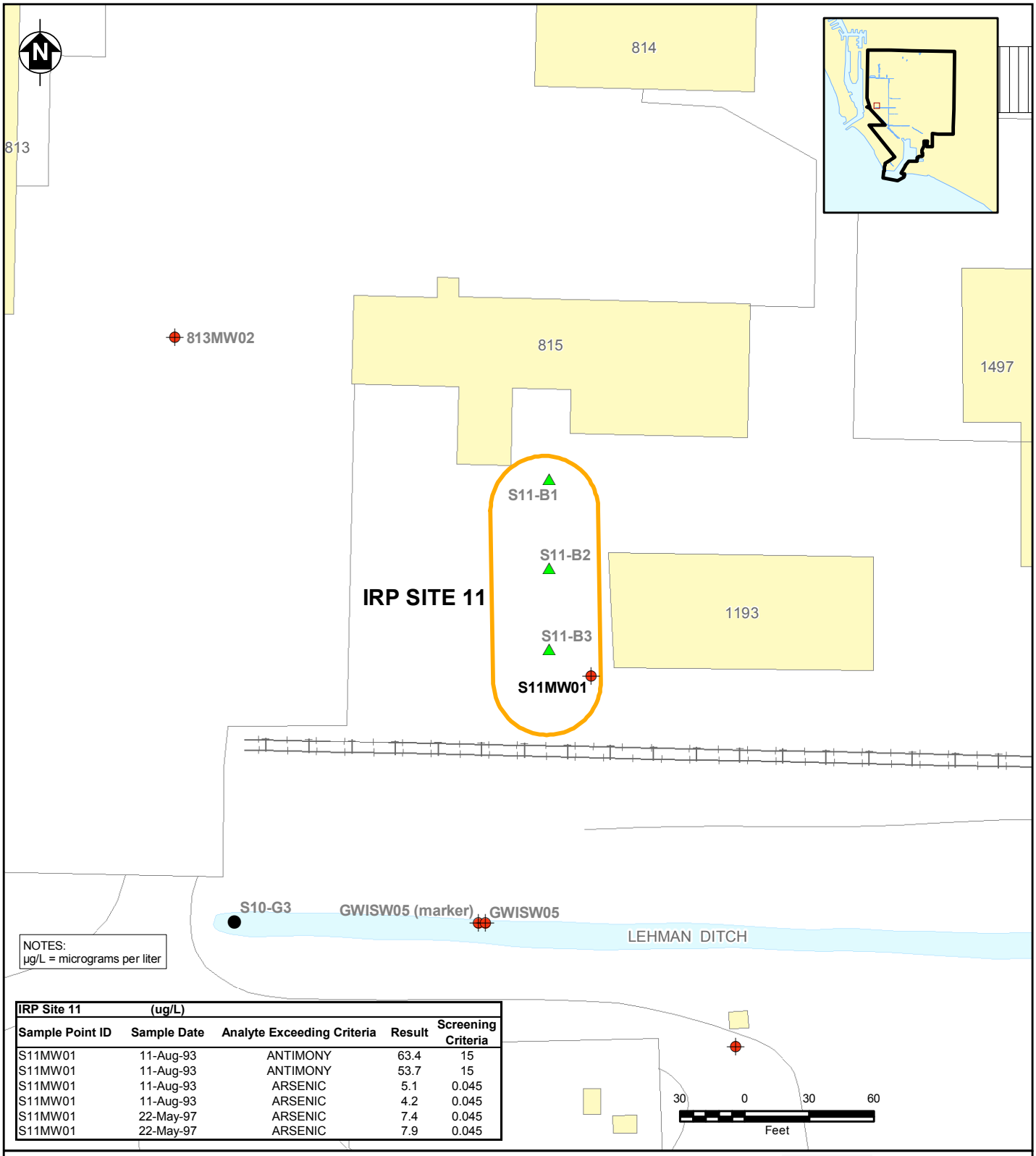
FIGURE 9-2
IRP SITE 11 - CED PAINT SHOP
ANALYTES IN SOIL
EXCEEDING SCREENING CRITERA
Site Management Plan

fig9-2_PHFSMP_IRPsite11_soils_122004.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases



IRP Site 11	(ug/L)			
Sample Point ID	**Sample Date**	**Analyte Exceeding Criteria**	**Result**	**Screening Criteria**
S11MW01	11-Aug-93	ANTIMONY	63.4	15
S11MW01	11-Aug-93	ANTIMONY	53.7	15
S11MW01	11-Aug-93	ARSENIC	5.1	0.045
S11MW01	11-Aug-93	ARSENIC	4.2	0.045
S11MW01	22-May-97	ARSENIC	7.4	0.045
S11MW01	22-May-97	ARSENIC	7.9	0.045

▲ SOIL BORING

MONITORING WELL

● SEDIMENT SAMPLE

S11MW01 SAMPLE EXCEEDING SCREENING CRITERIA IN BOLD

IRP SITE

RAILROAD

CURB

BUILDING

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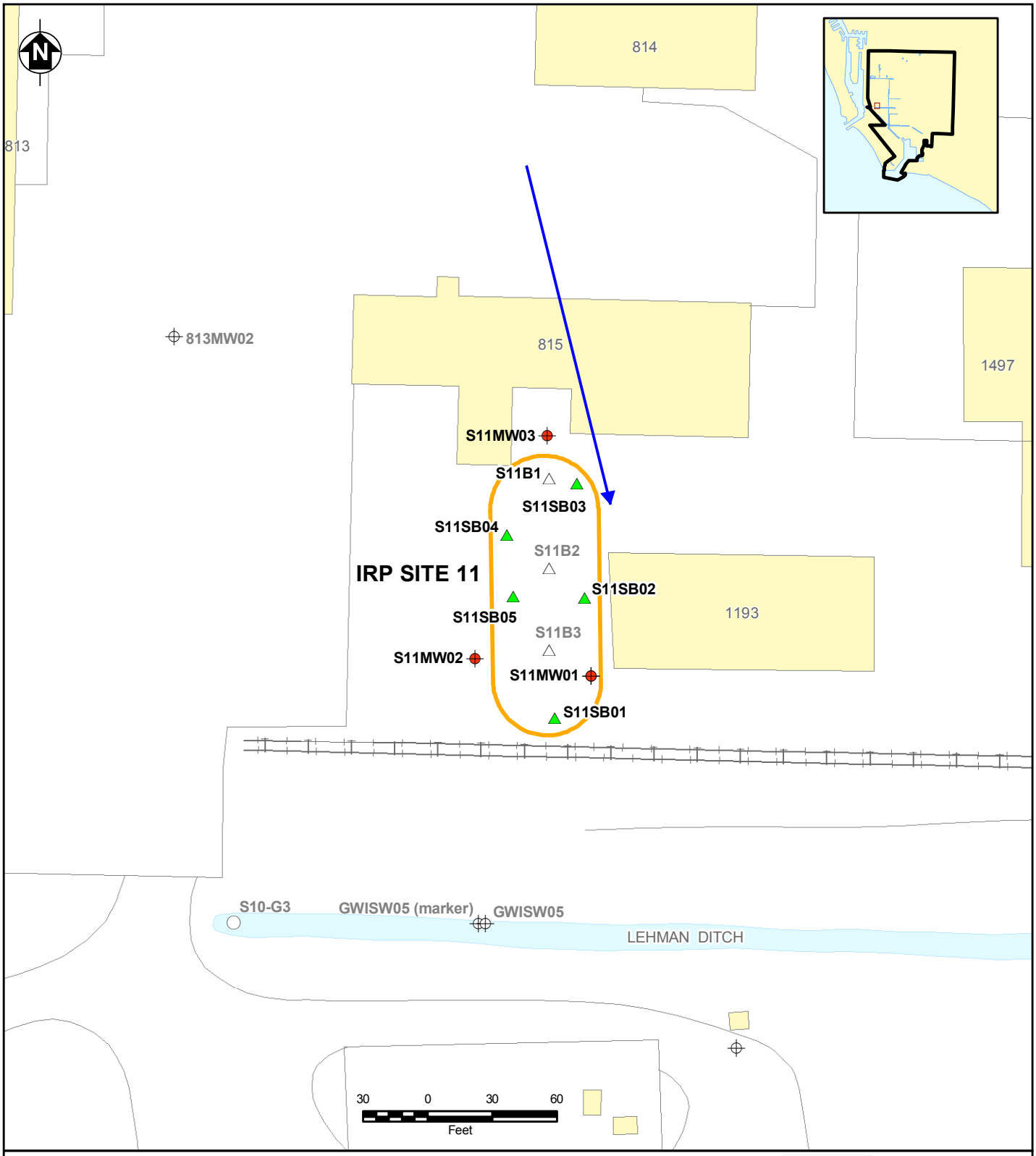
FIGURE 9-3
IRP SITE 11 - CED PAINT SHOP
ANALYTES IN GROUNDWATER EXCEEDING SCREENING CRITERA

Site Management Plan

fig9-3_PHFSMP_IRPsite11_GW_010405.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases



PROPOSED SAMPLE LOCATIONS
In black text
SOIL BORING
MONITORING WELL
PREVIOUS SAMPLE LOCATIONS
In gray text
SOIL SAMPLE
MONITORING WELL
SEDIMENT SAMPLE

IRP SITE
RAILROAD
CURB
GROUNDWATER FLOW
BUILDING

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FIGURE 9-4
IRP SITE 11 - CED PAINT SHOP
PROPOSED GROUNDWATER AND SOIL SAMPLING LOCATIONS
Site Management Plan

fig9-4_PHFSMP_IRPsite11_sitemap_122004.mxd TtEMI-HE Ed Madej
Data Source: SulTech GIS databases

TABLES

TABLE 9-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 11

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
234-S11-001	SOIL	07/11/93	S11-B01	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
234-S11-003	SOIL	07/11/93	S11-B01	ORIG	2.00 - 2.00	✓			✓			✓					
234-S11-004	SOIL	07/11/93	S11-B01	ORIG	3.50 - 3.50	✓			✓			✓					
234-S11-005	SOIL	07/11/93	S11-B02	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
234-S11-006	SOIL	07/11/93	S11-B02	ORIG	2.00 - 2.00	✓			✓			✓					
234-S11-023	SOIL	07/22/93	S11-B03	ORIG	0.50 - 0.50	✓			✓	✓	✓	✓					
234-S11-024	SOIL	07/22/93	S11-B03	ORIG	2.00 - 2.00	✓			✓			✓					
234-S11-008	SOIL	07/11/93	S11MW01	ORIG	0.00 - 0.00	✓			✓			✓					
234-S11-009	SOIL	07/11/93	S11MW01	ORIG	2.00 - 2.00	✓			✓			✓					
234-S11-011	WATER	08/11/93	S11MW01	ORIG	NA			✓	✓			✓					
234-S11-012	WATER	08/11/93	S11MW01	DUP	NA			✓	✓			✓					
234-S11-025	WATER	09/08/93	S11MW01	ORIG	NA	✓											
234-S11-026	WATER	09/08/93	S11MW01	DUP	NA	✓											
234-S11-013	WATER	11/10/93	S11MW01	ORIG	NA	✓			✓			✓					
08797052205GDT	WATER	05/22/97	S11MW01	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797052205GDTF	WATER	05/22/97	S11MW01	FIL	NA								✓				
TOTAL						13	1	3	13	3	3	13	1	1	0	0	0

Notes:

DMETL	Metals (filtered)	ORGPB	Organic Lead	SVOC	Semivolatile organic compound
GMETL	General mineral	PCB	Polychlorinated biphenyls	TPH-e	Total petroleum hydrocarbons, extractables
METL	Metals (total - unfiltered)	PEST	Pesticides	TPH-p	Total petroleum hydrocarbons, purgeables
NA	Not applicable	PESTO	Organophosphorus pesticides	VOC	Volatile organic compound
				✓	Sample collected and analyzed; blank cell indicates no sample collected.

TABLE 9-2: ANALYTICAL RESULTS FOR IRP SITE 11 SOIL SAMPLES

Site Management Plan, CBC Port Hueneme

Sample Location ID	S11-B01	S11-B01	S11-B01	S11-B02	S11-B02	S11-B03	S11-B03	EPA Residential Soil PRGs
Sample ID	234-S11-001	234-S11-003	234-S11-004	234-S11-005	234-S11-006	234-S11-023	234-S11-024	
Sample Date	07/11/1993	07/11/1993	07/11/1993	07/11/1993	07/11/1993	07/22/1993	07/22/1993	
Sample Depth	0.00 - 0.00	2.00 - 2.00	3.50 - 3.50	0.00 - 0.00	2.00 - 2.00	0.50 - 0.50	2.00 - 2.00	
Volatile Organic Compounds (mg/kg)								
TETRACHLOROETHENE	0.004	0.008	0.004	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	0.48
Semivolatile Organic Compounds (mg/kg)								
PENTACHLOROPHENOL	0.2	0.036	< 0.95 U	< 0.9 U	< 0.93 U	< 0.89 U	< 0.93 U	3.0
PYRENE	0.03	0.029	< 0.39 U	< 0.37 U	< 0.38 U	< 0.37 U	< 0.38 U	2,300
PCBs/Pesticides (mg/kg)								
AROCLOR-1260	**0.23**	NA	NA	< 0.037 U	NA	< 0.037 U	NA	0.22
Metals (mg/kg)								
ALUMINUM	7,610	4,740	3,320	6,770	4,810	6,890	5,770	76,000
ARSENIC	**1.3**	**1.4**	**1.6**	**1.8**	**1.4**	**3.3**	**2.2**	0.39
BARIUM	73.2	65.6	70.3	76.1	48	85	65.6	5,400
BERYLLIUM	< 0.42 U	< 0.46 U	< 0.47 U	< 0.44 U	< 0.46 U	0.56	0.51	150
CALCIUM	7,100 J	5,620 J	5,340 J	10,100 J	4,730 J	13,700	7,470	NC
CHROMIUM	20.9 J	8.2 J	5.4 J	11.9 J	7.8 J	12.5	10.1	210
COBALT	8	5.4	3.6	6	4	5.7	5.3	900
IRON	15,500	8,930	6,840	12,400	8,310	13,000	11,000	23,000
LEAD	10.7 J	2.8 J	2.4 J	3.1 J	2.6 J	5 J	6.3 J	150 *
MAGNESIUM	4,480	2,540	1,910	4,060	2,510	4,670	3,820	NC
MANGANESE	246 J	172 J	119 J	238 J	149 J	183	198	1,800
NICKEL	14.1	7.7	6.5	12	7.9	12.1	9.5	1,600
POTASSIUM	1,760	1,300	868	1,920	1,220	2,270	2,180	NC
SODIUM	620 J	< 465 UJ	< 470 UJ	< 444 UJ	< 458 UJ	< 426 UJ	< 455 UJ	NC
VANADIUM	33.2	< 22.5 U	< 18.7 U	28.4	< 21 U	25.6	20.6	550
ZINC	49.7	24.1	19.2	34.6	23.4	38.2	34.8	23,000

TABLE 9-2: ANALYTICAL RESULTS FOR IRP SITE 11 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S11MW01	S11MW01	EPA Residential Soil PRGs
Sample ID	234-S11-008	234-S11-009	
Sample Date	07/11/1993	07/11/1993	
Sample Depth	0.00 - 0.00	2.00 - 2.00	
Volatile Organic Compounds (mg/kg)			
TETRACHLOROETHENE	< 0.011 U	< 0.012 U	0.48
Semivolatile Organic Compounds (mg/kg)			
PENTACHLOROPHENOL	< 0.88 U	< 0.94 U	3.0
PYRENE	< 0.36 U	< 0.39 U	2,300
PCBs/Pesticides (mg/kg)			
AROCLOR-1260	NA	NA	0.22
Metals (mg/kg)			
ALUMINUM	6,930	3,990	76,000
ARSENIC	**1**	**1.3**	0.39
BARIUM	69.7	57.1	5,400
BERYLLIUM	< 0.43 U	< 0.46 U	150
CALCIUM	4,410 J	5,520 J	NC
CHROMIUM	12.5 J	6.4 J	210
COBALT	6.4	4.3	900
IRON	11,900	7,680	23,000
LEAD	3.8 J	2.8 J	150 *
MAGNESIUM	3,880	2,360	NC
MANGANESE	191 J	130 J	1,800
NICKEL	11.7	7.1	1,600
POTASSIUM	2,080	1,080	NC
SODIUM	< 430 UJ	< 463 UJ	NC
VANADIUM	29.3	< 19.5 U	550
ZINC	33.9	20	23,000

Notes: Categories of analyses are shown, but only detected compounds are presented. Analyte results in boldface type exceed EPA residential soil PRGs.

*	California modified PRGs
ID	Identification
J	Estimated value
mg/kg	Milligrams per kilogram
NA	Not analyzed
NC	No criteria
PRG	Preliminary remediation goals
U	Nondetected

TABLE 9-3: ANALYTICAL RESULTS FOR IRP SITE 11 GROUNDWATER SAMPLES

Site Management Plan, CBC Port Hueneme

Sample Location ID	S11MW01	S11MW01	S11MW01	S11MW01	S11MW01	S11MW01	S11MW01	
Sample ID	234-S11-011	234-S11-012	234-S11-025	234-S11-026	234-S11-013	08797052205GD	08797052205GD	EPA Tap Water PRGs
Sample Date	08/11/1993	08/11/1993	09/08/1993	09/08/1993	11/10/1993	05/22/1997	05/22/1997	
Volatile Organic Compounds (µg/L)								
None Detected	NA	NA	ND	ND	ND	ND	NA	NC
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
None Detected	NA	NA	NA	NA	NA	ND	NA	NC
Gasoline Range (purgeables)								
None Detected	ND	ND	NA	NA	NA	ND	NA	NC
Semivolatile Organic Compounds (µg/L)								
None Detected	ND	ND	NA	NA	ND	ND	NA	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	< 235 U	< 253 U	NA	NA	< 100 U	2,540	NA	36,000
ANTIMONY	**63.4**	**53.7**	NA	NA	< 50 U	< 1.4 U	NA	15
ARSENIC	**4.2 J**	**5.1 J**	NA	NA	< 2 U	**7.9 J**	NA	0.045
BARIUM	100 R	100 R	NA	NA	100 R	59.1 J	NA	2,600
CALCIUM	264,000	214,000	NA	NA	280,000 J	244,000	NA	NC
COBALT	< 10 U	< 10 U	NA	NA	< 10 U	2 J	NA	730
COPPER	< 10 U	< 10 U	NA	NA	10.7	5.2 J	NA	1,500
IRON	813 J	818 J	NA	NA	< 185 U	5,370 J	NA	11,000
LEAD	< 2 UJ	2.5 J	NA	NA	5.2	< 1 UJ	NA	NC
MAGNESIUM	306,000	314,000	NA	NA	205,000	302,000	NA	NC
MANGANESE	458 J	415 J	NA	NA	194	202	NA	880
MOLYBDENUM	NA	NA	NA	NA	78.1	92.5	NA	180
NICKEL	< 20 U	< 20 U	NA	NA	20.3	8.4 J	NA	730
POTASSIUM	79,600	79,900	NA	NA	72,400	93,100 J	NA	NC
SELENIUM	1 R	5 R	NA	NA	2 R	2.1	NA	180
SODIUM	1,960,000	2,100,000	NA	NA	1,400,000 J	2,110,000 J	NA	NC
VANADIUM	< 49.3 U	< 51 U	NA	NA	< 10 U	9.3 J	NA	260
ZINC	19.1	45.9	NA	NA	20.1	42.1 J	NA	11,000
FIltered								
ARSENIC	NA	NA	NA	NA	NA	NA	**7.4**	0.045
BARIUM	NA	NA	NA	NA	NA	NA	25.3 J	2,600

TABLE 9-3: ANALYTICAL RESULTS FOR IRP SITE 11 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S11MW01	S11MW01	S11MW01	S11MW01	S11MW01	S11MW01	S11MW01	
Sample ID	234-S11-011	234-S11-012	234-S11-025	234-S11-026	234-S11-013	08797052205GD	08797052205GD	EPA Tap Water PRGs
Sample Date	08/11/1993	08/11/1993	09/08/1993	09/08/1993	11/10/1993	05/22/1997	05/22/1997	
Metals (µg/L)								
FIltered								
CADMIUM	NA	NA	NA	NA	NA	NA	0.2 J	18
CALCIUM	NA	NA	NA	NA	NA	NA	167,000	NC
CHROMIUM	NA	NA	NA	NA	NA	NA	0.39 J	NC
COBALT	NA	NA	NA	NA	NA	NA	0.88 J	730
IRON	NA	NA	NA	NA	NA	NA	1,240 J	11,000
MAGNESIUM	NA	NA	NA	NA	NA	NA	208,000	NC
MANGANESE	NA	NA	NA	NA	NA	NA	142	880
MOLYBDENUM	NA	NA	NA	NA	NA	NA	108	180
NICKEL	NA	NA	NA	NA	NA	NA	6.6 J	730
POTASSIUM	NA	NA	NA	NA	NA	NA	63,800 J	NC
SODIUM	NA	NA	NA	NA	NA	NA	1,430,000	NC
VANADIUM	NA	NA	NA	NA	NA	NA	1.6 J	260
ZINC	NA	NA	NA	NA	NA	NA	5 J	11,000
General Mineral								
CALCIUM	NA	NA	NA	NA	NA	271,000	NA	NC
IRON	NA	NA	NA	NA	NA	339 J	NA	11,000
MAGNESIUM	NA	NA	NA	NA	NA	345,000	NA	NC
POTASSIUM	NA	NA	NA	NA	NA	101,000 J	NA	NC
SODIUM	NA	NA	NA	NA	NA	2,230,000	NA	NC

Notes: Categories of analyses are shown, but only detected compounds are presented. Analyte results in boldface type exceed EPA tap water PRGs.

ID	Identification
J	Estimated value
mg/L	Milligrams per liter
NA	Not analyzed
NC	No criteria
ND	None detected
PRG	Preliminary remediation goals
R	Result rejected during quality assurance review.
U	Nondetected
µg/L	Micrograms per liter

10.0 IRP SITE 12A – CED SPRAY PAINT SHOP AREA

This section provides the site background and description for IRP Site 12A; summarizes the previous investigations, activities, and existing data; and discusses data gap findings and strategies for eliminating data gaps at IRP Site 12A.

10.1 SITE BACKGROUND

The following sections discuss the site background for IRP Site 12A, including a general site description, discussion of previous and current site activities, and a summary of previous investigations that have been completed at the site.

10.1.1 Site Description

Site 12A was part of Site 12, the Construction Equipment Departments PCB spill area, and consisted of several buildings and maintenance areas. Site 12 was subsequently divided into two study areas, the Spray Paint Shop Area (Site 12A) and the Maintenance Shop Area (Site 12B). IRP Site 12A is located at the west end of the CBC Port Hueneme and occupies approximately 4,500 square feet. It is bounded by Building 1193 on the south and Building 815 on the north. The site is covered in asphalt with a concrete apron (Figure 10-1).

10.1.2 Site Activities

Between the early 1970s and 1980, IRP Site 12A was used as a transformer maintenance area. Dielectric fluid containing PCBs was removed from generators and transformers during maintenance activities, and the transformers were then dried and refilled. An estimated 250 to 300 gallons of dielectric fluid containing PCBs was spilled onto the ground surface (unpaved at the time) during historic maintenance activities (Bechtel 2002c). Spills were reportedly cleaned up with rags that were disposed of off the site. The site is currently used as a parking lot and storage area for construction and painting equipment.

10.1.3 Previous Investigations

Previous investigations that have been completed at IRP Site 12A include an IAS (SCS and Landau Associates 1985), an SI (ERTEC 1991a), a removal evaluation (PRC 1993), a preliminary post-field investigation (Tetra Tech 1999b), a basewide groundwater investigation (Tetra Tech and LFR 2001), and a review of risk assessment methodologies (Bechtel 2002c).

10.1.3.1 Initial Assessment Study (SCS and Landau Associates 1985)

IRP Site 12A was included in the IAS completed at CBC Port Hueneme in 1985. The IAS concluded that PCBs are extremely stable and relatively insoluble in water. PCBs also have a strong affinity for soil and pavement and would not migrate from the site. The IAS determined

that there was the potential for on-site worker exposure to PCBs on the surface, and recommended Site 12A for additional study.

10.1.3.2 Site Inspection Study (ERTEC 1991a)

During the SI study, 38 shallow soil samples were composited from 7 grid locations and 14 discrete locations (0.5 to 1.5 feet bgs) from seven boreholes, and were analyzed for PCBs and pesticides (locations not shown on Figure 10-1). PCBs were detected up to a maximum concentration of 3.9 mg/kg in six of seven shallow composite soil samples and in five of the seven borehole samples collected at 0.5 foot bgs. No PCBs were detected in borehole soil samples collected at 1.5 feet bgs. No pesticides were detected in any soil samples collected at IRP Site 12A.

10.1.3.3 Removal Evaluation, IRP Sites 5, 6, 12, 13, and 15 (PRC 1993)

IRP Site 12A was evaluated to determine whether it qualified for removal from the IRP. Based on background information and sampling results, IRP Site 12A was recommended for no further action in the removal evaluation report. However, as a result of regulatory review of the report and further discussions between the Navy and agencies, supplemental soil sampling and analysis were required to obtain regulatory concurrence (with recommendations for no further action) (Tetra Tech 1999b).

10.1.3.4 Preliminary Draft Post-Field Investigation Technical Memorandum Confirmatory Sampling, IRP Sites 9, 12A, and 15 (Tetra Tech 1999b)

Eleven direct push borings (S12A-GB01 to S12A-GB11) were advanced to approximately 4 feet bgs in areas surrounding IRP Site 12A to determine whether previously detected PCBs in soil had been adequately delineated (Figure 10-1). Aroclor 1260 was detected at concentrations exceeding residential PRGs in soil samples collected from six borings located throughout the site. The industrial PRG and TSCA cleanup levels for high-occupancy sites were exceeded in three of these borings. Analytical results indicated that IRP Site 12A was acceptable for future unrestricted land use because the TSCA cleanup level for capped, high-occupancy sites was not exceeded. No further action was recommended for IRP Site 12A. No HHRA was recommended because sufficient information was available to formulate a decision for no further action without performing an HHRA.

10.1.3.5 Draft Groundwater Remedial Investigation Report (Tetra Tech and LFR 2001)

From 1997 to 2001, a basewide RI was completed to evaluate the condition of the groundwater and surface water at CBC Port Hueneme. No groundwater wells were installed at IRP Site 12A. Also, no existing wells on the site could be used for sampling; therefore, no groundwater samples specific to IRP Site 12A were collected. However, the available analytical data and

groundwater modeling were utilized to evaluate the Semi-Perched Aquifer in the vicinity of IRP Site 12A.

Chemical concentrations in groundwater were screened against NAWQC for the protection of saltwater aquatic life and MCLs. If concentrations of an organic compound exceeded the NAWQC and/or MCL in at least one sampling round at a given location, that compound was considered a COPEC and/or COPC, respectively, at that location. If concentrations of an inorganic compound exceeded the NAWQC and/or MCL in more than one sampling at a given location, that compound was considered a COPEC and/or a COPC, respectively, at that location. Inorganics were screened differently because they often occur naturally. No COPECs or COPCs were identified in the vicinity of IRP Site 12A. No further evaluation of groundwater within the Semi-Perched Aquifer was recommended in the vicinity of IRP Site 12A.

Following submittal of the draft basewide groundwater investigation report, and review of the groundwater model, DTSC requested that additional site-specific groundwater data be collected (if necessary) and site-specific groundwater data be evaluated to adequately characterize the site.

10.1.3.6 Final Installation Restoration Sites 12A and 15 Risk Assessment Methodology (Bechtel 2002c)

This report presented the methodologies to be used in the HHRA for the feasibility study (FS) for soil at IRP Site 12A. An FS has not yet been completed for this site.

10.2 COMPILATION OF EXISTING SITE DATA

Available data, typically that collected after 1993, has been compiled and tabulated for use in identifying data gaps and additional site activities required to obtain site closure. The available data were screened against the EPA residential soil PRGs. Additional data may be available in previous reports prepared for this site. Dependent upon the site activities identified to obtain site closure, this data may also be reviewed to determine if it is suitable for use in additional evaluations.

Table 10-1 summarizes the samples collected at IRP Site 12A. Table 10-2 includes the soil analytical data for IRP Site 12A, and Figure 10-2 shows concentrations of constituents in soil samples that exceed screening criteria.

10.3 DATA GAPS

For this SMP, the previous investigations and collected data for IRP Site 12A were reviewed to verify that sufficient information is available to support the final actions and documentation needed to close the site. Identified data gaps and proposed actions to eliminate those data gaps are discussed below.

10.3.1 Soil Data Gaps

Based on a review of the existing soil data for IRP Site 12A, no further soil sampling for PCB contamination is recommended at the site. An adequate number of soil samples has been collected to determine the extent of PCB contamination and to support an HHRA and ERA.

10.3.2 Groundwater Data Gaps

Because no groundwater monitoring wells are located at IRP Site 12A, site risk resulting from potential contaminants in the Semi-Perched Aquifer may not have been adequately evaluated during the basewide groundwater investigation. Monitoring wells and groundwater sampling is required at IRP Site 12A to assess groundwater conditions and support a HHRA and ERA.

10.3.3 Human Health Risk Assessment Data Gaps

Potential risks from exposures to soil or groundwater have not been evaluated in an HHRA for IRP Site 12A. Additional groundwater sampling is proposed at the site; therefore, existing and new soil and groundwater data will be evaluated in a HHRA. The HHRA will evaluate potential risks for exposure to both soil and groundwater at the site. The HHRA will use contemporary EPA, DTSC, and Navy risk assessment guidance so that the site soil and groundwater risks are based on current methodology.

10.3.4 Ecological Risk Assessment Data Gaps

An ERA has not been completed for this site. A habitat survey of IRP Site 12A will be completed to determine if a viable habitat exists for ecological receptors.

10.4 STRATEGY FOR ELIMINATING DATA GAPS

To eliminate the data gaps identified for IRP Site 12A, three monitoring wells will be installed at IRP Site 12A, one well upgradient (S12AMW01) and two wells downgradient (S12AMW02 and S12AMW03) (Figure 10-3). Moreover, four quarters of groundwater samples will be collected from the three proposed wells. Because operations and contaminants at IRP Site 12A are expected to be similar to IRP Sites 12B and 23, groundwater samples will only be analyzed for PCBs. Results from these groundwater samples will be used to further evaluate environmental conditions at IRP Site 12A. The proposed groundwater monitoring well installations and groundwater sampling schemes for IRP Site 12A are as follows:

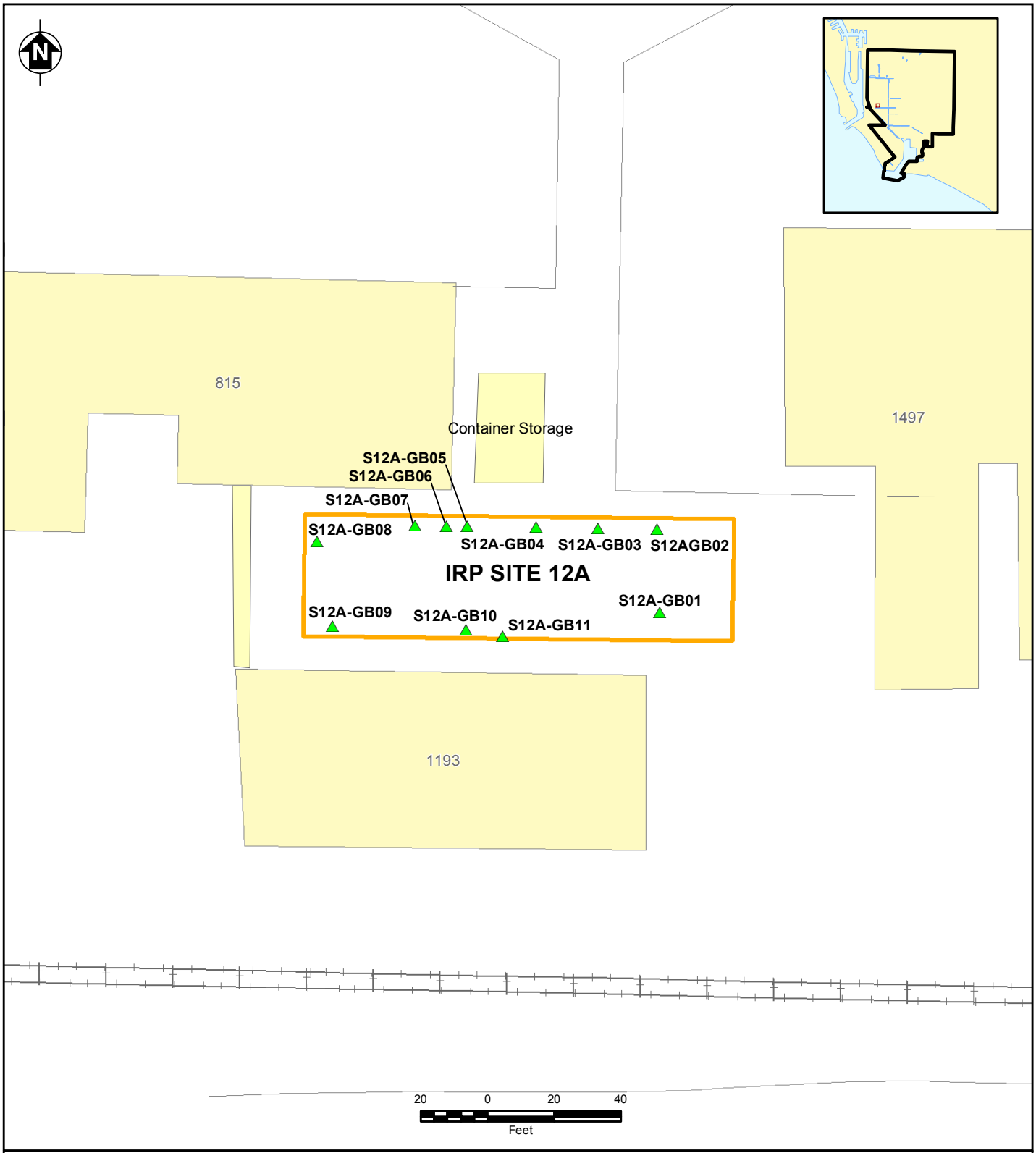
Well ID	Borehole Diameter (inches)	Well Diameter (inches)	Well Depth (feet bgs)	Screened Interval (feet bgs)	Up/Down Gradient	Estimated Water Level (feet bgs)
S12AMW01	8.0	2.0	15	5-15	Up	7
S12AMW02	8.0	2.0	15	5-15	Down	7
S12AMW03	8.0	2.0	15	5-15	Down	7

Well ID	Well Diameter (inches)	Well Depth (feet bgs)	Screened Interval (feet bgs)	Analyses
S12AMW01	2.0	15	5-15	PCBs
S12AMW02	2.0	15	5-15	Same as above
S12AMW03	2.0	15	5-15	Same as above

The new groundwater data will be compiled and evaluated for cumulative risk using EPA tap water PRGs. The new groundwater and existing soil data will be evaluated in an HHRA to identify site-specific risks to human health from soil and groundwater. The HHRA will evaluate both soil and groundwater risks. In addition, a habitat survey of IRP Site 12A will be completed to determine if there is viable habitat for ecological receptors. If viable habitat does exist, a screening level ERA, based on existing surface soil data collected at the site, will be conducted.

The results of these evaluations, as well as with conclusions and recommendations for any additional site activities, will be presented in an RI report.

FIGURES



▲ SOIL BORING

IRP SITE

RAILROAD

CURB

BUILDING

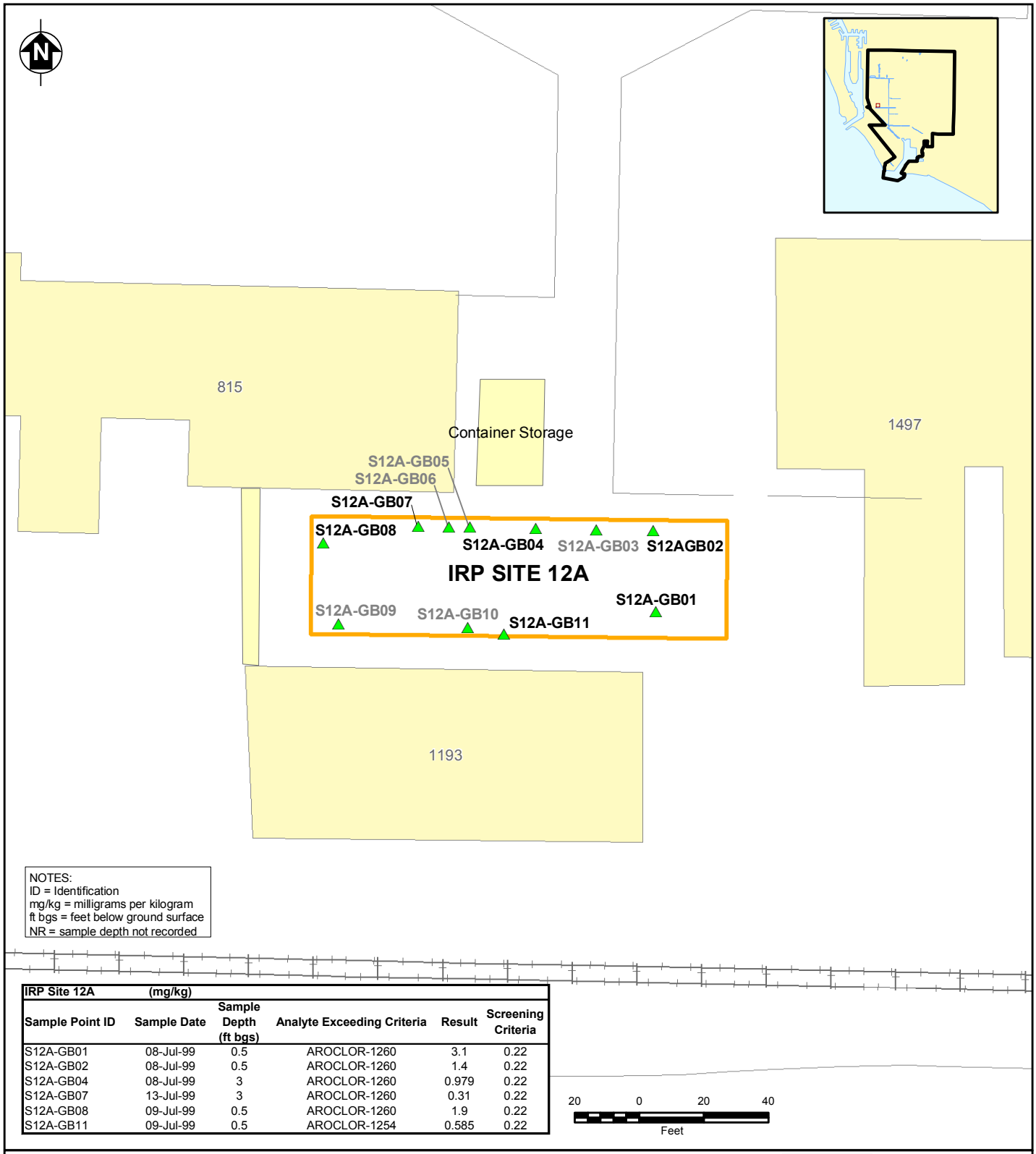
SulTech

CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 10-1
IRP SITE 12A - SPRAY PAINT SHOP SITE MAP

Site Management Plan

fig10-1_PHFSMP_IRPsite12A_sitemap_122004.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases



IRP Site 12A	(mg/kg)				
Sample Point ID	Sample Date	Sample Depth (ft bgs)	Analyte Exceeding Criteria	Result	Screening Criteria
S12A-GB01	08-Jul-99	0.5	AROCLOR-1260	3.1	0.22
S12A-GB02	08-Jul-99	0.5	AROCLOR-1260	1.4	0.22
S12A-GB04	08-Jul-99	3	AROCLOR-1260	0.979	0.22
S12A-GB07	13-Jul-99	3	AROCLOR-1260	0.31	0.22
S12A-GB08	09-Jul-99	0.5	AROCLOR-1260	1.9	0.22
S12A-GB11	09-Jul-99	0.5	AROCLOR-1254	0.585	0.22

▲ SOIL BORING

S12A-GB01 SAMPLE EXCEEDING SCREENING CRITERIA IN BOLD

IRP SITE

RAILROAD

CURB

BUILDING

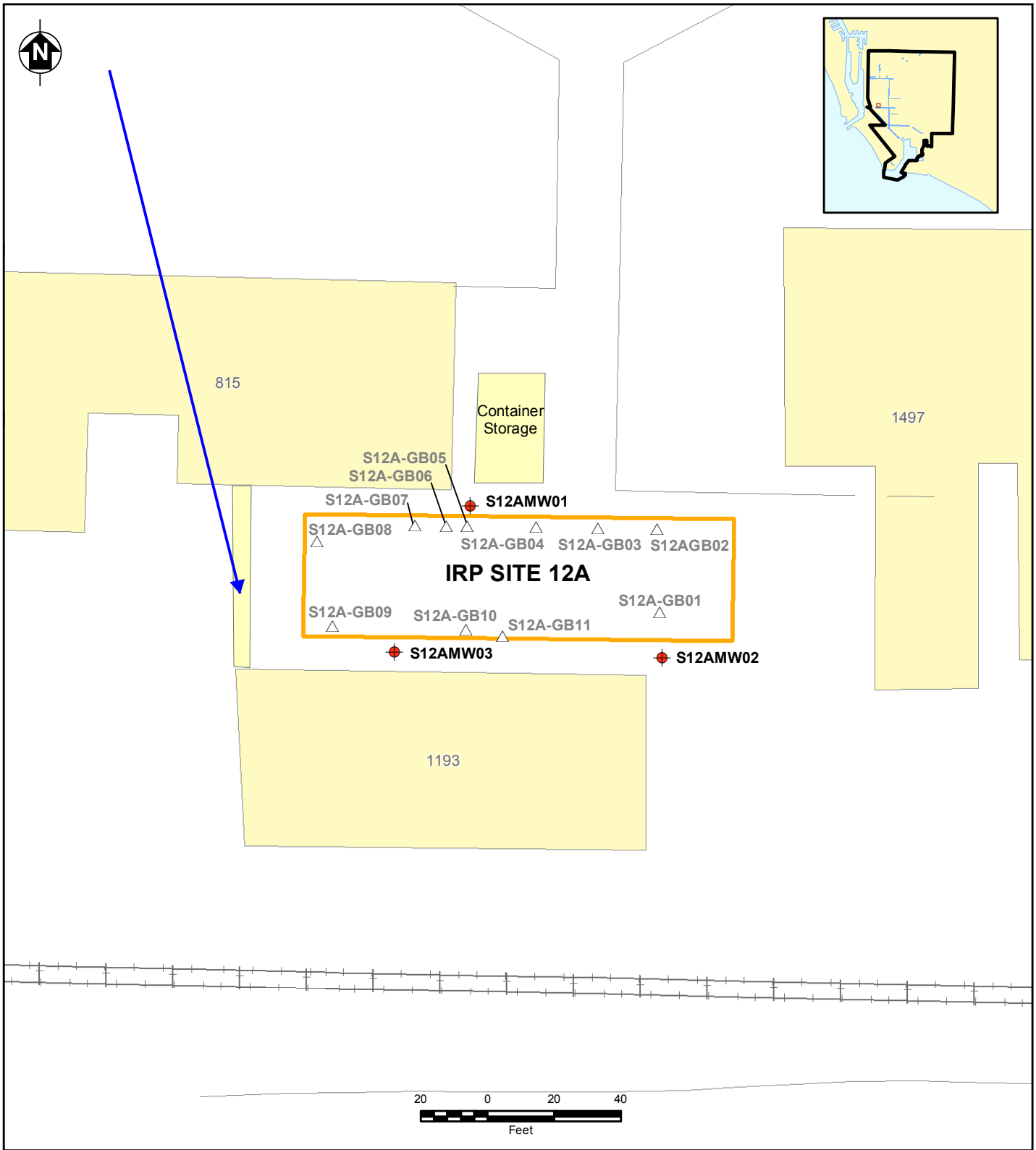
SulTech

CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 10-2
IRP SITE 12A - SPRAY PAINT SHOP ANALYTES IN SOIL EXCEEDING SCREENING CRITERIA

Site Management Plan

fig10-2_PHFSMP_IRPsite12A_soil_122004.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases



PROPOSED SAMPLE LOCATIONS
In black text
MONITORING WELL
PREVIOUS SAMPLE LOCATIONS
In gray text
SOIL SAMPLE

IRP SITE
RAILROAD
CURB
GROUNDWATER FLOW
BUILDING

SulTech

CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 10-3
IRP SITE 12A - SPRAY PAINT SHOP PROPOSED GROUNDWATER SAMPLING LOCATIONS
Site Management Plan

fig10-3_PHFSMP_IRPsite12A_GW_122004.mxd TtEMI-HE Ed Madej
Data Source: SulTech GIS databases

TABLES

TABLE 10-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 12A

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
274011	SOIL	07/08/99	S12A-GB01	ORIG	0.50 - 1.50					✓							
274012	SOIL	07/08/99	S12A-GB01	ORIG	1.50 - 3.00					✓							
274013	SOIL	07/08/99	S12A-GB01	ORIG	3.00 - 5.00					✓							
274014	SOIL	07/08/99	S12A-GB02	ORIG	0.50 - 1.50					✓							
274015	SOIL	07/08/99	S12A-GB02	ORIG	1.50 - 3.00					✓							
274016	SOIL	07/08/99	S12A-GB02	ORIG	3.00 - 5.00					✓							
274017	SOIL	07/08/99	S12A-GB03	ORIG	0.50 - 1.50					✓							
274018	SOIL	07/08/99	S12A-GB03	ORIG	1.50 - 3.00					✓							
274019	SOIL	07/08/99	S12A-GB03	ORIG	3.00 - 5.00					✓							
274020	SOIL	07/08/99	S12A-GB04	ORIG	0.50 - 1.50					✓							
274021	SOIL	07/08/99	S12A-GB04	ORIG	1.50 - 3.00					✓							
274022	SOIL	07/08/99	S12A-GB04	ORIG	3.00 - 5.00					✓							
274023	SOIL	07/08/99	S12A-GB05	ORIG	0.50 - 1.50					✓							
274024	SOIL	07/08/99	S12A-GB05	ORIG	1.50 - 3.00					✓							
274025	SOIL	07/08/99	S12A-GB05	ORIG	3.00 - 5.00					✓							
274026	SOIL	07/09/99	S12A-GB06	ORIG	0.50 - 1.50					✓							
274027	SOIL	07/09/99	S12A-GB06	ORIG	1.50 - 3.00					✓							
274028	SOIL	07/09/99	S12A-GB06	ORIG	3.00 - 5.00					✓							
274090	SOIL	07/13/99	S12A-GB07	ORIG	0.50 - 1.50					✓							
274091	SOIL	07/13/99	S12A-GB07	ORIG	1.50 - 3.00					✓							
274092	SOIL	07/13/99	S12A-GB07	ORIG	3.00 - 5.00					✓							
274038	SOIL	07/09/99	S12A-GB08	ORIG	0.50 - 1.50					✓							
274039	SOIL	07/09/99	S12A-GB08	ORIG	1.50 - 3.00					✓							
274040	SOIL	07/09/99	S12A-GB08	ORIG	3.00 - 5.00					✓							
274035	SOIL	07/09/99	S12A-GB09	ORIG	0.50 - 1.50					✓							

TABLE 10-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 12A (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
274036	SOIL	07/09/99	S12A-GB09	ORIG	1.50 - 3.00					✓							
274037	SOIL	07/09/99	S12A-GB09	ORIG	3.00 - 5.00					✓							
274029	SOIL	07/09/99	S12A-GB10	ORIG	0.50 - 1.50					✓							
274030	SOIL	07/09/99	S12A-GB10	ORIG	1.50 - 3.00					✓							
274031	SOIL	07/09/99	S12A-GB10	ORIG	3.00 - 5.00					✓							
274032	SOIL	07/09/99	S12A-GB11	ORIG	0.50 - 1.50					✓							
274033	SOIL	07/09/99	S12A-GB11	ORIG	1.50 - 3.00					✓							
274034	SOIL	07/09/99	S12A-GB11	ORIG	3.00 - 5.00					✓							
TOTAL						0	0	0	0	33	0	0	0	0	0	0	0

Notes:

DMETL	Metals (filtered)	ORGPB	Organic Lead	SVOC	Semivolatile organic compound
GMETL	General mineral	PCB	Polychlorinated biphenyls	TPH-e	Total petroleum hydrocarbons, extractables
METL	Metals (total - unfiltered)	PEST	Pesticides	TPH-p	Total petroleum hydrocarbons, purgeables
NA	Not applicable	PESTO	Organophosphorus pesticides	VOC	Volatile organic compound
				✓	Sample collected and analyzed; blank cell indicates no sample collected.

TABLE 10-2: ANALYTICAL RESULTS FOR IRP SITE 12A SOIL SAMPLES

Site Management Plan, CBC Port Hueneme

Sample Location ID	S12A-GB01	S12A-GB01	S12A-GB01	S12A-GB02	S12A-GB02	S12A-GB02	S12A-GB03	EPA Residential Soil PRGs
Sample ID	274011	274012	274013	274014	274015	274016	274017	
Sample Date	07/08/99	07/08/99	07/08/99	07/08/99	07/08/99	07/08/99	07/08/99	
Sample Depth	0.50 - 1.50	1.50 - 3.00	3.00 - 5.00	0.50 - 1.50	1.50 - 3.00	3.00 - 5.00	0.50 - 1.50	
PCBs/Pesticides (mg/kg)								
AROCLOR-1254	< 0.18 U	< 0.018 U	< 0.018 U	< 0.085 U	< 0.018 U	< 0.018 U	< 0.018 U	0.22
AROCLOR-1260	**3.1**	< 0.018 U	0.072	**1.4**	< 0.018 U	0.096	0.084	0.22

TABLE 10-2: ANALYTICAL RESULTS FOR IRP SITE 12A SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S12A-GB03	S12A-GB03	S12A-GB04	S12A-GB04	S12A-GB04	S12A-GB05	S12A-GB05	EPA Residential Soil PRGs
Sample ID	274018	274019	274020	274021	274022	274023	274024	
Sample Date	07/08/99	07/08/99	07/08/99	07/08/99	07/08/99	07/08/99	07/08/99	
Sample Depth	1.50 - 3.00	3.00 - 5.00	0.50 - 1.50	1.50 - 3.00	3.00 - 5.00	0.50 - 1.50	1.50 - 3.00	
PCBs/Pesticides (mg/kg)								
AROCLOR-1254	< 0.019 U	< 0.019 U	< 0.018 U	< 0.019 U	< 0.019 U	< 0.019 U	< 0.019 U	0.22
AROCLOR-1260	< 0.019 U	< 0.019 U	< 0.018 U	0.094	**0.979**	< 0.019 U	< 0.019 U	0.22

TABLE 10-2: ANALYTICAL RESULTS FOR IRP SITE 12A SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S12A-GB05	S12A-GB06	S12A-GB06	S12A-GB06	S12A-GB07	S12A-GB07	S12A-GB07	EPA Residential Soil PRGs
Sample ID	274025	274026	274027	274028	274090	274091	274092	
Sample Date	07/08/99	07/09/99	07/09/99	07/09/99	07/13/99	07/13/99	07/13/99	
Sample Depth	3.00 - 5.00	0.50 - 1.50	1.50 - 3.00	3.00 - 5.00	0.50 - 1.50	1.50 - 3.00	3.00 - 5.00	
PCBs/Pesticides (mg/kg)								
AROCLOR-1254	< 0.019 U	< 0.019 U	< 0.019 U	< 0.018 U	< 0.018 U	< 0.017 U	< 0.019 U	0.22
AROCLOR-1260	< 0.019 U	< 0.019 U	< 0.019 U	< 0.018 U	< 0.018 U	0.067	**0.31**	0.22

TABLE 10-2: ANALYTICAL RESULTS FOR IRP SITE 12A SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S12A-GB08	S12A-GB08	S12A-GB08	S12A-GB09	S12A-GB09	S12A-GB09	S12A-GB10	EPA Residential Soil PRGs
Sample ID	274038	274039	274040	274035	274036	274037	274029	
Sample Date	07/09/99	07/09/99	07/09/99	07/09/99	07/09/99	07/09/99	07/09/99	
Sample Depth	0.50 - 1.50	1.50 - 3.00	3.00 - 5.00	0.50 - 1.50	1.50 - 3.00	3.00 - 5.00	0.50 - 1.50	
PCBs/Pesticides (mg/kg)								
AROCLOR-1254	< 0.18 U	< 0.018 U	< 0.018 U	< 0.018 U	< 0.018 U	< 0.019 U	< 0.018 U	0.22
AROCLOR-1260	**1.9 J**	< 0.018 U	< 0.018 U	< 0.018 U	< 0.018 U	< 0.019 U	< 0.018 U	0.22

TABLE 10-2: ANALYTICAL RESULTS FOR IRP SITE 12A SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S12A-GB10	S12A-GB10	S12A-GB11	S12A-GB11	S12A-GB11	EPA Residential Soil PRGs
Sample ID	274030	274031	274032	274033	274034	
Sample Date	07/09/99	07/09/99	07/09/99	07/09/99	07/09/99	
Sample Depth	1.50 - 3.00	3.00 - 5.00	0.50 - 1.50	1.50 - 3.00	3.00 - 5.00	
PCBs/Pesticides (mg/kg)						
AROCLOR-1254	< 0.019 U	< 0.019 U	**0.585**	< 0.018 U	< 0.019 U	0.22
AROCLOR-1260	< 0.019 U	< 0.019 U	< 0.018 U	< 0.018 U	< 0.019 U	0.22

Notes: Categories of analyses are shown, but only detected compounds are presented. Analyte results in boldface type exceed EPA residential soil PRGs.

ID	Identification
J	Estimated value
mg/kg	Milligrams per kilogram
PRG	Preliminary remediation goals
U	Nondetected

11.0 IRP SITE 12B – CED MAINTENANCE SHOP AREA

This section provides the site background and description for IRP Site 12B; summarizes the previous investigations, activities, and existing data; and discusses data gap findings and strategies for eliminating data gaps at IRP Site 12B.

11.1 SITE BACKGROUND

The following sections discuss the site background for IRP Site 12B, including a general site description, discussion of previous and current site activities, and a summary of previous investigations that have been completed at the site.

11.1.1 Site Description

IRP Site 12B covers an area of approximately 6,500 square feet (ERTEC 1991a) and is located adjacent to several buildings and maintenance areas. The site is bounded by Building 816 to the east and Building 1192 to the west, and is located north of 32nd Avenue (Figure 11-1). The site is covered with a concrete apron and asphalt, and was used to service transformers. Site 12B was part of Site 12, the Construction Equipment Departments PCB spill area, and consisted of several buildings and maintenance areas. Site 12 was subsequently divided into two study areas, the Spray Paint Shop Area (Site 12A) and the Maintenance Shop Area (Site 12B).

11.1.2 Site Activities

Potential contamination at IRP Site 12B consists of dielectric fluids containing PCBs that leaked onto the ground surface during servicing of generators and transformers between the early 1970s and 1980. During maintenance activities, the dielectric fluid was removed from generators and transformers, and filtered to reduce moisture content and other impurities. Up to 10 gallons of dielectric fluid was spilled onto the ground during each generator and transformer service (SCS and Landau Associates 1985). An estimated total of 250 to 300 gallons of PCB-containing dielectric fluid was spilled at site. Spills were reportedly cleaned up with rags that were disposed of off the site. IRP Site 12B is currently used only occasionally as a parking area for large vehicles.

11.1.3 Previous Investigations

Previous investigations that have been completed at IRP Site 12B include an IAS (SCS and Landau Associates 1985), a final SI (ERTEC 1991a), a removal evaluation (PRC 1993), supplemental sampling and analysis (PRC 1997b), a preliminary ecological risk evaluation (Fisher 1999), an EE/CA (Tetra Tech 1998c), a basewide groundwater investigation (Tetra Tech and LFR 2001), an action memorandum (Navy 2002a), a removal action (GEOFON 2002), and additional removal action (Cape Environmental 2002), and an On-Scene Coordinator's report (Tetra Tech 2003).

11.1.3.1 Initial Assessment Study (SCS and Landau Associates 1985)

IRP Site 12B was included in the IAS completed at CBC Port Hueneme in 1985. The IAS concluded that PCBs are extremely stable and relatively insoluble in water. PCBs also have a strong affinity for soil and pavement and would not migrate from the site. The IAS determined that there was the potential for on-site worker exposure to PCBs on the surface, and recommended Site 12B for additional study.

11.1.3.2 Final Site Inspection Study (ERTEC 1991a)

An SI was conducted in 1988 at IRP Site 12B to investigate potential PCB contamination of the soils underlying the two areas used to service transformers. Composite soil samples and discrete borehole soil samples were collected and analyzed for pesticides and PCBs. Sixty-five shallow soil samples were collected at 0.5 foot bgs and composited into 10 samples and 2 duplicate samples. Discrete soil samples were collected from seven boreholes at 0.5 and 1.5 feet bgs. PCB concentrations exceeding the screening criteria were detected in 9 of the 10 shallow composite soil samples and in the 2 duplicate samples. PCBs exceeding screening criteria were also detected in six of the seven borehole soil samples collected at 0.5 foot bgs, and in all seven samples collected at 1.5 feet bgs. The organochlorine (OC) pesticide 4,4'-dichlorodiphenyl-trichloroethane (DDT) was detected in only one shallow composite soil sample at a low concentration.

11.1.3.3 Removal Evaluation, Sites 5, 6, 12, 13, and 15 (PRC 1993)

In 1993, a removal site evaluation was conducted based on the data collected during the SI. Because the data evaluation indicated analytical results exceeding screening levels for the site, a screening level human health risk evaluation was performed to estimate the potential residential cancer risks and noncancer HIs from exposure to subsurface soil (0.0 to 10 feet bgs) at the site. The evaluation concluded that the residential cancer risks are within the EPA risk management range of 1×10^{-4} and 1×10^{-6}. The estimated residential HIs were above the threshold value of 1.0, indicating a potential for adverse health effects from residential exposure to soil at IRP Site 12B. Most of the risk was attributed to PCB Aroclor 1260. Though the evaluation concluded that the noncancer HI for the site exceeded the threshold value of 1.0, the site was determined to pose no significant risk, and was recommended for no further action and removal from the IRP. The DTSC did not concur with the recommendation and requested additional data from the site.

11.1.3.4 Draft Technical Memorandum Supplemental Sampling and Analysis, IRP Sites 5, 6, 12B, and 13 (PRC 1997b)

In response to DTSC's request, on April 28, 1997, an additional 31 discrete soil samples were collected to confirm data collected during the 1988 SI and 1993 removal site evaluation. Eleven soil borings were advanced at IRP Site 12B, and discrete subsurface-soil samples were collected to check for presence of PCBs (Figure 11-1). The borings were terminated at depths ranging from 6.5 to 11 feet bgs. PCB (Aroclor 1260) was detected above the EPA Region 9 PRG in

samples collected from borings S12B-SB01, S12B-SB03, S12B-SB06, and S12B-SB10. The data indicated Aroclor 1260 in excess of the PRG was concentrated in the upper two sampling intervals (1.5 to 2.0 and 3.5 to 4.0 feet bgs), and not in the lowest sampling interval from 5.5 to 6.0 feet bgs. This information indicated that PCB contamination had been vertically delineated. Comparison of IRP Site 12B analytical results to the screening criteria indicated the site is not suitable for industrial or residential land use. The technical memorandum recommended that a removal action be completed to address PCB concentrations in soils above 4 feet bgs.

11.1.3.5 Preliminary Ecological Risk Evaluation at IRP Site 9, 12B, and 23 (Fisher 1999)

The Navy conducted a preliminary ERA at IRP Site 12B in January 1999, to determine whether the site presents a risk to nearby ecological receptors. The purpose of the preliminary risk evaluation was to determine if sufficient natural resources would be at risk from site contamination or proposed removal actions to warrant a Phase 1 ERA. Results of the preliminary ecological risk evaluation indicated that there are no sensitive species at this site and no clear pathways for contaminants to cause long-term damage to natural resources; therefore, a Phase I ERA was not warranted for IRP Site 12B, and that the proposed removal action should proceed as planned.

11.1.3.6 Final EE/CA, Non-Time-Critical Removal Action for IRP Sites 9, 12B, and 23 (Tetra Tech 1998c)

In 1998, an EE/CA was prepared for IRP Site 12B to identify and analyze alternative removal actions for addressing the soil contaminated with PCBs at the site. Four removal alternatives were evaluated: soil removal and offsite disposal; soil removal with ex situ physical treatment; in situ biological treatment; and in situ thermal treatment. Based on a comparative analysis of the alternatives, the recommended removal action alternative was removal and off-site disposal.

11.1.3.7 Draft Groundwater Remedial Investigation Report (Tetra Tech and LFR 2001)

From 1997 to 2001, a basewide RI was completed to evaluate the condition of the groundwater and surface water at CBC Port Hueneme. No groundwater wells were installed at IRP Site 12B. Also, no existing wells on the site could be used for sampling; therefore, no groundwater samples specific to IRP Site 12B were collected. However, the available analytical data and groundwater modeling were utilized to evaluate the Semi-Perched Aquifer in the vicinity of IRP Site 12B.

Chemical concentrations in groundwater were screened against NAWQC for the protection of saltwater aquatic life and MCLs. If concentrations of an organic compound exceeded the NAWQC and/or MCL in at least one sampling round at a given location, that compound was considered a COPEC and/or COPC, respectively, at that location. If concentrations of an inorganic compound exceeded the NAWQC and/or MCL in more than one sampling at a given

location, that compound was considered a COPEC and/or a COPC, respectively, at that location. Inorganics were screened differently because they often occur naturally. No COPECs or COPCs were identified in the vicinity of IRP Site 12B. No further evaluation of groundwater within the Semi-Perched Aquifer was recommended in the vicinity of IRP Site 12B.

Following submittal of the draft basewide groundwater investigation report, and review of the groundwater model, DTSC requested that additional site-specific groundwater data be collected (if necessary) and site-specific groundwater data be evaluated to adequately characterize the site.

11.1.3.8 Action Memorandum, Sites 12B, and 23 (Navy 2002a)

In 2002, an AM was prepared to document the Navy's decision to undertake a non-time-critical removal action to remove soil contaminated with PCBs at IRP Site 12B.

11.1.3.9 Final Field Activities Report, Soil Removal and Disposal for the CERCLA Non-time Critical Removal Action at IRP Sites 12B and 23 (GEOFON 2002)

In March and April 2002, a removal action was completed at IRP Site 12B to address PCB contaminated soil. About 1,871 tons of soil was excavated from an area approximately 60 to 75 feet wide, 140 feet long, and 4 feet deep (Figure 11-1). The material was temporarily stockpiled and then transported and disposed of at Chemical Waste Management's Kettleman Hill Facility in Kettleman City, California. A total of 44 confirmation and quality control samples were collected following the removal action. Results of the sampling indicated that PCB concentrations exceeding the EPA TSCA action level of 1 mg/kg were present in the remaining soil surrounding the excavation area.

11.1.3.10 Draft Non-Time-Critical Removal Action Report at IRP Site 12B, and Disposal of PCB-Contaminated Soil (Cape Environmental 2002)

In August 2002, an additional removal action was completed at IRP Site 12B to address remaining PCB-contaminated soil. Approximately 2,093 tons of soil was excavated from an area 80 to 130 feet wide, 160 feet long, and 4.5 feet deep (Figure 11-1). The soil was temporarily stockpiled and then transported and disposed of at Kettleman Hills Landfill in Kettleman City, California. An additional 445 tons of soil previously stockpiled near UST 02 was also transported and disposed of at Kettleman Hills Landfill. A total of 32 confirmation and quality control samples were collected following the removal action. Results of the sampling indicated that PCB concentrations exceeding the EPA TSCA action level of 1 mg/kg were present in the remaining soil adjacent to the existing building at IRP Site 12B. The volume of PCB-contaminated soil adjacent to and under the building was estimated at 150 yd^3. The report indicated that the soil could be removed after the building has been demolished.

11.1.3.11 Draft On-Scene Coordinator's Report for Soil Removal and Disposal for the CERCLA Non-time Critical Removal Action, IRP Sites 12B and 23 (Tetra Tech 2003)

Following the removal action at IRP Site 12B, an HHRA incorporating post-removal action confirmation sampling results was prepared. The estimated cancer risk for future industrial and residential scenarios at the site was determined to be within the EPA risk management range of 1×10^{-6} to 1×10^{-4}, and the total noncancer HI was found to be less than 1. Based on the results of the risk assessment, the Navy recommended closure of the site with institutional controls for IRP Site 12B.

11.2 COMPILATION OF EXISTING SITE DATA

Available data, typically that collected after 1993, has been compiled and tabulated for use in identifying data gaps and additional site activities required to obtain site closure. The available data were screened against the EPA residential soil PRGs. Additional data may be available in previous reports prepared for this site. Dependent upon the site activities identified to obtain site closure, this data may also be reviewed to determine if it is suitable for use in additional evaluations.

Table 11-1 summarizes the samples collected at IRP Site 12B. Table 11-2 includes the soil analytical data for IRP Site 12B. Figure 11-2 shows the contaminants in soil that exceeded screening criteria. Soil was subsequently removed to 4 feet bgs during two removal actions completed in 2002 to address high PCB concentrations in soil. Figure 11-1 identifies the removal action areas. Confirmation samples were collected and analyzed following each removal action; these results are included as Appendix D of this report.

11.3 DATA GAPS

For this SMP, the previous investigations and collected data for IRP Site 12B were reviewed to verify that sufficient information is available to support the final actions and documentation needed to close the site. Identified data gaps and proposed actions to eliminate those data gaps are discussed below.

11.3.1 Soil Data Gaps

A removal action has been competed for this site, and all accessible PCB-contaminated soil was removed and properly disposed of. A small amount of PCB-contaminated soil (approximately 150 yd^3) is suspected to remain underneath Building 816 on site. The recommendation was to remove this soil at the time of building demolition. No additional soil sampling is recommended at IRP Site 12B.

11.3.2 Groundwater Data Gaps

Because no groundwater monitoring wells are located on IRP Site 12B, site risk resulting from potential contaminants in the Semi-Perched Aquifer may not have been adequately evaluated during the basewide groundwater investigation. Monitoring wells and groundwater sampling are required at IRP Site 12B to assess groundwater conditions and support an HHRA and ERA.

11.3.3 Human Health Risk Assessment Data Gaps

Only soil exposures were evaluated in the removal evaluation for IRP Site 12B (PRC 1993) and the post-removal risk evaluation (Tetra Tech 2003). Potential risks from exposure to groundwater have not been evaluated for the site. Groundwater sampling is proposed at the site; therefore, existing soil data and new groundwater data will be evaluated in a new HHRA. The HHRA will evaluate potential risks for exposure to both soil and groundwater at the site. The HHRA will use contemporary EPA, DTSC, and Navy risk assessment guidance to ensure that site soil and groundwater risk assessments are based on current methodology.

11.3.4 Ecological Risk Assessment Data Gaps

An ERA has not been completed for this site. A habitat survey of IRP Site 12B will be completed to determine if a viable habitat exists for ecological receptors.

11.4 Strategy for Eliminating Data Gaps

To eliminate the data gaps identified for IRP Site 12B, three monitoring wells will be installed, one upgradient (S12BMW01) and two downgradient (S12BMW02 and S12BMW03) (Figure 11-3). Groundwater samples will be collected from the three monitoring wells for four quarters. Groundwater samples should be analyzed for PCBs. The recommended groundwater monitoring well installations and groundwater monitoring schemes for IRP Site 12B are as follows:

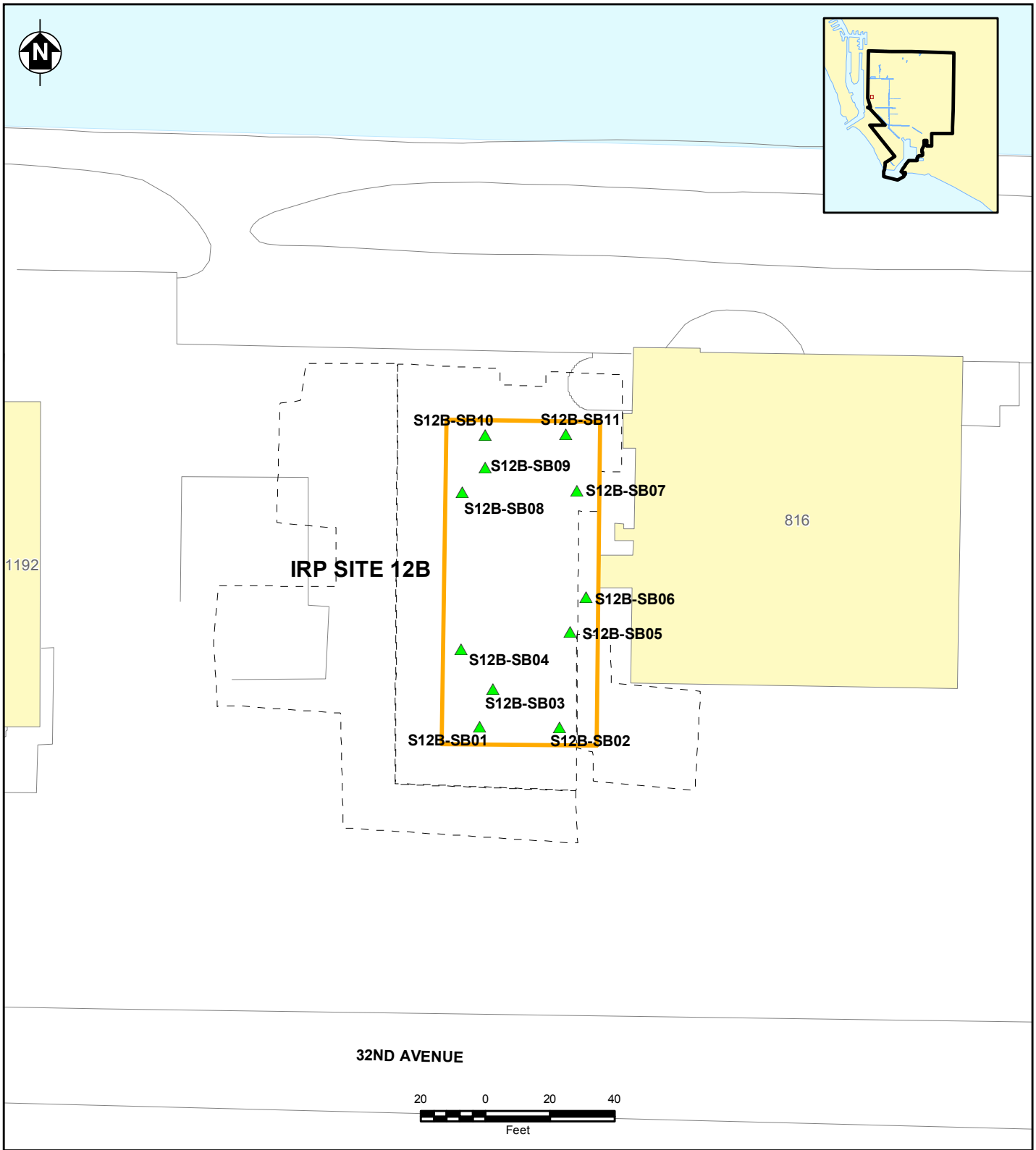
Well ID	Borehole Diameter (inches)	Well Diameter (inches)	Well Depth (feet bgs)	Screened Interval (feet bgs)	Up/Down Gradient	Estimated Water Level (feet bgs)
S12BMW01	8.0	2.0	15	5-15	Up	5
S12BMW02	8.0	2.0	15	5-15	Down	5
S12BMW03	8.0	2.0	15	5-15	Down	5

Well ID	Well Diameter (inches)	Well Depth (feet bgs)	Screened Interval (feet bgs)	Analyses
S12BMW01	2.0	15	5-15	PCBs
S12BMW02	2.0	15	5-15	Same as above
S12BMW03	2.0	15	5-15	Same as above

The new groundwater data will be compiled and evaluated for cumulative risk using EPA tap water PRGs. The data will be evaluated in an HHRA to identify site-specific risks to human health. The HHRA will evaluate both soil and groundwater risks. In addition, a habitat survey of IRP Site 12B will be completed to determine if there is viable habitat for ecological receptors. If viable habitat does exist, a screening level ERA, based on existing surface soil data, will be conducted.

The results of these evaluations, as well as conclusions and recommendations for any additional site activities, will be presented in an RI report.

FIGURES



SOIL BORING

ADDITIONAL EXCAVATION

IRP SITE

CURB

BUILDING

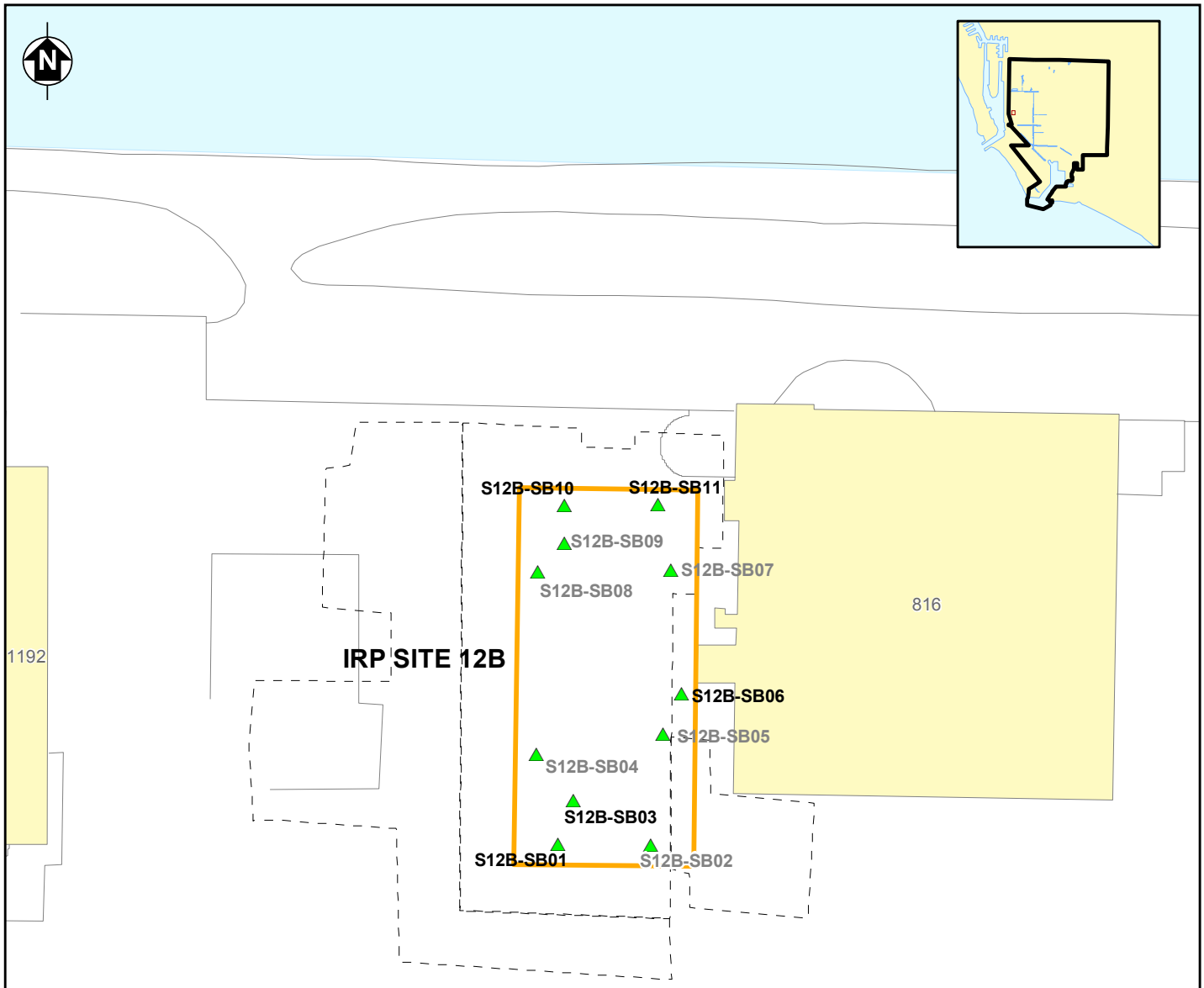
SulTech

CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 11-1
IRP SITE 12B - MAINTENANCE SHOP AREA SITE MAP

Site Management Plan

fig11-1_PHFSMP_IRPsite12B_sitemap_122004.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases



NOTES:
ID = Identification
mg/kg = milligrams per kilogram
ft bgs = feet below ground surface
NR = sample depth not recorded

IRP Site 12B	(mg/kg)				
Sample Point ID	Sample Date	Sample Depth (ft bgs)	Analyte Exceeding Criteria	Result	Screening Criteria
S12B-SB10	28-Apr-97	1.5	AROCLOR-1260	2.2	0.22
S12B-SB11	28-Apr-97	1	AROCLOR-1260	2.7	0.22
S12B-SB06	28-Apr-97	3	AROCLOR-1260	1.5	0.22
S12B-SB01	28-Apr-97	1.5	AROCLOR-1260	1.7	0.22
S12B-SB03	28-Apr-97	3	AROCLOR-1260	1.9	0.22

32ND AVENUE

20 0 20 40
Feet

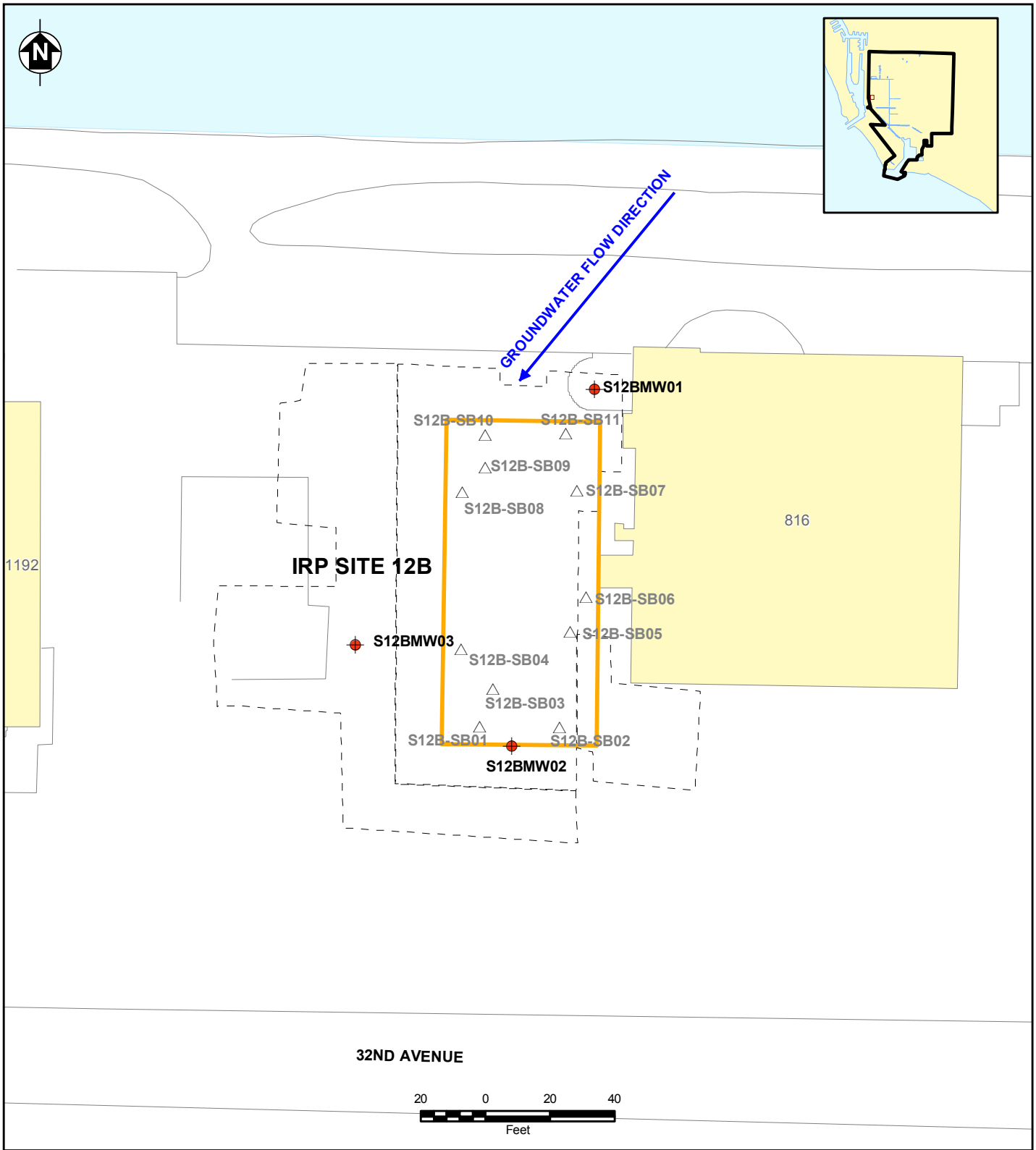
SOIL BORING
ADDITIONAL EXCAVATION
S12B-SB03 SAMPLE EXCEEDING SCREENING CRITERIA IN BOLD
IRP SITE
CURB
BUILDING

SulTech

CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 11-2
IRP SITE 12B - MAINTENANCE SHOP AREA
ANALYTES IN SOIL
EXCEEDING SCREENING CRITERIA
Site Management Plan

fig11-2_PHFSMP_IRPsite12B_soil_122004.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases



PROPOSED SAMPLE LOCATIONS
In black text

MONITORING WELL

PREVIOUS SAMPLE LOCATIONS
In gray text

SOIL SAMPLE

IRP SITE

CURB

GROUNDWATER FLOW

BUILDING

ADDITIONAL EXCAVATION

SulTech

CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 11-3
IRP SITE 12B - MAINTENANCE SHOP AREA
PROPOSED GROUNDWATER SAMPLING LOCATIONS
Site Management Plan

fig11-3_PHFSMP__IRPsite12B_GW_122004.mxd TtEMI-HE Ed Madej
Data Source: SulTech GIS databases

TABLES

TABLE 11-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 12B

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
23497042801ADM	SOIL	04/28/97	S12B-SB01	ORIG	1.00 - 1.50					✓							
23497042801BDM	SOIL	04/28/97	S12B-SB01	ORIG	1.50 - 2.00					✓							
23497042802ADM	SOIL	04/28/97	S12B-SB01	ORIG	3.00 - 3.50					✓							
23497042802BDM	SOIL	04/28/97	S12B-SB01	ORIG	3.50 - 4.00					✓							
23497042803ADM	SOIL	04/28/97	S12B-SB01	ORIG	10.00 - 10.50					✓							
23497042803BDM	SOIL	04/28/97	S12B-SB01	ORIG	10.50 - 11.00					✓							
23497042818DM	SOIL	04/28/97	S12B-SB02	ORIG	3.00 - 3.50					✓							
23497042819DM	SOIL	04/28/97	S12B-SB02	ORIG	5.50 - 6.00					✓							
23497042804DM	SOIL	04/28/97	S12B-SB03	ORIG	3.00 - 3.50					✓							
23497042805DM	SOIL	04/28/97	S12B-SB03	ORIG	5.50 - 6.00					✓							
23497042806ADM	SOIL	04/28/97	S12B-SB04	ORIG	3.00 - 3.50					✓							
23497042806BDM	SOIL	04/28/97	S12B-SB04	ORIG	3.50 - 4.00					✓							
23497042807ADM	SOIL	04/28/97	S12B-SB04	ORIG	5.50 - 6.00					✓							
23497042807BDM	SOIL	04/28/97	S12B-SB04	ORIG	6.00 - 6.50					✓							
23497042816DM	SOIL	04/28/97	S12B-SB05	ORIG	3.00 - 3.50					✓							
23497042817DM	SOIL	04/28/97	S12B-SB05	ORIG	6.00 - 6.50					✓							
23497042814DM	SOIL	04/28/97	S12B-SB06	ORIG	3.00 - 3.50					✓							
23497042815DM	SOIL	04/28/97	S12B-SB06	ORIG	5.50 - 6.00					✓							
23497042808DM	SOIL	04/28/97	S12B-SB07	ORIG	3.00 - 3.50					✓							
23497042809DM	SOIL	04/28/97	S12B-SB07	ORIG	5.50 - 6.00					✓							
23497042810DM	SOIL	04/28/97	S12B-SB08	ORIG	3.00 - 3.50					✓							
23497042811ADM	SOIL	04/28/97	S12B-SB08	ORIG	5.50 - 6.00					✓							
23497042811BDM	SOIL	04/28/97	S12B-SB08	ORIG	6.00 - 6.50					✓							
23497042812DM	SOIL	04/28/97	S12B-SB09	ORIG	3.00 - 3.50					✓							
23497042813DM	SOIL	04/28/97	S12B-SB09	ORIG	6.00 - 6.50					✓							

TABLE 11-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 12B (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
23497042820DM	SOIL	04/28/97	S12B-SB10	ORIG	1.50 - 2.00					✓							
23497042821DM	SOIL	04/28/97	S12B-SB10	ORIG	3.00 - 3.50					✓							
23497042822DM	SOIL	04/28/97	S12B-SB10	ORIG	10.50 - 11.00					✓							
23497042823DM	SOIL	04/28/97	S12B-SB11	ORIG	1.00 - 1.50					✓							
23497042824DM	SOIL	04/28/97	S12B-SB11	ORIG	3.50 - 4.00					✓							
23497042825DM	SOIL	04/28/97	S12B-SB11	ORIG	10.50 - 11.00					✓							
TOTAL						0	0	0	0	31	0	0	0	0	0	0	0

Notes:

DMETL	Metals (filtered)	ORGPB	Organic Lead	SVOC	Semivolatile organic compound
GMETL	General mineral	PCB	Polychlorinated biphenyls	TPH-e	Total petroleum hydrocarbons, extractables
METL	Metals (total - unfiltered)	PEST	Pesticides	TPH-p	Total petroleum hydrocarbons, purgeables
NA	Not applicable	PESTO	Organophosphorus pesticides	VOC	Volatile organic compound
				✓	Sample collected and analyzed; blank cell indicates no sample collected.

TABLE 11-2: ANALYTICAL RESULTS FOR IRP SITE 12B SOIL SAMPLES

Site Management Plan, CBC Port Hueneme

Sample Location ID	S12B-SB01	S12B-SB01	S12B-SB01	S12B-SB01	S12B-SB01	S12B-SB01	S12B-SB02	EPA Residential Soil PRGs
Sample ID	23497042801AD	23497042801BD	23497042802AD	23497042802BD	23497042803AD	23497042803BD	23497042818DM	
Sample Date	04/28/1997	04/28/1997	04/28/1997	04/28/1997	04/28/1997	04/28/1997	04/28/1997	
Sample Depth	1.00 - 1.50	1.50 - 2.00	3.00 - 3.50	3.50 - 4.00	10.00 - 10.50	10.50 - 11.00	3.00 - 3.50	
PCBs/Pesticides (mg/kg)								
AROCLOR-1260	0.22	**1.7**	< 0.019 U	< 0.019 U	< 0.019 U	< 0.02 U	< 0.019 U	0.22

TABLE 11-2: ANALYTICAL RESULTS FOR IRP SITE 12B SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S12B-SB02	S12B-SB03	S12B-SB03	S12B-SB04	S12B-SB04	S12B-SB04	S12B-SB04	EPA Residential Soil PRGs
Sample ID	23497042819DM	23497042804DM	23497042805DM	23497042806AD	23497042806BD	23497042807AD	23497042807BD	
Sample Date	04/28/1997	04/28/1997	04/28/1997	04/28/1997	04/28/1997	04/28/1997	04/28/1997	
Sample Depth	5.50 - 6.00	3.00 - 3.50	5.50 - 6.00	3.00 - 3.50	3.50 - 4.00	5.50 - 6.00	6.00 - 6.50	
PCBs/Pesticides (mg/kg)								
AROCLOR-1260	< 0.019 U	**1.9**	< 0.018 U	< 0.018 U	< 0.018 U	< 0.019 U	< 0.019 U	0.22

TABLE 11-2: ANALYTICAL RESULTS FOR IRP SITE 12B SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S12B-SB05	S12B-SB05	S12B-SB06	S12B-SB06	S12B-SB07	S12B-SB07	S12B-SB08	EPA Residential Soil PRGs
Sample ID	23497042816DM	23497042817DM	23497042814DM	23497042815DM	23497042808DM	23497042809DM	23497042810DM	
Sample Date	04/28/1997	04/28/1997	04/28/1997	04/28/1997	04/28/1997	04/28/1997	04/28/1997	
Sample Depth	3.00 - 3.50	6.00 - 6.50	3.00 - 3.50	5.50 - 6.00	3.00 - 3.50	5.50 - 6.00	3.00 - 3.50	
PCBs/Pesticides (mg/kg)								
AROCLOR-1260	< 0.019 U	< 0.019 U	**1.5**	< 0.019 U	< 0.019 U	< 0.02 U	< 0.019 U	0.22

TABLE 11-2: ANALYTICAL RESULTS FOR IRP SITE 12B SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S12B-SB08	S12B-SB08	S12B-SB09	S12B-SB09	S12B-SB10	S12B-SB10	S12B-SB10	EPA Residential Soil PRGs
Sample ID	23497042811AD	23497042811BD	23497042812DM	23497042813DM	23497042820DM	23497042821DM	23497042822DM	
Sample Date	04/28/1997	04/28/1997	04/28/1997	04/28/1997	04/28/1997	04/28/1997	04/28/1997	
Sample Depth	5.50 - 6.00	6.00 - 6.50	3.00 - 3.50	6.00 - 6.50	1.50 - 2.00	3.00 - 3.50	10.50 - 11.00	
PCBs/Pesticides (mg/kg)								
AROCLOR-1260	< 0.02 U	< 0.019 U	0.052	< 0.019 U	**2.2**	< 0.018 U	< 0.019 U	0.22

TABLE 11-2: ANALYTICAL RESULTS FOR IRP SITE 12B SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S12B-SB11	S12B-SB11	S12B-SB11	EPA Residential Soil PRGs
Sample ID	23497042823DM	23497042824DM	23497042825DM	
Sample Date	04/28/1997	04/28/1997	04/28/1997	
Sample Depth	1.00 - 1.50	3.50 - 4.00	10.50 - 11.00	
PCBs/Pesticides (mg/kg)				
AROCLOR-1260	**2.7**	< 0.019 U	< 0.019 U	0.22

Notes: Categories of analyses are shown, but only detected compounds are presented. Analyte results in boldface type exceed EPA residential soil PRGs.

ID	Identification
mg/kg	Milligrams per kilogram
PRG	Preliminary remediation goals
U	Nondetected

12.0 IRP SITE 13 – FORMER MUSE STORAGE YARD

This section provides the site background and description for IRP Site 13; summarizes the previous investigations, activities, and existing data; and discusses data gap findings and strategies for eliminating data gaps at IRP Site 13.

12.1 SITE BACKGROUND

The following sections discuss the site background for IRP Site 13, including a general site description, discussion of previous and current site activities, and a summary of previous investigations that have been completed at the site.

12.1.1 Site Description

IRP Site 13 is located northwest of the intersection of 32nd Avenue and Pennsylvania Avenue (Figure 12-1). The area is approximately 500 by 175 feet and is covered with asphalt.

12.1.2 Site Activities

IRP Site 13 was used from the late 1970s through the 1980s as a Mobile Utility Service Equipment storage yard (PRC 1997b). Some equipment stored at IRP Site 13 contained dielectric fluid containing PCBs. Drums of PCB containing fluid were stored at the site, and Navy records indicate observations of surface oil-stained areas, potentially representing suspected spill areas (SCS and Landau Associates 1985).

12.1.3 Previous Investigations

Previous investigations that have been completed at IRP Site 13 include a surface soil investigation (NEESA 1982), an IAS (SCS and Landau Associates 1985), a final SI (ERTEC 1991a), a removal evaluation (PRC 1993), and supplemental sampling and analysis (PRC 1997b).

12.1.3.1 Surface Soil Investigation, Former Open Storage Lot, Defense Reutilization and Marketing Office (NEESA 1982)

In November 1982, NEESA Hazardous Materials Department conducted a study at IRP Site 13. The study was initiated to satisfy environmental sampling required in the engineering plans to move the equipment stored at the site to another location (SCS and Landau Associates 1985).

Seventeen soil samples from all oil-stained areas within 300 feet north of 32nd Avenue, representing the area of greatest use at the site, were sampled. The remaining area was sampled randomly (sample locations not shown on Figure 12-1). Soil samples were analyzed for PCBs by the NEESA Environmental Quality Laboratory. Sample volume was insufficient to analyze

two of the samples collected. The samples not analyzed were a pavement material sample and a swab sample. Elevated levels of PCBs were detected in soil samples from two locations in the northern section at concentrations of 90,000 and 130,000 mg/kg. The sample with PCB concentrations of 130,000 mg/kg was collected from tarry material on a wooden pallet on site; the sample with PCB concentrations of 90,000 mg/kg was collected from an area where five 55-gallon drums were stored. The remaining soil samples contained concentrations ranging from non-detectable to 6 mg/kg. Soil samples collected from the southern section did not contain detectable concentrations of PCBs. Soil and debris surrounding the areas of elevated contaminant levels were removed and disposed of off site.

12.1.3.2 Initial Assessment Study (SCS and Landau Associates 1985)

During the IAS it was discovered that the contaminated pallet and the 55-gallon drums had been removed from the site, however the ground around the drums had apparently not been cleaned. The IAS concluded that PCBs are very stable and relatively insoluble in water; it was further concluded that PCBs have a strong affinity for soil and pavement and therefore would not migrate from the site. The IAS determined that there was a risk to on-site workers from exposure to PCBs in the surface, therefore the site was recommended for further study.

12.1.3.3 Final Site Inspection Study (ERTEC 1991a)

The SI focused on a 50- by 120-foot area in the northern section of the site. This area encompassed the location where the contaminated samples were collected during the NEESA hazardous materials department (HMD) study (NEESA 1982). The southern section of the site was not included in the SI because no spills of dielectric fluid were reported for this section of the storage yard, as confirmed by the NEESA HMD study. Fifty-four shallow soil samples were collected from a sampling grid at the site. The samples were collected from shallow soil immediately beneath the asphalt. The 54 samples were subsequently composited into 6 samples for laboratory analysis. An additional six soil boreholes were hand-augured to a depth of approximately 6 feet (sample locations not shown on Figure 12-1), and 24 soil samples were collected at 0.5, 1.5, 3.0, and 6.0 feet bgs. The 0.5- and 1.5-foot samples were analyzed for PCBs and pesticides. No PCBs or pesticides were detected above the laboratory detection limits in any composite soil samples or soil borehole samples collected beneath the asphalt during the SI. Supplementary sampling activities were conducted in 1991 and by NEESA in 1993. Eighteen samples were collected during the supplemental SI from the asphalt surface and analyzed for PCBs and pesticides (sample locations not shown on Figure 12-1). No PCBs or pesticides were detected above the laboratory detection limits during the supplemental SI in 1991. However, the Navy detected PCBs at 13 and 28 mg/kg in soil during a sampling event in March 1993.

12.1.3.4 Removal Evaluation, Sites 5, 6, 12, 13, and 15 (PRC 1993)

In 1993, a removal evaluation was conducted for IRP Sites 5, 6, 12, 13, and 15. The report presented the site background, sampling activities, analytical results, land use, and potential pathways and receptors to support risk evaluations and recommendations for removal of the sites from the IRP. Based on background information and sampling results, none of the sites were recommended for further action (PRC 1993).

12.1.3.5 Draft Technical Memorandum Supplemental Sampling and Analysis IRP Sites 5, 6, 12B, and 13 (PRC 1997b)

In April 1997, soil samples were collected using direct-push drilling methods to confirm data collected during the 1988 SI and 1991 supplemental SI. Four direct-push borings were advanced and 10 discrete subsurface soil samples were collected to check for presence of PCBs (Figure 12-1). Direct-push borings S13-SB01 through S13-SB04 were advanced along the northern and western perimeter of the asphalt patch located west of Pennsylvania Avenue and south of railroad track No. 15. The borings were terminated at depths ranging from 4.0 to 6.5 feet bgs. Table 12-1 summarizes the samples collected at IRP Site 13.

The data indicated that PCBs were present in the subsurface soil from 1.0 to 6.0 feet bgs at concentrations ranging from 0.018 to 0.020 mg/kg. All PCB concentrations were below industrial and residential PRGs of 0.3 and 0.066 mg/kg, respectively. Analytical results indicated that IRP Site 13 was suitable for unrestricted land use. Further investigation or remediation was not recommended, and institutional controls were not necessary for this site.

Previously reported PCB results for samples collected by the Navy in March 1993 (13 and 28 mg/kg) were not considered valid or representative of conditions at IRP Site 13. Validity of the analytical results could not be confirmed because of the unavailability of sampling, preservation, analytical, and quality assurance and quality control documentation. The samples were reportedly collected just west of the site from surface sediment that had accumulated due to precipitation events. Subsequent analytical results for samples collected from the general area of the March 1993 sampling event (borings S13-SB01 and S13-SB02) indicated that PCBs were not present at concentrations exceeding the EPA PRGs.

12.1.4 Previous and Current Actions and Decisions

Following the submittal of the Final Technical Memorandum Supplemental Sampling and Analysis (PRC 1997b), DTSC issues a letter (DTSC 1997) indicating concurrence with the Navy's recommendation for no further action at IRP Site 13. DTSC concurred that soil analytical results showed that concentrations for metals, VOCs, SVOCs, pesticides, and PCBs, were below background (see Appendix B) and/or PRGs. The Navy replied to DTSC's concurrence, stating that DTSC's letter will serve as documentation that IRP Site 13 has been removed from further consideration under the Navy's IRP. DTSC's 1997 letter serves as documentation of site closure, indicating that no further action is necessary.

12.2 COMPILATION OF EXISTING SITE DATA

A review of existing data was not conducted for IRP Site 13 because no further action is required for either soil or groundwater based on a letter received from DTSC (DTSC 1997).

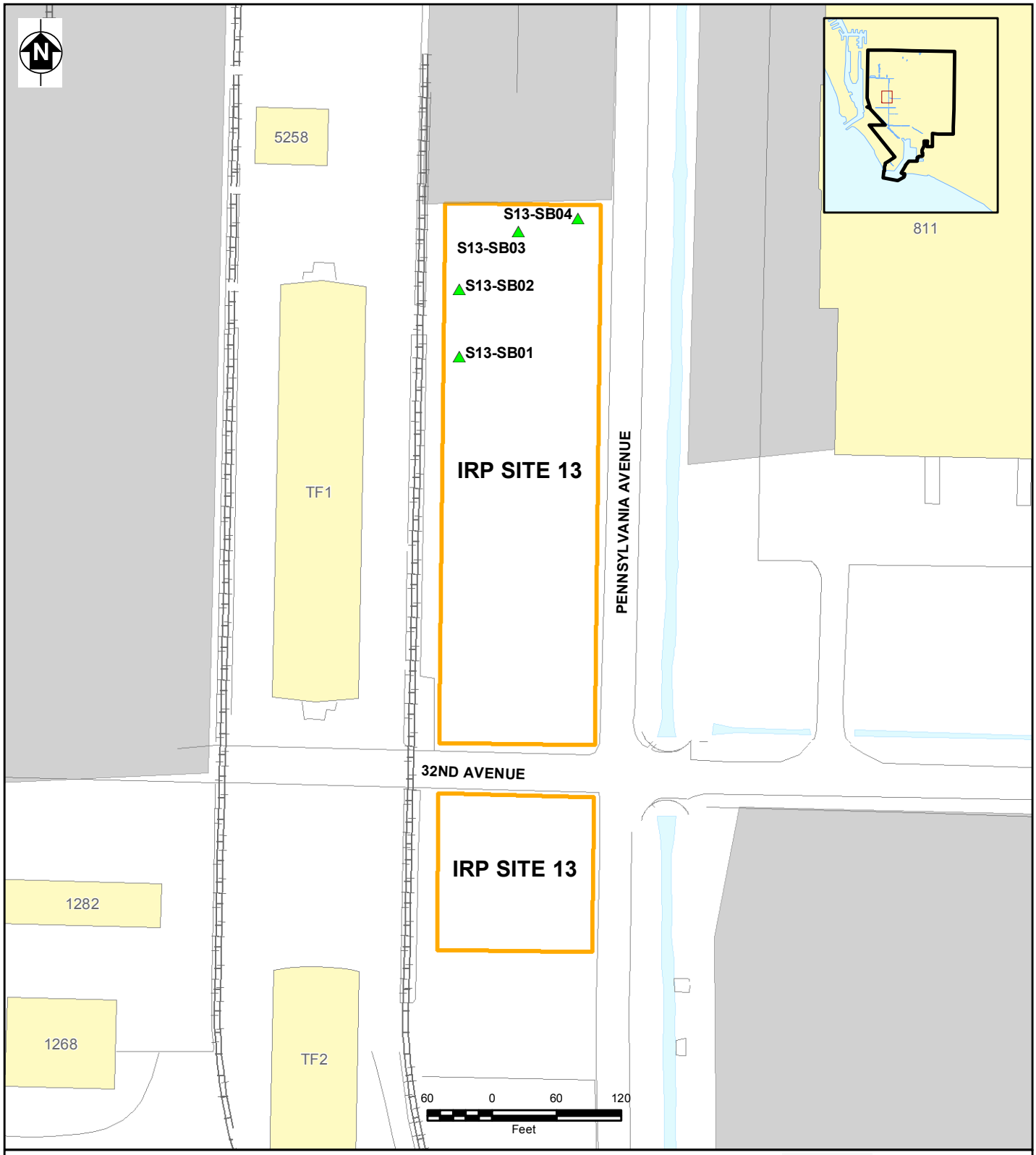
12.3 DATA GAPS

No data gaps were identified for IRP Site 13, and HHRA or ERA are not necessary. The existing information is sufficient to support the decision for site closure

12.4 STRATEGY

No data gaps exist at IRP Site 13. All work is complete. Sufficient documentation regarding closure is available and no further reporting or documentation is necessary.

FIGURES



▲ SOIL BORING

IRP SITE

RAILROAD

CURB

BUILDING

PAVED AREA (NOT ROAD)

SulTech

CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 12-1
IRP SITE 13 -
FORMER MUSE STORAGE AREA
SITE MAP

Site Management Plan

fig12-1_PHFSMP_IRPsite13_sitemap_122004.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases

TABLES

TABLE 12-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 13

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
23497042908DM	SOIL	04/29/97	S13-SB01	ORIG	1.00 - 1.50					✓							
23497042909DM	SOIL	04/29/97	S13-SB01	ORIG	3.00 - 3.50					✓							
23497042906DM	SOIL	04/29/97	S13-SB02	ORIG	1.00 - 1.50					✓							
23497042907DM	SOIL	04/29/97	S13-SB02	ORIG	3.00 - 3.50					✓							
23497042904DM	SOIL	04/29/97	S13-SB03	ORIG	1.00 - 1.50					✓							
23497042905DM	SOIL	04/29/97	S13-SB03	ORIG	3.00 - 3.50					✓							
23497042901DM	SOIL	04/29/97	S13-SB04	ORIG	1.00 - 1.50					✓							
23497042902DM	SOIL	04/29/97	S13-SB04	ORIG	3.50 - 4.00					✓							
23497042903DM	SOIL	04/29/97	S13-SB04	ORIG	5.50 - 6.00					✓							
08797101611S	WATER	10/16/97	GWIMW12	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798011613D	WATER	01/16/98	GWIMW12	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798040730W	WATER	04/07/98	GWIMW12	ORIG	NA	✓	✓	✓	✓				✓	✓			
TOTAL						3	3	3	3	9	0	0	3	3	0	0	0

Notes:

DMETL	Metals (filtered)	ORGPB	Organic Lead	SVOC	Semivolatile organic compound
GMETL	General mineral	PCB	Polychlorinated biphenyls	TPH-e	Total petroleum hydrocarbons, extractables
METL	Metals (total - unfiltered)	PEST	Pesticides	TPH-p	Total petroleum hydrocarbons, purgeables
NA	Not applicable	PESTO	Organophosphorus pesticides	VOC	Volatile organic compound
				✓	Sample collected and analyzed; blank cell indicates no sample collected.

13.0 IRP SITE 14 – EARTH MOVING AREA

This section provides the site background and description for IRP Site 14; summarizes the previous investigations, activities, and existing data; and discusses data gap findings and strategies for eliminating data gaps at IRP Site 14.

13.1 SITE BACKGROUND

The following sections discuss the site background for IRP Site 14, including a general site description, discussion of previous and current site activities, and a summary of previous investigations that have been completed at the site.

13.1.1 Site Description

IRP Site 14 is a 33-acre, unpaved, unfenced area on the western perimeter of CBC Port Hueneme site. The site is bounded by 23rd Avenue to the north, Track 18 Road to the east, West Road to the west, and several maintenance buildings of the CED complex to the south (Figure 13-1).

13.1.2 Site Activities

The northern portion of IRP Site 14 was used for heavy equipment training, and the southern portion of the site was used for equipment and vehicle storage. During the 1950s and 1960s, solid waste and drums of chemicals were reportedly buried at the site in trenches that were later covered. Mounds of harbor dredgings and soil from miscellaneous projects were added. In the 1960s and 1970s, pesticides were reportedly buried at the site in additional trenches, and a variety of waste oils were sprayed to control dust. Following the RI, the site was capped in 2000 using an approved alternative to EPA's presumptive remedy for landfill closure. The site was capped with a geosynthetic drainage layer covered by 2 feet of clean vegetative soil. Long-term monitoring will be in effect as part of the post-closure maintenance plan for the site.

13.1.3 Previous Investigations

Previous investigations that have been completed at IRP Site 14 include an IAS (SCS and Landau Associates 1985), a soil investigation (NEESA 1985a), a final SI (ERTEC 1991a), an RI (PRC 1997a), an EE/CA (RUST 1997a), an AM (RUST 1997b), a final landfill cap design (Tetra Tech 1998b), a basewide groundwater investigation (Tetra Tech and LFR 2001), and a final post-closure maintenance plan (Tetra Tech 2002a).

13.1.3.1 Initial Assessment Study (SCS and Landau Associates 1985)

IRP Site 14 was identified as a potential hazardous waste site containing soil contamination from previous disposal activities. The IAS determined that personnel working and training at this site may be exposed to PCB and other wastes in the surface soil or to chemicals in the buried

trenches on site; therefore, the IAS recommended a confirmation study to investigate potential soil contamination related to waste disposal activities.

13.1.3.2 Soil Investigation (NEESA 1985a)

Soil samples were collected to determine if the site posed a potential threat to Navy personnel working in the area. Soil samples collected from nine locations to a depth of 5 feet bgs were analyzed for pesticides, PCBs, trichloroethylene, and organic lead (sample locations not shown on Figure 13-1). Laboratory analysis indicated that contamination was present in the shallow soil zone (2 to 5 feet bgs), but did not pose a threat to on-site workers.

13.1.3.3 Final Site Inspection Study (ERTEC 1991a)

An SI was performed in 1988 and 1989. The goal of the SI was to assess the site for possible soil and groundwater contamination resulting from past waste disposal activities, and investigate any tidal influence on groundwater. During SI activities, 20 soil borings (S14-SB01 through S14-SB12, S14-SB12R, and S14-SB13 through S14-SB19) and 10 monitoring wells (S14MW01 through S14MW10) were sampled to characterize suspected trench areas identified within geophysical anomalies (Figure 13-1). Soil and groundwater samples to a maximum depth of 20 feet bgs were analyzed for VOCs, SVOCs, TPH, pesticides and PCBs, pH, and metals. VOCs, SVOCs, pesticides, PCBs, and metals were detected in one or more soil samples; vapam, arsenic, lead, selenium, thallium, and zinc were detected in one or more groundwater samples. Water level measurements indicated that wells S14-MW03, S14-MW04, S14-MW05, and S14-MW06 showed tidal fluctuations. A supplemental SI was conducted in 1991. During the supplemental SI, test pits (T1 through T15) were excavated to further investigate the geophysical anomalies identified in the SI (Figure 13-1). The maximum depth sampled was 15 feet bgs. VOCs, SVOCs, pesticides, PCBs, and metals were detected in one or more soil samples. VOCs, SVOCs, pesticides, PCBs, gasoline, and diesel fuel were detected in one or more groundwater samples. The final SI and supplemental SI concluded that geophysical surveys, trenching activities, and soil and groundwater sampling confirmed presence of contaminants at locations throughout the site; however, contaminant trends could not be characterized.

13.1.3.4 Final Remedial Investigation (PRC 1997a)

The RI objectives were to further evaluate contamination detected during previous studies and investigate areas within IRP Site 14 that had not been investigated before. Fourteen soil borings (S14-SB20 through S14-SB32 and replacement well S14-SB06R) and five monitoring wells (S14MW11 through S14MW15) were installed during the RI (Figure 13-1). A total of 144 soil samples were collected from the borings and monitoring wells, and analyzed for VOCs, SVOCs, pesticides, PCBs, TPH-e and TPH-p, and metals. The monitoring wells were sampled quarterly for one year; samples were analyzed for VOCs, SVOCs, pesticides, PCBs, TPH-p and TPH-e, metals, and general water chemistry. In addition, 11 sediment samples were collected and 24 test pits (T16 though T39) were excavated to the water table (not shown on Figure 13-1). One or more environmental samples were analyzed for the parameters listed above.

VOCs, SVOCs, pesticides, PCBs, and metals were detected in soil at IRP Site 14. VOCs, SVOCs, pesticides, TPH, and metals were detected in groundwater samples. PAHs and PCBs were found in soil borings and test pits at randomly distributed locations and depths throughout the site. Toxaphene (pesticide) and antimony were found in different soil samples collected from one boring at a maximum depth of 10 feet bgs. No site-specific source areas or hot spots in soil were identified.

An HHRA was performed during the RI to evaluate potential risks from exposure to site soils under industrial worker, construction worker, and residential exposure scenarios. The HHRA identified the following constituents as COCs: seven PAHs including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene; the PCB Aroclor-1260; the pesticide toxaphene; and the metal antimony. Cancer risks were above the EPA risk management range of 1×10^{-4} to 1×10^{-6} for the current construction worker, future industrial, and future residential (RME) exposure scenarios. The HIs associated with potential adverse noncarcinogenic effects for the future residential (RME) exposure scenario exceeded 1. Recommendations based on these results were for steps to reduce exposure to on-site workers from contaminated soil, close the site in accordance to solid waste landfill closure requirements, and monitor contaminants in groundwater as part of closure and post-closure activities. In addition, continued sampling of groundwater as part of the basewide groundwater monitoring program was recommended.

13.1.3.5 Final EE/CA (RUST 1997a), Final AM (RUST 1997b), Final Landfill Cap Design and Specifications (Tetra Tech 1998b)

An EE/CA, AM, and design were prepared for a landfill cap at IRP Site 14. The EE/CA was prepared in 1997 to evaluate various cleanup options for IRP Site 14. In 1997 the Navy signed the follow-on AM, selecting a cover for the Site 14 landfill, appropriate land use controls, and groundwater and gas monitoring. The cover design, consisting of a geosynthetic drainage layer and 2 feet of clean vegetative soil, was prepared in 1998 (Tetra Tech 1998b, 1998d) and the final cover was constructed from September 1998 to July 2000.

13.1.3.6 Draft Groundwater Remedial Investigation Report (Tetra Tech and LFR 2001)

From 1997 to 2001, a basewide RI was completed to evaluate the condition of the groundwater and surface water at CBC Port Hueneme. Four quarters of groundwater samples were collected from monitoring wells S14MW01 through S14MW04, S14MW-7 through S14MW09, S14MW11, S14MW12, S24MW14, and S14MW15 (Figure 13-1). One quarter of samples were collected from monitoring wells S14MW05, S14MW06R, S14MW10, and S14MW13.

Chemical concentrations in groundwater were screened against NAWQC for the protection of saltwater aquatic life and MCLs. If concentrations of an organic compound exceeded the NAWQC and/or MCL in at least one sampling round at a given location, that compound was considered a COPEC and/or COPC, respectively, at that location. If concentrations of an

inorganic compound exceeded the NAWQC and/or MCL in more than one sampling event at a given location, that compound was considered a COPEC and/or a COPC, respectively. Inorganics were screened differently because they often occur naturally. Copper, mercury, silver, and 1.4-dichlorobenzene were identified as COPECs and/or COPCs for samples collected from IRP Site 14 monitoring wells. The results indicated that the Semi-Perched Aquifer at IRP Site 14 may have been affected by metals and SVOCs. An additional HHRA and ERA was recommended for IRP Site 14.

13.1.3.7 Final Post-Closure Maintenance Plan, IRP Site 14 (Tetra Tech 2002a)

In 1998, a CERCLA removal action was performed at IRP Site 14 that included capping the former earthmoving training area. The post-closure maintenance plan was prepared to ensure compliance with substantive requirements of Title 27 of the CCR applicable or relevant and appropriate requirements relating to post-closure maintenance of the landfill cover, and groundwater and gas monitoring of the landfill. The post-closure monitoring plan serves as the Navy's principal means to: provide information to support Navy development of a request for proposals and scope of work for award of a post-closure maintenance contract; provide explicit instructions to the maintenance contractor for conducting and reporting on inspection, evaluation, and repair of the final cover; and provide the designer's requirements for and prohibitions against certain future land uses on the final cover. Long-term groundwater monitoring from eight monitoring wells has been initiated at the site as part of the post-closure monitoring plan.

13.2 COMPILATION OF EXISTING SITE DATA

Available data, typically collected after 1993, has been compiled and tabulated for use in identifying data gaps and additional site activities required to obtain site closure. The available data were screened against the EPA residential soil and tap water PRGs. Additional data may be available in previous reports prepared for this site. Dependent upon the site activities identified to obtain site closure, this data may also be reviewed to determine if it is suitable for use in additional evaluations.

Table 13-1 summarizes the samples collected at IRP Site 14. Table 13-2 includes the soil analytical data for IRP Site 14, and Figure 13-2 shows the concentrations in IRP Site 14 soils that were detected above the respective screening criteria. Table 13-3 includes the groundwater analytical data for IRP Site 14, and Figure 13-3 shows the concentrations in IRP Site 14 groundwater that exceed screening criteria.

13.3 DATA GAPS

For this SMP, the previous investigations and collected data for IRP Site 14 were reviewed to verify that sufficient information is available to support the final actions and documentation needed to close the site. Identified data gaps and proposed actions to eliminate these data gaps are discussed below.

13.3.1 Soil Data Gaps

Based on a review of the existing soil data for IRP Site 14, no further soil sampling is recommended at the site. Post-closure landfill maintenance activities are ongoing at the site.

13.3.2 Groundwater Data Gaps

Continued long-term groundwater monitoring as part of the post-closure maintenance plan is recommended. The current post-closure maintenance plan calls for monitoring based on mean groundwater flow directions identified by the RI for IRP Site 14. The basewide groundwater investigation has since identified the possibility that flow directions may differ once the leaking sanitary sewer (which is drawing groundwater and thus affecting flow directions at the base) is repaired. The planned monitoring well array may need to be revised to reflect post-sewer repair groundwater flow directions. Post-sewer repair groundwater flow directions must be established for effective long-term monitoring at the site.

No additional groundwater sampling is recommended for this site other than that taking place under post closure maintenance activities.

13.3.3 Human Health Risk Assessment Data Gaps

Only soil exposures were evaluated in the removal evaluation for IRP Site 14 (PRC 1997a). The landfill cap placed over the site renders all soil exposure pathways incomplete; therefore no risks are associated with soil and IRP Site 14. Potential risks from exposure to groundwater have not been evaluated for the site. Therefore, an HHRA should be completed to incorporate existing groundwater data and evaluate the potential risks from groundwater.

13.3.4 Ecological Risk Assessment Data Gaps

An ERA is not necessary for this site because the site has been capped with geotextile synthetic clay liner overlain by a 2-foot layer of clean soil; therefore there are no pathways to ecological receptors.

13.4 STRATEGY FOR ELIMINATING DATA GAPS

No additional soil or groundwater sampling is proposed for this site. Previously collected data will be evaluated in an HHRA to identify site-specific risks to human health from groundwater. Results of the HHRA will be presented in an RI.

FIGURES

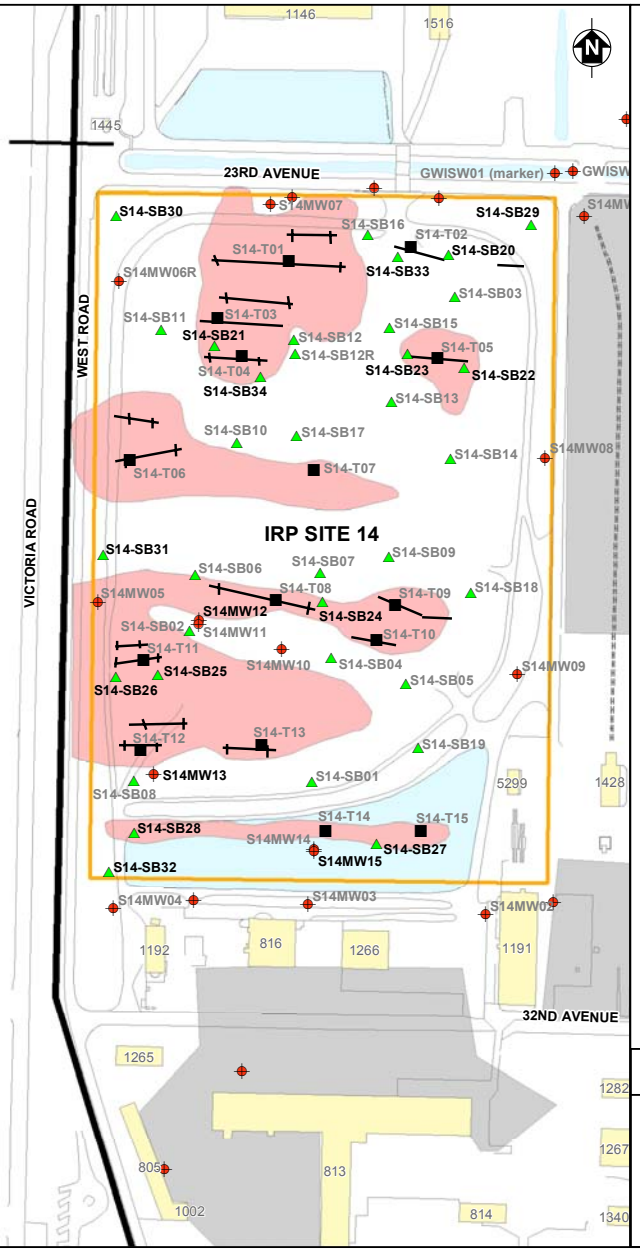
fig13-1_PHFSMP_IRPsite14_sitemap_122004.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases

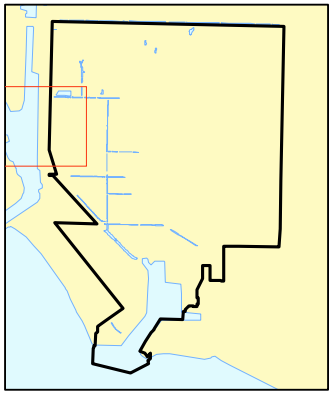
IRP Site 14 (mg/kg)					
Sample Point ID	Sample Date	Sample Depth (ft bgs)	Analyte Exceeding Criteria	Result	Screening Criteria
S14-SB20	22-Apr-93	0.5	ARSENIC	3.6	0.39
S14-SB20	22-Apr-93	2.5	ARSENIC	3.4	0.39
S14-SB20	22-Apr-93	2.5	IRON	23,700	23,000
S14-SB20	22-Apr-93	4.5	ARSENIC	5.6	0.39
S14-SB20	22-Apr-93	7.5	ARSENIC	2.9	0.39
S14-SB20	22-Apr-93	9.5	ARSENIC	2.1	0.39
S14-SB21	20-Apr-93	0.5	ARSENIC	4.3	0.39
S14-SB21	20-Apr-93	2.5	ARSENIC	4.3	0.39
S14-SB21	20-Apr-93	5	ARSENIC	5.1	0.39
S14-SB21	20-Apr-93	5	AROCLOR-1260	0.28	0.22
S14-SB21	20-Apr-93	7.5	ARSENIC	3.1	0.39
S14-SB21	20-Apr-93	7.5	AROCLOR-1260	0.26	0.22
S14-SB21	20-Apr-93	7.5	ARSENIC	1.9	0.39
S14-SB21	20-Apr-93	7.5	IRON	28,800	23,000
S14-SB21	20-Apr-93	7.5	AROCLOR-1260	1.3	0.22
S14-SB21	20-Apr-93	10	ARSENIC	5.5	0.39
S14-SB21	20-Apr-93	12.5	ARSENIC	5.4	0.39
S14-SB22	22-Apr-93	0.5	ARSENIC	1.6	0.39
S14-SB22	22-Apr-93	2.5	ARSENIC	3.2	0.39
S14-SB22	22-Apr-93	5	ARSENIC	2.6	0.39
S14-SB22	22-Apr-93	7.5	ARSENIC	4.4	0.39
S14-SB22	22-Apr-93	9.5	ARSENIC	1.5	0.39
S14-SB22	22-Apr-93	9.5	IRON	49,000	23,000
S14-SB22	22-Apr-93	12.5	ARSENIC	3	0.39
S14-SB22	22-Apr-93	12.5	IRON	23,400	23,000
S14-SB23	22-Apr-93	0.5	ARSENIC	3.1	0.39
S14-SB23	22-Apr-93	0.5	BENZO(A)ANTHRACENE	37	0.62
S14-SB23	22-Apr-93	0.5	BENZO(A)PYRENE	33	0.062
S14-SB23	22-Apr-93	0.5	BENZO(B)FLUORANTHENE	31	0.62
S14-SB23	22-Apr-93	0.5	BENZO(K)FLUORANTHENE	26	0.38
S14-SB23	22-Apr-93	0.5	CHRYSENE	42	3.78
S14-SB23	22-Apr-93	0.5	DIBENZ(A,H)ANTHRACENE	6.4	0.062
S14-SB23	22-Apr-93	0.5	INDENO(1,2,3-CD)PYRENE	24	0.62
S14-SB23	22-Apr-93	2.5	ARSENIC	4.9	0.39
S14-SB23	22-Apr-93	2.5	ARSENIC	3.5	0.39
S14-SB23	22-Apr-93	5	ARSENIC	3.7	0.39
S14-SB23	22-Apr-93	7.5	ARSENIC	3.6	0.39
S14-SB23	22-Apr-93	9.5	ARSENIC	2.3	0.39
S14-SB23	22-Apr-93	12.5	ARSENIC	2.5	0.39
S14-SB24	20-Apr-93	0.5	ARSENIC	2.2	0.39
S14-SB24	20-Apr-93	0.5	AROCLOR-1260	0.41	0.22
S14-SB24	20-Apr-93	0.5	TRICHLOROETHENE	0.063	0.052
S14-SB24	20-Apr-93	3	ARSENIC	2.8	0.39
S14-SB24	20-Apr-93	3	TRICHLOROETHENE	0.093	0.052
S14-SB24	20-Apr-93	5	ARSENIC	3	0.39
S14-SB24	20-Apr-93	7.5	ARSENIC	2.8	0.39
S14-SB24	20-Apr-93	10	ARSENIC	2.9	0.39
S14-SB24	20-Apr-93	10	AROCLOR-1260	0.69	0.22
S14-SB24	20-Apr-93	12.5	ARSENIC	3.2	0.39
S14-SB24	20-Apr-93	12.5	IRON	24,400	23,000
S14-SB24	20-Apr-93	12.5	AROCLOR-1260	0.38	0.22
S14-SB25	22-Apr-93	0.5	ARSENIC	3.1	0.39
S14-SB25	22-Apr-93	0.5	IRON	24,200	23,000
S14-SB25	22-Apr-93	2.5	ARSENIC	3.9	0.39
S14-SB25	22-Apr-93	5	ARSENIC	6.6	0.39
S14-SB25	22-Apr-93	7.5	ARSENIC	3.8	0.39
S14-SB25	22-Apr-93	7.5	BENZO(A)PYRENE	0.37	0.062
S14-SB25	22-Apr-93	10	ARSENIC	1.9	0.39
S14-SB25	22-Apr-93	10	BENZO(A)PYRENE	0.15	0.062
S14-SB25	22-Apr-93	12.5	ARSENIC	1.2	0.39
S14-SB25	22-Apr-93	12.5	AROCLOR-1260	0.3	0.22
S14-SB26	20-Apr-93	0.5	ARSENIC	3.1	0.39
S14-SB26	20-Apr-93	2.5	ARSENIC	2.7	0.39
S14-SB26	20-Apr-93	5	ARSENIC	2.4	0.39
S14-SB26	20-Apr-93	5	BENZO(A)PYRENE	0.074	0.062
S14-SB26	20-Apr-93	5	ARSENIC	1.4	0.39
S14-SB26	20-Apr-93	8	ARSENIC	3.3	0.39
S14-SB26	20-Apr-93	8	AROCLOR-1260	0.52	0.22
S14-SB26	20-Apr-93	10	ARSENIC	1.1	0.39
S14-SB26	20-Apr-93	10	IRON	55,100	23,000
S14-SB26	20-Apr-93	12.5	ARSENIC	3.2	0.39
S14-SB27	20-Apr-93	0.5	ARSENIC	2.4	0.39
S14-SB27	20-Apr-93	2.5	ARSENIC	1.5	0.39
S14-SB27	20-Apr-93	5	ARSENIC	1.4	0.39
S14-SB27	20-Apr-93	7.5	ARSENIC	3.8	0.39
S14-SB27	20-Apr-93	7.5	IRON	37,000	23,000
S14-SB28	20-Apr-93	0.5	ARSENIC	3.2	0.39
S14-SB28	20-Apr-93	2.5	ARSENIC	3	0.39
S14-SB28	20-Apr-93	5	ARSENIC	0.97	0.39
S14-SB28	20-Apr-93	5	ARSENIC	0.66	0.39
S14-SB28	20-Apr-93	0.5	ARSENIC	2.6	0.39
S14-SB28	20-Apr-93	0.5	AROCLOR-1260	1.8	0.22
S14-SB29	24-Apr-93	NR	ARSENIC	3.2	0.39
S14-SB29	24-Apr-93	2.5	ARSENIC	2.9	0.39
S14-SB30	24-Apr-93	2.5	ARSENIC	0.9	0.39
S14-SB30	24-Apr-93	2.5	IRON	27,800	23,000
S14-SB31	24-Apr-93	NR	ARSENIC	3.9	0.39

IRP Site 14 (mg/kg)					
Sample Point ID	Sample Date	Sample Depth (ft bgs)	Analyte Exceeding Criteria	Result	Screening Criteria
S14-SB31	24-Apr-93	2.5	ARSENIC	4.3	0.39
S14-SB31	24-Apr-93	2.5	TOXAPHENE	3.2	0.44
S14-SB31	24-Apr-93	7.5	IRON	39,300	23,000
S14-SB31	24-Apr-93	7.5	AROCLOR-1260	0.84	0.22
S14-SB31	24-Apr-93	10	ANTIMONY	67.3	31
S14-SB31	24-Apr-93	10	ARSENIC	8.2	0.39
S14-SB31	24-Apr-93	10	IRON	83,600	23,000
S14-SB31	24-Apr-93	10	LEAD	2,400	150
S14-SB31	24-Apr-93	2.5	ARSENIC	2.7	0.39
S14-SB32	24-Apr-93	NR	ARSENIC	3	0.39
S14-SB32	24-Apr-93	2.5	ARSENIC	2.5	0.39
S14-SB32	24-Apr-93	2.5	AROCLOR-1260	0.25	0.22
S14-SB32	24-Apr-93	5	ARSENIC	0.86	0.39
S14MW12	23-Apr-93	0.5	ARSENIC	3.5	0.39
S14MW12	23-Apr-93	2.5	ARSENIC	5.5	0.39
S14MW12	23-Apr-93	7.5	ARSENIC	1.4	0.39
S14MW12	23-Apr-93	9.5	ARSENIC	1.2	0.39
S14MW12	23-Apr-93	12.5	ARSENIC	1.2	0.39
S14MW13	23-Apr-93	12.5	ARSENIC	0.85	0.39
S14MW13	22-Apr-93	0.5	ARSENIC	3.6	0.39
S14MW13	22-Apr-93	2	ARSENIC	4.3	0.39
S14MW13	22-Apr-93	3	ARSENIC	5.1	0.39
S14MW13	22-Apr-93	5	ARSENIC	2.5	0.39
S14MW13	22-Apr-93	5	AROCLOR-1260	0.26	0.22
S14MW13	22-Apr-93	7.5	ARSENIC	1.7	0.39
S14MW13	22-Apr-93	7.5	AROCLOR-1260	0.48	0.22
S14MW13	22-Apr-93	10	ARSENIC	0.99	0.39
S14MW15	21-Apr-93	0.5	ARSENIC	2	0.39
S14MW15	21-Apr-93	0.5	AROCLOR-1260	1.3	0.22
S14MW15	21-Apr-93	2.5	ARSENIC	1.2	0.39
S14MW15	21-Apr-93	5	ARSENIC	1.2	0.39
S14MW15	21-Apr-93	7.5	ARSENIC	2.1	0.39
S14MW15	21-Apr-93	7.5	IRON	38,700	23,000
S14MW15	21-Apr-93	7.5	ARSENIC	1.7	0.39
S14MW15	21-Apr-93	2.5	AROCLOR-1260	1.5	0.22
S14SG01	27-May-93	NR	ARSENIC	5	0.39
S14SG01	27-May-93	NR	IRON	26,700	23,000
S14SG01	27-May-93	NR	AROCLOR-1260	0.46	0.22
S14SG01	27-May-93	NR	ARSENIC	2.5	0.39
S14SG02	27-May-93	NR	ARSENIC	2.9	0.39
S14SG02	27-May-93	NR	AROCLOR-1254	0.77	0.22
S14SG02	27-May-93	NR	AROCLOR-1260	0.98	0.22
S14SG02	27-May-93	NR	ARSENIC	4.3	0.39
S14SG02	27-May-93	NR	ARSENIC	4.2	0.39
S14SG02	27-May-93	NR	AROCLOR-1254	0.3	0.22
S14SG02	27-May-93	NR	AROCLOR-1260	0.49	0.22
S14SG02	27-May-93	NR	DIELDRIN	0.036	0.03
S14SG03	27-May-93	NR	ARSENIC	3.6	0.39
S14SG03	27-May-93	NR	AROCLOR-1254	0.26	0.22
S14SG03	27-May-93	NR	AROCLOR-1260	0.25	0.22
S14SG03	27-May-93	NR	ARSENIC	4.1	0.39
S14SG03	27-May-93	NR	AROCLOR-1254	0.39	0.22
S14SG03	27-May-93	NR	AROCLOR-1260	0.44	0.22
S14SG03	27-May-93	NR	DIELDRIN	0.051	0.03
S14SG04	27-May-93	NR	ARSENIC	3.5	0.39
S14SG04	27-May-93	NR	IRON	23,900	23,000
S14SG04	27-May-93	NR	ARSENIC	2.4	0.39
S14SG05	27-May-93	NR	ARSENIC	7.2	0.39
S14SG05	27-May-93	NR	IRON	28,100	23,000
S14SG05	27-May-93	NR	ARSENIC	3.7	0.39
S14SG05	27-May-93	NR	IRON	33,300	23,000
S14SG05	27-May-93	NR	AROCLOR-1260	0.25	0.22
S14TP16	20-Apr-93	5	ARSENIC	2.9	0.39
S14TP16	20-Apr-93	9	IRON	24,500	23,000
S14TP16	20-Apr-93	9	ARSENIC	4.5	0.39
S14TP16	20-Apr-93	9	IRON	27,500	23,000
S14TP16	20-Apr-93	9	BENZO(A)PYRENE	0.096	0.062
S14TP16	20-Apr-93	9	ARSENIC	3.3	0.39
S14TP17	20-Apr-93	5	ARSENIC	4.8	0.39
S14TP17	20-Apr-93	5	IRON	32,500	23,000
S14TP17	20-Apr-93	9	ARSENIC	2.6	0.39
S14TP17	20-Apr-93	9	LEAD	374	150
S14TP18	20-Apr-93	4	ARSENIC	4.5	0.39
S14TP18	20-Apr-93	8	ARSENIC	3.8	0.39
S14TP19	20-Apr-93	5	ARSENIC	2.8	0.39
S14TP19	20-Apr-93	5	AROCLOR-1260	0.22	0.22
S14TP19	20-Apr-93	5	BENZO(A)ANTHRACENE	1.4	0.62
S14TP19	20-Apr-93	5	BENZO(A)PYRENE	1.6	0.062
S14TP19	20-Apr-93	5	BENZO(B)FLUORANTHENE	2	0.62
S14TP19	20-Apr-93	5	BENZO(K)FLUORANTHENE	1.4	0.38
S14TP19	20-Apr-93	5	CHRYSENE	4.3	3.78
S14TP19	20-Apr-93	5	DIBENZ(A,H)ANTHRACENE	0.63	0.062
S14TP19	20-Apr-93	5	INDENO(1,2,3-CD)PYRENE	1.3	0.62
S14TP19	20-Apr-93	9	ARSENIC	3.3	0.39
S14TP20	20-Apr-93	5	ARSENIC	2.8	0.39
S14TP20	20-Apr-93	5	IRON	23,300	23,000

IRP Site 14 (mg/kg)					
Sample Point ID	Sample Date	Sample Depth (ft bgs)	Analyte Exceeding Criteria	Result	Screening Criteria
S14TP20	20-Apr-93	5	AROCLOR-1260	0.23	0.22
S14TP20	20-Apr-93	10	ARSENIC	2.4	0.39
S14TP20	20-Apr-93	10	IRON	25,100	23,000
S14TP21	20-Apr-93	5	ARSENIC	2.6	0.39
S14TP21	20-Apr-93	10.5	ARSENIC	1.8	0.39
S14TP22	21-Apr-93	5	ARSENIC	2.9	0.39
S14TP22	21-Apr-93	5	ARSENIC	2.6	0.39
S14TP22	21-Apr-93	12	ARSENIC	1.2	0.39
S14TP22	21-Apr-93	12	IRON	39,800	23,000
S14TP22	21-Apr-93	12	AROCLOR-1260	3.5	0.22
S14TP23	21-Apr-93	5	ARSENIC	2.9	0.39
S14TP23	21-Apr-93	12.5	ARSENIC	1.5	0.39
S14TP23	21-Apr-93	12.5	AROCLOR-1260	1.2	0.22
S14TP24	21-Apr-93	5	ARSENIC	1.4	0.39
S14TP24	21-Apr-93	10	ARSENIC	1.8	0.39
S14TP25	21-Apr-93	5	ARSENIC	1.6	0.39
S14TP25	21-Apr-93	5	AROCLOR-1260	1.1	0.22
S14TP25	21-Apr-93	14	ARSENIC	7.5	0.39
S14TP26	21-Apr-93	5	ARSENIC	1.8	0.39
S14TP26	21-Apr-93	5	BENZO(A)PYRENE	0.075	0.062
S14TP26	21-Apr-93	10.5	ARSENIC	2	0.39
S14TP26	21-Apr-93	10.5	ARSENIC	2	0.39
S14TP26	21-Apr-93	10.5	AROCLOR-1260	0.37	0.22
S14TP27	21-Apr-93	8	ARSENIC	3.1	0.39
S14TP27	21-Apr-93	8	IRON	24,000	23,000
S14TP27	21-Apr-93	8	AROCLOR-1260	0.26	0.22
S14TP27	21-Apr-93	14	ARSENIC	41.3	0.39
S14TP27	21-Apr-93	14	IRON	82,200	23,000
S14TP27	21-Apr-93	14	LEAD	490	150
S14TP27	21-Apr-93	14	AROCLOR-1260	0.25	0.22
S14TP28	22-Apr-93	13	ARSENIC	2	0.39
S14TP28	22-Apr-93	13	IRON	34,200	23,000
S14TP28	22-Apr-93	13	AROCLOR-1260	2.6	0.22
S14TP28	22-Apr-93	18	ARSENIC	7.4	0.39
S14TP28	22-Apr-93	18	LEAD	298	150
S14TP28	22-Apr-93	18	BENZO(A)PYRENE	0.068	0.062
S14TP29	22-Apr-93	12	ARSENIC	3.8	0.39
S14TP29	22-Apr-93	12	IRON	23,300	23,000
S14TP29	22-Apr-93	12	AROCLOR-1260	0.4	0.22
S14TP29	22-Apr-93	19	ARSENIC	4	0.39
S14TP29	22-Apr-93	19	IRON	28,400	23,000
S14TP29	22-Apr-93	19	AROCLOR-1260	0.26	0.22
S14TP29	22-Apr-93	19	BENZO(A)PYRENE	0.15	0.062
S14TP30	23-Apr-93	5	ARSENIC	3.3	0.39
S14TP30	23-Apr-93	5	LEAD	154	150
S14TP30	23-Apr-93	11.5	ARSENIC	2.8	0.39
S14TP30	23-Apr-93	11.5	AROCLOR-1260	1.1	0.22
S14TP31	22-Apr-93	7	ARSENIC	5.1	0.39
S14TP31	22-Apr-93	14	ARSENIC	0.95	0.39
S14TP31	22-Apr-93	14	ARSENIC	0.75	0.39
S14TP32	22-Apr-93	5	ARSENIC	3.6	0.39
S14TP32	22-Apr-93	12	ARSENIC	1.3	0.39
S14TP32	23-Apr-93	12	AROCLOR-1260	0.31	0.22
S14TP33	22-Apr-93	12	ARSENIC	2.1	0.39
S14TP33	22-Apr-93	12	AROCLOR-1260	1.4	0.22
S14TP33	22-Apr-93	16	ARSENIC	1.4	0.39
S14TP34	23-Apr-93	7	IRON	25,900	23,000
S14TP34	23-Apr-93	16	ARSENIC	2.5	0.39
S14TP34	23-Apr-93	16	IRON	29,000	23,000
S14TP34	23-Apr-93	16	AROCLOR-1260	0.26	0.22
S14TP34	23-Apr-93	16	BENZO(A)PYRENE	0.066	0.062
S14TP35	23-Apr-93	8	ARSENIC	2.2	0.39
S14TP35	23-Apr-93	14	ARSENIC	5.6	0.39
S14TP35	23-Apr-93	14	LEAD	160	150
S14TP35	23-Apr-93	14	AROCLOR-1260	1.5	0.22
S14TP36	23-Apr-93	8.5	ARSENIC	2.5	0.39
S14TP36	23-Apr-93	8.5	AROCLOR-1260	0.39	0.22
S14TP36	23-Apr-93	8.5	BENZO(A)PYRENE	0.08	0.062
S14TP36	23-Apr-93	8.5	ARSENIC	1.5	0.39
S14TP36	23-Apr-93	8.5	AROCLOR-1260	0.42	0.22
S14TP36	23-Apr-93	12	IRON	31,300	23,000
S14TP36	23-Apr-93	12	LEAD	260	150
S14TP36	23-Apr-93	12	BENZO(A)ANTHRACENE	0.73	0.62
S14TP36	23-Apr-93	12	BENZO(A)PYRENE	0.32	0.062
S14TP36	23-Apr-93	12	BENZO(K)FLUORANTHENE	0.98	0.38
S14TP37	23-Apr-93	9	ARSENIC	2.5	0.39
S14TP37	23-Apr-93	9	IRON	41,100	23,000
S14TP37	23-Apr-93	9	AROCLOR-1260	1.8	0.22
S14TP37	23-Apr-93	13	IRON	28,600	23,000
S14TP37	23-Apr-93	13	LEAD	362	150
S14TP38	22-Apr-93	13.5	ARSENIC	4.3	0.39
S14TP38	22-Apr-93	13.5	IRON	34,100	23,000
S14TP39	22-Apr-93	11.5	ARSENIC	3.1	0.39
S14TP39	22-Apr-93	11.5	IRON	32,500	23,000
S14TP39	22-Apr-93	11.5	AROCLOR-1260	1	0.22
S14TP39	22-Apr-93	14	ARSENIC	13.1	0.39
S14TP39	22-Apr-93	14	IRON	40,800	23,000
S14TP39	22-Apr-93	14	LEAD	1,010	150

NOTES:
ID = Identification
mg/kg = milligrams per kilogram
ft bgs = feet below ground surface
NR = sample depth not recorded





SOIL BORING
TEST PIT
TRENCH
MONITORING WELL
SAMPLES EXCEEDING SCREENING CRITERIA IN BOLD
S14-SB24
IRP SITE
CBC PORT HUENEME BOUNDARY
RAILROAD
CURB
BUILDING
PAVED AREA (NOT ROAD)

120 0 120 240
Feet

SulTech

CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 13-2
IRP SITE 14 - EARTH MOVING AREA ANALYTES IN SOIL EXCEEDING SCREENING CRITERIA

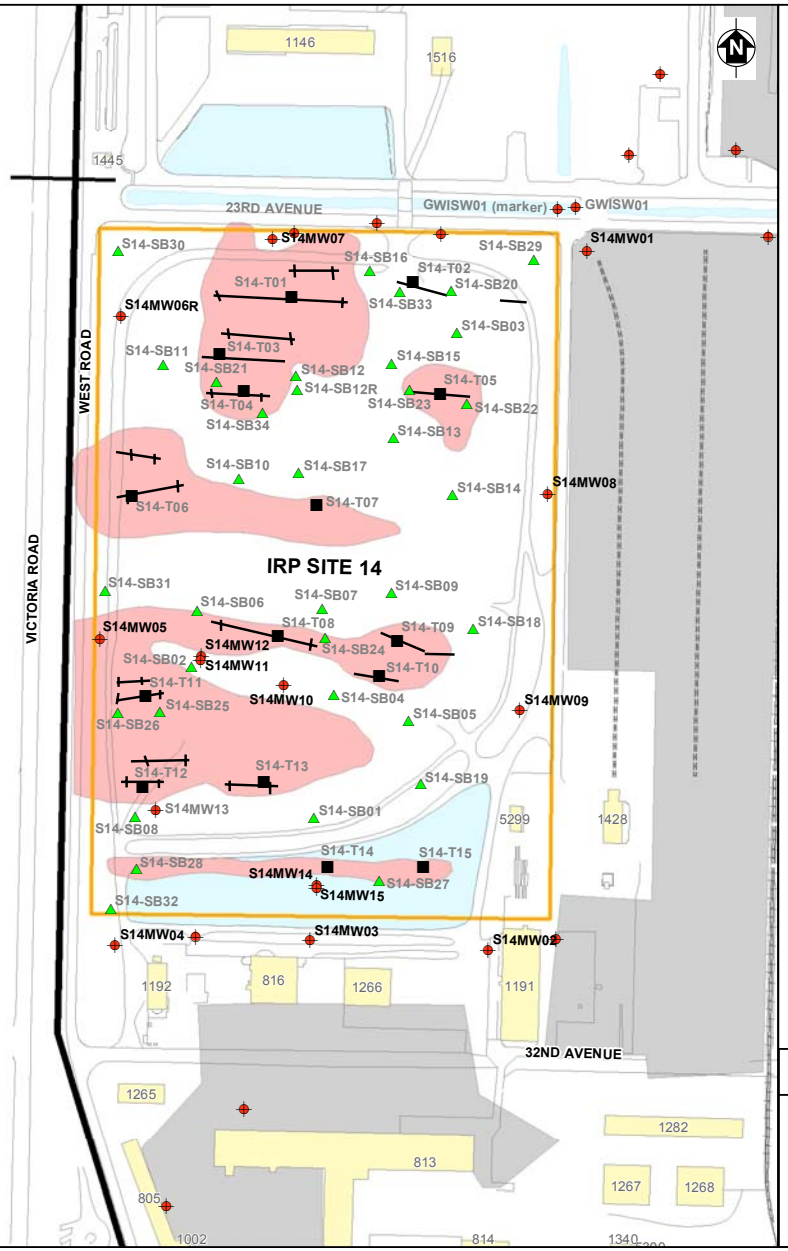
Site Management Plan

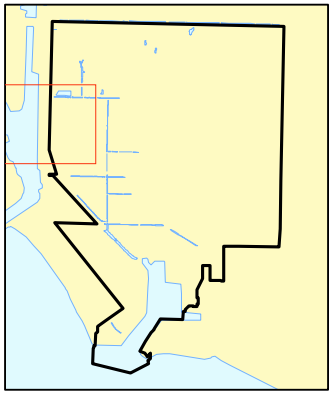
fig13-2_PHFSMP_IRPsite14_soil_122704.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases

IRP Site 14	(ug/L)			
Sample Point ID	Sample Date	Analyte Exceeding Criteria	Result	Screening Criteria
14-15HP-GW-12.5	21-Apr-93	ARSENIC	28.6	0.045
14-15HP-GW-12.5	21-Apr-93	IRON	18,100	11,000
14-15HP-GW-12.5	21-Apr-93	MANGANESE	4,530	880
14-15HP-GW-12.5	21-Apr-93	ARSENIC	12.5	0.045
14-15HP-GW-12.5	21-Apr-93	IRON	17,600	11,000
14-15HP-GW-12.5	21-Apr-93	MANGANESE	4,430	880
S14HP16	23-Apr-93	MANGANESE	1,780	880
S14MW03	18-May-93	MANGANESE	3,560	880
S14MW02	19-May-93	ARSENIC	4.1	0.045
S14MW06	20-May-93	ARSENIC	6.7	0.045
S14MW06	20-May-93	MANGANESE	1,680	880
S14MW11	20-May-93	MANGANESE	6,690	880
S14MW14	20-May-93	MANGANESE	3,040	880
S14MW10	21-May-93	IRON	18,200	11,000
S14MW10	21-May-93	MANGANESE	1,740	880
S14MW13	21-May-93	MANGANESE	2,210	880
S14SW01	27-May-93	ARSENIC	2.3	0.045
S14SW02	27-May-93	TRICHLOROETHENE	0.8	0.028
S14SW03	27-May-93	ARSENIC	2.8	0.045
S14SW04	27-May-93	ARSENIC	3.8	0.045
S14SW04	27-May-93	ARSENIC	3.3	0.045
S14SW05	27-May-93	ARSENIC	2.2	0.045
S14MW04	16-Aug-93	ANTIMONY	62.1	15
S14MW05	16-Aug-93	ARSENIC	9.4	0.045
S14MW06	16-Aug-93	ARSENIC	2.8	0.045
S14MW06	16-Aug-93	MANGANESE	2,990	880
S14MW07	16-Aug-93	ARSENIC	12	0.045
S14MW03	17-Aug-93	ARSENIC	26.9	0.045
S14MW03	17-Aug-93	MANGANESE	2,250	880
S14MW08	17-Aug-93	ARSENIC	25	0.045
S14MW08	17-Aug-93	DICHLORVOS	2.5	0.23
S14MW08	17-Aug-93	1,4-DICHLOROBENZENE	6	0.50
S14MW08	17-Aug-93	DICHLORVOS	1.9	0.23
S14MW08	17-Aug-93	1,4-DICHLOROBENZENE	4	0.50
S14MW01	18-Aug-93	ARSENIC	4.9	0.045
S14MW09	18-Aug-93	ARSENIC	2.7	0.045
S14MW09	18-Aug-93	CHLOROFORM	2	0.17
S14MW14	18-Aug-93	ANTIMONY	64.5	15
S14MW14	18-Aug-93	MANGANESE	3,080	880
S14MW14	18-Aug-93	NAPHTHALENE	17	0.093
S14MW10	19-Aug-93	ANTIMONY	63.2	15
S14MW10	19-Aug-93	ARSENIC	2.6	0.045
S14MW10	19-Aug-93	IRON	12,300	11,000
S14MW10	19-Aug-93	MANGANESE	2,180	880
S14MW11	19-Aug-93	ANTIMONY	68.9	15
S14MW11	19-Aug-93	MANGANESE	5,620	880
S14MW13	19-Aug-93	ANTIMONY	73.9	15
S14MW13	19-Aug-93	MANGANESE	1920	880
S14MW13	19-Aug-93	ANTIMONY	68.8	15
S14MW13	19-Aug-93	MANGANESE	1,920	880
S14MW01	17-Nov-93	CARBON TETRACHLORIDE	0.6	0.17
S14MW01	17-Nov-93	CHLOROFORM	2	0.17
S14MW06	17-Nov-93	ARSENIC	4.3	0.045
S14MW06	17-Nov-93	MANGANESE	1,980	880
S14MW07	17-Nov-93	ARSENIC	4.4	0.045
S14MW07	17-Nov-93	MANGANESE	936	880
S14MW08	17-Nov-93	ARSENIC	3.2	0.045
S14MW08	17-Nov-93	1,4-DICHLOROBENZENE	6	0.50
S14MW08	17-Nov-93	BENZENE	0.7	0.35
S14MW08	17-Nov-93	CHLOROFORM	2	0.17
S14MW09	17-Nov-93	THALLIUM	20	2.4
S14MW02	18-Nov-93	CADMIUM	30.8	18
S14MW03	18-Nov-93	MANGANESE	1,620	880
S14MW13	18-Nov-93	MANGANESE	1,420	880
S14MW11	19-Nov-93	MANGANESE	4,530	880
S14MW14	19-Nov-93	MANGANESE	2,340	880
S14MW15	19-Nov-93	CARBON TETRACHLORIDE	0.7	0.17
S14MW15	19-Nov-93	CHLOROFORM	1	0.17
S14MW05	23-Nov-93	ARSENIC	5.6	0.045
S14MW05	23-Nov-93	ARSENIC	4.8	0.045
S14MW10	23-Nov-93	MANGANESE	2,600	880
S14MW07	16-Feb-94	ARSENIC	6.6	0.045
S14MW07	16-Feb-94	MANGANESE	972	880
S14MW01	17-Feb-94	ARSENIC	6.4	0.045
S14MW05	22-Feb-94	ARSENIC	5.6	0.045
S14MW06	22-Feb-94	ARSENIC	5.1	0.045
S14MW06	22-Feb-94	IRON	13,100	11,000
S14MW06	22-Feb-94	MANGANESE	1,390	880
S14MW11	22-Feb-94	MANGANESE	3,830	880
S14MW10	23-Feb-94	ARSENIC	7.9	0.045
S14MW10	23-Feb-94	IRON	13,100	11,000
S14MW10	23-Feb-94	MANGANESE	1920	880
S14MW10	23-Feb-94	IRON	13,000	11,000
S14MW10	23-Feb-94	MANGANESE	2,070	880
S14MW13	23-Feb-94	MANGANESE	1,440	880
S14MW14	23-Feb-94	MANGANESE	2,060	880
S14MW04	8-May-97	ARSENIC	6	0.045
S14MW04	8-May-97	ARSENIC	18.3	0.045
S14MW04	8-May-97	IRON	14,000	11,000
S14MW03	13-May-97	ARSENIC	10.3	0.045
S14MW03	13-May-97	MANGANESE	1,490	880
S14MW03	13-May-97	ARSENIC	10.6	0.045
S14MW03	13-May-97	MANGANESE	1,830	880
S14MW01	14-May-97	ARSENIC	7.7	0.045
S14MW01	14-May-97	MANGANESE	900	880

IRP Site 14	(ug/L)			
Sample Point ID	Sample Date	Analyte Exceeding Criteria	Result	Screening Criteria
S14MW01	14-May-97	ARSENIC	8.2	0.045
S14MW01	14-May-97	MANGANESE	911	880
S14MW01	14-May-97	ARSENIC	10.1	0.045
S14MW01	14-May-97	MANGANESE	928	880
S14MW01	14-May-97	ARSENIC	10.3	0.045
S14MW01	14-May-97	MANGANESE	923	880
S14MW08	14-May-97	1,4-DICHLOROBENZENE	5	0.50
S14MW08	14-May-97	ARSENIC	13	0.045
S14MW08	14-May-97	ARSENIC	13.8	0.045
S14MW09	14-May-97	ARSENIC	6.3	0.045
S14MW09	14-May-97	ARSENIC	5.2	0.045
S14MW14	14-May-97	MANGANESE	1,480	880
S14MW14	14-May-97	ARSENIC	2	0.045
S14MW14	14-May-97	MANGANESE	5,610	880
S14MW15	14-May-97	ARSENIC	11.4	0.045
S14MW15	14-May-97	ARSENIC	8.5	0.045
S14MW05	15-May-97	ARSENIC	15.9	0.045
S14MW05	15-May-97	MANGANESE	965	880
S14MW05	15-May-97	ARSENIC	17.1	0.045
S14MW05	15-May-97	MANGANESE	935	880
S14MW06R	15-May-97	ARSENIC	7.2	0.045
S14MW06R	15-May-97	MANGANESE	1,160	880
S14MW06R	15-May-97	ARSENIC	7	0.045
S14MW06R	15-May-97	IRON	11,000	11,000
S14MW06R	15-May-97	MANGANESE	1150	880
S14MW07	15-May-97	ARSENIC	12.6	0.045
S14MW07	15-May-97	ARSENIC	13.5	0.045
S14MW07	15-May-97	IRON	12,800	11,000
S14MW13	15-May-97	ARSENIC	2.2	0.045
S14MW13	15-May-97	MANGANESE	2050	880
S14MW13	15-May-97	ARSENIC	5.2	0.045
S14MW13	15-May-97	MANGANESE	2,070	880
S14MW10	16-May-97	ARSENIC	14.5	0.045
S14MW10	16-May-97	IRON	12,300	11,000
S14MW10	16-May-97	MANGANESE	1070	880
S14MW10	16-May-97	ARSENIC	12.7	0.045
S14MW10	16-May-97	IRON	14,500	11,000
S14MW10	16-May-97	MANGANESE	1,090	880
S14MW11	16-May-97	ARSENIC	4.6	0.045
S14MW11	16-May-97	MANGANESE	3,980	880
S14MW12	16-May-97	ARSENIC	5.4	0.045
S14MW12	16-May-97	IRON	11,100	11,000
S14MW12	16-May-97	MANGANESE	1,290	880
S14MW12	16-May-97	ARSENIC	4.6	0.045
S14MW12	16-May-97	MANGANESE	1,250	880
S14MW12	16-May-97	IRON	11,200	11,000
S14MW12	16-May-97	MANGANESE	1,090	880
S14MW12	16-May-97	IRON	11,500	11,000
S14MW12	16-May-97	MANGANESE	1,150	880
S14MW02	21-Oct-97	ARSENIC	9	0.045
S14MW03	21-Oct-97	ARSENIC	10.2	0.045
S14MW04	21-Oct-97	IRON	30,200	11,000
S14MW07	21-Oct-97	ARSENIC	13.9	0.045
S14MW07	21-Oct-97	ARSENIC	23.6	0.045
S14MW07	21-Oct-97	MANGANESE	1,060	880
S14MW08	21-Oct-97	ARSENIC	11.3	0.045
S14MW08	21-Oct-97	1,4-DICHLOROBENZENE	5	0.50
S14MW07	22-Oct-97	ARSENIC	20.3	0.045
S14MW12	23-Oct-97	MANGANESE	1,160	880
S14MW14	23-Oct-97	MANGANESE	7,300	880
S14MW15	23-Oct-97	ARSENIC	7.6	0.045
S14MW11	24-Oct-97	MANGANESE	1,260	880
S14MW11	24-Oct-97	MANGANESE	1,440	880
S14MW11	24-Oct-97	MANGANESE	2,040	880
S14MW07	15-Jan-98	ARSENIC	12	0.045
S14MW08	15-Jan-98	ARSENIC	12.7	0.045
S14MW08	15-Jan-98	BENZENE	0.5	0.35
S14MW08	15-Jan-98	1,4-DICHLOROBENZENE	7	0.50
S14MW14	15-Jan-98	MANGANESE	2,260	880
S14MW01	20-Jan-98	MANGANESE	900	880
S14MW02	20-Jan-98	ARSENIC	5.6	0.045
S14MW09	20-Jan-98	ARSENIC	15.6	0.045
S14MW09	20-Jan-98	BENZENE	0.5	0.35
S14MW09	20-Jan-98	1,4-DICHLOROBENZENE	4	0.50
S14MW09	20-Jan-98	ARSENIC	16.5	0.045
S14MW09	20-Jan-98	BENZENE	0.5	0.35
S14MW09	20-Jan-98	1,4-DICHLOROBENZENE	4	0.50
S14MW04	21-Jan-98	ARSENIC	9.8	0.045
S14MW11	22-Jan-98	ARSENIC	1.8	0.045
S14MW12	22-Jan-98	MANGANESE	1,010	880
S14MW11	1-Apr-98	ARSENIC	2.8	0.045
S14MW11	1-Apr-98	MANGANESE	1,270	880
S14MW12	1-Apr-98	ARSENIC	2	0.045
S14MW12	1-Apr-98	MANGANESE	1,350	880
S14MW03	2-Apr-98	ARSENIC	10	0.045
S14MW08	2-Apr-98	ARSENIC	10.6	0.045
S14MW08	2-Apr-98	BENZENE	0.7	0.35
S14MW09	2-Apr-98	ARSENIC	5.7	0.045
S14MW15	2-Apr-98	ARSENIC	9.9	0.045
S14MW07	6-Apr-98	ARSENIC	6.5	0.045
S14MW07	6-Apr-98	ARSENIC	7.7	0.045
S14MW01	7-Apr-98	ARSENIC	10.5	0.045
S14MW01	7-Apr-98	MANGANESE	1,050	880
S14MW01	7-Apr-98	THALLIUM	3.8	2.4

NOTES:
ID = Identification
ug/L = micrograms per liter





SOIL BORING
TEST PIT
TRENCH
MONITORING WELL
S14MW10 SAMPLES EXCEEDING SCREENING CRITERIA IN BOLD
IRP SITE
CBC PORT HUENEME BOUNDARY
RAILROAD
CURB
BUILDING
PAVED AREA (NOT ROAD)

120 0 120 240
Feet

SulTech

CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 13-3
IRP SITE 14 - EARTH MOVING AREA ANALYTES IN GROUNDWATER EXCEEDING SCREENING CRITERIA

Site Management Plan

fig13-3_PHFSMP_IRPsite14_GW_122704.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases

TABLES

TABLE 13-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 14

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
123-S14-125	SEDIMENT	05/27/93	S14SG01	ORIG	0.00 - 0.00	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-126	SEDIMENT	05/27/93	S14SG01	ORIG	0.00 - 0.00	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-127	SEDIMENT	05/27/93	S14SG02	ORIG	0.00 - 0.00	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-128	SEDIMENT	05/27/93	S14SG02	DUP	0.00 - 0.00	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-129	SEDIMENT	05/27/93	S14SG02	ORIG	0.00 - 0.00	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-130	SEDIMENT	05/27/93	S14SG03	ORIG	0.00 - 0.00	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-131	SEDIMENT	05/27/93	S14SG03	ORIG	0.00 - 0.00	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-132	SEDIMENT	05/27/93	S14SG04	ORIG	0.00 - 0.00	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-133	SEDIMENT	05/27/93	S14SG04	ORIG	0.00 - 0.00	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-134	SEDIMENT	05/27/93	S14SG05	ORIG	0.00 - 0.00	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-135	SEDIMENT	05/27/93	S14SG05	ORIG	0.00 - 0.00	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-326	SOIL	02/24/94	123-S14-326	ORIG	0.00 - 0.00							✓					
123-S14-327	SOIL	02/24/94	123-S14-327	ORIG	0.00 - 0.00							✓					
123-S14-328	SOIL	02/24/94	123-S14-328	ORIG	0.00 - 0.00							✓					
123-S14-329	SOIL	02/24/94	123-S14-329	ORIG	0.00 - 0.00							✓					
123-S14-330	SOIL	02/24/94	123-S14-330	ORIG	0.00 - 0.00							✓					
123-S14-001	SOIL	04/21/93	S14-SB12R	ORIG	0.50 - 0.50												✓
123-S14-002	SOIL	04/21/93	S14-SB12R	ORIG	4.00 - 4.00												✓
123-S14-003	SOIL	04/21/93	S14-SB12R	ORIG	9.00 - 9.00												✓
123-S14-004	SOIL	04/21/93	S14-SB12R	ORIG	14.00 - 14.00												✓
123-S14-005	SOIL	04/22/93	S14-SB12R	ORIG	19.00 - 19.00												✓
123-S14-006	SOIL	04/22/93	S14-SB12R	DUP	20.50 - 20.50												✓
123-S14-007	SOIL	04/22/93	S14-SB20	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-008	SOIL	04/22/93	S14-SB20	ORIG	2.50 - 2.50	✓		✓	✓	✓	✓	✓					
123-S14-009	SOIL	04/22/93	S14-SB20	ORIG	4.50 - 4.50	✓		✓	✓	✓	✓	✓					

TABLE 13-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 14 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
123-S14-010	SOIL	04/22/93	S14-SB20	ORIG	7.50 - 7.50	✓		✓	✓	✓	✓	✓					
123-S14-011	SOIL	04/22/93	S14-SB20	ORIG	9.50 - 9.50	✓		✓	✓	✓	✓	✓					
123-S14-013	SOIL	04/20/93	S14-SB21	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-014	SOIL	04/20/93	S14-SB21	ORIG	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-015	SOIL	04/20/93	S14-SB21	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-016	SOIL	04/20/93	S14-SB21	ORIG	7.50 - 7.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-017	SOIL	04/20/93	S14-SB21	DUP	7.50 - 7.50	✓		✓	✓	✓	✓	✓					
123-S14-018	SOIL	04/20/93	S14-SB21	ORIG	10.00 - 10.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-019	SOIL	04/20/93	S14-SB21	ORIG	12.50 - 12.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-020	SOIL	04/22/93	S14-SB22	ORIG	0.50 - 0.50	✓		✓	✓	✓	✓	✓					
123-S14-021	SOIL	04/22/93	S14-SB22	ORIG	2.50 - 2.50	✓		✓	✓	✓	✓	✓					
123-S14-022	SOIL	04/22/93	S14-SB22	ORIG	5.00 - 5.00	✓		✓	✓	✓	✓	✓					
123-S14-023	SOIL	04/22/93	S14-SB22	ORIG	7.50 - 7.50	✓		✓	✓	✓	✓	✓					
123-S14-024	SOIL	04/22/93	S14-SB22	ORIG	9.50 - 9.50	✓		✓	✓	✓	✓	✓					
123-S14-025	SOIL	04/22/93	S14-SB22	ORIG	12.50 - 12.50	✓		✓	✓	✓	✓	✓					
123-S14-026	SOIL	04/22/93	S14-SB23	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-027	SOIL	04/22/93	S14-SB23	ORIG	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-028	SOIL	04/22/93	S14-SB23	DUP	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-029	SOIL	04/22/93	S14-SB23	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-030	SOIL	04/22/93	S14-SB23	ORIG	7.50 - 7.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-031	SOIL	04/22/93	S14-SB23	ORIG	9.50 - 9.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-032	SOIL	04/22/93	S14-SB23	ORIG	12.50 - 12.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-033	SOIL	04/20/93	S14-SB24	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-034	SOIL	04/20/93	S14-SB24	ORIG	3.00 - 3.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-035	SOIL	04/20/93	S14-SB24	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					

TABLE 13-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 14 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
123-S14-036	SOIL	04/20/93	S14-SB24	ORIG	7.50 - 7.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-037	SOIL	04/20/93	S14-SB24	ORIG	10.00 - 10.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-038	SOIL	04/20/93	S14-SB24	ORIG	12.50 - 12.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-040	SOIL	04/22/93	S14-SB25	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-041	SOIL	04/22/93	S14-SB25	ORIG	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-042	SOIL	04/22/93	S14-SB25	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-043	SOIL	04/22/93	S14-SB25	ORIG	7.50 - 7.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-044	SOIL	04/22/93	S14-SB25	ORIG	10.00 - 10.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-045	SOIL	04/22/93	S14-SB25	ORIG	12.50 - 12.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-046	SOIL	04/20/93	S14-SB26	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-047	SOIL	04/20/93	S14-SB26	ORIG	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-048	SOIL	04/20/93	S14-SB26	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-049	SOIL	04/20/93	S14-SB26	ORIG	8.00 - 8.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-050	SOIL	04/20/93	S14-SB26	ORIG	10.00 - 10.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-052	SOIL	04/20/93	S14-SB26	ORIG	12.50 - 12.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-319	SOIL	04/20/93	S14-SB26	DUP	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-053	SOIL	04/20/93	S14-SB27	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-054	SOIL	04/20/93	S14-SB27	ORIG	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-055	SOIL	04/20/93	S14-SB27	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-056	SOIL	04/20/93	S14-SB27	ORIG	7.50 - 7.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-059	SOIL	04/20/93	S14-SB28	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-060	SOIL	04/20/93	S14-SB28	ORIG	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-061	SOIL	04/20/93	S14-SB28	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-062	SOIL	04/20/93	S14-SB28	DUP	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-320	SOIL	04/20/93	S14-SB28	DUP	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					

TABLE 13-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 14 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
123-S14-066	SOIL	04/24/93	S14-SB29	ORIG	0.00 - 0.00					✓	✓	✓					
123-S14-067	SOIL	04/24/93	S14-SB29	ORIG	2.50 - 2.50					✓	✓	✓					
123-S14-072	SOIL	04/24/93	S14-SB30	ORIG	0.00 - 0.00					✓	✓	✓					
123-S14-074	SOIL	04/24/93	S14-SB30	ORIG	2.50 - 2.50					✓	✓	✓					
123-S14-323	SOIL	04/24/93	S14-SB30	DUP	2.50 - 2.50					✓	✓	✓					
123-S14-079	SOIL	04/24/93	S14-SB31	ORIG	0.00 - 0.00					✓	✓	✓					
123-S14-080	SOIL	04/24/93	S14-SB31	ORIG	2.50 - 2.50					✓	✓	✓					
123-S14-081	SOIL	04/24/93	S14-SB31	ORIG	5.00 - 5.00					✓	✓	✓					
123-S14-082	SOIL	04/24/93	S14-SB31	ORIG	7.50 - 7.50					✓	✓	✓					
123-S14-083	SOIL	04/24/93	S14-SB31	ORIG	10.00 - 10.00					✓	✓	✓					
123-S14-321	SOIL	04/24/93	S14-SB31	DUP	2.50 - 2.50					✓	✓	✓					
123-S14-086	SOIL	04/24/93	S14-SB32	ORIG	0.00 - 0.00					✓	✓	✓					
123-S14-087	SOIL	04/24/93	S14-SB32	ORIG	2.50 - 2.50					✓	✓	✓					
123-S14-088	SOIL	04/24/93	S14-SB32	ORIG	5.00 - 5.00					✓	✓	✓					
123-S14-099	SOIL	04/23/93	S14MW12	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-100	SOIL	04/23/93	S14MW12	ORIG	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-101	SOIL	04/23/93	S14MW12	ORIG	4.50 - 4.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-102	SOIL	04/23/93	S14MW12	ORIG	7.50 - 7.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-103	SOIL	04/23/93	S14MW12	ORIG	9.50 - 9.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-104	SOIL	04/23/93	S14MW12	ORIG	12.50 - 12.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-105	SOIL	04/22/93	S14MW13	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-106	SOIL	04/22/93	S14MW13	DUP	2.00 - 2.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-107	SOIL	04/22/93	S14MW13	ORIG	3.00 - 3.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-108	SOIL	04/22/93	S14MW13	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-109	SOIL	04/22/93	S14MW13	ORIG	7.50 - 7.50	✓	✓	✓	✓	✓	✓	✓					

TABLE 13-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 14 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
123-S14-110	SOIL	04/22/93	S14MW13	ORIG	10.00 - 10.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-111	SOIL	04/22/93	S14MW13	ORIG	12.50 - 12.50	✓			✓	✓	✓	✓					
123-S14-119	SOIL	04/21/93	S14MW15	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-120	SOIL	04/21/93	S14MW15	ORIG	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-121	SOIL	04/21/93	S14MW15	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-122	SOIL	04/21/93	S14MW15	ORIG	7.50 - 7.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-322	SOIL	04/21/93	S14MW15	DUP	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-136	SOIL	04/20/93	S14TP16	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-137	SOIL	04/20/93	S14TP16	ORIG	9.00 - 9.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-138	SOIL	04/20/93	S14TP16	DUP	9.00 - 9.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-139	SOIL	04/20/93	S14TP17	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-140	SOIL	04/20/93	S14TP17	ORIG	9.00 - 9.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-141	SOIL	04/20/93	S14TP18	ORIG	4.00 - 4.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-142	SOIL	04/20/93	S14TP18	ORIG	8.00 - 8.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-143	SOIL	04/20/93	S14TP19	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-144	SOIL	04/20/93	S14TP19	ORIG	9.00 - 9.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-145	SOIL	04/20/93	S14TP20	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-146	SOIL	04/20/93	S14TP20	ORIG	10.00 - 10.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-147	SOIL	04/20/93	S14TP21	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-148	SOIL	04/20/93	S14TP21	ORIG	10.50 - 10.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-149	SOIL	04/21/93	S14TP22	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-150	SOIL	04/21/93	S14TP22	DUP	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-151	SOIL	04/21/93	S14TP22	ORIG	12.00 - 12.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-152	SOIL	04/21/93	S14TP23	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-153	SOIL	04/21/93	S14TP23	ORIG	12.50 - 12.50	✓	✓	✓	✓	✓	✓	✓					

TABLE 13-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 14 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
123-S14-154	SOIL	04/21/93	S14TP24	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-155	SOIL	04/21/93	S14TP24	ORIG	10.00 - 10.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-156	SOIL	04/21/93	S14TP25	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-157	SOIL	04/21/93	S14TP25	ORIG	14.00 - 14.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-158	SOIL	04/21/93	S14TP26	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-159	SOIL	04/21/93	S14TP26	ORIG	10.50 - 10.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-160	SOIL	04/21/93	S14TP26	DUP	10.50 - 10.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-161	SOIL	04/21/93	S14TP27	ORIG	8.00 - 8.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-162	SOIL	04/21/93	S14TP27	ORIG	14.00 - 14.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-163	SOIL	04/22/93	S14TP28	ORIG	13.00 - 13.00	✓		✓	✓	✓	✓	✓					
123-S14-164	SOIL	04/22/93	S14TP28	ORIG	18.00 - 18.00	✓		✓	✓	✓	✓	✓					
123-S14-165	SOIL	04/22/93	S14TP29	ORIG	12.00 - 12.00	✓		✓	✓	✓	✓	✓					
123-S14-166	SOIL	04/22/93	S14TP29	ORIG	19.00 - 19.00	✓		✓	✓	✓	✓	✓					
123-S14-167	SOIL	04/23/93	S14TP30	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-168	SOIL	04/23/93	S14TP30	ORIG	11.50 - 11.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-169	SOIL	04/22/93	S14TP31	ORIG	7.00 - 7.00	✓		✓	✓	✓	✓	✓					
123-S14-170	SOIL	04/22/93	S14TP31	ORIG	14.00 - 14.00	✓		✓	✓	✓	✓	✓					
123-S14-171	SOIL	04/22/93	S14TP31	DUP	14.00 - 14.00	✓		✓	✓	✓	✓	✓					
123-S14-172	SOIL	04/23/93	S14TP32	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-173	SOIL	04/23/93	S14TP32	ORIG	12.00 - 12.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-174	SOIL	04/22/93	S14TP33	ORIG	12.00 - 12.00	✓		✓	✓	✓	✓	✓					
123-S14-175	SOIL	04/22/93	S14TP33	ORIG	16.00 - 16.00	✓		✓	✓	✓	✓	✓					
123-S14-176	SOIL	04/23/93	S14TP34	ORIG	7.00 - 7.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-177	SOIL	04/23/93	S14TP34	ORIG	16.00 - 16.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-178	SOIL	04/23/93	S14TP35	ORIG	8.00 - 8.00	✓	✓	✓	✓	✓	✓	✓					

TABLE 13-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 14 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
123-S14-179	SOIL	04/23/93	S14TP35	ORIG	14.00 - 14.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-180	SOIL	04/23/93	S14TP36	ORIG	8.50 - 8.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-181	SOIL	04/23/93	S14TP36	DUP	8.50 - 8.50	✓	✓	✓	✓	✓	✓	✓					
123-S14-182	SOIL	04/23/93	S14TP36	ORIG	12.00 - 12.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-183	SOIL	04/23/93	S14TP37	ORIG	9.00 - 9.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-184	SOIL	04/23/93	S14TP37	ORIG	13.00 - 13.00	✓	✓	✓	✓	✓	✓	✓					
123-S14-185	SOIL	04/22/93	S14TP38	ORIG	10.00 - 10.00	✓		✓	✓	✓	✓	✓					
123-S14-186	SOIL	04/22/93	S14TP38	ORIG	13.50 - 13.50	✓		✓	✓	✓	✓	✓					
123-S14-187	SOIL	04/22/93	S14TP39	ORIG	11.50 - 11.50	✓		✓	✓	✓	✓	✓					
123-S14-188	SOIL	04/22/93	S14TP39	ORIG	14.00 - 14.00	✓		✓	✓	✓	✓	✓					
123-S14-189	WATER	04/21/93	14-15HP-GW-12.5	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-190	WATER	04/21/93	14-15HP-GW-12.5	DUP	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-191	WATER	04/23/93	S14HP16	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-192	WATER	05/20/93	S14MW01	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-193	WATER	08/18/93	S14MW01	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-194	WATER	11/17/93	S14MW01	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-195	WATER	02/17/94	S14MW01	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
08797051403BJM	WATER	05/14/97	S14MW01	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797051403BJMF	WATER	05/14/97	S14MW01	FIL	NA								✓				
08797051404BJM	WATER	05/14/97	S14MW01	DUP	NA	✓	✓	✓	✓			✓		✓			
08797051404BJMF	WATER	05/14/97	S14MW01	FILD	NA								✓				
08798012014D	WATER	01/20/98	S14MW01	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798040708D	WATER	04/07/98	S14MW01	ORIG	NA	✓	✓	✓	✓				✓	✓			
S14-MW01Q1	WATER	06/13/03	S14MW01	ORIG	NA	✓						✓					
S14-MW01Q2	WATER	09/11/03	S14MW01	ORIG	NA	✓						✓					

TABLE 13-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 14 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
S14-MW01Q3	WATER	01/08/04	S14MW01	ORIG	NA	✓	✓	✓	✓	✓	✓	✓	✓				
S14-MW01Q4	WATER	03/22/04	S14MW01	ORIG	NA	✓						✓					
123-S14-196	WATER	05/19/93	S14MW02	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-197	WATER	08/17/93	S14MW02	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-198	WATER	11/18/93	S14MW02	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-199	WATER	02/21/94	S14MW02	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
08797051501BJM	WATER	05/15/97	S14MW02	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797051501BJMF	WATER	05/15/97	S14MW02	FIL	NA								✓				
08797051502BJM	WATER	05/15/97	S14MW02	DUP	NA	✓	✓	✓	✓			✓		✓			
08797051502BJMF	WATER	05/15/97	S14MW02	FILD	NA								✓				
08797102108D	WATER	10/21/97	S14MW02	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798012018D	WATER	01/20/98	S14MW02	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798040620W	WATER	04/06/98	S14MW02	ORIG	NA	✓	✓	✓	✓				✓	✓			
S14-MW02Q1	WATER	06/13/03	S14MW02	ORIG	NA	✓						✓					
S14-MW02Q2	WATER	09/11/03	S14MW02	ORIG	NA	✓						✓					
S14-MW-02Q3	WATER	01/07/04	S14MW02	ORIG	NA	✓	✓	✓	✓	✓	✓	✓	✓				
S14-MW02Q4	WATER	03/22/04	S14MW02	ORIG	NA	✓						✓					
123-S14-200	WATER	05/18/93	S14MW03	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-202	WATER	08/17/93	S14MW03	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-203	WATER	11/18/93	S14MW03	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-204	WATER	02/21/94	S14MW03	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
08797051305BJM	WATER	05/13/97	S14MW03	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797051305BJMF	WATER	05/13/97	S14MW03	FIL	NA								✓				
08797102112D	WATER	10/21/97	S14MW03	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798012121D	WATER	01/21/98	S14MW03	ORIG	NA	✓	✓	✓	✓				✓	✓			

TABLE 13-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 14 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
08798040210W	WATER	04/02/98	S14MW03	ORIG	NA	✓	✓	✓	✓				✓	✓			
S14-MW03Q1	WATER	06/13/03	S14MW03	ORIG	NA	✓						✓					
S14-MW03Q2	WATER	09/11/03	S14MW03	ORIG	NA	✓						✓					
S14-MW-03Q3	WATER	01/07/04	S14MW03	ORIG	NA	✓	✓	✓	✓	✓	✓	✓	✓				
S14-MW03Q4	WATER	03/22/04	S14MW03	ORIG	NA	✓						✓					
123-S14-205	WATER	05/18/93	S14MW04	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-206	WATER	08/16/93	S14MW04	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-207	WATER	11/18/93	S14MW04	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-208	WATER	02/22/94	S14MW04	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
08797050802BJM	WATER	05/08/97	S14MW04	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797050802BJMF	WATER	05/08/97	S14MW04	FIL	NA								✓				
08797102114D	WATER	10/21/97	S14MW04	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798012122D	WATER	01/21/98	S14MW04	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798040211W	WATER	04/02/98	S14MW04	ORIG	NA	✓	✓	✓	✓				✓	✓			
S14-MW04Q1	WATER	06/13/03	S14MW04	ORIG	NA	✓						✓					
S14-MW04Q2	WATER	09/11/03	S14MW04	ORIG	NA	✓						✓					
S14-MW04Q3	WATER	01/08/04	S14MW04	ORIG	NA	✓	✓	✓	✓	✓	✓	✓	✓				
S14-MW04Q4	WATER	03/22/04	S14MW04	ORIG	NA	✓						✓					
W03-1Q4	WATER	03/22/04	S14MW04	DUP	NA	✓						✓					
123-S14-209	WATER	05/21/93	S14MW05	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-210	WATER	08/16/93	S14MW05	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-211	WATER	11/23/93	S14MW05	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-212	WATER	11/23/93	S14MW05	DUP	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-213	WATER	02/22/94	S14MW05	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
08797051505BJM	WATER	05/15/97	S14MW05	ORIG	NA	✓	✓	✓	✓			✓		✓			

TABLE 13-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 14 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
08797051505BJMF	WATER	05/15/97	S14MW05	FIL	NA								✓				
123-S14-214	WATER	05/20/93	S14MW06	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-215	WATER	08/16/93	S14MW06	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-216	WATER	11/17/93	S14MW06	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-217	WATER	02/22/94	S14MW06	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
08797051504BJM	WATER	05/15/97	S14MW06R	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797051504BJMF	WATER	05/15/97	S14MW06R	FIL	NA								✓				
123-S14-218	WATER	05/21/93	S14MW07	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-219	WATER	08/16/93	S14MW07	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-220	WATER	11/17/93	S14MW07	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-221	WATER	02/16/94	S14MW07	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
08797051503BJM	WATER	05/15/97	S14MW07	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797051503BJMF	WATER	05/15/97	S14MW07	FIL	NA								✓				
08797102109D	WATER	10/21/97	S14MW07	ORIG	NA	✓	✓	✓	✓				✓	✓			
08797102111D	WATER	10/21/97	S14MW07	ORIG	NA							✓					
08797102210D	WATER	10/22/97	S14MW07	ORIG	NA								✓				
08798011509D	WATER	01/15/98	S14MW07	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798040622W	WATER	04/06/98	S14MW07	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798040623W	WATER	04/06/98	S14MW07	DUP	NA	✓	✓	✓	✓				✓	✓			
123-S14-222	WATER	05/19/93	S14MW08	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-223	WATER	08/17/93	S14MW08	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-224	WATER	08/17/93	S14MW08	DUP	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-225	WATER	11/17/93	S14MW08	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-226	WATER	02/21/94	S14MW08	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
08797051405BJM	WATER	05/14/97	S14MW08	ORIG	NA	✓	✓	✓	✓			✓		✓			

TABLE 13-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 14 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
08797051405BJMF	WATER	05/14/97	S14MW08	FIL	NA								✓				
08797102113D	WATER	10/21/97	S14MW08	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798011505D	WATER	01/15/98	S14MW08	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798040201J	WATER	04/02/98	S14MW08	ORIG	NA	✓	✓	✓	✓				✓	✓			
123-S14-227	WATER	05/24/93	S14MW09	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-228	WATER	08/18/93	S14MW09	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-229	WATER	11/17/93	S14MW09	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-230	WATER	02/21/94	S14MW09	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
08797051406BJM	WATER	05/14/97	S14MW09	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797051406BJMF	WATER	05/14/97	S14MW09	FIL	NA								✓				
08797102450S	WATER	10/24/97	S14MW09	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798012016D	WATER	01/20/98	S14MW09	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798012017D	WATER	01/20/98	S14MW09	DUP	NA	✓	✓	✓	✓				✓	✓			
08798040202J	WATER	04/02/98	S14MW09	ORIG	NA	✓	✓	✓	✓				✓	✓			
123-S14-231	WATER	05/21/93	S14MW10	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-232	WATER	08/19/93	S14MW10	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-233	WATER	11/23/93	S14MW10	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-234	WATER	02/23/94	S14MW10	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-235	WATER	02/23/94	S14MW10	DUP	NA	✓	✓	✓	✓	✓	✓	✓					✓
08797051604BJM	WATER	05/16/97	S14MW10	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797051604BJMF	WATER	05/16/97	S14MW10	FIL	NA								✓				
123-S14-236	WATER	05/20/93	S14MW11	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-237	WATER	08/19/93	S14MW11	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-238	WATER	11/19/93	S14MW11	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-239	WATER	02/22/94	S14MW11	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓

TABLE 13-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 14 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
08797051601BJM	WATER	05/16/97	S14MW11	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797051601BJMF	WATER	05/16/97	S14MW11	FIL	NA								✓				
08797102447S	WATER	10/24/97	S14MW11	ORIG	NA	✓	✓	✓	✓				✓	✓			
08797102448S	WATER	10/24/97	S14MW11	ORIG	NA							✓					
08797102449S	WATER	10/24/97	S14MW11	ORIG	NA							✓					
08798012243M	WATER	01/22/98	S14MW11	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798040101K	WATER	04/01/98	S14MW11	ORIG	NA	✓	✓	✓	✓				✓	✓			
123-S14-240	WATER	05/19/93	S14MW12	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-241	WATER	08/19/93	S14MW12	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-242	WATER	11/19/93	S14MW12	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-243	WATER	02/23/94	S14MW12	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
08797051602BJM	WATER	05/16/97	S14MW12	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797051602BJMF	WATER	05/16/97	S14MW12	FIL	NA								✓				
08797051603BJM	WATER	05/16/97	S14MW12	DUP	NA	✓	✓	✓	✓			✓		✓			
08797051603BJMF	WATER	05/16/97	S14MW12	FILD	NA								✓				
08797102345S	WATER	10/23/97	S14MW12	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798012244M	WATER	01/22/98	S14MW12	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798040102K	WATER	04/01/98	S14MW12	ORIG	NA	✓	✓	✓	✓				✓	✓			
123-S14-244	WATER	05/21/93	S14MW13	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-245	WATER	08/19/93	S14MW13	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-246	WATER	08/19/93	S14MW13	DUP	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-247	WATER	11/18/93	S14MW13	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-248	WATER	02/23/94	S14MW13	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
08797051506BJM	WATER	05/15/97	S14MW13	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797051506BJMF	WATER	05/15/97	S14MW13	FIL	NA								✓				

TABLE 13-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 14 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
123-S14-249	WATER	05/20/93	S14MW14	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-250	WATER	08/18/93	S14MW14	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-251	WATER	11/19/93	S14MW14	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-252	WATER	02/23/94	S14MW14	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
08797051401BJM	WATER	05/14/97	S14MW14	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797051401BJMF	WATER	05/14/97	S14MW14	FIL	NA								✓				
08797102343S	WATER	10/23/97	S14MW14	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798011506D	WATER	01/15/98	S14MW14	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798040208W	WATER	04/02/98	S14MW14	ORIG	NA	✓	✓	✓	✓				✓	✓			
123-S14-253	WATER	05/19/93	S14MW15	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-254	WATER	08/18/93	S14MW15	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-255	WATER	11/19/93	S14MW15	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
123-S14-256	WATER	02/23/94	S14MW15	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					✓
08797051402BJM	WATER	05/14/97	S14MW15	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797051402BJMF	WATER	05/14/97	S14MW15	FIL	NA								✓				
08797102344S	WATER	10/23/97	S14MW15	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798011507D	WATER	01/15/98	S14MW15	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798040209W	WATER	04/02/98	S14MW15	ORIG	NA	✓	✓	✓	✓				✓	✓			
S14-MW16Q1	WATER	06/13/03	S14MW16	ORIG	NA	✓						✓					
S14-MW16Q2	WATER	09/11/03	S14MW16	ORIG	NA	✓						✓					
S14-MW-16Q3	WATER	01/07/04	S14MW16	ORIG	NA	✓	✓	✓	✓	✓	✓	✓	✓				
S14-MW16Q4	WATER	03/22/04	S14MW16	ORIG	NA	✓						✓					
S14-MW17Q1	WATER	06/13/03	S14MW17	ORIG	NA	✓						✓					
S14-MW17Q2	WATER	09/11/03	S14MW17	ORIG	NA	✓						✓					
S14-MW-17Q3	WATER	01/07/04	S14MW17	ORIG	NA	✓	✓	✓	✓	✓	✓	✓	✓				

TABLE 13-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 14 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
S14-MW17Q4	WATER	03/22/04	S14MW17	ORIG	NA	✓						✓					
S14-MW18Q1	WATER	06/13/03	S14MW18	ORIG	NA	✓						✓					
S14-MW18Q2	WATER	09/11/03	S14MW18	ORIG	NA	✓						✓					
S14-MW18Q3	WATER	01/08/04	S14MW18	ORIG	NA	✓	✓	✓	✓	✓	✓	✓	✓				
S14-MW18Q4	WATER	03/22/04	S14MW18	ORIG	NA	✓						✓					
S14-MW19Q1	WATER	06/13/03	S14MW19	ORIG	NA	✓						✓					
S14-MW19Q2	WATER	09/11/03	S14MW19	ORIG	NA	✓						✓					
S14-MW19Q3	WATER	01/09/04	S14MW19	ORIG	NA	✓	✓	✓	✓	✓	✓	✓	✓				
S14-MW19Q4	WATER	03/22/04	S14MW19	ORIG	NA	✓						✓					
123-S14-257	WATER	05/27/93	S14SW01	ORIG	NA	✓	✓		✓	✓	✓	✓					✓
123-S14-258	WATER	05/27/93	S14SW02	ORIG	NA	✓	✓		✓	✓	✓	✓					✓
123-S14-259	WATER	05/27/93	S14SW03	ORIG	NA	✓	✓		✓	✓	✓	✓					✓
123-S14-260	WATER	05/27/93	S14SW04	ORIG	NA	✓	✓		✓	✓	✓	✓					✓
123-S14-261	WATER	05/27/93	S14SW04	DUP	NA	✓	✓		✓	✓	✓	✓					✓
123-S14-262	WATER	05/27/93	S14SW05	ORIG	NA	✓	✓		✓	✓	✓	✓					✓
TOTAL						293	243	261	268	230	230	281	61	52	0	0	90

Notes:

DMETL	Metals (filtered)	ORGPB	Organic Lead	SVOC	Semivolatile organic compound
GMETL	General mineral	PCB	Polychlorinated biphenyls	TPH-e	Total petroleum hydrocarbons, extractables
METL	Metals (total - unfiltered)	PEST	Pesticides	TPH-p	Total petroleum hydrocarbons, purgeables
NA	Not applicable	PESTO	Organophosphorus pesticides	VOC	Volatile organic compound
				✓	Sample collected and analyzed; blank cell indicates no sample collected.

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES

Site Management Plan, CBC Port Hueneme

Sample Location ID	123-S14-326	123-S14-327	123-S14-328	123-S14-329	123-S14-330	S14-SB12R	S14-SB12R	
Sample ID	123-S14-326	123-S14-327	123-S14-328	123-S14-329	123-S14-330	123-S14-001	123-S14-002	EPA Residential Soil PRGs
Sample Date	02/24/94	02/24/94	02/24/94	02/24/94	02/24/94	04/21/93	04/21/93	
Sample Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.50 - 0.50	4.00 - 4.00	
Volatile Organic Compounds (mg/kg)								
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	120
1,2-DICHLOROETHENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA	NC
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA	22,000
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA	NC
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA	5,300
BENZENE	NA	NA	NA	NA	NA	NA	NA	0.64
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA	360
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	0.25
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	400
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA	9.1
TOLUENE	NA	NA	NA	NA	NA	NA	NA	520
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	0.052
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
OTHER COMPONENTS *	NA	NA	NA	NA	NA	NA	NA	NC
TPH - DIESEL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - MOTOR OIL	NA	NA	NA	NA	NA	NA	NA	NC
Gasoline Range (purgeables)								
OTHER COMPONENTS *	NA	NA	NA	NA	NA	NA	NA	NC
Semivolatile Organic Compounds (mg/kg)								
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	3.4
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	1,200
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NC
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	3,100
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	310
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	3,700
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA	NC
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	22,000
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	0.62
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA	0.062
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	0.62

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	123-S14-326	123-S14-327	123-S14-328	123-S14-329	123-S14-330	S14-SB12R	S14-SB12R	EPA Residential Soil PRGs
Sample ID	123-S14-326	123-S14-327	123-S14-328	123-S14-329	123-S14-330	123-S14-001	123-S14-002	
Sample Date	02/24/94	02/24/94	02/24/94	02/24/94	02/24/94	04/21/93	04/21/93	
Sample Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.50 - 0.50	4.00 - 4.00	
Semivolatile Organic Compounds (mg/kg)								
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA	NC
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	0.38 *
CARBAZOLE	NA	NA	NA	NA	NA	NA	NA	24
CHRYSENE	NA	NA	NA	NA	NA	NA	NA	3.8 *
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	0.062
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	150
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	2,300
FLUORENE	NA	NA	NA	NA	NA	NA	NA	2,700
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA	0.62
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	1.7 *
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	3.0
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	NC
PHENOL	NA	NA	NA	NA	NA	NA	NA	18,000
PYRENE	NA	NA	NA	NA	NA	NA	NA	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	NA	NA	NA	NA	NA	NA	NA	2.4
4,4'-DDE	NA	NA	NA	NA	NA	NA	NA	1.7
4,4'-DDT	NA	NA	NA	NA	NA	NA	NA	1.7
ALDRIN	NA	NA	NA	NA	NA	NA	NA	0.029
ALPHA-BHC	NA	NA	NA	NA	NA	NA	NA	0.090
ALPHA-CHLORDANE	NA	NA	NA	NA	NA	NA	NA	1.6
AROCLOR-1016	NA	NA	NA	NA	NA	NA	NA	3.9
AROCLOR-1254	NA	NA	NA	NA	NA	NA	NA	0.22
AROCLOR-1260	NA	NA	NA	NA	NA	NA	NA	0.22
DIELDRIN	NA	NA	NA	NA	NA	NA	NA	0.030
ENDOSULFAN I	NA	NA	NA	NA	NA	NA	NA	NC
ENDOSULFAN II	NA	NA	NA	NA	NA	NA	NA	NC
ENDOSULFAN SULFATE	NA	NA	NA	NA	NA	NA	NA	NC
ENDRIN	NA	NA	NA	NA	NA	NA	NA	18
ENDRIN ALDEHYDE	NA	NA	NA	NA	NA	NA	NA	NC
ENDRIN KETONE	NA	NA	NA	NA	NA	NA	NA	NC
GAMMA-CHLORDANE	NA	NA	NA	NA	NA	NA	NA	1.6

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	123-S14-326	123-S14-327	123-S14-328	123-S14-329	123-S14-330	S14-SB12R	S14-SB12R	EPA Residential Soil PRGs
Sample ID	123-S14-326	123-S14-327	123-S14-328	123-S14-329	123-S14-330	123-S14-001	123-S14-002	
Sample Date	02/24/94	02/24/94	02/24/94	02/24/94	02/24/94	04/21/93	04/21/93	
Sample Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.50 - 0.50	4.00 - 4.00	
PCBs/Pesticides (mg/kg)								
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	NA	NA	NA	0.053
METHOXYCHLOR	NA	NA	NA	NA	NA	NA	NA	310
TOXAPHENE	NA	NA	NA	NA	NA	NA	NA	0.44
Metals (mg/kg)								
ALUMINUM	NA	NA	NA	NA	NA	NA	NA	76,000
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	31
ARSENIC	NA	NA	NA	NA	NA	NA	NA	0.39
BARIUM	NA	NA	NA	NA	NA	NA	NA	5,400
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	150
CADMIUM	NA	NA	NA	NA	NA	NA	NA	37 *
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NC
CHROMIUM	16.6	18.6	36.8	24.1	17	NA	NA	210
COBALT	NA	NA	NA	NA	NA	NA	NA	900
COPPER	NA	NA	NA	NA	NA	NA	NA	3,100
IRON	NA	NA	NA	NA	NA	NA	NA	23,000
LEAD	NA	NA	NA	NA	NA	NA	NA	150 *
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NC
MANGANESE	NA	NA	NA	NA	NA	NA	NA	1,800
MERCURY	NA	NA	NA	NA	NA	NA	NA	23
NICKEL	NA	NA	NA	NA	NA	NA	NA	1,600
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NC
SELENIUM	NA	NA	NA	NA	NA	NA	NA	390
SILVER	NA	NA	NA	NA	NA	NA	NA	390
SODIUM	NA	NA	NA	NA	NA	NA	NA	NC
VANADIUM	NA	NA	NA	NA	NA	NA	NA	78
ZINC	NA	NA	NA	NA	NA	NA	NA	23,000
Organophosphorus pesticides (mg/kg)								
MONOCROTOPHOS (AZODRIN)	NA	NA	NA	NA	NA	< 0.19 UJ	< 0.19 UJ	NC

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14-SB12R	S14-SB12R	S14-SB12R	S14-SB12R	S14-SB20	S14-SB20	S14-SB20	EPA Residential Soil PRGs
Sample ID	123-S14-003	123-S14-004	123-S14-005	123-S14-006	123-S14-007	123-S14-008	123-S14-009	
Sample Date	04/21/93	04/21/93	04/22/93	04/22/93	04/22/93	04/22/93	04/22/93	
Sample Depth	9.00 - 9.00	14.00 - 14.00	19.00 - 19.00	20.50 - 20.50	0.50 - 0.50	2.50 - 2.50	4.50 - 4.50	
Volatile Organic Compounds (mg/kg)								
1,1-DICHLOROETHENE	NA	NA	NA	NA	< 0.011 U	< 0.012 U	< 0.011 U	120
1,2-DICHLOROETHENE (TOTAL)	NA	NA	NA	NA	< 0.011 U	< 0.012 U	< 0.011 U	NC
2-BUTANONE	NA	NA	NA	NA	< 0.011 U	< 0.012 U	< 0.011 U	22,000
2-HEXANONE	NA	NA	NA	NA	< 0.011 U	< 0.012 U	< 0.011 U	NC
4-METHYL-2-PENTANONE	NA	NA	NA	NA	< 0.011 U	< 0.012 U	< 0.011 U	5,300
BENZENE	NA	NA	NA	NA	< 0.011 U	< 0.012 U	< 0.011 U	0.64
CARBON DISULFIDE	NA	NA	NA	NA	< 0.011 U	< 0.012 U	< 0.011 U	360
CARBON TETRACHLORIDE	NA	NA	NA	NA	< 0.011 U	< 0.012 U	< 0.011 U	0.25
ETHYLBENZENE	NA	NA	NA	NA	< 0.011 U	< 0.012 U	< 0.011 U	400
METHYLENE CHLORIDE	NA	NA	NA	NA	< 0.011 U	< 0.012 U	< 0.011 U	9.1
TOLUENE	NA	NA	NA	NA	< 0.011 U	< 0.012 U	< 0.011 U	520
TRICHLOROETHENE	NA	NA	NA	NA	< 0.011 U	< 0.012 U	< 0.011 U	0.052
XYLENE (TOTAL)	NA	NA	NA	NA	< 0.011 U	< 0.012 U	< 0.011 U	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
OTHER COMPONENTS *	NA	NA	NA	NA	< 0.05 U	NA	NA	NC
TPH - DIESEL	NA	NA	NA	NA	< 0.05 U	NA	NA	NC
TPH - MOTOR OIL	NA	NA	NA	NA	< 0.15 U	NA	NA	NC
Gasoline Range (purgeables)								
OTHER COMPONENTS *	NA	NA	NA	NA	< 0.006 U	< 0.006 U	< 0.006 U	NC
Semivolatile Organic Compounds (mg/kg)								
1,4-DICHLOROBENZENE	NA	NA	NA	NA	< 0.37 U	< 0.39 U	< 0.38 U	3.4
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	< 0.37 U	< 0.39 U	< 0.38 U	1,200
2-METHYLNAPHTHALENE	NA	NA	NA	NA	< 0.37 U	< 0.39 U	< 0.38 U	NC
2-METHYLPHENOL	NA	NA	NA	NA	< 0.37 U	< 0.39 U	< 0.38 U	3,100
4-METHYLPHENOL	NA	NA	NA	NA	< 0.37 U	< 0.39 U	< 0.38 U	310
ACENAPHTHENE	NA	NA	NA	NA	< 0.37 U	< 0.39 U	< 0.38 U	3,700
ACENAPHTHYLENE	NA	NA	NA	NA	< 0.37 U	< 0.39 U	< 0.38 U	NC
ANTHRACENE	NA	NA	NA	NA	< 0.37 U	< 0.39 U	< 0.38 U	22,000
BENZO(A)ANTHRACENE	NA	NA	NA	NA	< 0.37 U	< 0.39 U	< 0.38 U	0.62
BENZO(A)PYRENE	NA	NA	NA	NA	< 0.37 U	< 0.39 U	< 0.38 U	0.062
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	< 0.37 U	< 0.39 U	< 0.38 U	0.62

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14-SB12R	S14-SB12R	S14-SB12R	S14-SB12R	S14-SB20	S14-SB20	S14-SB20	EPA Residential Soil PRGs
Sample ID	123-S14-003	123-S14-004	123-S14-005	123-S14-006	123-S14-007	123-S14-008	123-S14-009	
Sample Date	04/21/93	04/21/93	04/22/93	04/22/93	04/22/93	04/22/93	04/22/93	
Sample Depth	9.00 - 9.00	14.00 - 14.00	19.00 - 19.00	20.50 - 20.50	0.50 - 0.50	2.50 - 2.50	4.50 - 4.50	
Semivolatile Organic Compounds (mg/kg)								
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	< 0.37 U	< 0.39 U	< 0.38 U	NC
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	< 0.37 U	< 0.39 U	< 0.38 U	0.38 *
CARBAZOLE	NA	NA	NA	NA	< 0.37 U	< 0.39 U	< 0.38 U	24
CHRYSENE	NA	NA	NA	NA	< 0.37 U	< 0.39 U	< 0.38 U	3.8 *
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	< 0.37 U	< 0.39 U	< 0.38 U	0.062
DIBENZOFURAN	NA	NA	NA	NA	< 0.37 U	< 0.39 U	< 0.38 U	150
FLUORANTHENE	NA	NA	NA	NA	< 0.37 U	< 0.39 U	< 0.38 U	2,300
FLUORENE	NA	NA	NA	NA	< 0.37 U	< 0.39 U	< 0.38 U	2,700
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	< 0.37 U	< 0.39 U	< 0.38 U	0.62
NAPHTHALENE	NA	NA	NA	NA	< 0.37 U	< 0.39 U	< 0.38 U	1.7 *
PENTACHLOROPHENOL	NA	NA	NA	NA	< 0.91 U	< 0.94 U	< 0.92 U	3.0
PHENANTHRENE	NA	NA	NA	NA	< 0.37 U	< 0.39 U	< 0.38 U	NC
PHENOL	NA	NA	NA	NA	< 0.37 U	< 0.39 U	< 0.38 U	18,000
PYRENE	NA	NA	NA	NA	< 0.37 U	< 0.39 U	< 0.38 U	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	NA	NA	NA	NA	0.012	0.018	0.009 J	2.4
4,4'-DDE	NA	NA	NA	NA	0.0067	0.0034 J	0.02	1.7
4,4'-DDT	NA	NA	NA	NA	0.047 J	0.035 J	0.049 J	1.7
ALDRIN	NA	NA	NA	NA	< 0.0019 U	< 0.002 U	< 0.002 U	0.029
ALPHA-BHC	NA	NA	NA	NA	< 0.0019 U	< 0.002 U	< 0.002 U	0.090
ALPHA-CHLORDANE	NA	NA	NA	NA	0.0025 J	< 0.002 U	< 0.002 U	1.6
AROCLOR-1016	NA	NA	NA	NA	< 0.037 U	< 0.039 U	< 0.038 U	3.9
AROCLOR-1254	NA	NA	NA	NA	< 0.037 U	< 0.039 U	< 0.038 U	0.22
AROCLOR-1260	NA	NA	NA	NA	0.12	0.067	< 0.038 U	0.22
DIELDRIN	NA	NA	NA	NA	0.0017 J	< 0.0039 U	< 0.0038 U	0.030
ENDOSULFAN I	NA	NA	NA	NA	< 0.0019 U	< 0.002 U	< 0.002 U	NC
ENDOSULFAN II	NA	NA	NA	NA	< 0.0037 U	< 0.0039 U	< 0.0038 U	NC
ENDOSULFAN SULFATE	NA	NA	NA	NA	< 0.0037 U	< 0.0039 U	< 0.0038 U	NC
ENDRIN	NA	NA	NA	NA	0.0018 J	< 0.0039 U	< 0.0038 U	18
ENDRIN ALDEHYDE	NA	NA	NA	NA	< 0.0037 U	< 0.0039 U	< 0.0038 U	NC
ENDRIN KETONE	NA	NA	NA	NA	< 0.0037 U	< 0.0039 U	< 0.0038 U	NC
GAMMA-CHLORDANE	NA	NA	NA	NA	0.0026 J	< 0.002 U	< 0.002 U	1.6

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14-SB12R	S14-SB12R	S14-SB12R	S14-SB12R	S14-SB20	S14-SB20	S14-SB20	EPA Residential Soil PRGs
Sample ID	123-S14-003	123-S14-004	123-S14-005	123-S14-006	123-S14-007	123-S14-008	123-S14-009	
Sample Date	04/21/93	04/21/93	04/22/93	04/22/93	04/22/93	04/22/93	04/22/93	
Sample Depth	9.00 - 9.00	14.00 - 14.00	19.00 - 19.00	20.50 - 20.50	0.50 - 0.50	2.50 - 2.50	4.50 - 4.50	
PCBs/Pesticides (mg/kg)								
HEPTACHLOR EPOXIDE	NA	NA	NA	NA	< 0.0019 U	< 0.002 U	< 0.002 U	0.053
METHOXYCHLOR	NA	NA	NA	NA	< 0.019 U	< 0.02 U	< 0.02 U	310
TOXAPHENE	NA	NA	NA	NA	< 0.19 U	< 0.2 U	< 0.2 U	0.44
Metals (mg/kg)								
ALUMINUM	NA	NA	NA	NA	12,000	15,900	15,600	76,000
ANTIMONY	NA	NA	NA	NA	< 9 UJ	< 9.4 U	< 8.5 UJ	31
ARSENIC	NA	NA	NA	NA	**3.6**	**3.4**	**5.6**	0.39
BARIUM	NA	NA	NA	NA	83.1	108	125	5,400
BERYLLIUM	NA	NA	NA	NA	0.79	0.97	1.1	150
CADMIUM	NA	NA	NA	NA	< 1.1 U	< 1.2 U	< 1.1 U	37 *
CALCIUM	NA	NA	NA	NA	14,400	17,400	17,500	NC
CHROMIUM	NA	NA	NA	NA	19.9	25.2	25.5	210
COBALT	NA	NA	NA	NA	10.5	12.9	11.9	900
COPPER	NA	NA	NA	NA	19.4	21.4	20	3,100
IRON	NA	NA	NA	NA	19,300	**23,700**	22,900	23,000
LEAD	NA	NA	NA	NA	13.6	10.9	7.3	150 *
MAGNESIUM	NA	NA	NA	NA	6,280	8,220	7,820	NC
MANGANESE	NA	NA	NA	NA	319 J	389	400 J	1,800
MERCURY	NA	NA	NA	NA	< 0.11 U	< 0.12 U	< 0.12 U	23
NICKEL	NA	NA	NA	NA	20.9	25.7	26.3	1,600
POTASSIUM	NA	NA	NA	NA	2,370	3,400	3,820	NC
SELENIUM	NA	NA	NA	NA	< 0.67 UJ	< 0.64 U	< 3.4 UJ	390
SILVER	NA	NA	NA	NA	< 2.2 U	2.3	2.2	390
SODIUM	NA	NA	NA	NA	1,720	1,590	906	NC
VANADIUM	NA	NA	NA	NA	40.5	53.1	52.3	78
ZINC	NA	NA	NA	NA	56.7	63	63.8	23,000
Organophosphorus pesticides (mg/kg)								
MONOCROTOPHOS (AZODRIN)	< 0.2 UJ	< 0.21 UJ	< 0.2 UJ	< 0.19 UJ	NA	NA	NA	NC

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14-SB20	S14-SB20	S14-SB21	S14-SB21	S14-SB21	S14-SB21	S14-SB21	EPA Residential Soil PRGs
Sample ID	123-S14-010	123-S14-011	123-S14-013	123-S14-014	123-S14-015	123-S14-016	123-S14-017	
Sample Date	04/22/93	04/22/93	04/20/93	04/20/93	04/20/93	04/20/93	04/20/93	
Sample Depth	7.50 - 7.50	9.50 - 9.50	0.50 - 0.50	2.50 - 2.50	5.00 - 5.00	7.50 - 7.50	7.50 - 7.50	
Volatile Organic Compounds (mg/kg)								
1,1-DICHLOROETHENE	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	120
1,2-DICHLOROETHENE (TOTAL)	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	0.006 J	0.005 J	NC
2-BUTANONE	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	22,000
2-HEXANONE	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	NC
4-METHYL-2-PENTANONE	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	5,300
BENZENE	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	0.64
CARBON DISULFIDE	< 0.012 U	< 0.012 U	< 0.011 UJ	< 0.011 UJ	< 0.011 UJ	< 0.011 UJ	0.003 J	360
CARBON TETRACHLORIDE	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	0.25
ETHYLBENZENE	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	0.002 J	400
METHYLENE CHLORIDE	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	9.1
TOLUENE	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	520
TRICHLOROETHENE	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	0.052
XYLENE (TOTAL)	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
OTHER COMPONENTS *	NA	NA	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	NA	NC
TPH - DIESEL	NA	NA	< 1.9 U	< 1.9 U	< 1.9 U	< 1.9 U	NA	NC
TPH - MOTOR OIL	NA	NA	100 J	96 J	52 J	29	NA	NC
Gasoline Range (purgeables)								
OTHER COMPONENTS *	< 0.006 U	< 0.006 U	< 0.006 U	< 0.006 U	< 0.006 U	< 0.006 U	< 0.006 U	NC
Semivolatile Organic Compounds (mg/kg)								
1,4-DICHLOROBENZENE	< 0.39 U	< 0.39 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	0.039 J	3.4
2,4-DIMETHYLPHENOL	< 0.39 U	< 0.39 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	1,200
2-METHYLNAPHTHALENE	< 0.39 U	< 0.39 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	NC
2-METHYLPHENOL	< 0.39 U	< 0.39 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	3,100
4-METHYLPHENOL	< 0.39 U	< 0.39 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	310
ACENAPHTHENE	< 0.39 U	< 0.39 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	3,700
ACENAPHTHYLENE	< 0.39 U	< 0.39 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	NC
ANTHRACENE	< 0.39 U	< 0.39 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	22,000
BENZO(A)ANTHRACENE	< 0.39 U	< 0.39 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	0.62
BENZO(A)PYRENE	< 0.39 U	< 0.39 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	0.062
BENZO(B)FLUORANTHENE	< 0.39 U	< 0.39 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	0.62

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14-SB20	S14-SB20	S14-SB21	S14-SB21	S14-SB21	S14-SB21	S14-SB21	EPA Residential Soil PRGs
Sample ID	123-S14-010	123-S14-011	123-S14-013	123-S14-014	123-S14-015	123-S14-016	123-S14-017	
Sample Date	04/22/93	04/22/93	04/20/93	04/20/93	04/20/93	04/20/93	04/20/93	
Sample Depth	7.50 - 7.50	9.50 - 9.50	0.50 - 0.50	2.50 - 2.50	5.00 - 5.00	7.50 - 7.50	7.50 - 7.50	
Semivolatile Organic Compounds (mg/kg)								
BENZO(G,H,I)PERYLENE	< 0.39 U	< 0.39 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	NC
BENZO(K)FLUORANTHENE	< 0.39 U	< 0.39 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	0.38 *
CARBAZOLE	< 0.39 U	< 0.39 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	24
CHRYSENE	< 0.39 U	< 0.39 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.39 U	< 0.39 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	0.062
DIBENZOFURAN	< 0.39 U	< 0.39 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	150
FLUORANTHENE	< 0.39 U	< 0.39 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	2,300
FLUORENE	< 0.39 U	< 0.39 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	2,700
INDENO(1,2,3-CD)PYRENE	< 0.39 U	< 0.39 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	0.62
NAPHTHALENE	< 0.39 U	< 0.39 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	0.064 J	1.7 *
PENTACHLOROPHENOL	< 0.94 U	< 0.95 U	< 0.89 U	< 0.89 U	< 0.89 U	< 0.9 U	< 0.9 U	3.0
PHENANTHRENE	< 0.39 U	< 0.39 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	NC
PHENOL	< 0.39 U	< 0.39 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	18,000
PYRENE	< 0.39 U	< 0.39 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.0039 U	< 0.0039 U	0.015 J	0.028 J	0.05 J	0.029 J	0.78	2.4
4,4'-DDE	< 0.0039 U	< 0.0039 U	0.0048	0.0099	0.018	0.011	0.14 J	1.7
4,4'-DDT	< 0.0039 U	< 0.0039 U	0.023 J	0.042 J	0.033 J	0.0026 J	0.015 J	1.7
ALDRIN	< 0.002 U	< 0.002 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0038 U	0.029
ALPHA-BHC	< 0.002 U	< 0.002 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	0.0011 J	0.090
ALPHA-CHLORDANE	< 0.002 U	< 0.002 U	0.0016 J	0.0014 J	0.0013 J	0.0025	< 0.0038 U	1.6
AROCLOR-1016	< 0.039 U	< 0.039 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.074 U	3.9
AROCLOR-1254	< 0.039 U	< 0.039 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.074 U	0.22
AROCLOR-1260	< 0.039 U	< 0.039 U	0.14	0.19	**0.28 J**	**0.26**	**1.3**	0.22
DIELDRIN	< 0.0039 U	< 0.0039 U	< 0.0037 U	< 0.0037 U	< 0.0037 U	< 0.0037 U	0.015 J	0.030
ENDOSULFAN I	< 0.002 U	< 0.002 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0038 U	NC
ENDOSULFAN II	< 0.0039 U	< 0.0039 U	< 0.0037 U	< 0.0037 U	< 0.0037 U	< 0.0037 U	< 0.0074 U	NC
ENDOSULFAN SULFATE	< 0.0039 U	< 0.0039 U	< 0.0037 U	< 0.0037 U	< 0.0037 U	< 0.0037 U	< 0.0074 U	NC
ENDRIN	< 0.0039 U	< 0.0039 U	0.0013 J	0.0023 J	0.0023 J	< 0.0037 U	< 0.0074 U	18
ENDRIN ALDEHYDE	< 0.0039 U	< 0.0039 U	< 0.0037 U	< 0.0037 U	< 0.0037 U	< 0.0037 U	< 0.0074 U	NC
ENDRIN KETONE	< 0.0039 U	< 0.0039 U	< 0.0037 U	< 0.0037 U	< 0.0037 U	< 0.0037 U	< 0.0074 U	NC
GAMMA-CHLORDANE	< 0.002 U	< 0.002 U	0.0011 J	0.00089 J	0.00092 J	0.0024 J	< 0.0038 U	1.6

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14-SB20	S14-SB20	S14-SB21	S14-SB21	S14-SB21	S14-SB21	S14-SB21	EPA Residential Soil PRGs
Sample ID	123-S14-010	123-S14-011	123-S14-013	123-S14-014	123-S14-015	123-S14-016	123-S14-017	
Sample Date	04/22/93	04/22/93	04/20/93	04/20/93	04/20/93	04/20/93	04/20/93	
Sample Depth	7.50 - 7.50	9.50 - 9.50	0.50 - 0.50	2.50 - 2.50	5.00 - 5.00	7.50 - 7.50	7.50 - 7.50	
PCBs/Pesticides (mg/kg)								
HEPTACHLOR EPOXIDE	< 0.002 U	< 0.002 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0038 U	0.053
METHOXYCHLOR	< 0.02 U	< 0.02 U	< 0.019 U	< 0.019 U	< 0.019 U	< 0.019 U	< 0.038 U	310
TOXAPHENE	< 0.2 U	< 0.2 U	< 0.19 U	< 0.19 U	< 0.19 U	< 0.19 U	< 0.38 U	0.44
Metals (mg/kg)								
ALUMINUM	15,200	5,360	11,900	11,700	13,100	11,900	12,900	76,000
ANTIMONY	< 9.1 UJ	< 9.5 UJ	< 6.8 UJ	< 7.9 UJ	< 8.1 UJ	< 8 UJ	< 15.6 UJ	31
ARSENIC	**2.9**	**2.1**	**4.3 J**	**4.3 J**	**5.1 J**	**3.1 J**	**1.9 J**	0.39
BARIUM	114	57.7	91.1	94	111	89.8	42.1	5,400
BERYLLIUM	1.2	< 0.47 U	0.52	0.6	0.5	0.6	0.46	150
CADMIUM	< 1.1 U	< 1.2 U	< 0.85 U	< 0.99 U	< 1 U	< 1 U	< 1.9 U	37 *
CALCIUM	8,150	9,290	12,700	16,100	17,400	14,800	25,200	NC
CHROMIUM	25.7	8.6	19.8	20.2	21.6	20.2	16.8	210
COBALT	12	4	10.1	10.9	10.7	10.8	17	900
COPPER	22.9	< 5.4 U	21.2	26.4	20	19	23.4	3,100
IRON	22,200	9,170	19,000	20,400	21,100	17,600	**28,800**	23,000
LEAD	6.8	2.7	11.2 J	13.2 J	6.8 J	9.9 J	14 J	150 *
MAGNESIUM	8,780	2,650	6,390	7,030	7,300	6,380	9,070	NC
MANGANESE	255 J	141 J	317	355	351	292	570	1,800
MERCURY	< 0.12 U	< 0.12 U	< 0.11 U	< 0.11 U	< 0.11 U	< 0.1 U	< 0.11 U	23
NICKEL	28.9	9.1	18.2	20.7	20.9	19.5	24.9	1,600
POTASSIUM	4,500	1,310	2,640	2,600	3,010	2,500	1,460	NC
SELENIUM	2.5 J	< 0.62 UJ	< 0.58 UJ	< 0.58 UJ	< 0.63 UJ	< 0.6 UJ	< 0.53 UJ	390
SILVER	< 2.3 U	< 2.4 U	< 1.7 U	< 2 U	< 2 U	< 2 U	< 3.9 U	390
SODIUM	930	< 298 U	1,020	1,160	1,190	1,200	1,700	NC
VANADIUM	48.9	20.6	38.3	39.5	42.5	37.7	44.4	78
ZINC	73.4	19.7	53.9	61.1	55	50.6	68.6	23,000
Organophosphorus pesticides (mg/kg)								
MONOCROTOPHOS (AZODRIN)	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14-SB21	S14-SB21	S14-SB22	S14-SB22	S14-SB22	S14-SB22	S14-SB22	EPA Residential Soil PRGs
Sample ID	123-S14-018	123-S14-019	123-S14-020	123-S14-021	123-S14-022	123-S14-023	123-S14-024	
Sample Date	04/20/93	04/20/93	04/22/93	04/22/93	04/22/93	04/22/93	04/22/93	
Sample Depth	10.00 - 10.00	12.50 - 12.50	0.50 - 0.50	2.50 - 2.50	5.00 - 5.00	7.50 - 7.50	9.50 - 9.50	
Volatile Organic Compounds (mg/kg)								
1,1-DICHLOROETHENE	< 0.012 U	< 0.012 UJ	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	120
1,2-DICHLOROETHENE (TOTAL)	0.007 J	0.002 J	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	NC
2-BUTANONE	< 0.012 U	< 0.012 UJ	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	22,000
2-HEXANONE	< 0.012 U	< 0.012 UJ	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	NC
4-METHYL-2-PENTANONE	< 0.012 U	< 0.012 UJ	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	5,300
BENZENE	< 0.012 U	< 0.012 UJ	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	0.64
CARBON DISULFIDE	< 0.012 UJ	< 0.012 UJ	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	360
CARBON TETRACHLORIDE	< 0.012 U	< 0.012 UJ	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	0.25
ETHYLBENZENE	< 0.012 UJ	< 0.012 UJ	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	400
METHYLENE CHLORIDE	< 0.012 U	< 0.012 UJ	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	0.066 J	9.1
TOLUENE	< 0.012 UJ	< 0.012 UJ	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	520
TRICHLOROETHENE	< 0.012 U	< 0.012 UJ	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	0.052
XYLENE (TOTAL)	< 0.012 UJ	< 0.012 UJ	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
OTHER COMPONENTS *	< 2 U	< 2 U	NA	NA	NA	NA	NA	NC
TPH - DIESEL	< 2 U	< 2 U	NA	NA	NA	NA	NA	NC
TPH - MOTOR OIL	2.3 J	< 6.1 U	NA	NA	NA	NA	NA	NC
Gasoline Range (purgeables)								
OTHER COMPONENTS *	< 0.006 U	< 0.006 U	< 0.006 U	< 0.006 U	< 0.006 U	< 0.005 U	< 0.006 U	NC
Semivolatile Organic Compounds (mg/kg)								
1,4-DICHLOROBENZENE	< 0.39 U	< 0.4 U	< 0.38 U	< 0.38 U	< 0.37 U	< 0.36 U	< 0.37 U	3.4
2,4-DIMETHYLPHENOL	< 0.39 U	< 0.4 U	< 0.38 U	< 0.38 U	< 0.37 U	< 0.36 U	< 0.37 U	1,200
2-METHYLNAPHTHALENE	< 0.39 U	< 0.4 U	< 0.38 U	< 0.38 U	< 0.37 U	< 0.36 U	< 0.37 U	NC
2-METHYLPHENOL	< 0.39 U	< 0.4 U	< 0.38 U	< 0.38 U	< 0.37 U	< 0.36 U	< 0.37 U	3,100
4-METHYLPHENOL	< 0.39 U	< 0.4 U	< 0.38 U	< 0.38 U	< 0.37 U	< 0.36 U	< 0.37 U	310
ACENAPHTHENE	< 0.39 U	< 0.4 U	< 0.38 U	< 0.38 U	< 0.37 U	< 0.36 U	< 0.37 U	3,700
ACENAPHTHYLENE	< 0.39 U	< 0.4 U	< 0.38 U	< 0.38 U	< 0.37 U	< 0.36 U	< 0.37 U	NC
ANTHRACENE	< 0.39 U	< 0.4 U	< 0.38 U	< 0.38 U	< 0.37 U	< 0.36 U	< 0.37 U	22,000
BENZO(A)ANTHRACENE	< 0.39 U	< 0.4 U	< 0.38 U	< 0.38 U	< 0.37 U	< 0.36 U	< 0.37 U	0.62
BENZO(A)PYRENE	< 0.39 U	< 0.4 U	< 0.38 U	< 0.38 U	< 0.37 U	< 0.36 U	< 0.37 U	0.062
BENZO(B)FLUORANTHENE	< 0.39 U	< 0.4 U	< 0.38 U	< 0.38 U	< 0.37 U	< 0.36 U	< 0.37 U	0.62

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14-SB21	S14-SB21	S14-SB22	S14-SB22	S14-SB22	S14-SB22	S14-SB22	EPA Residential Soil PRGs
Sample ID	123-S14-018	123-S14-019	123-S14-020	123-S14-021	123-S14-022	123-S14-023	123-S14-024	
Sample Date	04/20/93	04/20/93	04/22/93	04/22/93	04/22/93	04/22/93	04/22/93	
Sample Depth	10.00 - 10.00	12.50 - 12.50	0.50 - 0.50	2.50 - 2.50	5.00 - 5.00	7.50 - 7.50	9.50 - 9.50	
Semivolatile Organic Compounds (mg/kg)								
BENZO(G,H,I)PERYLENE	< 0.39 U	< 0.4 U	< 0.38 U	< 0.38 U	< 0.37 U	< 0.36 U	< 0.37 U	NC
BENZO(K)FLUORANTHENE	< 0.39 U	< 0.4 U	< 0.38 U	< 0.38 U	< 0.37 U	< 0.36 U	< 0.37 U	0.38 *
CARBAZOLE	< 0.39 U	< 0.4 U	< 0.38 U	< 0.38 U	< 0.37 U	< 0.36 U	< 0.37 U	24
CHRYSENE	< 0.39 U	< 0.4 U	< 0.38 U	< 0.38 U	< 0.37 U	< 0.36 U	< 0.37 U	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.39 U	< 0.4 U	< 0.38 U	< 0.38 U	< 0.37 U	< 0.36 U	< 0.37 U	0.062
DIBENZOFURAN	< 0.39 U	< 0.4 U	< 0.38 U	< 0.38 U	< 0.37 U	< 0.36 U	< 0.37 U	150
FLUORANTHENE	< 0.39 U	< 0.4 U	< 0.38 U	< 0.38 U	< 0.37 U	< 0.36 U	< 0.37 U	2,300
FLUORENE	< 0.39 U	< 0.4 U	< 0.38 U	< 0.38 U	< 0.37 U	< 0.36 U	< 0.37 U	2,700
INDENO(1,2,3-CD)PYRENE	< 0.39 U	< 0.4 U	< 0.38 U	< 0.38 U	< 0.37 U	< 0.36 U	< 0.37 U	0.62
NAPHTHALENE	< 0.39 U	< 0.4 U	< 0.38 U	< 0.38 U	< 0.37 U	< 0.36 U	< 0.37 U	1.7 *
PENTACHLOROPHENOL	< 0.94 U	< 0.98 U	< 0.93 U	< 0.93 U	< 0.9 U	< 0.87 U	< 0.9 U	3.0
PHENANTHRENE	< 0.39 U	< 0.4 U	< 0.38 U	< 0.38 U	< 0.37 U	< 0.36 U	< 0.37 U	NC
PHENOL	< 0.39 U	< 0.4 U	< 0.38 U	< 0.38 U	< 0.37 U	< 0.36 U	< 0.37 U	18,000
PYRENE	< 0.39 U	< 0.4 U	< 0.38 U	0.047 J	< 0.37 U	< 0.36 U	< 0.37 U	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.0039 U	< 0.004 U	< 0.0038 U	0.015	< 0.0037 U	0.029	0.041	2.4
4,4'-DDE	< 0.0039 U	< 0.004 U	< 0.0038 U	0.0031 J	< 0.0037 U	0.012 J	0.0023 J	1.7
4,4'-DDT	< 0.0039 U	< 0.004 U	< 0.0038 U	0.022 J	0.002 J	0.05 J	< 0.0037 U	1.7
ALDRIN	< 0.002 U	< 0.0021 U	< 0.002 U	< 0.002 U	< 0.0019 U	< 0.0018 U	< 0.0019 U	0.029
ALPHA-BHC	< 0.002 U	< 0.0021 U	< 0.002 U	< 0.002 U	< 0.0019 U	< 0.0018 U	< 0.0019 U	0.090
ALPHA-CHLORDANE	< 0.002 U	< 0.0021 U	< 0.002 U	0.0011 J	< 0.0019 U	< 0.0018 U	0.001 J	1.6
AROCLOR-1016	< 0.039 U	< 0.04 U	< 0.038 U	< 0.038 U	< 0.037 U	< 0.036 U	< 0.037 U	3.9
AROCLOR-1254	< 0.039 U	< 0.04 U	< 0.038 U	< 0.038 U	< 0.037 U	< 0.036 U	< 0.037 U	0.22
AROCLOR-1260	< 0.039 U	< 0.04 U	< 0.038 U	0.13	< 0.037 U	0.098	0.018 J	0.22
DIELDRIN	< 0.0039 U	< 0.004 U	< 0.0038 U	< 0.0038 U	< 0.0037 U	< 0.0036 U	< 0.0037 U	0.030
ENDOSULFAN I	< 0.002 U	< 0.0021 U	< 0.002 U	< 0.002 U	< 0.0019 U	< 0.0018 U	< 0.0019 U	NC
ENDOSULFAN II	< 0.0039 U	< 0.004 U	< 0.0038 U	< 0.0038 U	< 0.0037 U	< 0.0036 U	< 0.0037 U	NC
ENDOSULFAN SULFATE	< 0.0039 U	< 0.004 U	< 0.0038 U	< 0.0038 U	< 0.0037 U	< 0.0036 U	< 0.0037 U	NC
ENDRIN	< 0.0039 U	< 0.004 U	< 0.0038 U	< 0.0038 U	< 0.0037 U	0.0028 J	< 0.0037 U	18
ENDRIN ALDEHYDE	< 0.0039 U	< 0.004 U	< 0.0038 U	< 0.0038 U	< 0.0037 U	< 0.0036 U	< 0.0037 U	NC
ENDRIN KETONE	< 0.0039 U	< 0.004 U	< 0.0038 U	< 0.0038 U	< 0.0037 U	< 0.0036 U	< 0.0037 U	NC
GAMMA-CHLORDANE	< 0.002 U	< 0.0021 U	< 0.002 U	0.0016 J	< 0.0019 U	< 0.0018 U	0.00096 J	1.6

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14-SB21	S14-SB21	S14-SB22	S14-SB22	S14-SB22	S14-SB22	S14-SB22	EPA Residential Soil PRGs
Sample ID	123-S14-018	123-S14-019	123-S14-020	123-S14-021	123-S14-022	123-S14-023	123-S14-024	
Sample Date	04/20/93	04/20/93	04/22/93	04/22/93	04/22/93	04/22/93	04/22/93	
Sample Depth	10.00 - 10.00	12.50 - 12.50	0.50 - 0.50	2.50 - 2.50	5.00 - 5.00	7.50 - 7.50	9.50 - 9.50	
PCBs/Pesticides (mg/kg)								
HEPTACHLOR EPOXIDE	< 0.002 U	< 0.0021 U	< 0.002 U	< 0.002 U	< 0.0019 U	< 0.0018 U	< 0.0019 U	0.053
METHOXYCHLOR	< 0.02 U	< 0.021 U	< 0.02 U	< 0.02 U	< 0.019 U	< 0.018 U	< 0.019 U	310
TOXAPHENE	< 0.2 U	< 0.21 U	< 0.2 U	< 0.2 U	< 0.19 U	< 0.18 U	< 0.19 U	0.44
Metals (mg/kg)								
ALUMINUM	8,330	2,670	5,930	11,000	9,820	11,500	21,000	76,000
ANTIMONY	< 8.2 UJ	< 6.5 UJ	< 8.4 UJ	< 8.4 UJ	< 8.7 UJ	< 8.6 UJ	< 16.9 UJ	31
ARSENIC	**5.5 J**	**5.4 J**	**1.6**	**3.2**	**2.6**	**4.4**	**1.5**	0.39
BARIUM	106	35.2	42.8	94.3	82	81	26.3	5,400
BERYLLIUM	0.6	< 0.33 U	< 0.42 U	0.87	0.64	0.89	0.88	150
CADMIUM	< 1 U	< 0.82 U	< 1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 2.1 U	37 *
CALCIUM	23,700	7,460	6,740	13,700	9,490	13,400	14,100	NC
CHROMIUM	13.4	4.6	10	19.9	17.8	20.1	39.9	210
COBALT	7.3	2.8	6.3	10.8	8	9.7	29.3	900
COPPER	12.5	4.1	< 9.1 U	19.1	14.6	16.5	40.4	3,100
IRON	13,700	4,960	10,900	20,000	16,100	18,400	**49,000**	23,000
LEAD	4.8 J	1.6 J	2.7	13.2	7	11.7	13.4	150 *
MAGNESIUM	7,080	1,540	3,280	6,490	5,280	6,060	14,500	NC
MANGANESE	418	115	145 J	347 J	219 J	289 J	834 J	1,800
MERCURY	< 0.12 U	< 0.12 U	< 0.12 U	< 0.12 U	< 0.11 U	< 0.11 U	< 0.11 U	23
NICKEL	15.5	5.5	12.4	20.6	18.7	21.4	44.2	1,600
POTASSIUM	2,390	658	1,750	2,790	2,850	2,450	1,210	NC
SELENIUM	< 0.52 UJ	< 0.55 UJ	< 0.64 UJ	< 0.69 UJ	< 0.68 UJ	< 0.64 UJ	< 0.67 UJ	390
SILVER	< 2.1 U	< 1.6 U	< 2.1 U	2.2	< 2.2 U	2.4	< 4.2 U	390
SODIUM	872	638	940	2,310	1,230	1,010	2,830	NC
VANADIUM	27.2	9.1	21.8	39.4	34.1	39.2	**78.6**	78
ZINC	36.2	12.1	27.5	61.2	42.8	52.1	77.3	23,000
Organophosphorus pesticides (mg/kg)								
MONOCROTOPHOS (AZODRIN)	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14-SB22	S14-SB23	S14-SB23	S14-SB23	S14-SB23	S14-SB23	S14-SB23	EPA Residential Soil PRGs
Sample ID	123-S14-025	123-S14-026	123-S14-027	123-S14-028	123-S14-029	123-S14-030	123-S14-031	
Sample Date	04/22/93	04/22/93	04/22/93	04/22/93	04/22/93	04/22/93	04/22/93	
Sample Depth	12.50 - 12.50	0.50 - 0.50	2.50 - 2.50	2.50 - 2.50	5.00 - 5.00	7.50 - 7.50	9.50 - 9.50	
Volatile Organic Compounds (mg/kg)								
1,1-DICHLOROETHENE	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	120
1,2-DICHLOROETHENE (TOTAL)	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	NC
2-BUTANONE	0.017	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	22,000
2-HEXANONE	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	NC
4-METHYL-2-PENTANONE	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	5,300
BENZENE	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	0.64
CARBON DISULFIDE	0.001 J	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	360
CARBON TETRACHLORIDE	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	0.25
ETHYLBENZENE	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	400
METHYLENE CHLORIDE	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	9.1
TOLUENE	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	520
TRICHLOROETHENE	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	0.052
XYLENE (TOTAL)	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
OTHER COMPONENTS *	NA	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	NC
TPH - DIESEL	NA	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	NC
TPH - MOTOR OIL	NA	55	< 11 U	41 J	36 J	64 J	97 J	NC
Gasoline Range (purgeables)								
OTHER COMPONENTS *	< 0.006 U	< 0.005 U	< 0.006 U	< 0.006 U	< 0.006 U	< 0.006 U	0.77	NC
Semivolatile Organic Compounds (mg/kg)								
1,4-DICHLOROBENZENE	< 0.39 U	< 1.8 UJ	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.73 U	3.4
2,4-DIMETHYLPHENOL	< 0.39 U	0.5 J	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.73 U	1,200
2-METHYLNAPHTHALENE	< 0.39 U	2.3 J	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.73 U	NC
2-METHYLPHENOL	< 0.39 U	0.18 J	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.73 U	3,100
4-METHYLPHENOL	< 0.39 U	0.66 J	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.73 U	310
ACENAPHTHENE	< 0.39 U	15 J	< 0.37 U	< 0.37 U	0.03 J	< 0.37 U	< 0.73 U	3,700
ACENAPHTHYLENE	< 0.39 U	0.078 J	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.73 U	NC
ANTHRACENE	< 0.39 U	19 J	< 0.37 U	< 0.37 U	0.045 J	< 0.37 U	< 0.73 U	22,000
BENZO(A)ANTHRACENE	< 0.39 U	**37 J**	< 0.37 U	< 0.37 U	0.11 J	< 0.37 U	< 0.73 U	0.62
BENZO(A)PYRENE	< 0.39 U	**33 J**	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.73 U	0.062
BENZO(B)FLUORANTHENE	< 0.39 U	**31 J**	< 0.37 U	< 0.37 U	0.2 J	< 0.37 U	< 0.73 U	0.62

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14-SB22	S14-SB23	S14-SB23	S14-SB23	S14-SB23	S14-SB23	S14-SB23	EPA Residential Soil PRGs
Sample ID	123-S14-025	123-S14-026	123-S14-027	123-S14-028	123-S14-029	123-S14-030	123-S14-031	
Sample Date	04/22/93	04/22/93	04/22/93	04/22/93	04/22/93	04/22/93	04/22/93	
Sample Depth	12.50 - 12.50	0.50 - 0.50	2.50 - 2.50	2.50 - 2.50	5.00 - 5.00	7.50 - 7.50	9.50 - 9.50	
Semivolatile Organic Compounds (mg/kg)								
BENZO(G,H,I)PERYLENE	< 0.39 U	20 J	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.73 U	NC
BENZO(K)FLUORANTHENE	< 0.39 U	**26 J**	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.73 U	0.38 *
CARBAZOLE	< 0.39 U	14	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.73 U	24
CHRYSENE	< 0.39 U	**42 J**	< 0.37 U	< 0.37 U	0.13 J	< 0.37 U	< 0.73 U	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.39 U	**6.4**	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.73 U	0.062
DIBENZOFURAN	< 0.39 U	4.7 J	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.73 U	150
FLUORANTHENE	< 0.39 U	78 J	< 0.37 U	< 0.37 U	0.24 J	< 0.37 U	< 0.73 U	2,300
FLUORENE	< 0.39 U	8 J	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.73 U	2,700
INDENO(1,2,3-CD)PYRENE	< 0.39 U	**24 J**	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.73 U	0.62
NAPHTHALENE	< 0.39 U	**6.7 J**	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.73 U	1.7 *
PENTACHLOROPHENOL	< 0.94 U	< 4.3 UJ	< 0.89 U	< 0.89 U	< 0.9 U	< 0.89 U	< 1.8 U	3.0
PHENANTHRENE	< 0.39 U	75 J	< 0.37 U	< 0.37 U	0.19 J	< 0.37 U	< 0.73 U	NC
PHENOL	< 0.39 U	0.2 J	< 0.37 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.73 U	18,000
PYRENE	< 0.39 U	82 J	< 0.37 U	< 0.37 U	0.23 J	< 0.37 U	< 0.73 U	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.0039 U	0.0078 J	0.0032 J	0.03 J	0.023 J	0.016 J	< 0.0036 U	2.4
4,4'-DDE	< 0.0039 U	0.0019 J	< 0.0037 U	0.015	0.0083	0.0057	< 0.0036 UJ	1.7
4,4'-DDT	< 0.0039 U	0.013 J	0.0074 J	0.038 J	0.044 J	0.016 J	< 0.0036 UJ	1.7
ALDRIN	< 0.002 U	< 0.0018 U	< 0.0019 U	0.0017 J	< 0.0019 U	< 0.0019 U	< 0.0019 UJ	0.029
ALPHA-BHC	< 0.002 U	< 0.0018 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 UJ	0.090
ALPHA-CHLORDANE	< 0.002 U	0.0014 J	< 0.0019 U	0.0011 J	< 0.0019 U	0.00086 J	< 0.0019 UJ	1.6
AROCLOR-1016	< 0.039 U	< 0.035 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.036 UJ	3.9
AROCLOR-1254	< 0.039 U	< 0.035 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.036 UJ	0.22
AROCLOR-1260	< 0.039 U	0.11	0.042	0.2	0.2	0.085	< 0.036 UJ	0.22
DIELDRIN	< 0.0039 U	0.0014 J	< 0.0037 U	0.0018 J	0.0026 J	< 0.0037 U	< 0.0036 UJ	0.030
ENDOSULFAN I	< 0.002 U	< 0.0018 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 UJ	NC
ENDOSULFAN II	< 0.0039 U	< 0.0035 U	0.0016 J	0.0086	< 0.0037 U	< 0.0037 U	< 0.0036 UJ	NC
ENDOSULFAN SULFATE	< 0.0039 U	< 0.0033 UJ	< 0.0037 U	< 0.0037 U	< 0.0037 U	< 0.0037 U	< 0.0036 UJ	NC
ENDRIN	< 0.0039 U	< 0.0033 UJ	< 0.0037 U	< 0.0031 UJ	0.0027 J	< 0.0037 U	< 0.0036 UJ	18
ENDRIN ALDEHYDE	< 0.0039 U	< 0.0035 U	< 0.0037 U	< 0.0037 U	< 0.0037 U	< 0.0037 U	< 0.0036 UJ	NC
ENDRIN KETONE	< 0.0039 U	< 0.0035 U	< 0.0037 U	< 0.0037 U	< 0.0037 U	< 0.0037 U	< 0.0036 UJ	NC
GAMMA-CHLORDANE	< 0.002 U	0.0013 J	< 0.0019 U	0.0011 J	< 0.0019 U	< 0.0019 U	< 0.0019 UJ	1.6

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14-SB22	S14-SB23	S14-SB23	S14-SB23	S14-SB23	S14-SB23	S14-SB23	EPA Residential Soil PRGs
Sample ID	123-S14-025	123-S14-026	123-S14-027	123-S14-028	123-S14-029	123-S14-030	123-S14-031	
Sample Date	04/22/93	04/22/93	04/22/93	04/22/93	04/22/93	04/22/93	04/22/93	
Sample Depth	12.50 - 12.50	0.50 - 0.50	2.50 - 2.50	2.50 - 2.50	5.00 - 5.00	7.50 - 7.50	9.50 - 9.50	
PCBs/Pesticides (mg/kg)								
HEPTACHLOR EPOXIDE	< 0.002 U	< 0.0018 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 UJ	0.053
METHOXYCHLOR	< 0.02 U	< 0.018 U	< 0.019 U	< 0.019 U	< 0.019 U	< 0.019 U	< 0.019 UJ	310
TOXAPHENE	< 0.2 U	< 0.18 U	< 0.19 U	< 0.19 U	< 0.19 U	< 0.19 U	< 0.19 UJ	0.44
Metals (mg/kg)								
ALUMINUM	16,100	7,520	10,100	9,520	9,840	13,300	9,360	76,000
ANTIMONY	< 7.9 UJ	NA	NA	NA	NA	NA	NA	31
ARSENIC	**3**	**3.1 J**	**4.9 J**	**3.5 J**	**3.7 J**	**3.6 J**	**2.3 J**	0.39
BARIUM	120	87.6	111	105	96.6	104	72	5,400
BERYLLIUM	1.3	0.3	0.41	0.41	0.44	0.45	0.34	150
CADMIUM	< 0.98 U	1.4	1.4	1.7	1.7	< 0.89 U	1.1	37 *
CALCIUM	23,100	15,000	11,600	19,100	17,800	19,000	19,800	NC
CHROMIUM	26	14.2	18	18.2	18.5	22.6	19.2	210
COBALT	11.7	6.5	5.6	8	7.4	7	7.1	900
COPPER	22.4	16.8	13.8	24.4	24.5	17.5	13.2	3,100
IRON	**23,400**	16,800	18,100	20,700	20,900	20,800	18,300	23,000
LEAD	6.6	11 J	7.4 J	17.8 J	13.3 J	9.5 J	5.3 J	150 *
MAGNESIUM	9,550	5,800	5,890	8,190	7,210	7,050	6,260	NC
MANGANESE	240 J	300	276	313	362	384	281	1,800
MERCURY	< 0.12 U	< 0.11 UJ	< 0.11 UJ	< 0.11 UJ	0.14 J	< 0.11 UJ	< 0.11 UJ	23
NICKEL	28	14	13.3	19.7	18	17.3	16.3	1,600
POTASSIUM	4,720	2,150	2,970	2,410	2,540	2,990	2,010	NC
SELENIUM	< 0.66 UJ	< 0.65 U	1.1	0.73	0.76	0.72	< 0.66 U	390
SILVER	2.1	< 0.43 U	< 0.45 U	0.67	0.59	< 0.45 U	< 0.44 U	390
SODIUM	1,190	1,100	941	1,130	1,060	1,220	1,560	NC
VANADIUM	51.1	27	34.2	35.1	33	41	31.9	78
ZINC	74.2	50.6	48.5	61.9	62.1	54.7	38.5	23,000
Organophosphorus pesticides (mg/kg)								
MONOCROTOPHOS (AZODRIN)	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14-SB23	S14-SB24	S14-SB24	S14-SB24	S14-SB24	S14-SB24	S14-SB24	EPA Residential Soil PRGs
Sample ID	123-S14-032	123-S14-033	123-S14-034	123-S14-035	123-S14-036	123-S14-037	123-S14-038	
Sample Date	04/22/93	04/20/93	04/20/93	04/20/93	04/20/93	04/20/93	04/20/93	
Sample Depth	12.50 - 12.50	0.50 - 0.50	3.00 - 3.00	5.00 - 5.00	7.50 - 7.50	10.00 - 10.00	12.50 - 12.50	
Volatile Organic Compounds (mg/kg)								
1,1-DICHLOROETHENE	< 0.013 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	120
1,2-DICHLOROETHENE (TOTAL)	< 0.013 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	NC
2-BUTANONE	< 0.013 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	22,000
2-HEXANONE	< 0.013 U	< 0.011 U	0.0008 J	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	NC
4-METHYL-2-PENTANONE	< 0.013 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	5,300
BENZENE	0.0005 J	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	0.64
CARBON DISULFIDE	< 0.013 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	360
CARBON TETRACHLORIDE	< 0.013 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	0.25
ETHYLBENZENE	< 0.013 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	400
METHYLENE CHLORIDE	< 0.013 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	9.1
TOLUENE	< 0.013 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	520
TRICHLOROETHENE	< 0.013 U	**0.063**	**0.093**	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	0.052
XYLENE (TOTAL)	< 0.013 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
OTHER COMPONENTS *	< 1.3 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	NC
TPH - DIESEL	< 1.3 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	NC
TPH - MOTOR OIL	96 J	25	86	60	54	97	87	NC
Gasoline Range (purgeables)								
OTHER COMPONENTS *	1.4	< 0.006 U	< 0.006 U	< 0.006 U	< 0.005 U	< 0.006 U	< 0.006 U	NC
Semivolatile Organic Compounds (mg/kg)								
1,4-DICHLOROBENZENE	< 0.42 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.36 U	< 0.37 U	< 0.38 U	3.4
2,4-DIMETHYLPHENOL	< 0.42 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.36 U	< 0.37 U	< 0.38 U	1,200
2-METHYLNAPHTHALENE	< 0.42 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.36 U	< 0.37 U	< 0.38 U	NC
2-METHYLPHENOL	< 0.42 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.36 U	< 0.37 U	< 0.38 U	3,100
4-METHYLPHENOL	< 0.42 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.36 U	< 0.37 U	< 0.38 U	310
ACENAPHTHENE	< 0.42 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.36 U	< 0.37 U	< 0.38 U	3,700
ACENAPHTHYLENE	< 0.42 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.36 U	< 0.37 U	< 0.38 U	NC
ANTHRACENE	< 0.42 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.36 U	< 0.37 U	< 0.38 U	22,000
BENZO(A)ANTHRACENE	< 0.42 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.36 U	< 0.37 U	< 0.38 U	0.62
BENZO(A)PYRENE	< 0.42 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.36 U	< 0.37 U	< 0.38 U	0.062
BENZO(B)FLUORANTHENE	< 0.42 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.36 U	< 0.37 U	< 0.38 U	0.62

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14-SB23	S14-SB24	S14-SB24	S14-SB24	S14-SB24	S14-SB24	S14-SB24	EPA Residential Soil PRGs
Sample ID	123-S14-032	123-S14-033	123-S14-034	123-S14-035	123-S14-036	123-S14-037	123-S14-038	
Sample Date	04/22/93	04/20/93	04/20/93	04/20/93	04/20/93	04/20/93	04/20/93	
Sample Depth	12.50 - 12.50	0.50 - 0.50	3.00 - 3.00	5.00 - 5.00	7.50 - 7.50	10.00 - 10.00	12.50 - 12.50	
Semivolatile Organic Compounds (mg/kg)								
BENZO(G,H,I)PERYLENE	< 0.42 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.36 U	< 0.37 U	< 0.38 U	NC
BENZO(K)FLUORANTHENE	< 0.42 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.36 U	< 0.37 U	< 0.38 U	0.38 *
CARBAZOLE	< 0.42 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.36 U	< 0.37 U	< 0.38 U	24
CHRYSENE	< 0.42 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.36 U	< 0.37 U	0.029 J	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.42 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.36 U	< 0.37 U	< 0.38 U	0.062
DIBENZOFURAN	< 0.42 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.36 U	< 0.37 U	< 0.38 U	150
FLUORANTHENE	< 0.42 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.36 U	< 0.37 U	< 0.38 U	2,300
FLUORENE	< 0.42 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.36 U	< 0.37 U	< 0.38 U	2,700
INDENO(1,2,3-CD)PYRENE	< 0.42 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.36 U	< 0.37 U	< 0.38 U	0.62
NAPHTHALENE	< 0.42 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.36 U	< 0.37 U	< 0.38 U	1.7 *
PENTACHLOROPHENOL	< 1 U	< 0.89 U	< 0.91 U	< 0.91 U	< 0.88 U	< 0.91 U	< 0.92 U	3.0
PHENANTHRENE	< 0.42 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.36 U	< 0.37 U	< 0.38 U	NC
PHENOL	< 0.42 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.36 U	< 0.37 U	< 0.38 U	18,000
PYRENE	< 0.42 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.36 U	< 0.37 U	0.019 J	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	0.014 J	0.039 J	0.018 J	0.0085 J	0.02 J	0.028 J	0.036 J	2.4
4,4'-DDE	0.0023 J	0.014 J	0.0063	0.0028 J	0.0079	0.013 J	0.033	1.7
4,4'-DDT	< 0.0042 U	0.012 J	0.02 J	0.0038 J	0.04 J	0.043	< 0.0038 U	1.7
ALDRIN	< 0.0022 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0017 U	< 0.002 U	0.029
ALPHA-BHC	< 0.0022 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0039 U	< 0.002 U	0.090
ALPHA-CHLORDANE	< 0.0022 U	< 0.0019 U	0.0023	0.0013 J	0.00088 J	< 0.0039 U	0.0012 J	1.6
AROCLOR-1016	< 0.042 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.036 U	< 0.075 U	< 0.038 U	3.9
AROCLOR-1254	< 0.042 U	< 0.037 U	< 0.037 U	< 0.037 U	< 0.036 U	< 0.075 U	< 0.038 U	0.22
AROCLOR-1260	0.061	**0.41**	0.18	0.1	0.18	**0.69**	**0.38**	0.22
DIELDRIN	< 0.0042 U	0.0069	0.0022 J	< 0.0033 U	< 0.0036 U	< 0.0075 U	0.0035 J	0.030
ENDOSULFAN I	< 0.0022 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0039 U	< 0.002 U	NC
ENDOSULFAN II	< 0.0042 U	0.014	< 0.0037 U	< 0.0027 UJ	< 0.0036 U	0.024 J	< 0.0038 U	NC
ENDOSULFAN SULFATE	< 0.0042 U	< 0.0037 U	< 0.0037 U	< 0.0037 U	< 0.0036 U	< 0.0075 U	< 0.0038 U	NC
ENDRIN	< 0.0042 U	0.0099 J	0.0024 J	< 0.0037 U	0.0025 J	0.0082 J	0.0047 J	18
ENDRIN ALDEHYDE	< 0.0042 U	0.0072 J	< 0.0037 U	< 0.0037 U	< 0.0036 U	0.015 J	< 0.0038 U	NC
ENDRIN KETONE	< 0.0042 U	< 0.0037 U	< 0.0037 U	< 0.0037 U	< 0.0036 U	< 0.0075 U	< 0.0038 U	NC
GAMMA-CHLORDANE	< 0.0022 U	0.0012 J	0.002 J	0.0014 J	0.00099 J	< 0.0017 U	< 0.002 U	1.6

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14-SB23	S14-SB24	S14-SB24	S14-SB24	S14-SB24	S14-SB24	S14-SB24	EPA Residential Soil PRGs
Sample ID	123-S14-032	123-S14-033	123-S14-034	123-S14-035	123-S14-036	123-S14-037	123-S14-038	
Sample Date	04/22/93	04/20/93	04/20/93	04/20/93	04/20/93	04/20/93	04/20/93	
Sample Depth	12.50 - 12.50	0.50 - 0.50	3.00 - 3.00	5.00 - 5.00	7.50 - 7.50	10.00 - 10.00	12.50 - 12.50	
PCBs/Pesticides (mg/kg)								
HEPTACHLOR EPOXIDE	< 0.0022 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0039 U	< 0.002 U	0.053
METHOXYCHLOR	< 0.022 U	< 0.019 U	< 0.019 U	< 0.019 U	< 0.019 U	< 0.039 U	< 0.02 U	310
TOXAPHENE	< 0.22 U	< 0.19 U	< 0.19 U	< 0.19 U	< 0.19 U	< 0.39 U	< 0.2 U	0.44
Metals (mg/kg)								
ALUMINUM	6,550	9,130	8,050	10,800	12,000	8,790	12,500	76,000
ANTIMONY	NA	< 6.9 UJ	< 7 UJ	< 7.1 UJ	< 6.8 UJ	< 7.1 UJ	< 7.1 UJ	31
ARSENIC	**2.5 J**	**2.2**	**2.8**	**3**	**2.8**	**2.9**	**3.2**	0.39
BARIUM	49.3	56.4	59.2	105	86.4	68.3	78.8	5,400
BERYLLIUM	< 0.26 U	0.23	0.24	0.35	0.36	< 0.23 U	0.28	150
CADMIUM	1.2	< 0.89 U	1.1	1.4	1.6	1.9	1.5	37 *
CALCIUM	13,700	9,240	9,480	13,600	15,500	12,900	15,200	NC
CHROMIUM	11.9	27.3	15.8	20.4	21.2	19.4	22	210
COBALT	6.3	5.2	4.7	6.6	6.3	8.1	8.5	900
COPPER	22.8	11.8	13.1	17.6	21.6	26	33.7	3,100
IRON	15,100	16,700 J	14,700 J	20,600 J	20,100 J	21,000 J	**24,400 J**	23,000
LEAD	55.8 J	5	6.1	8.7	13.3	18.1	19.6	150 *
MAGNESIUM	4,960	6,550 J	4,800 J	6,870 J	6,730 J	7,260 J	8,290 J	NC
MANGANESE	252	229	235	331	312	327	359	1,800
MERCURY	< 0.13 UJ	< 0.11 U	< 0.11 U	< 0.11 U	< 0.11 U	< 0.11 U	0.11 J	23
NICKEL	13	16.7	12.2	17.9	17.3	19.3	20.1	1,600
POTASSIUM	1,460	2,080	1,970	2,910	2,570	1,850	2,250	NC
SELENIUM	< 0.77 U	< 0.67 U	< 0.68 U	< 0.68 U	< 0.66 U	< 0.68 U	< 0.69 U	390
SILVER	0.58	< 0.45 U	< 0.45 U	< 0.46 U	< 0.44 U	< 0.46 U	< 0.46 U	390
SODIUM	1,810	3,720	1,600	883	970	1,150	1,310	NC
VANADIUM	22.4	32.2	26.3	35.3	37.8	31.2	44.1	78
ZINC	41.6	37.6 J	37.9 J	55.2 J	56 J	59.8 J	74.9 J	23,000
Organophosphorus pesticides (mg/kg)								
MONOCROTOPHOS (AZODRIN)	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14-SB25	S14-SB25	S14-SB25	S14-SB25	S14-SB25	S14-SB25	S14-SB26	EPA Residential Soil PRGs
Sample ID	123-S14-040	123-S14-041	123-S14-042	123-S14-043	123-S14-044	123-S14-045	123-S14-046	
Sample Date	04/22/93	04/22/93	04/22/93	04/22/93	04/22/93	04/22/93	04/20/93	
Sample Depth	0.50 - 0.50	2.50 - 2.50	5.00 - 5.00	7.50 - 7.50	10.00 - 10.00	12.50 - 12.50	0.50 - 0.50	
Volatile Organic Compounds (mg/kg)								
1,1-DICHLOROETHENE	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	120
1,2-DICHLOROETHENE (TOTAL)	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	NC
2-BUTANONE	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	22,000
2-HEXANONE	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	NC
4-METHYL-2-PENTANONE	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	5,300
BENZENE	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	0.64
CARBON DISULFIDE	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	360
CARBON TETRACHLORIDE	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	0.25
ETHYLBENZENE	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	400
METHYLENE CHLORIDE	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	9.1
TOLUENE	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	520
TRICHLOROETHENE	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	0.052
XYLENE (TOTAL)	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
OTHER COMPONENTS *	1.5 J	0.82 J	0.8 J	< 1.1 U	1.2	0.96 J	< 1.1 U	NC
TPH - DIESEL	< 1.2 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	NC
TPH - MOTOR OIL	100 J	< 11 U	< 11 U	100 J	150 J	< 11 U	28	NC
Gasoline Range (purgeables)								
OTHER COMPONENTS *	3.1	< 0.005 U	< 0.006 U	< 0.005 U	1.5	< 0.005 U	0.16	NC
Semivolatile Organic Compounds (mg/kg)								
1,4-DICHLOROBENZENE	< 0.38 U	< 0.36 U	< 0.38 U	< 0.36 U	< 0.36 U	< 0.35 U	< 0.38 U	3.4
2,4-DIMETHYLPHENOL	< 0.38 U	< 0.36 U	< 0.38 U	< 0.36 U	< 0.36 U	< 0.35 U	< 0.38 U	1,200
2-METHYLNAPHTHALENE	< 0.38 U	< 0.36 U	< 0.38 U	< 0.36 U	0.13 J	< 0.35 U	< 0.38 U	NC
2-METHYLPHENOL	< 0.38 U	< 0.36 U	< 0.38 U	< 0.36 U	< 0.36 U	< 0.35 U	< 0.38 U	3,100
4-METHYLPHENOL	< 0.38 U	< 0.36 U	< 0.38 U	< 0.36 U	< 0.36 U	< 0.35 U	< 0.38 U	310
ACENAPHTHENE	< 0.38 U	< 0.36 U	< 0.38 U	< 0.36 U	0.82	< 0.35 U	< 0.38 U	3,700
ACENAPHTHYLENE	< 0.38 U	< 0.36 U	< 0.38 U	< 0.36 U	0.013 J	< 0.35 U	< 0.38 U	NC
ANTHRACENE	< 0.38 U	< 0.36 U	< 0.38 U	0.48	< 0.36 U	< 0.35 U	< 0.38 U	22,000
BENZO(A)ANTHRACENE	< 0.38 U	< 0.36 U	< 0.38 U	0.23 J	0.39	< 0.35 U	< 0.38 U	0.62
BENZO(A)PYRENE	< 0.38 U	< 0.36 U	< 0.38 U	**0.37**	**0.15 J**	< 0.35 U	< 0.38 U	0.062
BENZO(B)FLUORANTHENE	< 0.38 U	< 0.36 U	< 0.38 U	0.51	0.21 J	< 0.35 U	< 0.38 U	0.62

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14-SB25	S14-SB25	S14-SB25	S14-SB25	S14-SB25	S14-SB25	S14-SB26	EPA Residential Soil PRGs
Sample ID	123-S14-040	123-S14-041	123-S14-042	123-S14-043	123-S14-044	123-S14-045	123-S14-046	
Sample Date	04/22/93	04/22/93	04/22/93	04/22/93	04/22/93	04/22/93	04/20/93	
Sample Depth	0.50 - 0.50	2.50 - 2.50	5.00 - 5.00	7.50 - 7.50	10.00 - 10.00	12.50 - 12.50	0.50 - 0.50	
Semivolatile Organic Compounds (mg/kg)								
BENZO(G,H,I)PERYLENE	< 0.38 U	< 0.36 U	< 0.38 U	< 0.36 U	< 0.36 U	< 0.35 U	< 0.38 U	NC
BENZO(K)FLUORANTHENE	< 0.38 U	< 0.36 U	< 0.38 U	0.27 J	0.14 J	< 0.35 U	< 0.38 U	0.38 *
CARBAZOLE	< 0.38 U	< 0.36 U	< 0.38 U	0.045 J	< 0.36 U	< 0.35 U	< 0.38 U	24
CHRYSENE	< 0.38 U	< 0.36 U	< 0.38 U	1.1	0.37	< 0.35 U	< 0.38 U	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.38 U	< 0.36 U	< 0.38 U	< 0.36 U	< 0.36 U	< 0.35 U	< 0.38 U	0.062
DIBENZOFURAN	< 0.38 U	< 0.36 U	< 0.38 U	< 0.36 U	0.54	< 0.35 U	< 0.38 U	150
FLUORANTHENE	< 0.38 U	< 0.36 U	< 0.38 U	0.07 J	1.8	< 0.35 U	< 0.38 U	2,300
FLUORENE	< 0.38 U	< 0.36 U	< 0.38 U	< 0.36 U	0.96	< 0.35 U	< 0.38 U	2,700
INDENO(1,2,3-CD)PYRENE	< 0.38 U	< 0.36 U	< 0.38 U	0.54	< 0.36 U	< 0.35 U	< 0.38 U	0.62
NAPHTHALENE	< 0.38 U	< 0.36 U	< 0.38 U	< 0.36 U	< 0.36 U	< 0.35 U	< 0.38 U	1.7 *
PENTACHLOROPHENOL	< 0.93 U	< 0.88 U	< 0.92 U	< 0.87 U	< 0.87 U	< 0.86 U	< 0.92 U	3.0
PHENANTHRENE	< 0.38 U	< 0.36 U	< 0.38 U	< 0.36 U	3.6	< 0.35 U	< 0.38 U	NC
PHENOL	< 0.38 U	< 0.36 U	< 0.38 U	< 0.36 U	< 0.36 U	< 0.35 U	< 0.38 U	18,000
PYRENE	< 0.38 U	< 0.36 U	< 0.38 U	0.12 J	1.4	< 0.35 U	< 0.38 U	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	0.0024 J	< 0.0037 U	< 0.0038 U	0.0074 J	0.011 J	0.0033 J	< 0.0038 U	2.4
4,4'-DDE	0.0049	< 0.0037 U	< 0.0038 U	< 0.0036 U	0.0019 J	0.0017 J	< 0.0038 U	1.7
4,4'-DDT	0.014	< 0.0037 U	< 0.0038 U	0.0087 J	< 0.0036 U	< 0.0035 U	0.002 J	1.7
ALDRIN	< 0.002 U	< 0.0019 U	< 0.002 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.002 U	0.029
ALPHA-BHC	< 0.002 U	< 0.0019 U	< 0.002 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.002 U	0.090
ALPHA-CHLORDANE	< 0.002 U	< 0.0019 U	< 0.002 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.002 U	1.6
AROCLOR-1016	< 0.038 U	< 0.037 U	< 0.038 U	< 0.036 U	< 0.036 U	< 0.035 U	< 0.038 U	3.9
AROCLOR-1254	< 0.038 U	< 0.037 U	< 0.038 U	< 0.036 U	< 0.036 U	< 0.035 U	< 0.038 U	0.22
AROCLOR-1260	< 0.038 U	< 0.037 U	< 0.038 U	0.14	0.1	**0.3**	< 0.038 U	0.22
DIELDRIN	< 0.0038 U	< 0.0037 U	< 0.0038 U	< 0.0036 U	0.0022 J	0.0018 J	< 0.0038 U	0.030
ENDOSULFAN I	< 0.002 U	< 0.0019 U	< 0.002 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.002 U	NC
ENDOSULFAN II	< 0.0038 U	< 0.0037 U	< 0.0038 U	< 0.0036 U	< 0.0036 U	0.01	< 0.0038 U	NC
ENDOSULFAN SULFATE	< 0.0038 U	< 0.0037 U	< 0.0038 U	< 0.0036 U	< 0.0036 U	< 0.0035 U	< 0.0038 U	NC
ENDRIN	< 0.0038 U	< 0.0037 U	< 0.0038 U	< 0.0036 U	< 0.0036 U	< 0.0033 UJ	< 0.0038 U	18
ENDRIN ALDEHYDE	< 0.0038 U	< 0.0037 U	< 0.0038 U	< 0.0036 U	< 0.0036 U	0.0051 J	< 0.0038 U	NC
ENDRIN KETONE	< 0.0038 U	< 0.0037 U	< 0.0038 U	< 0.0036 U	< 0.0036 U	< 0.0035 U	< 0.0038 U	NC
GAMMA-CHLORDANE	< 0.002 U	< 0.0019 U	< 0.002 U	0.0013 J	< 0.0018 U	< 0.0018 U	< 0.002 U	1.6

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14-SB25	S14-SB25	S14-SB25	S14-SB25	S14-SB25	S14-SB25	S14-SB26	EPA Residential Soil PRGs
Sample ID	123-S14-040	123-S14-041	123-S14-042	123-S14-043	123-S14-044	123-S14-045	123-S14-046	
Sample Date	04/22/93	04/22/93	04/22/93	04/22/93	04/22/93	04/22/93	04/20/93	
Sample Depth	0.50 - 0.50	2.50 - 2.50	5.00 - 5.00	7.50 - 7.50	10.00 - 10.00	12.50 - 12.50	0.50 - 0.50	
PCBs/Pesticides (mg/kg)								
HEPTACHLOR EPOXIDE	< 0.002 U	< 0.0019 U	< 0.002 U	< 0.0018 U	< 0.0018 U	< 0.0018 U	< 0.002 U	0.053
METHOXYCHLOR	< 0.02 U	< 0.019 U	< 0.02 U	< 0.018 U	< 0.018 U	< 0.018 U	< 0.02 U	310
TOXAPHENE	< 0.2 U	< 0.19 U	< 0.2 U	< 0.18 U	< 0.18 U	< 0.18 U	< 0.2 U	0.44
Metals (mg/kg)								
ALUMINUM	13,000	8,640	4,520	7,480	7,870	3,950	10,000	76,000
ANTIMONY	NA	7.2 J	NA	NA	NA	NA	< 7.1 UJ	31
ARSENIC	**3.1 J**	**3.9 J**	**6.6 J**	**1.9 J**	**1.9 J**	**1.2 J**	**3.1**	0.39
BARIUM	83.1	70.7	68.3	56.1	48	30.8	106	5,400
BERYLLIUM	0.44	0.51	< 0.23 U	0.24	0.24	< 0.22 U	0.36	150
CADMIUM	1.2	< 0.88 U	1.3	1.1	< 0.87 U	< 0.86 U	< 0.92 U	37 *
CALCIUM	16,200	5,830	8,180	8,110	8,130	5,250	12,900	NC
CHROMIUM	19.1	15.7	7.2	12.8	12.5	7.1	20.6	210
COBALT	8.3	6	3.5	4.7	5.5	2.7 J	5.7	900
COPPER	17.5	12.8	9	12.6	12.8	5.8	14.5	3,100
IRON	**24,200**	18,500	10,400	13,500	13,800	7,690	18,600 J	23,000
LEAD	6.2 J	5.4 J	4.6 J	8.1 J	7.7 J	3.1 J	5.4	150 *
MAGNESIUM	7,750	6,030	3,500	4,430	4,420	2,380	6,380 J	NC
MANGANESE	370	163	220	198	195	113	326	1,800
MERCURY	< 0.12 UJ	< 0.11 UJ	< 0.12 UJ	< 0.11 UJ	< 0.11 UJ	< 0.11 UJ	0.65 J	23
NICKEL	16	17.4	6.5	11	10	5.7	16.8	1,600
POTASSIUM	2,520	3,260	1,830	1,600	1,640	892	3,200	NC
SELENIUM	0.76	< 0.66 U	0.9	0.84	< 0.65 U	0.72	< 0.69 U	390
SILVER	< 0.46 U	< 0.44 U	< 0.46 U	< 0.44 U	< 0.43 U	< 0.43 U	< 0.46 U	390
SODIUM	1,150	3,360	769	954	1,010	561	2,380	NC
VANADIUM	41.3	29.2	16	24.7	25.2	13	33.2	78
ZINC	56.7	51.5	27.9	34.5	34.9	18.8	47.5 J	23,000
Organophosphorus pesticides (mg/kg)								
MONOCROTOPHOS (AZODRIN)	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14-SB26	S14-SB26	S14-SB26	S14-SB26	S14-SB26	S14-SB26	S14-SB27	EPA Residential Soil PRGs
Sample ID	123-S14-047	123-S14-048	123-S14-319	123-S14-049	123-S14-050	123-S14-052	123-S14-053	
Sample Date	04/20/93	04/20/93	04/20/93	04/20/93	04/20/93	04/20/93	04/20/93	
Sample Depth	2.50 - 2.50	5.00 - 5.00	5.00 - 5.00	8.00 - 8.00	10.00 - 10.00	12.50 - 12.50	0.50 - 0.50	
Volatile Organic Compounds (mg/kg)								
1,1-DICHLOROETHENE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	0.001 J	< 0.011 U	120
1,2-DICHLOROETHENE (TOTAL)	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.013 UJ	< 0.011 U	NC
2-BUTANONE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.013 U	< 0.011 U	22,000
2-HEXANONE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.013 U	< 0.011 U	NC
4-METHYL-2-PENTANONE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	0.022	< 0.011 U	5,300
BENZENE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	0.008 J	< 0.011 U	0.64
CARBON DISULFIDE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.013 U	< 0.011 U	360
CARBON TETRACHLORIDE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	0.001 J	< 0.011 U	0.25
ETHYLBENZENE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	0.03	< 0.011 U	400
METHYLENE CHLORIDE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.013 U	< 0.011 U	9.1
TOLUENE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	0.006 J	< 0.011 U	520
TRICHLOROETHENE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.013 U	< 0.011 U	0.052
XYLENE (TOTAL)	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	0.1	< 0.011 U	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
OTHER COMPONENTS *	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.2 U	< 1.3 U	< 1.1 UJ	NC
TPH - DIESEL	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.2 U	14	< 1.1 UJ	NC
TPH - MOTOR OIL	16	79	84	12	< 12 U	260	90 J	NC
Gasoline Range (purgeables)								
OTHER COMPONENTS *	< 0.006 U	< 0.005 U	< 0.005 U	< 0.006 U	< 0.006 U	29	< 0.005 U	NC
Semivolatile Organic Compounds (mg/kg)								
1,4-DICHLOROBENZENE	< 0.37 U	< 0.36 U	< 0.36 U	< 0.37 U	< 0.38 U	< 0.43 U	< 0.36 U	3.4
2,4-DIMETHYLPHENOL	< 0.37 U	< 0.36 U	< 0.36 U	< 0.37 U	< 0.38 U	< 0.43 U	< 0.36 U	1,200
2-METHYLNAPHTHALENE	< 0.37 U	0.021 J	< 0.36 U	< 0.37 U	< 0.38 U	0.054 J	< 0.36 U	NC
2-METHYLPHENOL	< 0.37 U	< 0.36 U	< 0.36 U	< 0.37 U	< 0.38 U	< 0.43 U	< 0.36 U	3,100
4-METHYLPHENOL	< 0.37 U	< 0.36 U	< 0.36 U	< 0.37 U	< 0.38 U	< 0.43 U	< 0.36 U	310
ACENAPHTHENE	< 0.37 U	0.075 J	0.19 J	< 0.37 U	< 0.38 U	0.092 J	< 0.36 U	3,700
ACENAPHTHYLENE	< 0.37 U	< 0.36 U	< 0.36 U	< 0.37 U	< 0.38 U	< 0.43 U	< 0.36 U	NC
ANTHRACENE	< 0.37 U	0.029 J	< 0.36 U	< 0.37 U	< 0.38 U	< 0.43 U	< 0.36 U	22,000
BENZO(A)ANTHRACENE	< 0.37 U	0.11 J	0.09 J	< 0.37 U	< 0.38 U	< 0.43 U	< 0.36 U	0.62
BENZO(A)PYRENE	< 0.37 U	**0.074 J**	< 0.36 U	< 0.37 U	< 0.38 U	< 0.43 U	< 0.36 U	0.062
BENZO(B)FLUORANTHENE	< 0.37 U	0.08 J	< 0.36 U	< 0.37 U	< 0.38 U	< 0.43 U	< 0.36 U	0.62

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14-SB26	S14-SB26	S14-SB26	S14-SB26	S14-SB26	S14-SB26	S14-SB27	EPA Residential Soil PRGs
Sample ID	123-S14-047	123-S14-048	123-S14-319	123-S14-049	123-S14-050	123-S14-052	123-S14-053	
Sample Date	04/20/93	04/20/93	04/20/93	04/20/93	04/20/93	04/20/93	04/20/93	
Sample Depth	2.50 - 2.50	5.00 - 5.00	5.00 - 5.00	8.00 - 8.00	10.00 - 10.00	12.50 - 12.50	0.50 - 0.50	
Semivolatile Organic Compounds (mg/kg)								
BENZO(G,H,I)PERYLENE	< 0.37 U	< 0.36 U	< 0.36 U	< 0.37 U	< 0.38 U	< 0.43 U	< 0.36 U	NC
BENZO(K)FLUORANTHENE	< 0.37 U	0.096 J	< 0.36 U	< 0.37 U	< 0.38 U	< 0.43 U	< 0.36 U	0.38 *
CARBAZOLE	< 0.37 U	< 0.36 U	< 0.36 U	< 0.37 U	< 0.38 U	< 0.43 U	< 0.36 U	24
CHRYSENE	< 0.37 U	0.13 J	0.1 J	< 0.37 U	< 0.38 U	< 0.43 U	< 0.36 U	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.37 U	< 0.36 U	< 0.36 U	< 0.37 U	< 0.38 U	< 0.43 U	< 0.36 U	0.062
DIBENZOFURAN	< 0.37 U	0.021 J	0.041 J	< 0.37 U	< 0.38 U	< 0.43 U	< 0.36 U	150
FLUORANTHENE	< 0.37 U	0.21 J	0.06 J	< 0.37 U	< 0.38 U	0.088 J	< 0.36 U	2,300
FLUORENE	< 0.37 U	< 0.36 U	< 0.36 U	< 0.37 U	< 0.38 U	0.075 J	< 0.36 U	2,700
INDENO(1,2,3-CD)PYRENE	< 0.37 U	< 0.36 U	< 0.36 U	< 0.37 U	< 0.38 U	< 0.43 U	< 0.36 U	0.62
NAPHTHALENE	< 0.37 U	0.055 J	< 0.36 U	< 0.37 U	< 0.38 U	0.082 J	< 0.36 U	1.7 *
PENTACHLOROPHENOL	< 0.91 U	< 0.87 U	< 0.88 U	< 0.91 U	< 0.93 U	< 1.1 U	< 0.88 U	3.0
PHENANTHRENE	< 0.37 U	0.11 J	< 0.36 U	< 0.37 U	< 0.38 U	0.16 J	< 0.36 U	NC
PHENOL	< 0.37 U	< 0.36 U	< 0.36 U	< 0.37 U	< 0.38 U	< 0.43 U	< 0.36 U	18,000
PYRENE	< 0.37 U	0.21 J	0.086 J	< 0.37 U	< 0.38 U	0.063 J	< 0.36 U	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	0.0044 J	0.012 J	0.0089 J	0.0027 J	< 0.0038 U	< 0.0043 U	0.0031 J	2.4
4,4'-DDE	0.024	0.0026 J	0.0025 J	< 0.0037 U	< 0.0038 U	< 0.0043 U	0.0033 J	1.7
4,4'-DDT	0.044	< 0.0036 U	< 0.0036 U	< 0.0037 U	< 0.0038 U	0.0052 J	0.017 J	1.7
ALDRIN	< 0.0019 U	< 0.0018 U	< 0.0019 U	< 0.0019 U	< 0.002 U	< 0.0022 U	< 0.0019 U	0.029
ALPHA-BHC	< 0.0019 U	< 0.0018 U	< 0.0019 U	< 0.0019 U	< 0.002 U	< 0.0022 U	< 0.0019 U	0.090
ALPHA-CHLORDANE	< 0.0019 U	0.0011 J	< 0.0019 U	< 0.0019 U	< 0.002 U	< 0.0022 U	0.001 J	1.6
AROCLOR-1016	< 0.037 U	< 0.036 U	< 0.036 U	< 0.037 U	< 0.038 U	< 0.043 U	< 0.036 U	3.9
AROCLOR-1254	< 0.037 U	< 0.036 U	< 0.036 U	< 0.037 U	< 0.038 U	< 0.043 U	< 0.036 U	0.22
AROCLOR-1260	< 0.037 U	0.17	0.16	**0.52**	< 0.038 U	0.029 J	0.21	0.22
DIELDRIN	0.0013 J	0.0023 J	0.0023 J	< 0.0037 U	< 0.0038 U	< 0.0043 U	0.0033 J	0.030
ENDOSULFAN I	< 0.0019 U	< 0.0018 U	< 0.0019 U	< 0.0019 U	< 0.002 U	< 0.0022 U	< 0.0019 U	NC
ENDOSULFAN II	< 0.0037 U	< 0.0036 U	< 0.0036 U	< 0.0037 U	< 0.0038 U	< 0.0043 U	< 0.0036 U	NC
ENDOSULFAN SULFATE	< 0.0037 U	< 0.0036 U	< 0.0036 U	< 0.0037 U	< 0.0038 U	< 0.0043 U	< 0.0036 U	NC
ENDRIN	0.002 J	0.0021 J	0.0024 J	< 0.0037 U	< 0.0038 U	< 0.0043 U	0.0027 J	18
ENDRIN ALDEHYDE	< 0.0037 U	< 0.0036 U	< 0.0036 U	< 0.0037 U	< 0.0038 U	< 0.0043 U	< 0.0036 U	NC
ENDRIN KETONE	< 0.0037 U	< 0.0038 U	< 0.0036 U	< 0.0037 U	< 0.0038 U	< 0.0043 U	< 0.0036 U	NC
GAMMA-CHLORDANE	< 0.0019 U	< 0.0018 U	0.00096 J	< 0.0019 U	< 0.002 U	< 0.0022 U	0.0014 J	1.6

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14-SB26	S14-SB26	S14-SB26	S14-SB26	S14-SB26	S14-SB26	S14-SB27	EPA Residential Soil PRGs
Sample ID	123-S14-047	123-S14-048	123-S14-319	123-S14-049	123-S14-050	123-S14-052	123-S14-053	
Sample Date	04/20/93	04/20/93	04/20/93	04/20/93	04/20/93	04/20/93	04/20/93	
Sample Depth	2.50 - 2.50	5.00 - 5.00	5.00 - 5.00	8.00 - 8.00	10.00 - 10.00	12.50 - 12.50	0.50 - 0.50	
PCBs/Pesticides (mg/kg)								
HEPTACHLOR EPOXIDE	< 0.0019 U	< 0.0018 U	< 0.0019 U	< 0.0019 U	< 0.002 U	< 0.0022 U	< 0.0019 U	0.053
METHOXYCHLOR	< 0.019 U	< 0.018 U	< 0.019 U	< 0.019 U	< 0.02 U	< 0.022 U	< 0.019 U	310
TOXAPHENE	< 0.19 U	< 0.18 U	< 0.19 U	< 0.19 U	< 0.2 U	< 0.22 U	< 0.19 U	0.44
Metals (mg/kg)								
ALUMINUM	10,400	7,470	5,520	13,400 J	26,500 J	3,530 J	6,310	76,000
ANTIMONY	< 7 UJ	< 6.7 UJ	< 6.8 UJ	< 7.1 UJ	8.8 J	< 8.1 UJ	< 6.8 UJ	31
ARSENIC	**2.7**	**2.4**	**1.4**	**3.3**	**1.1**	**3.2**	**2.4**	0.39
BARIUM	94.2	48.3	53.8	93.3 J	5.4	57 J	64.2	5,400
BERYLLIUM	0.28	< 0.22 U	< 0.22 U	0.49	< 0.23 U	< 0.26 U	0.27	150
CADMIUM	< 0.91 U	1.2	1.3	2	2.6	1.3	2	37 *
CALCIUM	16,600	8,950	9,430	17,500 J	16,600 J	18,100 J	11,100	NC
CHROMIUM	18	19.7	10.6	26.9	30.4	15.4	12.6	210
COBALT	4.7	5.5	4.4	7.7	26.4	4.1	5	900
COPPER	12.1	13.1	12.1	17.2 J	33.8 J	30 J	12.7	3,100
IRON	16,700 J	16,800 J	12,500 J	20,700 J	**55,100 J**	12,300 J	14,400 J	23,000
LEAD	6.4	14.1	10.5	5.2 J	< 1.6 UJ	21.1 J	9.9	150 *
MAGNESIUM	5,770 J	5,310 J	4,470 J	7,240 J	16,200 J	3,420 J	5,060 J	NC
MANGANESE	312	211	288	403 J	886 J	299 J	241	1,800
MERCURY	< 0.11 U	< 0.11 U	< 0.11 U	< 0.11 U	< 0.12 U	< 0.13 U	< 0.11 U	23
NICKEL	14.4	15.4	10.7	19.8	25.7	13.8	14.6	1,600
POTASSIUM	2,370	1,340	1,230	3,120	798	965	1,720	NC
SELENIUM	< 0.68 U	< 0.65 U	< 0.66 U	0.95	< 0.69 U	< 0.78 U	< 0.66 U	390
SILVER	< 0.45 U	< 0.43 U	< 0.44 U	< 0.46 U	< 0.46 U	< 0.52 U	< 0.44 U	390
SODIUM	981	1,190	1,080	1,090 J	2,990 J	929 J	767	NC
VANADIUM	33.2	27.7	20.3	44.3	70.2	13.7	22.9	78
ZINC	41.9 J	36.7 J	33.6 J	50.6 J	69.3 J	79.8 J	40.2 J	23,000
Organophosphorus pesticides (mg/kg)								
MONOCROTOPHOS (AZODRIN)	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14-SB27	S14-SB27	S14-SB27	S14-SB28	S14-SB28	S14-SB28	S14-SB28	EPA Residential Soil PRGs
Sample ID	123-S14-054	123-S14-055	123-S14-056	123-S14-059	123-S14-060	123-S14-061	123-S14-062	
Sample Date	04/20/93	04/20/93	04/20/93	04/20/93	04/20/93	04/20/93	04/20/93	
Sample Depth	2.50 - 2.50	5.00 - 5.00	7.50 - 7.50	0.50 - 0.50	2.50 - 2.50	5.00 - 5.00	5.00 - 5.00	
Volatile Organic Compounds (mg/kg)								
1,1-DICHLOROETHENE	< 0.011 U	< 0.011 U	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	120
1,2-DICHLOROETHENE (TOTAL)	< 0.011 U	< 0.011 U	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	NC
2-BUTANONE	< 0.011 U	< 0.011 U	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	22,000
2-HEXANONE	< 0.011 U	< 0.011 U	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	NC
4-METHYL-2-PENTANONE	< 0.011 U	< 0.011 U	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	5,300
BENZENE	< 0.011 U	< 0.011 U	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	0.64
CARBON DISULFIDE	< 0.011 U	< 0.011 U	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	360
CARBON TETRACHLORIDE	< 0.011 U	< 0.011 U	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	0.25
ETHYLBENZENE	< 0.011 U	< 0.011 U	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	400
METHYLENE CHLORIDE	< 0.011 U	< 0.011 U	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	9.1
TOLUENE	< 0.011 U	< 0.011 U	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	520
TRICHLOROETHENE	< 0.011 U	< 0.011 U	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	0.052
XYLENE (TOTAL)	< 0.011 U	< 0.011 U	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
OTHER COMPONENTS *	< 1.1 UJ	< 1.1 UJ	< 1.2 UJ	< 1.2 UJ	< 1.1 UJ	< 1.1 UJ	< 1.1 UJ	NC
TPH - DIESEL	< 1.1 UJ	< 1.1 UJ	< 1.2 UJ	< 1.2 UJ	< 1.1 UJ	< 1.1 UJ	< 1.1 UJ	NC
TPH - MOTOR OIL	72 J	29 J	15 J	30 J	34 J	120 J	34 J	NC
Gasoline Range (purgeables)								
OTHER COMPONENTS *	< 0.005 U	0.61	< 0.006 U	< 0.006 U	< 0.005 U	< 0.006 U	0.27	NC
Semivolatile Organic Compounds (mg/kg)								
1,4-DICHLOROBENZENE	< 0.35 U	< 0.38 U	< 0.41 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.37 U	3.4
2,4-DIMETHYLPHENOL	< 0.35 U	< 0.38 U	< 0.41 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.37 U	1,200
2-METHYLNAPHTHALENE	< 0.35 U	< 0.38 U	< 0.41 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.37 U	NC
2-METHYLPHENOL	< 0.35 U	< 0.38 U	< 0.41 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.37 U	3,100
4-METHYLPHENOL	< 0.35 U	< 0.38 U	< 0.41 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.37 U	310
ACENAPHTHENE	< 0.35 U	< 0.38 U	< 0.41 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.37 U	3,700
ACENAPHTHYLENE	< 0.35 U	< 0.38 U	< 0.41 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.37 U	NC
ANTHRACENE	< 0.35 U	< 0.38 U	< 0.41 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.37 U	22,000
BENZO(A)ANTHRACENE	< 0.35 U	< 0.38 U	< 0.41 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.37 U	0.62
BENZO(A)PYRENE	< 0.35 U	< 0.38 U	< 0.41 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.37 U	0.062
BENZO(B)FLUORANTHENE	0.11 J	< 0.38 U	< 0.41 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.37 U	0.62

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14-SB27	S14-SB27	S14-SB27	S14-SB28	S14-SB28	S14-SB28	S14-SB28	EPA Residential Soil PRGs
Sample ID	123-S14-054	123-S14-055	123-S14-056	123-S14-059	123-S14-060	123-S14-061	123-S14-062	
Sample Date	04/20/93	04/20/93	04/20/93	04/20/93	04/20/93	04/20/93	04/20/93	
Sample Depth	2.50 - 2.50	5.00 - 5.00	7.50 - 7.50	0.50 - 0.50	2.50 - 2.50	5.00 - 5.00	5.00 - 5.00	
Semivolatile Organic Compounds (mg/kg)								
BENZO(G,H,I)PERYLENE	< 0.35 U	< 0.38 U	< 0.41 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.37 U	NC
BENZO(K)FLUORANTHENE	0.11 J	< 0.38 U	< 0.41 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.37 U	0.38 *
CARBAZOLE	< 0.35 U	< 0.38 U	< 0.41 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.37 U	24
CHRYSENE	0.19 J	< 0.38 U	< 0.41 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.37 U	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.35 U	< 0.38 U	< 0.41 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.37 U	0.062
DIBENZOFURAN	< 0.35 U	< 0.38 U	< 0.41 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.37 U	150
FLUORANTHENE	0.047 J	< 0.38 U	< 0.41 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.37 U	2,300
FLUORENE	< 0.35 U	< 0.38 U	< 0.41 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.37 U	2,700
INDENO(1,2,3-CD)PYRENE	< 0.35 U	< 0.38 U	< 0.41 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.37 U	0.62
NAPHTHALENE	< 0.35 U	< 0.38 U	< 0.41 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.37 U	1.7 *
PENTACHLOROPHENOL	< 0.85 U	< 0.92 U	< 0.99 U	< 0.93 U	< 0.85 U	< 0.92 U	< 0.91 U	3.0
PHENANTHRENE	< 0.35 U	< 0.38 U	< 0.41 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.37 U	NC
PHENOL	< 0.35 U	< 0.38 U	< 0.41 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.37 U	18,000
PYRENE	0.069 J	< 0.38 U	< 0.41 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.37 U	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	0.0088 J	0.0048 J	0.0022 J	0.012	< 0.0035 U	< 0.0038 U	< 0.0037 U	2.4
4,4'-DDE	0.002 J	< 0.0038 U	< 0.0041 U	0.0095	< 0.0035 U	< 0.0038 U	< 0.0037 U	1.7
4,4'-DDT	< 0.0035 U	< 0.0038 U	< 0.0041 U	0.019 J	< 0.0035 U	< 0.0038 U	< 0.0037 U	1.7
ALDRIN	< 0.0018 U	< 0.002 U	< 0.0021 U	< 0.002 U	< 0.0018 U	< 0.002 U	< 0.0019 U	0.029
ALPHA-BHC	< 0.0018 U	< 0.002 U	< 0.0021 U	< 0.002 U	< 0.0018 U	< 0.002 U	< 0.0019 U	0.090
ALPHA-CHLORDANE	< 0.0018 U	< 0.002 U	< 0.0021 U	< 0.002 U	< 0.0018 U	< 0.002 U	< 0.0019 U	1.6
AROCLOR-1016	< 0.035 U	< 0.038 U	< 0.041 U	< 0.038 U	< 0.035 U	< 0.038 U	< 0.037 U	3.9
AROCLOR-1254	< 0.035 U	< 0.038 U	< 0.041 U	< 0.038 U	< 0.035 U	< 0.038 U	< 0.037 U	0.22
AROCLOR-1260	0.14	0.023 J	0.03 J	0.04	< 0.035 U	< 0.038 U	< 0.037 U	0.22
DIELDRIN	< 0.0035 U	< 0.0038 U	< 0.0041 U	< 0.0038 U	< 0.0035 U	< 0.0038 U	< 0.0037 U	0.030
ENDOSULFAN I	< 0.0018 U	< 0.002 U	< 0.0021 U	< 0.002 U	< 0.0018 U	< 0.002 U	< 0.0019 U	NC
ENDOSULFAN II	< 0.0035 U	< 0.0038 U	< 0.0041 U	0.0023 J	< 0.0035 U	< 0.0038 U	< 0.0037 U	NC
ENDOSULFAN SULFATE	< 0.0035 U	< 0.0038 U	< 0.0041 U	< 0.0033 U	< 0.0035 U	< 0.0038 U	< 0.0037 U	NC
ENDRIN	< 0.0035 U	< 0.0038 U	< 0.0041 U	< 0.0038 U	< 0.0035 U	< 0.0038 U	< 0.0037 U	18
ENDRIN ALDEHYDE	< 0.0035 U	< 0.0038 U	< 0.0041 U	< 0.0038 U	< 0.0035 U	< 0.0038 U	< 0.0037 U	NC
ENDRIN KETONE	< 0.0035 U	< 0.0038 U	< 0.0041 U	< 0.0038 U	< 0.0035 U	< 0.0038 U	< 0.0037 U	NC
GAMMA-CHLORDANE	0.00087 J	< 0.002 U	< 0.0021 U	< 0.002 U	< 0.0018 U	< 0.002 U	< 0.0019 U	1.6

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14-SB27	S14-SB27	S14-SB27	S14-SB28	S14-SB28	S14-SB28	S14-SB28	EPA Residential Soil PRGs
Sample ID	123-S14-054	123-S14-055	123-S14-056	123-S14-059	123-S14-060	123-S14-061	123-S14-062	
Sample Date	04/20/93	04/20/93	04/20/93	04/20/93	04/20/93	04/20/93	04/20/93	
Sample Depth	2.50 - 2.50	5.00 - 5.00	7.50 - 7.50	0.50 - 0.50	2.50 - 2.50	5.00 - 5.00	5.00 - 5.00	
PCBs/Pesticides (mg/kg)								
HEPTACHLOR EPOXIDE	< 0.0018 U	< 0.002 U	< 0.0021 U	< 0.002 U	< 0.0018 U	< 0.002 U	< 0.0019 U	0.053
METHOXYCHLOR	< 0.018 U	< 0.02 U	< 0.021 U	< 0.02 U	< 0.018 U	< 0.02 U	< 0.019 U	310
TOXAPHENE	< 0.18 U	< 0.2 U	< 0.21 U	< 0.2 U	< 0.18 U	< 0.2 U	< 0.19 U	0.44
Metals (mg/kg)								
ALUMINUM	7,680	7,510	20,800	11,300	6,320	5,190	2,400	76,000
ANTIMONY	< 6.6 UJ	< 7.1 UJ	< 7.6 UJ	< 7.2 UJ	< 6.6 UJ	< 7.1 UJ	< 7.1 UJ	31
ARSENIC	**1.5**	**1.4**	**3.8**	**3.2**	**3**	**0.97**	**0.66**	0.39
BARIUM	55.5	114	174	90.4	17.1	44.2	20.8	5,400
BERYLLIUM	< 0.21 U	0.32	0.34	0.38	< 0.21 U	< 0.23 U	< 0.23 U	150
CADMIUM	< 0.86 U	0.99	7.9	< 0.92 U	< 0.85 U	0.92	< 0.91 U	37 *
CALCIUM	9,760	6,530	6,840	15,100	7,940	5,670	4,220	NC
CHROMIUM	13.7	14.7	143	20.2	7.9	18.1	4.5	210
COBALT	5.1	5	20.7	5.8	7.9	3.5	0.91 J	900
COPPER	10.5	11.3	57.5	14.6	11.1	9.2	2.5	3,100
IRON	14,500 J	15,000 J	**37,000 J**	18,800 J	18,100 J	11,100 J	5,320 J	23,000
LEAD	5.3	12.7	11	7	1.7	8.2	1.2	150 *
MAGNESIUM	4,470 J	5,280 J	18,300 J	6,370 J	5,480 J	4,190 J	1,490 J	NC
MANGANESE	231	182	921	375	290	193	72.9	1,800
MERCURY	< 0.11 U	< 0.11 U	< 0.12 U	< 0.12 U	< 0.11 U	< 0.11 U	0.11 J	23
NICKEL	12.3	18.8	102	16.8	9.9	14.2	5	1,600
POTASSIUM	1,870	2,340	2,880	2,760	716	1,110	754	NC
SELENIUM	< 0.64 U	< 0.69 U	0.78	< 0.69 U	< 0.64 U	< 0.69 U	< 0.68 U	390
SILVER	< 0.43 U	< 0.46 U	< 0.49 U	< 0.46 U	< 0.43 U	< 0.46 U	< 0.46 U	390
SODIUM	799	839	2,340	1,020	806	692	688	NC
VANADIUM	24.3	26.7	**109**	36.4	26.5	21.4	7.6	78
ZINC	36.5 J	46.7 J	87.6 J	48.4 J	25.5 J	21.7 J	11.6 J	23,000
Organophosphorus pesticides (mg/kg)								
MONOCROTOPHOS (AZODRIN)	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14-SB28	S14-SB29	S14-SB29	S14-SB30	S14-SB30	S14-SB30	S14-SB31	EPA Residential Soil PRGs
Sample ID	123-S14-320	123-S14-066	123-S14-067	123-S14-072	123-S14-074	123-S14-323	123-S14-079	
Sample Date	04/20/93	04/24/93	04/24/93	04/24/93	04/24/93	04/24/93	04/24/93	
Sample Depth	0.50 - 0.50	0.00 - 0.00	2.50 - 2.50	0.00 - 0.00	2.50 - 2.50	2.50 - 2.50	0.00 - 0.00	
Volatile Organic Compounds (mg/kg)								
1,1-DICHLOROETHENE	< 0.011 U	NA	NA	NA	NA	NA	NA	120
1,2-DICHLOROETHENE (TOTAL)	< 0.011 U	NA	NA	NA	NA	NA	NA	NC
2-BUTANONE	< 0.011 U	NA	NA	NA	NA	NA	NA	22,000
2-HEXANONE	< 0.011 U	NA	NA	NA	NA	NA	NA	NC
4-METHYL-2-PENTANONE	< 0.011 U	NA	NA	NA	NA	NA	NA	5,300
BENZENE	< 0.011 U	NA	NA	NA	NA	NA	NA	0.64
CARBON DISULFIDE	< 0.011 U	NA	NA	NA	NA	NA	NA	360
CARBON TETRACHLORIDE	< 0.011 U	NA	NA	NA	NA	NA	NA	0.25
ETHYLBENZENE	< 0.011 U	NA	NA	NA	NA	NA	NA	400
METHYLENE CHLORIDE	< 0.011 U	NA	NA	NA	NA	NA	NA	9.1
TOLUENE	< 0.011 U	NA	NA	NA	NA	NA	NA	520
TRICHLOROETHENE	< 0.011 U	NA	NA	NA	NA	NA	NA	0.052
XYLENE (TOTAL)	< 0.011 U	NA	NA	NA	NA	NA	NA	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
OTHER COMPONENTS *	< 1.1 UJ	NA	NA	NA	NA	NA	NA	NC
TPH - DIESEL	< 1.1 UJ	NA	NA	NA	NA	NA	NA	NC
TPH - MOTOR OIL	63 J	NA	NA	NA	NA	NA	NA	NC
Gasoline Range (purgeables)								
OTHER COMPONENTS *	< 0.005 U	NA	NA	NA	NA	NA	NA	NC
Semivolatile Organic Compounds (mg/kg)								
1,4-DICHLOROBENZENE	< 0.36 U	NA	NA	NA	NA	NA	NA	3.4
2,4-DIMETHYLPHENOL	< 0.36 U	NA	NA	NA	NA	NA	NA	1,200
2-METHYLNAPHTHALENE	< 0.36 U	NA	NA	NA	NA	NA	NA	NC
2-METHYLPHENOL	< 0.36 U	NA	NA	NA	NA	NA	NA	3,100
4-METHYLPHENOL	< 0.36 U	NA	NA	NA	NA	NA	NA	310
ACENAPHTHENE	< 0.36 U	NA	NA	NA	NA	NA	NA	3,700
ACENAPHTHYLENE	< 0.36 U	NA	NA	NA	NA	NA	NA	NC
ANTHRACENE	< 0.36 U	NA	NA	NA	NA	NA	NA	22,000
BENZO(A)ANTHRACENE	< 0.36 U	NA	NA	NA	NA	NA	NA	0.62
BENZO(A)PYRENE	< 0.36 U	NA	NA	NA	NA	NA	NA	0.062
BENZO(B)FLUORANTHENE	< 0.36 U	NA	NA	NA	NA	NA	NA	0.62

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14-SB28	S14-SB29	S14-SB29	S14-SB30	S14-SB30	S14-SB30	S14-SB31	EPA Residential Soil PRGs
Sample ID	123-S14-320	123-S14-066	123-S14-067	123-S14-072	123-S14-074	123-S14-323	123-S14-079	
Sample Date	04/20/93	04/24/93	04/24/93	04/24/93	04/24/93	04/24/93	04/24/93	
Sample Depth	0.50 - 0.50	0.00 - 0.00	2.50 - 2.50	0.00 - 0.00	2.50 - 2.50	2.50 - 2.50	0.00 - 0.00	
Semivolatile Organic Compounds (mg/kg)								
BENZO(G,H,I)PERYLENE	< 0.36 U	NA	NA	NA	NA	NA	NA	NC
BENZO(K)FLUORANTHENE	< 0.36 U	NA	NA	NA	NA	NA	NA	0.38 *
CARBAZOLE	< 0.36 U	NA	NA	NA	NA	NA	NA	24
CHRYSENE	0.082 J	NA	NA	NA	NA	NA	NA	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.36 U	NA	NA	NA	NA	NA	NA	0.062
DIBENZOFURAN	< 0.36 U	NA	NA	NA	NA	NA	NA	150
FLUORANTHENE	0.16 J	NA	NA	NA	NA	NA	NA	2,300
FLUORENE	< 0.36 U	NA	NA	NA	NA	NA	NA	2,700
INDENO(1,2,3-CD)PYRENE	< 0.36 U	NA	NA	NA	NA	NA	NA	0.62
NAPHTHALENE	< 0.36 U	NA	NA	NA	NA	NA	NA	1.7 *
PENTACHLOROPHENOL	< 0.87 U	NA	NA	NA	NA	NA	NA	3.0
PHENANTHRENE	0.13 J	NA	NA	NA	NA	NA	NA	NC
PHENOL	< 0.36 U	NA	NA	NA	NA	NA	NA	18,000
PYRENE	0.14 J	NA	NA	NA	NA	NA	NA	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	0.011 J	0.026 J	< 0.0038 U	0.0052 J	< 0.0039 U	< 0.0036 U	0.021 J	2.4
4,4'-DDE	0.0099 J	0.079 J	< 0.0038 U	0.0061	< 0.0039 U	0.0018 J	0.072	1.7
4,4'-DDT	0.027 J	0.12 J	< 0.0038 U	0.015 J	< 0.0039 U	0.0019 J	0.11	1.7
ALDRIN	< 0.0092 U	< 0.0018 U	< 0.002 U	< 0.0018 U	< 0.002 U	< 0.0019 U	< 0.009 U	0.029
ALPHA-BHC	< 0.0092 U	< 0.0018 U	< 0.002 U	< 0.0018 U	< 0.002 U	< 0.0019 U	< 0.009 U	0.090
ALPHA-CHLORDANE	< 0.0092 U	0.0013 J	< 0.002 U	0.0022 J	< 0.002 U	< 0.0019 U	< 0.009 U	1.6
AROCLOR-1016	< 0.18 U	< 0.035 U	< 0.038 U	< 0.035 U	< 0.039 U	< 0.036 U	< 0.18 U	3.9
AROCLOR-1254	< 0.18 U	< 0.035 U	< 0.038 U	< 0.035 U	< 0.039 U	< 0.036 U	< 0.18 U	0.22
AROCLOR-1260	**1.8**	0.046 J	< 0.038 U	0.12	< 0.039 U	< 0.036 U	< 0.18 U	0.22
DIELDRIN	< 0.018 U	0.0024 J	< 0.0038 U	0.0033 J	< 0.0039 U	< 0.0036 U	< 0.018 U	0.030
ENDOSULFAN I	< 0.0092 U	< 0.0018 U	< 0.002 U	< 0.0018 U	< 0.002 U	< 0.0019 U	0.001 J	NC
ENDOSULFAN II	0.06 J	< 0.0035 U	< 0.0038 U	0.0042 J	< 0.0039 U	< 0.0036 U	< 0.018 U	NC
ENDOSULFAN SULFATE	< 0.018 U	< 0.0035 U	< 0.0038 U	< 0.0035 U	< 0.0039 U	< 0.0036 U	0.0026 J	NC
ENDRIN	0.021 J	0.0088 J	< 0.0038 U	< 0.0035 U	< 0.0039 U	< 0.0036 U	0.0037 J	18
ENDRIN ALDEHYDE	0.037 J	0.006 J	< 0.0038 U	0.005 J	< 0.0039 U	< 0.0036 U	0.004 J	NC
ENDRIN KETONE	< 0.018 U	< 0.0035 U	< 0.0038 U	< 0.0035 U	< 0.0039 U	< 0.0036 U	< 0.018 U	NC
GAMMA-CHLORDANE	0.0013 J	0.0012 J	< 0.002 U	0.0019 J	< 0.002 U	< 0.0019 U	0.0012 J	1.6

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14-SB28	S14-SB29	S14-SB29	S14-SB30	S14-SB30	S14-SB30	S14-SB31	EPA Residential Soil PRGs
Sample ID	123-S14-320	123-S14-066	123-S14-067	123-S14-072	123-S14-074	123-S14-323	123-S14-079	
Sample Date	04/20/93	04/24/93	04/24/93	04/24/93	04/24/93	04/24/93	04/24/93	
Sample Depth	0.50 - 0.50	0.00 - 0.00	2.50 - 2.50	0.00 - 0.00	2.50 - 2.50	2.50 - 2.50	0.00 - 0.00	
PCBs/Pesticides (mg/kg)								
HEPTACHLOR EPOXIDE	< 0.0092 U	< 0.0018 U	< 0.002 U	< 0.0018 U	< 0.002 U	< 0.0019 U	< 0.009 U	0.053
METHOXYCHLOR	< 0.092 U	< 0.018 U	< 0.02 U	< 0.018 U	< 0.02 U	< 0.019 U	< 0.09 U	310
TOXAPHENE	< 0.92 U	< 0.18 U	< 0.2 U	< 0.18 U	< 0.2 U	< 0.19 U	0.22 J	0.44
Metals (mg/kg)								
ALUMINUM	6,960	10,500	7,540	6,810 J	7,480 J	9,370	11,000 J	76,000
ANTIMONY	< 6.7 UJ	< 8.4 U	9.2 R	< 6.6 UJ	< 7.3 UJ	< 6.8 U	< 6.6 UJ	31
ARSENIC	**2.6**	**3.2**	**2.9 J**	< 1.5 UJ	< 1.7 UJ	**0.9**	**3.9 J**	0.39
BARIUM	57	85.4	82.5	46 J	77.1 J	16.6	105 J	5,400
BERYLLIUM	< 0.22 U	< 0.42 U	< 0.46 U	< 0.21 U	0.3	< 0.22 U	0.44	150
CADMIUM	1.5	1.1	< 1.2 U	< 0.85 U	1.5 J	1.4	1.4 J	37 *
CALCIUM	10,500	16,700	13,800	7,980	27,000	9,990	17,800	NC
CHROMIUM	38	18	11.4	12.8 J	13.2 J	17.9	25 J	210
COBALT	4.3	10	7.2	4.6	3.7	11.8	7.3	900
COPPER	23.7	22.2	10.9	12.3 J	11.3 J	17.3	19.4 J	3,100
IRON	14,200 J	18,800	13,300	14,100	12,400	**27,800**	20,800	23,000
LEAD	25.1	9.5	4.5	15.7	5.6	2.8	6.4	150 *
MAGNESIUM	5,220 J	6,630	4,160	4,140	5,960	7,450	7,490	NC
MANGANESE	362	302	216	171	205	401	382	1,800
MERCURY	< 0.11 U	< 0.09 U	< 0.1 U	< 0.11 U	< 0.12 U	< 0.11 U	< 0.11 U	23
NICKEL	12	17.5	11.6	11.1	11.3	15	22.1	1,600
POTASSIUM	1,650	2,070	1,720	1,430	2,530	773	2,860	NC
SELENIUM	< 0.65 U	< 0.6 U	< 0.63 U	< 0.64 U	< 0.71 U	< 0.66 U	< 0.64 UJ	390
SILVER	< 0.43 U	< 2.1 U	< 2.3 U	< 0.43 U	< 0.53 U	0.56	< 0.42 U	390
SODIUM	2,260	990	< 234 U	753 J	331 J	526	1,000 J	NC
VANADIUM	25	36.8	23.3	25.8	25.3	45.3	38	78
ZINC	53.6 J	46.7	34.8	38.4 J	34.3 J	38.7	55.8 J	23,000
Organophosphorus pesticides (mg/kg)								
MONOCROTOPHOS (AZODRIN)	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14-SB31	S14-SB31	S14-SB31	S14-SB31	S14-SB31	S14-SB32	S14-SB32	EPA Residential Soil PRGs
Sample ID	123-S14-080	123-S14-321	123-S14-081	123-S14-082	123-S14-083	123-S14-086	123-S14-087	
Sample Date	04/24/93	04/24/93	04/24/93	04/24/93	04/24/93	04/24/93	04/24/93	
Sample Depth	2.50 - 2.50	2.50 - 2.50	5.00 - 5.00	7.50 - 7.50	10.00 - 10.00	0.00 - 0.00	2.50 - 2.50	
Volatile Organic Compounds (mg/kg)								
1,1-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	120
1,2-DICHLOROETHENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA	NC
2-BUTANONE	NA	NA	NA	NA	NA	NA	NA	22,000
2-HEXANONE	NA	NA	NA	NA	NA	NA	NA	NC
4-METHYL-2-PENTANONE	NA	NA	NA	NA	NA	NA	NA	5,300
BENZENE	NA	NA	NA	NA	NA	NA	NA	0.64
CARBON DISULFIDE	NA	NA	NA	NA	NA	NA	NA	360
CARBON TETRACHLORIDE	NA	NA	NA	NA	NA	NA	NA	0.25
ETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	400
METHYLENE CHLORIDE	NA	NA	NA	NA	NA	NA	NA	9.1
TOLUENE	NA	NA	NA	NA	NA	NA	NA	520
TRICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	0.052
XYLENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
OTHER COMPONENTS *	NA	NA	NA	NA	NA	NA	NA	NC
TPH - DIESEL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - MOTOR OIL	NA	NA	NA	NA	NA	NA	NA	NC
Gasoline Range (purgeables)								
OTHER COMPONENTS *	NA	NA	NA	NA	NA	NA	NA	NC
Semivolatile Organic Compounds (mg/kg)								
1,4-DICHLOROBENZENE	NA	NA	NA	NA	NA	NA	NA	3.4
2,4-DIMETHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	1,200
2-METHYLNAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	NC
2-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	3,100
4-METHYLPHENOL	NA	NA	NA	NA	NA	NA	NA	310
ACENAPHTHENE	NA	NA	NA	NA	NA	NA	NA	3,700
ACENAPHTHYLENE	NA	NA	NA	NA	NA	NA	NA	NC
ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	22,000
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	0.62
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA	0.062
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	0.62

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14-SB31	S14-SB31	S14-SB31	S14-SB31	S14-SB31	S14-SB32	S14-SB32	EPA Residential Soil PRGs
Sample ID	123-S14-080	123-S14-321	123-S14-081	123-S14-082	123-S14-083	123-S14-086	123-S14-087	
Sample Date	04/24/93	04/24/93	04/24/93	04/24/93	04/24/93	04/24/93	04/24/93	
Sample Depth	2.50 - 2.50	2.50 - 2.50	5.00 - 5.00	7.50 - 7.50	10.00 - 10.00	0.00 - 0.00	2.50 - 2.50	
Semivolatile Organic Compounds (mg/kg)								
BENZO(G,H,I)PERYLENE	NA	NA	NA	NA	NA	NA	NA	NC
BENZO(K)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	0.38 *
CARBAZOLE	NA	NA	NA	NA	NA	NA	NA	24
CHRYSENE	NA	NA	NA	NA	NA	NA	NA	3.8 *
DIBENZ(A,H)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	0.062
DIBENZOFURAN	NA	NA	NA	NA	NA	NA	NA	150
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	2,300
FLUORENE	NA	NA	NA	NA	NA	NA	NA	2,700
INDENO(1,2,3-CD)PYRENE	NA	NA	NA	NA	NA	NA	NA	0.62
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	1.7 *
PENTACHLOROPHENOL	NA	NA	NA	NA	NA	NA	NA	3.0
PHENANTHRENE	NA	NA	NA	NA	NA	NA	NA	NC
PHENOL	NA	NA	NA	NA	NA	NA	NA	18,000
PYRENE	NA	NA	NA	NA	NA	NA	NA	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	0.34 J	0.014 J	0.021 J	0.046 J	< 0.004 U	0.0082 J	0.0024 J	2.4
4,4'-DDE	1.3	0.039	0.0046 J	0.037 J	< 0.004 U	0.012	< 0.0036 U	1.7
4,4'-DDT	1.7	0.064	0.0055 J	0.052 J	< 0.004 U	0.03 J	0.0027 J	1.7
ALDRIN	< 0.051 U	< 0.002 U	< 0.0018 U	< 0.0093 U	< 0.002 U	< 0.0019 U	< 0.0018 U	0.029
ALPHA-BHC	< 0.051 U	< 0.002 U	< 0.0018 U	< 0.0093 U	< 0.002 U	< 0.0019 U	< 0.0018 U	0.090
ALPHA-CHLORDANE	< 0.051 U	< 0.002 U	0.0025	0.0026 J	< 0.002 U	< 0.0019 U	< 0.0018 U	1.6
AROCLOR-1016	< 0.98 U	< 0.039 U	< 0.035 U	< 0.18 U	< 0.04 U	< 0.037 U	< 0.036 U	3.9
AROCLOR-1254	< 0.98 U	< 0.039 U	< 0.035 U	< 0.18 U	< 0.04 U	< 0.037 U	< 0.036 U	0.22
AROCLOR-1260	< 0.98 U	< 0.039 U	0.19	**0.84**	< 0.04 U	0.2	**0.25**	0.22
DIELDRIN	< 0.098 U	< 0.0039 U	0.0038 J	< 0.018 U	< 0.004 U	< 0.0037 U	< 0.0036 U	0.030
ENDOSULFAN I	0.026 J	< 0.002 U	< 0.0018 U	< 0.0093 U	< 0.002 U	< 0.0019 U	< 0.0018 U	NC
ENDOSULFAN II	< 0.098 U	< 0.0039 U	0.0083	0.034 J	< 0.004 U	0.0082 J	0.0076 J	NC
ENDOSULFAN SULFATE	0.033 J	< 0.0039 U	< 0.0035 U	< 0.018 U	< 0.004 U	< 0.0037 U	< 0.0036 U	NC
ENDRIN	0.073 J	< 0.0039 U	< 0.0035 U	< 0.018 U	< 0.004 U	< 0.0027 UJ	< 0.0036 U	18
ENDRIN ALDEHYDE	0.031 J	< 0.0039 U	0.0067 J	0.03	< 0.004 U	0.0052 J	0.0075 J	NC
ENDRIN KETONE	0.0042 J	< 0.0039 U	< 0.0035 U	< 0.018 U	< 0.004 U	< 0.0037 U	< 0.0036 U	NC
GAMMA-CHLORDANE	< 0.051 U	< 0.002 U	0.0018 J	0.0025 J	< 0.002 U	< 0.0019 U	< 0.0018 U	1.6

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14-SB31	S14-SB31	S14-SB31	S14-SB31	S14-SB31	S14-SB32	S14-SB32	EPA Residential Soil PRGs
Sample ID	123-S14-080	123-S14-321	123-S14-081	123-S14-082	123-S14-083	123-S14-086	123-S14-087	
Sample Date	04/24/93	04/24/93	04/24/93	04/24/93	04/24/93	04/24/93	04/24/93	
Sample Depth	2.50 - 2.50	2.50 - 2.50	5.00 - 5.00	7.50 - 7.50	10.00 - 10.00	0.00 - 0.00	2.50 - 2.50	
PCBs/Pesticides (mg/kg)								
HEPTACHLOR EPOXIDE	0.015 J	< 0.002 U	< 0.0018 U	< 0.0093 U	< 0.002 U	< 0.0019 U	< 0.0018 U	0.053
METHOXYCHLOR	< 0.51 U	< 0.02 U	< 0.018 U	< 0.093 U	< 0.02 U	< 0.019 U	< 0.018 U	310
TOXAPHENE	**3.2 J**	0.086 J	< 0.18 U	< 0.93 U	< 0.2 U	< 0.19 U	< 0.18 U	0.44
Metals (mg/kg)								
ALUMINUM	11,800 J	14,200	5,190 J	16,300 J	10,200	11,800	4,570	76,000
ANTIMONY	< 7.4 UJ	< 7.3 U	< 6.7 UJ	< 6.8 UJ	**67.3**	< 6.9 U	< 6.7 U	31
ARSENIC	**4.3 J**	**2.7**	< 1.5 UJ	< 1.6 UJ	**8.2**	**3**	**2.5**	0.39
BARIUM	114 J	118	44.8 J	51.2 J	498	98.6	32.8	5,400
BERYLLIUM	0.37	0.5	< 0.22 U	0.22	< 0.24 U	0.39	< 0.22 U	150
CADMIUM	1.5 J	1	< 0.86 U	2.5 J	4.4	1.2	< 0.87 U	37 *
CALCIUM	7,250	11,200	7,670	12,800	37,900	16,200	6,670	NC
CHROMIUM	22.2 J	25.7	9.9 J	31.6 J	147	22.1	8.6	210
COBALT	6.6	7.1	4.5	17.5	26.3	7.2	4.8	900
COPPER	17.3 J	18.4	9.7 J	41.9 J	98.6	49.9	9.2	3,100
IRON	21,400	22,000	11,800	**39,300**	**83,600**	21,300	11,400	23,000
LEAD	7	1.5	6.9	20.3	**2,400**	11.9	7.1	150 *
MAGNESIUM	6,390	7,130	3,720	12,900	10,800	7,070	3,620	NC
MANGANESE	325	329	243	481	572	367	240	1,800
MERCURY	< 0.12 U	< 0.12 U	< 0.11 U	< 0.11 U	0.5	< 0.11 U	< 0.11 U	23
NICKEL	19.3	22.9	12.1	31.9	13.2	18.6	11.3	1,600
POTASSIUM	3,820	4,170	1,350	1,330	1,320	2,850	1,180	NC
SELENIUM	0.73	< 0.71 U	< 0.65 U	< 0.66 U	< 0.72 U	< 0.67 UW	< 0.65 U	390
SILVER	< 0.48 U	< 0.47 U	< 0.43 U	< 0.78 U	8.4	0.58	0.58	390
SODIUM	1,280 J	1,470	838 J	2,010 J	1,150	684	540	NC
VANADIUM	42.4	47.6	19.1	55.3	28.5	39.5	17.5	78
ZINC	62.7 J	63	27.9 J	89.7 J	3,510	60.4	27.8	23,000
Organophosphorus pesticides (mg/kg)								
MONOCROTOPHOS (AZODRIN)	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14-SB32	S14MW12	S14MW12	S14MW12	S14MW12	S14MW12	S14MW12	EPA Residential Soil PRGs
Sample ID	123-S14-088	123-S14-099	123-S14-100	123-S14-101	123-S14-102	123-S14-103	123-S14-104	
Sample Date	04/24/93	04/23/93	04/23/93	04/23/93	04/23/93	04/23/93	04/23/93	
Sample Depth	5.00 - 5.00	0.50 - 0.50	2.50 - 2.50	4.50 - 4.50	7.50 - 7.50	9.50 - 9.50	12.50 - 12.50	
Volatile Organic Compounds (mg/kg)								
1,1-DICHLOROETHENE	NA	< 0.011 U	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	120
1,2-DICHLOROETHENE (TOTAL)	NA	< 0.011 U	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	NC
2-BUTANONE	NA	< 0.011 U	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	22,000
2-HEXANONE	NA	< 0.011 U	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	NC
4-METHYL-2-PENTANONE	NA	< 0.011 U	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	5,300
BENZENE	NA	< 0.011 U	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	0.64
CARBON DISULFIDE	NA	< 0.011 U	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	360
CARBON TETRACHLORIDE	NA	< 0.011 U	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	0.25
ETHYLBENZENE	NA	< 0.011 U	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	400
METHYLENE CHLORIDE	NA	< 0.011 U	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	9.1
TOLUENE	NA	< 0.011 U	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	520
TRICHLOROETHENE	NA	< 0.011 U	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	0.052
XYLENE (TOTAL)	NA	< 0.011 U	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
OTHER COMPONENTS *	NA	< 1.1 U	< 1.2 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.1 U	NC
TPH - DIESEL	NA	< 1.1 U	< 1.2 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.1 U	NC
TPH - MOTOR OIL	NA	56 J	< 12 U	35	< 11 U	22	< 11 U	NC
Gasoline Range (purgeables)								
OTHER COMPONENTS *	NA	< 0.005 U	< 0.006 U	< 0.006 U	< 0.006 U	< 0.005 U	< 0.005 U	NC
Semivolatile Organic Compounds (mg/kg)								
1,4-DICHLOROBENZENE	NA	< 0.36 U	< 0.41 U	< 0.39 U	< 0.37 U	< 0.35 U	< 0.36 U	3.4
2,4-DIMETHYLPHENOL	NA	< 0.36 U	< 0.41 U	< 0.39 U	< 0.37 U	< 0.35 U	< 0.36 U	1,200
2-METHYLNAPHTHALENE	NA	< 0.36 U	< 0.41 U	< 0.39 U	< 0.37 U	< 0.35 U	< 0.36 U	NC
2-METHYLPHENOL	NA	< 0.36 U	< 0.41 U	< 0.39 U	< 0.37 U	< 0.35 U	< 0.36 U	3,100
4-METHYLPHENOL	NA	< 0.36 U	< 0.41 U	< 0.39 U	< 0.37 U	< 0.35 U	< 0.36 U	310
ACENAPHTHENE	NA	< 0.36 U	< 0.41 U	< 0.39 U	< 0.37 U	< 0.35 U	< 0.36 U	3,700
ACENAPHTHYLENE	NA	< 0.36 U	< 0.41 U	< 0.39 U	< 0.37 U	< 0.35 U	< 0.36 U	NC
ANTHRACENE	NA	< 0.36 U	< 0.41 U	< 0.39 U	< 0.37 U	< 0.35 U	< 0.36 U	22,000
BENZO(A)ANTHRACENE	NA	< 0.36 U	< 0.41 U	< 0.39 U	< 0.37 U	< 0.35 U	< 0.36 U	0.62
BENZO(A)PYRENE	NA	< 0.36 U	< 0.41 U	< 0.39 U	< 0.37 U	< 0.35 U	< 0.36 U	0.062
BENZO(B)FLUORANTHENE	NA	< 0.36 U	< 0.41 U	< 0.39 U	< 0.37 U	< 0.35 U	< 0.36 U	0.62

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14-SB32	S14MW12	S14MW12	S14MW12	S14MW12	S14MW12	S14MW12	EPA Residential Soil PRGs
Sample ID	123-S14-088	123-S14-099	123-S14-100	123-S14-101	123-S14-102	123-S14-103	123-S14-104	
Sample Date	04/24/93	04/23/93	04/23/93	04/23/93	04/23/93	04/23/93	04/23/93	
Sample Depth	5.00 - 5.00	0.50 - 0.50	2.50 - 2.50	4.50 - 4.50	7.50 - 7.50	9.50 - 9.50	12.50 - 12.50	
Semivolatile Organic Compounds (mg/kg)								
BENZO(G,H,I)PERYLENE	NA	< 0.36 U	< 0.41 U	< 0.39 U	< 0.37 U	< 0.35 U	< 0.36 U	NC
BENZO(K)FLUORANTHENE	NA	< 0.36 U	< 0.41 U	< 0.39 U	< 0.37 U	< 0.35 U	< 0.36 U	0.38 *
CARBAZOLE	NA	< 0.36 U	< 0.41 U	< 0.39 U	< 0.37 U	< 0.35 U	< 0.36 U	24
CHRYSENE	NA	< 0.36 U	< 0.41 U	< 0.39 U	< 0.37 U	< 0.35 U	< 0.36 U	3.8 *
DIBENZ(A,H)ANTHRACENE	NA	< 0.36 U	< 0.41 U	< 0.39 U	< 0.37 U	< 0.35 U	< 0.36 U	0.062
DIBENZOFURAN	NA	< 0.36 U	< 0.41 U	< 0.39 U	< 0.37 U	< 0.35 U	< 0.36 U	150
FLUORANTHENE	NA	< 0.36 U	< 0.41 U	< 0.39 U	< 0.37 U	< 0.35 U	< 0.36 U	2,300
FLUORENE	NA	< 0.36 U	< 0.41 U	< 0.39 U	< 0.37 U	< 0.35 U	< 0.36 U	2,700
INDENO(1,2,3-CD)PYRENE	NA	< 0.36 U	< 0.41 U	< 0.39 U	< 0.37 U	< 0.35 U	< 0.36 U	0.62
NAPHTHALENE	NA	< 0.36 U	< 0.41 U	< 0.39 U	< 0.37 U	< 0.35 U	< 0.36 U	1.7 *
PENTACHLOROPHENOL	NA	< 0.88 U	< 1 U	< 0.95 U	< 0.89 U	< 0.85 U	< 0.88 U	3.0
PHENANTHRENE	NA	< 0.36 U	< 0.41 U	< 0.39 U	< 0.37 U	< 0.35 U	< 0.36 U	NC
PHENOL	NA	< 0.36 U	< 0.41 U	< 0.39 U	< 0.37 U	< 0.35 U	< 0.36 U	18,000
PYRENE	NA	< 0.36 U	< 0.41 U	< 0.39 U	< 0.37 U	< 0.35 U	< 0.36 U	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.0036 U	< 0.0036 U	< 0.0041 U	< 0.0039 U	< 0.0037 U	< 0.0035 U	< 0.0036 U	2.4
4,4'-DDE	< 0.0036 U	< 0.0036 U	< 0.0041 U	< 0.0039 U	< 0.0037 U	< 0.0035 U	< 0.0036 U	1.7
4,4'-DDT	< 0.0036 U	< 0.0036 U	< 0.0041 U	0.0031 J	< 0.0037 U	< 0.0035 U	< 0.0036 U	1.7
ALDRIN	< 0.0019 U	< 0.0019 U	< 0.0021 U	< 0.002 U	< 0.0019 U	< 0.0018 U	< 0.0019 U	0.029
ALPHA-BHC	< 0.0019 U	< 0.0019 U	< 0.0021 U	< 0.002 U	< 0.0019 U	< 0.0018 U	< 0.0019 U	0.090
ALPHA-CHLORDANE	< 0.0019 U	< 0.0019 U	< 0.0021 U	< 0.002 U	< 0.0019 U	< 0.0018 U	< 0.0019 U	1.6
AROCLOR-1016	< 0.036 U	< 0.036 U	< 0.041 U	< 0.039 U	< 0.037 U	< 0.035 U	< 0.036 U	3.9
AROCLOR-1254	< 0.036 U	< 0.036 U	< 0.041 U	< 0.039 U	< 0.037 U	< 0.035 U	< 0.036 U	0.22
AROCLOR-1260	0.21	0.021 J	< 0.041 U	0.022 J	< 0.037 U	< 0.035 U	< 0.036 U	0.22
DIELDRIN	< 0.0036 U	< 0.0036 U	< 0.0041 U	< 0.0039 U	< 0.0037 U	< 0.0035 U	< 0.0036 U	0.030
ENDOSULFAN I	< 0.0019 U	< 0.0019 U	< 0.0021 U	< 0.002 U	< 0.0019 U	< 0.0018 U	< 0.0019 U	NC
ENDOSULFAN II	0.0076 J	< 0.0036 U	< 0.0041 U	< 0.0039 U	< 0.0037 U	< 0.0035 U	< 0.0036 U	NC
ENDOSULFAN SULFATE	< 0.0036 U	< 0.0036 U	< 0.0041 U	< 0.0039 U	< 0.0037 U	< 0.0035 U	< 0.0036 U	NC
ENDRIN	0.0028 J	< 0.0036 U	< 0.0041 U	< 0.0039 U	< 0.0033 U	< 0.0035 U	< 0.0036 U	18
ENDRIN ALDEHYDE	0.0044 J	< 0.0036 U	< 0.0041 U	< 0.0039 U	< 0.0037 U	< 0.0035 U	< 0.0036 U	NC
ENDRIN KETONE	< 0.0036 U	< 0.0036 U	< 0.0041 U	< 0.0039 U	< 0.0037 U	< 0.0035 U	< 0.0036 U	NC
GAMMA-CHLORDANE	< 0.0019 U	< 0.0019 U	< 0.0021 U	< 0.002 U	< 0.0019 U	< 0.0018 U	< 0.0019 U	1.6

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14-SB32	S14MW12	S14MW12	S14MW12	S14MW12	S14MW12	S14MW12	EPA Residential Soil PRGs
Sample ID	123-S14-088	123-S14-099	123-S14-100	123-S14-101	123-S14-102	123-S14-103	123-S14-104	
Sample Date	04/24/93	04/23/93	04/23/93	04/23/93	04/23/93	04/23/93	04/23/93	
Sample Depth	5.00 - 5.00	0.50 - 0.50	2.50 - 2.50	4.50 - 4.50	7.50 - 7.50	9.50 - 9.50	12.50 - 12.50	
PCBs/Pesticides (mg/kg)								
HEPTACHLOR EPOXIDE	< 0.0019 U	< 0.0019 U	< 0.0021 U	< 0.002 U	< 0.0019 U	< 0.0018 U	< 0.0019 U	0.053
METHOXYCHLOR	< 0.019 U	< 0.019 U	< 0.021 U	< 0.02 U	< 0.019 U	< 0.018 U	< 0.019 U	310
TOXAPHENE	< 0.19 U	< 0.19 U	< 0.21 U	< 0.2 U	< 0.19 U	< 0.18 U	< 0.19 U	0.44
Metals (mg/kg)								
ALUMINUM	2,730	16,600	11,800	9,200	5,850	3,750	5,170	76,000
ANTIMONY	< 6.8 U	NA	< 7.8 UJ	< 7.4 UJ	< 6.9 UJ	< 6.6 UJ	< 6.8 UJ	31
ARSENIC	**0.86**	**3.5 J**	**5.5**	< 0.47 U	**1.4**	**1.2**	**1.2**	0.39
BARIUM	17.3	98.6	127	103	71.6	52.6	66.6	5,400
BERYLLIUM	< 0.22 U	0.68	0.6	0.53	0.3	0.23	0.32	150
CADMIUM	< 0.88 U	1.1	1.6	< 0.95 U	< 0.89 U	< 0.85 U	< 0.88 U	37 *
CALCIUM	5,020	4,820	15,800	12,700	10,600	5,590	6,530	NC
CHROMIUM	5.5	29.1	22.3	20.3	11.2	6.6	9.4	210
COBALT	1.3	7.9	6.6	4.4	3.3 J	0.91 J	3 J	900
COPPER	3.3	19.6	17	16.2	9.4	5.6	9.1	3,100
IRON	5,210	22,900	22,200	18,000	12,200	7,830	10,900	23,000
LEAD	1.6	5.1 J	8.9	0.83	2.9	2.4	1.4	150 *
MAGNESIUM	1,510	7,690	7,920	5,970	3,590	2,210	3,690	NC
MANGANESE	72.4	173	352	272	238	104	147	1,800
MERCURY	< 0.11 U	< 0.11 UJ	< 0.13 U	< 0.12 U	< 0.11 U	< 0.11 U	< 0.11 U	23
NICKEL	6.6	22	17.8	16.1	12.8	7.5	8.9	1,600
POTASSIUM	929	4,830	4,100	2,520	1,390	1,010	1,660	NC
SELENIUM	< 0.66 U	< 0.66 UJ	0.77	< 0.71 U	< 0.67 U	< 0.64 U	< 0.66 U	390
SILVER	< 0.44 U	< 0.44 U	< 0.5 U	0.55	< 0.44 U	< 0.43 U	< 0.44 U	390
SODIUM	255	1,510	1,930	1,550	669	408	748	NC
VANADIUM	9.5	47	38.8	32.6	19.3	12.6	19	78
ZINC	12.4	64.7	62.6	47.1	30.8	17.7	27.2	23,000
Organophosphorus pesticides (mg/kg)								
MONOCROTOPHOS (AZODRIN)	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW13	S14MW13	S14MW13	S14MW13	S14MW13	S14MW13	S14MW13	
Sample ID	123-S14-105	123-S14-106	123-S14-107	123-S14-108	123-S14-109	123-S14-110	123-S14-111	EPA Residential Soil PRGs
Sample Date	04/22/93	04/22/93	04/22/93	04/22/93	04/22/93	04/22/93	04/22/93	
Sample Depth	0.50 - 0.50	2.00 - 2.00	3.00 - 3.00	5.00 - 5.00	7.50 - 7.50	10.00 - 10.00	12.50 - 12.50	
Volatile Organic Compounds (mg/kg)								
1,1-DICHLOROETHENE	< 0.011 U	< 0.013 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.014 U	120
1,2-DICHLOROETHENE (TOTAL)	< 0.011 U	< 0.013 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.014 U	NC
2-BUTANONE	< 0.011 U	< 0.013 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.014 U	22,000
2-HEXANONE	< 0.011 U	< 0.013 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.014 U	NC
4-METHYL-2-PENTANONE	< 0.011 U	< 0.013 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.014 U	5,300
BENZENE	< 0.011 U	< 0.013 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.014 U	0.64
CARBON DISULFIDE	< 0.011 U	< 0.013 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.014 U	360
CARBON TETRACHLORIDE	< 0.011 U	< 0.013 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.014 U	0.25
ETHYLBENZENE	< 0.011 U	< 0.013 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.014 U	400
METHYLENE CHLORIDE	< 0.011 U	< 0.013 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.014 U	9.1
TOLUENE	< 0.011 U	< 0.013 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.014 U	520
TRICHLOROETHENE	< 0.011 U	< 0.013 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.014 U	0.052
XYLENE (TOTAL)	< 0.011 U	< 0.013 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.014 U	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
OTHER COMPONENTS *	< 1.1 U	< 1.3 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U	NA	NC
TPH - DIESEL	< 1.1 U	< 1.3 U	< 1.2 U	< 1.1 U	< 1.1 U	< 1.2 U	NA	NC
TPH - MOTOR OIL	< 11 U	< 13 U	< 12 U	55 J	< 11 U	< 12 U	NA	NC
Gasoline Range (purgeables)								
OTHER COMPONENTS *	< 0.006 U	< 0.006 U	< 0.006 U	< 0.006 U	< 0.005 U	< 0.006 U	NA	NC
Semivolatile Organic Compounds (mg/kg)								
1,4-DICHLOROBENZENE	< 0.37 U	< 0.42 U	< 0.39 U	< 0.37 U	< 0.36 U	< 0.39 U	< 0.45 U	3.4
2,4-DIMETHYLPHENOL	< 0.37 U	< 0.42 U	< 0.39 U	< 0.37 U	< 0.36 U	< 0.39 U	< 0.45 U	1,200
2-METHYLNAPHTHALENE	< 0.37 U	< 0.42 U	< 0.39 U	< 0.37 U	< 0.36 U	< 0.39 U	< 0.45 U	NC
2-METHYLPHENOL	< 0.37 U	< 0.42 U	< 0.39 U	< 0.37 U	< 0.36 U	< 0.39 U	< 0.45 U	3,100
4-METHYLPHENOL	< 0.37 U	< 0.42 U	< 0.39 U	< 0.37 U	< 0.36 U	< 0.39 U	< 0.45 U	310
ACENAPHTHENE	< 0.37 U	< 0.42 U	< 0.39 U	< 0.37 U	< 0.36 U	< 0.39 U	< 0.45 U	3,700
ACENAPHTHYLENE	< 0.37 U	< 0.42 U	< 0.39 U	< 0.37 U	< 0.36 U	< 0.39 U	< 0.45 U	NC
ANTHRACENE	< 0.37 U	< 0.42 U	< 0.39 U	< 0.37 U	< 0.36 U	< 0.39 U	< 0.45 U	22,000
BENZO(A)ANTHRACENE	< 0.37 U	< 0.42 U	< 0.39 U	< 0.37 U	< 0.36 U	< 0.39 U	< 0.45 U	0.62
BENZO(A)PYRENE	< 0.37 U	< 0.42 U	< 0.39 U	< 0.37 U	< 0.36 U	< 0.39 U	< 0.45 U	0.062
BENZO(B)FLUORANTHENE	< 0.37 U	< 0.42 U	< 0.39 U	< 0.37 U	< 0.36 U	< 0.39 U	< 0.45 U	0.62

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW13	S14MW13	S14MW13	S14MW13	S14MW13	S14MW13	S14MW13	
Sample ID	123-S14-105	123-S14-106	123-S14-107	123-S14-108	123-S14-109	123-S14-110	123-S14-111	EPA Residential Soil PRGs
Sample Date	04/22/93	04/22/93	04/22/93	04/22/93	04/22/93	04/22/93	04/22/93	
Sample Depth	0.50 - 0.50	2.00 - 2.00	3.00 - 3.00	5.00 - 5.00	7.50 - 7.50	10.00 - 10.00	12.50 - 12.50	
Semivolatile Organic Compounds (mg/kg)								
BENZO(G,H,I)PERYLENE	< 0.37 U	< 0.42 U	< 0.39 U	< 0.37 U	< 0.36 U	< 0.39 U	< 0.45 U	NC
BENZO(K)FLUORANTHENE	< 0.37 U	< 0.42 U	< 0.39 U	< 0.37 U	< 0.36 U	< 0.39 U	< 0.45 U	0.38 *
CARBAZOLE	< 0.37 U	< 0.42 U	< 0.39 U	< 0.37 U	< 0.36 U	0.013 J	< 0.45 U	24
CHRYSENE	< 0.37 U	< 0.42 U	< 0.39 U	< 0.37 U	< 0.36 U	< 0.39 U	< 0.45 U	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.37 U	< 0.42 U	< 0.39 U	< 0.37 U	< 0.36 U	< 0.39 U	< 0.45 U	0.062
DIBENZOFURAN	< 0.37 U	< 0.42 U	< 0.39 U	< 0.37 U	< 0.36 U	< 0.39 U	< 0.45 U	150
FLUORANTHENE	< 0.37 U	< 0.42 U	< 0.39 U	< 0.37 U	< 0.36 U	< 0.39 U	< 0.45 U	2,300
FLUORENE	< 0.37 U	< 0.42 U	< 0.39 U	< 0.37 U	< 0.36 U	< 0.39 U	< 0.45 U	2,700
INDENO(1,2,3-CD)PYRENE	< 0.37 U	< 0.42 U	< 0.39 U	< 0.37 U	< 0.36 U	< 0.39 U	< 0.45 U	0.62
NAPHTHALENE	< 0.37 U	< 0.42 U	< 0.39 U	< 0.37 U	< 0.36 U	< 0.39 U	< 0.45 U	1.7 *
PENTACHLOROPHENOL	< 0.89 U	< 1 U	< 0.95 U	< 0.91 U	< 0.87 U	< 0.95 U	< 1.1 U	3.0
PHENANTHRENE	< 0.37 U	< 0.42 U	< 0.39 U	< 0.37 U	< 0.36 U	< 0.39 U	< 0.45 U	NC
PHENOL	< 0.37 U	< 0.42 U	< 0.39 U	< 0.37 U	< 0.36 U	< 0.39 U	< 0.45 U	18,000
PYRENE	< 0.37 U	< 0.42 U	< 0.39 U	< 0.37 U	< 0.36 U	0.009 J	< 0.45 U	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.0037 U	< 0.0042 U	0.0018 J	0.0028 J	0.027 J	< 0.0039 U	< 0.0045 U	2.4
4,4'-DDE	< 0.0037 U	< 0.0042 U	0.0033 J	< 0.0037 U	0.0042 J	< 0.0039 U	< 0.0045 U	1.7
4,4'-DDT	< 0.0037 U	< 0.0042 U	0.015	0.0051 J	0.0063 J	< 0.0039 U	< 0.0045 U	1.7
ALDRIN	< 0.0019 U	< 0.0022 U	< 0.002 U	< 0.0019 U	< 0.0018 U	< 0.002 U	< 0.0023 U	0.029
ALPHA-BHC	< 0.0019 U	< 0.0022 U	< 0.002 U	< 0.0019 U	< 0.0018 U	< 0.002 U	< 0.0023 U	0.090
ALPHA-CHLORDANE	< 0.0019 U	< 0.0022 U	< 0.002 U	< 0.0019 U	< 0.0018 U	< 0.002 U	< 0.0023 U	1.6
AROCLOR-1016	< 0.037 U	< 0.042 U	< 0.039 U	< 0.037 U	< 0.036 U	< 0.039 U	< 0.045 U	3.9
AROCLOR-1254	< 0.037 U	< 0.042 U	< 0.039 U	< 0.037 U	< 0.036 U	< 0.039 U	< 0.045 U	0.22
AROCLOR-1260	< 0.037 U	< 0.042 U	< 0.039 U	**0.26**	**0.48**	< 0.039 U	< 0.045 U	0.22
DIELDRIN	< 0.0037 U	< 0.0042 U	< 0.0039 U	< 0.0037 U	0.0021 J	< 0.0039 U	< 0.0045 U	0.030
ENDOSULFAN I	< 0.0019 U	< 0.0022 U	< 0.002 U	< 0.0019 U	< 0.0018 U	< 0.002 U	< 0.0023 U	NC
ENDOSULFAN II	< 0.0037 U	< 0.0042 U	< 0.0039 U	0.0076 J	0.017	< 0.0039 U	< 0.0045 U	NC
ENDOSULFAN SULFATE	< 0.0037 U	< 0.0042 U	< 0.0039 U	< 0.0037 U	< 0.0036 U	< 0.0039 U	< 0.0045 U	NC
ENDRIN	< 0.0037 U	< 0.0042 U	< 0.0039 U	0.0028 J	0.0048 J	< 0.0039 U	< 0.0045 U	18
ENDRIN ALDEHYDE	< 0.0037 U	< 0.0042 U	< 0.0039 U	0.0047 J	0.0094 J	< 0.0039 U	< 0.0045 U	NC
ENDRIN KETONE	< 0.0037 U	< 0.0042 U	< 0.0039 U	< 0.0037 U	< 0.0036 U	< 0.0039 U	< 0.0045 U	NC
GAMMA-CHLORDANE	< 0.0019 U	< 0.0022 U	< 0.002 U	< 0.0019 U	< 0.0018 U	< 0.002 U	< 0.0023 U	1.6

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW13	S14MW13	S14MW13	S14MW13	S14MW13	S14MW13	S14MW13	
Sample ID	123-S14-105	123-S14-106	123-S14-107	123-S14-108	123-S14-109	123-S14-110	123-S14-111	EPA Residential Soil PRGs
Sample Date	04/22/93	04/22/93	04/22/93	04/22/93	04/22/93	04/22/93	04/22/93	
Sample Depth	0.50 - 0.50	2.00 - 2.00	3.00 - 3.00	5.00 - 5.00	7.50 - 7.50	10.00 - 10.00	12.50 - 12.50	
PCBs/Pesticides (mg/kg)								
HEPTACHLOR EPOXIDE	< 0.0019 U	< 0.0022 U	< 0.002 U	< 0.0019 U	< 0.0018 U	< 0.002 U	< 0.0023 U	0.053
METHOXYCHLOR	< 0.019 U	< 0.022 U	< 0.02 U	< 0.019 U	< 0.018 U	< 0.02 U	< 0.023 U	310
TOXAPHENE	< 0.19 U	< 0.22 U	< 0.2 U	< 0.19 U	< 0.18 U	< 0.2 U	< 0.23 U	0.44
Metals (mg/kg)								
ALUMINUM	9,950	11,200	11,000	9,020	3,910	4,070	5,160	76,000
ANTIMONY	NA	NA	NA	NA	NA	NA	< 10.6 UJ	31
ARSENIC	**3.6 J**	**4.3 J**	**5.1 J**	**2.5 J**	**1.7 J**	**0.99 J**	**0.85**	0.39
BARIUM	103	134	127	61.2	30.7	57.4	67	5,400
BERYLLIUM	0.44	0.51	0.6	0.28	< 0.22 U	0.25	< 0.53 U	150
CADMIUM	< 0.89 U	< 1 U	1.4	1.6	< 0.87 U	< 0.95 U	< 1.3 U	37 *
CALCIUM	12,100	13,900	16,300	11,800	10,000	3,850	9,310	NC
CHROMIUM	17.6	19.5	19.3	16.2	7	7.2	9.3	210
COBALT	5.6	8.5	6.9	6.3	3.5	2.4	5.8	900
COPPER	12.9	18.8	17.1	14.4	6.4	4.6	6.8	3,100
IRON	18,200	23,000	21,900	16,900	10,200	9,210	9,420	23,000
LEAD	5 J	6.1 J	6.3 J	9.2 J	4 J	3.1 J	2	150 *
MAGNESIUM	6,400	8,660	7,520	5,500	4,570	2,670	3,020	NC
MANGANESE	280	390	404	271	155	91.8	141	1,800
MERCURY	< 0.11 UJ	< 0.13 UJ	< 0.12 UJ	< 0.11 UJ	< 0.11 UJ	< 0.12 UJ	< 0.13 U	23
NICKEL	13.7	20.7	18	14.3	9.1	6.4	10.3	1,600
POTASSIUM	2,890	3,720	3,060	1,950	755	1,070	1,880	NC
SELENIUM	0.68	1.5	1.3	0.72	1.2	< 0.71 U	< 0.72 U	390
SILVER	< 0.44 U	< 0.51 U	< 0.48 U	< 0.45 U	< 0.44 U	< 0.47 U	< 2.6 U	390
SODIUM	1,130	1,610	1,560	1,180	808	1,460	1,290	NC
VANADIUM	32.1	36.6	36.5	29.6	18.5	13.4	18.8	78
ZINC	46.2	61.9	59.9	44.6	24.4	21.4	25.2	23,000
Organophosphorus pesticides (mg/kg)								
MONOCROTOPHOS (AZODRIN)	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW15	S14MW15	S14MW15	S14MW15	S14MW15	S14SG01	S14SG01	EPA Residential Soil PRGs
Sample ID	123-S14-119	123-S14-120	123-S14-322	123-S14-121	123-S14-122	123-S14-125	123-S14-126	
Sample Date	04/21/93	04/21/93	04/21/93	04/21/93	04/21/93	05/27/93	05/27/93	
Sample Depth	0.50 - 0.50	2.50 - 2.50	2.50 - 2.50	5.00 - 5.00	7.50 - 7.50	0.00 - 0.00	0.00 - 0.00	
Volatile Organic Compounds (mg/kg)								
1,1-DICHLOROETHENE	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.013 U	< 0.013 U	120
1,2-DICHLOROETHENE (TOTAL)	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.013 U	< 0.013 U	NC
2-BUTANONE	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.013 U	< 0.013 U	22,000
2-HEXANONE	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.013 U	< 0.013 U	NC
4-METHYL-2-PENTANONE	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.013 U	< 0.013 U	5,300
BENZENE	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.013 U	< 0.013 U	0.64
CARBON DISULFIDE	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.013 U	< 0.013 U	360
CARBON TETRACHLORIDE	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.013 U	< 0.013 U	0.25
ETHYLBENZENE	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.013 U	< 0.013 U	400
METHYLENE CHLORIDE	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.013 U	< 0.013 U	9.1
TOLUENE	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.013 U	< 0.013 U	520
TRICHLOROETHENE	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.013 U	< 0.013 U	0.052
XYLENE (TOTAL)	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.013 U	< 0.013 U	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
OTHER COMPONENTS *	< 1.8 U	< 1.8 U	< 1.9 U	< 1.9 U	< 2 U	< 1.3 U	< 1.3 U	NC
TPH - DIESEL	< 1.8 U	< 1.8 U	< 1.9 U	< 1.9 U	< 2 U	< 1.3 U	< 1.3 U	NC
TPH - MOTOR OIL	900 J	46	85	72	120 J	73 J	65 J	NC
Gasoline Range (purgeables)								
OTHER COMPONENTS *	< 0.005 U	< 0.005 U	< 0.006 U	< 0.006 U	< 0.006 U	< 0.006 U	< 0.007 U	NC
Semivolatile Organic Compounds (mg/kg)								
1,4-DICHLOROBENZENE	< 0.36 U	< 0.35 U	< 0.38 U	< 0.37 U	< 0.39 U	< 0.42 U	< 0.43 U	3.4
2,4-DIMETHYLPHENOL	< 0.36 U	< 0.35 U	< 0.38 U	< 0.37 U	< 0.39 U	< 0.42 U	< 0.43 U	1,200
2-METHYLNAPHTHALENE	< 0.36 U	< 0.35 U	< 0.38 U	< 0.37 U	< 0.39 U	< 0.42 U	< 0.43 U	NC
2-METHYLPHENOL	< 0.36 U	< 0.35 U	< 0.38 U	< 0.37 U	< 0.39 U	< 0.42 U	< 0.43 U	3,100
4-METHYLPHENOL	< 0.36 U	< 0.35 U	< 0.38 U	< 0.37 U	< 0.39 U	< 0.42 U	< 0.43 U	310
ACENAPHTHENE	< 0.36 U	< 0.35 U	< 0.38 U	< 0.37 U	< 0.39 U	< 0.42 U	< 0.43 U	3,700
ACENAPHTHYLENE	< 0.36 U	< 0.35 U	< 0.38 U	< 0.37 U	< 0.39 U	< 0.42 U	< 0.43 U	NC
ANTHRACENE	< 0.36 U	< 0.35 U	< 0.38 U	< 0.37 U	< 0.39 U	< 0.42 U	< 0.43 U	22,000
BENZO(A)ANTHRACENE	< 0.36 U	< 0.35 U	< 0.38 U	< 0.37 U	< 0.39 U	< 0.42 U	< 0.43 U	0.62
BENZO(A)PYRENE	< 0.36 U	< 0.35 U	< 0.38 U	< 0.37 U	< 0.39 U	< 0.42 U	< 0.43 U	0.062
BENZO(B)FLUORANTHENE	< 0.36 U	< 0.35 U	< 0.38 U	< 0.37 U	< 0.39 U	< 0.42 U	< 0.43 U	0.62

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW15	S14MW15	S14MW15	S14MW15	S14MW15	S14SG01	S14SG01	EPA Residential Soil PRGs
Sample ID	123-S14-119	123-S14-120	123-S14-322	123-S14-121	123-S14-122	123-S14-125	123-S14-126	
Sample Date	04/21/93	04/21/93	04/21/93	04/21/93	04/21/93	05/27/93	05/27/93	
Sample Depth	0.50 - 0.50	2.50 - 2.50	2.50 - 2.50	5.00 - 5.00	7.50 - 7.50	0.00 - 0.00	0.00 - 0.00	
Semivolatile Organic Compounds (mg/kg)								
BENZO(G,H,I)PERYLENE	< 0.36 U	< 0.35 U	< 0.38 U	< 0.37 U	< 0.39 U	< 0.42 U	< 0.43 U	NC
BENZO(K)FLUORANTHENE	< 0.36 U	< 0.35 U	< 0.38 U	< 0.37 U	< 0.39 U	< 0.42 U	< 0.43 U	0.38 *
CARBAZOLE	< 0.36 U	< 0.35 U	< 0.38 U	< 0.37 U	< 0.39 U	< 0.42 U	< 0.43 U	24
CHRYSENE	< 0.36 U	< 0.35 U	< 0.38 U	< 0.37 U	< 0.39 U	< 0.42 U	< 0.43 U	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.36 U	< 0.35 U	< 0.38 U	< 0.37 U	< 0.39 U	< 0.42 U	< 0.43 U	0.062
DIBENZOFURAN	< 0.36 U	< 0.35 U	< 0.38 U	< 0.37 U	< 0.39 U	< 0.42 U	< 0.43 U	150
FLUORANTHENE	< 0.36 U	< 0.35 U	< 0.38 U	< 0.37 U	0.048 J	0.078 J	< 0.43 U	2,300
FLUORENE	< 0.36 U	< 0.35 U	< 0.38 U	< 0.37 U	< 0.39 U	< 0.42 U	< 0.43 U	2,700
INDENO(1,2,3-CD)PYRENE	< 0.36 U	< 0.35 U	< 0.38 U	< 0.37 U	< 0.39 U	< 0.42 U	< 0.43 U	0.62
NAPHTHALENE	< 0.36 U	< 0.35 U	< 0.38 U	< 0.37 U	< 0.39 U	< 0.42 U	< 0.43 U	1.7 *
PENTACHLOROPHENOL	< 0.88 U	< 0.85 U	< 0.93 U	< 0.91 U	< 0.95 U	< 1 U	< 1.1 U	3.0
PHENANTHRENE	< 0.36 U	< 0.35 U	< 0.38 U	< 0.37 U	< 0.39 U	< 0.42 U	< 0.43 U	NC
PHENOL	< 0.36 U	< 0.35 U	< 0.38 U	< 0.37 U	< 0.39 U	< 0.42 U	< 0.43 U	18,000
PYRENE	0.037 J	< 0.35 U	< 0.38 U	< 0.37 U	< 0.39 U	0.088 J	< 0.43 U	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	0.02 J	< 0.0035 U	0.033 J	< 0.0037 U	< 0.0039 U	0.023 J	0.013 J	2.4
4,4'-DDE	0.0045 J	< 0.0035 U	0.0062 J	< 0.0037 U	< 0.0039 U	0.021	0.009	1.7
4,4'-DDT	0.0021 J	< 0.0035 U	0.005 J	< 0.0019 U	< 0.0039 U	0.067 J	0.027 J	1.7
ALDRIN	< 0.0019 U	< 0.0018 U	< 0.002 U	< 0.0019 U	< 0.002 U	< 0.0022 U	< 0.0022 U	0.029
ALPHA-BHC	< 0.0019 U	< 0.0018 U	< 0.002 U	< 0.0019 U	< 0.002 U	< 0.0022 U	< 0.0022 U	0.090
ALPHA-CHLORDANE	< 0.0019 U	< 0.0018 U	< 0.002 U	< 0.0019 U	< 0.002 U	0.0034 J	0.0083 J	1.6
AROCLOR-1016	< 0.036 U	< 0.035 U	< 0.038 U	< 0.037 U	< 0.039 U	< 0.042 U	< 0.043 U	3.9
AROCLOR-1254	< 0.036 U	< 0.035 U	< 0.038 U	< 0.037 U	< 0.039 U	0.21 J	0.082 J	0.22
AROCLOR-1260	**1.3 J**	< 0.035 U	**1.5 J**	0.2	< 0.039 U	**0.46**	0.19	0.22
DIELDRIN	< 0.0036 U	< 0.0035 U	< 0.0038 U	< 0.0037 U	< 0.0039 U	0.0099 J	0.0071 J	0.030
ENDOSULFAN I	< 0.0019 U	< 0.0018 U	< 0.002 U	< 0.0019 U	< 0.002 U	< 0.0022 U	< 0.0022 U	NC
ENDOSULFAN II	< 0.0036 U	< 0.0035 U	< 0.0038 U	< 0.0037 U	< 0.0039 U	0.016	0.0066	NC
ENDOSULFAN SULFATE	< 0.0036 U	< 0.0035 U	< 0.0038 U	< 0.0037 U	< 0.0039 U	< 0.0042 U	< 0.0043 U	NC
ENDRIN	< 0.0036 U	< 0.0035 U	< 0.0038 U	< 0.0037 U	< 0.0039 U	< 0.0042 U	< 0.0043 U	18
ENDRIN ALDEHYDE	< 0.0036 U	< 0.0035 U	< 0.0038 U	< 0.0037 U	< 0.0039 U	0.011 J	0.0067 J	NC
ENDRIN KETONE	< 0.0036 U	< 0.0035 U	< 0.0038 U	< 0.0037 U	< 0.0039 U	< 0.0042 U	< 0.0043 U	NC
GAMMA-CHLORDANE	< 0.0019 U	< 0.0018 U	< 0.002 U	< 0.0019 U	< 0.002 U	0.0052 J	0.0073 J	1.6

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW15	S14MW15	S14MW15	S14MW15	S14MW15	S14SG01	S14SG01	EPA Residential Soil PRGs
Sample ID	123-S14-119	123-S14-120	123-S14-322	123-S14-121	123-S14-122	123-S14-125	123-S14-126	
Sample Date	04/21/93	04/21/93	04/21/93	04/21/93	04/21/93	05/27/93	05/27/93	
Sample Depth	0.50 - 0.50	2.50 - 2.50	2.50 - 2.50	5.00 - 5.00	7.50 - 7.50	0.00 - 0.00	0.00 - 0.00	
PCBs/Pesticides (mg/kg)								
HEPTACHLOR EPOXIDE	< 0.0019 U	< 0.0018 U	< 0.002 U	< 0.0019 U	< 0.002 U	< 0.0022 U	< 0.0022 U	0.053
METHOXYCHLOR	< 0.019 U	< 0.018 U	< 0.02 U	< 0.019 U	< 0.02 U	< 0.022 U	< 0.022 U	310
TOXAPHENE	< 0.19 U	< 0.18 U	< 0.2 U	< 0.19 U	< 0.2 U	< 0.22 U	< 0.22 U	0.44
Metals (mg/kg)								
ALUMINUM	5,810	4,370	6,160	4,070	17,400	10,300	9,090	76,000
ANTIMONY	< 7.6 UJ	< 7.5 UJ	< 8.8 UJ	< 8.1 UJ	< 14.7 UJ	< 8 UJ	< 8.1 UJ	31
ARSENIC	**2 J**	**1.2 J**	**1.7 J**	**1.2 J**	**2.1 J**	**5 J**	**2.5 J**	0.39
BARIUM	63.4	38.6	65.2	46.5	32.3	133	92.6	5,400
BERYLLIUM	< 0.38 U	< 0.38 U	< 0.44 U	< 0.4 U	0.46	< 0.26 U	0.35	150
CADMIUM	< 0.95 U	< 0.94 U	< 1.1 U	< 1 U	< 1.8 U	2.1	< 1 U	37 *
CALCIUM	8,570	6,480	7,980	12,100	11,100	25,900	16,700	NC
CHROMIUM	10.2	8.6	10.3	7.5	17.1	33.9	20.6	210
COBALT	6.1	4.4	6.3	4.5	23.2	10.6	6.4	900
COPPER	9	5.9	12.6	6.4	31.7	35.7	20.2	3,100
IRON	10,800	9,210	11,300	9,270	**38,700**	**26,700**	16,000	23,000
LEAD	5.8 J	2.5 J	37.5 J	3.2 J	2.8 J	71.1	48.1	150 *
MAGNESIUM	3,230	2,460	3,200	2,380	11,200	11,900	5,850	NC
MANGANESE	164	127	140	246	522	576	235	1,800
MERCURY	< 0.1 U	< 0.09 U	< 0.11 U	< 0.09 U	< 0.1 U	< 0.13 U	< 0.13 U	23
NICKEL	11.2	8.8	12.4	9	26.6	23.8	18.7	1,600
POTASSIUM	1,620	1,190	1,550	1,030	1,490	1,830	2,250	NC
SELENIUM	< 0.61 UJ	< 0.53 UJ	< 0.6 UJ	< 0.61 UJ	< 0.5 UJ	< 0.77 U	0.85	390
SILVER	< 1.9 U	< 1.9 U	< 2.2 U	< 2 U	< 3.7 U	< 0.52 U	< 0.52 U	390
SODIUM	753	421	670	324	3,640	683	397	NC
VANADIUM	19.7	16.8	22.7	16.9	56.5	51.6	32.5	78
ZINC	28.7	20.8	40.4	19.6	51.6	150 J	79.1 J	23,000
Organophosphorus pesticides (mg/kg)								
MONOCROTOPHOS (AZODRIN)	NA	NA	NA	NA	NA	< 0.21 UJ	< 0.22 UJ	NC

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14SG02	S14SG02	S14SG02	S14SG03	S14SG03	S14SG04	S14SG04	EPA Residential Soil PRGs
Sample ID	123-S14-127	123-S14-128	123-S14-129	123-S14-130	123-S14-131	123-S14-132	123-S14-133	
Sample Date	05/27/93	05/27/93	05/27/93	05/27/93	05/27/93	05/27/93	05/27/93	
Sample Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	
Volatile Organic Compounds (mg/kg)								
1,1-DICHLOROETHENE	< 0.012 U	< 0.012 U	< 0.013 U	< 0.013 U	< 0.014 U	< 0.013 U	< 0.013 U	120
1,2-DICHLOROETHENE (TOTAL)	< 0.012 U	< 0.012 U	< 0.013 U	< 0.013 U	< 0.014 U	< 0.013 U	< 0.013 U	NC
2-BUTANONE	< 0.012 U	< 0.012 U	< 0.013 U	< 0.013 U	< 0.014 U	< 0.013 U	< 0.013 U	22,000
2-HEXANONE	< 0.012 U	< 0.012 U	0.032	< 0.013 U	< 0.014 U	< 0.013 U	< 0.013 U	NC
4-METHYL-2-PENTANONE	< 0.012 U	< 0.012 U	0.012 J	< 0.013 U	< 0.014 U	< 0.013 U	< 0.013 U	5,300
BENZENE	< 0.012 U	< 0.012 U	< 0.013 U	< 0.013 U	< 0.014 U	< 0.013 U	< 0.013 U	0.64
CARBON DISULFIDE	< 0.012 U	< 0.012 U	< 0.013 U	< 0.013 U	0.003 J	< 0.013 U	< 0.013 U	360
CARBON TETRACHLORIDE	< 0.012 U	< 0.012 U	< 0.013 U	< 0.013 U	< 0.014 U	< 0.013 U	< 0.013 U	0.25
ETHYLBENZENE	< 0.012 U	< 0.012 U	< 0.013 U	< 0.013 U	< 0.014 U	< 0.013 U	< 0.013 U	400
METHYLENE CHLORIDE	< 0.012 U	< 0.012 U	< 0.013 U	< 0.013 U	< 0.014 U	< 0.013 U	< 0.013 U	9.1
TOLUENE	< 0.012 U	< 0.012 U	< 0.013 U	< 0.013 U	< 0.014 U	< 0.013 U	< 0.013 U	520
TRICHLOROETHENE	< 0.012 U	< 0.012 U	< 0.013 U	< 0.013 U	< 0.014 U	< 0.013 U	< 0.013 U	0.052
XYLENE (TOTAL)	< 0.012 U	< 0.012 U	< 0.013 U	< 0.013 U	< 0.014 U	< 0.013 U	< 0.013 U	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
OTHER COMPONENTS *	< 2.5 U	< 2.4 U	< 2.6 U	< 2.5 U	< 2.7 U	< 2.5 U	< 1.3 U	NC
TPH - DIESEL	< 2.5 U	< 2.4 U	< 2.6 U	< 2.5 U	< 2.7 U	< 2.5 U	< 1.3 U	NC
TPH - MOTOR OIL	150 J	250 J	240 J	130 J	410 J	97 J	57 J	NC
Gasoline Range (purgeables)								
OTHER COMPONENTS *	< 0.006 U	< 0.006 U	1.3 J	< 0.006 U	< 0.007 U	< 0.006 U	< 0.006 U	NC
Semivolatile Organic Compounds (mg/kg)								
1,4-DICHLOROBENZENE	< 0.41 U	< 0.4 U	< 0.42 U	< 0.42 U	< 0.45 U	< 0.42 U	< 0.42 U	3.4
2,4-DIMETHYLPHENOL	< 0.41 U	< 0.4 U	< 0.42 U	< 0.42 U	< 0.45 U	< 0.42 U	< 0.42 U	1,200
2-METHYLNAPHTHALENE	< 0.41 U	< 0.4 U	< 0.42 U	< 0.42 U	< 0.45 U	< 0.42 U	< 0.42 U	NC
2-METHYLPHENOL	< 0.41 U	< 0.4 U	< 0.42 U	< 0.42 U	< 0.45 U	< 0.42 U	< 0.42 U	3,100
4-METHYLPHENOL	< 0.41 U	< 0.4 U	< 0.42 U	< 0.42 U	< 0.45 U	< 0.42 U	< 0.42 U	310
ACENAPHTHENE	< 0.41 U	< 0.4 U	< 0.42 U	< 0.42 U	< 0.45 U	< 0.42 U	< 0.42 U	3,700
ACENAPHTHYLENE	< 0.41 U	< 0.4 U	< 0.42 U	< 0.42 U	< 0.45 U	< 0.42 U	< 0.42 U	NC
ANTHRACENE	< 0.41 U	< 0.4 U	< 0.42 U	< 0.42 U	< 0.45 U	< 0.42 U	< 0.42 U	22,000
BENZO(A)ANTHRACENE	0.087 J	< 0.4 U	< 0.42 U	< 0.42 U	< 0.45 U	< 0.42 U	< 0.42 U	0.62
BENZO(A)PYRENE	< 0.41 U	< 0.4 U	< 0.42 U	< 0.42 U	< 0.45 U	< 0.42 U	< 0.42 U	0.062
BENZO(B)FLUORANTHENE	< 0.41 U	< 0.4 U	< 0.42 U	< 0.42 U	< 0.45 U	< 0.42 U	< 0.42 U	0.62

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14SG02	S14SG02	S14SG02	S14SG03	S14SG03	S14SG04	S14SG04	EPA Residential Soil PRGs
Sample ID	123-S14-127	123-S14-128	123-S14-129	123-S14-130	123-S14-131	123-S14-132	123-S14-133	
Sample Date	05/27/93	05/27/93	05/27/93	05/27/93	05/27/93	05/27/93	05/27/93	
Sample Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	
Semivolatile Organic Compounds (mg/kg)								
BENZO(G,H,I)PERYLENE	< 0.41 U	< 0.4 U	< 0.42 U	< 0.42 U	< 0.45 U	< 0.42 U	< 0.42 U	NC
BENZO(K)FLUORANTHENE	< 0.41 U	< 0.4 U	< 0.42 U	< 0.42 U	< 0.45 U	< 0.42 U	< 0.42 U	0.38 *
CARBAZOLE	< 0.41 U	< 0.4 U	< 0.42 U	< 0.42 U	< 0.45 U	< 0.42 U	< 0.42 U	24
CHRYSENE	0.13 J	< 0.4 U	0.066 J	< 0.42 U	< 0.45 U	< 0.42 U	< 0.42 U	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.41 U	< 0.4 U	< 0.42 U	< 0.42 U	< 0.45 U	< 0.42 U	< 0.42 U	0.062
DIBENZOFURAN	< 0.41 U	< 0.4 U	< 0.42 U	< 0.42 U	< 0.45 U	< 0.42 U	< 0.42 U	150
FLUORANTHENE	0.14 J	< 0.4 U	0.046 J	0.059 J	0.038 J	0.036 J	< 0.42 U	2,300
FLUORENE	< 0.41 U	< 0.4 U	< 0.42 U	< 0.42 U	< 0.45 U	< 0.42 U	< 0.42 U	2,700
INDENO(1,2,3-CD)PYRENE	< 0.41 U	< 0.4 U	< 0.42 U	< 0.42 U	< 0.45 U	< 0.42 U	< 0.42 U	0.62
NAPHTHALENE	< 0.41 U	< 0.4 U	< 0.42 U	< 0.42 U	< 0.45 U	< 0.42 U	< 0.42 U	1.7 *
PENTACHLOROPHENOL	< 1 U	< 0.96 U	< 1 U	< 1 U	< 1.1 U	< 1 U	< 1 U	3.0
PHENANTHRENE	0.13 J	< 0.4 U	< 0.42 U	< 0.42 U	< 0.45 U	< 0.42 U	< 0.42 U	NC
PHENOL	< 0.41 U	< 0.4 U	< 0.42 U	< 0.42 U	< 0.45 U	< 0.42 U	< 0.42 U	18,000
PYRENE	0.19 J	< 0.4 U	0.054 J	0.06 J	0.052 J	0.034 J	< 0.42 U	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	0.025 J	0.031 J	0.095 J	0.013 J	0.2 J	0.01 J	0.015 J	2.4
4,4'-DDE	0.037	0.017 J	0.024 J	0.012	0.028	0.0087	0.0058	1.7
4,4'-DDT	0.073 J	0.17	0.076 J	0.016 J	0.054 J	0.013 J	0.012 J	1.7
ALDRIN	< 0.0042 U	< 0.01 U	< 0.011 U	< 0.0022 U	< 0.011 U	< 0.0022 U	< 0.0022 U	0.029
ALPHA-BHC	< 0.0042 U	< 0.01 U	< 0.011 U	< 0.0022 U	< 0.011 U	< 0.0022 U	< 0.0022 U	0.090
ALPHA-CHLORDANE	< 0.0042 U	0.0077 J	0.042	< 0.0022 U	0.023 J	< 0.0022 U	0.0026 J	1.6
AROCLOR-1016	< 0.082 U	< 0.2 U	< 0.21 U	0.029 J	< 0.22 U	< 0.042 U	< 0.042 U	3.9
AROCLOR-1254	**0.77 J**	0.11 J	**0.3 J**	**0.26 J**	**0.39 J**	0.099 J	0.024 J	0.22
AROCLOR-1260	**0.98 J**	0.21 J	**0.49 J**	**0.25**	**0.44 J**	0.11 J	0.048 J	0.22
DIELDRIN	0.03 J	0.01 J	**0.036**	< 0.0042 U	**0.051**	< 0.0042 U	0.0033 J	0.030
ENDOSULFAN I	< 0.0042 U	< 0.01 U	< 0.011 U	< 0.0022 U	< 0.011 U	< 0.0022 U	< 0.0022 U	NC
ENDOSULFAN II	0.017 J	< 0.02 U	0.012 J	0.0055 J	0.013 J	0.0033 J	0.0019 J	NC
ENDOSULFAN SULFATE	< 0.0082 U	< 0.02 U	< 0.021 U	< 0.0042 U	< 0.022 U	< 0.0042 U	< 0.0042 U	NC
ENDRIN	< 0.0082 U	< 0.02 U	< 0.021 U	< 0.0042 U	< 0.022 U	0.0063 J	< 0.0042 U	18
ENDRIN ALDEHYDE	0.023	< 0.02 U	0.0062 J	0.0042 J	0.011 J	0.0028 J	< 0.0042 U	NC
ENDRIN KETONE	< 0.0082 U	< 0.02 U	< 0.021 U	< 0.0042 U	< 0.022 U	< 0.0042 U	< 0.0042 U	NC
GAMMA-CHLORDANE	0.012 J	0.0086 J	0.024 J	0.0039 J	0.022 J	0.0017 J	0.0023 J	1.6

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14SG02	S14SG02	S14SG02	S14SG03	S14SG03	S14SG04	S14SG04	EPA Residential Soil PRGs
Sample ID	123-S14-127	123-S14-128	123-S14-129	123-S14-130	123-S14-131	123-S14-132	123-S14-133	
Sample Date	05/27/93	05/27/93	05/27/93	05/27/93	05/27/93	05/27/93	05/27/93	
Sample Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	
PCBs/Pesticides (mg/kg)								
HEPTACHLOR EPOXIDE	< 0.0042 U	< 0.01 U	< 0.011 U	< 0.0022 U	< 0.011 U	< 0.0022 U	< 0.0022 U	0.053
METHOXYCHLOR	< 0.021 U	< 0.1 U	< 0.11 U	< 0.022 U	< 0.11 U	< 0.022 U	< 0.022 U	310
TOXAPHENE	< 0.42 U	< 1 U	< 1.1 U	< 0.22 U	< 1.1 U	< 0.22 U	< 0.22 U	0.44
Metals (mg/kg)								
ALUMINUM	7,880	6,890	7,130	11,000	5,430	10,700	11,200	76,000
ANTIMONY	< 7.8 UJ	< 7.5 UJ	< 7.9 UJ	< 7.8 UJ	< 8.3 UJ	< 7.9 UJ	< 7.8 UJ	31
ARSENIC	**2.9 J**	**4.3 J**	**4.2 J**	**3.6 J**	**4.1 J**	**3.5 J**	**2.4 J**	0.39
BARIUM	71.3	70.5	67.2	86	52.4	72.7	88.9	5,400
BERYLLIUM	0.26	< 0.24 U	< 0.26 U	0.4	< 0.27 U	0.31	0.39	150
CADMIUM	1.1	1	< 1 U	1.3	< 1.1 U	< 1 U	< 1 U	37 *
CALCIUM	14,500	17,300	12,200	14,100	8,990	13,700	12,800	NC
CHROMIUM	18	15.2	14	17.6	12.1	16.1	18.3	210
COBALT	7.6	6.5	5.7	8.8	5.2	10.3	7.9	900
COPPER	25.8	16.6	16	22.7	18.7	29.3	30.5	3,100
IRON	17,500	15,700	14,600	22,100	12,500	**23,900**	21,600	23,000
LEAD	41.1	62.4	66.4	20.2	57.7	26	19.6	150 *
MAGNESIUM	5,940	8,860	5,750	7,050	3,800	7,590	6,830	NC
MANGANESE	371	460	305	336	119	340	248	1,800
MERCURY	0.36	< 0.12 U	< 0.13 U	< 0.13 U	< 0.13 U	< 0.13 U	< 0.13 U	23
NICKEL	18.5	15.9	12.2	18.5	11.8	16.2	15.7	1,600
POTASSIUM	1,570	1,220	1,370	1,940	849	1,720	1,650	NC
SELENIUM	< 0.75 U	< 0.72 U	< 0.77 U	< 0.76 U	< 0.81 U	< 0.77 U	< 0.76 U	390
SILVER	< 0.5 U	< 0.48 U	< 0.51 U	< 0.5 U	< 0.54 U	< 0.51 U	< 0.51 U	390
SODIUM	382	314	365	580	340	547	616	NC
VANADIUM	29.7	27.1	25.3	33.3	20.3	37.1	35.2	78
ZINC	127 J	74 J	74.9 J	77.5 J	92.8 J	84.8 J	78.2 J	23,000
Organophosphorus pesticides (mg/kg)								
MONOCROTOPHOS (AZODRIN)	< 0.23 UJ	< 0.2 UJ	< 0.22 UJ	0.31 J	< 0.23 UJ	< 0.22 UJ	< 0.24 UJ	NC

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14SG05	S14SG05	S14TP16	S14TP16	S14TP16	S14TP17	S14TP17	EPA Residential Soil PRGs
Sample ID	123-S14-134	123-S14-135	123-S14-136	123-S14-137	123-S14-138	123-S14-139	123-S14-140	
Sample Date	05/27/93	05/27/93	04/20/93	04/20/93	04/20/93	04/20/93	04/20/93	
Sample Depth	0.00 - 0.00	0.00 - 0.00	5.00 - 5.00	9.00 - 9.00	9.00 - 9.00	5.00 - 5.00	9.00 - 9.00	
Volatile Organic Compounds (mg/kg)								
1,1-DICHLOROETHENE	< 0.014 U	< 0.014 U	< 0.012 U	< 0.013 U	< 0.013 U	< 0.011 U	< 0.012 U	120
1,2-DICHLOROETHENE (TOTAL)	< 0.014 U	< 0.014 U	< 0.012 U	< 0.013 U	< 0.013 U	< 0.011 U	< 0.012 U	NC
2-BUTANONE	< 0.014 U	< 0.014 U	< 0.012 U	< 0.013 U	< 0.013 U	< 0.011 U	< 0.012 U	22,000
2-HEXANONE	< 0.014 U	< 0.014 U	< 0.012 U	< 0.013 U	< 0.013 U	< 0.011 U	< 0.012 U	NC
4-METHYL-2-PENTANONE	< 0.014 U	< 0.014 U	< 0.012 U	< 0.013 U	< 0.013 U	< 0.011 U	< 0.012 U	5,300
BENZENE	< 0.014 U	< 0.014 U	< 0.012 U	0.0005 J	< 0.013 U	< 0.011 U	< 0.012 U	0.64
CARBON DISULFIDE	< 0.014 U	< 0.014 U	< 0.012 U	< 0.013 U	< 0.013 U	< 0.011 U	< 0.012 U	360
CARBON TETRACHLORIDE	< 0.014 U	< 0.014 U	< 0.012 U	< 0.013 U	< 0.013 U	< 0.011 U	< 0.012 U	0.25
ETHYLBENZENE	< 0.014 U	< 0.014 U	< 0.012 U	< 0.013 U	< 0.013 U	< 0.011 U	< 0.012 U	400
METHYLENE CHLORIDE	< 0.014 U	< 0.014 U	< 0.012 U	< 0.013 U	< 0.013 U	< 0.011 U	< 0.012 U	9.1
TOLUENE	< 0.014 U	< 0.014 U	0.0007 J	< 0.013 U	< 0.013 U	< 0.011 U	< 0.012 U	520
TRICHLOROETHENE	< 0.014 U	< 0.014 U	< 0.012 U	< 0.013 U	< 0.013 U	< 0.011 U	< 0.012 U	0.052
XYLENE (TOTAL)	< 0.014 U	< 0.014 U	< 0.012 U	0.001 J	< 0.013 U	< 0.011 U	< 0.012 U	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
OTHER COMPONENTS *	< 2.8 U	< 2.7 U	< 1.2 U	< 1.3 U	< 1.3 U	< 1.1 U	< 1.2 U	NC
TPH - DIESEL	< 2.8 U	< 2.7 U	< 1.2 U	< 1.3 U	13	< 1.1 U	< 1.2 U	NC
TPH - MOTOR OIL	130 J	190 J	< 12 U	420	420	140	25	NC
Gasoline Range (purgeables)								
OTHER COMPONENTS *	< 0.007 U	1.3 J	< 0.006 U	3.6 J	5.1	< 0.006 U	< 0.006 U	NC
Semivolatile Organic Compounds (mg/kg)								
1,4-DICHLOROBENZENE	< 0.46 U	< 0.45 U	< 0.4 U	< 0.43 U	< 0.85 U	< 0.73 U	< 0.41 U	3.4
2,4-DIMETHYLPHENOL	< 0.46 U	< 0.45 U	< 0.4 U	< 0.43 U	< 0.85 U	< 0.73 U	< 0.41 U	1,200
2-METHYLNAPHTHALENE	< 0.46 U	< 0.45 U	0.032 J	0.12 J	0.13 J	< 0.73 U	< 0.41 U	NC
2-METHYLPHENOL	< 0.46 U	< 0.45 U	< 0.4 U	< 0.43 U	< 0.85 U	< 0.73 U	< 0.41 U	3,100
4-METHYLPHENOL	< 0.46 U	< 0.45 U	< 0.4 U	< 0.43 U	< 0.85 U	< 0.73 U	< 0.41 U	310
ACENAPHTHENE	< 0.46 U	< 0.45 U	0.043 J	0.29 J	0.52 J	< 0.73 U	< 0.41 U	3,700
ACENAPHTHYLENE	< 0.46 U	< 0.45 U	< 0.4 U	< 0.43 U	< 0.85 U	< 0.73 U	< 0.41 U	NC
ANTHRACENE	< 0.46 U	< 0.45 U	< 0.4 U	< 0.43 U	< 0.85 U	< 0.73 U	0.039 J	22,000
BENZO(A)ANTHRACENE	< 0.46 U	< 0.45 U	< 0.4 U	0.16 J	0.22 J	< 0.73 U	< 0.41 U	0.62
BENZO(A)PYRENE	< 0.46 U	< 0.45 U	< 0.4 U	**0.096 J**	< 0.85 U	< 0.73 U	< 0.41 U	0.062
BENZO(B)FLUORANTHENE	< 0.46 U	< 0.45 U	< 0.4 U	0.22 J	< 0.85 U	< 0.73 U	< 0.41 U	0.62

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14SG05	S14SG05	S14TP16	S14TP16	S14TP16	S14TP17	S14TP17	EPA Residential Soil PRGs
Sample ID	123-S14-134	123-S14-135	123-S14-136	123-S14-137	123-S14-138	123-S14-139	123-S14-140	
Sample Date	05/27/93	05/27/93	04/20/93	04/20/93	04/20/93	04/20/93	04/20/93	
Sample Depth	0.00 - 0.00	0.00 - 0.00	5.00 - 5.00	9.00 - 9.00	9.00 - 9.00	5.00 - 5.00	9.00 - 9.00	
Semivolatile Organic Compounds (mg/kg)								
BENZO(G,H,I)PERYLENE	< 0.46 U	< 0.45 U	< 0.4 U	< 0.43 U	< 0.85 U	< 0.73 U	< 0.41 U	NC
BENZO(K)FLUORANTHENE	< 0.46 U	< 0.45 U	< 0.4 U	< 0.43 U	< 0.85 U	< 0.73 U	< 0.41 U	0.38 *
CARBAZOLE	< 0.46 U	< 0.45 U	< 0.4 U	0.082 J	< 0.85 U	< 0.73 U	< 0.41 U	24
CHRYSENE	< 0.46 U	< 0.45 U	0.044 J	0.21 J	0.24 J	< 0.73 U	< 0.41 U	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.46 U	< 0.45 U	< 0.4 U	< 0.43 U	< 0.85 U	< 0.73 U	< 0.41 U	0.062
DIBENZOFURAN	< 0.46 U	< 0.45 U	< 0.4 U	0.2 J	0.3 J	< 0.73 U	< 0.41 U	150
FLUORANTHENE	0.035 J	0.034 J	< 0.4 U	0.57	0.62 J	0.097 J	0.17 J	2,300
FLUORENE	< 0.46 U	< 0.45 U	< 0.4 U	0.29 J	0.4 J	< 0.73 U	< 0.41 U	2,700
INDENO(1,2,3-CD)PYRENE	< 0.46 U	< 0.45 U	< 0.4 U	< 0.43 U	< 0.85 U	< 0.73 U	< 0.41 U	0.62
NAPHTHALENE	< 0.46 U	< 0.45 U	0.52	0.29 J	0.66 J	< 0.73 U	< 0.41 U	1.7 *
PENTACHLOROPHENOL	< 1.1 U	< 1.1 U	1.5	< 1.1 U	< 2.1 U	< 1.8 U	< 0.99 U	3.0
PHENANTHRENE	< 0.46 U	< 0.45 U	< 0.4 U	0.76	1.1	< 0.73 U	0.037 J	NC
PHENOL	< 0.46 U	< 0.45 U	< 0.4 U	< 0.43 U	< 0.85 U	< 0.73 U	< 0.41 U	18,000
PYRENE	0.042 J	0.039 J	0.041 J	0.38 J	0.59 J	0.12 J	0.1 J	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	0.22	0.12 J	0.045	< 0.0043 U	< 0.0042 U	0.037 J	< 0.004 U	2.4
4,4'-DDE	0.065	0.15	0.064 J	< 0.0043 U	< 0.0042 U	0.01 J	< 0.004 U	1.7
4,4'-DDT	0.081 J	0.78	0.043 J	< 0.0043 U	< 0.0042 U	0.04 J	< 0.004 U	1.7
ALDRIN	< 0.012 U	< 0.0046 U	< 0.0021 U	< 0.0022 U	< 0.0022 U	< 0.0019 U	< 0.0021 U	0.029
ALPHA-BHC	< 0.012 U	< 0.0046 U	< 0.0021 U	< 0.0022 U	< 0.0022 U	< 0.0019 U	< 0.0021 U	0.090
ALPHA-CHLORDANE	< 0.012 U	0.003 J	0.0011 J	< 0.0022 U	< 0.0022 U	0.0022	< 0.0021 U	1.6
AROCLOR-1016	< 0.23 U	< 0.089 U	< 0.04 U	< 0.043 U	< 0.042 U	< 0.037 U	< 0.04 U	3.9
AROCLOR-1254	< 0.23 U	0.056 J	< 0.04 U	< 0.043 U	< 0.042 U	< 0.037 U	< 0.04 U	0.22
AROCLOR-1260	0.21 J	**0.25 J**	0.081 J	< 0.043 U	0.019 J	0.088 J	< 0.04 U	0.22
DIELDRIN	< 0.023 U	0.0066 J	0.0052 J	< 0.0043 U	< 0.0042 U	< 0.0037 U	< 0.0033 U	0.030
ENDOSULFAN I	< 0.012 U	< 0.0046 U	< 0.0021 U	< 0.0022 U	< 0.0022 U	< 0.0019 U	< 0.0021 U	NC
ENDOSULFAN II	0.01 J	0.012	0.0049 J	< 0.0043 U	< 0.0042 U	0.0024 J	< 0.004 U	NC
ENDOSULFAN SULFATE	< 0.023 U	< 0.0089 U	< 0.004 U	< 0.0043 U	< 0.0042 U	< 0.0037 U	< 0.004 U	NC
ENDRIN	< 0.023 U	0.0047 J	0.0034 J	< 0.0043 U	< 0.0042 U	0.0022 J	< 0.004 U	18
ENDRIN ALDEHYDE	< 0.023 U	0.0095 J	< 0.004 U	< 0.0043 U	< 0.0042 U	0.0023 J	< 0.004 U	NC
ENDRIN KETONE	< 0.023 U	< 0.0089 U	< 0.004 U	< 0.0043 U	< 0.0042 U	< 0.0037 U	< 0.004 U	NC
GAMMA-CHLORDANE	< 0.012 U	0.0037 J	< 0.0021 U	< 0.0022 U	< 0.0022 U	0.0011 J	< 0.0021 U	1.6

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14SG05	S14SG05	S14TP16	S14TP16	S14TP16	S14TP17	S14TP17	EPA Residential Soil PRGs
Sample ID	123-S14-134	123-S14-135	123-S14-136	123-S14-137	123-S14-138	123-S14-139	123-S14-140	
Sample Date	05/27/93	05/27/93	04/20/93	04/20/93	04/20/93	04/20/93	04/20/93	
Sample Depth	0.00 - 0.00	0.00 - 0.00	5.00 - 5.00	9.00 - 9.00	9.00 - 9.00	5.00 - 5.00	9.00 - 9.00	
PCBs/Pesticides (mg/kg)								
HEPTACHLOR EPOXIDE	< 0.012 U	< 0.0046 U	< 0.0021 U	< 0.0022 U	< 0.0022 U	< 0.0019 U	< 0.0021 U	0.053
METHOXYCHLOR	< 0.12 U	< 0.046 U	< 0.021 U	< 0.022 U	< 0.022 U	< 0.019 U	< 0.021 U	310
TOXAPHENE	< 1.2 U	< 0.46 U	< 0.21 U	< 0.22 U	< 0.22 U	< 0.19 U	< 0.21 U	0.44
Metals (mg/kg)								
ALUMINUM	13,600	13,100	15,200 J	11,700 J	8,600 J	15,900 J	5,450 J	76,000
ANTIMONY	< 8.8 UJ	< 11.2 UJ	< 7.6 UJ	< 8.1 UJ	< 8 UJ	< 6.9 UJ	< 7.6 UJ	31
ARSENIC	**7.2 J**	**3.7 J**	**2.9**	**4.5**	**3.3**	**4.8**	**2.6**	0.39
BARIUM	101	27.4	137 J	164 J	117 J	76.8 J	83.6 J	5,400
BERYLLIUM	0.4	< 0.27 U	0.57	0.4	0.41	0.37	0.26	150
CADMIUM	< 1.1 U	< 1.1 U	2.3	2.4	< 1 U	1.6	1.5	37 *
CALCIUM	18,200	8,600	15,800 J	18,900 J	14,500 J	15,200 J	31,300 J	NC
CHROMIUM	27	16	26.9	24.2	17.2	26.3	11	210
COBALT	11.6	17	7.9	8.6	5.2	10.9	3.3	900
COPPER	56.6	30.6	21.1 J	47.3 J	30.2 J	27.6 J	198 J	3,100
IRON	**28,100**	**33,300**	**24,500 J**	**27,500 J**	16,900 J	**32,500 J**	12,800 J	23,000
LEAD	51	28.7	9.4 J	85.6 J	64.8 J	45.5 J	**374 J**	150 *
MAGNESIUM	9,170	12,600	7,870 J	7,300 J	5,450 J	8,980 J	3,290 J	NC
MANGANESE	605	211	394 J	403 J	289 J	417 J	224 J	1,800
MERCURY	< 0.14 U	< 0.13 U	< 0.12 U	< 0.13 U	0.4	< 0.11 U	< 0.12 U	23
NICKEL	23.7	29.7	22.4	19.4	14.1	20.2	11.6	1,600
POTASSIUM	2,500	1,170	4,170	2,340	2,270	1,890	1,500	NC
SELENIUM	0.89	< 0.81 U	< 0.74 U	< 0.79 U	< 0.77 U	0.67	< 0.74 U	390
SILVER	< 0.57 U	< 0.54 U	< 0.49 U	1.5	< 0.52 U	< 0.45 U	< 0.49 U	390
SODIUM	845	1,020	943 J	1,210 J	1,010 J	1,570 J	455 J	NC
VANADIUM	46	38.8	51.1	38.9	30.2	53.5	18.7	78
ZINC	111 J	73.4 J	66.6 J	203 J	139 J	129 J	53.1 J	23,000
Organophosphorus pesticides (mg/kg)								
MONOCROTOPHOS (AZODRIN)	< 0.23 UJ	< 0.29 UJ	NA	NA	NA	NA	NA	NC

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14TP18	S14TP18	S14TP19	S14TP19	S14TP20	S14TP20	S14TP21	EPA Residential Soil PRGs
Sample ID	123-S14-141	123-S14-142	123-S14-143	123-S14-144	123-S14-145	123-S14-146	123-S14-147	
Sample Date	04/20/93	04/20/93	04/20/93	04/20/93	04/20/93	04/20/93	04/20/93	
Sample Depth	4.00 - 4.00	8.00 - 8.00	5.00 - 5.00	9.00 - 9.00	5.00 - 5.00	10.00 - 10.00	5.00 - 5.00	
Volatile Organic Compounds (mg/kg)								
1,1-DICHLOROETHENE	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.011 U	120
1,2-DICHLOROETHENE (TOTAL)	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.011 U	NC
2-BUTANONE	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.011 U	22,000
2-HEXANONE	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.011 U	NC
4-METHYL-2-PENTANONE	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.011 U	5,300
BENZENE	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.011 U	0.64
CARBON DISULFIDE	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.011 U	360
CARBON TETRACHLORIDE	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.011 U	0.25
ETHYLBENZENE	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.011 U	400
METHYLENE CHLORIDE	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.011 U	9.1
TOLUENE	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.011 U	520
TRICHLOROETHENE	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.011 U	0.052
XYLENE (TOTAL)	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.011 U	0.0006 J	< 0.011 U	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
OTHER COMPONENTS *	< 1.1 U	< 1.2 U	< 1.1 U	39	< 1.1 U	< 1.2 U	< 1.1 U	NC
TPH - DIESEL	< 1.1 U	< 1.2 U	< 1.1 U	< 12 U	< 1.1 U	< 1.2 U	< 1.1 U	NC
TPH - MOTOR OIL	32	130	36	1,200	38	67	45	NC
Gasoline Range (purgeables)								
OTHER COMPONENTS *	< 0.005 U	< 0.006 U	< 0.8 U	340	< 0.14 U	< 0.44 U	< 0.006 U	NC
Semivolatile Organic Compounds (mg/kg)								
1,4-DICHLOROBENZENE	< 0.36 U	< 0.4 U	< 0.37 U	< 1.9 U	< 0.37 U	< 0.38 U	< 0.37 U	3.4
2,4-DIMETHYLPHENOL	< 0.36 U	< 0.4 U	< 0.37 U	< 1.9 U	< 0.37 U	< 0.38 U	< 0.37 U	1,200
2-METHYLNAPHTHALENE	< 0.36 U	< 0.4 U	< 0.37 U	< 1.9 U	< 0.37 U	< 0.38 U	< 0.37 U	NC
2-METHYLPHENOL	< 0.36 U	< 0.4 U	< 0.37 U	< 1.9 U	< 0.37 U	< 0.38 U	< 0.37 U	3,100
4-METHYLPHENOL	< 0.36 U	< 0.4 U	< 0.37 U	< 1.9 U	< 0.37 U	< 0.38 U	< 0.37 U	310
ACENAPHTHENE	< 0.36 U	< 0.4 U	< 0.37 U	< 1.9 U	< 0.37 U	< 0.38 U	< 0.37 U	3,700
ACENAPHTHYLENE	< 0.36 U	< 0.4 U	0.04 J	< 1.9 U	< 0.37 U	< 0.38 U	< 0.37 U	NC
ANTHRACENE	< 0.36 U	< 0.4 U	0.6	< 1.9 U	< 0.37 U	< 0.38 U	< 0.37 U	22,000
BENZO(A)ANTHRACENE	< 0.36 U	< 0.4 U	**1.4**	< 1.9 U	< 0.37 U	< 0.38 U	< 0.37 U	0.62
BENZO(A)PYRENE	< 0.36 U	< 0.4 U	**1.6**	< 1.9 U	< 0.37 U	< 0.38 U	< 0.37 U	0.062
BENZO(B)FLUORANTHENE	< 0.36 U	< 0.4 U	**2**	< 1.9 U	< 0.37 U	< 0.38 U	< 0.37 U	0.62

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14TP18	S14TP18	S14TP19	S14TP19	S14TP20	S14TP20	S14TP21	EPA Residential Soil PRGs
Sample ID	123-S14-141	123-S14-142	123-S14-143	123-S14-144	123-S14-145	123-S14-146	123-S14-147	
Sample Date	04/20/93	04/20/93	04/20/93	04/20/93	04/20/93	04/20/93	04/20/93	
Sample Depth	4.00 - 4.00	8.00 - 8.00	5.00 - 5.00	9.00 - 9.00	5.00 - 5.00	10.00 - 10.00	5.00 - 5.00	
Semivolatile Organic Compounds (mg/kg)								
BENZO(G,H,I)PERYLENE	< 0.36 U	< 0.4 U	< 0.37 U	< 1.9 U	< 0.37 U	< 0.38 U	< 0.37 U	NC
BENZO(K)FLUORANTHENE	< 0.36 U	< 0.4 U	**1.4**	< 1.9 U	< 0.37 U	< 0.38 U	< 0.37 U	0.38 *
CARBAZOLE	< 0.36 U	< 0.4 U	< 0.37 U	< 1.9 U	< 0.37 U	< 0.38 U	< 0.37 U	24
CHRYSENE	< 0.36 U	< 0.4 U	**4.3**	0.38 J	< 0.37 U	< 0.38 U	< 0.37 U	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.36 U	< 0.4 U	**0.63**	< 1.9 U	< 0.37 U	< 0.38 U	< 0.37 U	0.062
DIBENZOFURAN	< 0.36 U	< 0.4 U	< 0.37 U	< 1.9 U	< 0.37 U	< 0.38 U	< 0.37 U	150
FLUORANTHENE	< 0.36 U	0.03 J	0.067 J	< 1.9 U	< 0.37 U	< 0.38 U	< 0.37 U	2,300
FLUORENE	< 0.36 U	< 0.4 U	< 0.37 U	< 1.9 U	< 0.37 U	< 0.38 U	< 0.37 U	2,700
INDENO(1,2,3-CD)PYRENE	< 0.36 U	< 0.4 U	**1.3**	< 1.9 U	< 0.37 U	< 0.38 U	< 0.37 U	0.62
NAPHTHALENE	< 0.36 U	< 0.4 U	< 0.37 U	< 1.9 U	< 0.37 U	< 0.38 U	< 0.37 U	1.7 *
PENTACHLOROPHENOL	< 0.88 U	< 0.96 U	< 0.89 U	< 4.7 U	< 0.91 U	< 0.93 U	< 0.91 U	3.0
PHENANTHRENE	< 0.36 U	0.022 J	< 0.37 U	< 1.9 U	< 0.37 U	< 0.38 U	< 0.37 U	NC
PHENOL	< 0.36 U	< 0.4 U	< 0.37 U	< 1.9 U	< 0.37 U	< 0.38 U	< 0.37 U	18,000
PYRENE	< 0.36 U	0.033 J	0.081 J	< 1.9 U	< 0.37 U	< 0.38 U	< 0.37 U	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	0.0093 J	0.0036 J	0.021 J	0.02 J	0.032 J	0.011 J	0.009 J	2.4
4,4'-DDE	0.0047 J	0.002 J	0.01	0.0099	0.014	0.0019 J	0.0072	1.7
4,4'-DDT	0.012 J	< 0.004 U	0.049 J	< 0.0038 U	0.012 J	0.0017 J	0.028 J	1.7
ALDRIN	< 0.0019 U	< 0.0021 U	< 0.0019 U	0.00095 J	< 0.0019 U	< 0.002 U	< 0.0019 U	0.029
ALPHA-BHC	< 0.0019 U	< 0.0021 U	< 0.0019 U	< 0.002 U	< 0.0019 U	< 0.002 U	< 0.0019 U	0.090
ALPHA-CHLORDANE	< 0.0019 U	< 0.0021 U	0.0009 J	0.0042	0.0013 J	< 0.002 U	< 0.0019 U	1.6
AROCLOR-1016	< 0.036 U	< 0.04 U	< 0.037 U	< 0.038 U	< 0.037 U	< 0.038 U	< 0.037 U	3.9
AROCLOR-1254	< 0.036 U	< 0.04 U	< 0.037 U	< 0.038 U	< 0.037 U	< 0.038 U	< 0.037 U	0.22
AROCLOR-1260	0.064	0.041	**0.3 J**	0.11 J	**0.23**	0.2	0.17 J	0.22
DIELDRIN	< 0.0036 U	< 0.004 U	0.0019 J	0.0028 J	0.0029 J	< 0.0038 U	< 0.0037 U	0.030
ENDOSULFAN I	< 0.0019 U	< 0.0021 U	< 0.0019 U	< 0.002 U	< 0.0019 U	< 0.002 U	< 0.0019 U	NC
ENDOSULFAN II	< 0.0036 U	< 0.004 U	0.0051 J	< 0.0038 U	0.003 J	< 0.0038 U	0.0046	NC
ENDOSULFAN SULFATE	< 0.0036 U	< 0.004 U	< 0.0037 U	< 0.0038 U	< 0.0037 U	< 0.0038 U	< 0.0037 U	NC
ENDRIN	0.0026 J	< 0.004 U	0.0029 J	< 0.0038 U	0.0041	< 0.0038 U	0.0025 J	18
ENDRIN ALDEHYDE	< 0.0036 U	< 0.004 U	< 0.0037 U	< 0.0038 U	0.0018 J	< 0.0038 U	< 0.0037 U	NC
ENDRIN KETONE	< 0.0036 U	< 0.004 U	< 0.0037 U	< 0.0038 U	< 0.0037 U	< 0.0038 U	< 0.0037 U	NC
GAMMA-CHLORDANE	< 0.0019 U	< 0.0021 U	0.0017 J	0.0042 J	< 0.0019 U	< 0.002 U	< 0.0019 U	1.6

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14TP18	S14TP18	S14TP19	S14TP19	S14TP20	S14TP20	S14TP21	EPA Residential Soil PRGs
Sample ID	123-S14-141	123-S14-142	123-S14-143	123-S14-144	123-S14-145	123-S14-146	123-S14-147	
Sample Date	04/20/93	04/20/93	04/20/93	04/20/93	04/20/93	04/20/93	04/20/93	
Sample Depth	4.00 - 4.00	8.00 - 8.00	5.00 - 5.00	9.00 - 9.00	5.00 - 5.00	10.00 - 10.00	5.00 - 5.00	
PCBs/Pesticides (mg/kg)								
HEPTACHLOR EPOXIDE	< 0.0019 U	< 0.0021 U	< 0.0019 U	< 0.002 U	< 0.0019 U	< 0.002 U	< 0.0019 U	0.053
METHOXYCHLOR	< 0.019 U	< 0.021 U	< 0.019 U	0.013 J	< 0.019 U	< 0.02 U	< 0.019 U	310
TOXAPHENE	< 0.19 U	< 0.21 U	< 0.19 U	< 0.2 U	< 0.19 U	< 0.2 U	< 0.19 U	0.44
Metals (mg/kg)								
ALUMINUM	13,300 J	7,630 J	13,800 J	7,850 J	14,600 J	11,800 J	13,600 J	76,000
ANTIMONY	< 6.8 UJ	< 7.5 UJ	< 6.9 UJ	< 7.2 UJ	< 7 UJ	< 7.2 UJ	< 7 UJ	31
ARSENIC	**4.5**	**3.8**	**2.8**	**3.3**	**2.8**	**2.4**	**2.6**	0.39
BARIUM	96 J	74.6 J	97.4 J	63.8 J	93.3 J	61 J	91.1 J	5,400
BERYLLIUM	0.41	0.37	0.51	< 0.23 U	0.46	0.33	0.47	150
CADMIUM	2.1	1.4	1.6	1.9	1.8	1.2	2	37 *
CALCIUM	14,900 J	19,500 J	16,300 J	28,900 J	16,600 J	15,900 J	17,000 J	NC
CHROMIUM	22.3	15.8	26	21.1	26.4	22.3	23.6	210
COBALT	6.9	5.1	7.7	5.1 J	8.4	8.5	7.7	900
COPPER	22.8 J	104 J	20.8 J	< 15 UJ	25.3 J	34.6 J	23 J	3,100
IRON	20,500 J	22,400 J	21,500 J	15,700 J	**23,300 J**	**25,100 J**	22,200 J	23,000
LEAD	9.4 J	16.2 J	13.2 J	< 1.9 UJ	12.6 J	18.9 J	12.6 J	150 *
MAGNESIUM	6,840 J	5,850 J	7,220 J	4,790 J	7,830 J	7,550 J	7,470 J	NC
MANGANESE	323 J	346 J	365 J	244 J	386 J	315 J	385 J	1,800
MERCURY	< 0.11 U	< 0.12 U	< 0.11 U	< 0.12 U	< 0.11 U	< 0.12 U	< 0.11 U	23
NICKEL	15.2	13.8	18.8	16.3	18.1	19	17.6	1,600
POTASSIUM	2,890	1,960	3,170	1,810	2,950	1,870	2,850	NC
SELENIUM	< 0.66 U	0.79	< 0.67 U	1.1	0.9	< 0.7 U	0.84	390
SILVER	< 0.44 U	< 0.48 U	< 0.44 U	< 0.46 U	< 0.45 U	< 0.47 U	< 0.45 U	390
SODIUM	1,280 J	1,050 J	1,020 J	908 J	1,620 J	1,930 J	1,130 J	NC
VANADIUM	41.4	25.4	48	31	48.7	38.5	44	78
ZINC	57.4 J	145 J	58.6 J	61.8 J	62.9 J	65.4 J	61.2 J	23,000
Organophosphorus pesticides (mg/kg)								
MONOCROTOPHOS (AZODRIN)	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14TP21	S14TP22	S14TP22	S14TP22	S14TP23	S14TP23	S14TP24	EPA Residential Soil PRGs
Sample ID	123-S14-148	123-S14-149	123-S14-150	123-S14-151	123-S14-152	123-S14-153	123-S14-154	
Sample Date	04/20/93	04/21/93	04/21/93	04/21/93	04/21/93	04/21/93	04/21/93	
Sample Depth	10.50 - 10.50	5.00 - 5.00	5.00 - 5.00	12.00 - 12.00	5.00 - 5.00	12.50 - 12.50	5.00 - 5.00	
Volatile Organic Compounds (mg/kg)								
1,1-DICHLOROETHENE	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	120
1,2-DICHLOROETHENE (TOTAL)	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	NC
2-BUTANONE	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	22,000
2-HEXANONE	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	NC
4-METHYL-2-PENTANONE	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	5,300
BENZENE	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	0.64
CARBON DISULFIDE	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	360
CARBON TETRACHLORIDE	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	0.25
ETHYLBENZENE	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	400
METHYLENE CHLORIDE	< 0.012 U	< 0.018 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.014 U	< 0.016 U	9.1
TOLUENE	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	520
TRICHLOROETHENE	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	0.052
XYLENE (TOTAL)	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
OTHER COMPONENTS *	< 1.2 U	< 19 U	< 19 U	< 19 U	< 19 U	< 21 U	< 19 U	NC
TPH - DIESEL	< 1.2 U	< 19 U	< 19 U	< 19 U	< 19 U	37	< 19 U	NC
TPH - MOTOR OIL	< 12 U	< 56 U	100 J	< 57 U	160	460 J	< 56 U	NC
Gasoline Range (purgeables)								
OTHER COMPONENTS *	< 0.006 U	< 0.006 U	< 0.006 U	< 0.006 U	< 0.006 U	< 0.006 U	< 0.005 U	NC
Semivolatile Organic Compounds (mg/kg)								
1,4-DICHLOROBENZENE	< 0.41 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.37 U	< 0.41 U	< 0.37 U	3.4
2,4-DIMETHYLPHENOL	< 0.41 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.37 U	< 0.41 U	< 0.37 U	1,200
2-METHYLNAPHTHALENE	< 0.41 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.37 U	< 0.41 U	< 0.37 U	NC
2-METHYLPHENOL	< 0.41 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.37 U	< 0.41 U	< 0.37 U	3,100
4-METHYLPHENOL	< 0.41 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.37 U	< 0.41 U	< 0.37 U	310
ACENAPHTHENE	< 0.41 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.37 U	< 0.41 U	< 0.37 U	3,700
ACENAPHTHYLENE	< 0.41 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.37 U	< 0.41 U	< 0.37 U	NC
ANTHRACENE	< 0.41 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.37 U	< 0.41 U	< 0.37 U	22,000
BENZO(A)ANTHRACENE	< 0.41 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.37 U	< 0.41 U	< 0.37 U	0.62
BENZO(A)PYRENE	< 0.41 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.37 U	< 0.41 U	< 0.37 U	0.062
BENZO(B)FLUORANTHENE	< 0.41 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.37 U	< 0.41 U	0.048 J	0.62

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14TP21	S14TP22	S14TP22	S14TP22	S14TP23	S14TP23	S14TP24	EPA Residential Soil PRGs
Sample ID	123-S14-148	123-S14-149	123-S14-150	123-S14-151	123-S14-152	123-S14-153	123-S14-154	
Sample Date	04/20/93	04/21/93	04/21/93	04/21/93	04/21/93	04/21/93	04/21/93	
Sample Depth	10.50 - 10.50	5.00 - 5.00	5.00 - 5.00	12.00 - 12.00	5.00 - 5.00	12.50 - 12.50	5.00 - 5.00	
Semivolatile Organic Compounds (mg/kg)								
BENZO(G,H,I)PERYLENE	< 0.41 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.37 U	< 0.41 U	0.042 J	NC
BENZO(K)FLUORANTHENE	< 0.41 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.37 U	< 0.41 U	0.043 J	0.38 *
CARBAZOLE	< 0.41 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.37 U	< 0.41 U	< 0.37 U	24
CHRYSENE	< 0.41 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.37 U	< 0.41 U	0.039 J	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.41 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.37 U	< 0.41 U	< 0.37 U	0.062
DIBENZOFURAN	< 0.41 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.37 U	< 0.41 U	< 0.37 U	150
FLUORANTHENE	< 0.41 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.37 U	< 0.41 U	< 0.37 U	2,300
FLUORENE	< 0.41 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.37 U	< 0.41 U	< 0.37 U	2,700
INDENO(1,2,3-CD)PYRENE	< 0.41 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.37 U	< 0.41 U	0.046 J	0.62
NAPHTHALENE	< 0.41 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.37 U	< 0.41 U	< 0.37 U	1.7 *
PENTACHLOROPHENOL	< 0.99 U	< 0.9 U	< 0.89 U	< 0.92 U	< 0.9 U	< 1 U	< 0.9 U	3.0
PHENANTHRENE	< 0.41 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.37 U	< 0.41 U	< 0.37 U	NC
PHENOL	< 0.41 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.37 U	< 0.41 U	< 0.37 U	18,000
PYRENE	< 0.41 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.37 U	< 0.41 U	< 0.37 U	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.0041 U	0.014	0.013 J	0.022 J	0.028 J	0.39	0.0031 J	2.4
4,4'-DDE	< 0.0041 U	0.0078	0.0084	0.012 J	0.0089 J	0.06 J	< 0.0037 U	1.7
4,4'-DDT	< 0.0041 U	0.038 J	0.04 J	0.015 J	0.036 J	0.014 J	0.0056 J	1.7
ALDRIN	< 0.0021 U	< 0.0019 U	< 0.0019 U	< 0.002 U	< 0.0019 U	< 0.0021 U	< 0.0019 U	0.029
ALPHA-BHC	< 0.0021 U	< 0.0019 U	< 0.0019 U	< 0.002 U	< 0.0019 U	< 0.0021 U	< 0.0019 U	0.090
ALPHA-CHLORDANE	< 0.0021 U	< 0.0019 U	< 0.0019 U	< 0.002 U	0.0013 J	0.0031	< 0.0019 U	1.6
AROCLOR-1016	< 0.041 U	< 0.037 U	< 0.037 U	< 0.038 U	< 0.037 U	< 0.041 U	< 0.037 U	3.9
AROCLOR-1254	< 0.041 U	< 0.037 U	< 0.037 U	< 0.038 U	< 0.037 U	< 0.041 U	< 0.037 U	0.22
AROCLOR-1260	< 0.041 U	0.19	0.16 J	**3.5 J**	0.16	**1.2 J**	0.033 J	0.22
DIELDRIN	< 0.0041 U	< 0.0037 U	< 0.0037 U	< 0.0038 U	< 0.0037 U	0.0093 J	< 0.0037 U	0.030
ENDOSULFAN I	< 0.0021 U	< 0.0019 U	< 0.0019 U	< 0.002 U	< 0.0019 U	< 0.0021 U	< 0.0019 U	NC
ENDOSULFAN II	< 0.0041 U	< 0.0037 U	< 0.0037 U	< 0.0038 U	< 0.0037 U	< 0.0041 U	< 0.0037 U	NC
ENDOSULFAN SULFATE	< 0.0041 U	< 0.0037 U	< 0.0037 U	< 0.0038 U	< 0.0037 U	< 0.0041 U	< 0.0037 U	NC
ENDRIN	< 0.0041 U	< 0.0037 U	< 0.0037 U	< 0.0038 U	0.0019 J	< 0.0041 U	< 0.0037 U	18
ENDRIN ALDEHYDE	< 0.0041 U	< 0.0037 U	< 0.0037 U	< 0.0038 U	< 0.0037 U	< 0.0041 U	< 0.0037 U	NC
ENDRIN KETONE	< 0.0041 U	< 0.0037 U	< 0.0037 U	< 0.0038 U	< 0.0037 U	< 0.0041 U	< 0.0037 U	NC
GAMMA-CHLORDANE	< 0.0021 U	< 0.0019 U	0.00087 J	< 0.002 U	< 0.0019 U	0.0018 J	< 0.0019 U	1.6

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14TP21	S14TP22	S14TP22	S14TP22	S14TP23	S14TP23	S14TP24	EPA Residential Soil PRGs
Sample ID	123-S14-148	123-S14-149	123-S14-150	123-S14-151	123-S14-152	123-S14-153	123-S14-154	
Sample Date	04/20/93	04/21/93	04/21/93	04/21/93	04/21/93	04/21/93	04/21/93	
Sample Depth	10.50 - 10.50	5.00 - 5.00	5.00 - 5.00	12.00 - 12.00	5.00 - 5.00	12.50 - 12.50	5.00 - 5.00	
PCBs/Pesticides (mg/kg)								
HEPTACHLOR EPOXIDE	< 0.0021 U	< 0.0019 U	< 0.0019 U	< 0.002 U	< 0.0019 U	< 0.0021 U	< 0.0019 U	0.053
METHOXYCHLOR	< 0.021 U	< 0.019 U	< 0.019 U	< 0.02 U	< 0.019 U	< 0.021 U	< 0.019 U	310
TOXAPHENE	< 0.21 U	< 0.19 U	< 0.19 U	< 0.2 U	< 0.19 U	< 0.21 U	< 0.19 U	0.44
Metals (mg/kg)								
ALUMINUM	5,160 J	13,400	12,900	20,600	14,100	14,500	6,480	76,000
ANTIMONY	< 7.6 UJ	< 8.6 UJ	< 8.9 UJ	< 17.4 UJ	< 8.7 UJ	< 9.3 UJ	< 8.7 UJ	31
ARSENIC	**1.8**	**2.9**	**2.6**	**1.2 J**	**2.9**	**1.5**	**1.4**	0.39
BARIUM	48.6 J	95.4	91.8	23.8	106	126	55.8	5,400
BERYLLIUM	0.26	1.2	1	0.87	1.3	1.3	0.76	150
CADMIUM	< 0.98 U	< 1.1 U	< 1.1 U	< 2.2 U	< 1.1 U	< 1.2 U	< 1.1 U	37 *
CALCIUM	7,590 J	16,800	14,700	17,500	16,200	16,200	7,390	NC
CHROMIUM	9.1	24.3	22.6	18.2	23.8	23.4	11.4	210
COBALT	2.9 J	11.2	11.4	23	12	13.7	6	900
COPPER	< 4.2 UJ	22.8	23	35.1	24.6	20.1	11.6	3,100
IRON	9,650 J	20,700	20,600	**39,800**	22,300	21,200	11,600	23,000
LEAD	< 2.2 UJ	11.9 J	12.2 J	8 J	13.5 J	7.5 J	5.4 J	150 *
MAGNESIUM	2,490 J	7,100	6,880	12,800	7,650	9,410	3,600	NC
MANGANESE	124 J	366	343	536	356	406	163	1,800
MERCURY	< 0.12 U	< 0.11 U	< 0.11 U	< 0.1 U	< 0.11 U	< 0.09 U	< 0.11 U	23
NICKEL	7	21.7	22.4	37.7	23.9	24.6	12.5	1,600
POTASSIUM	1,400	3,110	2,820	1,110	3,170	4,100	1,800	NC
SELENIUM	< 0.74 U	< 0.63 UJ	< 0.64 UJ	< 0.68 UJ	< 0.63 UJ	< 3.3 UJ	< 0.67 UJ	390
SILVER	< 0.49 U	< 2.2 U	< 2.2 U	5.1	< 2.2 U	2.3	< 2.2 U	390
SODIUM	782 J	1,290 J	1,200 J	2,320 J	1,130 J	1,590 J	1,270 J	NC
VANADIUM	18.6	47.6	42.8	54.3	46.5	47.9	24.4	78
ZINC	20.4 J	57.5	61.5	73.6	63.2	60.4	30.7	23,000
Organophosphorus pesticides (mg/kg)								
MONOCROTOPHOS (AZODRIN)	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14TP24	S14TP25	S14TP25	S14TP26	S14TP26	S14TP26	S14TP27	
Sample ID	123-S14-155	123-S14-156	123-S14-157	123-S14-158	123-S14-159	123-S14-160	123-S14-161	EPA Residential Soil PRGs
Sample Date	04/21/93	04/21/93	04/21/93	04/21/93	04/21/93	04/21/93	04/21/93	
Sample Depth	10.00 - 10.00	5.00 - 5.00	14.00 - 14.00	5.00 - 5.00	10.50 - 10.50	10.50 - 10.50	8.00 - 8.00	
Volatile Organic Compounds (mg/kg)								
1,1-DICHLOROETHENE	< 0.012 U	< 0.01 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	120
1,2-DICHLOROETHENE (TOTAL)	< 0.012 U	< 0.01 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	NC
2-BUTANONE	< 0.012 U	< 0.01 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	22,000
2-HEXANONE	< 0.012 U	< 0.01 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	NC
4-METHYL-2-PENTANONE	< 0.012 U	< 0.01 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	5,300
BENZENE	< 0.012 U	< 0.01 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	0.64
CARBON DISULFIDE	< 0.012 U	< 0.01 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	360
CARBON TETRACHLORIDE	< 0.012 U	< 0.01 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	0.25
ETHYLBENZENE	< 0.012 U	< 0.01 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	400
METHYLENE CHLORIDE	< 0.012 U	< 0.01 U	< 0.012 U	< 0.011 U	< 0.015 U	< 0.012 U	< 0.011 U	9.1
TOLUENE	< 0.012 U	< 0.01 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	520
TRICHLOROETHENE	< 0.012 U	< 0.01 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	0.052
XYLENE (TOTAL)	< 0.012 U	< 0.01 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
OTHER COMPONENTS *	< 20 U	< 17 U	< 20 U	< 18 U	< 19 U	< 19 U	< 1.9 U	NC
TPH - DIESEL	< 20 U	< 17 U	< 20 U	< 18 U	< 19 U	< 19 U	< 1.9 U	NC
TPH - MOTOR OIL	< 60 U	80 J	< 61 U	< 54 U	< 57 U	300 J	< 5.6 U	NC
Gasoline Range (purgeables)								
OTHER COMPONENTS *	< 0.006 U	< 0.005 U	< 0.006 U	< 0.005 U	< 0.006 U	< 0.006 U	< 0.006 U	NC
Semivolatile Organic Compounds (mg/kg)								
1,4-DICHLOROBENZENE	< 0.39 U	< 0.34 U	< 0.4 U	< 0.36 U	< 0.38 U	< 0.38 U	< 0.37 U	3.4
2,4-DIMETHYLPHENOL	< 0.39 U	< 0.34 U	< 0.4 U	< 0.36 U	< 0.38 U	< 0.38 U	< 0.37 U	1,200
2-METHYLNAPHTHALENE	< 0.39 U	< 0.34 U	< 0.4 U	< 0.36 U	< 0.38 U	< 0.38 U	< 0.37 U	NC
2-METHYLPHENOL	< 0.39 U	< 0.34 U	< 0.4 U	< 0.36 U	< 0.38 U	< 0.38 U	< 0.37 U	3,100
4-METHYLPHENOL	< 0.39 U	< 0.34 U	< 0.4 U	< 0.36 U	< 0.38 U	< 0.38 U	< 0.37 U	310
ACENAPHTHENE	< 0.39 U	< 0.34 U	< 0.4 U	< 0.36 U	< 0.38 U	< 0.38 U	< 0.37 U	3,700
ACENAPHTHYLENE	< 0.39 U	< 0.34 U	< 0.4 U	0.038 J	< 0.38 U	< 0.38 U	< 0.37 U	NC
ANTHRACENE	< 0.39 U	< 0.34 U	< 0.4 U	0.048 J	< 0.38 U	< 0.38 U	< 0.37 U	22,000
BENZO(A)ANTHRACENE	< 0.39 U	< 0.34 U	< 0.4 U	< 0.36 U	< 0.38 U	< 0.38 U	< 0.37 U	0.62
BENZO(A)PYRENE	< 0.39 U	< 0.34 U	< 0.4 U	**0.075 J**	< 0.38 U	< 0.38 U	< 0.37 U	0.062
BENZO(B)FLUORANTHENE	< 0.39 U	< 0.34 U	< 0.4 U	0.13 J	< 0.38 U	< 0.38 U	< 0.37 U	0.62

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14TP24	S14TP25	S14TP25	S14TP26	S14TP26	S14TP26	S14TP27	EPA Residential Soil PRGs
Sample ID	123-S14-155	123-S14-156	123-S14-157	123-S14-158	123-S14-159	123-S14-160	123-S14-161	
Sample Date	04/21/93	04/21/93	04/21/93	04/21/93	04/21/93	04/21/93	04/21/93	
Sample Depth	10.00 - 10.00	5.00 - 5.00	14.00 - 14.00	5.00 - 5.00	10.50 - 10.50	10.50 - 10.50	8.00 - 8.00	
Semivolatile Organic Compounds (mg/kg)								
BENZO(G,H,I)PERYLENE	< 0.39 U	< 0.34 U	< 0.4 U	0.091 J	< 0.38 U	< 0.38 U	< 0.37 U	NC
BENZO(K)FLUORANTHENE	< 0.39 U	< 0.34 U	< 0.4 U	0.06 J	< 0.38 U	< 0.38 U	< 0.37 U	0.38 *
CARBAZOLE	< 0.39 U	< 0.34 U	< 0.4 U	< 0.36 U	< 0.38 U	< 0.38 U	< 0.37 U	24
CHRYSENE	< 0.39 U	0.043 J	< 0.4 U	0.062 J	< 0.38 U	< 0.38 U	< 0.37 U	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.39 U	< 0.34 U	< 0.4 U	0.044 J	< 0.38 U	< 0.38 U	< 0.37 U	0.062
DIBENZOFURAN	< 0.39 U	< 0.34 U	< 0.4 U	< 0.36 U	< 0.38 U	< 0.38 U	< 0.37 U	150
FLUORANTHENE	< 0.39 U	< 0.34 U	< 0.4 U	< 0.36 U	< 0.38 U	< 0.38 U	< 0.37 U	2,300
FLUORENE	< 0.39 U	< 0.34 U	< 0.4 U	< 0.36 U	< 0.38 U	< 0.38 U	< 0.37 U	2,700
INDENO(1,2,3-CD)PYRENE	< 0.39 U	< 0.34 U	< 0.4 U	0.13 J	< 0.38 U	< 0.38 U	< 0.37 U	0.62
NAPHTHALENE	< 0.39 U	< 0.34 U	< 0.4 U	< 0.36 U	< 0.38 U	< 0.38 U	< 0.37 U	1.7 *
PENTACHLOROPHENOL	< 0.95 U	< 0.83 U	< 0.98 U	< 0.87 U	< 0.92 U	< 0.93 U	< 0.89 U	3.0
PHENANTHRENE	< 0.39 U	< 0.34 U	< 0.4 U	< 0.36 U	< 0.38 U	< 0.38 U	< 0.37 U	NC
PHENOL	< 0.39 U	< 0.34 U	< 0.4 U	< 0.36 U	< 0.38 U	< 0.38 U	< 0.37 U	18,000
PYRENE	< 0.39 U	< 0.34 U	< 0.4 U	< 0.36 U	< 0.38 U	< 0.38 U	< 0.37 U	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.0039 U	0.021 J	< 0.004 U	< 0.0036 UJ	< 0.0038 U	0.013 J	0.023 J	2.4
4,4'-DDE	< 0.0039 U	0.0041 J	< 0.004 U	< 0.0036 UJ	< 0.0038 U	0.0035 J	0.0086	1.7
4,4'-DDT	< 0.0039 U	0.0019 J	< 0.004 U	< 0.0036 UJ	< 0.0038 U	0.0059 J	0.036 J	1.7
ALDRIN	< 0.002 U	< 0.0018 U	< 0.0021 U	< 0.0018 UJ	< 0.002 U	< 0.002 U	< 0.0019 U	0.029
ALPHA-BHC	< 0.002 U	< 0.0018 U	< 0.0021 U	< 0.0018 UJ	< 0.002 U	< 0.002 U	< 0.0019 U	0.090
ALPHA-CHLORDANE	< 0.002 U	< 0.0018 U	< 0.0021 U	< 0.0018 UJ	< 0.002 U	< 0.002 U	0.0012 J	1.6
AROCLOR-1016	< 0.039 U	< 0.034 U	< 0.04 U	< 0.036 UJ	< 0.038 U	< 0.038 U	< 0.037 U	3.9
AROCLOR-1254	< 0.039 U	< 0.034 U	< 0.04 U	< 0.036 UJ	< 0.038 U	< 0.038 U	< 0.037 U	0.22
AROCLOR-1260	< 0.039 U	**1.1 J**	< 0.04 U	0.11 J	< 0.038 U	**0.37 J**	**0.26**	0.22
DIELDRIN	< 0.0039 U	< 0.0034 U	< 0.004 U	< 0.0036 UJ	< 0.0038 U	< 0.0038 U	< 0.0037 U	0.030
ENDOSULFAN I	< 0.002 U	< 0.0018 U	< 0.0021 U	< 0.0018 UJ	< 0.002 U	< 0.002 U	< 0.0019 U	NC
ENDOSULFAN II	< 0.0039 U	< 0.0034 U	< 0.004 U	< 0.0036 UJ	< 0.0038 U	< 0.0038 U	< 0.0037 U	NC
ENDOSULFAN SULFATE	< 0.0039 U	< 0.0034 U	< 0.004 U	< 0.0036 UJ	< 0.0038 U	< 0.0038 U	< 0.0037 U	NC
ENDRIN	< 0.0039 U	< 0.0034 U	< 0.004 U	< 0.0036 UJ	< 0.0038 U	< 0.0038 U	0.0024 J	18
ENDRIN ALDEHYDE	< 0.0039 U	< 0.0034 U	< 0.004 U	< 0.0036 UJ	< 0.0038 U	< 0.0038 U	< 0.0037 U	NC
ENDRIN KETONE	< 0.0039 U	< 0.0034 U	< 0.004 U	< 0.0036 UJ	< 0.0038 U	< 0.0038 U	< 0.0037 U	NC
GAMMA-CHLORDANE	< 0.002 U	< 0.0018 U	< 0.0021 U	< 0.0018 UJ	< 0.002 U	< 0.002 U	< 0.0019 U	1.6

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14TP24	S14TP25	S14TP25	S14TP26	S14TP26	S14TP26	S14TP27	EPA Residential Soil PRGs
Sample ID	123-S14-155	123-S14-156	123-S14-157	123-S14-158	123-S14-159	123-S14-160	123-S14-161	
Sample Date	04/21/93	04/21/93	04/21/93	04/21/93	04/21/93	04/21/93	04/21/93	
Sample Depth	10.00 - 10.00	5.00 - 5.00	14.00 - 14.00	5.00 - 5.00	10.50 - 10.50	10.50 - 10.50	8.00 - 8.00	
PCBs/Pesticides (mg/kg)								
HEPTACHLOR EPOXIDE	< 0.002 U	< 0.0018 U	< 0.0021 U	< 0.0018 UJ	< 0.002 U	< 0.002 U	< 0.0019 U	0.053
METHOXYCHLOR	< 0.02 U	< 0.018 U	< 0.021 U	< 0.018 UJ	< 0.02 U	< 0.02 U	< 0.019 U	310
TOXAPHENE	< 0.2 U	< 0.18 U	< 0.21 U	< 0.18 UJ	< 0.2 U	< 0.2 U	< 0.19 U	0.44
Metals (mg/kg)								
ALUMINUM	7,640	5,100	9,410	6,940	8,970	9,100	14,500	76,000
ANTIMONY	< 7.8 UJ	< 8.4 UJ	< 9 UJ	< 8.5 UJ	< 8.8 UJ	< 9 UJ	< 8.5 UJ	31
ARSENIC	**1.8**	**1.6**	**7.5**	**1.8 J**	**2**	**2 J**	**3.1**	0.39
BARIUM	84.7	69.9	79.6	53.4	56.6	84.1	90.6	5,400
BERYLLIUM	0.89	0.73	0.77	0.74	0.88	1	0.98	150
CADMIUM	< 0.98 U	< 1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	1.1	37 *
CALCIUM	19,000	7,770	16,000	9,890	15,600	26,200	17,000	NC
CHROMIUM	12.3	9	15.1	14.1	15	17.9	23	210
COBALT	6.8	5	9.8	7.7	10.1	9.4	13.1	900
COPPER	12	8	34.2	13.2	17.8	18.7	25.6	3,100
IRON	14,300	9,440	20,100	12,900	19,900	17,500	**24,000**	23,000
LEAD	9.5 J	4.4 J	30.5 J	11.2 J	28.7 J	40.5 J	12.3 J	150 *
MAGNESIUM	5,090	2,810	6,440	3,970	5,000	5,480	7,730	NC
MANGANESE	331	151	310	212	449	393	424	1,800
MERCURY	< 0.09 U	< 0.1 U	< 0.1 U	< 0.1 U	0.46	0.2	0.14	23
NICKEL	14.4	10.9	17.5	15.7	20.3	18.2	25.7	1,600
POTASSIUM	2,100	1,680	2,300	1,870	1,960	2,030	2,810	NC
SELENIUM	< 0.63 UJ	< 0.61 UJ	< 0.69 UJ	< 0.64 UJ	< 0.57 UJ	< 0.62 UJ	< 0.64 UJ	390
SILVER	2.4	2.1	2.4	2.3	2.7	3.2	3	390
SODIUM	983 J	440 J	1,220 J	936 J	1,480 J	1,530 J	1,350 J	NC
VANADIUM	25.9	19.3	36.2	25.5	34.1	30.5	47.9	78
ZINC	39.7	26.7	58.6	35.8	42	76.2	69.7	23,000
Organophosphorus pesticides (mg/kg)								
MONOCROTOPHOS (AZODRIN)	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14TP27	S14TP28	S14TP28	S14TP29	S14TP29	S14TP30	S14TP30	EPA Residential Soil PRGs
Sample ID	123-S14-162	123-S14-163	123-S14-164	123-S14-165	123-S14-166	123-S14-167	123-S14-168	
Sample Date	04/21/93	04/22/93	04/22/93	04/22/93	04/22/93	04/23/93	04/23/93	
Sample Depth	14.00 - 14.00	13.00 - 13.00	18.00 - 18.00	12.00 - 12.00	19.00 - 19.00	5.00 - 5.00	11.50 - 11.50	
Volatile Organic Compounds (mg/kg)								
1,1-DICHLOROETHENE	< 0.011 U	< 0.011 U	< 0.013 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.011 U	120
1,2-DICHLOROETHENE (TOTAL)	< 0.011 U	< 0.011 U	0.004 J	< 0.011 U	< 0.012 U	< 0.011 U	< 0.011 U	NC
2-BUTANONE	< 0.011 U	< 0.011 U	< 0.013 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.011 U	22,000
2-HEXANONE	< 0.011 U	< 0.011 U	< 0.013 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.011 U	NC
4-METHYL-2-PENTANONE	< 0.011 U	< 0.011 U	< 0.013 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.011 U	5,300
BENZENE	< 0.011 U	< 0.011 U	< 0.013 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.011 U	0.64
CARBON DISULFIDE	< 0.011 U	< 0.011 U	0.002 J	< 0.011 U	< 0.012 U	< 0.011 U	< 0.011 U	360
CARBON TETRACHLORIDE	< 0.011 U	< 0.011 U	< 0.013 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.011 U	0.25
ETHYLBENZENE	< 0.011 U	< 0.011 U	< 0.013 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.011 U	400
METHYLENE CHLORIDE	< 0.011 U	< 0.011 U	< 0.013 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.011 U	9.1
TOLUENE	< 0.011 U	< 0.011 U	< 0.013 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.011 U	520
TRICHLOROETHENE	< 0.011 U	< 0.011 U	0.002 J	< 0.011 U	< 0.012 U	< 0.011 U	< 0.011 U	0.052
XYLENE (TOTAL)	< 0.011 U	< 0.011 U	< 0.013 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.011 U	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
OTHER COMPONENTS *	< 19 U	NA	NA	NA	NA	< 1.1 U	< 1.1 U	NC
TPH - DIESEL	< 19 U	NA	NA	NA	NA	< 1.1 U	< 1.1 U	NC
TPH - MOTOR OIL	< 56 U	NA	NA	NA	NA	42	43	NC
Gasoline Range (purgeables)								
OTHER COMPONENTS *	< 0.006 U	< 0.006 U	< 0.006 U	< 0.006 U	< 0.006 U	< 0.005 U	< 0.006 U	NC
Semivolatile Organic Compounds (mg/kg)								
1,4-DICHLOROBENZENE	< 0.37 U	< 0.38 U	< 0.42 U	< 0.37 U	< 0.4 U	< 0.35 U	< 0.37 U	3.4
2,4-DIMETHYLPHENOL	< 0.37 U	< 0.38 U	< 0.42 U	< 0.37 U	< 0.4 U	< 0.35 U	< 0.37 U	1,200
2-METHYLNAPHTHALENE	< 0.37 U	< 0.38 U	0.061 J	< 0.37 U	0.24 J	< 0.35 U	< 0.37 U	NC
2-METHYLPHENOL	< 0.37 U	< 0.38 U	< 0.42 U	< 0.37 U	< 0.4 U	< 0.35 U	< 0.37 U	3,100
4-METHYLPHENOL	< 0.37 U	< 0.38 U	< 0.42 U	< 0.37 U	< 0.4 U	< 0.35 U	< 0.37 U	310
ACENAPHTHENE	< 0.37 U	< 0.38 U	< 0.42 U	< 0.37 U	0.41	< 0.35 U	< 0.37 U	3,700
ACENAPHTHYLENE	< 0.37 U	< 0.38 U	< 0.42 U	< 0.37 U	< 0.4 U	< 0.35 U	< 0.37 U	NC
ANTHRACENE	< 0.37 U	< 0.38 U	< 0.42 U	< 0.37 U	0.36 J	< 0.35 U	< 0.37 U	22,000
BENZO(A)ANTHRACENE	< 0.37 U	< 0.38 U	0.076 J	0.067 J	0.22 J	< 0.35 U	< 0.37 U	0.62
BENZO(A)PYRENE	< 0.37 U	< 0.38 U	**0.068 J**	0.057 J	**0.15 J**	< 0.35 U	< 0.37 U	0.062
BENZO(B)FLUORANTHENE	< 0.37 U	< 0.38 U	0.091 J	0.065 J	0.22 J	< 0.35 U	< 0.37 U	0.62

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14TP27	S14TP28	S14TP28	S14TP29	S14TP29	S14TP30	S14TP30	EPA Residential Soil PRGs
Sample ID	123-S14-162	123-S14-163	123-S14-164	123-S14-165	123-S14-166	123-S14-167	123-S14-168	
Sample Date	04/21/93	04/22/93	04/22/93	04/22/93	04/22/93	04/23/93	04/23/93	
Sample Depth	14.00 - 14.00	13.00 - 13.00	18.00 - 18.00	12.00 - 12.00	19.00 - 19.00	5.00 - 5.00	11.50 - 11.50	
Semivolatile Organic Compounds (mg/kg)								
BENZO(G,H,I)PERYLENE	< 0.37 U	< 0.38 U	< 0.42 U	< 0.37 U	< 0.4 U	< 0.35 U	< 0.37 U	NC
BENZO(K)FLUORANTHENE	< 0.37 U	< 0.38 U	0.077 J	0.089 J	0.2 J	< 0.35 U	< 0.37 U	0.38 *
CARBAZOLE	< 0.37 U	< 0.38 U	< 0.42 U	< 0.37 U	< 0.4 U	< 0.35 U	< 0.37 U	24
CHRYSENE	< 0.37 U	< 0.38 U	0.12 J	0.094 J	0.32 J	< 0.35 U	0.042 J	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.37 U	< 0.38 U	< 0.42 U	< 0.37 U	< 0.4 U	< 0.35 U	< 0.37 U	0.062
DIBENZOFURAN	< 0.37 U	< 0.38 U	0.047 J	< 0.37 U	0.25 J	< 0.35 U	< 0.37 U	150
FLUORANTHENE	< 0.37 U	< 0.38 U	0.21 J	0.25 J	0.74	< 0.35 U	0.061 J	2,300
FLUORENE	< 0.37 U	< 0.38 U	< 0.42 U	< 0.37 U	0.32 J	< 0.35 U	< 0.37 U	2,700
INDENO(1,2,3-CD)PYRENE	< 0.37 U	< 0.38 U	< 0.42 U	< 0.37 U	< 0.4 U	< 0.35 U	< 0.37 U	0.62
NAPHTHALENE	< 0.37 U	< 0.38 U	0.16 J	< 0.37 U	0.16 J	< 0.35 U	< 0.37 U	1.7 *
PENTACHLOROPHENOL	< 0.9 U	< 0.92 U	< 1 U	< 0.9 U	< 0.98 U	< 0.85 U	< 0.89 U	3.0
PHENANTHRENE	< 0.37 U	< 0.38 U	0.18 J	0.045 J	1.2	< 0.35 U	0.049 J	NC
PHENOL	< 0.37 U	< 0.38 U	< 0.42 U	< 0.37 U	< 0.4 U	< 0.35 U	< 0.37 U	18,000
PYRENE	< 0.37 U	< 0.38 U	0.26 J	0.21 J	0.99	< 0.35 U	0.042 J	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	0.028	0.033	0.32 J	0.15	0.086 J	0.031 J	0.033 J	2.4
4,4'-DDE	0.0068	0.01	0.054 J	0.04 J	0.035 J	0.052	0.043	1.7
4,4'-DDT	0.019 J	0.012	0.019 J	0.014 J	0.017 J	0.088 J	< 0.018 U	1.7
ALDRIN	< 0.0019 U	< 0.002 U	< 0.0022 U	< 0.0019 U	< 0.0021 UJ	< 0.0036 U	< 0.0017 U	0.029
ALPHA-BHC	< 0.0019 U	< 0.002 U	< 0.0022 U	< 0.0019 U	< 0.0021 UJ	< 0.0036 U	< 0.0094 U	0.090
ALPHA-CHLORDANE	< 0.0019 U	< 0.002 U	0.01 J	0.002 J	0.0015 J	0.0011 J	0.0016 J	1.6
AROCLOR-1016	< 0.037 U	< 0.038 U	< 0.042 U	< 0.037 U	< 0.04 UJ	< 0.07 U	< 0.18 U	3.9
AROCLOR-1254	< 0.037 U	< 0.038 U	< 0.042 U	< 0.037 U	< 0.04 UJ	< 0.07 U	< 0.18 U	0.22
AROCLOR-1260	**0.25**	**2.6 J**	0.12 J	**0.4**	**0.26 J**	0.22 J	**1.1**	0.22
DIELDRIN	0.001 J	< 0.0038 U	0.0087 J	0.0018 J	0.0026 J	0.0027 J	0.0071 J	0.030
ENDOSULFAN I	< 0.0019 U	< 0.002 U	< 0.0022 U	< 0.0019 U	< 0.0021 UJ	< 0.0036 U	< 0.0094 U	NC
ENDOSULFAN II	< 0.0037 U	< 0.0038 U	0.0027 J	< 0.0037 U	< 0.004 UJ	< 0.007 U	< 0.018 U	NC
ENDOSULFAN SULFATE	0.003 J	< 0.0038 U	< 0.0042 U	< 0.0037 U	0.0035 J	< 0.007 U	< 0.018 U	NC
ENDRIN	< 0.0037 U	< 0.0038 U	< 0.0042 U	< 0.0037 U	< 0.004 UJ	0.0069 J	0.014 J	18
ENDRIN ALDEHYDE	< 0.0037 U	< 0.0038 U	< 0.0042 U	< 0.0037 U	< 0.004 UJ	< 0.007 U	< 0.018 U	NC
ENDRIN KETONE	< 0.0037 U	< 0.0038 U	< 0.0042 U	< 0.0037 U	< 0.004 UJ	< 0.007 U	< 0.018 U	NC
GAMMA-CHLORDANE	< 0.0019 U	< 0.002 U	0.0084 J	0.0014 J	0.0013 J	0.0011 J	0.0011 J	1.6

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14TP27	S14TP28	S14TP28	S14TP29	S14TP29	S14TP30	S14TP30	EPA Residential Soil PRGs
Sample ID	123-S14-162	123-S14-163	123-S14-164	123-S14-165	123-S14-166	123-S14-167	123-S14-168	
Sample Date	04/21/93	04/22/93	04/22/93	04/22/93	04/22/93	04/23/93	04/23/93	
Sample Depth	14.00 - 14.00	13.00 - 13.00	18.00 - 18.00	12.00 - 12.00	19.00 - 19.00	5.00 - 5.00	11.50 - 11.50	
PCBs/Pesticides (mg/kg)								
HEPTACHLOR EPOXIDE	< 0.0019 U	< 0.002 U	< 0.0022 U	< 0.0019 U	< 0.0021 UJ	< 0.0036 U	< 0.0094 U	0.053
METHOXYCHLOR	< 0.019 U	< 0.02 U	< 0.022 U	< 0.019 U	< 0.021 UJ	< 0.036 U	< 0.094 U	310
TOXAPHENE	< 0.19 U	< 0.2 U	< 0.22 U	< 0.19 U	< 0.21 UJ	< 0.36 U	< 0.94 U	0.44
Metals (mg/kg)								
ALUMINUM	9,140	14,400 J	10,100	12,000	12,000	9,010	8,620	76,000
ANTIMONY	< 29 UJ	< 17 UJ	< 8.3 UJ	< 8.4 UJ	< 17.6 UJ	< 6.6 UJ	< 6.9 UJ	31
ARSENIC	**41.3**	**2**	**7.4**	**3.6**	**4**	**3.3**	**2.8**	0.39
BARIUM	93.7	47	135	78.9	92.6	79.1	64.4	5,400
BERYLLIUM	0.62	< 0.61 U	< 0.58 U	< 0.87 U	< 0.64 U	0.47	0.35	150
CADMIUM	< 3.6 U	< 2.1 U	< 1 U	< 1.1 U	< 2.2 U	< 0.86 U	0.97	37 *
CALCIUM	12,300	13,900	26,800	13,000	15,100	13,100	10,500	NC
CHROMIUM	32.3	23	28.1	18.7	20.8	17.2	17.1	210
COBALT	19	17.5	11	12.9	13.7	5.4	7.8	900
COPPER	65.4	29.8	218	41.3	163	19.6	30.5	3,100
IRON	**82,200**	**34,200**	19,700	**23,300**	**28,400**	17,600	19,000	23,000
LEAD	**490 J**	11.6	**298**	30.1	55.3	**154 J**	13.4	150 *
MAGNESIUM	6,750	11,000	6,820	7,490	7,250	5,890	6,710	NC
MANGANESE	669	495	289	331	406	294	365	1,800
MERCURY	0.51	< 0.11 U	0.19	< 0.09 U	< 0.12 U	< 0.11 U	< 0.11 U	23
NICKEL	46.8	42.6	23.4	24.3	32.6	15.8	18.3	1,600
POTASSIUM	1,690	1,470	2,430	2,310	2,490	2,020	1,280	NC
SELENIUM	< 0.64 UJ	< 0.65 U	< 0.66 U	< 0.67 U	< 0.7 U	0.78 J	< 0.66 U	390
SILVER	10.7	< 4.3 U	5.2	< 2.1 U	5.5	< 0.43 U	0.63	390
SODIUM	1,110 J	1,980	1,900	1,440	1,520	1,640	1,340	NC
VANADIUM	40.9	50.9	32.7	45.5	42.3	30.1	30.7	78
ZINC	145	66.2	624	101	176	50.8	60.6	23,000
Organophosphorus pesticides (mg/kg)								
MONOCROTOPHOS (AZODRIN)	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14TP31	S14TP31	S14TP31	S14TP32	S14TP32	S14TP33	S14TP33	EPA Residential Soil PRGs
Sample ID	123-S14-169	123-S14-170	123-S14-171	123-S14-172	123-S14-173	123-S14-174	123-S14-175	
Sample Date	04/22/93	04/22/93	04/22/93	04/23/93	04/23/93	04/22/93	04/22/93	
Sample Depth	7.00 - 7.00	14.00 - 14.00	14.00 - 14.00	5.00 - 5.00	12.00 - 12.00	12.00 - 12.00	16.00 - 16.00	
Volatile Organic Compounds (mg/kg)								
1,1-DICHLOROETHENE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	120
1,2-DICHLOROETHENE (TOTAL)	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	NC
2-BUTANONE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	22,000
2-HEXANONE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	NC
4-METHYL-2-PENTANONE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	5,300
BENZENE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	0.64
CARBON DISULFIDE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	360
CARBON TETRACHLORIDE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	0.25
ETHYLBENZENE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	0.001 J	< 0.011 U	< 0.012 U	400
METHYLENE CHLORIDE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	9.1
TOLUENE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	520
TRICHLOROETHENE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	0.052
XYLENE (TOTAL)	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	0.004 J	< 0.011 U	< 0.012 U	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
OTHER COMPONENTS *	NA	NA	NA	< 1.1 U	< 1.1 U	NA	NA	NC
TPH - DIESEL	NA	NA	NA	< 1.1 U	< 1.1 U	NA	NA	NC
TPH - MOTOR OIL	NA	NA	NA	49	34	NA	NA	NC
Gasoline Range (purgeables)								
OTHER COMPONENTS *	< 0.006 U	< 0.005 U	< 0.005 U	< 0.006 U	3.2	< 0.005 U	< 0.006 U	NC
Semivolatile Organic Compounds (mg/kg)								
1,4-DICHLOROBENZENE	< 0.37 U	< 0.35 U	< 0.35 U	< 0.37 U	< 0.35 U	< 0.36 U	< 0.39 U	3.4
2,4-DIMETHYLPHENOL	< 0.37 U	< 0.35 U	< 0.35 U	< 0.37 U	< 0.35 U	< 0.36 U	< 0.39 U	1,200
2-METHYLNAPHTHALENE	< 0.37 U	< 0.35 U	< 0.35 U	< 0.37 U	< 0.35 U	< 0.36 U	< 0.39 U	NC
2-METHYLPHENOL	< 0.37 U	< 0.35 U	< 0.35 U	< 0.37 U	< 0.35 U	< 0.36 U	< 0.39 U	3,100
4-METHYLPHENOL	< 0.37 U	< 0.35 U	< 0.35 U	< 0.37 U	< 0.35 U	< 0.36 U	< 0.39 U	310
ACENAPHTHENE	< 0.37 U	< 0.35 U	< 0.35 U	< 0.37 U	< 0.35 U	< 0.36 U	0.084 J	3,700
ACENAPHTHYLENE	< 0.37 U	< 0.35 U	< 0.35 U	< 0.37 U	< 0.35 U	< 0.36 U	< 0.39 U	NC
ANTHRACENE	< 0.37 U	< 0.35 U	< 0.35 U	< 0.37 U	< 0.35 U	< 0.36 U	< 0.39 U	22,000
BENZO(A)ANTHRACENE	< 0.37 U	< 0.35 U	< 0.35 U	< 0.37 U	< 0.35 U	0.039 J	< 0.39 U	0.62
BENZO(A)PYRENE	< 0.37 U	< 0.35 U	< 0.35 U	< 0.37 U	< 0.35 U	< 0.36 U	< 0.39 U	0.062
BENZO(B)FLUORANTHENE	< 0.37 U	< 0.35 U	< 0.35 U	< 0.37 U	< 0.35 U	0.038 J	< 0.39 U	0.62

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14TP31	S14TP31	S14TP31	S14TP32	S14TP32	S14TP33	S14TP33	EPA Residential Soil PRGs
Sample ID	123-S14-169	123-S14-170	123-S14-171	123-S14-172	123-S14-173	123-S14-174	123-S14-175	
Sample Date	04/22/93	04/22/93	04/22/93	04/23/93	04/23/93	04/22/93	04/22/93	
Sample Depth	7.00 - 7.00	14.00 - 14.00	14.00 - 14.00	5.00 - 5.00	12.00 - 12.00	12.00 - 12.00	16.00 - 16.00	
Semivolatile Organic Compounds (mg/kg)								
BENZO(G,H,I)PERYLENE	< 0.37 U	< 0.35 U	< 0.35 U	< 0.37 U	< 0.35 U	< 0.36 U	< 0.39 U	NC
BENZO(K)FLUORANTHENE	< 0.37 U	< 0.35 U	< 0.35 U	< 0.37 U	< 0.35 U	0.04 J	< 0.39 U	0.38 *
CARBAZOLE	< 0.37 U	< 0.35 U	< 0.35 U	< 0.37 U	< 0.35 U	< 0.36 U	< 0.39 U	24
CHRYSENE	< 0.37 U	< 0.35 U	< 0.35 U	< 0.37 U	0.05 J	0.046 J	< 0.39 U	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.37 U	< 0.35 U	< 0.35 U	< 0.37 U	< 0.35 U	< 0.36 U	< 0.39 U	0.062
DIBENZOFURAN	< 0.37 U	< 0.35 U	< 0.35 U	< 0.37 U	< 0.35 U	< 0.36 U	< 0.39 U	150
FLUORANTHENE	< 0.37 U	< 0.35 U	< 0.35 U	< 0.37 U	< 0.35 U	0.1 J	< 0.39 U	2,300
FLUORENE	< 0.37 U	< 0.35 U	< 0.35 U	< 0.37 U	< 0.35 U	< 0.36 U	< 0.39 U	2,700
INDENO(1,2,3-CD)PYRENE	< 0.37 U	< 0.35 U	< 0.35 U	< 0.37 U	< 0.35 U	< 0.36 U	< 0.39 U	0.62
NAPHTHALENE	< 0.37 U	< 0.35 U	< 0.35 U	< 0.37 U	< 0.35 U	< 0.36 U	0.051 J	1.7 *
PENTACHLOROPHENOL	< 0.9 U	< 0.85 U	< 0.85 U	< 0.9 U	< 0.86 U	< 0.87 U	< 0.95 U	3.0
PHENANTHRENE	< 0.37 U	< 0.35 U	< 0.35 U	< 0.37 U	< 0.35 U	0.065 J	< 0.39 U	NC
PHENOL	< 0.37 U	< 0.35 U	< 0.35 U	< 0.37 U	< 0.35 U	< 0.36 U	< 0.39 U	18,000
PYRENE	< 0.37 U	< 0.35 U	< 0.35 U	< 0.37 U	< 0.35 U	0.069 J	< 0.39 U	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	0.0084	0.0045 J	< 0.0035 U	0.013 J	0.0026 J	0.017 J	< 0.0039 U	2.4
4,4'-DDE	0.0049	< 0.0035 U	< 0.0035 U	0.031	< 0.0035 U	0.0043 J	< 0.0039 U	1.7
4,4'-DDT	0.02 J	< 0.0035 U	< 0.0035 U	0.042 J	< 0.0035 U	< 0.0036 U	< 0.0039 U	1.7
ALDRIN	< 0.0019 U	< 0.0018 U	< 0.0018 U	< 0.0019 U	< 0.0018 U	< 0.0018 U	< 0.002 U	0.029
ALPHA-BHC	< 0.0019 U	< 0.0018 U	< 0.0018 U	< 0.0019 U	< 0.0018 U	< 0.0018 U	< 0.002 U	0.090
ALPHA-CHLORDANE	< 0.0019 U	< 0.0018 U	< 0.0018 U	< 0.0019 U	< 0.0018 U	< 0.0018 U	< 0.002 U	1.6
AROCLOR-1016	< 0.037 U	< 0.035 U	< 0.035 U	< 0.037 U	< 0.035 U	< 0.036 U	< 0.039 U	3.9
AROCLOR-1254	< 0.037 U	< 0.035 U	< 0.035 U	< 0.037 U	< 0.035 U	< 0.036 U	< 0.039 U	0.22
AROCLOR-1260	0.14	0.21	0.056	0.07 J	**0.31**	**1.4 J**	< 0.039 U	0.22
DIELDRIN	< 0.0037 U	< 0.0035 U	< 0.0035 U	< 0.0037 U	< 0.0035 U	< 0.0036 U	< 0.0039 U	0.030
ENDOSULFAN I	< 0.0019 U	< 0.0018 U	< 0.0018 U	< 0.0019 U	< 0.0018 U	0.0018 J	< 0.002 U	NC
ENDOSULFAN II	< 0.0037 U	< 0.0035 U	< 0.0035 U	0.0021 J	< 0.0035 U	0.023 J	< 0.0039 U	NC
ENDOSULFAN SULFATE	< 0.0037 U	< 0.0035 U	< 0.0035 U	< 0.0037 U	< 0.0035 U	0.016	< 0.0039 U	NC
ENDRIN	< 0.0037 U	< 0.0035 U	< 0.0035 U	< 0.0037 U	0.0029 J	0.0094 J	< 0.0039 U	18
ENDRIN ALDEHYDE	< 0.0037 U	< 0.0035 U	< 0.0035 U	< 0.0037 U	< 0.0035 U	< 0.0036 U	< 0.0039 U	NC
ENDRIN KETONE	< 0.0037 U	< 0.0035 U	< 0.0035 U	< 0.0037 U	< 0.0035 U	< 0.0036 U	< 0.0039 U	NC
GAMMA-CHLORDANE	< 0.0019 U	< 0.0018 U	< 0.0018 U	< 0.0019 U	< 0.0018 U	< 0.0018 U	< 0.002 U	1.6

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14TP31	S14TP31	S14TP31	S14TP32	S14TP32	S14TP33	S14TP33	EPA Residential Soil PRGs
Sample ID	123-S14-169	123-S14-170	123-S14-171	123-S14-172	123-S14-173	123-S14-174	123-S14-175	
Sample Date	04/22/93	04/22/93	04/22/93	04/23/93	04/23/93	04/22/93	04/22/93	
Sample Depth	7.00 - 7.00	14.00 - 14.00	14.00 - 14.00	5.00 - 5.00	12.00 - 12.00	12.00 - 12.00	16.00 - 16.00	
PCBs/Pesticides (mg/kg)								
HEPTACHLOR EPOXIDE	< 0.0019 U	< 0.0018 U	< 0.0018 U	< 0.0019 U	< 0.0018 U	< 0.0018 U	< 0.002 U	0.053
METHOXYCHLOR	< 0.019 U	< 0.018 U	< 0.018 U	< 0.019 U	< 0.018 U	< 0.018 U	< 0.02 U	310
TOXAPHENE	< 0.19 U	< 0.18 U	< 0.18 U	< 0.19 U	< 0.18 U	< 0.18 U	< 0.2 U	0.44
Metals (mg/kg)								
ALUMINUM	10,500	3,720	3,150	12,200	6,460	8,260	3,280	76,000
ANTIMONY	< 8.3 UJ	< 7.7 UJ	< 8.2 UJ	< 7 UJ	< 6.7 UJ	< 7.1 UJ	< 9.4 UJ	31
ARSENIC	**5.1**	**0.95**	**0.75**	**3.6**	**1.3**	**1**	**1.4**	0.39
BARIUM	87.4	30.1	32	107	34.9	28.6	64.5	5,400
BERYLLIUM	< 0.73 U	< 0.38 U	< 0.41 U	0.6	0.24	< 0.35 U	< 0.47 U	150
CADMIUM	< 1 U	< 0.96 U	< 1 U	2.2	1.6	< 0.88 U	< 1.2 U	37 *
CALCIUM	14,400	5,340	5,710	12,800	7,880	7,650	5,620	NC
CHROMIUM	18.2	6.3	5.5	22.4	8.7	10.5	6	210
COBALT	9.9	4.4	3.3	6.3	5.4	9.6	4.2	900
COPPER	19.4	< 6.2 U	< 5.6 U	19.3	10.9	12.8	< 4.4 U	3,100
IRON	17,600	8,240	6,540	21,300	14,600	17,200	6,400	23,000
LEAD	9.9	3.5	3.9	110	2.9	3.6	1.8	150 *
MAGNESIUM	6,010	2,480	1,860	7,280	4,580	5,170	1,670	NC
MANGANESE	321	113	90.8	324	188	278	89.4	1,800
MERCURY	< 0.11 U	< 0.11 U	< 0.11 U	< 0.11 U	< 0.11 U	< 0.11 U	< 0.11 U	23
NICKEL	19.3	9.6	8.2	18.8	9.5	15.6	9.7	1,600
POTASSIUM	2,610	930	869	3,560	702	1,240	1,110	NC
SELENIUM	< 0.62 U	< 0.64 U	< 0.62 U	1	< 0.65 U	< 0.59 U	< 0.7 U	390
SILVER	< 2.1 U	< 1.9 U	< 2.1 U	< 0.45 U	< 0.43 U	< 1.8 U	< 2.3 U	390
SODIUM	1,360	518	455	1,220	854	832	477	NC
VANADIUM	36.1	14.6	12.8	40.9	19.6	29.9	13.8	78
ZINC	51.8	20.8	16.7	61	27.7	33.1	15.5	23,000
Organophosphorus pesticides (mg/kg)								
MONOCROTOPHOS (AZODRIN)	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14TP34	S14TP34	S14TP35	S14TP35	S14TP36	S14TP36	S14TP36	EPA Residential Soil PRGs
Sample ID	123-S14-176	123-S14-177	123-S14-178	123-S14-179	123-S14-180	123-S14-181	123-S14-182	
Sample Date	04/23/93	04/23/93	04/23/93	04/23/93	04/23/93	04/23/93	04/23/93	
Sample Depth	7.00 - 7.00	16.00 - 16.00	8.00 - 8.00	14.00 - 14.00	8.50 - 8.50	8.50 - 8.50	12.00 - 12.00	
Volatile Organic Compounds (mg/kg)								
1,1-DICHLOROETHENE	< 0.011 UJ	< 0.012 UJ	< 0.01 U	< 0.011 UJ	< 0.011 U	< 0.011 U	< 0.013 U	120
1,2-DICHLOROETHENE (TOTAL)	< 0.011 U	< 0.012 U	< 0.01 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.013 U	NC
2-BUTANONE	< 0.011 U	< 0.012 U	< 0.01 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.013 U	22,000
2-HEXANONE	< 0.011 U	< 0.012 U	< 0.01 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.013 U	NC
4-METHYL-2-PENTANONE	< 0.011 U	< 0.012 U	< 0.01 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.013 U	5,300
BENZENE	< 0.011 U	< 0.012 U	< 0.01 U	0.0006 J	< 0.011 U	< 0.011 U	< 0.013 U	0.64
CARBON DISULFIDE	< 0.011 UJ	< 0.012 UJ	< 0.01 U	< 0.011 UJ	< 0.011 U	< 0.011 U	< 0.013 U	360
CARBON TETRACHLORIDE	< 0.011 U	< 0.012 U	< 0.01 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.013 U	0.25
ETHYLBENZENE	< 0.011 U	< 0.012 U	< 0.01 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.013 U	400
METHYLENE CHLORIDE	< 0.011 U	< 0.012 U	< 0.01 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.013 U	9.1
TOLUENE	< 0.011 U	< 0.012 U	< 0.01 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.013 U	520
TRICHLOROETHENE	< 0.011 U	< 0.012 U	< 0.01 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.013 U	0.052
XYLENE (TOTAL)	< 0.011 U	< 0.012 U	< 0.01 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.013 U	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
OTHER COMPONENTS *	< 2.3 U	< 1.1 U	< 2.6 U	< 1.1 U	110	< 1.1 U	580	NC
TPH - DIESEL	< 2.3 U	< 1.1 U	< 2.6 U	< 1.1 U	< 1.1 U	< 1.1 U	< 2.6 U	NC
TPH - MOTOR OIL	830	84	810	150	< 11 U	46	< 26 U	NC
Gasoline Range (purgeables)								
OTHER COMPONENTS *	1.6 J	< 0.006 U	< 0.005 U	10 J	< 0.006 U	< 0.006 U	1.9	NC
Semivolatile Organic Compounds (mg/kg)								
1,4-DICHLOROBENZENE	< 1.8 U	< 0.38 U	< 1.7 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.43 U	3.4
2,4-DIMETHYLPHENOL	< 1.8 U	< 0.38 U	< 1.7 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.43 U	1,200
2-METHYLNAPHTHALENE	< 1.8 U	< 0.38 U	< 1.7 U	0.035 J	< 0.37 U	< 0.38 U	0.12 J	NC
2-METHYLPHENOL	< 1.8 U	< 0.38 U	< 1.7 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.43 U	3,100
4-METHYLPHENOL	< 1.8 U	< 0.38 U	< 1.7 U	< 0.37 U	< 0.37 U	< 0.38 U	0.094 J	310
ACENAPHTHENE	< 1.8 U	< 0.38 U	< 1.7 U	< 0.37 U	0.055 J	< 0.38 U	0.25 J	3,700
ACENAPHTHYLENE	< 1.8 U	< 0.38 U	< 1.7 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.43 U	NC
ANTHRACENE	< 1.8 U	< 0.38 U	< 1.7 U	< 0.37 U	0.026 J	< 0.38 U	0.33 J	22,000
BENZO(A)ANTHRACENE	< 1.8 U	< 0.38 U	< 1.7 U	0.077 J	0.067 J	0.038 J	**0.73**	0.62
BENZO(A)PYRENE	< 1.8 U	**0.066 J**	< 1.7 U	< 0.37 U	**0.08 J**	< 0.38 U	**0.32 J**	0.062
BENZO(B)FLUORANTHENE	< 1.8 U	0.16 J	< 1.7 U	0.14 J	0.15 J	0.07 J	< 0.43 U	0.62

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14TP34	S14TP34	S14TP35	S14TP35	S14TP36	S14TP36	S14TP36	EPA Residential Soil PRGs
Sample ID	123-S14-176	123-S14-177	123-S14-178	123-S14-179	123-S14-180	123-S14-181	123-S14-182	
Sample Date	04/23/93	04/23/93	04/23/93	04/23/93	04/23/93	04/23/93	04/23/93	
Sample Depth	7.00 - 7.00	16.00 - 16.00	8.00 - 8.00	14.00 - 14.00	8.50 - 8.50	8.50 - 8.50	12.00 - 12.00	
Semivolatile Organic Compounds (mg/kg)								
BENZO(G,H,I)PERYLENE	< 1.8 U	< 0.38 U	< 1.7 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.43 U	NC
BENZO(K)FLUORANTHENE	< 1.8 U	< 0.38 U	< 1.7 U	< 0.37 U	0.12 J	0.085 J	**0.98**	0.38 *
CARBAZOLE	< 1.8 U	< 0.38 U	< 1.7 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.43 U	24
CHRYSENE	< 1.8 U	0.086 J	< 1.7 U	0.1 J	0.11 J	0.046 J	0.91	3.8 *
DIBENZ(A,H)ANTHRACENE	< 1.8 U	< 0.38 U	< 1.7 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.43 U	0.062
DIBENZOFURAN	< 1.8 U	< 0.38 U	< 1.7 U	< 0.37 U	< 0.37 U	< 0.38 U	0.14 J	150
FLUORANTHENE	< 1.8 U	0.044 J	< 1.7 U	0.22 J	0.093 J	0.036 J	0.96	2,300
FLUORENE	< 1.8 U	< 0.38 U	< 1.7 U	< 0.37 U	< 0.37 U	< 0.38 U	0.18 J	2,700
INDENO(1,2,3-CD)PYRENE	< 1.8 U	< 0.38 U	< 1.7 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.43 U	0.62
NAPHTHALENE	< 1.8 U	< 0.38 U	< 1.7 U	< 0.37 U	< 0.37 U	< 0.38 U	0.28 J	1.7 *
PENTACHLOROPHENOL	< 4.3 U	< 0.93 U	< 4.2 U	< 0.91 U	< 0.91 U	< 0.92 U	< 1.1 U	3.0
PHENANTHRENE	< 1.8 U	0.027 J	< 1.7 U	0.18 J	0.054 J	< 0.38 U	0.91	NC
PHENOL	< 1.8 U	< 0.38 U	< 1.7 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.43 U	18,000
PYRENE	< 1.8 U	0.035 J	< 1.7 U	0.14 J	0.083 J	0.042 J	0.67	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.0035 U	0.0037 J	< 0.0037 U	0.0062 J	0.0077 J	0.012 J	0.0048 J	2.4
4,4'-DDE	< 0.0035 U	< 0.0038 U	< 0.0037 U	0.0039 J	0.0021 J	0.0034 J	0.0019 J	1.7
4,4'-DDT	0.0052	< 0.0038 U	< 0.0037 U	< 0.019 UJ	< 0.0037 U	< 0.0038 U	< 0.0043 U	1.7
ALDRIN	< 0.0018 U	< 0.002 U	< 0.0019 U	< 0.0097 UJ	< 0.0019 U	< 0.002 U	< 0.0022 U	0.029
ALPHA-BHC	< 0.0018 U	< 0.002 U	< 0.0019 U	< 0.0097 UJ	< 0.0019 U	< 0.002 U	< 0.0022 U	0.090
ALPHA-CHLORDANE	< 0.0018 U	< 0.002 U	< 0.0019 U	< 0.0097 UJ	< 0.0019 U	< 0.002 U	< 0.0022 U	1.6
AROCLOR-1016	< 0.035 U	< 0.038 U	< 0.037 U	< 0.19 UJ	< 0.037 U	< 0.038 U	< 0.043 U	3.9
AROCLOR-1254	< 0.035 U	< 0.038 U	< 0.037 U	< 0.19 UJ	< 0.037 U	< 0.038 U	< 0.043 U	0.22
AROCLOR-1260	0.047	**0.26**	0.096 J	**1.5 J**	**0.39**	**0.42**	0.093	0.22
DIELDRIN	< 0.0035 U	< 0.0038 U	< 0.0037 U	0.0088 J	0.0021 J	0.0028 J	< 0.0043 U	0.030
ENDOSULFAN I	< 0.0018 U	< 0.002 U	< 0.0019 U	< 0.0097 UJ	< 0.0019 U	< 0.002 U	< 0.0022 U	NC
ENDOSULFAN II	< 0.0035 U	0.009 J	0.0029 J	0.058 J	0.012 J	< 0.0038 U	< 0.0043 U	NC
ENDOSULFAN SULFATE	< 0.0035 U	0.0022 J	< 0.0037 U	< 0.019 UJ	< 0.0037 U	< 0.0038 U	< 0.0043 U	NC
ENDRIN	< 0.0035 U	< 0.0038 U	< 0.0037 U	0.0081 J	0.0038 J	0.0048 J	< 0.0043 U	18
ENDRIN ALDEHYDE	< 0.0035 U	0.01	< 0.0037 U	0.039 J	< 0.0037 U	< 0.0038 U	< 0.0043 U	NC
ENDRIN KETONE	< 0.0035 U	< 0.0038 U	< 0.0037 U	< 0.019 UJ	< 0.0037 U	< 0.0038 U	< 0.0043 U	NC
GAMMA-CHLORDANE	< 0.0018 U	< 0.002 U	< 0.0019 U	< 0.0097 UJ	< 0.0019 U	0.00096 J	< 0.0022 U	1.6

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14TP34	S14TP34	S14TP35	S14TP35	S14TP36	S14TP36	S14TP36	EPA Residential Soil PRGs
Sample ID	123-S14-176	123-S14-177	123-S14-178	123-S14-179	123-S14-180	123-S14-181	123-S14-182	
Sample Date	04/23/93	04/23/93	04/23/93	04/23/93	04/23/93	04/23/93	04/23/93	
Sample Depth	7.00 - 7.00	16.00 - 16.00	8.00 - 8.00	14.00 - 14.00	8.50 - 8.50	8.50 - 8.50	12.00 - 12.00	
PCBs/Pesticides (mg/kg)								
HEPTACHLOR EPOXIDE	< 0.0018 U	< 0.002 U	< 0.0019 U	< 0.0097 UJ	< 0.0019 U	< 0.002 U	< 0.0022 U	0.053
METHOXYCHLOR	< 0.018 U	< 0.02 U	0.002 J	< 0.097 UJ	< 0.019 U	< 0.02 U	< 0.022 U	310
TOXAPHENE	< 0.18 U	< 0.2 U	< 0.19 U	< 0.97 UJ	< 0.19 U	< 0.2 U	< 0.22 U	0.44
Metals (mg/kg)								
ALUMINUM	10,500	7,980	4,190	5,640	8,590	6,310	8,060	76,000
ANTIMONY	< 6.7 U	< 7.3 U	< 6.4 UJ	< 7.1 U	< 7 UJ	< 7.1 UJ	< 27.2 UJ	31
ARSENIC	< 4.3 U	**2.5**	**2.2**	**5.6**	**2.5**	**1.5**	< 0.52 U	0.39
BARIUM	20.1	208	30.2	197	88.1	58.4	365	5,400
BERYLLIUM	< 0.22 U	< 0.23 U	0.22	< 0.23 U	0.35	0.3	0.37	150
CADMIUM	< 0.87 U	1.6	< 0.83 U	1	2.2	< 0.92 U	3.2	37 *
CALCIUM	9,840	8,380	6,100	14,300	13,000	8,310	21,000	NC
CHROMIUM	14.5	27.2	7	14	22.7	13.5	134	210
COBALT	12	6.2	3.2 J	4.7	6.5	6.1	7.9	900
COPPER	21.3	412	7	69.3	25.6	26	131	3,100
IRON	**25,900**	**29,000**	10,000	21,100	18,200	14,500	**31,300**	23,000
LEAD	6.6	113	3.9	**160**	11.3	18.5	**260**	150 *
MAGNESIUM	7,730	4,400	3,320	4,490	5,830	4,550	6,080	NC
MANGANESE	319	228	138	292	242	239	478	1,800
MERCURY	< 0.11 U	< 0.12 U	< 0.1 U	0.11	< 0.11 U	< 0.12 U	0.3	23
NICKEL	16.1	21.5	8.8	13.1	17.5	14.7	86.1	1,600
POTASSIUM	915	1,660	605	1,150	1,380	1,280	1,820	NC
SELENIUM	< 0.65 U	< 0.7 U	< 0.62 U	< 0.69 U	0.83	< 0.69 U	< 0.79 U	390
SILVER	0.49	3.9	< 0.41 U	2.4	< 0.45 U	< 0.46 U	4	390
SODIUM	1,610	1,690	695	1,350	1,740	1,530	2,510	NC
VANADIUM	46	28.9	14.2	20.6	34.4	23.3	28.1	78
ZINC	45.1	489	24	270	58.1	57.8	626	23,000
Organophosphorus pesticides (mg/kg)								
MONOCROTOPHOS (AZODRIN)	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14TP37	S14TP37	S14TP38	S14TP38	S14TP39	S14TP39	EPA Residential Soil PRGs
Sample ID	123-S14-183	123-S14-184	123-S14-185	123-S14-186	123-S14-187	123-S14-188	
Sample Date	04/23/93	04/23/93	04/22/93	04/22/93	04/22/93	04/22/93	
Sample Depth	9.00 - 9.00	13.00 - 13.00	10.00 - 10.00	13.50 - 13.50	11.50 - 11.50	14.00 - 14.00	
Volatile Organic Compounds (mg/kg)							
1,1-DICHLOROETHENE	< 0.011 U	< 0.013 U	< 0.011 U	< 0.013 UJ	< 0.011 U	< 0.012 U	120
1,2-DICHLOROETHENE (TOTAL)	< 0.011 U	< 0.013 U	< 0.011 U	< 0.013 UJ	< 0.011 U	< 0.012 U	NC
2-BUTANONE	< 0.011 U	< 0.013 U	< 0.011 U	< 0.013 UJ	< 0.011 U	< 0.012 U	22,000
2-HEXANONE	< 0.011 U	< 0.013 U	< 0.011 U	< 0.013 UJ	< 0.011 U	< 0.012 U	NC
4-METHYL-2-PENTANONE	< 0.011 U	< 0.013 U	< 0.011 U	< 0.013 UJ	< 0.011 U	< 0.012 U	5,300
BENZENE	0.0007 J	0.0009 J	< 0.011 U	< 0.013 UJ	< 0.011 U	< 0.012 U	0.64
CARBON DISULFIDE	< 0.011 U	< 0.013 U	< 0.011 U	< 0.013 UJ	< 0.011 U	< 0.012 U	360
CARBON TETRACHLORIDE	< 0.011 U	< 0.013 U	< 0.011 U	< 0.013 UJ	< 0.011 U	< 0.012 U	0.25
ETHYLBENZENE	< 0.011 U	< 0.013 U	< 0.011 U	< 0.013 UJ	< 0.011 U	< 0.012 U	400
METHYLENE CHLORIDE	< 0.011 U	< 0.013 U	< 0.011 U	< 0.014 UJ	< 0.012 U	< 0.015 U	9.1
TOLUENE	< 0.011 U	< 0.013 U	< 0.011 U	< 0.013 UJ	< 0.011 U	< 0.012 U	520
TRICHLOROETHENE	< 0.011 U	< 0.013 U	< 0.011 U	< 0.013 UJ	< 0.011 U	< 0.012 U	0.052
XYLENE (TOTAL)	< 0.011 U	< 0.013 U	< 0.011 U	< 0.013 UJ	< 0.011 U	< 0.012 U	270
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
OTHER COMPONENTS *	< 1.1 U	170	NA	NA	NA	NA	NC
TPH - DIESEL	< 1.1 U	< 1.3 U	NA	NA	NA	NA	NC
TPH - MOTOR OIL	19	< 13 U	NA	NA	NA	NA	NC
Gasoline Range (purgeables)							
OTHER COMPONENTS *	< 0.006 U	0.89 J	< 0.006 U	< 0.006 U	< 0.006 U	< 0.006 U	NC
Semivolatile Organic Compounds (mg/kg)							
1,4-DICHLOROBENZENE	< 0.37 U	< 0.85 U	< 0.37 U	< 0.43 U	< 0.38 U	< 0.39 U	3.4
2,4-DIMETHYLPHENOL	< 0.37 U	< 0.85 U	< 0.37 U	0.053 J	< 0.38 U	< 0.39 U	1,200
2-METHYLNAPHTHALENE	< 0.37 U	0.037 J	< 0.37 U	0.12 J	< 0.38 U	0.12 J	NC
2-METHYLPHENOL	< 0.37 U	< 0.85 U	< 0.37 U	0.056 J	< 0.38 U	< 0.39 U	3,100
4-METHYLPHENOL	< 0.37 U	< 0.85 U	< 0.37 U	0.25 J	< 0.38 U	0.075 J	310
ACENAPHTHENE	< 0.37 U	0.05 J	< 0.37 U	0.072 J	< 0.38 U	< 0.39 U	3,700
ACENAPHTHYLENE	< 0.37 U	< 0.85 U	< 0.37 U	< 0.43 U	< 0.38 U	< 0.39 U	NC
ANTHRACENE	< 0.37 U	0.082 J	< 0.37 U	0.099 J	< 0.38 U	0.048 J	22,000
BENZO(A)ANTHRACENE	< 0.37 U	0.091 J	< 0.37 U	0.12 J	< 0.38 U	0.061 J	0.62
BENZO(A)PYRENE	< 0.37 U	< 0.85 U	< 0.37 U	< 0.43 U	< 0.38 U	< 0.39 U	0.062
BENZO(B)FLUORANTHENE	< 0.37 U	< 0.85 U	< 0.37 U	0.12 J	0.052 J	< 0.39 U	0.62

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14TP37	S14TP37	S14TP38	S14TP38	S14TP39	S14TP39	EPA Residential Soil PRGs
Sample ID	123-S14-183	123-S14-184	123-S14-185	123-S14-186	123-S14-187	123-S14-188	
Sample Date	04/23/93	04/23/93	04/22/93	04/22/93	04/22/93	04/22/93	
Sample Depth	9.00 - 9.00	13.00 - 13.00	10.00 - 10.00	13.50 - 13.50	11.50 - 11.50	14.00 - 14.00	
Semivolatile Organic Compounds (mg/kg)							
BENZO(G,H,I)PERYLENE	< 0.37 U	< 0.85 U	< 0.37 U	< 0.43 U	< 0.38 U	< 0.39 U	NC
BENZO(K)FLUORANTHENE	< 0.37 U	< 0.85 U	< 0.37 U	0.12 J	0.062 J	< 0.39 U	0.38 *
CARBAZOLE	< 0.37 U	< 0.85 U	< 0.37 U	0.058 J	< 0.38 U	< 0.39 U	24
CHRYSENE	< 0.37 U	0.16 J	< 0.37 U	0.15 J	0.06 J	0.092 J	3.8 *
DIBENZ(A,H)ANTHRACENE	< 0.37 U	< 0.85 U	< 0.37 U	< 0.43 U	< 0.38 U	< 0.39 U	0.062
DIBENZOFURAN	< 0.37 U	< 0.85 U	< 0.37 U	0.067 J	< 0.38 U	0.065 J	150
FLUORANTHENE	< 0.37 U	0.3 J	< 0.37 U	0.44	0.049 J	0.21 J	2,300
FLUORENE	< 0.37 U	< 0.85 U	< 0.37 U	0.094 J	< 0.38 U	< 0.39 U	2,700
INDENO(1,2,3-CD)PYRENE	< 0.37 U	< 0.85 U	< 0.37 U	< 0.43 U	< 0.38 U	< 0.39 U	0.62
NAPHTHALENE	< 0.37 U	0.095 J	< 0.37 U	0.19 J	< 0.38 U	0.23 J	1.7 *
PENTACHLOROPHENOL	< 0.89 U	< 2.1 U	< 0.91 U	< 1 U	< 0.92 U	< 0.95 U	3.0
PHENANTHRENE	< 0.37 U	0.3 J	< 0.37 U	0.39 J	< 0.38 U	0.25 J	NC
PHENOL	< 0.37 U	< 0.85 U	< 0.37 U	< 0.43 U	< 0.38 U	< 0.39 U	18,000
PYRENE	< 0.37 U	0.18 J	< 0.37 U	0.3 J	0.04 J	0.17 J	2,300
PCBs/Pesticides (mg/kg)							
4,4'-DDD	0.015 J	< 0.0042 U	0.0033 J	< 0.0043 U	0.0068 J	< 0.0039 U	2.4
4,4'-DDE	< 0.018 U	< 0.0042 U	< 0.0037 U	< 0.0043 U	0.0022 J	< 0.0039 U	1.7
4,4'-DDT	< 0.018 U	< 0.0042 U	0.0021 J	< 0.0043 U	0.0025 J	0.0032 J	1.7
ALDRIN	< 0.0094 U	< 0.0022 U	< 0.0019 U	< 0.0022 U	< 0.002 U	< 0.002 U	0.029
ALPHA-BHC	< 0.0094 U	< 0.0022 U	< 0.0019 U	< 0.0022 U	< 0.002 U	< 0.002 U	0.090
ALPHA-CHLORDANE	< 0.0094 U	< 0.0022 U	< 0.0019 U	< 0.0022 U	< 0.002 U	< 0.002 U	1.6
AROCLOR-1016	< 0.18 U	< 0.042 U	< 0.037 U	< 0.043 U	< 0.038 U	< 0.039 U	3.9
AROCLOR-1254	< 0.18 U	< 0.042 U	< 0.037 U	< 0.043 U	< 0.038 U	< 0.039 U	0.22
AROCLOR-1260	**1.8**	0.035 J	0.029 J	0.1	**1 J**	0.067	0.22
DIELDRIN	< 0.018 U	< 0.0042 U	< 0.0037 U	< 0.0043 U	< 0.0038 U	< 0.0039 U	0.030
ENDOSULFAN I	< 0.0094 U	< 0.0022 U	< 0.0019 U	< 0.0022 U	< 0.002 U	< 0.002 U	NC
ENDOSULFAN II	0.06 J	< 0.0042 U	< 0.0037 U	< 0.0043 U	< 0.0038 U	< 0.0039 U	NC
ENDOSULFAN SULFATE	< 0.018 U	< 0.0042 U	0.0033 J	< 0.0043 U	< 0.0038 U	< 0.0039 U	NC
ENDRIN	0.017 J	< 0.0042 U	< 0.0037 U	< 0.0043 U	< 0.0038 U	< 0.0039 U	18
ENDRIN ALDEHYDE	< 0.018 U	< 0.0042 U	< 0.0037 U	< 0.0043 U	< 0.0038 U	< 0.0039 U	NC
ENDRIN KETONE	< 0.018 U	< 0.0042 U	< 0.0037 U	< 0.0043 U	< 0.0038 U	< 0.0039 U	NC
GAMMA-CHLORDANE	< 0.0094 U	< 0.0022 U	< 0.0019 U	< 0.0022 U	< 0.002 U	< 0.002 U	1.6

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14TP37	S14TP37	S14TP38	S14TP38	S14TP39	S14TP39	EPA Residential Soil PRGs
Sample ID	123-S14-183	123-S14-184	123-S14-185	123-S14-186	123-S14-187	123-S14-188	
Sample Date	04/23/93	04/23/93	04/22/93	04/22/93	04/22/93	04/22/93	
Sample Depth	9.00 - 9.00	13.00 - 13.00	10.00 - 10.00	13.50 - 13.50	11.50 - 11.50	14.00 - 14.00	
PCBs/Pesticides (mg/kg)							
HEPTACHLOR EPOXIDE	< 0.0094 U	0.0012 J	< 0.0019 U	< 0.0022 U	< 0.002 U	< 0.002 U	0.053
METHOXYCHLOR	< 0.094 U	< 0.022 U	< 0.019 U	< 0.022 U	< 0.02 U	< 0.02 U	310
TOXAPHENE	< 0.94 U	< 0.22 U	< 0.19 U	< 0.22 U	< 0.2 U	< 0.2 U	0.44
Metals (mg/kg)							
ALUMINUM	16,300	7,480	7,460	10,900	8,440	9,040	76,000
ANTIMONY	< 6.9 UJ	< 8 UJ	< 8.4 UJ	< 19.1 UJ	< 17.7 UJ	< 18.7 UJ	31
ARSENIC	**2.5**	< 0.51 U	< 1.6 U	**4.3**	**3.1**	**13.1**	0.39
BARIUM	24.6	380	79.7	366	266	467	5,400
BERYLLIUM	0.38	0.26	< 0.5 U	< 0.7 U	< 0.5 U	< 0.47 U	150
CADMIUM	1.6	1.9	< 1 U	< 2.4 U	2.2	< 2.3 U	37 *
CALCIUM	11,000	26,200	< 7,850 U	17,100	18,600	17,100	NC
CHROMIUM	17.6	25.4	12.8	34.1	22.2	33.3	210
COBALT	16.9	6.1	8.1	16.8	11.8	14.5	900
COPPER	31.2	149	< 11.9 U	153	76.3	131	3,100
IRON	**41,100**	**28,600**	13,400	**34,100**	**32,500**	**40,800**	23,000
LEAD	6.4	**362**	4.2	101	98	**1,010**	150 *
MAGNESIUM	12,800	5,880	< 4,690 U	7,910	6,060	5,910	NC
MANGANESE	774	439	199	483	534	406	1,800
MERCURY	< 0.11 U	< 0.13 U	< 0.11 U	< 0.13 U	< 0.11 U	0.27	23
NICKEL	19.2	18.7	17.6	35	26.3	36.2	1,600
POTASSIUM	903	1,660	< 2,610 U	2,200	1,930	2,130	NC
SELENIUM	< 0.67 U	< 0.77 U	< 0.6 UJ	< 0.77 U	< 0.63 U	< 0.66 U	390
SILVER	< 0.44 U	5.9	< 2.1 U	5.2	6.9	12.2	390
SODIUM	2,880	3,380	< 591 U	2,910	2,550	2,560	NC
VANADIUM	52.3	24.1	27.2	40	35.7	32.9	78
ZINC	61.9	427	< 40.9 U	2,490	228	619	23,000
Organophosphorus pesticides (mg/kg)							
MONOCROTOPHOS (AZODRIN)	NA	NA	NA	NA	NA	NA	NC

TABLE 13-2: ANALYTICAL RESULTS FOR IRP SITE 14 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Notes: Categories of analyses are shown, but only detected compounds are presented. Analyte results in boldface type exceed EPA residential soil PRGs.

*	California modified PRGs
ID	Identification
J	Estimated value
mg/kg	Milligrams per kilogram
NA	Not analyzed
NC	No criteria
PRG	Preliminary remediation goals
R	Result rejected during quality assurance review.
U	Nondetected

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES

Site Management Plan, CBC Port Hueneme

Sample Location ID	14-15HP-GW-12.	14-15HP-GW-12.	S14HP16	S14MW01	S14MW01	S14MW01	S14MW01	EPA Tap Water PRGs
Sample ID	123-S14-189	123-S14-190	123-S14-191	123-S14-192	123-S14-193	123-S14-194	123-S14-195	
Sample Date	04/21/93	04/21/93	04/23/93	05/20/93	08/18/93	11/17/93	02/17/94	
Volatile Organic Compounds (µg/L)								
1,2-DICHLOROETHENE (TOTAL)	1 J	2 J	< 2 U	< 2 U	< 1 U	< 1 U	< 1 U	NC
2-BUTANONE	< 2 U	< 2 U	4	< 2 U	< 3 U	3 R	3 R	7,000
ACETONE	< 2 UJ	12 J	< 2 UJ	< 2 UJ	< 10 U	< 9 UJ	< 4 U	5,500
BENZENE	< 2 U	< 2 U	< 2 U	< 2 U	< 1 U	< 1 U	< 1 U	0.35
BROMODICHLOROMETHANE	< 2 U	< 2 U	< 2 U	< 2 U	< 1 U	< 1 U	< 1 U	0.18
CARBON DISULFIDE	< 2 U	< 2 U	< 2 U	< 2 U	< 1 U	< 1 U	< 1 U	1,000
CARBON TETRACHLORIDE	< 2 U	< 2 U	< 2 U	< 2 U	< 0.5 U	**0.6**	< 0.5 U	0.17
CHLOROBENZENE	< 2 U	< 2 U	< 2 U	< 2 U	< 1 U	< 1 U	< 1 U	110
CHLOROFORM	< 2 U	< 2 U	< 2 U	< 2 U	< 1 U	**2**	< 1 U	0.17
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	61
DIBROMOCHLOROMETHANE	< 2 U	< 2 U	< 2 U	< 2 U	< 1 U	< 1 U	< 1 U	0.13
ETHYLBENZENE	< 2 U	< 2 U	< 2 U	< 2 U	< 1 U	< 1 U	< 1 U	1,300
METHYLENE CHLORIDE	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 6 UJ	< 1 U	4.3
TETRACHLOROETHENE	< 2 U	< 2 U	< 2 U	< 2 U	< 1 U	< 1 U	< 1 U	0.10
TOLUENE	< 2 U	< 2 U	< 2 U	4	< 1 U	< 1 U	< 1 U	720
TRICHLOROETHENE	< 2 U	< 2 U	< 2 U	< 2 U	< 1 U	< 1 U	< 1 U	0.028
XYLENE (TOTAL)	< 2 U	< 2 U	< 2 U	0.3 J	< 1 U	< 1 U	< 1 U	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	NA	NA	NA	< 0.26 U	< 0.25 U	< 0.1 U	NC
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	< 0.5 U	< 0.5 U	< 0.2 U	NC
TPH - DIESEL	0.92	1.2	< 0.05 U	< 0.05 U	NA	NA	NA	NC
TPH - MOTOR OIL	< 0.15 U	< 0.15 U	< 0.5 U	< 0.5 U	NA	NA	NA	NC
TPH - NAVY SPECIAL FUEL OIL	NA	NA	NA	NA	0.43	NA	NA	NC
TPH - UNKNOWN HYDROCARBON	< 0.05 U	< 0.05 U	0.11 J	< 0.05 U	NA	NA	NA	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	< 0.05 U	< 0.05 U	< 0.05 U	NC
Semivolatile Organic Compounds (µg/L)								
1,3-DICHLOROBENZENE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	180
1,4-DICHLOROBENZENE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	0.50
2-METHYLNAPHTHALENE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NC
4-CHLORO-3-METHYLPHENOL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	14-15HP-GW-12.	14-15HP-GW-12.	S14HP16	S14MW01	S14MW01	S14MW01	S14MW01	EPA Tap Water PRGs
Sample ID	123-S14-189	123-S14-190	123-S14-191	123-S14-192	123-S14-193	123-S14-194	123-S14-195	
Sample Date	04/21/93	04/21/93	04/23/93	05/20/93	08/18/93	11/17/93	02/17/94	
Semivolatile Organic Compounds (µg/L)								
ACENAPHTHENE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	370
CARBAZOLE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	3.4
NAPHTHALENE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	0.093 *
PYRENE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	180
PCBs/Pesticides (µg/L)								
None Detected	ND	ND	ND	ND	ND	ND	ND	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	< 125 U	< 125 U	22.5	29.2	136	< 100 U	< 30.1 U	36,000
ANTIMONY	< 200 U	< 200 U	< 31 U	< 31 U	< 50 U	< 50 U	4.7	15
ARSENIC	**28.6**	**12.5 J**	< 2 U	< 5.3 UJ	**4.9**	< 2 U	**6.4**	0.045
BARIUM	35.5 J	31.3	30.9	18.4	< 100 UJ	< 100 U	25.2	2,600
BERYLLIUM	< 10 U	< 10 U	< 1 U	< 1 U	< 2 U	< 2 U	0.73	73
CADMIUM	< 5 UJ	< 5 UJ	6.6	< 4 U	< 4 U	< 4 U	< 2.9 U	18
CALCIUM	668,000	668,000	640,000	219,000	187,000	228,000	236,000	NC
CHROMIUM	< 10 UJ	< 10 UJ	< 3 U	< 3 U	< 5 U	< 5 U	< 3.1 U	NC
COBALT	< 10 U	< 10 U	3.9	< 2 U	< 10 U	< 10 U	< 3.3 U	730
COPPER	41.8	< 25 U	4.4	< 2 U	< 10 U	< 10 U	< 3.3 U	1,500
IRON	**18,100**	**17,600**	1,030	3,240	1,050	575	3,040	11,000
LEAD	< 2 UJ	< 2 UJ	1.1	< 4.5 UJ	2.5	< 2 U	< 3 U	NC
MAGNESIUM	613,000	616,000	531,000	149,000	66,600	75,300	157,000	NC
MANGANESE	**4,530**	**4,430**	**1,780**	813	313	503	814	880
MERCURY	0.6 R	0.2 R	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	NC
MOLYBDENUM	NA	NA	NA	NA	NA	45.5	30.1	180
NICKEL	195	163	10.3	< 7 U	< 20 U	< 20 U	< 6.8 U	730
POTASSIUM	61,200	60,600	32,600	13,700	8,420	5,880	9,740	NC
SELENIUM	< 3 UJ	< 3 UJ	< 30 U	< 30 UJ	1.9 J	2.2 J	< 2 UJ	180
SILVER	< 50 U	< 50 U	3.1	< 2 UJ	< 5 U	< 6 U	< 5.3 U	180
SODIUM	2,700,000 J	2,780,000 J	1,420,000	476,000	190,000	209,000	526,000	NC
THALLIUM	< 10 UJ	< 2 UJ	< 30 U	< 30 UJ	< 2 U	< 2 UJ	< 4 U	2.4
VANADIUM	< 50 U	< 50 U	< 2 U	< 2 U	< 10 U	< 10 U	< 3.8 U	37
ZINC	< 50 U	< 50 U	12.1	< 1.2 U	23.7	< 10 U	< 9.9 U	11,000

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	14-15HP-GW-12.	14-15HP-GW-12.	S14HP16	S14MW01	S14MW01	S14MW01	S14MW01	EPA Tap Water PRGs
Sample ID	123-S14-189	123-S14-190	123-S14-191	123-S14-192	123-S14-193	123-S14-194	123-S14-195	
Sample Date	04/21/93	04/21/93	04/23/93	05/20/93	08/18/93	11/17/93	02/17/94	
Metals (µg/L)								
FIltered								
ALUMINUM	NA	NA	NA	NA	NA	NA	NA	36,000
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	15
ARSENIC	NA	NA	NA	NA	NA	NA	NA	0.045
BARIUM	NA	NA	NA	NA	NA	NA	NA	2,600
BERYLLIUM	NA	NA	NA	NA	NA	NA	NA	73
CADMIUM	NA	NA	NA	NA	NA	NA	NA	18
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NC
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NC
COBALT	NA	NA	NA	NA	NA	NA	NA	730
COPPER	NA	NA	NA	NA	NA	NA	NA	1,500
IRON	NA	NA	NA	NA	NA	NA	NA	11,000
LEAD	NA	NA	NA	NA	NA	NA	NA	NC
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NC
MANGANESE	NA	NA	NA	NA	NA	NA	NA	880
MERCURY	NA	NA	NA	NA	NA	NA	NA	NC
MOLYBDENUM	NA	NA	NA	NA	NA	NA	NA	180
NICKEL	NA	NA	NA	NA	NA	NA	NA	730
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NC
SELENIUM	NA	NA	NA	NA	NA	NA	NA	180
SILVER	NA	NA	NA	NA	NA	NA	NA	180
SODIUM	NA	NA	NA	NA	NA	NA	NA	NC
THALLIUM	NA	NA	NA	NA	NA	NA	NA	2.4
VANADIUM	NA	NA	NA	NA	NA	NA	NA	37
ZINC	NA	NA	NA	NA	NA	NA	NA	11,000
General Mineral								
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NC
IRON	NA	NA	NA	NA	NA	NA	NA	11,000
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NC
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NC
SODIUM	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	14-15HP-GW-12.	14-15HP-GW-12.	S14HP16	S14MW01	S14MW01	S14MW01	S14MW01	
Sample ID	123-S14-189	123-S14-190	123-S14-191	123-S14-192	123-S14-193	123-S14-194	123-S14-195	EPA Tap Water PRGs
Sample Date	04/21/93	04/21/93	04/23/93	05/20/93	08/18/93	11/17/93	02/17/94	
Organophosphorus pesticides (µg/L)								
DICHLORVOS	< 2 U	< 2 U	< 1 U	< 2 U	< 1 U	< 1 U	< 1 U	0.23

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW01	S14MW01	S14MW01	S14MW01	S14MW01	S14MW01	S14MW01	
Sample ID	08797051403BJ	08797051403BJ	08797051404BJ	08797051404BJ	08798012014D	08798040708D	S14-MW01Q1	EPA Tap Water PRGs
Sample Date	05/14/97	05/14/97	05/14/97	05/14/97	01/20/98	04/07/98	06/13/03	
Volatile Organic Compounds (µg/L)								
1,2-DICHLOROETHENE (TOTAL)	< 10 U	NA	< 10 U	NA	NA	NA	NA	NC
2-BUTANONE	< 10 UJ	NA	< 10 UJ	NA	< 1 UJ	< 1 U	< 100 U	7,000
ACETONE	< 10 UJ	NA	< 10 UJ	NA	< 1 UJ	1 R	24 J	5,500
BENZENE	< 10 U	NA	< 10 U	NA	< 0.5 U	< 0.5 U	< 5 U	0.35
BROMODICHLOROMETHANE	< 10 U	NA	< 10 U	NA	< 1 U	< 1 U	< 5 U	0.18
CARBON DISULFIDE	< 10 U	NA	< 10 U	NA	< 1 U	< 1 U	< 5 U	1,000
CARBON TETRACHLORIDE	< 10 U	NA	< 10 U	NA	< 0.5 U	< 0.5 U	< 5 U	0.17
CHLOROBENZENE	< 10 U	NA	< 10 U	NA	< 1 U	< 1 U	< 5 U	110
CHLOROFORM	< 10 U	NA	< 10 U	NA	< 1 U	< 1 U	**2 J**	0.17
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	< 1 U	< 1 U	< 5 U	61
DIBROMOCHLOROMETHANE	< 10 U	NA	< 10 U	NA	< 1 U	< 1 U	< 5 U	0.13
ETHYLBENZENE	< 10 U	NA	< 10 U	NA	< 1 U	< 1 U	< 5 U	1,300
METHYLENE CHLORIDE	< 10 U	NA	< 10 U	NA	< 2 U	< 2 U	2 J	4.3
TETRACHLOROETHENE	< 10 U	NA	< 10 U	NA	< 1 U	< 1 U	< 5 U	0.10
TOLUENE	< 10 U	NA	< 10 U	NA	< 1 U	< 1 U	< 5 U	720
TRICHLOROETHENE	< 10 U	NA	< 10 U	NA	< 1 U	< 1 U	< 5 U	0.028
XYLENE (TOTAL)	< 10 U	NA	< 10 U	NA	< 1 U	< 1 U	< 15 U	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	< 0.1 U	NA	< 0.1 U	NA	< 0.1 U	< 0.1 U	NA	NC
MOTOR OIL RANGE ORGANICS	< 0.5 U	NA	< 0.5 U	NA	< 0.5 U	< 0.5 U	NA	NC
TPH - DIESEL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - MOTOR OIL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - NAVY SPECIAL FUEL OIL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - UNKNOWN HYDROCARBON	NA	NA	NA	NA	NA	NA	NA	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	< 0.05 U	NA	< 0.05 U	NA	< 0.05 U	< 0.05 U	NA	NC
Semivolatile Organic Compounds (µg/L)								
1,3-DICHLOROBENZENE	< 5 U	NA	< 5 U	NA	< 5 U	< 5 U	NA	180
1,4-DICHLOROBENZENE	< 5 U	NA	< 5 U	NA	< 5 U	< 5 U	NA	0.50
2-METHYLNAPHTHALENE	< 10 U	NA	< 10 U	NA	< 10 U	< 10 U	NA	NC
4-CHLORO-3-METHYLPHENOL	< 10 U	NA	< 10 U	NA	< 10 U	< 10 U	NA	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW01	S14MW01	S14MW01	S14MW01	S14MW01	S14MW01	S14MW01	
Sample ID	08797051403BJ	08797051403BJ	08797051404BJ	08797051404BJ	08798012014D	08798040708D	S14-MW01Q1	EPA Tap Water PRGs
Sample Date	05/14/97	05/14/97	05/14/97	05/14/97	01/20/98	04/07/98	06/13/03	
Semivolatile Organic Compounds (µg/L)								
ACENAPHTHENE	< 10 U	NA	< 10 U	NA	< 10 U	< 10 U	NA	370
CARBAZOLE	< 10 UJ	NA	< 10 UJ	NA	< 10 U	< 10 U	NA	3.4
NAPHTHALENE	< 10 U	NA	< 10 U	NA	< 10 U	< 10 U	NA	0.093 *
PYRENE	< 10 U	NA	< 10 U	NA	< 10 U	< 10 U	NA	180
PCBs/Pesticides (µg/L)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	< 202 UJ	NA	< 185 UJ	NA	NA	NA	NA	36,000
ANTIMONY	< 1.4 U	NA	< 1.4 U	NA	NA	NA	6.1	15
ARSENIC	**10.1**	NA	**10.3**	NA	NA	NA	**8.9**	0.045
BARIUM	24.4 J	NA	24.2 J	NA	NA	NA	22.7	2,600
BERYLLIUM	< 0.05 UJ	NA	< 0.03 U	NA	NA	NA	0.16	73
CADMIUM	< 0.22 UJ	NA	< 0.13 U	NA	NA	NA	< 2 U	18
CALCIUM	231,000	NA	223,000	NA	NA	NA	NA	NC
CHROMIUM	< 0.27 U	NA	< 0.27 U	NA	NA	NA	9	NC
COBALT	< 0.4 U	NA	< 0.4 U	NA	NA	NA	< 5 U	730
COPPER	< 1.3 UJ	NA	< 0.59 UJ	NA	NA	NA	73	1,500
IRON	3,880	NA	3,880	NA	NA	NA	NA	11,000
LEAD	< 1 U	NA	1.3	NA	NA	NA	< 5 U	NC
MAGNESIUM	163,000 J	NA	157,000 J	NA	NA	NA	NA	NC
MANGANESE	**928**	NA	**923**	NA	NA	NA	NA	880
MERCURY	< 0.2 U	NA	< 0.2 U	NA	NA	NA	NA	NC
MOLYBDENUM	39.4	NA	38.9	NA	NA	NA	NA	180
NICKEL	< 0.77 U	NA	< 0.77 U	NA	NA	NA	9.8	730
POTASSIUM	14,000	NA	13,700	NA	NA	NA	NA	NC
SELENIUM	< 1.4 U	NA	< 1.4 U	NA	NA	NA	6.2	180
SILVER	< 0.43 U	NA	< 0.43 U	NA	NA	NA	2.7	180
SODIUM	414,000	NA	405,000	NA	NA	NA	NA	NC
THALLIUM	< 1.4 U	NA	< 1.4 U	NA	NA	NA	< 10 U	2.4
VANADIUM	0.9 J	NA	0.52 J	NA	NA	NA	< 10 U	37
ZINC	< 2 UJ	NA	< 1.9 UJ	NA	NA	NA	128	11,000

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW01	S14MW01	S14MW01	S14MW01	S14MW01	S14MW01	S14MW01	
Sample ID	08797051403BJ	08797051403BJ	08797051404BJ	08797051404BJ	08798012014D	08798040708D	S14-MW01Q1	EPA Tap Water PRGs
Sample Date	05/14/97	05/14/97	05/14/97	05/14/97	01/20/98	04/07/98	06/13/03	
Metals (µg/L)								
Filtered								
ALUMINUM	NA	< 12.2 UJ	NA	< 3.2 U	< 6.2 U	< 8.3 UJ	NA	36,000
ANTIMONY	NA	< 1.4 U	NA	< 1.4 U	< 1.8 U	< 2.6 U	NA	15
ARSENIC	NA	**7.7**	NA	**8.2**	< 10 UJ	**10.5**	NA	0.045
BARIUM	NA	20.9 J	NA	21.6 J	21.4 J	25.9 J	NA	2,600
BERYLLIUM	NA	< 0.03 U	NA	< 0.03 U	< 0.05 U	< 0.05 U	NA	73
CADMIUM	NA	< 0.13 U	NA	< 0.13 U	< 0.15 U	< 0.15 U	NA	18
CALCIUM	NA	235,000	NA	236,000	NA	NA	NA	NC
CHROMIUM	NA	< 0.27 U	NA	< 0.27 U	< 0.55 U	< 0.45 U	NA	NC
COBALT	NA	< 0.4 U	NA	< 0.4 U	< 1.7 U	< 0.7 U	NA	730
COPPER	NA	< 0.79 UJ	NA	< 0.43 UJ	< 1.2 U	< 0.6 U	NA	1,500
IRON	NA	2,500	NA	2,450	NA	NA	NA	11,000
LEAD	NA	< 1 U	NA	< 1 U	1.8 R	< 0.9 U	NA	NC
MAGNESIUM	NA	170,000	NA	170,000	NA	NA	NA	NC
MANGANESE	NA	**900**	NA	**911**	**900 J**	**1,050**	NA	880
MERCURY	NA	< 0.1 U	NA	< 0.1 U	< 0.2 UJ	< 0.1 U	NA	NC
MOLYBDENUM	NA	37.8	NA	38.6	39.4	42.4	NA	180
NICKEL	NA	< 0.77 U	NA	< 0.77 U	< 2.1 U	2.6 J	NA	730
POTASSIUM	NA	14,300	NA	13,700	NA	NA	NA	NC
SELENIUM	NA	< 1.4 U	NA	< 2.4 UJ	< 4.7 UJ	< 2.2 U	NA	180
SILVER	NA	< 0.43 U	NA	< 0.43 U	< 2.1 U	< 0.65 U	NA	180
SODIUM	NA	422,000	NA	422,000	NA	NA	NA	NC
THALLIUM	NA	< 1.4 U	NA	< 1.4 U	< 3.2 UJ	**3.8 J**	NA	2.4
VANADIUM	NA	< 0.5 U	NA	< 0.5 U	< 0.8 U	< 0.75 U	NA	37
ZINC	NA	< 1.6 UJ	NA	< 0.84 UJ	< 4.1 UJ	< 5.9 UJ	NA	11,000
General Mineral								
CALCIUM	226,000	NA	234,000	NA	250,000	243,000	NA	NC
IRON	435 J	NA	127 J	NA	3,390 J	< 72.8 U	NA	11,000
MAGNESIUM	172,000	NA	178,000	NA	176,000	175,000	NA	NC
POTASSIUM	12,300 J	NA	12,600 J	NA	15,800 J	15,500 J	NA	NC
SODIUM	445,000 J	NA	467,000 J	NA	474,000 J	474,000	NA	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW01	S14MW01	S14MW01	S14MW01	S14MW01	S14MW01	S14MW01	
Sample ID	08797051403BJ	08797051403BJ	08797051404BJ	08797051404BJ	08798012014D	08798040708D	S14-MW01Q1	EPA Tap Water PRGs
Sample Date	05/14/97	05/14/97	05/14/97	05/14/97	01/20/98	04/07/98	06/13/03	
Organophosphorus pesticides (µg/L)								
DICHLORVOS	NA	NA	NA	NA	NA	NA	NA	0.23

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW01	S14MW01	S14MW01	S14MW02	S14MW02	S14MW02	S14MW02	
Sample ID	S14-MW01Q2	S14-MW01Q3	S14-MW01Q4	123-S14-196	123-S14-197	123-S14-198	123-S14-199	EPA Tap Water PRGs
Sample Date	09/11/03	01/08/04	03/22/04	05/19/93	08/17/93	11/18/93	02/21/94	
Volatile Organic Compounds (µg/L)								
1,2-DICHLOROETHENE (TOTAL)	NA	NA	NA	< 2 U	< 2 U	< 1 U	< 1 U	NC
2-BUTANONE	< 100 U	< 10 U	< 100 U	< 2 U	< 2 U	3 R	< 3 U	7,000
ACETONE	< 50 U	2 J	< 50 U	< 5 UJ	< 4 UJ	2 R	< 2 U	5,500
BENZENE	< 5 U	< 10 U	< 5 U	< 2 U	< 2 U	< 1 U	< 1 U	0.35
BROMODICHLOROMETHANE	< 5 U	< 10 U	< 5 U	< 2 U	< 2 U	< 1 U	< 1 U	0.18
CARBON DISULFIDE	< 5 U	< 10 U	< 5 U	< 2 U	< 2 U	< 1 U	< 1 U	1,000
CARBON TETRACHLORIDE	< 5 U	< 10 U	< 5 U	< 2 U	< 2 U	< 0.5 U	< 0.5 U	0.17
CHLOROBENZENE	< 5 U	< 10 U	< 5 U	< 2 U	< 2 U	< 1 U	< 1 U	110
CHLOROFORM	< 5 U	< 10 U	< 5 U	< 2 U	< 2 U	< 1 U	< 1 U	0.17
CIS-1,2-DICHLOROETHENE	< 5 U	< 1 U	< 5 U	NA	NA	NA	NA	61
DIBROMOCHLOROMETHANE	< 5 U	< 10 U	< 5 U	< 2 U	< 2 U	< 1 U	< 1 U	0.13
ETHYLBENZENE	< 5 U	< 10 U	< 5 U	< 2 U	< 2 U	< 1 U	< 1 U	1,300
METHYLENE CHLORIDE	< 5 U	< 10 U	4 J	< 2 U	< 2 U	< 2 UJ	< 1 U	4.3
TETRACHLOROETHENE	< 5 U	< 10 U	< 5 U	< 2 U	**0.3 J**	< 1 U	< 1 U	0.10
TOLUENE	< 5 U	< 10 U	< 5 U	< 2 U	< 2 U	< 1 U	< 1 U	720
TRICHLOROETHENE	< 5 U	< 10 U	< 5 U	< 2 U	< 2 U	< 1 U	< 1 U	0.028
XYLENE (TOTAL)	< 15 U	< 10 U	< 15 U	< 2 U	< 2 U	< 1 U	< 1 U	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	< 0.48 U	NA	NA	NA	< 0.25 U	NA	NC
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	0.98 Y	NA	NC
TPH - DIESEL	NA	NA	NA	< 0.05 U	< 0.05 U	NA	< 0.1 U	NC
TPH - MOTOR OIL	NA	NA	NA	0.57	< 0.5 U	NA	< 0.2 U	NC
TPH - NAVY SPECIAL FUEL OIL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - UNKNOWN HYDROCARBON	NA	NA	NA	< 0.05 U	< 0.05 U	NA	1.1 Z	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	0.01 J	NA	NA	NA	< 0.05 U	NA	NC
Semivolatile Organic Compounds (µg/L)								
1,3-DICHLOROBENZENE	NA	< 10 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	180
1,4-DICHLOROBENZENE	NA	< 10 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	0.50
2-METHYLNAPHTHALENE	NA	< 10 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	NC
4-CHLORO-3-METHYLPHENOL	NA	< 10 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW01	S14MW01	S14MW01	S14MW02	S14MW02	S14MW02	S14MW02	
Sample ID	S14-MW01Q2	S14-MW01Q3	S14-MW01Q4	123-S14-196	123-S14-197	123-S14-198	123-S14-199	EPA Tap Water PRGs
Sample Date	09/11/03	01/08/04	03/22/04	05/19/93	08/17/93	11/18/93	02/21/94	
Semivolatile Organic Compounds (µg/L)								
ACENAPHTHENE	NA	< 10 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	370
CARBAZOLE	NA	< 10 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	3.4
NAPHTHALENE	NA	< 10 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	0.093 *
PYRENE	NA	< 10 U	NA	< 10 U	< 10 U	< 10 UJ	< 10 U	180
PCBs/Pesticides (µg/L)								
None Detected	NA	ND	NA	ND	ND	ND	ND	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	NA	227	NA	40.4	36.3	< 100 U	< 30.1 U	36,000
ANTIMONY	2.9	< 10 U	< 10 U	< 31 UJ	< 31 UJ	< 50 U	< 20 U	15
ARSENIC	**24.9**	**5.1**	**5.7**	**4.1 J**	**20 R**	< 2 UJ	< 20 U	0.045
BARIUM	29.1	27.3	21.1	71.3	72.7 J	< 100 UJ	68.7	2,600
BERYLLIUM	< 2 U	< 2 U	0.12	< 1 U	< 1 U	2.5	0.59	73
CADMIUM	0.61	< 2 U	< 2 U	< 4 U	< 4 UJ	**30.8**	< 2.9 U	18
CALCIUM	NA	206,000	NA	276,000	303,000	235,000	245,000	NC
CHROMIUM	7	2.9	< 5 U	< 3 U	< 3 U	33.3	12.7	NC
COBALT	< 5 U	< 5 U	< 5 U	4.2 J	< 2 U	31	< 3.3 U	730
COPPER	5.5	86.2	< 10 U	3.1 J	3.3	68.3	3.4	1,500
IRON	NA	3,910	NA	< 26.2 U	8.3 J	1,180	2,450	11,000
LEAD	5.3	2.7	1.6	1.2 J	1 R	< 20 UJ	< 10 U	NC
MAGNESIUM	NA	142,000	NA	140,000	183,000	1,160,000	2,070,000	NC
MANGANESE	NA	844	NA	862	171	862 J	306	880
MERCURY	NA	0.071	NA	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	NC
MOLYBDENUM	NA	27.5	NA	NA	NA	72.4	50.3	180
NICKEL	16.5	5.3	< 5 U	< 7 UJ	7.9	34	< 6.8 U	730
POTASSIUM	NA	25,000	NA	36,400	56,500	159,000	269,000	NC
SELENIUM	< 10 U	3.3	< 10 U	< 30 UJ	< 30 UJ	30 R	< 20 U	180
SILVER	2.5	< 10 U	< 10 U	< 2 UJ	< 2 U	< 6 U	< 5.3 U	180
SODIUM	NA	365,000	NA	569,000	809,000	4,860,000 J	9,340,000	NC
THALLIUM	< 10 U	1.9	**13.2**	< 30 UJ	**30 R**	< 20 UJ	< 40 U	2.4
VANADIUM	< 10 U	< 10 U	< 10 U	< 2 U	2.2	31.1	4	37
ZINC	22.3	31.6	5.6	< 5.6 U	< 11.4 U	< 10 U	46	11,000

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW01	S14MW01	S14MW01	S14MW02	S14MW02	S14MW02	S14MW02	
Sample ID	S14-MW01Q2	S14-MW01Q3	S14-MW01Q4	123-S14-196	123-S14-197	123-S14-198	123-S14-199	EPA Tap Water PRGs
Sample Date	09/11/03	01/08/04	03/22/04	05/19/93	08/17/93	11/18/93	02/21/94	
Metals (µg/L)								
FIltered								
ALUMINUM	NA	62.7	NA	NA	NA	NA	NA	36,000
ANTIMONY	NA	< 10 U	NA	NA	NA	NA	NA	15
ARSENIC	NA	< 5 U	NA	NA	NA	NA	NA	0.045
BARIUM	NA	20.6	NA	NA	NA	NA	NA	2,600
BERYLLIUM	NA	< 2 U	NA	NA	NA	NA	NA	73
CADMIUM	NA	< 2 U	NA	NA	NA	NA	NA	18
CALCIUM	NA	211,000	NA	NA	NA	NA	NA	NC
CHROMIUM	NA	1.2	NA	NA	NA	NA	NA	NC
COBALT	NA	< 5 U	NA	NA	NA	NA	NA	730
COPPER	NA	13.1	NA	NA	NA	NA	NA	1,500
IRON	NA	113	NA	NA	NA	NA	NA	11,000
LEAD	NA	< 5 U	NA	NA	NA	NA	NA	NC
MAGNESIUM	NA	146,000	NA	NA	NA	NA	NA	NC
MANGANESE	NA	856	NA	NA	NA	NA	NA	880
MERCURY	NA	0.1	NA	NA	NA	NA	NA	NC
MOLYBDENUM	NA	28.8	NA	NA	NA	NA	NA	180
NICKEL	NA	1.8	NA	NA	NA	NA	NA	730
POTASSIUM	NA	25,400	NA	NA	NA	NA	NA	NC
SELENIUM	NA	< 10 U	NA	NA	NA	NA	NA	180
SILVER	NA	< 10 U	NA	NA	NA	NA	NA	180
SODIUM	NA	375,000	NA	NA	NA	NA	NA	NC
THALLIUM	NA	2	NA	NA	NA	NA	NA	2.4
VANADIUM	NA	< 10 U	NA	NA	NA	NA	NA	37
ZINC	NA	10.2	NA	NA	NA	NA	NA	11,000
General Mineral								
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NC
IRON	NA	NA	NA	NA	NA	NA	NA	11,000
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NC
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NC
SODIUM	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW01	S14MW01	S14MW01	S14MW02	S14MW02	S14MW02	S14MW02	
Sample ID	S14-MW01Q2	S14-MW01Q3	S14-MW01Q4	123-S14-196	123-S14-197	123-S14-198	123-S14-199	EPA Tap Water PRGs
Sample Date	09/11/03	01/08/04	03/22/04	05/19/93	08/17/93	11/18/93	02/21/94	
Organophosphorus pesticides (µg/L)								
DICHLORVOS	NA	NA	NA	< 2 U	< 2 U	< 1 U	< 1 U	0.23

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW02	S14MW02	S14MW02	S14MW02	S14MW02	S14MW02	S14MW02	
Sample ID	08797051501BJ	08797051501BJ	08797051502BJ	08797051502BJ	08797102108D	08798012018D	08798040620W	EPA Tap Water PRGs
Sample Date	05/15/97	05/15/97	05/15/97	05/15/97	10/21/97	01/20/98	04/06/98	
Volatile Organic Compounds (µg/L)								
1,2-DICHLOROETHENE (TOTAL)	< 10 U	NA	< 10 U	NA	NA	NA	NA	NC
2-BUTANONE	< 10 U	NA	< 10 U	NA	< 1 U	< 1 U	< 1 U	7,000
ACETONE	< 12 UJ	NA	< 10 UJ	NA	< 1 U	< 1 U	< 1 U	5,500
BENZENE	< 10 U	NA	< 10 U	NA	< 0.5 U	< 0.5 U	< 0.5 U	0.35
BROMODICHLOROMETHANE	< 10 U	NA	< 10 U	NA	< 1 U	< 1 U	< 1 U	0.18
CARBON DISULFIDE	< 10 U	NA	< 10 U	NA	< 1 U	< 1 U	< 1 U	1,000
CARBON TETRACHLORIDE	< 10 U	NA	< 10 U	NA	< 0.5 U	< 0.5 U	< 0.5 U	0.17
CHLOROBENZENE	< 10 U	NA	< 10 U	NA	< 1 U	< 1 U	< 1 U	110
CHLOROFORM	< 10 U	NA	< 10 U	NA	< 1 U	< 1 U	< 1 U	0.17
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	< 1 U	< 1 U	< 1 U	61
DIBROMOCHLOROMETHANE	< 10 U	NA	< 10 U	NA	< 1 U	< 1 U	< 1 U	0.13
ETHYLBENZENE	< 10 U	NA	< 10 U	NA	< 1 U	< 1 U	< 1 U	1,300
METHYLENE CHLORIDE	< 10 U	NA	< 10 U	NA	< 2 U	< 2 U	< 2 U	4.3
TETRACHLOROETHENE	< 10 U	NA	< 10 U	NA	< 1 U	< 1 U	**0.4 J**	0.10
TOLUENE	< 10 U	NA	< 10 U	NA	< 1 U	< 1 U	< 1 U	720
TRICHLOROETHENE	< 10 U	NA	< 10 U	NA	< 1 U	< 1 U	< 1 U	0.028
XYLENE (TOTAL)	< 10 U	NA	< 10 U	NA	< 1 U	< 1 U	< 1 U	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	< 0.1 U	NA	< 0.1 U	NA	< 0.1 U	< 0.1 U	< 0.1 UJ	NC
MOTOR OIL RANGE ORGANICS	< 0.5 U	NA	< 0.5 U	NA	< 0.5 U	< 0.5 U	0.6 J	NC
TPH - DIESEL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - MOTOR OIL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - NAVY SPECIAL FUEL OIL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - UNKNOWN HYDROCARBON	NA	NA	NA	NA	NA	NA	NA	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	< 0.05 U	NA	< 0.05 U	NA	< 0.05 U	< 0.05 U	< 0.05 U	NC
Semivolatile Organic Compounds (µg/L)								
1,3-DICHLOROBENZENE	< 5 U	NA	< 5 U	NA	< 5 U	< 5 U	< 5 U	180
1,4-DICHLOROBENZENE	< 5 U	NA	< 5 U	NA	< 5 U	< 5 U	< 5 UJ	0.50
2-METHYLNAPHTHALENE	< 10 U	NA	< 10 U	NA	< 11 U	< 10 U	< 10 U	NC
4-CHLORO-3-METHYLPHENOL	< 10 U	NA	< 10 U	NA	< 11 U	< 10 U	< 10 U	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW02	S14MW02	S14MW02	S14MW02	S14MW02	S14MW02	S14MW02	
Sample ID	08797051501BJ	08797051501BJ	08797051502BJ	08797051502BJ	08797102108D	08798012018D	08798040620W	EPA Tap Water PRGs
Sample Date	05/15/97	05/15/97	05/15/97	05/15/97	10/21/97	01/20/98	04/06/98	
Semivolatile Organic Compounds (µg/L)								
ACENAPHTHENE	< 10 U	NA	< 10 U	NA	< 11 U	< 10 U	< 10 UJ	370
CARBAZOLE	< 10 U	NA	< 10 U	NA	< 11 U	< 10 U	< 10 UJ	3.4
NAPHTHALENE	< 10 U	NA	< 10 U	NA	< 11 U	< 10 U	< 10 U	0.093 *
PYRENE	< 10 U	NA	< 10 U	NA	< 11 U	< 10 U	< 10 U	180
PCBs/Pesticides (µg/L)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	373	NA	639	NA	NA	NA	NA	36,000
ANTIMONY	< 1.4 UJ	NA	< 1.4 UJ	NA	NA	NA	NA	15
ARSENIC	< 2.1 UJ	NA	< 1 U	NA	NA	NA	NA	0.045
BARIUM	74.7 J	NA	72.6 J	NA	NA	NA	NA	2,600
BERYLLIUM	< 0.03 U	NA	< 0.03 U	NA	NA	NA	NA	73
CADMIUM	1.5 J	NA	1.7	NA	NA	NA	NA	18
CALCIUM	212,000	NA	197,000	NA	NA	NA	NA	NC
CHROMIUM	< 0.46 UJ	NA	< 0.93 UJ	NA	NA	NA	NA	NC
COBALT	1.1 J	NA	1.1 J	NA	NA	NA	NA	730
COPPER	7.7 J	NA	8 J	NA	NA	NA	NA	1,500
IRON	2,560 J	NA	2,950 J	NA	NA	NA	NA	11,000
LEAD	< 1 UJ	NA	< 1 UJ	NA	NA	NA	NA	NC
MAGNESIUM	914,000	NA	864,000	NA	NA	NA	NA	NC
MANGANESE	571	NA	502	NA	NA	NA	NA	880
MERCURY	< 0.2 U	NA	< 0.2 U	NA	NA	NA	NA	NC
MOLYBDENUM	55.5	NA	56.1	NA	NA	NA	NA	180
NICKEL	8.5 J	NA	8.6 J	NA	NA	NA	NA	730
POTASSIUM	140,000 J	NA	133,000 J	NA	NA	NA	NA	NC
SELENIUM	8.6 J	NA	< 5.5 UJ	NA	NA	NA	NA	180
SILVER	< 0.43 U	NA	< 0.43 U	NA	NA	NA	NA	180
SODIUM	3,820,000	NA	3,710,000	NA	NA	NA	NA	NC
THALLIUM	< 1.4 UJ	NA	< 1.4 UJ	NA	NA	NA	NA	2.4
VANADIUM	4.3 J	NA	5.4 J	NA	NA	NA	NA	37
ZINC	11.5	NA	12.2	NA	NA	NA	NA	11,000

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW02	S14MW02	S14MW02	S14MW02	S14MW02	S14MW02	S14MW02	
Sample ID	08797051501BJ	08797051501BJ	08797051502BJ	08797051502BJ	08797102108D	08798012018D	08798040620W	EPA Tap Water PRGs
Sample Date	05/15/97	05/15/97	05/15/97	05/15/97	10/21/97	01/20/98	04/06/98	
Metals (µg/L)								
FIltered								
ALUMINUM	NA	< 3.2 U	NA	< 3.2 U	< 21.9 U	654	< 4 U	36,000
ANTIMONY	NA	< 1.4 U	NA	3.1 J	< 2.9 U	< 4.3 UJ	< 2.6 U	15
ARSENIC	NA	< 2.7 UJ	NA	< 3 UJ	**9 J**	**5.6 J**	< 1.8 U	0.045
BARIUM	NA	78.9	NA	75.7	89.9 J	77.6 J	70 J	2,600
BERYLLIUM	NA	< 0.13 UJ	NA	< 0.13 UJ	< 0.1 U	< 0.05 U	< 0.05 U	73
CADMIUM	NA	1.1 J	NA	1.2 J	2 J	0.4 J	0.23 J	18
CALCIUM	NA	209,000	NA	209,000	NA	NA	NA	NC
CHROMIUM	NA	< 0.27 U	NA	< 0.79 UJ	1.9 J	0.61 J	< 0.45 U	NC
COBALT	NA	0.63 J	NA	1.1 J	2.4 J	< 0.85 U	< 0.7 U	730
COPPER	NA	5.4 J	NA	5.1 J	4 J	< 3.7 UJ	6.2 J	1,500
IRON	NA	1,710	NA	1,750	NA	NA	NA	11,000
LEAD	NA	< 0.63 U	NA	< 0.63 U	< 1.7 U	< 1.8 U	< 1.3 UJ	NC
MAGNESIUM	NA	909,000	NA	887,000	NA	NA	NA	NC
MANGANESE	NA	209	NA	193	598	150	61	880
MERCURY	NA	< 0.1 U	NA	< 0.1 U	0.27	< 0.2 U	< 0.1 U	NC
MOLYBDENUM	NA	59.9	NA	60.7	74.4	43.4	38	180
NICKEL	NA	5 J	NA	5 J	< 9 UJ	5.5 J	< 4 UJ	730
POTASSIUM	NA	133,000	NA	130,000 J	NA	NA	NA	NC
SELENIUM	NA	7	NA	7.5	14.4 J	< 8.6 U	2 J	180
SILVER	NA	< 0.43 U	NA	< 0.43 U	1.3 J	< 2.1 U	< 1.3 U	180
SODIUM	NA	4,750,000	NA	4,460,000	NA	NA	NA	NC
THALLIUM	NA	< 1.4 U	NA	< 1.4 U	< 4.1 U	< 3.2 UJ	< 3.4 U	2.4
VANADIUM	NA	5 J	NA	4.8 J	3 J	2.4 J	3.3 J	37
ZINC	NA	3.9 J	NA	4.6 J	< 11 UJ	6.9 J	< 7.4 UJ	11,000
General Mineral								
CALCIUM	244,000	NA	244,000	NA	352,000	211,000	166,000	NC
IRON	456 J	NA	470 J	NA	4,450	1,340 J	199 J	11,000
MAGNESIUM	1,110,000	NA	1,110,000	NA	2,480,000	442,000	294,000	NC
POTASSIUM	177,000 J	NA	177,000 J	NA	423,000	76,000	40,900	NC
SODIUM	4,400,000 J	NA	4,440,000 J	NA	11,500,000	1,690,000	1,370,000	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW02	S14MW02	S14MW02	S14MW02	S14MW02	S14MW02	S14MW02	
Sample ID	08797051501BJ	08797051501BJ	08797051502BJ	08797051502BJ	08797102108D	08798012018D	08798040620W	EPA Tap Water PRGs
Sample Date	05/15/97	05/15/97	05/15/97	05/15/97	10/21/97	01/20/98	04/06/98	
Organophosphorus pesticides (µg/L)								
DICHLORVOS	NA	NA	NA	NA	NA	NA	NA	0.23

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW02	S14MW02	S14MW02	S14MW02	S14MW03	S14MW03	S14MW03	EPA Tap Water PRGs
Sample ID	S14-MW02Q1	S14-MW02Q2	S14-MW-02Q3	S14-MW02Q4	123-S14-200	123-S14-202	123-S14-203	
Sample Date	06/13/03	09/11/03	01/07/04	03/22/04	05/18/93	08/17/93	11/18/93	
Volatile Organic Compounds (µg/L)								
1,2-DICHLOROETHENE (TOTAL)	NA	NA	NA	NA	< 2 U	< 2 U	< 1 U	NC
2-BUTANONE	< 100 U	< 100 U	< 10 U	< 100 U	< 2 U	< 2 U	3 R	7,000
ACETONE	27 J	< 50 U	< 10 U	< 50 U	< 4 UJ	< 8 UJ	2 R	5,500
BENZENE	< 5 U	< 5 U	< 10 U	< 5 U	< 2 U	< 2 U	< 1 U	0.35
BROMODICHLOROMETHANE	< 5 U	< 5 U	< 10 U	< 5 U	< 2 U	< 2 U	< 1 U	0.18
CARBON DISULFIDE	< 5 U	< 5 U	< 10 U	< 5 U	< 2 U	< 2 U	< 1 U	1,000
CARBON TETRACHLORIDE	< 5 U	< 5 U	< 10 U	< 5 U	< 2 U	< 2 U	< 0.5 U	0.17
CHLOROBENZENE	< 5 U	< 5 U	< 10 U	< 5 U	< 2 U	< 2 U	< 1 U	110
CHLOROFORM	**2 J**	< 5 U	< 10 U	< 5 U	< 2 U	< 2 U	< 1 U	0.17
CIS-1,2-DICHLOROETHENE	< 5 U	< 5 U	< 1 U	< 5 U	NA	NA	NA	61
DIBROMOCHLOROMETHANE	< 5 U	< 5 U	< 10 U	< 5 U	< 2 U	< 2 U	< 1 U	0.13
ETHYLBENZENE	< 5 U	< 5 U	< 10 U	< 5 U	< 2 U	< 2 U	< 1 U	1,300
METHYLENE CHLORIDE	2 J	< 5 U	0.3 J	4 J	< 2 U	< 2 U	< 1 UJ	4.3
TETRACHLOROETHENE	< 5 U	< 5 U	< 10 U	< 5 U	< 2 U	< 2 U	< 1 U	0.10
TOLUENE	< 5 U	< 5 U	< 10 U	< 5 U	< 2 U	< 2 U	< 1 U	720
TRICHLOROETHENE	< 5 U	< 5 U	< 10 U	< 5 U	< 2 U	< 2 U	< 1 U	0.028
XYLENE (TOTAL)	< 15 U	< 15 U	< 10 U	< 15 U	< 2 U	< 2 U	< 1 U	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	NA	0.04 J	NA	NA	NA	0.77	NC
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	< 0.5 U	NC
TPH - DIESEL	NA	NA	NA	NA	< 0.05 U	< 0.05 U	NA	NC
TPH - MOTOR OIL	NA	NA	NA	NA	< 0.5 UJ	< 0.5 U	NA	NC
TPH - NAVY SPECIAL FUEL OIL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - UNKNOWN HYDROCARBON	NA	NA	NA	NA	< 0.05 U	< 0.05 U	NA	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	NA	0.01 J	NA	NA	NA	< 0.05 U	NC
Semivolatile Organic Compounds (µg/L)								
1,3-DICHLOROBENZENE	NA	NA	< 10 U	NA	< 10 U	< 10 U	< 10 U	180
1,4-DICHLOROBENZENE	NA	NA	< 10 U	NA	< 10 U	< 10 U	< 10 U	0.50
2-METHYLNAPHTHALENE	NA	NA	< 10 U	NA	< 10 U	< 10 U	< 10 U	NC
4-CHLORO-3-METHYLPHENOL	NA	NA	< 10 U	NA	< 10 U	< 10 U	< 10 U	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW02	S14MW02	S14MW02	S14MW02	S14MW03	S14MW03	S14MW03	
Sample ID	S14-MW02Q1	S14-MW02Q2	S14-MW-02Q3	S14-MW02Q4	123-S14-200	123-S14-202	123-S14-203	EPA Tap Water PRGs
Sample Date	06/13/03	09/11/03	01/07/04	03/22/04	05/18/93	08/17/93	11/18/93	
Semivolatile Organic Compounds (µg/L)								
ACENAPHTHENE	NA	NA	< 10 U	NA	< 10 U	< 10 U	< 10 U	370
CARBAZOLE	NA	NA	< 10 U	NA	< 10 U	< 10 U	< 10 U	3.4
NAPHTHALENE	NA	NA	< 10 U	NA	< 10 U	< 10 U	< 10 U	0.093 *
PYRENE	NA	NA	< 10 U	NA	< 10 U	< 10 U	< 10 UJ	180
PCBs/Pesticides (µg/L)								
None Detected	NA	NA	ND	NA	ND	ND	ND	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	NA	NA	239	NA	< 69.5 UJ	62.9	< 100 U	36,000
ANTIMONY	4	< 10 U	< 10 U	< 10 U	< 31 UJ	< 31 UJ	< 50 U	15
ARSENIC	**10.1**	**6.3**	< 5 U	< 5 U	**20 R**	**26.9 J**	< 20 U	0.045
BARIUM	81.7	39.8	38.6	27.7	61 J	28.8 J	< 100 U	2,600
BERYLLIUM	0.11	< 2 U	< 2 U	0.12	< 1 U	< 1 U	< 2 U	73
CADMIUM	< 2 U	0.48	1	< 2 U	< 4 U	< 4 UJ	< 4 U	18
CALCIUM	NA	NA	112,000	NA	651,000 J	419,000	346,000	NC
CHROMIUM	16.2	4.5	0.8	< 5 U	3.8	< 3 U	10.5	NC
COBALT	< 5 U	< 5 U	< 5 U	2.1	4.3 J	< 2 U	< 10 U	730
COPPER	7.2	7.2	7	< 10 U	4.7	< 2 U	80.1	1,500
IRON	NA	NA	377	NA	1,450 J	4,310	6,290	11,000
LEAD	< 5 U	1.7	< 5 U	< 5 U	16.8 J	7 J	< 20 U	NC
MAGNESIUM	NA	NA	51,000	NA	1,480,000 J	2,200,000	2,790,000	NC
MANGANESE	NA	NA	35.6	NA	**3,560 J**	**2,250**	**1,620**	880
MERCURY	NA	NA	0.11	NA	< 0.2 U	< 0.2 U	< 0.2 U	NC
MOLYBDENUM	NA	NA	29.9	NA	NA	NA	52.5	180
NICKEL	13.2	5	2.4	2.5	< 7 U	< 7 U	< 20 U	730
POTASSIUM	NA	NA	31,800	NA	115,000	258,000	379,000	NC
SELENIUM	3.1	< 10 U	3.6	< 10 U	66.6 J	36.6 J	< 20 UJ	180
SILVER	2.7	1.1	< 10 U	< 10 U	< 2 UJ	< 2 U	< 6 U	180
SODIUM	NA	NA	186,000	NA	6,060,000	10,100,000	12,500,000	NC
THALLIUM	**3.4**	1.4	2.3	< 10 U	**30 R**	**30 R**	< 20 U	2.4
VANADIUM	2.7	2.6	2.3	1.2	< 5.7 U	6.1	< 10 U	37
ZINC	< 10 U	13.6	13	< 10 U	< 7.1 UJ	< 10.3 U	< 10 U	11,000

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW02	S14MW02	S14MW02	S14MW02	S14MW03	S14MW03	S14MW03	
Sample ID	S14-MW02Q1	S14-MW02Q2	S14-MW-02Q3	S14-MW02Q4	123-S14-200	123-S14-202	123-S14-203	EPA Tap Water PRGs
Sample Date	06/13/03	09/11/03	01/07/04	03/22/04	05/18/93	08/17/93	11/18/93	
Metals (µg/L)								
FIltered								
ALUMINUM	NA	NA	50.6	NA	NA	NA	NA	36,000
ANTIMONY	NA	NA	< 10 U	NA	NA	NA	NA	15
ARSENIC	NA	NA	< 5 U	NA	NA	NA	NA	0.045
BARIUM	NA	NA	37.2	NA	NA	NA	NA	2,600
BERYLLIUM	NA	NA	< 2 U	NA	NA	NA	NA	73
CADMIUM	NA	NA	< 2 U	NA	NA	NA	NA	18
CALCIUM	NA	NA	116,000	NA	NA	NA	NA	NC
CHROMIUM	NA	NA	< 5 U	NA	NA	NA	NA	NC
COBALT	NA	NA	< 5 U	NA	NA	NA	NA	730
COPPER	NA	NA	7.2	NA	NA	NA	NA	1,500
IRON	NA	NA	27.1	NA	NA	NA	NA	11,000
LEAD	NA	NA	3.1	NA	NA	NA	NA	NC
MAGNESIUM	NA	NA	56,000	NA	NA	NA	NA	NC
MANGANESE	NA	NA	7.1	NA	NA	NA	NA	880
MERCURY	NA	NA	0.098	NA	NA	NA	NA	NC
MOLYBDENUM	NA	NA	30.4	NA	NA	NA	NA	180
NICKEL	NA	NA	1.7	NA	NA	NA	NA	730
POTASSIUM	NA	NA	34,200	NA	NA	NA	NA	NC
SELENIUM	NA	NA	4.1	NA	NA	NA	NA	180
SILVER	NA	NA	< 10 U	NA	NA	NA	NA	180
SODIUM	NA	NA	217,000	NA	NA	NA	NA	NC
THALLIUM	NA	NA	**2.5**	NA	NA	NA	NA	2.4
VANADIUM	NA	NA	1.4	NA	NA	NA	NA	37
ZINC	NA	NA	18.8	NA	NA	NA	NA	11,000
General Mineral								
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NC
IRON	NA	NA	NA	NA	NA	NA	NA	11,000
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NC
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NC
SODIUM	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW02	S14MW02	S14MW02	S14MW02	S14MW03	S14MW03	S14MW03	
Sample ID	S14-MW02Q1	S14-MW02Q2	S14-MW-02Q3	S14-MW02Q4	123-S14-200	123-S14-202	123-S14-203	EPA Tap Water PRGs
Sample Date	06/13/03	09/11/03	01/07/04	03/22/04	05/18/93	08/17/93	11/18/93	
Organophosphorus pesticides (µg/L)								
DICHLORVOS	NA	NA	NA	NA	< 2 U	< 2 U	< 1 U	0.23

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW03	S14MW03	S14MW03	S14MW03	S14MW03	S14MW03	S14MW03	
Sample ID	123-S14-204	08797051305BJ	08797051305BJ	08797102112D	08798012121D	08798040210W	S14-MW03Q1	EPA Tap Water PRGs
Sample Date	02/21/94	05/13/97	05/13/97	10/21/97	01/21/98	04/02/98	06/13/03	
Volatile Organic Compounds (µg/L)								
1,2-DICHLOROETHENE (TOTAL)	< 1 U	< 10 U	NA	NA	NA	NA	NA	NC
2-BUTANONE	< 3 U	< 10 UJ	NA	< 1 U	< 1 U	< 1 U	3 J	7,000
ACETONE	< 6 U	< 12 UJ	NA	< 1 U	1 R	12	29 J	5,500
BENZENE	< 1 U	< 10 U	NA	< 0.5 U	< 0.5 U	< 0.5 U	< 5 U	0.35
BROMODICHLOROMETHANE	< 1 U	< 10 U	NA	< 1 U	< 1 U	< 1 U	< 5 U	0.18
CARBON DISULFIDE	< 1 U	< 10 U	NA	< 1 U	< 1 U	< 1 U	< 5 U	1,000
CARBON TETRACHLORIDE	< 0.5 U	< 10 U	NA	< 0.5 U	< 0.5 U	< 0.5 U	< 5 U	0.17
CHLOROBENZENE	< 1 U	< 10 U	NA	< 1 U	< 1 U	< 1 U	< 5 U	110
CHLOROFORM	< 1 U	< 10 U	NA	< 1 U	< 1 U	< 1 UJ	**2 J**	0.17
CIS-1,2-DICHLOROETHENE	NA	NA	NA	< 1 U	< 1 U	< 1 U	< 5 U	61
DIBROMOCHLOROMETHANE	< 1 U	< 10 U	NA	< 1 U	< 1 U	< 1 U	< 5 U	0.13
ETHYLBENZENE	< 1 U	< 10 U	NA	< 1 U	< 1 U	< 1 U	< 5 U	1,300
METHYLENE CHLORIDE	< 1 U	< 10 U	NA	< 2 U	< 2 U	< 2 U	2 J	4.3
TETRACHLOROETHENE	< 1 U	< 10 U	NA	< 1 U	< 1 U	< 1 U	< 5 U	0.10
TOLUENE	< 1 U	< 10 U	NA	< 1 U	< 1 U	< 1 U	< 5 U	720
TRICHLOROETHENE	< 1 U	< 10 U	NA	< 1 U	< 1 U	< 1 U	< 5 U	0.028
XYLENE (TOTAL)	< 1 U	< 10 U	NA	< 1 U	< 1 U	< 1 U	< 15 U	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	< 0.1 U	NA	< 0.1 U	0.2 Y	< 0.1 U	NA	NC
MOTOR OIL RANGE ORGANICS	NA	< 0.51 U	NA	< 0.5 U	< 0.5 U	< 0.5 U	NA	NC
TPH - DIESEL	< 0.1 U	NA	NA	NA	NA	NA	NA	NC
TPH - MOTOR OIL	< 0.2 U	NA	NA	NA	NA	NA	NA	NC
TPH - NAVY SPECIAL FUEL OIL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - UNKNOWN HYDROCARBON	0.64 Z	NA	NA	NA	NA	NA	NA	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	< 0.05 U	NA	< 0.05 U	< 0.05 U	< 0.05 U	NA	NC
Semivolatile Organic Compounds (µg/L)								
1,3-DICHLOROBENZENE	< 10 U	< 5 U	NA	< 5 U	< 5 U	< 5 U	NA	180
1,4-DICHLOROBENZENE	< 10 U	< 5 U	NA	< 5 U	< 5 U	< 5 U	NA	0.50
2-METHYLNAPHTHALENE	< 10 U	< 10 U	NA	< 10 U	< 10 U	< 11 U	NA	NC
4-CHLORO-3-METHYLPHENOL	< 10 U	< 10 U	NA	< 10 U	< 10 U	< 11 U	NA	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW03	S14MW03	S14MW03	S14MW03	S14MW03	S14MW03	S14MW03	
Sample ID	123-S14-204	08797051305BJ	08797051305BJ	08797102112D	08798012121D	08798040210W	S14-MW03Q1	EPA Tap Water PRGs
Sample Date	02/21/94	05/13/97	05/13/97	10/21/97	01/21/98	04/02/98	06/13/03	
Semivolatile Organic Compounds (µg/L)								
ACENAPHTHENE	< 10 U	< 10 U	NA	< 10 U	< 10 U	< 11 U	NA	370
CARBAZOLE	< 10 U	< 10 UJ	NA	< 10 U	< 10 U	< 11 U	NA	3.4
NAPHTHALENE	< 10 U	< 10 U	NA	< 10 U	< 10 U	< 11 U	NA	0.093 *
PYRENE	< 10 U	< 10 U	NA	< 10 U	< 10 U	< 11 U	NA	180
PCBs/Pesticides (µg/L)								
None Detected	ND	NA	NA	NA	NA	NA	NA	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	< 30.1 U	< 80.3 UJ	NA	NA	NA	NA	NA	36,000
ANTIMONY	< 20 U	< 1.4 UJ	NA	NA	NA	NA	3.5	15
ARSENIC	< 20 U	**10.6**	NA	NA	NA	NA	**19.9**	0.045
BARIUM	16.7	36.8 J	NA	NA	NA	NA	24	2,600
BERYLLIUM	< 0.4 U	< 0.14 UJ	NA	NA	NA	NA	0.24	73
CADMIUM	< 2.9 U	< 0.82 UJ	NA	NA	NA	NA	< 2 U	18
CALCIUM	383,000	223,000	NA	NA	NA	NA	NA	NC
CHROMIUM	10.6	< 0.27 UJ	NA	NA	NA	NA	4.4	NC
COBALT	< 3.3 U	2.9 J	NA	NA	NA	NA	< 5 U	730
COPPER	9.1	< 0.4 U	NA	NA	NA	NA	< 10 U	1,500
IRON	2,660	9,900 J	NA	NA	NA	NA	NA	11,000
LEAD	< 10 U	< 1 UJ	NA	NA	NA	NA	< 5 U	NC
MAGNESIUM	1,560,000	2,750,000	NA	NA	NA	NA	NA	NC
MANGANESE	224	**1,830**	NA	NA	NA	NA	NA	880
MERCURY	< 0.2 U	< 0.1 UJ	NA	NA	NA	NA	NA	NC
MOLYBDENUM	48.1	67	NA	NA	NA	NA	NA	180
NICKEL	< 6.8 U	3.5 J	NA	NA	NA	NA	2.2	730
POTASSIUM	181,000	456,000 J	NA	NA	NA	NA	NA	NC
SELENIUM	< 100 U	< 1.4 UJ	NA	NA	NA	NA	< 10 U	180
SILVER	< 5.3 U	< 0.43 U	NA	NA	NA	NA	2.9	180
SODIUM	7,230,000	12,600,000	NA	NA	NA	NA	NA	NC
THALLIUM	< 40 U	< 1.4 UJ	NA	NA	NA	NA	**4.9**	2.4
VANADIUM	< 3.8 U	4.6 J	NA	NA	NA	NA	2.6	37
ZINC	38	< 5.5 UJ	NA	NA	NA	NA	< 10 U	11,000

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW03	S14MW03	S14MW03	S14MW03	S14MW03	S14MW03	S14MW03	
Sample ID	123-S14-204	08797051305BJ	08797051305BJ	08797102112D	08798012121D	08798040210W	S14-MW03Q1	EPA Tap Water PRGs
Sample Date	02/21/94	05/13/97	05/13/97	10/21/97	01/21/98	04/02/98	06/13/03	
Metals (µg/L)								
Filtered								
ALUMINUM	NA	NA	< 4.2 U	< 21.9 U	< 18.7 UJ	< 4 U	NA	36,000
ANTIMONY	NA	NA	< 1.4 U	< 2.9 U	< 1.8 U	< 2.6 U	NA	15
ARSENIC	NA	NA	**10.3**	**10.2**	< 10.3 UJ	**10**	NA	0.045
BARIUM	NA	NA	48.5 J	29.6 J	47.8 J	62.4 J	NA	2,600
BERYLLIUM	NA	NA	< 0.29 UJ	< 0.1 U	< 0.05 U	< 0.05 U	NA	73
CADMIUM	NA	NA	0.47 J	< 0.4 U	0.25 J	< 0.51 UJ	NA	18
CALCIUM	NA	NA	338,000	NA	NA	NA	NA	NC
CHROMIUM	NA	NA	< 0.61 UJ	3.1 J	< 0.55 U	3.3 J	NA	NC
COBALT	NA	NA	2 J	< 1.3 U	< 1.7 U	2.5 J	NA	730
COPPER	NA	NA	< 0.4 U	< 1.1 U	1.2 J	< 0.6 U	NA	1,500
IRON	NA	NA	7,100 J	NA	NA	NA	NA	11,000
LEAD	NA	NA	< 0.63 UJ	< 1.7 U	1.8 R	< 1.3 U	NA	NC
MAGNESIUM	NA	NA	2,930,000	NA	NA	NA	NA	NC
MANGANESE	NA	NA	**1,490**	628	678 J	710	NA	880
MERCURY	NA	NA	< 0.1 U	0.24	< 0.2 UJ	< 0.1 U	NA	NC
MOLYBDENUM	NA	NA	55.5	62.5	50.6	61.2	NA	180
NICKEL	NA	NA	< 3.8 UJ	2.8 J	3.3 J	5.2 J	NA	730
POTASSIUM	NA	NA	425,000 J	NA	NA	NA	NA	NC
SELENIUM	NA	NA	< 1.4 U	13.7 J	< 9.9 UJ	17.7 J	NA	180
SILVER	NA	NA	< 0.43 U	2.9 J	< 2.1 U	3.2 J	NA	180
SODIUM	NA	NA	13,900,000	NA	NA	NA	NA	NC
THALLIUM	NA	NA	< 1.4 UJ	< 4.1 U	< 3.2 UJ	< 3.4 U	NA	2.4
VANADIUM	NA	NA	5.3 J	1.4 J	1.7 J	< 2.5 UJ	NA	37
ZINC	NA	NA	2.8 J	< 9.6 UJ	< 6.8 UJ	< 0.8 U	NA	11,000
General Mineral								
CALCIUM	NA	504	NA	407,000	494,000	508,000	NA	NC
IRON	NA	9.1 J	NA	9,000	4,350 J	772 J	NA	11,000
MAGNESIUM	NA	5,040	NA	3,380,000	1,890,000	3,300,000	NA	NC
POTASSIUM	NA	5,440	NA	460,000	330,000 J	447,000	NA	NC
SODIUM	NA	141,000	NA	16,100,000	6,800,000 J	16,400,000	NA	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW03	S14MW03	S14MW03	S14MW03	S14MW03	S14MW03	S14MW03	
Sample ID	123-S14-204	08797051305BJ	08797051305BJ	08797102112D	08798012121D	08798040210W	S14-MW03Q1	EPA Tap Water PRGs
Sample Date	02/21/94	05/13/97	05/13/97	10/21/97	01/21/98	04/02/98	06/13/03	
Organophosphorus pesticides (µg/L)								
DICHLORVOS	< 1 U	NA	NA	NA	NA	NA	NA	0.23

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW03	S14MW03	S14MW03	S14MW04	S14MW04	S14MW04	S14MW04	
Sample ID	S14-MW03Q2	S14-MW-03Q3	S14-MW03Q4	123-S14-205	123-S14-206	123-S14-207	123-S14-208	EPA Tap Water PRGs
Sample Date	09/11/03	01/07/04	03/22/04	05/18/93	08/16/93	11/18/93	02/22/94	
Volatile Organic Compounds (µg/L)								
1,2-DICHLOROETHENE (TOTAL)	NA	NA	NA	< 2 U	< 1 U	< 1 U	< 1 U	NC
2-BUTANONE	< 100 U	< 10 U	< 100 U	< 2 U	< 3 U	3 R	< 3 U	7,000
ACETONE	12 J	2 J	< 50 U	< 3 UJ	< 2 U	2 R	< 8 U	5,500
BENZENE	< 5 U	< 10 U	< 5 U	< 2 U	< 1 U	< 1 U	< 1 U	0.35
BROMODICHLOROMETHANE	< 5 U	< 10 U	< 5 U	< 2 U	< 1 U	< 1 U	< 1 U	0.18
CARBON DISULFIDE	< 5 U	< 10 U	< 5 U	< 2 U	< 1 U	< 1 U	< 1 U	1,000
CARBON TETRACHLORIDE	< 5 U	< 10 U	< 5 U	< 2 U	< 0.5 U	< 0.5 U	< 0.5 U	0.17
CHLOROBENZENE	< 5 U	< 10 U	< 5 U	< 2 U	< 1 U	< 1 U	< 1 U	110
CHLOROFORM	< 5 U	< 10 U	< 5 U	< 2 U	< 1 U	< 1 U	< 1 U	0.17
CIS-1,2-DICHLOROETHENE	< 5 U	< 1 U	< 5 U	NA	NA	NA	NA	61
DIBROMOCHLOROMETHANE	< 5 U	< 10 U	< 5 U	< 2 U	< 1 U	< 1 U	< 1 U	0.13
ETHYLBENZENE	< 5 U	< 10 U	< 5 U	< 2 U	< 1 U	< 1 U	< 1 U	1,300
METHYLENE CHLORIDE	< 5 U	0.3 J	4 J	< 2 U	< 3 U	< 4 UJ	< 1 U	4.3
TETRACHLOROETHENE	< 5 U	< 10 U	< 5 U	< 2 U	< 1 U	< 1 U	< 1 U	0.10
TOLUENE	< 5 U	< 10 U	< 5 U	< 2 U	< 1 U	< 1 U	< 1 U	720
TRICHLOROETHENE	< 5 U	< 10 U	< 5 U	< 2 U	< 1 U	< 1 U	< 1 U	0.028
XYLENE (TOTAL)	< 15 U	< 10 U	< 15 U	< 2 U	< 1 U	< 1 U	< 1 U	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	0.3 J	NA	NA	< 0.25 U	0.38	NA	NC
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	< 0.5 U	< 0.5 U	NA	NC
TPH - DIESEL	NA	NA	NA	< 0.05 U	NA	NA	< 0.1 U	NC
TPH - MOTOR OIL	NA	NA	NA	< 0.5 UJ	NA	NA	< 0.2 U	NC
TPH - NAVY SPECIAL FUEL OIL	NA	NA	NA	NA	< 0.25 U	NA	NA	NC
TPH - UNKNOWN HYDROCARBON	NA	NA	NA	< 0.05 U	NA	NA	0.48 Z	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	0.01 J	NA	NA	< 0.05 U	< 0.05 U	NA	NC
Semivolatile Organic Compounds (µg/L)								
1,3-DICHLOROBENZENE	NA	< 10 U	NA	< 10 U	< 10 U	< 50 U	< 10 U	180
1,4-DICHLOROBENZENE	NA	< 10 U	NA	< 10 U	< 10 U	< 50 U	< 10 U	0.50
2-METHYLNAPHTHALENE	NA	< 10 U	NA	< 10 U	< 10 U	< 50 U	< 10 U	NC
4-CHLORO-3-METHYLPHENOL	NA	< 10 U	NA	< 10 U	< 10 U	< 50 U	< 10 U	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW03	S14MW03	S14MW03	S14MW04	S14MW04	S14MW04	S14MW04	
Sample ID	S14-MW03Q2	S14-MW-03Q3	S14-MW03Q4	123-S14-205	123-S14-206	123-S14-207	123-S14-208	EPA Tap Water PRGs
Sample Date	09/11/03	01/07/04	03/22/04	05/18/93	08/16/93	11/18/93	02/22/94	
Semivolatile Organic Compounds (µg/L)								
ACENAPHTHENE	NA	< 10 U	NA	< 10 U	< 10 U	< 50 U	< 10 U	370
CARBAZOLE	NA	< 10 U	NA	< 10 U	< 10 U	< 50 U	< 10 U	3.4
NAPHTHALENE	NA	< 10 U	NA	< 10 U	< 10 U	< 50 U	< 10 U	0.093 *
PYRENE	NA	< 10 U	NA	< 10 U	< 10 U	< 50 U	< 10 U	180
PCBs/Pesticides (µg/L)								
None Detected	NA	ND	NA	ND	ND	ND	ND	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	NA	56.1	NA	< 81 UJ	< 100 U	< 100 U	< 30.1 U	36,000
ANTIMONY	< 10 U	8.1	< 10 U	< 31 UJ	**62.1**	< 50 U	< 20 U	15
ARSENIC	**1.9**	< 5 U	**16.1**	**2 R**	< 2 U	< 2 U	< 20 U	0.045
BARIUM	48.8	41.8	22.8	26.6 J	< 100 UJ	< 100 U	22.9	2,600
BERYLLIUM	0.096	< 2 U	0.16	< 1 U	< 2 U	< 2 U	0.82	73
CADMIUM	< 2 U	0.79	< 2 U	< 4 U	< 4 U	< 4 U	< 2.9 U	18
CALCIUM	NA	416,000	NA	560,000 J	512,000	400,000	448,000	NC
CHROMIUM	5.5	< 5 U	2.6	3.1	5.9	9.8	12	NC
COBALT	9	3.2	1.7	< 2 U	< 10 U	< 10 U	< 3.3 U	730
COPPER	6.6	4.9	< 10 U	5.9	< 19.2 U	63	5.7	1,500
IRON	NA	5,000	NA	304 J	1,070	2,250	1,030	11,000
LEAD	3.2	< 5 U	< 5 U	3.5 J	< 2 U	< 20 U	< 10 U	NC
MAGNESIUM	NA	1,400,000	NA	349,000 J	394,000	1,970,000	1,540,000	NC
MANGANESE	NA	**1,140**	NA	370 J	434	453	303	880
MERCURY	NA	< 0.5 U	NA	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	NC
MOLYBDENUM	NA	18.1	NA	NA	NA	63.3	59.9	180
NICKEL	9.7	5.1	2.5	< 7 U	< 20 U	< 20 U	7.6	730
POTASSIUM	NA	279,000	NA	47,300	60,700	239,000	199,000	NC
SELENIUM	< 10 U	< 10 U	< 10 U	43.4 J	10.9 J	< 20 UJ	< 20 U	180
SILVER	5.4	< 10 U	< 10 U	< 2.3 UJ	< 5 U	< 6 U	< 5.3 U	180
SODIUM	NA	6,560,000	NA	1,220,000	1,350,000	8,920,000	7,230,000	NC
THALLIUM	< 10 U	< 10 U	**43**	**30 R**	< 2 U	< 20 U	< 40 U	2.4
VANADIUM	1.5	2	1.6	< 2 U	< 17.2 U	< 10 U	< 3.8 U	37
ZINC	< 10 U	14.4	7.6	< 5.7 UJ	14.9	34.4	150	11,000

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW03	S14MW03	S14MW03	S14MW04	S14MW04	S14MW04	S14MW04	
Sample ID	S14-MW03Q2	S14-MW-03Q3	S14-MW03Q4	123-S14-205	123-S14-206	123-S14-207	123-S14-208	EPA Tap Water PRGs
Sample Date	09/11/03	01/07/04	03/22/04	05/18/93	08/16/93	11/18/93	02/22/94	
Metals (µg/L)								
FIltered								
ALUMINUM	NA	72.1	NA	NA	NA	NA	NA	36,000
ANTIMONY	NA	8.8	NA	NA	NA	NA	NA	15
ARSENIC	NA	< 5 U	NA	NA	NA	NA	NA	0.045
BARIUM	NA	36.8	NA	NA	NA	NA	NA	2,600
BERYLLIUM	NA	< 2 U	NA	NA	NA	NA	NA	73
CADMIUM	NA	0.8	NA	NA	NA	NA	NA	18
CALCIUM	NA	424,000	NA	NA	NA	NA	NA	NC
CHROMIUM	NA	2.1	NA	NA	NA	NA	NA	NC
COBALT	NA	2.4	NA	NA	NA	NA	NA	730
COPPER	NA	8.5	NA	NA	NA	NA	NA	1,500
IRON	NA	3,700	NA	NA	NA	NA	NA	11,000
LEAD	NA	< 5 U	NA	NA	NA	NA	NA	NC
MAGNESIUM	NA	1,650,000	NA	NA	NA	NA	NA	NC
MANGANESE	NA	**1,030**	NA	NA	NA	NA	NA	880
MERCURY	NA	< 0.5 U	NA	NA	NA	NA	NA	NC
MOLYBDENUM	NA	17.7	NA	NA	NA	NA	NA	180
NICKEL	NA	4.5	NA	NA	NA	NA	NA	730
POTASSIUM	NA	326,000	NA	NA	NA	NA	NA	NC
SELENIUM	NA	< 10 U	NA	NA	NA	NA	NA	180
SILVER	NA	< 10 U	NA	NA	NA	NA	NA	180
SODIUM	NA	7,500,000	NA	NA	NA	NA	NA	NC
THALLIUM	NA	< 10 U	NA	NA	NA	NA	NA	2.4
VANADIUM	NA	1.5	NA	NA	NA	NA	NA	37
ZINC	NA	20	NA	NA	NA	NA	NA	11,000
General Mineral								
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NC
IRON	NA	NA	NA	NA	NA	NA	NA	11,000
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NC
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NC
SODIUM	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW03	S14MW03	S14MW03	S14MW04	S14MW04	S14MW04	S14MW04	
Sample ID	S14-MW03Q2	S14-MW-03Q3	S14-MW03Q4	123-S14-205	123-S14-206	123-S14-207	123-S14-208	EPA Tap Water PRGs
Sample Date	09/11/03	01/07/04	03/22/04	05/18/93	08/16/93	11/18/93	02/22/94	
Organophosphorus pesticides (µg/L)								
DICHLORVOS	NA	NA	NA	< 2 U	< 1 U	< 1 U	< 1 U	0.23

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW04	S14MW04	S14MW04	S14MW04	S14MW04	S14MW04	S14MW04	
Sample ID	08797050802BJ	08797050802BJ	08797102114D	08798012122D	08798040211W	S14-MW04Q1	S14-MW04Q2	EPA Tap Water PRGs
Sample Date	05/08/97	05/08/97	10/21/97	01/21/98	04/02/98	06/13/03	09/11/03	
Volatile Organic Compounds (µg/L)								
1,2-DICHLOROETHENE (TOTAL)	< 10 U	NA	NA	NA	NA	NA	NA	NC
2-BUTANONE	< 10 UJ	NA	< 1 U	< 1 U	< 1 U	< 100 U	< 100 U	7,000
ACETONE	< 10 UJ	NA	1 R	< 1 U	< 4 UJ	28 J	< 50 U	5,500
BENZENE	< 10 U	NA	< 0.5 U	< 0.5 U	< 0.5 U	< 5 U	< 5 U	0.35
BROMODICHLOROMETHANE	< 10 U	NA	< 1 U	< 1 U	< 1 U	< 5 U	< 5 U	0.18
CARBON DISULFIDE	< 10 U	NA	< 1 U	< 1 U	< 1 U	< 5 U	< 5 U	1,000
CARBON TETRACHLORIDE	< 10 U	NA	< 0.5 U	< 0.5 U	< 0.5 U	< 5 U	< 5 U	0.17
CHLOROBENZENE	< 10 U	NA	< 1 U	< 1 U	< 1 U	< 5 U	< 5 U	110
CHLOROFORM	< 10 U	NA	< 1 U	< 1 U	< 1 UJ	**2 J**	< 5 U	0.17
CIS-1,2-DICHLOROETHENE	NA	NA	< 1 U	< 1 U	< 1 U	< 5 U	< 5 U	61
DIBROMOCHLOROMETHANE	< 10 U	NA	< 1 U	< 1 U	< 1 U	< 5 U	< 5 U	0.13
ETHYLBENZENE	< 10 U	NA	< 1 U	< 1 U	< 1 U	< 5 U	< 5 U	1,300
METHYLENE CHLORIDE	< 10 U	NA	< 2 U	< 2 U	< 2 U	2 J	< 5 U	4.3
TETRACHLOROETHENE	< 10 U	NA	< 1 U	< 1 U	< 1 U	< 5 U	< 5 U	0.10
TOLUENE	< 10 U	NA	< 1 U	< 1 U	< 1 U	< 5 U	< 5 U	720
TRICHLOROETHENE	< 10 U	NA	< 1 U	< 1 U	< 1 U	< 5 U	< 5 U	0.028
XYLENE (TOTAL)	< 10 U	NA	< 1 U	< 1 U	< 1 U	< 15 U	< 15 U	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	< 0.1 UJ	NA	< 0.1 U	< 0.1 U	< 0.1 U	NA	NA	NC
MOTOR OIL RANGE ORGANICS	< 0.51 U	NA	< 0.6 U	< 0.5 U	< 0.5 U	NA	NA	NC
TPH - DIESEL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - MOTOR OIL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - NAVY SPECIAL FUEL OIL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - UNKNOWN HYDROCARBON	NA	NA	NA	NA	NA	NA	NA	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	< 0.05 U	NA	< 0.05 UJ	< 0.05 U	< 0.05 U	NA	NA	NC
Semivolatile Organic Compounds (µg/L)								
1,3-DICHLOROBENZENE	< 5 U	NA	< 5 U	< 5 U	< 5 U	NA	NA	180
1,4-DICHLOROBENZENE	< 5 U	NA	< 5 U	< 5 U	< 5 U	NA	NA	0.50
2-METHYLNAPHTHALENE	< 10 U	NA	< 10 U	< 10 U	< 10 U	NA	NA	NC
4-CHLORO-3-METHYLPHENOL	< 10 U	NA	< 10 U	< 10 U	< 10 U	NA	NA	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW04	S14MW04	S14MW04	S14MW04	S14MW04	S14MW04	S14MW04	
Sample ID	08797050802BJ	08797050802BJ	08797102114D	08798012122D	08798040211W	S14-MW04Q1	S14-MW04Q2	EPA Tap Water PRGs
Sample Date	05/08/97	05/08/97	10/21/97	01/21/98	04/02/98	06/13/03	09/11/03	
Semivolatile Organic Compounds (µg/L)								
ACENAPHTHENE	< 10 U	NA	< 10 U	< 10 U	< 10 U	NA	NA	370
CARBAZOLE	< 10 U	NA	< 10 U	< 10 U	< 10 U	NA	NA	3.4
NAPHTHALENE	< 10 U	NA	< 10 U	< 10 U	< 10 U	NA	NA	0.093 *
PYRENE	< 10 U	NA	< 10 U	< 10 U	< 10 U	NA	NA	180
PCBs/Pesticides (µg/L)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	196 J	NA	NA	NA	NA	NA	NA	36,000
ANTIMONY	1.4 R	NA	NA	NA	NA	5.1	2.7	15
ARSENIC	**18.3**	NA	NA	NA	NA	**41.6**	**22.2**	0.045
BARIUM	60.7 J	NA	NA	NA	NA	33.2	33.3	2,600
BERYLLIUM	< 0.16 UJ	NA	NA	NA	NA	0.13	< 2 U	73
CADMIUM	1.5 J	NA	NA	NA	NA	< 2 U	< 2 U	18
CALCIUM	505,000	NA	NA	NA	NA	NA	NA	NC
CHROMIUM	< 0.27 UJ	NA	NA	NA	NA	11.4	3.3	NC
COBALT	1.5 J	NA	NA	NA	NA	1	0.77	730
COPPER	8.2 J	NA	NA	NA	NA	2.9	7.7	1,500
IRON	**14,000 J**	NA	NA	NA	NA	NA	NA	11,000
LEAD	1.6 J	NA	NA	NA	NA	< 5 U	2.6	NC
MAGNESIUM	1,610,000	NA	NA	NA	NA	NA	NA	NC
MANGANESE	561	NA	NA	NA	NA	NA	NA	880
MERCURY	< 0.2 U	NA	NA	NA	NA	NA	NA	NC
MOLYBDENUM	53.4	NA	NA	NA	NA	NA	NA	180
NICKEL	8.4 J	NA	NA	NA	NA	9.9	6.6	730
POTASSIUM	269,000 J	NA	NA	NA	NA	NA	NA	NC
SELENIUM	10	NA	NA	NA	NA	6.8	< 10 U	180
SILVER	< 0.43 U	NA	NA	NA	NA	3.3	4.5	180
SODIUM	6,960,000	NA	NA	NA	NA	NA	NA	NC
THALLIUM	< 1.4 UJ	NA	NA	NA	NA	**3**	< 10 U	2.4
VANADIUM	9.2 J	NA	NA	NA	NA	3	1.8	37
ZINC	< 8.5 UJ	NA	NA	NA	NA	< 10 U	16.8	11,000

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW04	S14MW04	S14MW04	S14MW04	S14MW04	S14MW04	S14MW04	
Sample ID	08797050802BJ	08797050802BJ	08797102114D	08798012122D	08798040211W	S14-MW04Q1	S14-MW04Q2	EPA Tap Water PRGs
Sample Date	05/08/97	05/08/97	10/21/97	01/21/98	04/02/98	06/13/03	09/11/03	
Metals (µg/L)								
Filtered								
ALUMINUM	NA	< 4.2 U	< 110 U	< 6.2 U	< 19 UJ	NA	NA	36,000
ANTIMONY	NA	< 1.2 U	< 14.5 U	< 1.8 U	2.8 J	NA	NA	15
ARSENIC	NA	**6**	< 12.5 U	**9.8 J**	< 1.8 U	NA	NA	0.045
BARIUM	NA	39.4 J	41.3 J	30.3 J	21.6 J	NA	NA	2,600
BERYLLIUM	NA	< 0.07 U	< 0.5 U	< 0.16 UJ	< 0.05 U	NA	NA	73
CADMIUM	NA	< 0.7 UJ	< 2 U	0.34 J	< 0.49 UJ	NA	NA	18
CALCIUM	NA	522,000	NA	NA	NA	NA	NA	NC
CHROMIUM	NA	< 0.4 U	< 4.5 U	< 0.55 U	< 0.45 U	NA	NA	NC
COBALT	NA	0.82 J	< 6.5 U	< 0.85 U	0.85 J	NA	NA	730
COPPER	NA	5.8 J	< 5.5 U	< 2.4 UJ	< 0.6 U	NA	NA	1,500
IRON	NA	517 J	NA	NA	NA	NA	NA	11,000
LEAD	NA	< 0.63 U	< 8.5 U	< 1.8 U	< 1.3 U	NA	NA	NC
MAGNESIUM	NA	1,570,000	NA	NA	NA	NA	NA	NC
MANGANESE	NA	423 J	456	272	400	NA	NA	880
MERCURY	NA	< 0.1 U	0.3 J	0.2 J	< 0.1 U	NA	NA	NC
MOLYBDENUM	NA	56.5 J	98.2	69.9	26.4	NA	NA	180
NICKEL	NA	7.5 J	16.2 J	7 J	7.7 J	NA	NA	730
POTASSIUM	NA	270,000 J	NA	NA	NA	NA	NA	NC
SELENIUM	NA	13	21.5 J	< 11.3 U	7.7 J	NA	NA	180
SILVER	NA	< 0.5 U	< 5.5 U	< 2.1 U	< 0.65 U	NA	NA	180
SODIUM	NA	7,140,000 J	NA	NA	NA	NA	NA	NC
THALLIUM	NA	< 1.4 U	< 30 U	< 3.2 UJ	< 3.4 U	NA	NA	2.4
VANADIUM	NA	< 0.57 U	< 6 U	< 0.8 U	< 1 UJ	NA	NA	37
ZINC	NA	8	19.5 J	3.6 J	< 0.8 U	NA	NA	11,000
General Mineral								
CALCIUM	501,000	NA	483,000	561,000	592,000	NA	NA	NC
IRON	440 J	NA	**30,200 J**	2,150 J	87.4 J	NA	NA	11,000
MAGNESIUM	1,630,000	NA	1,600,000	1,260,000	400,000	NA	NA	NC
POTASSIUM	295,000 J	NA	323,000 J	192,000	42,500	NA	NA	NC
SODIUM	6,910,000 J	NA	7,790,000	4,660,000	1,110,000	NA	NA	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW04	S14MW04	S14MW04	S14MW04	S14MW04	S14MW04	S14MW04	
Sample ID	08797050802BJ	08797050802BJ	08797102114D	08798012122D	08798040211W	S14-MW04Q1	S14-MW04Q2	EPA Tap Water PRGs
Sample Date	05/08/97	05/08/97	10/21/97	01/21/98	04/02/98	06/13/03	09/11/03	
Organophosphorus pesticides (µg/L)								
DICHLORVOS	NA	NA	NA	NA	NA	NA	NA	0.23

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW04	S14MW04	S14MW04	S14MW05	S14MW05	S14MW05	S14MW05	
Sample ID	S14-MW04Q3	S14-MW04Q4	W03-1Q4	123-S14-209	123-S14-210	123-S14-211	123-S14-212	EPA Tap Water PRGs
Sample Date	01/08/04	03/22/04	03/22/04	05/21/93	08/16/93	11/23/93	11/23/93	
Volatile Organic Compounds (µg/L)								
1,2-DICHLOROETHENE (TOTAL)	NA	NA	NA	< 2 U	< 1 U	< 1 U	< 1 U	NC
2-BUTANONE	< 10 U	< 100 U	< 100 U	< 2 U	< 3 U	3 R	3 R	7,000
ACETONE	1 J	< 50 U	< 50 U	< 2 UJ	< 17 U	2 R	2 R	5,500
BENZENE	< 10 U	< 5 U	< 5 U	< 2 U	< 1 U	< 1 U	< 1 U	0.35
BROMODICHLOROMETHANE	< 10 U	< 5 U	< 5 U	< 2 U	< 1 U	< 1 U	< 1 U	0.18
CARBON DISULFIDE	< 10 U	< 5 U	< 5 U	< 2 U	< 1 U	< 1 U	< 1 U	1,000
CARBON TETRACHLORIDE	< 10 U	< 5 U	< 5 U	< 2 U	< 0.5 U	< 0.5 U	< 0.5 U	0.17
CHLOROBENZENE	< 10 U	< 5 U	< 5 U	< 2 U	< 1 U	< 1 U	< 1 U	110
CHLOROFORM	< 10 U	< 5 U	< 5 U	< 2 U	< 1 U	< 1 U	< 1 U	0.17
CIS-1,2-DICHLOROETHENE	< 1 U	< 5 U	< 5 U	NA	NA	NA	NA	61
DIBROMOCHLOROMETHANE	< 10 U	< 5 U	< 5 U	< 2 U	< 1 U	< 1 U	< 1 U	0.13
ETHYLBENZENE	< 10 U	< 5 U	< 5 U	< 2 U	< 1 U	< 1 U	< 1 U	1,300
METHYLENE CHLORIDE	0.3 J	4 J	4 J	< 2 U	< 4 U	< 1 UJ	< 1 U	4.3
TETRACHLOROETHENE	< 10 U	< 5 U	< 5 U	< 2 U	< 1 U	< 1 U	< 1 U	0.10
TOLUENE	< 10 U	< 5 U	< 5 U	1 J	< 1 U	< 1 U	< 1 U	720
TRICHLOROETHENE	< 10 U	< 5 U	< 5 U	< 2 U	< 1 U	< 1 U	< 1 U	0.028
XYLENE (TOTAL)	< 10 U	< 15 U	< 15 U	< 2 U	< 1 U	< 1 U	< 1 U	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	0.04 J	NA	NA	NA	< 0.25 U	< 0.25 U	< 0.25 U	NC
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	< 0.5 U	< 0.5 U	< 0.5 U	NC
TPH - DIESEL	NA	NA	NA	< 0.05 U	NA	NA	NA	NC
TPH - MOTOR OIL	NA	NA	NA	< 0.5 U	NA	NA	NA	NC
TPH - NAVY SPECIAL FUEL OIL	NA	NA	NA	NA	0.25	NA	NA	NC
TPH - UNKNOWN HYDROCARBON	NA	NA	NA	< 0.05 U	NA	NA	NA	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	0.009 J	NA	NA	NA	< 0.05 U	< 0.05 U	< 0.05 U	NC
Semivolatile Organic Compounds (µg/L)								
1,3-DICHLOROBENZENE	< 10 U	NA	NA	< 10 U	< 10 U	< 10 U	< 10 U	180
1,4-DICHLOROBENZENE	< 10 U	NA	NA	< 10 U	< 10 U	< 10 U	< 10 U	0.50
2-METHYLNAPHTHALENE	< 10 U	NA	NA	< 10 U	< 10 U	< 10 U	< 10 U	NC
4-CHLORO-3-METHYLPHENOL	< 10 U	NA	NA	< 10 U	< 10 U	< 10 U	< 10 U	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW04	S14MW04	S14MW04	S14MW05	S14MW05	S14MW05	S14MW05	EPA Tap Water PRGs
Sample ID	S14-MW04Q3	S14-MW04Q4	W03-1Q4	123-S14-209	123-S14-210	123-S14-211	123-S14-212	
Sample Date	01/08/04	03/22/04	03/22/04	05/21/93	08/16/93	11/23/93	11/23/93	
Semivolatile Organic Compounds (µg/L)								
ACENAPHTHENE	< 10 U	NA	NA	< 10 U	< 10 U	< 10 U	< 10 U	370
CARBAZOLE	< 10 U	NA	NA	< 10 U	< 10 U	< 10 U	< 10 U	3.4
NAPHTHALENE	< 10 U	NA	NA	< 10 U	< 10 U	< 10 U	< 10 U	0.093 *
PYRENE	< 10 U	NA	NA	< 10 U	< 10 U	< 10 U	< 10 U	180
PCBs/Pesticides (µg/L)								
None Detected	ND	NA	NA	ND	ND	ND	ND	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	122	NA	NA	27	< 100 U	< 100 U	< 100 U	36,000
ANTIMONY	2.5	< 10 U	< 10 U	< 31 U	< 50 U	< 50 U	< 50 U	15
ARSENIC	< 5 U	< 5 U	< 5 U	< 6.8 UJ	**9.4**	**5.6 J**	**4.8 J**	0.045
BARIUM	26.7	29.8	27.6	68	< 100 UJ	< 100 UJ	< 100 UJ	2,600
BERYLLIUM	< 2 U	0.11	< 2 U	< 1 U	< 2 U	< 2 U	< 2 U	73
CADMIUM	2.6	0.22	0.31	< 4 U	< 4 U	< 4 U	< 4 U	18
CALCIUM	459,000	NA	NA	130,000	108,000	223,000	230,000	NC
CHROMIUM	2.8	< 5 U	2.9	< 3 U	< 5 U	5.3	5.3	NC
COBALT	0.59	2.3	1	< 2 U	< 10 U	< 10 U	< 10 U	730
COPPER	31	3.7	5.1	4.5	< 12.3 U	21.7	21.4	1,500
IRON	2,550	NA	NA	< 12.5 U	< 50 U	1,130	1,170	11,000
LEAD	9.6	1.7	< 5 U	< 1 UJ	< 2 U	< 2 UJ	< 20 UJ	NC
MAGNESIUM	317,000	NA	NA	104,000	110,000	441,000	473,000	NC
MANGANESE	234	NA	NA	159	344	417 J	415 J	880
MERCURY	0.046	NA	NA	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	NC
MOLYBDENUM	21.2	NA	NA	NA	NA	41.5	39.7	180
NICKEL	6.3	5.2	4.8	< 7 U	< 20 U	< 20 U	< 20 U	730
POTASSIUM	83,300	NA	NA	30,000	35,700	79,900	83,600	NC
SELENIUM	3.1	< 10 U	< 10 U	< 3 UJ	< 1 UJ	30 R	30 R	180
SILVER	< 10 U	< 10 U	< 10 U	< 2 UJ	< 5 U	< 6 U	< 6 U	180
SODIUM	1,430,000	NA	NA	358,000	440,000	1,820,000 J	1,990,000 J	NC
THALLIUM	1.4	**3.8**	< 10 U	< 30 UJ	< 2 U	< 2 UJ	< 2 UJ	2.4
VANADIUM	< 10 U	0.59	1	< 2 U	< 10 U	< 10 U	< 10 U	37
ZINC	20.2	< 10 U	< 10 U	< 6.9 U	13.4	< 10 U	< 10 U	11,000

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW04	S14MW04	S14MW04	S14MW05	S14MW05	S14MW05	S14MW05	EPA Tap Water PRGs
Sample ID	S14-MW04Q3	S14-MW04Q4	W03-1Q4	123-S14-209	123-S14-210	123-S14-211	123-S14-212	
Sample Date	01/08/04	03/22/04	03/22/04	05/21/93	08/16/93	11/23/93	11/23/93	
Metals (µg/L)								
Filtered								
ALUMINUM	47.6	NA	NA	NA	NA	NA	NA	36,000
ANTIMONY	< 10 U	NA	NA	NA	NA	NA	NA	15
ARSENIC	< 5 U	NA	NA	NA	NA	NA	NA	0.045
BARIUM	24.9	NA	NA	NA	NA	NA	NA	2,600
BERYLLIUM	< 2 U	NA	NA	NA	NA	NA	NA	73
CADMIUM	0.95	NA	NA	NA	NA	NA	NA	18
CALCIUM	489,000	NA	NA	NA	NA	NA	NA	NC
CHROMIUM	< 5 U	NA	NA	NA	NA	NA	NA	NC
COBALT	0.92	NA	NA	NA	NA	NA	NA	730
COPPER	53.2	NA	NA	NA	NA	NA	NA	1,500
IRON	1,330	NA	NA	NA	NA	NA	NA	11,000
LEAD	3.8	NA	NA	NA	NA	NA	NA	NC
MAGNESIUM	330,000	NA	NA	NA	NA	NA	NA	NC
MANGANESE	240	NA	NA	NA	NA	NA	NA	880
MERCURY	0.065	NA	NA	NA	NA	NA	NA	NC
MOLYBDENUM	22	NA	NA	NA	NA	NA	NA	180
NICKEL	6.5	NA	NA	NA	NA	NA	NA	730
POTASSIUM	87,300	NA	NA	NA	NA	NA	NA	NC
SELENIUM	< 10 U	NA	NA	NA	NA	NA	NA	180
SILVER	< 10 U	NA	NA	NA	NA	NA	NA	180
SODIUM	1,480,000	NA	NA	NA	NA	NA	NA	NC
THALLIUM	< 10 U	NA	NA	NA	NA	NA	NA	2.4
VANADIUM	< 10 U	NA	NA	NA	NA	NA	NA	37
ZINC	32.5	NA	NA	NA	NA	NA	NA	11,000
General Mineral								
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NC
IRON	NA	NA	NA	NA	NA	NA	NA	11,000
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NC
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NC
SODIUM	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW04	S14MW04	S14MW04	S14MW05	S14MW05	S14MW05	S14MW05	
Sample ID	S14-MW04Q3	S14-MW04Q4	W03-1Q4	123-S14-209	123-S14-210	123-S14-211	123-S14-212	EPA Tap Water PRGs
Sample Date	01/08/04	03/22/04	03/22/04	05/21/93	08/16/93	11/23/93	11/23/93	
Organophosphorus pesticides (µg/L)								
DICHLORVOS	NA	NA	NA	< 2 U	< 1 U	< 1 U	< 1 U	0.23

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW05	S14MW05	S14MW05	S14MW06	S14MW06	S14MW06	S14MW06	EPA Tap Water PRGs
Sample ID	123-S14-213	08797051505BJ	08797051505BJ	123-S14-214	123-S14-215	123-S14-216	123-S14-217	
Sample Date	02/22/94	05/15/97	05/15/97	05/20/93	08/16/93	11/17/93	02/22/94	
Volatile Organic Compounds (µg/L)								
1,2-DICHLOROETHENE (TOTAL)	< 1 U	< 10 U	NA	< 2 U	< 1 U	< 1 U	< 1 U	NC
2-BUTANONE	< 3 U	< 10 U	NA	< 2 U	< 3 U	3 R	< 3 U	7,000
ACETONE	< 1 U	< 10 UJ	NA	< 2 UJ	< 12 U	2 R	< 2 U	5,500
BENZENE	< 1 U	< 10 U	NA	< 2 U	< 1 U	< 1 U	< 1 U	0.35
BROMODICHLOROMETHANE	< 1 U	< 10 U	NA	< 2 U	< 1 U	< 1 U	< 1 U	0.18
CARBON DISULFIDE	< 1 U	< 10 U	NA	< 2 U	< 1 U	< 1 U	< 1 U	1,000
CARBON TETRACHLORIDE	< 0.5 U	< 10 U	NA	< 2 U	< 0.5 U	< 0.5 U	< 0.5 U	0.17
CHLOROBENZENE	< 1 U	< 10 U	NA	< 2 U	< 1 U	< 1 U	< 1 U	110
CHLOROFORM	< 1 U	< 10 U	NA	< 2 U	< 1 U	< 1 U	< 1 U	0.17
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	61
DIBROMOCHLOROMETHANE	< 1 U	< 10 U	NA	< 2 U	< 1 U	< 1 U	< 1 U	0.13
ETHYLBENZENE	< 1 U	< 10 U	NA	< 2 U	< 1 U	< 1 U	< 1 U	1,300
METHYLENE CHLORIDE	< 1 U	< 10 U	NA	< 2 U	< 2 U	< 5 UJ	< 1 U	4.3
TETRACHLOROETHENE	< 1 U	< 10 U	NA	< 2 U	< 1 U	< 1 U	< 1 U	0.10
TOLUENE	< 1 U	< 10 U	NA	3	< 1 U	< 1 U	< 1 U	720
TRICHLOROETHENE	< 1 U	< 10 U	NA	< 2 U	< 1 U	< 1 U	< 1 U	0.028
XYLENE (TOTAL)	< 1 U	< 10 U	NA	< 2 U	< 1 U	< 1 U	< 1 U	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	< 0.1 U	NA	NA	< 0.25 U	< 0.25 U	NA	NC
MOTOR OIL RANGE ORGANICS	NA	< 0.5 U	NA	NA	< 0.5 U	< 0.5 U	NA	NC
TPH - DIESEL	< 0.1 U	NA	NA	< 0.05 U	NA	NA	< 0.1 U	NC
TPH - MOTOR OIL	< 0.2 U	NA	NA	< 0.5 U	NA	NA	< 0.2 U	NC
TPH - NAVY SPECIAL FUEL OIL	NA	NA	NA	NA	< 0.26 U	NA	NA	NC
TPH - UNKNOWN HYDROCARBON	0.21 Z	NA	NA	< 0.05 U	NA	NA	0.42 Z	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	< 0.05 U	NA	NA	< 0.05 U	< 0.05 U	NA	NC
Semivolatile Organic Compounds (µg/L)								
1,3-DICHLOROBENZENE	< 10 U	< 5 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	180
1,4-DICHLOROBENZENE	< 10 U	< 5 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	0.50
2-METHYLNAPHTHALENE	< 10 U	< 10 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	NC
4-CHLORO-3-METHYLPHENOL	< 10 U	< 10 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW05	S14MW05	S14MW05	S14MW06	S14MW06	S14MW06	S14MW06	EPA Tap Water PRGs
Sample ID	123-S14-213	08797051505BJ	08797051505BJ	123-S14-214	123-S14-215	123-S14-216	123-S14-217	
Sample Date	02/22/94	05/15/97	05/15/97	05/20/93	08/16/93	11/17/93	02/22/94	
Semivolatile Organic Compounds (µg/L)								
ACENAPHTHENE	< 10 U	< 10 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	370
CARBAZOLE	< 10 U	< 10 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	3.4
NAPHTHALENE	< 10 U	< 10 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	0.093 *
PYRENE	< 10 U	< 10 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	180
PCBs/Pesticides (µg/L)								
None Detected	ND	NA	NA	ND	ND	ND	ND	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	< 30.1 U	< 45.7 UJ	NA	43.5	157	< 100 U	< 30.1 U	36,000
ANTIMONY	< 2 U	< 1.4 U	NA	< 31 U	< 50 U	< 50 U	5.6	15
ARSENIC	**5.6**	**17.1**	NA	**6.7 J**	**2.8**	**4.3**	**5.1**	0.045
BARIUM	80.8	94	NA	28	< 100 UJ	< 100 U	27.2	2,600
BERYLLIUM	0.41	< 0.09 UJ	NA	< 1 U	< 2 U	< 2 U	1.1	73
CADMIUM	< 2.9 U	< 0.13 U	NA	< 4 U	< 4 U	< 4 U	< 2.9 U	18
CALCIUM	310,000	336,000	NA	729,000	671,000	701,000	723,000	NC
CHROMIUM	7.4	< 0.27 U	NA	6	< 5 U	5.9	3.8	NC
COBALT	< 3.3 U	< 0.4 U	NA	3.7	11.2	< 10 U	< 3.3 U	730
COPPER	< 3.3 U	< 0.4 U	NA	< 2 U	< 10 U	10.6	< 3.3 U	1,500
IRON	1,290	4,950	NA	10,700	4,960	7,960	**13,100**	11,000
LEAD	14	< 1 U	NA	< 1 UJ	2	< 2 U	< 1 U	NC
MAGNESIUM	670,000	793,000	NA	238,000	208,000	246,000	251,000	NC
MANGANESE	430	**935**	NA	**1,680**	**2,990**	**1,980**	**1,390**	880
MERCURY	< 0.2 U	< 0.2 U	NA	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	NC
MOLYBDENUM	44.3	66.4	NA	NA	NA	44.5	32.3	180
NICKEL	< 6.8 U	< 0.77 U	NA	< 7 U	< 20 U	< 20 U	< 6.8 U	730
POTASSIUM	107,000	167,000 J	NA	36,600	31,900	37,300	36,800	NC
SELENIUM	< 2 U	< 1.4 U	NA	< 30 UJ	< 1 UJ	< 2 UJ	< 2 U	180
SILVER	< 5.3 U	< 0.43 U	NA	< 2 UJ	< 5 U	< 6 U	< 5.3 U	180
SODIUM	2,700,000	3,440,000	NA	958,000	536,000	778,000	915,000	NC
THALLIUM	< 40 U	< 1.4 U	NA	< 3 UJ	< 2 U	< 2 U	< 40 U	2.4
VANADIUM	< 3.8 U	0.98 J	NA	< 2 U	< 16.2 U	< 10 U	< 3.8 U	37
ZINC	< 1.5 U	< 1.6 UJ	NA	< 10 U	15.1	< 10 U	< 1.5 U	11,000

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW05	S14MW05	S14MW05	S14MW06	S14MW06	S14MW06	S14MW06	EPA Tap Water PRGs
Sample ID	123-S14-213	08797051505BJ	08797051505BJ	123-S14-214	123-S14-215	123-S14-216	123-S14-217	
Sample Date	02/22/94	05/15/97	05/15/97	05/20/93	08/16/93	11/17/93	02/22/94	
Metals (µg/L)								
Filtered								
ALUMINUM	NA	NA	< 4.2 U	NA	NA	NA	NA	36,000
ANTIMONY	NA	NA	< 1.2 U	NA	NA	NA	NA	15
ARSENIC	NA	NA	**15.9**	NA	NA	NA	NA	0.045
BARIUM	NA	NA	91.5	NA	NA	NA	NA	2,600
BERYLLIUM	NA	NA	< 0.07 U	NA	NA	NA	NA	73
CADMIUM	NA	NA	< 0.13 U	NA	NA	NA	NA	18
CALCIUM	NA	NA	351,000	NA	NA	NA	NA	NC
CHROMIUM	NA	NA	< 0.4 U	NA	NA	NA	NA	NC
COBALT	NA	NA	< 0.6 U	NA	NA	NA	NA	730
COPPER	NA	NA	< 0.4 U	NA	NA	NA	NA	1,500
IRON	NA	NA	3,580	NA	NA	NA	NA	11,000
LEAD	NA	NA	< 0.63 UJ	NA	NA	NA	NA	NC
MAGNESIUM	NA	NA	830,000	NA	NA	NA	NA	NC
MANGANESE	NA	NA	**965**	NA	NA	NA	NA	880
MERCURY	NA	NA	< 0.1 U	NA	NA	NA	NA	NC
MOLYBDENUM	NA	NA	67.4	NA	NA	NA	NA	180
NICKEL	NA	NA	< 0.7 U	NA	NA	NA	NA	730
POTASSIUM	NA	NA	171,000	NA	NA	NA	NA	NC
SELENIUM	NA	NA	< 4 UJ	NA	NA	NA	NA	180
SILVER	NA	NA	< 0.5 U	NA	NA	NA	NA	180
SODIUM	NA	NA	3,500,000	NA	NA	NA	NA	NC
THALLIUM	NA	NA	< 1.4 U	NA	NA	NA	NA	2.4
VANADIUM	NA	NA	< 0.57 U	NA	NA	NA	NA	37
ZINC	NA	NA	1.9 J	NA	NA	NA	NA	11,000
General Mineral								
CALCIUM	NA	407,000	NA	NA	NA	NA	NA	NC
IRON	NA	246	NA	NA	NA	NA	NA	11,000
MAGNESIUM	NA	816,000	NA	NA	NA	NA	NA	NC
POTASSIUM	NA	180,000	NA	NA	NA	NA	NA	NC
SODIUM	NA	3,110,000	NA	NA	NA	NA	NA	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW05	S14MW05	S14MW05	S14MW06	S14MW06	S14MW06	S14MW06	
Sample ID	123-S14-213	08797051505BJ	08797051505BJ	123-S14-214	123-S14-215	123-S14-216	123-S14-217	EPA Tap Water PRGs
Sample Date	02/22/94	05/15/97	05/15/97	05/20/93	08/16/93	11/17/93	02/22/94	
Organophosphorus pesticides (µg/L)								
DICHLORVOS	< 1 U	NA	NA	< 2 U	< 1 U	< 1 U	< 1 U	0.23

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW06R	S14MW06R	S14MW07	S14MW07	S14MW07	S14MW07	S14MW07	
Sample ID	08797051504BJ	08797051504BJ	123-S14-218	123-S14-219	123-S14-220	123-S14-221	08797051503BJ	EPA Tap Water PRGs
Sample Date	05/15/97	05/15/97	05/21/93	08/16/93	11/17/93	02/16/94	05/15/97	
Volatile Organic Compounds (µg/L)								
1,2-DICHLOROETHENE (TOTAL)	< 10 U	NA	< 2 U	< 1 U	< 1 U	< 1 U	< 10 U	NC
2-BUTANONE	< 10 U	NA	< 2 U	< 3 U	3 R	3 R	< 10 U	7,000
ACETONE	< 10 UJ	NA	< 2 UJ	< 6 U	2 R	< 4 U	< 10 UJ	5,500
BENZENE	< 10 U	NA	< 2 U	< 1 U	< 1 U	< 1 U	< 10 U	0.35
BROMODICHLOROMETHANE	< 10 U	NA	< 2 U	< 1 U	< 1 U	< 1 U	< 10 U	0.18
CARBON DISULFIDE	< 10 U	NA	< 2 U	< 1 U	< 1 U	< 1 U	< 10 U	1,000
CARBON TETRACHLORIDE	< 10 U	NA	< 2 U	< 0.5 U	< 0.5 U	< 0.5 U	< 10 U	0.17
CHLOROBENZENE	< 10 U	NA	< 2 U	< 1 U	< 1 U	< 1 U	< 10 U	110
CHLOROFORM	< 10 U	NA	< 2 U	< 1 U	< 1 U	< 1 U	< 10 U	0.17
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	61
DIBROMOCHLOROMETHANE	< 10 U	NA	< 2 U	< 1 U	< 1 U	< 1 U	< 10 U	0.13
ETHYLBENZENE	< 10 U	NA	< 2 U	< 1 U	< 1 U	< 1 U	< 10 U	1,300
METHYLENE CHLORIDE	< 10 U	NA	< 2 U	< 1 U	< 6 UJ	< 1 U	< 10 U	4.3
TETRACHLOROETHENE	< 10 U	NA	< 2 U	< 1 U	< 1 U	< 1 U	< 10 U	0.10
TOLUENE	< 10 U	NA	1 J	< 1 U	< 1 U	< 1 U	< 10 U	720
TRICHLOROETHENE	< 10 U	NA	< 2 U	< 1 U	< 1 U	< 1 U	< 10 U	0.028
XYLENE (TOTAL)	< 10 U	NA	< 2 U	< 1 U	< 1 U	< 1 U	< 10 U	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	< 0.1 U	NA	NA	< 0.25 U	< 0.25 U	NA	< 0.1 U	NC
MOTOR OIL RANGE ORGANICS	< 0.5 U	NA	NA	< 0.5 U	< 0.5 U	NA	< 0.5 U	NC
TPH - DIESEL	NA	NA	< 0.05 U	NA	NA	< 0.1 U	NA	NC
TPH - MOTOR OIL	NA	NA	< 0.5 U	NA	NA	< 0.2 U	NA	NC
TPH - NAVY SPECIAL FUEL OIL	NA	NA	NA	0.25	NA	NA	NA	NC
TPH - UNKNOWN HYDROCARBON	NA	NA	< 0.05 U	NA	NA	0.25 Z	NA	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	< 0.05 U	NA	NA	< 0.05 U	< 0.05 U	NA	< 0.05 U	NC
Semivolatile Organic Compounds (µg/L)								
1,3-DICHLOROBENZENE	< 5 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 5 U	180
1,4-DICHLOROBENZENE	< 5 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 5 U	0.50
2-METHYLNAPHTHALENE	< 10 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NC
4-CHLORO-3-METHYLPHENOL	< 10 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW06R	S14MW06R	S14MW07	S14MW07	S14MW07	S14MW07	S14MW07	
Sample ID	08797051504BJ	08797051504BJ	123-S14-218	123-S14-219	123-S14-220	123-S14-221	08797051503BJ	EPA Tap Water PRGs
Sample Date	05/15/97	05/15/97	05/21/93	08/16/93	11/17/93	02/16/94	05/15/97	
Semivolatile Organic Compounds (µg/L)								
ACENAPHTHENE	< 10 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	370
CARBAZOLE	< 10 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	3.4
NAPHTHALENE	< 10 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	0.093 *
PYRENE	< 10 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	180
PCBs/Pesticides (µg/L)								
None Detected	NA	NA	ND	ND	ND	ND	NA	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	< 268 UJ	NA	90.1	162	< 100 U	< 30.1 U	5,230	36,000
ANTIMONY	< 1.4 U	NA	< 31 U	< 50 U	< 50 U	4.3	1.7 J	15
ARSENIC	**7**	NA	< 20 UJ	**12**	**4.4**	**6.6**	**13.5**	0.045
BARIUM	24.8 J	NA	58.4	< 100 UJ	< 100 U	57.9	73.5	2,600
BERYLLIUM	< 0.08 UJ	NA	< 1 U	< 2 U	< 2 U	0.51	< 0.1 UJ	73
CADMIUM	< 0.45 UJ	NA	< 4 U	< 4 U	< 4 U	< 2.9 U	2.3	18
CALCIUM	398,000	NA	442,000	451,000	442,000	479,000	172,000	NC
CHROMIUM	< 0.27 U	NA	< 3 U	< 5 U	7.7	4	8	NC
COBALT	1.6 J	NA	< 2 U	< 10 U	< 10 U	< 3.3 U	3.1 J	730
COPPER	24.7	NA	< 2 U	< 10 U	20.9	< 3.3 U	19.8	1,500
IRON	**11,000**	NA	7,210	5,050	6,680	4,090	**12,800**	11,000
LEAD	< 1 U	NA	4 J	< 2 U	< 2 U	< 15 U	64.3	NC
MAGNESIUM	203,000	NA	815,000	143,000	604,000	390,000	334,000	NC
MANGANESE	**1,150**	NA	837	869	**936**	**972**	674	880
MERCURY	< 0.2 U	NA	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	NC
MOLYBDENUM	52	NA	NA	NA	78.7	64.1	43.2	180
NICKEL	41.7	NA	< 7 U	< 20 U	< 20 U	< 6.8 U	< 3.4 UJ	730
POTASSIUM	43,700 J	NA	95,900	35,300	78,900	59,400	68,000 J	NC
SELENIUM	< 1.4 U	NA	< 30 UJ	< 1 UJ	< 20 UJ	< 2 UJ	< 6.8 U	180
SILVER	< 0.43 U	NA	< 2 UJ	< 5 U	< 6 U	< 5.3 U	< 0.43 U	180
SODIUM	1,040,000	NA	3,560,000	564,000	2,480,000	1,460,000	1,580,000	NC
THALLIUM	< 1.4 U	NA	< 30 UJ	< 2 U	< 2 U	< 40 U	< 1.4 U	2.4
VANADIUM	0.91 J	NA	< 2 U	< 17.6 U	< 10 U	< 3.8 U	16.4 J	37
ZINC	256 J	NA	< 1.7 U	15.6	< 10 U	< 3.6 U	47.8 J	11,000

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW06R	S14MW06R	S14MW07	S14MW07	S14MW07	S14MW07	S14MW07	EPA Tap Water PRGs
Sample ID	08797051504BJ	08797051504BJ	123-S14-218	123-S14-219	123-S14-220	123-S14-221	08797051503BJ	
Sample Date	05/15/97	05/15/97	05/21/93	08/16/93	11/17/93	02/16/94	05/15/97	
Metals (µg/L)								
FIltered								
ALUMINUM	NA	< 4.2 U	NA	NA	NA	NA	NA	36,000
ANTIMONY	NA	< 1.2 U	NA	NA	NA	NA	NA	15
ARSENIC	NA	**7.2**	NA	NA	NA	NA	NA	0.045
BARIUM	NA	23.2 J	NA	NA	NA	NA	NA	2,600
BERYLLIUM	NA	< 0.07 U	NA	NA	NA	NA	NA	73
CADMIUM	NA	< 0.13 U	NA	NA	NA	NA	NA	18
CALCIUM	NA	400,000	NA	NA	NA	NA	NA	NC
CHROMIUM	NA	< 0.4 U	NA	NA	NA	NA	NA	NC
COBALT	NA	1.9 J	NA	NA	NA	NA	NA	730
COPPER	NA	0.53 J	NA	NA	NA	NA	NA	1,500
IRON	NA	9,420	NA	NA	NA	NA	NA	11,000
LEAD	NA	< 0.63 UJ	NA	NA	NA	NA	NA	NC
MAGNESIUM	NA	207,000	NA	NA	NA	NA	NA	NC
MANGANESE	NA	**1,160**	NA	NA	NA	NA	NA	880
MERCURY	NA	< 0.1 U	NA	NA	NA	NA	NA	NC
MOLYBDENUM	NA	53.5	NA	NA	NA	NA	NA	180
NICKEL	NA	< 0.7 U	NA	NA	NA	NA	NA	730
POTASSIUM	NA	42,700	NA	NA	NA	NA	NA	NC
SELENIUM	NA	< 0.87 U	NA	NA	NA	NA	NA	180
SILVER	NA	< 0.5 U	NA	NA	NA	NA	NA	180
SODIUM	NA	1,070,000	NA	NA	NA	NA	NA	NC
THALLIUM	NA	< 1.4 U	NA	NA	NA	NA	NA	2.4
VANADIUM	NA	< 0.57 U	NA	NA	NA	NA	NA	37
ZINC	NA	2.8 J	NA	NA	NA	NA	NA	11,000
General Mineral								
CALCIUM	483,000	NA	NA	NA	NA	NA	199,000	NC
IRON	198	NA	NA	NA	NA	NA	175	11,000
MAGNESIUM	247,000	NA	NA	NA	NA	NA	391,000	NC
POTASSIUM	51,800	NA	NA	NA	NA	NA	77,700	NC
SODIUM	984,000 J	NA	NA	NA	NA	NA	1,590,000 J	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW06R	S14MW06R	S14MW07	S14MW07	S14MW07	S14MW07	S14MW07	
Sample ID	08797051504BJ	08797051504BJ	123-S14-218	123-S14-219	123-S14-220	123-S14-221	08797051503BJ	EPA Tap Water PRGs
Sample Date	05/15/97	05/15/97	05/21/93	08/16/93	11/17/93	02/16/94	05/15/97	
Organophosphorus pesticides (µg/L)								
DICHLORVOS	NA	NA	< 2 U	< 1 U	< 1 U	< 1 U	NA	0.23

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW07	S14MW07	S14MW07	S14MW07	S14MW07	S14MW07	S14MW07	
Sample ID	08797051503BJ	08797102109D	08797102111D	08797102210D	08798011509D	08798040622W	08798040623W	EPA Tap Water PRGs
Sample Date	05/15/97	10/21/97	10/21/97	10/22/97	01/15/98	04/06/98	04/06/98	
Volatile Organic Compounds (µg/L)								
1,2-DICHLOROETHENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA	NC
2-BUTANONE	NA	< 1 U	NA	NA	< 1 U	< 1 U	< 1 U	7,000
ACETONE	NA	< 1 U	NA	NA	1 R	< 1 U	< 1 U	5,500
BENZENE	NA	< 0.5 U	NA	NA	< 0.5 U	< 0.5 U	< 0.5 U	0.35
BROMODICHLOROMETHANE	NA	< 1 U	NA	NA	< 1 U	< 1 U	< 1 U	0.18
CARBON DISULFIDE	NA	< 1 U	NA	NA	< 1 U	< 1 U	< 1 U	1,000
CARBON TETRACHLORIDE	NA	< 0.5 U	NA	NA	< 0.5 U	< 0.5 U	< 0.5 U	0.17
CHLOROBENZENE	NA	< 1 U	NA	NA	< 1 U	< 1 U	< 1 U	110
CHLOROFORM	NA	< 1 U	NA	NA	< 1 U	< 1 U	< 1 U	0.17
CIS-1,2-DICHLOROETHENE	NA	< 1 U	NA	NA	< 1 U	< 1 U	< 1 U	61
DIBROMOCHLOROMETHANE	NA	< 1 U	NA	NA	< 1 U	< 1 U	< 1 U	0.13
ETHYLBENZENE	NA	< 1 U	NA	NA	< 1 U	< 1 U	< 1 U	1,300
METHYLENE CHLORIDE	NA	< 2 U	NA	NA	< 2 U	< 2 U	< 2 U	4.3
TETRACHLOROETHENE	NA	< 1 U	NA	NA	< 1 U	< 1 U	< 1 U	0.10
TOLUENE	NA	< 1 U	NA	NA	< 1 U	< 1 U	< 1 U	720
TRICHLOROETHENE	NA	< 1 U	NA	NA	< 1 U	< 1 U	< 1 U	0.028
XYLENE (TOTAL)	NA	< 1 U	NA	NA	< 1 U	< 1 U	< 1 U	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	< 0.1 U	NA	NA	0.1 Y	< 0.1 U	< 0.1 U	NC
MOTOR OIL RANGE ORGANICS	NA	< 0.5 U	NA	NA	< 0.5 U	< 0.5 U	< 0.5 U	NC
TPH - DIESEL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - MOTOR OIL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - NAVY SPECIAL FUEL OIL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - UNKNOWN HYDROCARBON	NA	NA	NA	NA	NA	NA	NA	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	< 0.05 U	NA	NA	< 0.05 U	< 0.05 U	< 0.05 U	NC
Semivolatile Organic Compounds (µg/L)								
1,3-DICHLOROBENZENE	NA	< 5 U	NA	NA	< 5 U	< 5 U	< 5 U	180
1,4-DICHLOROBENZENE	NA	< 5 U	NA	NA	< 5 U	< 5 UJ	< 5 UJ	0.50
2-METHYLNAPHTHALENE	NA	< 11 U	NA	NA	< 10 U	< 10 U	< 10 U	NC
4-CHLORO-3-METHYLPHENOL	NA	< 11 U	NA	NA	< 10 U	< 10 U	< 10 U	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW07	S14MW07	S14MW07	S14MW07	S14MW07	S14MW07	S14MW07	
Sample ID	08797051503BJ	08797102109D	08797102111D	08797102210D	08798011509D	08798040622W	08798040623W	EPA Tap Water PRGs
Sample Date	05/15/97	10/21/97	10/21/97	10/22/97	01/15/98	04/06/98	04/06/98	
Semivolatile Organic Compounds (µg/L)								
ACENAPHTHENE	NA	< 11 U	NA	NA	< 10 U	< 10 UJ	< 10 UJ	370
CARBAZOLE	NA	< 11 U	NA	NA	< 10 U	< 10 UJ	< 10 UJ	3.4
NAPHTHALENE	NA	< 11 U	NA	NA	< 10 U	< 10 U	< 10 U	0.093 *
PYRENE	NA	< 11 U	NA	NA	< 10 U	< 10 U	< 10 U	180
PCBs/Pesticides (µg/L)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	NA	NA	25,100	NA	NA	NA	NA	36,000
ANTIMONY	NA	NA	< 2.9 U	NA	NA	NA	NA	15
ARSENIC	NA	NA	**23.6**	NA	NA	NA	NA	0.045
BARIUM	NA	NA	226	NA	NA	NA	NA	2,600
BERYLLIUM	NA	NA	0.55 J	NA	NA	NA	NA	73
CADMIUM	NA	NA	1.9 J	NA	NA	NA	NA	18
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NC
CHROMIUM	NA	NA	46	NA	NA	NA	NA	NC
COBALT	NA	NA	15.1 J	NA	NA	NA	NA	730
COPPER	NA	NA	47.6	NA	NA	NA	NA	1,500
IRON	NA	NA	NA	NA	NA	NA	NA	11,000
LEAD	NA	NA	7.9	NA	NA	NA	NA	NC
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NC
MANGANESE	NA	NA	**1,060**	NA	NA	NA	NA	880
MERCURY	NA	NA	0.16 J	NA	NA	NA	NA	NC
MOLYBDENUM	NA	NA	63.6	NA	NA	NA	NA	180
NICKEL	NA	NA	34.1 J	NA	NA	NA	NA	730
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NC
SELENIUM	NA	NA	< 4 UJ	NA	NA	NA	NA	180
SILVER	NA	NA	1.1 J	NA	NA	NA	NA	180
SODIUM	NA	NA	NA	NA	NA	NA	NA	NC
THALLIUM	NA	NA	< 4.1 U	NA	NA	NA	NA	2.4
VANADIUM	NA	NA	**91**	NA	NA	NA	NA	37
ZINC	NA	NA	119	NA	NA	NA	NA	11,000

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW07	S14MW07	S14MW07	S14MW07	S14MW07	S14MW07	S14MW07	
Sample ID	08797051503BJ	08797102109D	08797102111D	08797102210D	08798011509D	08798040622W	08798040623W	EPA Tap Water PRGs
Sample Date	05/15/97	10/21/97	10/21/97	10/22/97	01/15/98	04/06/98	04/06/98	
Metals (µg/L)								
Filtered								
ALUMINUM	< 4.2 U	< 34.2 UJ	NA	90.1 J	< 6.2 U	< 16.2 UJ	< 5.5 UJ	36,000
ANTIMONY	< 1.2 U	< 2.9 U	NA	< 1.4 U	< 1.8 U	< 2.6 U	< 2.6 U	15
ARSENIC	**12.6**	**13.9**	NA	**20.3**	**12**	**6.5**	**7.7**	0.045
BARIUM	53.8 J	60.2 J	NA	71.4 J	76.4 J	92.8 J	92 J	2,600
BERYLLIUM	< 0.07 U	< 0.1 U	NA	< 0.05 U	< 0.36 UJ	< 0.05 U	< 0.05 U	73
CADMIUM	< 0.13 U	< 0.4 U	NA	< 0.2 U	< 0.15 U	0.92 J	< 0.15 U	18
CALCIUM	177,000	NA	NA	NA	NA	NA	NA	NC
CHROMIUM	< 0.4 U	< 0.9 U	NA	< 0.64 UJ	< 0.55 U	< 0.45 U	< 0.45 U	NC
COBALT	0.66 J	< 1.3 U	NA	0.94 J	0.89 J	< 0.7 U	< 0.7 U	730
COPPER	< 0.4 U	< 1.1 U	NA	1.2 J	< 1.2 U	< 0.6 U	< 0.6 U	1,500
IRON	2,770	NA	NA	NA	NA	NA	NA	11,000
LEAD	< 0.63 UJ	< 1.7 U	NA	< 0.85 U	< 0.9 U	< 1.3 UJ	< 1.3 UJ	NC
MAGNESIUM	350,000	NA	NA	NA	NA	NA	NA	NC
MANGANESE	555	683	NA	732	601	689	694	880
MERCURY	< 0.1 U	< 0.1 U	NA	< 0.1 UJ	< 0.2 U	< 0.1 U	< 0.1 U	NC
MOLYBDENUM	51.7	62.2	NA	70	40.6	40.9	40.3	180
NICKEL	< 0.7 U	< 1.1 UJ	NA	< 1.7 UJ	< 1 U	< 2.1 UJ	< 1.8 UJ	730
POTASSIUM	67,800	NA	NA	NA	NA	NA	NA	NC
SELENIUM	< 1.8 UJ	5.6 J	NA	2.3 J	< 2.4 U	< 1.6 U	1.9 J	180
SILVER	< 0.5 U	< 1.1 U	NA	< 0.76 UJ	< 1 U	< 1.3 U	< 1.3 U	180
SODIUM	1,630,000	NA	NA	NA	NA	NA	NA	NC
THALLIUM	< 1.4 U	< 4.1 U	NA	< 3 U	< 3.2 UJ	< 3.4 U	< 3.4 U	2.4
VANADIUM	< 0.57 U	< 1.2 U	NA	0.83 J	1 J	< 0.75 U	< 0.75 U	37
ZINC	1.9 J	< 6.5 UJ	NA	< 4.6 UJ	< 5.6 UJ	< 5.9 UJ	< 4.6 UJ	11,000
General Mineral								
CALCIUM	NA	260,000	NA	NA	230,000	228,000	224,000	NC
IRON	NA	2,650	NA	NA	1,290 J	255 J	< 124 UJ	11,000
MAGNESIUM	NA	412,000	NA	NA	348,000	328,000	322,000	NC
POTASSIUM	NA	85,200	NA	NA	71,200	66,800	65,500	NC
SODIUM	NA	1,880,000	NA	NA	1,390,000	1,300,000	1,460,000	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW07	S14MW07	S14MW07	S14MW07	S14MW07	S14MW07	S14MW07	
Sample ID	08797051503BJ	08797102109D	08797102111D	08797102210D	08798011509D	08798040622W	08798040623W	EPA Tap Water PRGs
Sample Date	05/15/97	10/21/97	10/21/97	10/22/97	01/15/98	04/06/98	04/06/98	
Organophosphorus pesticides (µg/L)								
DICHLORVOS	NA	NA	NA	NA	NA	NA	NA	0.23

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW08	S14MW08	S14MW08	S14MW08	S14MW08	S14MW08	S14MW08	
Sample ID	123-S14-222	123-S14-223	123-S14-224	123-S14-225	123-S14-226	08797051405BJ	08797051405BJ	EPA Tap Water PRGs
Sample Date	05/19/93	08/17/93	08/17/93	11/17/93	02/21/94	05/14/97	05/14/97	
Volatile Organic Compounds (µg/L)								
1,2-DICHLOROETHENE (TOTAL)	< 2 U	< 2 U	< 2 U	< 1 U	< 1 U	< 10 U	NA	NC
2-BUTANONE	< 2 U	< 2 U	< 2 U	3 R	3 R	< 10 UJ	NA	7,000
ACETONE	< 2 UJ	< 4 UJ	< 4 UJ	< 4 UJ	< 5 U	< 10 UJ	NA	5,500
BENZENE	< 2 U	< 2 U	< 2 U	**0.7 J**	< 1 U	< 10 U	NA	0.35
BROMODICHLOROMETHANE	< 2 U	< 2 U	< 2 U	< 1 U	< 1 U	< 10 U	NA	0.18
CARBON DISULFIDE	< 2 U	< 2 U	< 2 U	< 1 U	< 1 U	< 10 U	NA	1,000
CARBON TETRACHLORIDE	< 2 U	< 2 U	< 2 U	< 0.5 U	< 0.5 U	< 10 U	NA	0.17
CHLOROBENZENE	< 2 U	0.8 J	< 2 U	3	0.8 J	< 10 U	NA	110
CHLOROFORM	< 2 U	< 2 U	< 2 U	**2**	< 1 U	< 10 U	NA	0.17
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	61
DIBROMOCHLOROMETHANE	< 2 U	< 2 U	< 2 U	< 1 U	< 1 U	< 10 U	NA	0.13
ETHYLBENZENE	< 2 U	< 2 U	< 2 U	< 1 U	< 1 U	< 10 U	NA	1,300
METHYLENE CHLORIDE	< 2 U	< 2 U	< 2 U	< 4 UJ	< 1 UJ	< 10 U	NA	4.3
TETRACHLOROETHENE	< 2 U	< 2 U	< 2 U	< 1 U	< 1 U	< 10 U	NA	0.10
TOLUENE	2	< 2 U	< 2 U	< 1 U	< 1 U	< 10 U	NA	720
TRICHLOROETHENE	< 2 U	< 2 U	< 2 U	< 1 U	< 1 U	< 10 U	NA	0.028
XYLENE (TOTAL)	< 2 U	< 2 U	< 2 U	< 1 U	< 1 U	< 10 U	NA	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	NA	NA	1.1	NA	< 0.1 U	NA	NC
MOTOR OIL RANGE ORGANICS	NA	NA	NA	< 0.5 U	NA	< 0.5 U	NA	NC
TPH - DIESEL	< 0.05 U	< 0.05 U	< 0.05 U	NA	< 0.1 U	NA	NA	NC
TPH - MOTOR OIL	< 0.5 UJ	< 0.5 U	< 0.5 U	NA	< 0.2 U	NA	NA	NC
TPH - NAVY SPECIAL FUEL OIL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - UNKNOWN HYDROCARBON	< 0.05 U	0.35	0.28	NA	0.59 Z	NA	NA	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	NA	NA	< 0.05 U	NA	< 0.05 U	NA	NC
Semivolatile Organic Compounds (µg/L)								
1,3-DICHLOROBENZENE	< 10 U	< 10 U	< 10 U	< 10 U	4 J	< 5 U	NA	180
1,4-DICHLOROBENZENE	< 10 U	**6 J**	**4 J**	**6 J**	< 10 U	**5 J**	NA	0.50
2-METHYLNAPHTHALENE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NA	NC
4-CHLORO-3-METHYLPHENOL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NA	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW08	S14MW08	S14MW08	S14MW08	S14MW08	S14MW08	S14MW08	
Sample ID	123-S14-222	123-S14-223	123-S14-224	123-S14-225	123-S14-226	08797051405BJ	08797051405BJ	EPA Tap Water PRGs
Sample Date	05/19/93	08/17/93	08/17/93	11/17/93	02/21/94	05/14/97	05/14/97	
Semivolatile Organic Compounds (µg/L)								
ACENAPHTHENE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NA	370
CARBAZOLE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 UJ	NA	3.4
NAPHTHALENE	< 10 U	< 10 U	< 10 U	< 10 U	**0.6 J**	< 10 U	NA	0.093 *
PYRENE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NA	180
PCBs/Pesticides (µg/L)								
None Detected	ND	ND	ND	ND	ND	NA	NA	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	< 34.6 U	26.9	29.8	< 100 U	< 30.1 U	< 155 UJ	NA	36,000
ANTIMONY	< 31 UJ	< 31 UJ	< 31 UJ	< 50 U	< 2 U	< 1.4 U	NA	15
ARSENIC	**20 R**	**25 J**	**20 R**	**3.2**	< 2 U	**13.8**	NA	0.045
BARIUM	33 J	100 J	111 J	< 100 U	33	105	NA	2,600
BERYLLIUM	< 1 U	< 1 U	< 1 U	< 2 U	0.56	< 0.06 UJ	NA	73
CADMIUM	< 4 U	< 4 UJ	< 4 UJ	< 4 U	< 2.9 U	< 0.23 UJ	NA	18
CALCIUM	174,000 J	191,000	196,000	182,000	187,000	166,000	NA	NC
CHROMIUM	< 3 U	< 3 U	< 3 U	7	7.6	< 0.27 U	NA	NC
COBALT	< 2 U	< 2 U	< 2 U	< 10 U	< 3.3 U	2.6 J	NA	730
COPPER	< 2 U	< 2 U	< 2 U	28.9	< 3.3 U	< 1.2 UJ	NA	1,500
IRON	4,950 J	6,800	6,390	5,960	5,270	7,450	NA	11,000
LEAD	< 10 UJ	64.5 J	7.8 J	< 2 U	< 30 U	< 1 U	NA	NC
MAGNESIUM	880,000 J	840,000	740,000	858,000	987,000	629,000	NA	NC
MANGANESE	612 J	682	694	683	621	625	NA	880
MERCURY	1.7	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	NA	NC
MOLYBDENUM	NA	NA	NA	46.6	45	42.8	NA	180
NICKEL	< 7 U	< 7 U	< 7 U	< 20 U	< 6.8 U	< 0.77 U	NA	730
POTASSIUM	138,000	136,000	138,000	143,000	157,000	138,000 J	NA	NC
SELENIUM	30 R	< 30 UJ	44.7 J	< 20 UJ	< 2 UJ	< 1.4 U	NA	180
SILVER	< 2 UJ	< 2 U	< 2 U	< 6 U	< 5.3 U	< 0.43 U	NA	180
SODIUM	4,960,000	4,590,000	3,990,000	4,580,000	5,190,000	3,490,000	NA	NC
THALLIUM	**30 R**	**30 R**	**30 R**	< 20 U	< 40 U	< 1.4 U	NA	2.4
VANADIUM	3.5	4.5	4.2	< 10 U	< 3.8 U	3.3 J	NA	37
ZINC	< 3.8 U	< 5.1 U	< 9.2 U	< 10 U	84	3.5 J	NA	11,000

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW08	S14MW08	S14MW08	S14MW08	S14MW08	S14MW08	S14MW08	
Sample ID	123-S14-222	123-S14-223	123-S14-224	123-S14-225	123-S14-226	08797051405BJ	08797051405BJ	EPA Tap Water PRGs
Sample Date	05/19/93	08/17/93	08/17/93	11/17/93	02/21/94	05/14/97	05/14/97	
Metals (µg/L)								
FIltered								
ALUMINUM	NA	NA	NA	NA	NA	NA	< 11.2 UJ	36,000
ANTIMONY	NA	NA	NA	NA	NA	NA	< 1.4 U	15
ARSENIC	NA	NA	NA	NA	NA	NA	**13**	0.045
BARIUM	NA	NA	NA	NA	NA	NA	110	2,600
BERYLLIUM	NA	NA	NA	NA	NA	NA	< 0.05 UJ	73
CADMIUM	NA	NA	NA	NA	NA	NA	0.2 J	18
CALCIUM	NA	NA	NA	NA	NA	NA	177,000	NC
CHROMIUM	NA	NA	NA	NA	NA	NA	< 0.52 UJ	NC
COBALT	NA	NA	NA	NA	NA	NA	2.7 J	730
COPPER	NA	NA	NA	NA	NA	NA	< 0.4 U	1,500
IRON	NA	NA	NA	NA	NA	NA	5,410	11,000
LEAD	NA	NA	NA	NA	NA	NA	< 1 U	NC
MAGNESIUM	NA	NA	NA	NA	NA	NA	662,000	NC
MANGANESE	NA	NA	NA	NA	NA	NA	617	880
MERCURY	NA	NA	NA	NA	NA	NA	< 0.1 U	NC
MOLYBDENUM	NA	NA	NA	NA	NA	NA	39.5	180
NICKEL	NA	NA	NA	NA	NA	NA	< 0.77 U	730
POTASSIUM	NA	NA	NA	NA	NA	NA	132,000	NC
SELENIUM	NA	NA	NA	NA	NA	NA	< 1.8 UJ	180
SILVER	NA	NA	NA	NA	NA	NA	< 0.43 U	180
SODIUM	NA	NA	NA	NA	NA	NA	4,050,000	NC
THALLIUM	NA	NA	NA	NA	NA	NA	< 1.4 U	2.4
VANADIUM	NA	NA	NA	NA	NA	NA	2.7 J	37
ZINC	NA	NA	NA	NA	NA	NA	< 1.7 UJ	11,000
General Mineral								
CALCIUM	NA	NA	NA	NA	NA	174,000	NA	NC
IRON	NA	NA	NA	NA	NA	4,760 J	NA	11,000
MAGNESIUM	NA	NA	NA	NA	NA	715,000	NA	NC
POTASSIUM	NA	NA	NA	NA	NA	153,000 J	NA	NC
SODIUM	NA	NA	NA	NA	NA	3,960,000 J	NA	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW08	S14MW08	S14MW08	S14MW08	S14MW08	S14MW08	S14MW08	
Sample ID	123-S14-222	123-S14-223	123-S14-224	123-S14-225	123-S14-226	08797051405BJ	08797051405BJ	EPA Tap Water PRGs
Sample Date	05/19/93	08/17/93	08/17/93	11/17/93	02/21/94	05/14/97	05/14/97	
Organophosphorus pesticides (µg/L)								
DICHLORVOS	< 2 U	**2.5**	**1.9**	< 1 U	< 1 U	NA	NA	0.23

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW08	S14MW08	S14MW08	S14MW09	S14MW09	S14MW09	S14MW09	EPA Tap Water PRGs
Sample ID	08797102113D	08798011505D	08798040201J	123-S14-227	123-S14-228	123-S14-229	123-S14-230	
Sample Date	10/21/97	01/15/98	04/02/98	05/24/93	08/18/93	11/17/93	02/21/94	
Volatile Organic Compounds (µg/L)								
1,2-DICHLOROETHENE (TOTAL)	NA	NA	NA	< 2 U	< 1 U	< 1 U	< 1 U	NC
2-BUTANONE	< 1 U	< 1 U	< 1 U	< 2 U	< 3 U	3 R	3 R	7,000
ACETONE	< 1 U	9 J	11	< 2 UJ	< 2 U	< 34 UJ	2 R	5,500
BENZENE	0.3 J	**0.5**	**0.7**	< 2 U	< 1 U	< 1 U	< 1 U	0.35
BROMODICHLOROMETHANE	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 1 U	< 1 U	0.18
CARBON DISULFIDE	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 1 U	< 1 U	1,000
CARBON TETRACHLORIDE	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	< 0.5 U	< 0.5 U	< 0.5 U	0.17
CHLOROBENZENE	1	3	5	< 2 U	< 1 U	< 1 U	< 1 U	110
CHLOROFORM	< 1 U	< 1 U	< 1 UJ	< 2 U	**2**	< 1 U	< 1 U	0.17
CIS-1,2-DICHLOROETHENE	0.3 J	< 1 U	< 1 U	NA	NA	NA	NA	61
DIBROMOCHLOROMETHANE	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 1 U	< 1 U	0.13
ETHYLBENZENE	< 1 U	< 1 U	< 1 U	0.6 J	< 1 U	< 1 U	< 1 U	1,300
METHYLENE CHLORIDE	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 5 UJ	< 1 U	4.3
TETRACHLOROETHENE	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 1 U	< 1 U	0.10
TOLUENE	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 1 U	< 1 U	720
TRICHLOROETHENE	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 1 U	< 1 U	0.028
XYLENE (TOTAL)	< 1 U	< 1 U	< 1 U	< 2 U	< 1 U	< 1 U	< 1 U	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	0.2 Y	0.3 Y	0.2 Y	NA	0.44	0.68	NA	NC
MOTOR OIL RANGE ORGANICS	< 0.5 U	< 0.5 U	< 0.5 U	NA	0.55 Y	< 0.5 U	NA	NC
TPH - DIESEL	NA	NA	NA	< 0.05 U	NA	NA	< 0.1 U	NC
TPH - MOTOR OIL	NA	NA	NA	< 0.5 U	NA	NA	< 0.2 U	NC
TPH - NAVY SPECIAL FUEL OIL	NA	NA	NA	NA	0.73	NA	NA	NC
TPH - UNKNOWN HYDROCARBON	NA	NA	NA	< 0.05 U	NA	NA	0.66 Z	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	< 0.05 U	< 0.05 U	< 0.05 U	NA	< 0.05 U	< 0.05 U	NA	NC
Semivolatile Organic Compounds (µg/L)								
1,3-DICHLOROBENZENE	< 5 U	< 5 U	< 5 U	< 10 U	< 10 U	< 10 U	< 10 U	180
1,4-DICHLOROBENZENE	**5 J**	**7**	< 5 U	< 10 U	< 10 U	< 10 U	< 10 U	0.50
2-METHYLNAPHTHALENE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NC
4-CHLORO-3-METHYLPHENOL	< 10 U	< 10 U	1 J	< 10 U	< 10 U	< 10 U	< 10 U	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW08	S14MW08	S14MW08	S14MW09	S14MW09	S14MW09	S14MW09	
Sample ID	08797102113D	08798011505D	08798040201J	123-S14-227	123-S14-228	123-S14-229	123-S14-230	
Sample Date	10/21/97	01/15/98	04/02/98	05/24/93	08/18/93	11/17/93	02/21/94	EPA Tap Water PRGs
Semivolatile Organic Compounds (µg/L)								
ACENAPHTHENE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	370
CARBAZOLE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	3.4
NAPHTHALENE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	0.093 *
PYRENE	< 10 U	< 10 U	0.7 J	< 10 U	< 10 U	< 10 U	< 10 U	180
PCBs/Pesticides (µg/L)								
None Detected	NA	NA	NA	ND	ND	ND	ND	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	NA	NA	NA	31.5	477 J	< 100 U	< 30.1 U	36,000
ANTIMONY	NA	NA	NA	< 31 UJ	< 50 U	< 50 U	< 20 U	15
ARSENIC	NA	NA	NA	< 20 UJ	**2.7 J**	< 20 U	< 20 U	0.045
BARIUM	NA	NA	NA	61	116	< 100 U	41.8	2,600
BERYLLIUM	NA	NA	NA	< 1 U	< 2 U	< 2 U	1	73
CADMIUM	NA	NA	NA	< 4 U	< 4 U	< 4 U	< 2.9 U	18
CALCIUM	NA	NA	NA	337,000	435,000 J	2,700,000	327,000	NC
CHROMIUM	NA	NA	NA	< 3 U	5.1	9.3	11.5	NC
COBALT	NA	NA	NA	3.4 J	< 10 U	< 10 U	< 3.3 U	730
COPPER	NA	NA	NA	< 2 U	< 11.6 U	77.4	< 3.3 U	1,500
IRON	NA	NA	NA	5,250	3,430	4,790	6,120	11,000
LEAD	NA	NA	NA	22 J	20 R	< 20 U	< 30 U	NC
MAGNESIUM	NA	NA	NA	2,200,000	1,520,000	2,700,000	3,270,000	NC
MANGANESE	NA	NA	NA	347	285 J	366	361	880
MERCURY	NA	NA	NA	< 0.2 U	< 0.2 UJ	< 0.2 U	< 0.2 U	NC
MOLYBDENUM	NA	NA	NA	NA	NA	36.9	40.7	180
NICKEL	NA	NA	NA	< 7 UJ	< 20 U	< 20 U	< 6.8 U	730
POTASSIUM	NA	NA	NA	252,000	132,000	307,000	431,000	NC
SELENIUM	NA	NA	NA	< 30 UJ	10 R	< 20 UJ	< 100 UJ	180
SILVER	NA	NA	NA	< 2 UJ	< 5 U	< 6 U	< 5.3 U	180
SODIUM	NA	NA	NA	9,580,000	5,780,000	11,300,000	14,400,000	NC
THALLIUM	NA	NA	NA	< 30 UJ	< 15 UJ	**20**	< 400 U	2.4
VANADIUM	NA	NA	NA	9.8 J	< 10 U	< 10 U	4.9	37
ZINC	NA	NA	NA	< 2.6 U	< 10 U	< 10 U	< 30 U	11,000

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW08	S14MW08	S14MW08	S14MW09	S14MW09	S14MW09	S14MW09	
Sample ID	08797102113D	08798011505D	08798040201J	123-S14-227	123-S14-228	123-S14-229	123-S14-230	
Sample Date	10/21/97	01/15/98	04/02/98	05/24/93	08/18/93	11/17/93	02/21/94	EPA Tap Water PRGs
Metals (µg/L)								
Filtered								
ALUMINUM	< 27.4 UJ	< 6.2 U	< 4 U	NA	NA	NA	NA	36,000
ANTIMONY	< 2.9 U	< 1.8 U	< 2.6 U	NA	NA	NA	NA	15
ARSENIC	**11.3**	**12.7**	**10.6**	NA	NA	NA	NA	0.045
BARIUM	77.9 J	84.6 J	70.2 J	NA	NA	NA	NA	2,600
BERYLLIUM	< 0.1 U	< 0.2 UJ	< 0.05 U	NA	NA	NA	NA	73
CADMIUM	< 0.4 U	< 0.15 U	< 0.15 U	NA	NA	NA	NA	18
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NC
CHROMIUM	1.3 J	0.77 J	1.2 J	NA	NA	NA	NA	NC
COBALT	2 J	2.7 J	3.5 J	NA	NA	NA	NA	730
COPPER	< 1.1 U	< 1.2 U	< 0.6 U	NA	NA	NA	NA	1,500
IRON	NA	NA	NA	NA	NA	NA	NA	11,000
LEAD	< 1.7 U	< 0.9 U	< 1.3 U	NA	NA	NA	NA	NC
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NC
MANGANESE	643	574	628	NA	NA	NA	NA	880
MERCURY	0.36	< 0.2 U	< 0.1 U	NA	NA	NA	NA	NC
MOLYBDENUM	48.2	35.7	42.1	NA	NA	NA	NA	180
NICKEL	2.7 J	< 1 U	2.1 J	NA	NA	NA	NA	730
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NC
SELENIUM	< 4 UJ	3.2	4 J	NA	NA	NA	NA	180
SILVER	< 1.1 U	< 1 U	< 0.65 U	NA	NA	NA	NA	180
SODIUM	NA	NA	NA	NA	NA	NA	NA	NC
THALLIUM	< 4.1 U	< 3.2 UJ	< 3.4 U	NA	NA	NA	NA	2.4
VANADIUM	2.3 J	1.9 J	< 2.9 UJ	NA	NA	NA	NA	37
ZINC	< 8 UJ	< 5.7 UJ	< 0.8 U	NA	NA	NA	NA	11,000
General Mineral								
CALCIUM	177,000	198,000	201,000	NA	NA	NA	NA	NC
IRON	6,690	2,570 J	1,580 J	NA	NA	NA	NA	11,000
MAGNESIUM	700,000	698,000	710,000	NA	NA	NA	NA	NC
POTASSIUM	170,000	169,000	146,000	NA	NA	NA	NA	NC
SODIUM	4,800,000	3,640,000	3,350,000	NA	NA	NA	NA	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW08	S14MW08	S14MW08	S14MW09	S14MW09	S14MW09	S14MW09	
Sample ID	08797102113D	08798011505D	08798040201J	123-S14-227	123-S14-228	123-S14-229	123-S14-230	EPA Tap Water PRGs
Sample Date	10/21/97	01/15/98	04/02/98	05/24/93	08/18/93	11/17/93	02/21/94	
Organophosphorus pesticides (µg/L)								
DICHLORVOS	NA	NA	NA	< 2 U	< 1 U	< 1 U	< 1 U	0.23

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW09	S14MW09	S14MW09	S14MW09	S14MW09	S14MW09	S14MW10	EPA Tap Water PRGs
Sample ID	08797051406BJ	08797051406BJ	08797102450S	08798012016D	08798012017D	08798040202J	123-S14-231	
Sample Date	05/14/97	05/14/97	10/24/97	01/20/98	01/20/98	04/02/98	05/21/93	
Volatile Organic Compounds (µg/L)								
1,2-DICHLOROETHENE (TOTAL)	< 10 U	NA	NA	NA	NA	NA	< 2 U	NC
2-BUTANONE	< 10 UJ	NA	< 1 U	< 1 UJ	< 1 UJ	< 1 U	< 2 U	7,000
ACETONE	< 10 UJ	NA	9 J	8 J	9 J	< 1 U	< 2 UJ	5,500
BENZENE	< 10 U	NA	< 0.5 U	**0.5**	**0.5**	< 0.5 U	< 2 U	0.35
BROMODICHLOROMETHANE	< 10 U	NA	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	0.18
CARBON DISULFIDE	< 10 U	NA	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	1,000
CARBON TETRACHLORIDE	< 10 U	NA	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	0.17
CHLOROBENZENE	< 10 U	NA	< 1 U	3	3	< 1 U	< 2 U	110
CHLOROFORM	< 10 U	NA	< 1 U	< 1 U	< 1 U	< 1 UJ	< 2 U	0.17
CIS-1,2-DICHLOROETHENE	NA	NA	< 1 U	0.4 J	0.4 J	< 1 U	NA	61
DIBROMOCHLOROMETHANE	< 10 U	NA	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	0.13
ETHYLBENZENE	< 10 U	NA	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	1,300
METHYLENE CHLORIDE	< 10 U	NA	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	4.3
TETRACHLOROETHENE	< 10 U	NA	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	0.10
TOLUENE	< 10 U	NA	< 1 UJ	< 1 U	< 1 U	< 1 U	2 J	720
TRICHLOROETHENE	< 10 U	NA	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	0.028
XYLENE (TOTAL)	< 10 U	NA	< 1 U	< 1 U	< 1 U	< 1 U	< 2 U	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	0.1 J	NA	0.2 Y	0.2 Y	0.2 Y	< 0.1 U	NA	NC
MOTOR OIL RANGE ORGANICS	< 0.5 U	NA	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	NA	NC
TPH - DIESEL	NA	NA	NA	NA	NA	NA	< 0.05 U	NC
TPH - MOTOR OIL	NA	NA	NA	NA	NA	NA	< 0.5 U	NC
TPH - NAVY SPECIAL FUEL OIL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - UNKNOWN HYDROCARBON	NA	NA	NA	NA	NA	NA	0.015 J	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	< 0.05 U	NA	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	NA	NC
Semivolatile Organic Compounds (µg/L)								
1,3-DICHLOROBENZENE	< 5 U	NA	< 5 U	< 5 U	< 5 U	< 5 U	< 10 U	180
1,4-DICHLOROBENZENE	< 5 U	NA	< 5 U	**4 J**	**4 J**	< 5 U	< 10 U	0.50
2-METHYLNAPHTHALENE	< 10 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NC
4-CHLORO-3-METHYLPHENOL	< 10 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW09	S14MW09	S14MW09	S14MW09	S14MW09	S14MW09	S14MW10	
Sample ID	08797051406BJ	08797051406BJ	08797102450S	08798012016D	08798012017D	08798040202J	123-S14-231	EPA Tap Water PRGs
Sample Date	05/14/97	05/14/97	10/24/97	01/20/98	01/20/98	04/02/98	05/21/93	
Semivolatile Organic Compounds (µg/L)								
ACENAPHTHENE	< 10 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	370
CARBAZOLE	< 10 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	3.4
NAPHTHALENE	< 10 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	0.093 *
PYRENE	< 10 U	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	180
PCBs/Pesticides (µg/L)								
None Detected	NA	NA	NA	NA	NA	NA	ND	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	< 207 UJ	NA	NA	NA	NA	NA	35.1	36,000
ANTIMONY	2.7 J	NA	NA	NA	NA	NA	< 31 U	15
ARSENIC	**5.2**	NA	NA	NA	NA	NA	< 20 UJ	0.045
BARIUM	135	NA	NA	NA	NA	NA	29.8	2,600
BERYLLIUM	< 0.13 UJ	NA	NA	NA	NA	NA	< 1 U	73
CADMIUM	< 0.45 UJ	NA	NA	NA	NA	NA	< 4 U	18
CALCIUM	483,000	NA	NA	NA	NA	NA	611,000	NC
CHROMIUM	< 0.27 U	NA	NA	NA	NA	NA	3.7	NC
COBALT	0.72 J	NA	NA	NA	NA	NA	< 2 U	730
COPPER	< 0.54 UJ	NA	NA	NA	NA	NA	< 2 U	1,500
IRON	7,730	NA	NA	NA	NA	NA	**18,200**	11,000
LEAD	9.6 J	NA	NA	NA	NA	NA	1.2 J	NC
MAGNESIUM	2,160,000	NA	NA	NA	NA	NA	945,000	NC
MANGANESE	364	NA	NA	NA	NA	NA	**1,740**	880
MERCURY	< 0.2 U	NA	NA	NA	NA	NA	< 0.2 U	NC
MOLYBDENUM	52.7	NA	NA	NA	NA	NA	NA	180
NICKEL	< 0.77 U	NA	NA	NA	NA	NA	< 7 U	730
POTASSIUM	315,000	NA	NA	NA	NA	NA	163,000	NC
SELENIUM	< 11.3 UJ	NA	NA	NA	NA	NA	< 3 UJ	180
SILVER	< 0.43 U	NA	NA	NA	NA	NA	< 2 UJ	180
SODIUM	9,360,000	NA	NA	NA	NA	NA	4,730,000	NC
THALLIUM	< 1.4 U	NA	NA	NA	NA	NA	< 30 UJ	2.4
VANADIUM	6.4 J	NA	NA	NA	NA	NA	3	37
ZINC	4.7 J	NA	NA	NA	NA	NA	< 2.4 U	11,000

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW09	S14MW09	S14MW09	S14MW09	S14MW09	S14MW09	S14MW10	EPA Tap Water PRGs
Sample ID	08797051406BJ	08797051406BJ	08797102450S	08798012016D	08798012017D	08798040202J	123-S14-231	
Sample Date	05/14/97	05/14/97	10/24/97	01/20/98	01/20/98	04/02/98	05/21/93	
Metals (µg/L)								
Filtered								
ALUMINUM	NA	< 9.8 UJ	< 11 U	< 6.2 U	< 28.7 UJ	< 4 U	NA	36,000
ANTIMONY	NA	< 1.4 U	< 1.4 U	< 1.8 U	< 1.8 U	< 2.6 U	NA	15
ARSENIC	NA	**6.3**	< 7.5 UJ	**15.6**	**16.5**	**5.7**	NA	0.045
BARIUM	NA	139	92.8 J	86.4 J	82.7 J	45.9 J	NA	2,600
BERYLLIUM	NA	< 0.23 UJ	0.096 J	< 0.05 U	< 0.05 U	< 0.08 UJ	NA	73
CADMIUM	NA	0.32 J	< 0.2 U	< 0.15 U	< 0.15 U	< 0.15 U	NA	18
CALCIUM	NA	406,000	NA	NA	NA	NA	NA	NC
CHROMIUM	NA	< 1.1 UJ	4 J	< 0.55 U	< 0.55 U	1.5 J	NA	NC
COBALT	NA	0.94 J	2.2 J	< 1.7 U	2 J	< 0.7 U	NA	730
COPPER	NA	< 0.54 UJ	1.3 J	< 1.2 U	< 1.2 U	< 0.6 U	NA	1,500
IRON	NA	5,830	NA	NA	NA	NA	NA	11,000
LEAD	NA	< 1 UJ	< 0.85 UJ	1.8 R	1.8 R	< 1.3 U	NA	NC
MAGNESIUM	NA	2,320,000	NA	NA	NA	NA	NA	NC
MANGANESE	NA	376	421	619 J	550 J	379	NA	880
MERCURY	NA	< 0.1 U	0.1 R	< 0.2 UJ	< 0.2 UJ	< 0.1 U	NA	NC
MOLYBDENUM	NA	49.2	63.2	44.4	43	63.3	NA	180
NICKEL	NA	< 0.98 UJ	2.3 J	< 2.1 U	< 2.1 U	1.7 J	NA	730
POTASSIUM	NA	308,000	NA	NA	NA	NA	NA	NC
SELENIUM	NA	< 1.4 U	7.8	< 4.7 UJ	< 4.7 UJ	10.4 J	NA	180
SILVER	NA	< 0.43 U	2.9 J	< 2.1 U	< 2.1 U	< 0.65 U	NA	180
SODIUM	NA	9,640,000	NA	NA	NA	NA	NA	NC
THALLIUM	NA	< 1.4 UJ	< 3 U	< 3.2 UJ	< 3.2 UJ	< 3.4 U	NA	2.4
VANADIUM	NA	7.5 J	4.8 J	1.2 J	2.4 J	< 2 UJ	NA	37
ZINC	NA	< 2.3 UJ	< 5.8 UJ	< 3.8 UJ	19.8	< 0.8 U	NA	11,000
General Mineral								
CALCIUM	536,000	NA	526,000	183,000	180,000	536,000	NA	NC
IRON	339 J	NA	303 J	8,500 J	8,820 J	1,360 J	NA	11,000
MAGNESIUM	2,540,000	NA	2,620,000	648,000	636,000	2,130,000	NA	NC
POTASSIUM	328,000 J	NA	369,000	156,000 J	155,000 J	270,000	NA	NC
SODIUM	11,200,000 J	NA	12,100,000 J	3,630,000 J	3,670,000 J	8,780,000	NA	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW09	S14MW09	S14MW09	S14MW09	S14MW09	S14MW09	S14MW10	
Sample ID	08797051406BJ	08797051406BJ	08797102450S	08798012016D	08798012017D	08798040202J	123-S14-231	EPA Tap Water PRGs
Sample Date	05/14/97	05/14/97	10/24/97	01/20/98	01/20/98	04/02/98	05/21/93	
Organophosphorus pesticides (µg/L)								
DICHLORVOS	NA	NA	NA	NA	NA	NA	< 2 U	0.23

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW10	S14MW10	S14MW10	S14MW10	S14MW10	S14MW10	S14MW11	
Sample ID	123-S14-232	123-S14-233	123-S14-234	123-S14-235	08797051604BJ	08797051604BJ	123-S14-236	EPA Tap Water PRGs
Sample Date	08/19/93	11/23/93	02/23/94	02/23/94	05/16/97	05/16/97	05/20/93	
Volatile Organic Compounds (µg/L)								
1,2-DICHLOROETHENE (TOTAL)	< 1 U	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 2 U	NC
2-BUTANONE	< 3 U	3 R	< 3 U	< 3 U	< 10 U	NA	< 2 U	7,000
ACETONE	< 5 U	2 R	< 6 U	< 4 U	< 10 UJ	NA	< 2 UJ	5,500
BENZENE	< 1 U	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 2 U	0.35
BROMODICHLOROMETHANE	< 1 U	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 2 U	0.18
CARBON DISULFIDE	< 1 U	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 2 U	1,000
CARBON TETRACHLORIDE	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 10 U	NA	< 2 U	0.17
CHLOROBENZENE	< 1 U	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 2 U	110
CHLOROFORM	< 1 U	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 2 U	0.17
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	61
DIBROMOCHLOROMETHANE	< 1 U	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 2 U	0.13
ETHYLBENZENE	< 1 U	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 2 U	1,300
METHYLENE CHLORIDE	< 1 U	< 1 UJ	< 1 U	< 1 U	< 10 U	NA	< 2 U	4.3
TETRACHLOROETHENE	< 1 U	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 2 U	0.10
TOLUENE	< 1 U	< 1 U	< 1 U	< 1 U	< 10 U	NA	3	720
TRICHLOROETHENE	< 1 U	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 2 U	0.028
XYLENE (TOTAL)	< 1 U	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 2 U	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	0.28	< 0.25 U	NA	NA	< 0.1 U	NA	NA	NC
MOTOR OIL RANGE ORGANICS	< 0.5 U	< 0.5 U	NA	NA	< 0.5 U	NA	NA	NC
TPH - DIESEL	NA	NA	< 0.1 U	< 0.1 U	NA	NA	< 0.05 U	NC
TPH - MOTOR OIL	NA	NA	< 0.2 U	< 0.2 U	NA	NA	< 0.5 U	NC
TPH - NAVY SPECIAL FUEL OIL	0.46	NA	NA	NA	NA	NA	NA	NC
TPH - UNKNOWN HYDROCARBON	NA	NA	0.77 Z	0.64 Z	NA	NA	< 0.05 U	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	< 0.05 U	< 0.05 U	NA	NA	< 0.05 U	NA	NA	NC
Semivolatile Organic Compounds (µg/L)								
1,3-DICHLOROBENZENE	< 10 U	< 10 U	< 10 U	< 10 U	< 5 U	NA	< 10 U	180
1,4-DICHLOROBENZENE	< 10 U	< 10 U	< 10 U	< 10 U	< 5 U	NA	< 10 U	0.50
2-METHYLNAPHTHALENE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NA	< 10 U	NC
4-CHLORO-3-METHYLPHENOL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NA	< 10 U	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW10	S14MW10	S14MW10	S14MW10	S14MW10	S14MW10	S14MW11	EPA Tap Water PRGs
Sample ID	123-S14-232	123-S14-233	123-S14-234	123-S14-235	08797051604BJ	08797051604BJ	123-S14-236	
Sample Date	08/19/93	11/23/93	02/23/94	02/23/94	05/16/97	05/16/97	05/20/93	
Semivolatile Organic Compounds (µg/L)								
ACENAPHTHENE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NA	< 10 U	370
CARBAZOLE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NA	< 10 U	3.4
NAPHTHALENE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NA	< 10 U	0.093 *
PYRENE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NA	< 10 U	180
PCBs/Pesticides (µg/L)								
None Detected	ND	ND	ND	ND	NA	NA	ND	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	187 J	< 100 U	< 30.1 U	< 30.1 U	< 10.2 UJ	NA	39.7	36,000
ANTIMONY	**63.2**	< 50 U	2.1	< 2 U	< 1.4 UJ	NA	< 31 UJ	15
ARSENIC	**2.6 J**	< 2 UJ	**7.9**	< 2 U	**12.7 J**	NA	< 2 UJ	0.045
BARIUM	< 100 U	< 100 UJ	27.2	29.4	43 J	NA	37.6	2,600
BERYLLIUM	< 2 U	< 2 U	1.1	1.1	< 0.03 UJ	NA	< 1 U	73
CADMIUM	< 4 U	< 4 U	< 2.9 U	< 2.9 U	< 0.56 UJ	NA	< 4 U	18
CALCIUM	678,000 J	683,000	591,000	693,000	850,000 J	NA	607,000	NC
CHROMIUM	< 5 U	7.3	9.7	9.3	< 0.27 UJ	NA	4.2 J	NC
COBALT	< 10 U	< 10 U	3.7	3.7	1.1 J	NA	6 J	730
COPPER	< 10 U	26	< 3.3 U	< 3.3 U	0.45 J	NA	< 2 U	1,500
IRON	**12,300**	10,100	**13,100**	**13,000**	**14,500 J**	NA	5,950	11,000
LEAD	2 R	< 20 UJ	19	< 10 U	< 1 UJ	NA	< 1.6 UJ	NC
MAGNESIUM	800,000	828,000	905,000	900,000	931,000 J	NA	426,000	NC
MANGANESE	**2,180 J**	**2,600 J**	**1,920**	**2,070**	**1,090 J**	NA	**6,690**	880
MERCURY	< 0.2 UJ	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 UJ	NA	< 0.2 U	NC
MOLYBDENUM	NA	58.9	57.7	59	58 J	NA	NA	180
NICKEL	< 20 U	< 20 U	< 6.8 U	< 6.8 U	< 0.77 UJ	NA	< 7 UJ	730
POTASSIUM	138,000	141,000	162,000	161,000	179,000 J	NA	78,300	NC
SELENIUM	10 R	30 R	< 20 U	< 20 U	< 1.4 UJ	NA	< 30 UJ	180
SILVER	< 5 U	< 6 U	< 5.3 U	< 5.3 U	< 0.43 UJ	NA	3.7 J	180
SODIUM	3,640,000	3,070,000 J	4,210,000	4,100,000	4,350,000 J	NA	1,960,000	NC
THALLIUM	< 15 UJ	< 20 UJ	< 40 U	< 40 U	< 1.4 UJ	NA	< 30 UJ	2.4
VANADIUM	**53.6**	< 10 U	< 3.8 U	< 3.8 U	< 0.5 UJ	NA	< 2 U	37
ZINC	10.3	< 10 U	178	124	< 5 UJ	NA	< 8.5 U	11,000

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW10	S14MW10	S14MW10	S14MW10	S14MW10	S14MW10	S14MW11	EPA Tap Water PRGs
Sample ID	123-S14-232	123-S14-233	123-S14-234	123-S14-235	08797051604BJ	08797051604BJ	123-S14-236	
Sample Date	08/19/93	11/23/93	02/23/94	02/23/94	05/16/97	05/16/97	05/20/93	
Metals (µg/L)								
FIltered								
ALUMINUM	NA	NA	NA	NA	NA	< 4.2 U	NA	36,000
ANTIMONY	NA	NA	NA	NA	NA	< 1.2 U	NA	15
ARSENIC	NA	NA	NA	NA	NA	**14.5**	NA	0.045
BARIUM	NA	NA	NA	NA	NA	36.9 J	NA	2,600
BERYLLIUM	NA	NA	NA	NA	NA	< 0.07 U	NA	73
CADMIUM	NA	NA	NA	NA	NA	0.45 J	NA	18
CALCIUM	NA	NA	NA	NA	NA	785,000	NA	NC
CHROMIUM	NA	NA	NA	NA	NA	0.61 J	NA	NC
COBALT	NA	NA	NA	NA	NA	1.3 J	NA	730
COPPER	NA	NA	NA	NA	NA	< 0.4 U	NA	1,500
IRON	NA	NA	NA	NA	NA	**12,300**	NA	11,000
LEAD	NA	NA	NA	NA	NA	< 0.63 UJ	NA	NC
MAGNESIUM	NA	NA	NA	NA	NA	880,000	NA	NC
MANGANESE	NA	NA	NA	NA	NA	**1,070**	NA	880
MERCURY	NA	NA	NA	NA	NA	< 0.1 U	NA	NC
MOLYBDENUM	NA	NA	NA	NA	NA	54.8	NA	180
NICKEL	NA	NA	NA	NA	NA	< 0.7 U	NA	730
POTASSIUM	NA	NA	NA	NA	NA	180,000	NA	NC
SELENIUM	NA	NA	NA	NA	NA	< 2.3 UJ	NA	180
SILVER	NA	NA	NA	NA	NA	< 0.5 U	NA	180
SODIUM	NA	NA	NA	NA	NA	4,060,000	NA	NC
THALLIUM	NA	NA	NA	NA	NA	< 1.4 U	NA	2.4
VANADIUM	NA	NA	NA	NA	NA	< 0.57 U	NA	37
ZINC	NA	NA	NA	NA	NA	4.8 J	NA	11,000
General Mineral								
CALCIUM	NA	NA	NA	NA	885,000	NA	NA	NC
IRON	NA	NA	NA	NA	410	NA	NA	11,000
MAGNESIUM	NA	NA	NA	NA	981,000	NA	NA	NC
POTASSIUM	NA	NA	NA	NA	206,000	NA	NA	NC
SODIUM	NA	NA	NA	NA	4,170,000	NA	NA	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW10	S14MW10	S14MW10	S14MW10	S14MW10	S14MW10	S14MW11	
Sample ID	123-S14-232	123-S14-233	123-S14-234	123-S14-235	08797051604BJ	08797051604BJ	123-S14-236	EPA Tap Water PRGs
Sample Date	08/19/93	11/23/93	02/23/94	02/23/94	05/16/97	05/16/97	05/20/93	
Organophosphorus pesticides (µg/L)								
DICHLORVOS	< 1 U	< 1 U	< 1 U	< 1 U	NA	NA	< 2 U	0.23

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW11	S14MW11	S14MW11	S14MW11	S14MW11	S14MW11	S14MW11	
Sample ID	123-S14-237	123-S14-238	123-S14-239	08797051601BJ	08797051601BJ	08797102447S	08797102448S	EPA Tap Water PRGs
Sample Date	08/19/93	11/19/93	02/22/94	05/16/97	05/16/97	10/24/97	10/24/97	
Volatile Organic Compounds (µg/L)								
1,2-DICHLOROETHENE (TOTAL)	< 1 U	< 1 U	< 1 U	< 10 U	NA	NA	NA	NC
2-BUTANONE	< 3 U	3 R	< 3 U	< 10 U	NA	< 1 U	NA	7,000
ACETONE	< 2 U	< 4 U	< 2 U	< 10 UJ	NA	7 J	NA	5,500
BENZENE	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 0.5 U	NA	0.35
BROMODICHLOROMETHANE	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 1 U	NA	0.18
CARBON DISULFIDE	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 1 U	NA	1,000
CARBON TETRACHLORIDE	< 0.5 U	< 0.5 U	< 0.5 U	< 10 U	NA	< 0.5 U	NA	0.17
CHLOROBENZENE	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 1 U	NA	110
CHLOROFORM	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 1 U	NA	0.17
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	< 1 U	NA	61
DIBROMOCHLOROMETHANE	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 1 U	NA	0.13
ETHYLBENZENE	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 1 U	NA	1,300
METHYLENE CHLORIDE	< 1 U	< 1 UJ	< 1 U	< 10 U	NA	< 2 U	NA	4.3
TETRACHLOROETHENE	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 1 U	NA	0.10
TOLUENE	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 1 U	NA	720
TRICHLOROETHENE	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 1 U	NA	0.028
XYLENE (TOTAL)	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 1 U	NA	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	< 0.25 U	< 0.25 U	NA	< 0.1 U	NA	< 0.1 U	NA	NC
MOTOR OIL RANGE ORGANICS	< 0.5 U	< 0.5 U	NA	< 0.5 U	NA	< 0.7 U	NA	NC
TPH - DIESEL	NA	NA	< 0.1 U	NA	NA	NA	NA	NC
TPH - MOTOR OIL	NA	NA	< 0.2 U	NA	NA	NA	NA	NC
TPH - NAVY SPECIAL FUEL OIL	0.3	NA	NA	NA	NA	NA	NA	NC
TPH - UNKNOWN HYDROCARBON	NA	NA	0.34 Z	NA	NA	NA	NA	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	< 0.05 U	< 0.05 U	NA	< 0.05 U	NA	< 0.05 U	NA	NC
Semivolatile Organic Compounds (µg/L)								
1,3-DICHLOROBENZENE	< 10 U	< 10 U	< 10 U	< 5 U	NA	< 5 U	NA	180
1,4-DICHLOROBENZENE	< 10 U	< 10 U	< 10 U	< 5 U	NA	< 5 U	NA	0.50
2-METHYLNAPHTHALENE	< 10 U	< 10 U	< 10 U	< 10 U	NA	< 10 U	NA	NC
4-CHLORO-3-METHYLPHENOL	< 10 U	< 10 U	< 10 U	< 10 U	NA	< 10 U	NA	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW11	S14MW11	S14MW11	S14MW11	S14MW11	S14MW11	S14MW11	
Sample ID	123-S14-237	123-S14-238	123-S14-239	08797051601BJ	08797051601BJ	08797102447S	08797102448S	EPA Tap Water PRGs
Sample Date	08/19/93	11/19/93	02/22/94	05/16/97	05/16/97	10/24/97	10/24/97	
Semivolatile Organic Compounds (µg/L)								
ACENAPHTHENE	< 10 U	< 10 U	< 10 U	< 10 U	NA	< 10 U	NA	370
CARBAZOLE	< 10 U	< 10 U	< 10 U	< 10 U	NA	< 10 U	NA	3.4
NAPHTHALENE	< 10 U	< 10 U	< 10 U	< 10 U	NA	< 10 U	NA	0.093 *
PYRENE	< 10 U	< 10 UJ	< 10 U	< 10 U	NA	< 10 U	NA	180
PCBs/Pesticides (µg/L)								
None Detected	ND	ND	ND	NA	NA	NA	NA	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	144 J	< 100 U	< 30.1 U	5,080 J	NA	NA	1,160	36,000
ANTIMONY	**68.9**	< 50 U	4.1	< 1.4 UJ	NA	NA	< 1.4 U	15
ARSENIC	< 2 UJ	< 2 UJ	< 2 U	< 3.6 UJ	NA	NA	< 2.1 UJ	0.045
BARIUM	< 100 U	< 100 UJ	25.5	77.1 J	NA	NA	35.9 J	2,600
BERYLLIUM	< 2 U	< 2 U	0.48	< 0.16 UJ	NA	NA	< 0.05 U	73
CADMIUM	< 4 U	< 4 U	< 2.9 U	< 0.88 UJ	NA	NA	0.75 J	18
CALCIUM	551,000 J	530,000	556,000	621,000 J	NA	NA	NA	NC
CHROMIUM	< 5 U	5.4	4.7	< 6.2 UJ	NA	NA	2.2 J	NC
COBALT	< 10 U	< 10 U	4.6	7.2 J	NA	NA	1.6 J	730
COPPER	< 10 U	15.1	< 3.3 U	10 J	NA	NA	3.3 J	1,500
IRON	< 50 U	106	426	7,720 J	NA	NA	NA	11,000
LEAD	3 J	< 2 UJ	< 1 U	2.1 J	NA	NA	< 0.85 UJ	NC
MAGNESIUM	358,000	349,000	404,000	369,000 J	NA	NA	NA	NC
MANGANESE	**5,620 J**	**4,530 J**	**3,830**	**3,980 J**	NA	NA	**1,440**	880
MERCURY	< 0.2 UJ	< 0.2 U	< 0.2 U	< 0.2 UJ	NA	NA	0.1 R	NC
MOLYBDENUM	NA	60.9	52.9	20.3 J	NA	NA	28.8	180
NICKEL	< 20 U	< 20 U	< 6.8 U	< 10.6 UJ	NA	NA	8.7 J	730
POTASSIUM	78,100	83,500	83,600	75,100 J	NA	NA	NA	NC
SELENIUM	1 R	30 R	< 2 U	< 1.4 UJ	NA	NA	< 2 U	180
SILVER	< 5 U	< 6 U	< 5.3 U	< 0.43 UJ	NA	NA	< 0.58 UJ	180
SODIUM	1,640,000	1,670,000 J	1,890,000	1,600,000 J	NA	NA	NA	NC
THALLIUM	< 3 UJ	< 2 UJ	< 40 U	< 1.4 UJ	NA	NA	< 3 U	2.4
VANADIUM	**46.7**	< 10 U	< 3.8 U	15.7 J	NA	NA	4.4 J	37
ZINC	39.9	< 10 U	5.9	33.6 J	NA	NA	7.9 J	11,000

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW11	S14MW11	S14MW11	S14MW11	S14MW11	S14MW11	S14MW11	
Sample ID	123-S14-237	123-S14-238	123-S14-239	08797051601BJ	08797051601BJ	08797102447S	08797102448S	EPA Tap Water PRGs
Sample Date	08/19/93	11/19/93	02/22/94	05/16/97	05/16/97	10/24/97	10/24/97	
Metals (µg/L)								
FIltered								
ALUMINUM	NA	NA	NA	NA	204	< 12.1 UJ	NA	36,000
ANTIMONY	NA	NA	NA	NA	< 1.2 UJ	< 1.4 U	NA	15
ARSENIC	NA	NA	NA	NA	**4.6 J**	< 4.6 UJ	NA	0.045
BARIUM	NA	NA	NA	NA	43 J	31.5 J	NA	2,600
BERYLLIUM	NA	NA	NA	NA	< 0.07 U	< 0.05 U	NA	73
CADMIUM	NA	NA	NA	NA	0.22 J	0.82 J	NA	18
CALCIUM	NA	NA	NA	NA	656,000	NA	NA	NC
CHROMIUM	NA	NA	NA	NA	< 0.4 U	0.52 J	NA	NC
COBALT	NA	NA	NA	NA	< 0.6 U	1.5 J	NA	730
COPPER	NA	NA	NA	NA	2.9 J	3.4 J	NA	1,500
IRON	NA	NA	NA	NA	253	NA	NA	11,000
LEAD	NA	NA	NA	NA	< 0.63 UJ	< 0.85 UJ	NA	NC
MAGNESIUM	NA	NA	NA	NA	391,000	NA	NA	NC
MANGANESE	NA	NA	NA	NA	653	**1,260**	NA	880
MERCURY	NA	NA	NA	NA	< 0.1 U	0.1 R	NA	NC
MOLYBDENUM	NA	NA	NA	NA	23.5	29.2	NA	180
NICKEL	NA	NA	NA	NA	2.3	7.5 J	NA	730
POTASSIUM	NA	NA	NA	NA	78,800	NA	NA	NC
SELENIUM	NA	NA	NA	NA	< 2.1 UJ	< 2 U	NA	180
SILVER	NA	NA	NA	NA	< 0.5 U	1.1 J	NA	180
SODIUM	NA	NA	NA	NA	1,630,000	NA	NA	NC
THALLIUM	NA	NA	NA	NA	1.6 J	< 3 U	NA	2.4
VANADIUM	NA	NA	NA	NA	1.3 J	< 2 UJ	NA	37
ZINC	NA	NA	NA	NA	3.2 J	< 5.7 UJ	NA	11,000
General Mineral								
CALCIUM	NA	NA	NA	731,000	NA	700,000	NA	NC
IRON	NA	NA	NA	250	NA	263 J	NA	11,000
MAGNESIUM	NA	NA	NA	429,000	NA	489,000	NA	NC
POTASSIUM	NA	NA	NA	87,900	NA	88,600	NA	NC
SODIUM	NA	NA	NA	1,590,000 J	NA	1,950,000	NA	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW11	S14MW11	S14MW11	S14MW11	S14MW11	S14MW11	S14MW11	
Sample ID	123-S14-237	123-S14-238	123-S14-239	08797051601BJ	08797051601BJ	08797102447S	08797102448S	EPA Tap Water PRGs
Sample Date	08/19/93	11/19/93	02/22/94	05/16/97	05/16/97	10/24/97	10/24/97	
Organophosphorus pesticides (µg/L)								
DICHLORVOS	< 1 U	< 1 U	< 1 U	NA	NA	NA	NA	0.23

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW11	S14MW11	S14MW11	S14MW12	S14MW12	S14MW12	S14MW12	EPA Tap Water PRGs
Sample ID	08797102449S	08798012243M	08798040101K	123-S14-240	123-S14-241	123-S14-242	123-S14-243	
Sample Date	10/24/97	01/22/98	04/01/98	05/19/93	08/19/93	11/19/93	02/23/94	
Volatile Organic Compounds (µg/L)								
1,2-DICHLOROETHENE (TOTAL)	NA	NA	NA	< 2 U	< 1 U	< 1 U	< 1 U	NC
2-BUTANONE	NA	< 1 U	< 1 U	< 2 U	< 3 U	3 R	< 3 U	7,000
ACETONE	NA	6 J	6	< 2 UJ	< 2 U	2 R	< 4 U	5,500
BENZENE	NA	< 0.5 U	< 0.5 U	< 2 U	< 1 U	< 1 U	< 1 U	0.35
BROMODICHLOROMETHANE	NA	< 1 U	< 1 U	< 2 U	< 1 U	< 1 U	< 1 U	0.18
CARBON DISULFIDE	NA	< 1 U	< 1 U	< 2 U	< 1 U	< 1 U	< 1 U	1,000
CARBON TETRACHLORIDE	NA	< 0.5 U	< 0.5 U	< 2 U	< 0.5 U	< 0.5 U	< 0.5 U	0.17
CHLOROBENZENE	NA	< 1 U	< 1 U	< 2 U	< 1 U	< 1 U	< 1 U	110
CHLOROFORM	NA	< 1 U	< 1 UJ	< 2 U	< 1 U	< 1 U	< 1 U	0.17
CIS-1,2-DICHLOROETHENE	NA	< 1 U	< 1 U	NA	NA	NA	NA	61
DIBROMOCHLOROMETHANE	NA	< 1 U	< 1 U	< 2 U	< 1 U	< 1 U	< 1 U	0.13
ETHYLBENZENE	NA	< 1 U	< 1 U	< 2 U	< 1 U	< 1 U	< 1 U	1,300
METHYLENE CHLORIDE	NA	< 2 U	< 2 U	< 2 U	< 1 U	< 1 UJ	< 1 U	4.3
TETRACHLOROETHENE	NA	< 1 U	< 1 U	< 2 U	< 1 U	< 1 U	< 1 U	0.10
TOLUENE	NA	< 1 U	< 1 U	2	< 1 U	< 1 U	< 1 U	720
TRICHLOROETHENE	NA	< 1 U	< 1 U	< 2 U	< 1 U	< 1 U	< 1 U	0.028
XYLENE (TOTAL)	NA	< 1 U	< 1 U	< 2 U	< 1 U	< 1 U	< 1 U	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	< 0.1 U	< 0.1 U	NA	< 0.25 U	0.3	NA	NC
MOTOR OIL RANGE ORGANICS	NA	< 0.5 U	< 0.5 U	NA	< 0.5 U	< 0.5 U	NA	NC
TPH - DIESEL	NA	NA	NA	< 0.05 U	NA	NA	< 0.1 U	NC
TPH - MOTOR OIL	NA	NA	NA	< 0.5 UJ	NA	NA	< 0.2 U	NC
TPH - NAVY SPECIAL FUEL OIL	NA	NA	NA	NA	0.41	NA	NA	NC
TPH - UNKNOWN HYDROCARBON	NA	NA	NA	< 0.05 U	NA	NA	0.47 Z	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	< 0.05 U	< 0.05 UJ	NA	< 0.05 U	< 0.05 U	NA	NC
Semivolatile Organic Compounds (µg/L)								
1,3-DICHLOROBENZENE	NA	< 5 U	< 5 U	< 10 U	< 10 U	< 10 U	< 10 U	180
1,4-DICHLOROBENZENE	NA	< 5 U	< 5 U	< 10 U	< 10 U	< 10 U	< 10 U	0.50
2-METHYLNAPHTHALENE	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NC
4-CHLORO-3-METHYLPHENOL	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW11	S14MW11	S14MW11	S14MW12	S14MW12	S14MW12	S14MW12	
Sample ID	08797102449S	08798012243M	08798040101K	123-S14-240	123-S14-241	123-S14-242	123-S14-243	EPA Tap Water PRGs
Sample Date	10/24/97	01/22/98	04/01/98	05/19/93	08/19/93	11/19/93	02/23/94	
Semivolatile Organic Compounds (µg/L)								
ACENAPHTHENE	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	370
CARBAZOLE	NA	< 10 U	< 10 UJ	< 10 U	< 10 U	< 10 U	< 10 U	3.4
NAPHTHALENE	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	0.093 *
PYRENE	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	180
PCBs/Pesticides (µg/L)								
None Detected	NA	NA	NA	ND	ND	ND	ND	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	2,710	NA	NA	< 49.5 UJ	< 100 UJ	< 100 U	< 30.1 U	36,000
ANTIMONY	< 2 UJ	NA	NA	< 31 UJ	< 50 U	< 50 U	< 20 U	15
ARSENIC	< 3.6 UJ	NA	NA	**20 R**	< 20 UJ	< 20 UJ	< 20 U	0.045
BARIUM	46 J	NA	NA	17.6 J	< 100 U	< 100 UJ	14.1	2,600
BERYLLIUM	< 0.05 U	NA	NA	< 1 U	< 2 U	< 2 U	0.62	73
CADMIUM	0.94 J	NA	NA	< 4 U	< 4 U	< 4 U	< 2.9 U	18
CALCIUM	NA	NA	NA	311,000 J	354,000 J	345,000	395,000	NC
CHROMIUM	5.8	NA	NA	< 3 U	< 5 U	10.7	13.1	NC
COBALT	3.8 J	NA	NA	< 2 U	< 10 U	< 10 U	< 3.3 U	730
COPPER	5.7 J	NA	NA	< 2 U	< 37.2 U	76.9	< 3.3 U	1,500
IRON	NA	NA	NA	6,170 J	5,760	5,670	5,390	11,000
LEAD	< 0.85 UJ	NA	NA	< 10 UJ	24 J	< 20 UJ	13	NC
MAGNESIUM	NA	NA	NA	2,740,000 J	2,280,000	2,580,000	2,550,000	NC
MANGANESE	**2,040**	NA	NA	598 J	587 J	619 J	635	880
MERCURY	0.1 R	NA	NA	0.81	< 0.2 UJ	< 0.2 U	< 0.2 U	NC
MOLYBDENUM	29	NA	NA	NA	NA	54	48.8	180
NICKEL	12.2 J	NA	NA	< 7 U	< 20 U	< 20 U	< 6.8 U	730
POTASSIUM	NA	NA	NA	339,000	297,000	341,000	335,000	NC
SELENIUM	< 2 U	NA	NA	30 R	10 R	30 R	< 100 U	180
SILVER	1.2 J	NA	NA	< 2 UJ	< 5 U	< 6 U	< 5.3 U	180
SODIUM	NA	NA	NA	13,200,000	9,720,000	10,500,000 J	11,000,000	NC
THALLIUM	< 3 U	NA	NA	**30 R**	< 15 UJ	< 20 UJ	< 40 U	2.4
VANADIUM	9.8 J	NA	NA	< 7.3 U	< 10 U	< 10 U	< 3.8 U	37
ZINC	15.8	NA	NA	< 6.1 UJ	26.8	< 10 U	36	11,000

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW11	S14MW11	S14MW11	S14MW12	S14MW12	S14MW12	S14MW12	EPA Tap Water PRGs
Sample ID	08797102449S	08798012243M	08798040101K	123-S14-240	123-S14-241	123-S14-242	123-S14-243	
Sample Date	10/24/97	01/22/98	04/01/98	05/19/93	08/19/93	11/19/93	02/23/94	
Metals (µg/L)								
FIltered								
ALUMINUM	NA	< 6.2 U	< 4 U	NA	NA	NA	NA	36,000
ANTIMONY	NA	< 1.8 U	< 2.6 U	NA	NA	NA	NA	15
ARSENIC	NA	**1.8 J**	**2.8 J**	NA	NA	NA	NA	0.045
BARIUM	NA	27.8 J	27.5 J	NA	NA	NA	NA	2,600
BERYLLIUM	NA	< 0.05 U	< 0.05 U	NA	NA	NA	NA	73
CADMIUM	NA	0.92 J	< 0.18 UJ	NA	NA	NA	NA	18
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NC
CHROMIUM	NA	< 0.55 U	1.7 J	NA	NA	NA	NA	NC
COBALT	NA	< 0.85 U	0.71 J	NA	NA	NA	NA	730
COPPER	NA	2.6 J	< 0.6 U	NA	NA	NA	NA	1,500
IRON	NA	NA	NA	NA	NA	NA	NA	11,000
LEAD	NA	< 0.9 U	< 1.3 U	NA	NA	NA	NA	NC
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NC
MANGANESE	NA	409	**1,270**	NA	NA	NA	NA	880
MERCURY	NA	< 0.2 U	< 0.1 U	NA	NA	NA	NA	NC
MOLYBDENUM	NA	26.8	48.3	NA	NA	NA	NA	180
NICKEL	NA	< 4.3 UJ	1.9 J	NA	NA	NA	NA	730
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NC
SELENIUM	NA	3.3	11.7 J	NA	NA	NA	NA	180
SILVER	NA	< 1.8 UJ	1.1 J	NA	NA	NA	NA	180
SODIUM	NA	NA	NA	NA	NA	NA	NA	NC
THALLIUM	NA	< 3.2 UJ	< 3.4 U	NA	NA	NA	NA	2.4
VANADIUM	NA	1.5 J	< 0.75 U	NA	NA	NA	NA	37
ZINC	NA	< 5.6 UJ	< 0.8 U	NA	NA	NA	NA	11,000
General Mineral								
CALCIUM	NA	541,000	553,000	NA	NA	NA	NA	NC
IRON	NA	1,030	1,220 J	NA	NA	NA	NA	11,000
MAGNESIUM	NA	323,000	353,000	NA	NA	NA	NA	NC
POTASSIUM	NA	73,700	68,000	NA	NA	NA	NA	NC
SODIUM	NA	1,380,000	1,470,000	NA	NA	NA	NA	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW11	S14MW11	S14MW11	S14MW12	S14MW12	S14MW12	S14MW12	
Sample ID	08797102449S	08798012243M	08798040101K	123-S14-240	123-S14-241	123-S14-242	123-S14-243	EPA Tap Water PRGs
Sample Date	10/24/97	01/22/98	04/01/98	05/19/93	08/19/93	11/19/93	02/23/94	
Organophosphorus pesticides (µg/L)								
DICHLORVOS	NA	NA	NA	< 2 U	< 1 U	< 1 U	< 1 U	0.23

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW12	S14MW12	S14MW12	S14MW12	S14MW12	S14MW12	S14MW12	
Sample ID	08797051602BJ	08797051602BJ	08797051603BJ	08797051603BJ	08797102345S	08798012244M	08798040102K	EPA Tap Water PRGs
Sample Date	05/16/97	05/16/97	05/16/97	05/16/97	10/23/97	01/22/98	04/01/98	
Volatile Organic Compounds (µg/L)								
1,2-DICHLOROETHENE (TOTAL)	< 10 U	NA	< 10 U	NA	NA	NA	NA	NC
2-BUTANONE	< 10 U	NA	< 10 U	NA	< 1 U	< 1 U	< 1 U	7,000
ACETONE	< 11 UJ	NA	< 11 UJ	NA	8 J	10 J	< 1 U	5,500
BENZENE	< 10 U	NA	< 10 U	NA	< 0.5 U	< 0.5 U	< 0.5 U	0.35
BROMODICHLOROMETHANE	< 10 U	NA	< 10 U	NA	< 1 U	< 1 U	< 1 U	0.18
CARBON DISULFIDE	< 10 U	NA	< 10 U	NA	< 1 U	< 1 U	< 1 U	1,000
CARBON TETRACHLORIDE	< 10 U	NA	< 10 U	NA	< 0.5 U	< 0.5 U	< 0.5 U	0.17
CHLOROBENZENE	< 10 U	NA	< 10 U	NA	< 1 U	< 1 U	< 1 U	110
CHLOROFORM	< 10 U	NA	< 10 U	NA	< 1 U	< 1 U	< 1 UJ	0.17
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	< 1 U	< 1 U	< 1 U	61
DIBROMOCHLOROMETHANE	< 10 U	NA	< 10 U	NA	< 1 U	< 1 U	< 1 U	0.13
ETHYLBENZENE	< 10 U	NA	< 10 U	NA	< 1 U	< 1 U	< 1 U	1,300
METHYLENE CHLORIDE	< 10 U	NA	< 10 U	NA	< 2 U	< 2 U	< 2 U	4.3
TETRACHLOROETHENE	< 10 U	NA	< 10 U	NA	< 1 U	< 1 U	< 1 U	0.10
TOLUENE	< 10 U	NA	< 10 U	NA	< 1 UJ	< 1 U	< 1 U	720
TRICHLOROETHENE	< 10 U	NA	< 10 U	NA	< 1 U	< 1 U	< 1 U	0.028
XYLENE (TOTAL)	< 10 U	NA	< 10 U	NA	< 1 U	< 1 U	< 1 U	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	< 0.1 U	NA	< 0.1 U	NA	< 0.1 U	< 0.1 U	< 0.1 U	NC
MOTOR OIL RANGE ORGANICS	< 0.5 U	NA	< 0.5 U	NA	< 0.5 U	< 0.5 U	< 0.5 U	NC
TPH - DIESEL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - MOTOR OIL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - NAVY SPECIAL FUEL OIL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - UNKNOWN HYDROCARBON	NA	NA	NA	NA	NA	NA	NA	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	< 0.05 U	NA	< 0.05 U	NA	< 0.05 U	< 0.05 U	< 0.05 U	NC
Semivolatile Organic Compounds (µg/L)								
1,3-DICHLOROBENZENE	< 5 U	NA	< 5 U	NA	< 5 U	< 5 U	< 5 U	180
1,4-DICHLOROBENZENE	< 5 U	NA	< 5 U	NA	< 5 U	< 5 U	< 5 U	0.50
2-METHYLNAPHTHALENE	< 10 U	NA	< 10 U	NA	< 10 U	< 10 U	< 10 U	NC
4-CHLORO-3-METHYLPHENOL	< 10 U	NA	< 10 U	NA	< 10 U	< 10 U	< 10 U	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW12	S14MW12	S14MW12	S14MW12	S14MW12	S14MW12	S14MW12	
Sample ID	08797051602BJ	08797051602BJ	08797051603BJ	08797051603BJ	08797102345S	08798012244M	08798040102K	EPA Tap Water PRGs
Sample Date	05/16/97	05/16/97	05/16/97	05/16/97	10/23/97	01/22/98	04/01/98	
Semivolatile Organic Compounds (µg/L)								
ACENAPHTHENE	< 10 U	NA	< 10 U	NA	< 10 U	< 10 U	< 10 U	370
CARBAZOLE	< 10 U	NA	< 10 U	NA	< 10 UJ	< 10 U	< 10 UJ	3.4
NAPHTHALENE	< 10 U	NA	< 10 U	NA	< 10 U	< 10 U	< 10 U	0.093 *
PYRENE	< 10 U	NA	< 10 U	NA	< 10 U	< 10 U	< 10 U	180
PCBs/Pesticides (µg/L)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	< 87.1 UJ	NA	< 88.3 UJ	NA	NA	NA	NA	36,000
ANTIMONY	3.7 J	NA	< 1.4 UJ	NA	NA	NA	NA	15
ARSENIC	< 4 UJ	NA	< 2 UJ	NA	NA	NA	NA	0.045
BARIUM	27.8 J	NA	29.4 J	NA	NA	NA	NA	2,600
BERYLLIUM	0.75 J	NA	< 0.14 UJ	NA	NA	NA	NA	73
CADMIUM	1.3 J	NA	< 0.81 UJ	NA	NA	NA	NA	18
CALCIUM	451,000 J	NA	566,000 J	NA	NA	NA	NA	NC
CHROMIUM	< 0.27 UJ	NA	< 0.27 UJ	NA	NA	NA	NA	NC
COBALT	1.4 J	NA	0.94 J	NA	NA	NA	NA	730
COPPER	1.6 J	NA	0.84 J	NA	NA	NA	NA	1,500
IRON	**11,200 J**	NA	**11,500 J**	NA	NA	NA	NA	11,000
LEAD	< 1 UJ	NA	< 1 UJ	NA	NA	NA	NA	NC
MAGNESIUM	2,780,000 J	NA	2,830,000 J	NA	NA	NA	NA	NC
MANGANESE	**1,090 J**	NA	**1,150 J**	NA	NA	NA	NA	880
MERCURY	< 0.2 UJ	NA	< 0.2 UJ	NA	NA	NA	NA	NC
MOLYBDENUM	46.3 J	NA	47.8 J	NA	NA	NA	NA	180
NICKEL	< 0.77 UJ	NA	< 0.77 UJ	NA	NA	NA	NA	730
POTASSIUM	393,000 J	NA	405,000 J	NA	NA	NA	NA	NC
SELENIUM	< 1.4 UJ	NA	< 1.4 UJ	NA	NA	NA	NA	180
SILVER	< 0.43 UJ	NA	< 0.43 UJ	NA	NA	NA	NA	180
SODIUM	11,800,000 J	NA	12,100,000 J	NA	NA	NA	NA	NC
THALLIUM	< 1.4 UJ	NA	< 1.4 UJ	NA	NA	NA	NA	2.4
VANADIUM	3.6 J	NA	3.2 J	NA	NA	NA	NA	37
ZINC	< 10.7 UJ	NA	< 11 UJ	NA	NA	NA	NA	11,000

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW12	S14MW12	S14MW12	S14MW12	S14MW12	S14MW12	S14MW12	
Sample ID	08797051602BJ	08797051602BJ	08797051603BJ	08797051603BJ	08797102345S	08798012244M	08798040102K	EPA Tap Water PRGs
Sample Date	05/16/97	05/16/97	05/16/97	05/16/97	10/23/97	01/22/98	04/01/98	
Metals (µg/L)								
FIltered								
ALUMINUM	NA	< 4.2 U	NA	< 4.2 U	< 11 U	< 6.2 U	< 4 U	36,000
ANTIMONY	NA	< 1.2 U	NA	< 1.2 U	< 1.4 U	< 1.8 U	< 2.6 U	15
ARSENIC	NA	**5.4**	NA	**4.6**	< 3.1 UJ	< 1.8 U	**2 J**	0.045
BARIUM	NA	25.8 J	NA	25.2 J	24.3 J	21.4 J	26.8 J	2,600
BERYLLIUM	NA	< 0.07 U	NA	< 0.07 U	< 0.05 U	< 0.05 U	< 0.05 U	73
CADMIUM	NA	0.41 J	NA	0.45 J	< 0.2 U	0.76 J	< 0.15 U	18
CALCIUM	NA	323,000	NA	295,000	NA	NA	NA	NC
CHROMIUM	NA	1.6 J	NA	2 J	2.3 J	1.1 J	0.72 J	NC
COBALT	NA	< 0.6 U	NA	< 0.6 U	0.7 J	< 0.85 U	< 0.7 U	730
COPPER	NA	< 0.4 U	NA	< 0.4 U	< 0.55 U	< 1.2 U	< 0.6 U	1,500
IRON	NA	**11,100**	NA	10,000	NA	NA	NA	11,000
LEAD	NA	< 0.63 UJ	NA	< 0.63 UJ	< 0.85 UJ	< 0.9 U	< 1.3 U	NC
MAGNESIUM	NA	2,650,000	NA	2,790,000	NA	NA	NA	NC
MANGANESE	NA	**1,290**	NA	**1,250**	**1,160**	**1,010**	**1,350**	880
MERCURY	NA	< 0.1 U	NA	< 0.1 U	0.1 R	< 0.2 U	< 0.1 U	NC
MOLYBDENUM	NA	52.4	NA	50.8	42.2	41.1	48.8	180
NICKEL	NA	< 0.7 U	NA	< 0.7 U	1 J	< 1 U	1.3 J	730
POTASSIUM	NA	364,000	NA	384,000	NA	NA	NA	NC
SELENIUM	NA	8.6	NA	9.8	7.2	9.7	6.6 J	180
SILVER	NA	< 0.5 U	NA	< 0.5 U	1.4 J	< 4.1 UJ	< 0.65 U	180
SODIUM	NA	1,000,000	NA	11,900,000	NA	NA	NA	NC
THALLIUM	NA	< 1.4 U	NA	< 1.4 U	< 3 U	< 3.2 UJ	< 3.4 U	2.4
VANADIUM	NA	< 0.57 U	NA	< 0.57 U	< 0.6 U	< 0.8 U	< 0.75 U	37
ZINC	NA	6.3 J	NA	5.4 J	6.4 J	< 4.2 UJ	1.4 J	11,000
General Mineral								
CALCIUM	627,000	NA	622,000	NA	600,000	525,000	552,000	NC
IRON	619	NA	2,240	NA	716 J	3,160	1,190 J	11,000
MAGNESIUM	2,470,000	NA	2,460,000	NA	2,980,000	2,710,000	345,000	NC
POTASSIUM	414,000 J	NA	377,000 J	NA	456,000	400,000	67,200	NC
SODIUM	10,900,000	NA	12,300,000	NA	12,200,000 J	11,000,000	1,460,000	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW12	S14MW12	S14MW12	S14MW12	S14MW12	S14MW12	S14MW12	
Sample ID	08797051602BJ	08797051602BJ	08797051603BJ	08797051603BJ	08797102345S	08798012244M	08798040102K	EPA Tap Water PRGs
Sample Date	05/16/97	05/16/97	05/16/97	05/16/97	10/23/97	01/22/98	04/01/98	
Organophosphorus pesticides (µg/L)								
DICHLORVOS	NA	NA	NA	NA	NA	NA	NA	0.23

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW13	S14MW13	S14MW13	S14MW13	S14MW13	S14MW13	S14MW13	
Sample ID	123-S14-244	123-S14-245	123-S14-246	123-S14-247	123-S14-248	08797051506BJ	08797051506BJ	EPA Tap Water PRGs
Sample Date	05/21/93	08/19/93	08/19/93	11/18/93	02/23/94	05/15/97	05/15/97	
Volatile Organic Compounds (µg/L)								
1,2-DICHLOROETHENE (TOTAL)	< 2 U	< 1 U	< 1 U	< 1 U	< 1 U	< 10 U	NA	NC
2-BUTANONE	< 2 U	< 3 U	< 3 U	3 R	< 3 U	< 10 U	NA	7,000
ACETONE	< 2 UJ	< 3 U	< 2 U	< 3 UJ	< 2 U	< 10 UJ	NA	5,500
BENZENE	< 2 U	< 1 U	< 1 U	< 1 U	< 1 U	< 10 U	NA	0.35
BROMODICHLOROMETHANE	< 2 U	< 1 U	< 1 U	< 1 U	< 1 U	< 10 U	NA	0.18
CARBON DISULFIDE	< 2 U	< 1 U	< 1 U	< 1 U	< 1 U	< 10 U	NA	1,000
CARBON TETRACHLORIDE	< 2 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 10 U	NA	0.17
CHLOROBENZENE	< 2 U	< 1 U	< 1 U	< 1 U	< 1 U	< 10 U	NA	110
CHLOROFORM	< 2 U	< 1 U	< 1 U	< 1 U	< 1 U	< 10 U	NA	0.17
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	61
DIBROMOCHLOROMETHANE	< 2 U	< 1 U	< 1 U	< 1 U	< 1 U	< 10 U	NA	0.13
ETHYLBENZENE	< 2 U	< 1 U	< 1 U	< 1 U	< 1 U	< 10 U	NA	1,300
METHYLENE CHLORIDE	< 2 U	< 1 U	< 1 U	< 1 UJ	< 1 U	< 10 U	NA	4.3
TETRACHLOROETHENE	< 2 U	< 1 U	< 1 U	< 1 U	< 1 U	< 10 U	NA	0.10
TOLUENE	2 J	< 1 U	< 1 U	< 1 U	< 1 U	< 10 U	NA	720
TRICHLOROETHENE	< 2 U	< 1 U	< 1 U	< 1 U	< 1 U	< 10 U	NA	0.028
XYLENE (TOTAL)	< 2 U	< 1 U	< 1 U	< 1 U	< 1 U	< 10 U	NA	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	< 0.25 U	< 0.25 U	0.25	NA	< 0.1 U	NA	NC
MOTOR OIL RANGE ORGANICS	NA	< 0.5 U	< 0.5 U	< 0.5 U	NA	< 0.5 U	NA	NC
TPH - DIESEL	< 0.05 U	NA	NA	NA	< 0.1 U	NA	NA	NC
TPH - MOTOR OIL	< 0.5 U	NA	NA	NA	< 0.2 U	NA	NA	NC
TPH - NAVY SPECIAL FUEL OIL	NA	< 0.25 U	< 0.25 U	NA	NA	NA	NA	NC
TPH - UNKNOWN HYDROCARBON	< 0.05 U	NA	NA	NA	0.37 Z	NA	NA	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	< 0.05 U	< 0.05 U	< 0.05 U	NA	< 0.05 U	NA	NC
Semivolatile Organic Compounds (µg/L)								
1,3-DICHLOROBENZENE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 5 U	NA	180
1,4-DICHLOROBENZENE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 5 U	NA	0.50
2-METHYLNAPHTHALENE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NA	NC
4-CHLORO-3-METHYLPHENOL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NA	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW13	S14MW13	S14MW13	S14MW13	S14MW13	S14MW13	S14MW13	
Sample ID	123-S14-244	123-S14-245	123-S14-246	123-S14-247	123-S14-248	08797051506BJ	08797051506BJ	EPA Tap Water PRGs
Sample Date	05/21/93	08/19/93	08/19/93	11/18/93	02/23/94	05/15/97	05/15/97	
Semivolatile Organic Compounds (µg/L)								
ACENAPHTHENE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NA	370
CARBAZOLE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NA	3.4
NAPHTHALENE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NA	0.093 *
PYRENE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NA	180
PCBs/Pesticides (µg/L)								
None Detected	ND	ND	ND	ND	ND	NA	NA	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	43.6	132 J	117 J	< 100 U	< 30.1 U	< 28.9 UJ	NA	36,000
ANTIMONY	< 31 U	**73.9**	**58.8**	< 50 U	< 2 U	1.5 J	NA	15
ARSENIC	< 20 UJ	< 2 UJ	< 2 UJ	< 2 UJ	< 2 U	**5.2**	NA	0.045
BARIUM	20.8	< 100 U	< 100 U	< 100 UJ	17.7	35.1 J	NA	2,600
BERYLLIUM	< 1 U	< 2 U	< 2 U	< 2 U	0.47	< 0.09 UJ	NA	73
CADMIUM	< 4 U	< 4 U	< 4 U	< 4 U	< 2.9 U	< 0.3 UJ	NA	18
CALCIUM	287,000	301,000 J	303,000 J	317,000	352,000	430,000	NA	NC
CHROMIUM	< 3 U	< 5 U	< 5 U	5.2	7.5	< 0.27 U	NA	NC
COBALT	4.6	< 10 U	< 10 U	< 10 U	< 3.3 U	3.3 J	NA	730
COPPER	< 2 U	< 10 U	< 10 U	18.9	< 3.3 U	2.3 J	NA	1,500
IRON	1,140	149	105	881	565	6,150	NA	11,000
LEAD	2.9 J	2 R	2 R	< 20 UJ	37	< 1 U	NA	NC
MAGNESIUM	465,000	470,000	473,000	533,000	576,000	634,000	NA	NC
MANGANESE	**2,210**	**1,920 J**	**1,920 J**	**1,420 J**	**1,440**	**2,070**	NA	880
MERCURY	< 0.2 U	< 0.2 UJ	< 0.2 UJ	< 0.2 U	< 0.2 U	< 0.2 U	NA	NC
MOLYBDENUM	NA	NA	NA	24.8	26.4	11.9	NA	180
NICKEL	< 7 U	< 20 U	< 20 U	< 20 U	< 6.8 U	< 3.6 UJ	NA	730
POTASSIUM	82,900	84,900	86,000	95,400	94,500	113,000 J	NA	NC
SELENIUM	< 30 UJ	10 R	10 R	30 R	< 2 U	< 1.4 U	NA	180
SILVER	< 2 UJ	< 5 U	< 5 U	< 6 U	< 5.3 U	< 0.43 U	NA	180
SODIUM	2,960,000	2,880,000	2,830,000	3,140,000 J	3,240,000	3,240,000	NA	NC
THALLIUM	< 30 UJ	< 15 UJ	< 15 UJ	< 2 UJ	< 40 U	< 1.4 U	NA	2.4
VANADIUM	< 2 U	**48.8**	**47**	< 10 U	< 3.8 U	2.5 J	NA	37
ZINC	< 7 U	16.4	16	< 10 U	< 1.5 U	16.6 J	NA	11,000

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW13	S14MW13	S14MW13	S14MW13	S14MW13	S14MW13	S14MW13	
Sample ID	123-S14-244	123-S14-245	123-S14-246	123-S14-247	123-S14-248	08797051506BJ	08797051506BJ	EPA Tap Water PRGs
Sample Date	05/21/93	08/19/93	08/19/93	11/18/93	02/23/94	05/15/97	05/15/97	
Metals (µg/L)								
FIltered								
ALUMINUM	NA	NA	NA	NA	NA	NA	< 4.2 U	36,000
ANTIMONY	NA	NA	NA	NA	NA	NA	< 1.2 U	15
ARSENIC	NA	NA	NA	NA	NA	NA	**2.2 J**	0.045
BARIUM	NA	NA	NA	NA	NA	NA	30.7	2,600
BERYLLIUM	NA	NA	NA	NA	NA	NA	< 0.07 U	73
CADMIUM	NA	NA	NA	NA	NA	NA	< 0.13 U	18
CALCIUM	NA	NA	NA	NA	NA	NA	451,000	NC
CHROMIUM	NA	NA	NA	NA	NA	NA	0.71 J	NC
COBALT	NA	NA	NA	NA	NA	NA	2.9 J	730
COPPER	NA	NA	NA	NA	NA	NA	2.1 J	1,500
IRON	NA	NA	NA	NA	NA	NA	62.2	11,000
LEAD	NA	NA	NA	NA	NA	NA	< 0.63 UJ	NC
MAGNESIUM	NA	NA	NA	NA	NA	NA	690,000	NC
MANGANESE	NA	NA	NA	NA	NA	NA	**2,050**	880
MERCURY	NA	NA	NA	NA	NA	NA	< 0.1 U	NC
MOLYBDENUM	NA	NA	NA	NA	NA	NA	13.1	180
NICKEL	NA	NA	NA	NA	NA	NA	5.8 J	730
POTASSIUM	NA	NA	NA	NA	NA	NA	125,000	NC
SELENIUM	NA	NA	NA	NA	NA	NA	< 4 UJ	180
SILVER	NA	NA	NA	NA	NA	NA	< 0.5 U	180
SODIUM	NA	NA	NA	NA	NA	NA	3,270,000	NC
THALLIUM	NA	NA	NA	NA	NA	NA	2.2 J	2.4
VANADIUM	NA	NA	NA	NA	NA	NA	< 0.57 U	37
ZINC	NA	NA	NA	NA	NA	NA	3 J	11,000
General Mineral								
CALCIUM	NA	NA	NA	NA	NA	509,000	NA	NC
IRON	NA	NA	NA	NA	NA	198	NA	11,000
MAGNESIUM	NA	NA	NA	NA	NA	763,000	NA	NC
POTASSIUM	NA	NA	NA	NA	NA	143,000	NA	NC
SODIUM	NA	NA	NA	NA	NA	3,400,000	NA	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW13	S14MW13	S14MW13	S14MW13	S14MW13	S14MW13	S14MW13	
Sample ID	123-S14-244	123-S14-245	123-S14-246	123-S14-247	123-S14-248	08797051506BJ	08797051506BJ	EPA Tap Water PRGs
Sample Date	05/21/93	08/19/93	08/19/93	11/18/93	02/23/94	05/15/97	05/15/97	
Organophosphorus pesticides (µg/L)								
DICHLORVOS	< 2 U	< 1 U	< 1 U	< 1 U	< 1 U	NA	NA	0.23

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW14	S14MW14	S14MW14	S14MW14	S14MW14	S14MW14	S14MW14	
Sample ID	123-S14-249	123-S14-250	123-S14-251	123-S14-252	08797051401BJ	08797051401BJ	08797102343S	EPA Tap Water PRGs
Sample Date	05/20/93	08/18/93	11/19/93	02/23/94	05/14/97	05/14/97	10/23/97	
Volatile Organic Compounds (µg/L)								
1,2-DICHLOROETHENE (TOTAL)	< 2 U	< 1 U	< 1 U	< 1 U	< 10 U	NA	NA	NC
2-BUTANONE	< 2 U	< 3 U	3 R	< 3 U	< 10 UJ	NA	< 1 U	7,000
ACETONE	< 3 UJ	< 15 U	2 R	< 5 U	< 10 UJ	NA	1 R	5,500
BENZENE	< 2 U	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 0.5 U	0.35
BROMODICHLOROMETHANE	< 2 U	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 1 U	0.18
CARBON DISULFIDE	< 2 U	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 1 U	1,000
CARBON TETRACHLORIDE	< 2 U	< 0.5 U	< 0.5 U	< 0.5 U	< 10 U	NA	< 0.5 U	0.17
CHLOROBENZENE	< 2 U	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 1 U	110
CHLOROFORM	< 2 U	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 1 U	0.17
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	< 1 U	61
DIBROMOCHLOROMETHANE	< 2 U	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 1 U	0.13
ETHYLBENZENE	< 2 U	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 1 U	1,300
METHYLENE CHLORIDE	< 2 U	< 2 U	< 4 UJ	< 2 U	< 10 U	NA	< 2 U	4.3
TETRACHLOROETHENE	< 2 U	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 1 U	0.10
TOLUENE	1 J	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 1 U	720
TRICHLOROETHENE	< 2 U	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 1 U	0.028
XYLENE (TOTAL)	< 2 U	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 1 U	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	0.26	< 0.25 U	NA	< 0.1 U	NA	< 0.1 U	NC
MOTOR OIL RANGE ORGANICS	NA	< 0.5 U	0.57 Y	NA	< 0.5 U	NA	< 0.5 U	NC
TPH - DIESEL	< 0.05 U	NA	NA	< 0.1 U	NA	NA	NA	NC
TPH - MOTOR OIL	< 0.5 U	NA	NA	< 0.2 U	NA	NA	NA	NC
TPH - NAVY SPECIAL FUEL OIL	NA	0.43	NA	NA	NA	NA	NA	NC
TPH - UNKNOWN HYDROCARBON	< 0.05 U	NA	NA	0.68 Z	NA	NA	NA	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	< 0.05 U	< 0.05 U	NA	< 0.05 U	NA	< 0.05 U	NC
Semivolatile Organic Compounds (µg/L)								
1,3-DICHLOROBENZENE	< 10 U	< 10 U	< 10 U	< 10 U	< 5 U	NA	< 5 U	180
1,4-DICHLOROBENZENE	< 10 U	< 10 U	< 10 U	< 10 U	< 5 U	NA	< 5 U	0.50
2-METHYLNAPHTHALENE	< 10 U	1 J	< 10 U	< 10 U	< 10 U	NA	< 10 U	NC
4-CHLORO-3-METHYLPHENOL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NA	< 10 U	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW14	S14MW14	S14MW14	S14MW14	S14MW14	S14MW14	S14MW14	
Sample ID	123-S14-249	123-S14-250	123-S14-251	123-S14-252	08797051401BJ	08797051401BJ	08797102343S	EPA Tap Water PRGs
Sample Date	05/20/93	08/18/93	11/19/93	02/23/94	05/14/97	05/14/97	10/23/97	
Semivolatile Organic Compounds (µg/L)								
ACENAPHTHENE	< 10 U	0.6 J	< 10 U	< 10 U	< 10 U	NA	< 10 U	370
CARBAZOLE	< 10 U	0.6 J	< 10 U	< 10 U	< 10 UJ	NA	< 10 UJ	3.4
NAPHTHALENE	< 10 U	**17**	< 10 U	< 10 U	< 10 U	NA	< 10 U	0.093 *
PYRENE	< 10 U	< 10 U	< 10 UJ	< 10 U	< 10 U	NA	< 10 U	180
PCBs/Pesticides (µg/L)								
None Detected	ND	ND	ND	ND	NA	NA	NA	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	45.7	< 100 U	< 100 U	< 30.1 U	1,140	NA	NA	36,000
ANTIMONY	< 31 U	**64.5**	< 50 U	< 2 U	1.6 J	NA	NA	15
ARSENIC	< 20 UJ	< 2 U	< 2 UJ	< 20 U	**2 J**	NA	NA	0.045
BARIUM	53.3	< 100 UJ	< 100 UJ	32.7	57.2 J	NA	NA	2,600
BERYLLIUM	< 1 U	< 2 U	< 2 U	0.43	< 0.06 UJ	NA	NA	73
CADMIUM	< 4 U	< 4 U	< 4 U	< 2.9 U	1.6 J	NA	NA	18
CALCIUM	476,000	530,000	530,000	520,000	570,000	NA	NA	NC
CHROMIUM	3.6	6.1	8.8	8.7	< 0.79 UJ	NA	NA	NC
COBALT	2.3	< 10 U	< 10 U	< 3.3 U	9.1 J	NA	NA	730
COPPER	< 2 U	< 11.4 U	21.3	< 3.3 U	5.2 J	NA	NA	1,500
IRON	1,110	349	827	1,080	2,300	NA	NA	11,000
LEAD	< 6.2 UJ	< 2 U	< 20 UJ	< 10 U	4.6	NA	NA	NC
MAGNESIUM	937,000	858,000	504,000	1,260,000	301,000	NA	NA	NC
MANGANESE	**3,040**	**3,080**	**2,340 J**	**2,060**	**5,610**	NA	NA	880
MERCURY	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	NA	NA	NC
MOLYBDENUM	NA	NA	30.7	43.1	32.1	NA	NA	180
NICKEL	< 7 U	< 20 U	< 20 U	< 6.8 U	< 8.6 UJ	NA	NA	730
POTASSIUM	110,000	120,000	53,100	162,000	30,300 J	NA	NA	NC
SELENIUM	< 30 UJ	< 10 UJ	30 R	10.1	< 4.1 UJ	NA	NA	180
SILVER	< 2 UJ	< 5 U	< 6 U	< 5.3 U	< 0.43 U	NA	NA	180
SODIUM	4,440,000	4,500,000	1,990,000 J	5,880,000	985,000	NA	NA	NC
THALLIUM	< 30 UJ	< 2 U	< 2 UJ	< 40 U	< 1.4 U	NA	NA	2.4
VANADIUM	< 2 U	< 10 U	< 10 U	< 3.8 U	4.9 J	NA	NA	37
ZINC	< 6.3 U	44.2	< 10 U	170	12.4 J	NA	NA	11,000

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW14	S14MW14	S14MW14	S14MW14	S14MW14	S14MW14	S14MW14	
Sample ID	123-S14-249	123-S14-250	123-S14-251	123-S14-252	08797051401BJ	08797051401BJ	08797102343S	EPA Tap Water PRGs
Sample Date	05/20/93	08/18/93	11/19/93	02/23/94	05/14/97	05/14/97	10/23/97	
Metals (µg/L)								
Filtered								
ALUMINUM	NA	NA	NA	NA	NA	< 3.2 U	< 11 U	36,000
ANTIMONY	NA	NA	NA	NA	NA	< 1.4 U	< 1.4 U	15
ARSENIC	NA	NA	NA	NA	NA	< 1.4 UJ	< 1.2 UJ	0.045
BARIUM	NA	NA	NA	NA	NA	40.1 J	34 J	2,600
BERYLLIUM	NA	NA	NA	NA	NA	< 0.03 U	< 0.05 U	73
CADMIUM	NA	NA	NA	NA	NA	0.7 J	< 0.2 UJ	18
CALCIUM	NA	NA	NA	NA	NA	615,000	NA	NC
CHROMIUM	NA	NA	NA	NA	NA	< 0.27 U	1 J	NC
COBALT	NA	NA	NA	NA	NA	2 J	3.7 J	730
COPPER	NA	NA	NA	NA	NA	< 2.3 UJ	< 0.55 U	1,500
IRON	NA	NA	NA	NA	NA	122	NA	11,000
LEAD	NA	NA	NA	NA	NA	< 1 U	< 0.85 UJ	NC
MAGNESIUM	NA	NA	NA	NA	NA	333,000	NA	NC
MANGANESE	NA	NA	NA	NA	NA	**1,480**	**7,300**	880
MERCURY	NA	NA	NA	NA	NA	< 0.1 U	0.1 R	NC
MOLYBDENUM	NA	NA	NA	NA	NA	23.2	72.2	180
NICKEL	NA	NA	NA	NA	NA	< 4.4 UJ	12.5 J	730
POTASSIUM	NA	NA	NA	NA	NA	31,200	NA	NC
SELENIUM	NA	NA	NA	NA	NA	< 1.4 U	4.3	180
SILVER	NA	NA	NA	NA	NA	< 0.43 U	< 0.55 U	180
SODIUM	NA	NA	NA	NA	NA	1,130,000	NA	NC
THALLIUM	NA	NA	NA	NA	NA	< 1.4 U	< 3 U	2.4
VANADIUM	NA	NA	NA	NA	NA	< 0.5 U	< 1.2 UJ	37
ZINC	NA	NA	NA	NA	NA	4.1 J	5.8 J	11,000
General Mineral								
CALCIUM	NA	NA	NA	NA	527,000	NA	726,000	NC
IRON	NA	NA	NA	NA	< 18.9 UJ	NA	250 J	11,000
MAGNESIUM	NA	NA	NA	NA	303,000	NA	887,000	NC
POTASSIUM	NA	NA	NA	NA	30,200 J	NA	131,000	NC
SODIUM	NA	NA	NA	NA	959,000 J	NA	3,880,000	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW14	S14MW14	S14MW14	S14MW14	S14MW14	S14MW14	S14MW14	
Sample ID	123-S14-249	123-S14-250	123-S14-251	123-S14-252	08797051401BJ	08797051401BJ	08797102343S	EPA Tap Water PRGs
Sample Date	05/20/93	08/18/93	11/19/93	02/23/94	05/14/97	05/14/97	10/23/97	
Organophosphorus pesticides (µg/L)								
DICHLORVOS	< 2 U	< 1 U	< 1 U	< 1 U	NA	NA	NA	0.23

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW14	S14MW14	S14MW15	S14MW15	S14MW15	S14MW15	S14MW15	EPA Tap Water PRGs
Sample ID	08798011506D	08798040208W	123-S14-253	123-S14-254	123-S14-255	123-S14-256	08797051402BJ	
Sample Date	01/15/98	04/02/98	05/19/93	08/18/93	11/19/93	02/23/94	05/14/97	
Volatile Organic Compounds (µg/L)								
1,2-DICHLOROETHENE (TOTAL)	NA	NA	< 2 U	< 1 U	< 1 U	< 1 U	< 10 U	NC
2-BUTANONE	< 1 U	< 1 U	< 2 U	< 3 U	3 R	< 3 U	< 10 UJ	7,000
ACETONE	1 R	< 1 U	< 2 UJ	< 12 U	2 R	< 7 U	< 10 UJ	5,500
BENZENE	< 0.5 U	< 0.5 U	< 2 U	< 1 U	< 1 U	< 1 U	< 10 U	0.35
BROMODICHLOROMETHANE	< 1 U	< 1 U	< 2 U	< 1 U	< 1 U	< 1 U	< 10 U	0.18
CARBON DISULFIDE	< 1 U	< 1 U	< 2 U	< 1 U	< 1 U	< 1 U	< 10 U	1,000
CARBON TETRACHLORIDE	< 0.5 U	< 0.5 U	< 2 U	< 0.5 U	**0.7 J**	< 0.5 U	< 10 U	0.17
CHLOROBENZENE	< 1 U	< 1 U	< 2 U	< 1 U	< 1 U	< 1 U	< 10 U	110
CHLOROFORM	< 1 U	< 1 UJ	< 2 U	< 1 U	**1 J**	< 1 U	< 10 U	0.17
CIS-1,2-DICHLOROETHENE	< 1 U	< 1 U	NA	NA	NA	NA	NA	61
DIBROMOCHLOROMETHANE	< 1 U	< 1 U	< 2 U	< 1 U	< 1 U	< 1 U	< 10 U	0.13
ETHYLBENZENE	< 1 U	< 1 U	< 2 U	< 1 U	< 1 U	< 1 U	< 10 U	1,300
METHYLENE CHLORIDE	< 2 U	< 2 U	< 2 U	< 1 U	< 2 UJ	< 2 U	< 10 U	4.3
TETRACHLOROETHENE	< 1 U	< 1 U	< 2 U	< 1 U	< 1 U	< 1 U	< 10 U	0.10
TOLUENE	< 1 U	< 1 U	3	< 1 U	< 1 U	< 1 U	< 10 U	720
TRICHLOROETHENE	< 1 U	< 1 U	< 2 U	< 1 U	< 1 U	< 1 U	< 10 U	0.028
XYLENE (TOTAL)	< 1 U	< 1 U	< 2 U	< 1 U	< 1 U	< 1 U	< 10 U	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	< 0.1 U	< 0.1 U	NA	0.28	< 0.25 U	NA	< 0.1 U	NC
MOTOR OIL RANGE ORGANICS	< 0.5 U	< 0.5 U	NA	< 0.5 U	0.95 Y	NA	< 0.5 U	NC
TPH - DIESEL	NA	NA	< 0.05 U	NA	NA	< 0.1 U	NA	NC
TPH - MOTOR OIL	NA	NA	< 0.5 UJ	NA	NA	< 0.2 U	NA	NC
TPH - NAVY SPECIAL FUEL OIL	NA	NA	NA	0.47	NA	NA	NA	NC
TPH - UNKNOWN HYDROCARBON	NA	NA	< 0.05 U	NA	NA	0.89 Z	NA	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	< 0.05 U	< 0.05 U	NA	< 0.05 U	< 0.05 U	NA	< 0.05 U	NC
Semivolatile Organic Compounds (µg/L)								
1,3-DICHLOROBENZENE	< 5 U	< 5 U	< 10 U	< 10 U	< 10 U	< 10 U	< 5 U	180
1,4-DICHLOROBENZENE	< 5 U	< 5 U	< 10 U	< 10 U	< 10 U	< 10 U	< 5 U	0.50
2-METHYLNAPHTHALENE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NC
4-CHLORO-3-METHYLPHENOL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW14	S14MW14	S14MW15	S14MW15	S14MW15	S14MW15	S14MW15	EPA Tap Water PRGs
Sample ID	08798011506D	08798040208W	123-S14-253	123-S14-254	123-S14-255	123-S14-256	08797051402BJ	
Sample Date	01/15/98	04/02/98	05/19/93	08/18/93	11/19/93	02/23/94	05/14/97	
Semivolatile Organic Compounds (µg/L)								
ACENAPHTHENE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	370
CARBAZOLE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 UJ	3.4
NAPHTHALENE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	0.093 *
PYRENE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 UJ	< 10 U	< 10 U	180
PCBs/Pesticides (µg/L)								
None Detected	NA	NA	ND	ND	ND	ND	NA	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	NA	NA	< 56.3 UJ	< 100 U	< 100 U	< 30.1 U	< 11 UJ	36,000
ANTIMONY	NA	NA	< 31 UJ	< 50 U	< 50 U	< 20 U	< 1.4 U	15
ARSENIC	NA	NA	**20 R**	< 10 U	< 20 UJ	< 20 U	**8.5**	0.045
BARIUM	NA	NA	17.5 J	< 100 UJ	< 100 UJ	13.4	24.6 J	2,600
BERYLLIUM	NA	NA	< 1 U	< 2 U	< 2 U	0.71	< 0.19 UJ	73
CADMIUM	NA	NA	< 4 U	< 4 U	< 4 U	< 2.9 U	< 0.38 UJ	18
CALCIUM	NA	NA	279,000 J	242,000	291,000	288,000	346,000	NC
CHROMIUM	NA	NA	< 3 U	< 5 U	9.6	11.2	< 0.27 U	NC
COBALT	NA	NA	< 2 U	< 10 U	< 10 U	< 3.3 U	0.7 J	730
COPPER	NA	NA	< 2 U	< 10 U	65.2	< 3.3 U	< 0.92 UJ	1,500
IRON	NA	NA	4,170 J	646	1,190	4,270	4,010	11,000
LEAD	NA	NA	< 10 UJ	< 10 U	< 20 UJ	12	< 1 U	NC
MAGNESIUM	NA	NA	2,740,000 J	2,670,000	2,240,000	2,690,000	2,620,000	NC
MANGANESE	NA	NA	234 J	284	380 J	214	200	880
MERCURY	NA	NA	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	NC
MOLYBDENUM	NA	NA	NA	NA	67.7	73.4	76	180
NICKEL	NA	NA	< 7 U	< 20 U	< 20 U	< 6.8 U	< 0.77 U	730
POTASSIUM	NA	NA	396,000	444,000	372,000	426,000	518,000	NC
SELENIUM	NA	NA	35.2 J	< 10 UJ	30 R	< 100 U	< 1.4 U	180
SILVER	NA	NA	< 2 UJ	< 5 U	< 6 U	< 5.3 U	< 0.43 U	180
SODIUM	NA	NA	14,700,000	13,600,000	11,400,000 J	13,700,000	13,100,000	NC
THALLIUM	NA	NA	**30 R**	< 10 U	< 20 UJ	< 40 U	< 1.4 U	2.4
VANADIUM	NA	NA	< 8.2 U	< 10 U	< 10 U	< 3.8 U	3.7 J	37
ZINC	NA	NA	< 1.6 UJ	< 10 U	< 10 U	74	3.7 J	11,000

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW14	S14MW14	S14MW15	S14MW15	S14MW15	S14MW15	S14MW15	EPA Tap Water PRGs
Sample ID	08798011506D	08798040208W	123-S14-253	123-S14-254	123-S14-255	123-S14-256	08797051402BJ	
Sample Date	01/15/98	04/02/98	05/19/93	08/18/93	11/19/93	02/23/94	05/14/97	
Metals (µg/L)								
Filtered								
ALUMINUM	< 6.2 U	< 5.5 UJ	NA	NA	NA	NA	NA	36,000
ANTIMONY	< 1.8 U	< 2.6 U	NA	NA	NA	NA	NA	15
ARSENIC	< 4.7 UJ	< 1.8 U	NA	NA	NA	NA	NA	0.045
BARIUM	46.7 J	38.6 J	NA	NA	NA	NA	NA	2,600
BERYLLIUM	< 0.05 U	< 0.05 U	NA	NA	NA	NA	NA	73
CADMIUM	< 0.15 U	< 0.54 UJ	NA	NA	NA	NA	NA	18
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NC
CHROMIUM	< 0.55 U	< 0.45 U	NA	NA	NA	NA	NA	NC
COBALT	1.4 J	< 0.7 U	NA	NA	NA	NA	NA	730
COPPER	< 1.2 U	< 0.6 U	NA	NA	NA	NA	NA	1,500
IRON	NA	NA	NA	NA	NA	NA	NA	11,000
LEAD	< 0.9 U	< 1.3 U	NA	NA	NA	NA	NA	NC
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NC
MANGANESE	**2,260**	193	NA	NA	NA	NA	NA	880
MERCURY	< 0.2 U	< 0.1 U	NA	NA	NA	NA	NA	NC
MOLYBDENUM	31.2	21.8	NA	NA	NA	NA	NA	180
NICKEL	< 6 UJ	3.2 J	NA	NA	NA	NA	NA	730
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NC
SELENIUM	3	3.5 J	NA	NA	NA	NA	NA	180
SILVER	< 1 U	0.68 J	NA	NA	NA	NA	NA	180
SODIUM	NA	NA	NA	NA	NA	NA	NA	NC
THALLIUM	< 3.2 UJ	< 3.4 U	NA	NA	NA	NA	NA	2.4
VANADIUM	1.2 J	< 1.1 UJ	NA	NA	NA	NA	NA	37
ZINC	< 9.3 UJ	< 0.8 U	NA	NA	NA	NA	NA	11,000
General Mineral								
CALCIUM	540,000	424,000	NA	NA	NA	NA	339,000	NC
IRON	1,490 J	152 J	NA	NA	NA	NA	412 J	11,000
MAGNESIUM	540,000	205,000	NA	NA	NA	NA	3,040,000	NC
POTASSIUM	79,800	20,200	NA	NA	NA	NA	513,000 J	NC
SODIUM	2,340,000	679,000	NA	NA	NA	NA	16,100,000 J	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW14	S14MW14	S14MW15	S14MW15	S14MW15	S14MW15	S14MW15	
Sample ID	08798011506D	08798040208W	123-S14-253	123-S14-254	123-S14-255	123-S14-256	08797051402BJ	EPA Tap Water PRGs
Sample Date	01/15/98	04/02/98	05/19/93	08/18/93	11/19/93	02/23/94	05/14/97	
Organophosphorus pesticides (µg/L)								
DICHLORVOS	NA	NA	< 2 U	< 1 U	< 1 U	< 1 U	NA	0.23

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW15	S14MW15	S14MW15	S14MW15	S14MW16	S14MW16	S14MW16	EPA Tap Water PRGs
Sample ID	08797051402BJ	08797102344S	08798011507D	08798040209W	S14-MW16Q1	S14-MW16Q2	S14-MW-16Q3	
Sample Date	05/14/97	10/23/97	01/15/98	04/02/98	06/13/03	09/11/03	01/07/04	
Volatile Organic Compounds (µg/L)								
1,2-DICHLOROETHENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA	NC
2-BUTANONE	NA	< 1 U	< 1 U	< 1 U	< 100 U	< 100 U	< 10 U	7,000
ACETONE	NA	9 J	1 R	8	26 J	< 50 U	2 J	5,500
BENZENE	NA	< 0.5 U	< 0.5 U	< 0.5 U	< 5 U	< 5 U	< 10 U	0.35
BROMODICHLOROMETHANE	NA	< 1 U	< 1 U	< 1 U	< 5 U	< 5 U	< 10 U	0.18
CARBON DISULFIDE	NA	< 1 U	< 1 U	< 1 U	< 5 U	< 5 U	< 10 U	1,000
CARBON TETRACHLORIDE	NA	< 0.5 U	< 0.5 U	< 0.5 U	< 5 U	< 5 U	< 10 U	0.17
CHLOROBENZENE	NA	< 1 U	< 1 U	< 1 U	< 5 U	< 5 U	< 10 U	110
CHLOROFORM	NA	< 1 U	< 1 U	< 1 UJ	**1 J**	< 5 U	< 10 U	0.17
CIS-1,2-DICHLOROETHENE	NA	< 1 U	< 1 U	< 1 U	< 5 U	< 5 U	< 1 U	61
DIBROMOCHLOROMETHANE	NA	< 1 U	< 1 U	< 1 U	< 5 U	< 5 U	< 10 U	0.13
ETHYLBENZENE	NA	< 1 U	< 1 U	< 1 U	< 5 U	< 5 U	< 10 U	1,300
METHYLENE CHLORIDE	NA	< 2 U	< 2 U	< 2 U	2 J	< 5 U	0.3 J	4.3
TETRACHLOROETHENE	NA	< 1 U	< 1 U	< 1 U	< 5 U	< 5 U	< 10 U	0.10
TOLUENE	NA	< 1 U	< 1 U	< 1 U	< 5 U	< 5 U	< 10 U	720
TRICHLOROETHENE	NA	< 1 U	< 1 U	< 1 U	< 5 U	< 5 U	< 10 U	0.028
XYLENE (TOTAL)	NA	< 1 U	< 1 U	< 1 U	< 15 U	< 15 U	< 10 U	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	< 0.1 U	< 0.1 U	< 0.1 U	NA	NA	0.1 J	NC
MOTOR OIL RANGE ORGANICS	NA	< 0.5 U	< 0.5 U	0.5 Y	NA	NA	NA	NC
TPH - DIESEL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - MOTOR OIL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - NAVY SPECIAL FUEL OIL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - UNKNOWN HYDROCARBON	NA	NA	NA	NA	NA	NA	NA	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	< 0.05 U	< 0.05 U	< 0.05 U	NA	NA	0.01 J	NC
Semivolatile Organic Compounds (µg/L)								
1,3-DICHLOROBENZENE	NA	< 5 U	< 5 U	< 5 U	NA	NA	< 10 U	180
1,4-DICHLOROBENZENE	NA	< 5 U	< 5 U	< 5 U	NA	NA	< 10 U	0.50
2-METHYLNAPHTHALENE	NA	< 10 U	< 10 U	< 10 U	NA	NA	< 10 U	NC
4-CHLORO-3-METHYLPHENOL	NA	< 10 U	< 10 U	< 10 U	NA	NA	< 10 U	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW15	S14MW15	S14MW15	S14MW15	S14MW16	S14MW16	S14MW16	EPA Tap Water PRGs
Sample ID	08797051402BJ	08797102344S	08798011507D	08798040209W	S14-MW16Q1	S14-MW16Q2	S14-MW-16Q3	
Sample Date	05/14/97	10/23/97	01/15/98	04/02/98	06/13/03	09/11/03	01/07/04	
Semivolatile Organic Compounds (µg/L)								
ACENAPHTHENE	NA	< 10 U	< 10 U	< 10 U	NA	NA	< 10 U	370
CARBAZOLE	NA	< 10 UJ	< 10 U	< 10 U	NA	NA	< 10 U	3.4
NAPHTHALENE	NA	< 10 U	< 10 U	< 10 U	NA	NA	< 10 U	0.093 *
PYRENE	NA	< 10 U	< 10 U	< 10 U	NA	NA	< 10 U	180
PCBs/Pesticides (µg/L)								
None Detected	NA	NA	NA	NA	NA	NA	ND	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	NA	NA	NA	NA	NA	NA	92.8	36,000
ANTIMONY	NA	NA	NA	NA	2.7	< 10 U	4.1	15
ARSENIC	NA	NA	NA	NA	**20.1**	< 5 U	< 5 U	0.045
BARIUM	NA	NA	NA	NA	21.3	26.4	27.5	2,600
BERYLLIUM	NA	NA	NA	NA	0.14	< 2 U	< 2 U	73
CADMIUM	NA	NA	NA	NA	< 2 U	13.1	4.9	18
CALCIUM	NA	NA	NA	NA	NA	NA	629,000	NC
CHROMIUM	NA	NA	NA	NA	4.7	4.2	2.7	NC
COBALT	NA	NA	NA	NA	< 5 U	< 5 U	0.9	730
COPPER	NA	NA	NA	NA	< 10 U	6.9	43.8	1,500
IRON	NA	NA	NA	NA	NA	NA	1,790	11,000
LEAD	NA	NA	NA	NA	< 5 U	3.8	< 5 U	NC
MAGNESIUM	NA	NA	NA	NA	NA	NA	718,000	NC
MANGANESE	NA	NA	NA	NA	NA	NA	207	880
MERCURY	NA	NA	NA	NA	NA	NA	0.052	NC
MOLYBDENUM	NA	NA	NA	NA	NA	NA	12.8	180
NICKEL	NA	NA	NA	NA	3.3	10.8	135	730
POTASSIUM	NA	NA	NA	NA	NA	NA	95,900	NC
SELENIUM	NA	NA	NA	NA	< 10 U	< 10 U	< 10 U	180
SILVER	NA	NA	NA	NA	3	5.4	< 10 U	180
SODIUM	NA	NA	NA	NA	NA	NA	3,330,000	NC
THALLIUM	NA	NA	NA	NA	**4.2**	< 10 U	< 10 U	2.4
VANADIUM	NA	NA	NA	NA	2.3	14.8	6.2	37
ZINC	NA	NA	NA	NA	< 10 U	23.7	18.9	11,000

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW15	S14MW15	S14MW15	S14MW15	S14MW16	S14MW16	S14MW16	EPA Tap Water PRGs
Sample ID	08797051402BJ	08797102344S	08798011507D	08798040209W	S14-MW16Q1	S14-MW16Q2	S14-MW-16Q3	
Sample Date	05/14/97	10/23/97	01/15/98	04/02/98	06/13/03	09/11/03	01/07/04	
Metals (µg/L)								
FIltered								
ALUMINUM	190	< 11 U	< 6.2 U	< 4 U	NA	NA	42.4	36,000
ANTIMONY	< 1.4 U	< 1.4 U	< 1.8 U	< 2.6 U	NA	NA	6.5	15
ARSENIC	**11.4**	**7.6**	< 10.7 UJ	**9.9**	NA	NA	< 5 U	0.045
BARIUM	29.8 J	23.4 J	26 J	22.8 J	NA	NA	27.8	2,600
BERYLLIUM	< 0.21 UJ	0.18 J	< 0.92 UJ	< 0.15 UJ	NA	NA	< 2 U	73
CADMIUM	0.46 J	< 0.2 U	< 0.45 UJ	< 0.24 UJ	NA	NA	2.6	18
CALCIUM	324,000	NA	NA	NA	NA	NA	562,000	NC
CHROMIUM	< 1.2 UJ	2.3 J	2.3 J	1.5 J	NA	NA	< 5 U	NC
COBALT	0.81 J	< 0.65 U	< 0.85 U	< 0.7 U	NA	NA	0.97	730
COPPER	< 0.5 UJ	< 0.55 U	< 1.2 U	< 0.6 U	NA	NA	11.6	1,500
IRON	7,410	NA	NA	NA	NA	NA	2,020	11,000
LEAD	< 1 U	< 0.85 UJ	< 0.9 U	< 1.3 U	NA	NA	< 5 U	NC
MAGNESIUM	2,750,000	NA	NA	NA	NA	NA	699,000	NC
MANGANESE	226	198	203	209	NA	NA	230	880
MERCURY	< 0.1 U	0.1 R	< 0.2 U	< 0.1 U	NA	NA	0.037	NC
MOLYBDENUM	75.7	77.8	71.4	80.8	NA	NA	14.8	180
NICKEL	< 0.77 U	2 J	< 1 U	1.5 J	NA	NA	6.1	730
POTASSIUM	489,000	NA	NA	NA	NA	NA	107,000	NC
SELENIUM	< 1.8 UJ	8.6	12.8	10.6 J	NA	NA	< 10 U	180
SILVER	< 0.43 U	1.3 J	< 1 U	< 0.65 U	NA	NA	< 10 U	180
SODIUM	14,000,000	NA	NA	NA	NA	NA	3,320,000	NC
THALLIUM	< 1.4 U	< 3 U	< 3.2 UJ	< 3.4 U	NA	NA	< 10 U	2.4
VANADIUM	5 J	< 0.68 UJ	< 0.8 U	< 0.77 UJ	NA	NA	4	37
ZINC	6.9	5.4 J	< 12.8 UJ	< 0.8 U	NA	NA	18.2	11,000
General Mineral								
CALCIUM	NA	370,000	336,000	362,000	NA	NA	NA	NC
IRON	NA	227 J	3,000 J	570 J	NA	NA	NA	11,000
MAGNESIUM	NA	2,940,000	2,640,000	3,040,000	NA	NA	NA	NC
POTASSIUM	NA	487,000	466,000	544,000	NA	NA	NA	NC
SODIUM	NA	14,300,000	12,300,000	17,900,000	NA	NA	NA	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW15	S14MW15	S14MW15	S14MW15	S14MW16	S14MW16	S14MW16	
Sample ID	08797051402BJ	08797102344S	08798011507D	08798040209W	S14-MW16Q1	S14-MW16Q2	S14-MW-16Q3	EPA Tap Water PRGs
Sample Date	05/14/97	10/23/97	01/15/98	04/02/98	06/13/03	09/11/03	01/07/04	
Organophosphorus pesticides (µg/L)								
DICHLORVOS	NA	NA	NA	NA	NA	NA	NA	0.23

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW16	S14MW17	S14MW17	S14MW17	S14MW17	S14MW18	S14MW18	EPA Tap Water PRGs
Sample ID	S14-MW16Q4	S14-MW17Q1	S14-MW17Q2	S14-MW-17Q3	S14-MW17Q4	S14-MW18Q1	S14-MW18Q2	
Sample Date	03/22/04	06/13/03	09/11/03	01/07/04	03/22/04	06/13/03	09/11/03	
Volatile Organic Compounds (µg/L)								
1,2-DICHLOROETHENE (TOTAL)	NA	NA	NA	NA	NA	NA	NA	NC
2-BUTANONE	< 100 U	< 100 U	< 100 U	< 10 U	< 100 U	< 100 U	< 100 U	7,000
ACETONE	< 50 U	28 J	< 50 U	2 J	< 50 U	25 J	12 J	5,500
BENZENE	< 5 U	< 5 U	< 5 U	< 10 U	< 5 U	< 5 U	< 5 U	0.35
BROMODICHLOROMETHANE	< 5 U	< 5 U	< 5 U	< 10 U	< 5 U	< 5 U	< 5 U	0.18
CARBON DISULFIDE	< 5 U	< 5 U	< 5 U	< 10 U	< 5 U	< 5 U	< 5 U	1,000
CARBON TETRACHLORIDE	< 5 U	< 5 U	< 5 U	< 10 U	< 5 U	< 5 U	< 5 U	0.17
CHLOROBENZENE	< 5 U	< 5 U	< 5 U	< 10 U	< 5 U	< 5 U	< 5 U	110
CHLOROFORM	< 5 U	**1 J**	< 5 U	< 10 U	< 5 U	**2 J**	< 5 U	0.17
CIS-1,2-DICHLOROETHENE	< 5 U	< 5 U	< 5 U	< 1 U	< 5 U	< 5 U	< 5 U	61
DIBROMOCHLOROMETHANE	< 5 U	< 5 U	< 5 U	< 10 U	< 5 U	< 5 U	< 5 U	0.13
ETHYLBENZENE	< 5 U	< 5 U	< 5 U	< 10 U	< 5 U	< 5 U	< 5 U	1,300
METHYLENE CHLORIDE	**5**	2 J	< 5 U	0.3 J	4 J	2 J	< 5 U	4.3
TETRACHLOROETHENE	< 5 U	< 5 U	< 5 U	< 10 U	< 5 U	< 5 U	< 5 U	0.10
TOLUENE	< 5 U	< 5 U	< 5 U	< 10 U	< 5 U	< 5 U	< 5 U	720
TRICHLOROETHENE	< 5 U	< 5 U	< 5 U	< 10 U	< 5 U	< 5 U	< 5 U	0.028
XYLENE (TOTAL)	< 15 U	< 15 U	< 15 U	< 10 U	< 15 U	< 15 U	< 15 U	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	NA	NA	0.1 J	NA	NA	NA	NC
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NC
TPH - DIESEL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - MOTOR OIL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - NAVY SPECIAL FUEL OIL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - UNKNOWN HYDROCARBON	NA	NA	NA	NA	NA	NA	NA	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	NA	NA	0.01 J	NA	NA	NA	NC
Semivolatile Organic Compounds (µg/L)								
1,3-DICHLOROBENZENE	NA	NA	NA	< 10 U	NA	NA	NA	180
1,4-DICHLOROBENZENE	NA	NA	NA	< 10 U	NA	NA	NA	0.50
2-METHYLNAPHTHALENE	NA	NA	NA	< 10 U	NA	NA	NA	NC
4-CHLORO-3-METHYLPHENOL	NA	NA	NA	< 10 U	NA	NA	NA	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW16	S14MW17	S14MW17	S14MW17	S14MW17	S14MW18	S14MW18	EPA Tap Water PRGs
Sample ID	S14-MW16Q4	S14-MW17Q1	S14-MW17Q2	S14-MW-17Q3	S14-MW17Q4	S14-MW18Q1	S14-MW18Q2	
Sample Date	03/22/04	06/13/03	09/11/03	01/07/04	03/22/04	06/13/03	09/11/03	
Semivolatile Organic Compounds (µg/L)								
ACENAPHTHENE	NA	NA	NA	< 10 U	NA	NA	NA	370
CARBAZOLE	NA	NA	NA	< 10 U	NA	NA	NA	3.4
NAPHTHALENE	NA	NA	NA	< 10 U	NA	NA	NA	0.093 *
PYRENE	NA	NA	NA	< 10 U	NA	NA	NA	180
PCBs/Pesticides (µg/L)								
None Detected	NA	NA	NA	ND	NA	NA	NA	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	NA	NA	NA	82.4	NA	NA	NA	36,000
ANTIMONY	< 10 U	4.4	3.8	< 10 U	< 10 U	3.4	< 10 U	15
ARSENIC	< 5 U	**18.6**	**17.8**	< 5 U	**12.9**	**5**	< 5 U	0.045
BARIUM	23.2	23	28.2	22.4	17.6	35.5	35.9	2,600
BERYLLIUM	0.14	0.11	0.065	< 2 U	0.13	< 2 U	< 2 U	73
CADMIUM	1	< 2 U	< 2 U	0.81	< 2 U	< 2 U	< 2 U	18
CALCIUM	NA	NA	NA	447,000	NA	NA	NA	NC
CHROMIUM	3.8	15.5	2.8	< 5 U	< 5 U	9.7	4.9	NC
COBALT	1.6	< 5 U	< 5 U	< 5 U	1.3	1.3	1.5	730
COPPER	< 10 U	257	8.8	32.3	< 10 U	55.6	4.6	1,500
IRON	NA	NA	NA	2,390	NA	NA	NA	11,000
LEAD	< 5 U	< 5 U	3.4	3.3	< 5 U	< 5 U	4	NC
MAGNESIUM	NA	NA	NA	299,000	NA	NA	NA	NC
MANGANESE	NA	NA	NA	551	NA	NA	NA	880
MERCURY	NA	NA	NA	0.061	NA	NA	NA	NC
MOLYBDENUM	NA	NA	NA	52.4	NA	NA	NA	180
NICKEL	5.3	3.5	2.9	3.1	< 5 U	4	7.4	730
POTASSIUM	NA	NA	NA	93,000	NA	NA	NA	NC
SELENIUM	< 10 U	2.8	3.3	< 10 U	< 10 U	< 10 U	< 10 U	180
SILVER	< 10 U	3	4.2	< 10 U	< 10 U	2.8	3	180
SODIUM	NA	NA	NA	1,430,000	NA	NA	NA	NC
THALLIUM	< 10 U	**3.8**	< 10 U	**2.7**	**39.4**	< 10 U	< 10 U	2.4
VANADIUM	2.5	3.1	1.3	< 10 U	1.3	< 10 U	0.72	37
ZINC	< 10 U	< 10 U	7.6	25.3	5.8	4	32.7	11,000

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW16	S14MW17	S14MW17	S14MW17	S14MW17	S14MW18	S14MW18	EPA Tap Water PRGs
Sample ID	S14-MW16Q4	S14-MW17Q1	S14-MW17Q2	S14-MW-17Q3	S14-MW17Q4	S14-MW18Q1	S14-MW18Q2	
Sample Date	03/22/04	06/13/03	09/11/03	01/07/04	03/22/04	06/13/03	09/11/03	
Metals (µg/L)								
FIltered								
ALUMINUM	NA	NA	NA	53.9	NA	NA	NA	36,000
ANTIMONY	NA	NA	NA	< 10 U	NA	NA	NA	15
ARSENIC	NA	NA	NA	< 5 U	NA	NA	NA	0.045
BARIUM	NA	NA	NA	20.2	NA	NA	NA	2,600
BERYLLIUM	NA	NA	NA	< 2 U	NA	NA	NA	73
CADMIUM	NA	NA	NA	1.1	NA	NA	NA	18
CALCIUM	NA	NA	NA	433,000	NA	NA	NA	NC
CHROMIUM	NA	NA	NA	< 5 U	NA	NA	NA	NC
COBALT	NA	NA	NA	< 5 U	NA	NA	NA	730
COPPER	NA	NA	NA	5.5	NA	NA	NA	1,500
IRON	NA	NA	NA	311	NA	NA	NA	11,000
LEAD	NA	NA	NA	7.2	NA	NA	NA	NC
MAGNESIUM	NA	NA	NA	317,000	NA	NA	NA	NC
MANGANESE	NA	NA	NA	530	NA	NA	NA	880
MERCURY	NA	NA	NA	0.081	NA	NA	NA	NC
MOLYBDENUM	NA	NA	NA	51.5	NA	NA	NA	180
NICKEL	NA	NA	NA	3.1	NA	NA	NA	730
POTASSIUM	NA	NA	NA	108,000	NA	NA	NA	NC
SELENIUM	NA	NA	NA	< 10 U	NA	NA	NA	180
SILVER	NA	NA	NA	< 10 U	NA	NA	NA	180
SODIUM	NA	NA	NA	1,720,000	NA	NA	NA	NC
THALLIUM	NA	NA	NA	< 10 U	NA	NA	NA	2.4
VANADIUM	NA	NA	NA	< 10 U	NA	NA	NA	37
ZINC	NA	NA	NA	23.9	NA	NA	NA	11,000
General Mineral								
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NC
IRON	NA	NA	NA	NA	NA	NA	NA	11,000
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NC
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NC
SODIUM	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW16	S14MW17	S14MW17	S14MW17	S14MW17	S14MW18	S14MW18	
Sample ID	S14-MW16Q4	S14-MW17Q1	S14-MW17Q2	S14-MW-17Q3	S14-MW17Q4	S14-MW18Q1	S14-MW18Q2	EPA Tap Water PRGs
Sample Date	03/22/04	06/13/03	09/11/03	01/07/04	03/22/04	06/13/03	09/11/03	
Organophosphorus pesticides (µg/L)								
DICHLORVOS	NA	NA	NA	NA	NA	NA	NA	0.23

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW18	S14MW18	S14MW19	S14MW19	S14MW19	S14MW19	S14SW01	
Sample ID	S14-MW18Q3	S14-MW18Q4	S14-MW19Q1	S14-MW19Q2	S14-MW19Q3	S14-MW19Q4	123-S14-257	EPA Tap Water PRGs
Sample Date	01/08/04	03/22/04	06/13/03	09/11/03	01/09/04	03/22/04	05/27/93	
Volatile Organic Compounds (µg/L)								
1,2-DICHLOROETHENE (TOTAL)	NA	NA	NA	NA	NA	NA	< 2 U	NC
2-BUTANONE	< 10 U	< 100 U	< 100 U	< 100 U	< 10 U	< 100 U	< 2 U	7,000
ACETONE	1 J	< 50 U	26 J	15 J	2 J	< 50 U	< 2 UJ	5,500
BENZENE	< 10 U	< 5 U	< 5 U	< 5 U	< 10 U	< 5 U	< 2 U	0.35
BROMODICHLOROMETHANE	< 10 U	< 5 U	< 5 U	< 5 U	< 10 U	< 5 U	< 2 U	0.18
CARBON DISULFIDE	< 10 U	< 5 U	< 5 U	< 5 U	< 10 U	< 5 U	< 2 U	1,000
CARBON TETRACHLORIDE	< 10 U	< 5 U	< 5 U	< 5 U	< 10 U	< 5 U	< 2 U	0.17
CHLOROBENZENE	< 10 U	< 5 U	< 5 U	< 5 U	< 10 U	< 5 U	< 2 U	110
CHLOROFORM	< 10 U	< 5 U	**2 J**	< 5 U	< 10 U	< 5 U	< 2 U	0.17
CIS-1,2-DICHLOROETHENE	< 1 U	< 5 U	< 5 U	< 5 U	< 1 U	< 5 U	NA	61
DIBROMOCHLOROMETHANE	< 10 U	< 5 U	< 5 U	< 5 U	< 10 U	< 5 U	< 2 U	0.13
ETHYLBENZENE	< 10 U	< 5 U	< 5 U	< 5 U	< 10 U	< 5 U	< 2 U	1,300
METHYLENE CHLORIDE	< 10 U	4 J	2 J	< 5 U	0.3 J	4 J	< 2 U	4.3
TETRACHLOROETHENE	< 10 U	< 5 U	< 5 U	< 5 U	< 10 U	< 5 U	< 2 U	0.10
TOLUENE	< 10 U	< 5 U	< 5 U	< 5 U	< 10 U	< 5 U	< 2 U	720
TRICHLOROETHENE	< 10 U	< 5 U	< 5 U	< 5 U	< 10 U	< 5 U	< 2 U	0.028
XYLENE (TOTAL)	< 10 U	< 15 U	< 15 U	< 15 U	< 10 U	< 15 U	< 2 U	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	< 0.48 U	NA	NA	NA	< 0.48 U	NA	NA	NC
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NC
TPH - DIESEL	NA	NA	NA	NA	NA	NA	< 0.05 U	NC
TPH - MOTOR OIL	NA	NA	NA	NA	NA	NA	< 0.5 U	NC
TPH - NAVY SPECIAL FUEL OIL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - UNKNOWN HYDROCARBON	NA	NA	NA	NA	NA	NA	< 0.05 U	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	0.007 J	NA	NA	NA	0.01 J	NA	NA	NC
Semivolatile Organic Compounds (µg/L)								
1,3-DICHLOROBENZENE	< 10 U	NA	NA	NA	< 10 U	NA	< 10 U	180
1,4-DICHLOROBENZENE	< 10 U	NA	NA	NA	< 10 U	NA	< 10 U	0.50
2-METHYLNAPHTHALENE	< 10 U	NA	NA	NA	< 10 U	NA	< 10 U	NC
4-CHLORO-3-METHYLPHENOL	< 10 U	NA	NA	NA	< 10 U	NA	< 10 U	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW18	S14MW18	S14MW19	S14MW19	S14MW19	S14MW19	S14SW01	
Sample ID	S14-MW18Q3	S14-MW18Q4	S14-MW19Q1	S14-MW19Q2	S14-MW19Q3	S14-MW19Q4	123-S14-257	EPA Tap Water PRGs
Sample Date	01/08/04	03/22/04	06/13/03	09/11/03	01/09/04	03/22/04	05/27/93	
Semivolatile Organic Compounds (µg/L)								
ACENAPHTHENE	< 10 U	NA	NA	NA	< 10 U	NA	< 10 U	370
CARBAZOLE	< 10 U	NA	NA	NA	< 10 U	NA	< 10 U	3.4
NAPHTHALENE	< 10 U	NA	NA	NA	< 10 U	NA	< 10 U	0.093 *
PYRENE	< 10 U	NA	NA	NA	< 10 U	NA	< 10 U	180
PCBs/Pesticides (µg/L)								
None Detected	ND	NA	NA	NA	ND	NA	ND	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	132	NA	NA	NA	179	NA	< 43.2 U	36,000
ANTIMONY	< 10 U	< 10 U	3.2	< 10 U	< 10 U	< 10 U	< 31 U	15
ARSENIC	< 5 U	**1.4**	**9.3**	**5.8**	< 5 U	**1.4**	**2.3 J**	0.045
BARIUM	39.9	35.3	43.9	43.3	68.8	43.1	145 J	2,600
BERYLLIUM	< 2 U	< 2 U	0.08	< 2 U	< 2 U	< 2 U	< 1 U	73
CADMIUM	0.67	0.19	< 2 U	< 2 U	0.37	< 2 U	< 4 U	18
CALCIUM	289,000	NA	NA	NA	413,000	NA	849,000	NC
CHROMIUM	< 5 U	< 5 U	4	4.4	2.1	< 5 U	9.3	NC
COBALT	1.1	1.5	< 5 U	2.4	1.6	1.2	< 2 U	730
COPPER	16.5	< 10 U	277	4.6	37.5	< 10 U	< 2 U	1,500
IRON	1,470	NA	NA	NA	6,770	NA	92.5	11,000
LEAD	< 5 U	1.9	< 5 U	4.3	< 5 U	< 5 U	< 1 U	NC
MAGNESIUM	161,000	NA	NA	NA	498,000	NA	228,000 J	NC
MANGANESE	**1,220**	NA	NA	NA	761	NA	567	880
MERCURY	0.065	NA	NA	NA	< 0.5 U	NA	< 0.2 U	NC
MOLYBDENUM	54	NA	NA	NA	44	NA	NA	180
NICKEL	3.7	3.4	6.3	6.6	3.9	< 5 U	< 7 U	730
POTASSIUM	22,300	NA	NA	NA	141,000	NA	15,000	NC
SELENIUM	< 10 U	< 10 U	< 10 U	< 10 U	3.8	< 10 U	< 30 UJ	180
SILVER	< 10 U	< 10 U	3.2	4.2	< 10 U	< 10 U	4.9	180
SODIUM	560,000	NA	NA	NA	2,560,000	NA	3,490,000 J	NC
THALLIUM	**3.5**	**9.3**	< 10 U	< 10 U	< 10 U	2.4	**30 R**	2.4
VANADIUM	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 2 U	37
ZINC	25	4.6	< 10 U	48.2	6.9	< 10 U	< 2.9 U	11,000

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW18	S14MW18	S14MW19	S14MW19	S14MW19	S14MW19	S14SW01	EPA Tap Water PRGs
Sample ID	S14-MW18Q3	S14-MW18Q4	S14-MW19Q1	S14-MW19Q2	S14-MW19Q3	S14-MW19Q4	123-S14-257	
Sample Date	01/08/04	03/22/04	06/13/03	09/11/03	01/09/04	03/22/04	05/27/93	
Metals (µg/L)								
Filtered								
ALUMINUM	49.1	NA	NA	NA	< 100 U	NA	NA	36,000
ANTIMONY	< 10 U	NA	NA	NA	2.7	NA	NA	15
ARSENIC	< 5 U	NA	NA	NA	< 5 U	NA	NA	0.045
BARIUM	37.7	NA	NA	NA	60.5	NA	NA	2,600
BERYLLIUM	< 2 U	NA	NA	NA	< 2 U	NA	NA	73
CADMIUM	< 2 U	NA	NA	NA	< 2 U	NA	NA	18
CALCIUM	293,000	NA	NA	NA	403,000	NA	NA	NC
CHROMIUM	< 5 U	NA	NA	NA	< 5 U	NA	NA	NC
COBALT	0.91	NA	NA	NA	1.1	NA	NA	730
COPPER	2.8	NA	NA	NA	< 10 U	NA	NA	1,500
IRON	816	NA	NA	NA	6,850	NA	NA	11,000
LEAD	< 5 U	NA	NA	NA	< 5 U	NA	NA	NC
MAGNESIUM	155,000	NA	NA	NA	499,000	NA	NA	NC
MANGANESE	802	NA	NA	NA	741	NA	NA	880
MERCURY	0.055	NA	NA	NA	< 0.5 U	NA	NA	NC
MOLYBDENUM	54.3	NA	NA	NA	42.9	NA	NA	180
NICKEL	3	NA	NA	NA	2	NA	NA	730
POTASSIUM	21,500	NA	NA	NA	120,000	NA	NA	NC
SELENIUM	< 10 U	NA	NA	NA	< 10 U	NA	NA	180
SILVER	< 10 U	NA	NA	NA	< 10 U	NA	NA	180
SODIUM	538,000	NA	NA	NA	2,390,000	NA	NA	NC
THALLIUM	**2.7**	NA	NA	NA	< 10 U	NA	NA	2.4
VANADIUM	< 10 U	NA	NA	NA	< 10 U	NA	NA	37
ZINC	21.4	NA	NA	NA	7.2	NA	NA	11,000
General Mineral								
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NC
IRON	NA	NA	NA	NA	NA	NA	NA	11,000
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NC
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NC
SODIUM	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14MW18	S14MW18	S14MW19	S14MW19	S14MW19	S14MW19	S14SW01	
Sample ID	S14-MW18Q3	S14-MW18Q4	S14-MW19Q1	S14-MW19Q2	S14-MW19Q3	S14-MW19Q4	123-S14-257	EPA Tap Water PRGs
Sample Date	01/08/04	03/22/04	06/13/03	09/11/03	01/09/04	03/22/04	05/27/93	
Organophosphorus pesticides (µg/L)								
DICHLORVOS	NA	NA	NA	NA	NA	NA	< 2 U	0.23

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14SW02	S14SW03	S14SW04	S14SW04	S14SW05	EPA Tap Water PRGs
Sample ID	123-S14-258	123-S14-259	123-S14-260	123-S14-261	123-S14-262	
Sample Date	05/27/93	05/27/93	05/27/93	05/27/93	05/27/93	
Volatile Organic Compounds (µg/L)						
1,2-DICHLOROETHENE (TOTAL)	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	NC
2-BUTANONE	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	7,000
ACETONE	< 2 UJ	< 2 UJ	< 2 UJ	< 2 UJ	< 2 UJ	5,500
BENZENE	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	0.35
BROMODICHLOROMETHANE	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	0.18
CARBON DISULFIDE	< 2 U	< 2 U	< 2 U	< 2 U	0.4 J	1,000
CARBON TETRACHLORIDE	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	0.17
CHLOROBENZENE	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	110
CHLOROFORM	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	0.17
CIS-1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	61
DIBROMOCHLOROMETHANE	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	0.13
ETHYLBENZENE	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	1,300
METHYLENE CHLORIDE	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	4.3
TETRACHLOROETHENE	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	0.10
TOLUENE	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	720
TRICHLOROETHENE	**0.8 J**	< 2 U	< 2 U	< 2 U	< 2 U	0.028
XYLENE (TOTAL)	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	210
Petroleum Hydrocarbons (mg/L)						
Diesel/Motor Oil Range (extractables)						
DIESEL RANGE ORGANICS	NA	NA	NA	NA	NA	NC
MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NC
TPH - DIESEL	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	NC
TPH - MOTOR OIL	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	NC
TPH - NAVY SPECIAL FUEL OIL	NA	NA	NA	NA	NA	NC
TPH - UNKNOWN HYDROCARBON	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	NC
Gasoline Range (purgeables)						
GASOLINE RANGE ORGANICS	NA	NA	NA	NA	NA	NC
Semivolatile Organic Compounds (µg/L)						
1,3-DICHLOROBENZENE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	180
1,4-DICHLOROBENZENE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	0.50
2-METHYLNAPHTHALENE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NC
4-CHLORO-3-METHYLPHENOL	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14SW02	S14SW03	S14SW04	S14SW04	S14SW05	EPA Tap Water PRGs
Sample ID	123-S14-258	123-S14-259	123-S14-260	123-S14-261	123-S14-262	
Sample Date	05/27/93	05/27/93	05/27/93	05/27/93	05/27/93	
Semivolatile Organic Compounds (µg/L)						
ACENAPHTHENE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	370
CARBAZOLE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	3.4
NAPHTHALENE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	0.093 *
PYRENE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	180
PCBs/Pesticides (µg/L)						
None Detected	ND	ND	ND	ND	ND	NC
Metals (µg/L)						
Unfiltered						
ALUMINUM	< 56 U	< 58.5 U	< 27.2 U	< 37.9 U	< 29.8 U	36,000
ANTIMONY	< 31 U	< 31 U	< 31 U	< 31 U	< 31 U	15
ARSENIC	**2 R**	**2.8 J**	**3.8 J**	**3.3 J**	**2.2 J**	0.045
BARIUM	114 J	75.1 J	62 J	59.2 J	82.9 J	2,600
BERYLLIUM	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	73
CADMIUM	< 4 U	5	< 4 U	< 4 U	< 4 U	18
CALCIUM	681,000	432,000	311,000	299,000	210,000	NC
CHROMIUM	6.7	< 3 U	< 3 U	< 3 U	< 3 U	NC
COBALT	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	730
COPPER	< 2 U	< 2 U	2.4	< 2 U	5.9	1,500
IRON	< 11.5 U	< 5.3 U	< 5 U	< 8.9 U	< 7.2 U	11,000
LEAD	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	NC
MAGNESIUM	192,000 J	135,000 J	131,000 J	126,000 J	185,000 J	NC
MANGANESE	477	290	338	328	771	880
MERCURY	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	NC
MOLYBDENUM	NA	NA	NA	NA	NA	180
NICKEL	< 7 U	< 7 U	< 7 U	< 7 U	7.1	730
POTASSIUM	10,800	7,210	5,310	5,280	11,200	NC
SELENIUM	< 30 UJ	< 30 UJ	< 30 UJ	< 30 UJ	< 30 UJ	180
SILVER	3.8	2.3	2.9	2.4	< 2 U	180
SODIUM	2,390,000 J	1,240,000 J	725,000 J	683,000 J	657,000 J	NC
THALLIUM	**30 R**	**30 R**	**30 R**	**30 R**	**30 R**	2.4
VANADIUM	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	37
ZINC	< 1.8 U	< 3.2 U	< 2.8 U	< 1.1 U	< 1 U	11,000

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14SW02	S14SW03	S14SW04	S14SW04	S14SW05	EPA Tap Water PRGs
Sample ID	123-S14-258	123-S14-259	123-S14-260	123-S14-261	123-S14-262	
Sample Date	05/27/93	05/27/93	05/27/93	05/27/93	05/27/93	
Metals (µg/L)						
FIltered						
ALUMINUM	NA	NA	NA	NA	NA	36,000
ANTIMONY	NA	NA	NA	NA	NA	15
ARSENIC	NA	NA	NA	NA	NA	0.045
BARIUM	NA	NA	NA	NA	NA	2,600
BERYLLIUM	NA	NA	NA	NA	NA	73
CADMIUM	NA	NA	NA	NA	NA	18
CALCIUM	NA	NA	NA	NA	NA	NC
CHROMIUM	NA	NA	NA	NA	NA	NC
COBALT	NA	NA	NA	NA	NA	730
COPPER	NA	NA	NA	NA	NA	1,500
IRON	NA	NA	NA	NA	NA	11,000
LEAD	NA	NA	NA	NA	NA	NC
MAGNESIUM	NA	NA	NA	NA	NA	NC
MANGANESE	NA	NA	NA	NA	NA	880
MERCURY	NA	NA	NA	NA	NA	NC
MOLYBDENUM	NA	NA	NA	NA	NA	180
NICKEL	NA	NA	NA	NA	NA	730
POTASSIUM	NA	NA	NA	NA	NA	NC
SELENIUM	NA	NA	NA	NA	NA	180
SILVER	NA	NA	NA	NA	NA	180
SODIUM	NA	NA	NA	NA	NA	NC
THALLIUM	NA	NA	NA	NA	NA	2.4
VANADIUM	NA	NA	NA	NA	NA	37
ZINC	NA	NA	NA	NA	NA	11,000
General Mineral						
CALCIUM	NA	NA	NA	NA	NA	NC
IRON	NA	NA	NA	NA	NA	11,000
MAGNESIUM	NA	NA	NA	NA	NA	NC
POTASSIUM	NA	NA	NA	NA	NA	NC
SODIUM	NA	NA	NA	NA	NA	NC

TABLE 13-3: ANALYTICAL RESULTS FOR IRP SITE 14 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S14SW02	S14SW03	S14SW04	S14SW04	S14SW05	EPA Tap Water PRGs
Sample ID	123-S14-258	123-S14-259	123-S14-260	123-S14-261	123-S14-262	
Sample Date	05/27/93	05/27/93	05/27/93	05/27/93	05/27/93	
Organophosphorus pesticides (µg/L)						
DICHLORVOS	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	0.23

Notes: Categories of analyses are shown, but only detected compounds are presented. Analyte results in boldface type exceed EPA tap water PRGs.

*	California modified PRGs
ID	Identification
J	Estimated value
mg/L	Milligrams per liter
NA	Not analyzed
NC	No criteria
ND	None detected
PRG	Preliminary remediation goals
R	Result rejected during quality assurance review.
TPH	Total petroleum hydrocarbons
U	Nondetected
Y	Chromatographic pattern resembles hydrocarbon fuel pattern and was quantitated using the standard it resembled most.
Z	Chromatographic pattern does not resemble TPH fuel pattern (individual peaks).
µg/L	Micrograms per liter

14.0 IRP SITE 15 – TRANSFORMER STORAGE YARD

This section provides the site background and description for IRP Site 15; summarizes the previous investigations, activities, and existing data; and discusses data gap findings and strategies for eliminating data gaps at IRP Site 15.

14.1 SITE BACKGROUND

The following sections discuss the site background for IRP Site 15, including a general site description, discussion of previous and current site activities, and a summary of previous investigations that have been completed at the site.

14.1.1 Site Description

IRP Site 15 is located in the northwest portion of CBC Port Hueneme. The site is bounded on the west by Track No. 14 Road, to the north by Building 1342, to the east by Buildings 323 and 322, and to the south by Building 328 (Figure 14-1).

14.1.2 Site Activities

IRP Site 15 was used from the late 1970s through the early 1980s as a transformer storage area. Potential contaminants at the site include PCBs from leaking transformers that were stored at the site. Small leaks, representing less than one gallon of PCB-containing fluid, has potentially contaminated the ground surface in the area. The site is not currently used for any Naval activities.

14.1.3 Previous Investigations

Previous investigations that have been completed at IRP Site 15 include a final SI (ERTEC 1991a), confirmation sampling (Tetra Tech 1999b), and a basewide groundwater investigation (Tetra Tech and LFR 2001).

14.1.3.1 Final Site Inspection Study (ERTEC 1991a)

In 1988, IRP Site 15 was investigated under a SI conducted by the ERTEC to address a history of leaks from transformers of dielectric fluid containing PCBs. The objective of the SI activities at IRP Site 15 was to investigate the potential for PCB contamination of soils underlying the asphalt storage areas for electrical equipment. Field activities conducted during the SI included hand auguring 111 shallow soil borings and sampling at 0.5 feet bgs. The 111 soil samples were then combined into 10 composite compartment samples for laboratory analyses (not shown on Figure 14-1). In addition, nine soil borings were hand augured to collect samples at 0.5, 1.5, 3, and 6 feet below the asphalt surface (Figure 14-1). The soil samples collected at 0.5- and 1.5-foot depths were submitted to a laboratory for analyses of PCBs and pesticides.

Laboratory analyses of the composite and discrete borehole soil samples detected PCBs in two of the composite soil samples and in three 0.5-foot soil samples. Pesticides were not detected above the laboratory detection limit in any of the samples analyzed.

14.1.3.2 Preliminary Draft Post-Field Investigation Technical Memorandum, Confirmatory Sampling, IRP Sites 9, 12A, and 15 (Tetra Tech 1999b)

Three soil borings (S15-GB01, S15-GB02, and S15-GB03) were advanced at IRP Site 15 during the confirmation sampling (Figure 14-1). Soil samples from the borings were collected in 2-foot intervals at depths of approximately 0.5, 1.5, and 3.0 feet bgs. All three boreholes were advanced to a maximum depth of 4 feet bgs. Soil samples were analyzed for PCBs.

No PCBs were detected above the EPA Region PRG and TSCA action levels at IRP Site 15. The borings were advanced in areas surrounding IRP Site 15 to determine whether previously detected PCBs in soil had been adequately delineated. The site had been previously recommended for no further action; however, need for further sampling was identified to confirm that constituent concentrations were not present in outlying areas at concentrations exceeding the PRG and TSCA action levels.

PCBs were detected at concentrations below the PRG and TSCA action levels in all samples collected at IRP Site 15. The data indicated that IRP Site 15 is acceptable for future unrestricted land use because the TSCA action level for high-occupancy sites was not exceeded. The extent of PCB-affected soils has been adequately delineated for determining whether further action is required. No further action was recommended for IRP Site 15. The report also indicated that sufficient information exists to formulate recommendations for no further action without performing an HHRA; therefore, a risk evaluation was not recommended.

Groundwater at the site was to be addressed under a separate investigation.

14.1.3.3 Draft Groundwater Remedial Investigation Report (Tetra Tech and LFR 2001)

From 1997 to 2001, a basewide RI was completed to evaluate the condition of the groundwater and surface water at CBC Port Hueneme. No groundwater wells were installed at IRP Site 15. Also, no existing wells on the site could be used for sampling; therefore, no groundwater samples specific to IRP Site 15 were collected. However, the available analytical data and groundwater modeling were utilized to evaluate the Semi-Perched Aquifer in the vicinity of IRP Site 15.

Chemical concentrations in groundwater were screened against NAWQC for the protection of saltwater aquatic life and MCLs. If concentrations of an organic compound exceeded the NAWQC and/or MCL in at least one sampling round at a given location, that compound was considered a COPEC and/or COPC, respectively, at that location. If concentrations of an inorganic compound exceeded the NAWQC and/or MCL in more than one sampling at a given

location, that compound was considered a COPEC and/or a COPC, respectively, at that location. Inorganics were screened differently because they often occur naturally. No COPECs or COPCs were identified in the vicinity of IRP Site 15. No further evaluation of groundwater within the Semi-Perched Aquifer was recommended in the vicinity of IRP Site 15.

Following submittal of the draft basewide groundwater investigation report, and review of the groundwater model, DTSC requested that additional site-specific groundwater data be collected (if necessary) and site-specific groundwater data be evaluated to adequately characterize the site.

14.2 COMPILATION OF EXISTING SITE DATA

Available data, typically that collected after 1993, has been compiled and tabulated for use in identifying data gaps and additional site activities required to obtain site closure. The available data were screened against the EPA residential soil PRGs. Additional data may be available in previous reports prepared for this site. Dependent upon the site activities identified to obtain site closure, this data may also be reviewed to determine if it is suitable for use in additional evaluations.

Table 14-1 summarizes the samples collected at IRP Site 15. Table 14-2 includes the soil analytical data for IRP Site 15; none of the samples reviewed exceeded the current screening criteria.

14.3 DATA GAPS

For this SMP, the previous investigations and collected data for IRP Site 15 were reviewed to verify that sufficient information is available to support the final actions and documentation needed to close the site. Identified data gaps and proposed actions to eliminate those data gaps are discussed below.

14.3.1 Soil Data Gaps

The number of soil samples previously collected is not sufficient to adequately evaluate environmental conditions at IRP Site 15. Additional soil borings and samples are needed to adequately characterize the site and perform an HHRA and ERA.

14.3.2 Groundwater Data Gaps

No groundwater monitoring wells have been installed at or near IRP Site 15; therefore, potential risks associated with PCBs in Semi-Perched Aquifer groundwater may not have adequately been characterized. Monitoring wells and groundwater sampling are required at IRP Site 15 to assess groundwater conditions and support an HHRA and ERA.

14.3.3 Human Health Risk Assessment Data Gaps

Potential risks from exposure to soil or groundwater have not been evaluated in an HHRA for IRP Site 15. Additional soil and groundwater sampling is proposed at the site; therefore, existing and new soil and groundwater data will be evaluated in an HHRA. The HHRA will evaluate potential risks for exposure to both soil and groundwater at the site. The new HHRA will use contemporary EPA, DTSC, and Navy risk assessment guidance to ensure that site soil and groundwater risks are based on current methodology.

14.3.4 Ecological Risk Assessment Data Gaps

An ERA has not been completed for this site, and a habitat survey of IRP Site 15 will be completed to determine if there is viable habitat for ecological receptors.

14.4 STRATEGY FOR ELIMINATING DATA GAPS

Three groundwater monitoring wells should be installed at the site, one upgradient (S15MW01) and two downgradient (S15MW02 and S15MW03) (Figure 14-2). The monitoring wells would be sampled for four quarters for PCBs. The proposed groundwater monitoring well installations and groundwater sampling schemes for IRP Site 15 are as follows:

Well ID	Borehole Diameter (inches)	Well Diameter (inches)	Well Depth (feet bgs)	Screened Interval (feet bgs)	Up/Down Gradient	Estimated Water Level (feet bgs)
S15MW01	8.0	2.0	15	5-15	Up	6
S15MW02	8.0	2.0	15	5-15	Down	6
S15MW03	8.0	2.0	15	5-15	Down	6

Well ID	Well Diameter (inches)	Well Depth (feet bgs)	Screened Interval (feet bgs)	Analyses
S15MW01	2.0	15	5-15	PCBs
S15MW02	2.0	15	5-15	Same as above
S15MW03	2.0	15	5-15	Same as above

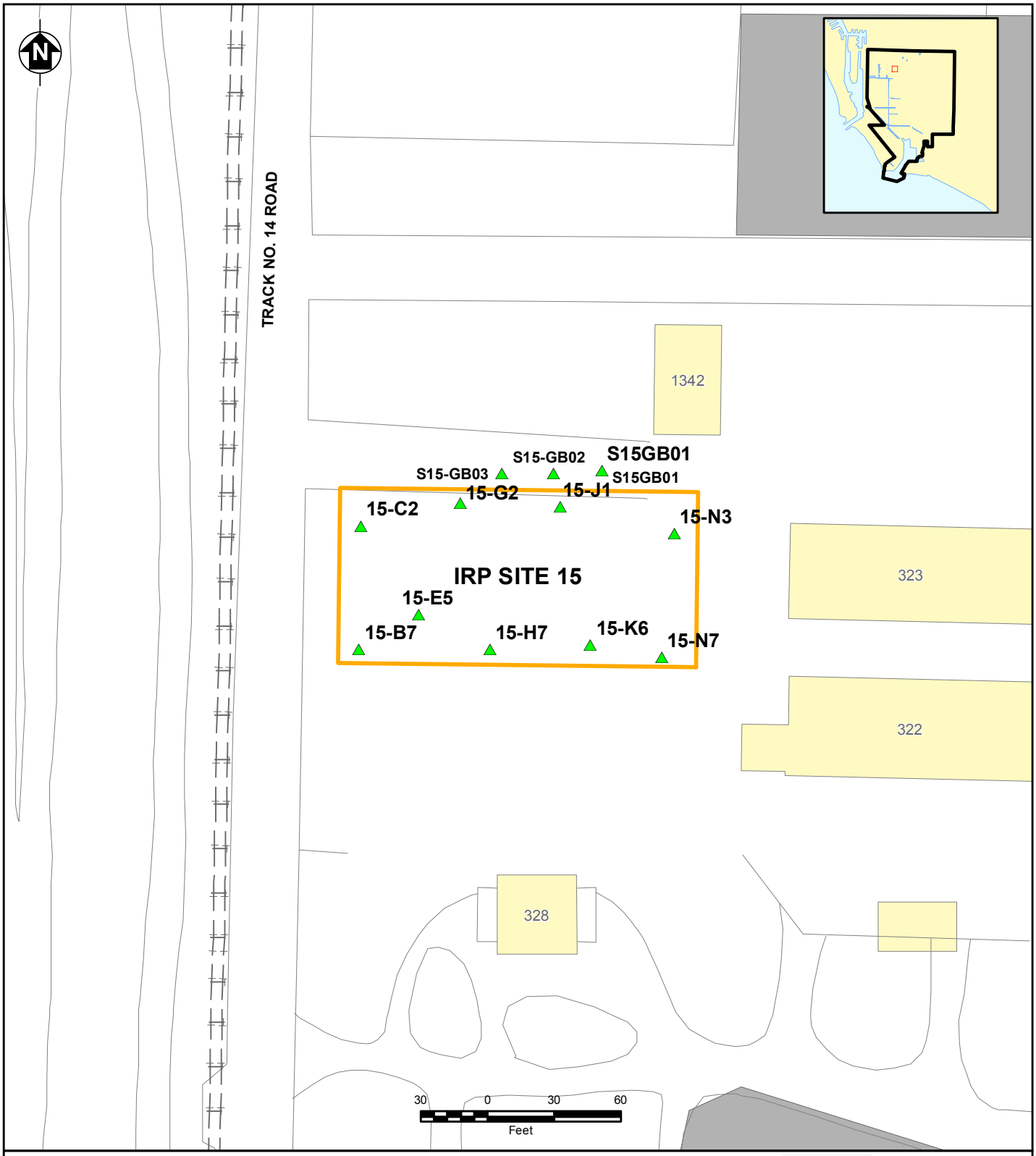
To provide an adequate data set to perform an HHRA and ERA, two additional soil borings are proposed for IRP Site 15 (see Figure 14-2). Two soil samples would be collected from each borehole, one from the surface and one from the subsurface, and analyzed for PCBs. Additionally, six soil samples would be collected from three groundwater monitoring wells to be installed at the site. Two samples will be collected from each well; one surface sample and one subsurface sample. These samples will also be analyzed for PCBs. The following table shows the proposed soil sampling scheme for IRP Site 15:

Sample Location ID	Depth (feet bgs)	Analytical Group	Rationale/Comment
S15MW01	Surface (0-2)	PCB	Provide additional data for HHRA and ERA
S15MW01	Subsurface (5-7)	Same as above	Same as above
S15MW02	Surface (0-2)	Same as above	Same as above
S15MW02	Subsurface (5-7)	Same as above	Same as above
S15MW03	Surface (0-2)	Same as above	Same as above
S15MW03	Subsurface (5-7)	Same as above	Same as above
S15SB01	Surface (0-2)	Same as above	Same as above
S15SB01	Subsurface (5-7)	Same as above	Same as above
S15SB02	Surface (0-2)	Same as above	Same as above
S15SB02	Subsurface (5-7)	Same as above	Same as above

The new groundwater and soil data will be compiled, combined with previously collected data presented in Table 14-2, and evaluated for cumulative risk using EPA tap water and residential soil PRGs. The data will be evaluated in an HHRA to identify site-specific risks to human health from soil and groundwater. In addition, a habitat survey of IRP Site 15 will be completed to determine if there is viable habitat for ecological receptors. If viable habitat does exist, a screening level ERA, based on surface soil data collected at the site, will be conducted.

The results of these evaluations, as well as conclusions and recommendations for any additional site activities, will be presented in an RI report.

FIGURES



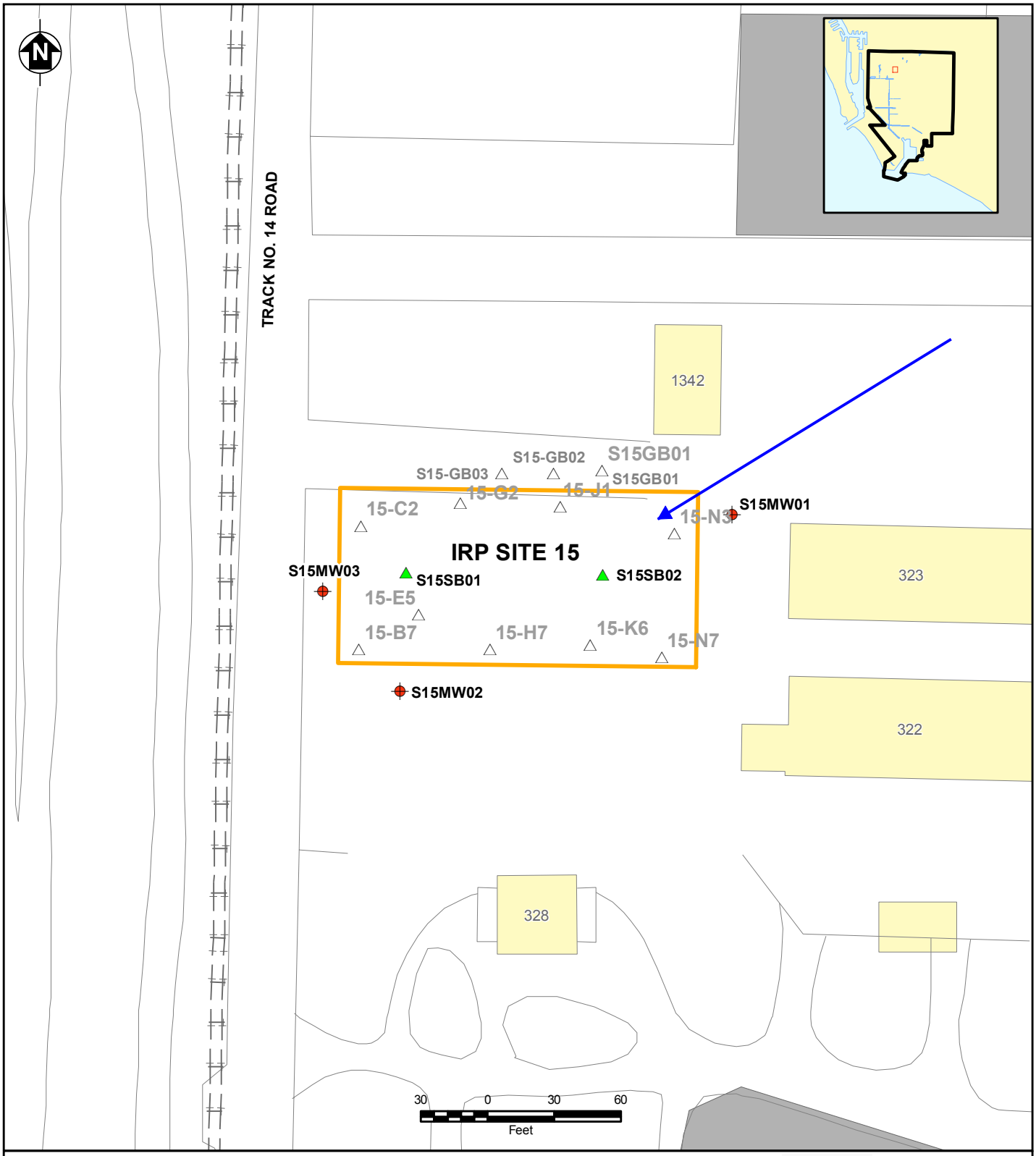
SulTech

CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 14-1
IRP SITE 15 - TRANSFORMER STORAGE AREA
SITE MAP

Site Management Plan

fig14-1_PHFSMP_IRPsite15_sitemap_122004.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases



PROPOSED SAMPLE LOCATIONS
In black text
SOIL BORING
MONITORING WELL
PREVIOUS SAMPLE LOCATIONS
In gray text
SOIL SAMPLE

IRP SITE
RAILROAD
CURB
GROUNDWATER FLOW
BUILDING
PAVED AREA (NOT ROAD)

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CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 14-2
IRP SITE 15 - TRANSFORMER STORAGE AREA
PROPOSED GROUNDWATER AND
SOIL SAMPLING LOCATIONS

Site Management Plan

fig14-2_PHFSMP_IRPsite15_sitemap_122004.mxdTtEMI-HE Ed Madej
Data Source: SulTech GIS databases

TABLES

TABLE 14-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 15

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
15-B7A	SOIL	10/22/88	15-B7	ORIG	0.50 - 0.50					✓							
15-B7B	SOIL	10/22/88	15-B7	ORIG	1.50 - 1.50					✓							
15-C1	SOIL	10/22/88	15-C1	ORIG	0.50 - 0.50					✓							
15-C10	SOIL	10/22/88	15-C10	ORIG	0.50 - 0.50					✓							
15-C2A	SOIL	10/22/88	15-C2	ORIG	0.50 - 0.50					✓							
15-C2B	SOIL	10/22/88	15-C2	ORIG	1.50 - 1.50					✓							
15-C3	SOIL	10/22/88	15-C3	ORIG	0.50 - 0.50					✓							
15-C4	SOIL	10/22/88	15-C4	ORIG	0.50 - 0.50					✓							
15-C5	SOIL	10/22/88	15-C5	ORIG	0.50 - 0.50					✓							
15-C6	SOIL	10/22/88	15-C6	ORIG	0.50 - 0.50					✓							
15-C7	SOIL	10/22/88	15-C7	ORIG	0.50 - 0.50					✓							
15-C8	SOIL	10/22/88	15-C8	ORIG	0.50 - 0.50					✓							
15-C9	SOIL	10/22/88	15-C9	ORIG	0.50 - 0.50					✓							
15-E5A	SOIL	10/22/88	15-E5	ORIG	0.50 - 0.50					✓							
15-E5B	SOIL	10/22/88	15-E5	ORIG	1.50 - 1.50					✓							
15-G2A	SOIL	10/22/88	15-G2	ORIG	0.50 - 0.50					✓							
15-G2B	SOIL	10/22/88	15-G2	ORIG	1.50 - 1.50					✓							
15-H7A	SOIL	10/22/88	15-H7	ORIG	0.50 - 0.50					✓							
15-H7B	SOIL	10/22/88	15-H7	ORIG	1.50 - 1.50					✓							
15-J1A	SOIL	10/22/88	15-J1	ORIG	0.50 - 0.50					✓							
15-J1B	SOIL	10/22/88	15-J1	ORIG	1.50 - 1.50					✓							
15-K6A	SOIL	10/22/88	15-K6	ORIG	0.50 - 0.50					✓							
15-K6B	SOIL	10/22/88	15-K6	ORIG	1.50 - 1.50					✓							
15-N3A	SOIL	10/22/88	15-N3	ORIG	0.50 - 0.50					✓							
15-N3B	SOIL	10/22/88	15-N3	ORIG	1.50 - 1.50					✓							

TABLE 14-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 15 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
15-N7A	SOIL	10/22/88	15-N7	ORIG	0.50 - 0.50					✓							
15-N7B	SOIL	10/22/88	15-N7	ORIG	1.50 - 1.50					✓							
274001	SOIL	07/08/99	S15-GB01	ORIG	0.50 - 1.50					✓							
274002	SOIL	07/08/99	S15-GB01	ORIG	1.50 - 3.00					✓							
274003	SOIL	07/08/99	S15-GB01	ORIG	3.00 - 5.00					✓							
274004	SOIL	07/08/99	S15-GB02	ORIG	0.50 - 1.50					✓							
274005	SOIL	07/08/99	S15-GB02	ORIG	1.50 - 3.00					✓							
274006	SOIL	07/08/99	S15-GB02	ORIG	3.00 - 5.00					✓							
274007	SOIL	07/08/99	S15-GB03	ORIG	0.50 - 1.50					✓							
274008	SOIL	07/08/99	S15-GB03	ORIG	1.50 - 3.00					✓							
274009	SOIL	07/08/99	S15-GB03	ORIG	3.00 - 5.00					✓							
TOTAL						0	0	0	0	36	0	0	0	0	0	0	0

Notes:

DMETL	Metals (filtered)	ORGPB	Organic Lead	SVOC	Semivolatile organic compound
GMETL	General mineral	PCB	Polychlorinated biphenyls	TPH-e	Total petroleum hydrocarbons, extractables
METL	Metals (total - unfiltered)	PEST	Pesticides	TPH-p	Total petroleum hydrocarbons, purgeables
NA	Not applicable	PESTO	Organophosphorus pesticides	VOC	Volatile organic compound
				✓	Sample collected and analyzed; blank cell indicates no sample collected.

TABLE 14-2: ANALYTICAL RESULTS FOR IRP SITE 15 SOIL SAMPLES

Site Management Plan, CBC Port Hueneme

Sample Location ID	15-B7	15-B7	15-C1	15-C10	15-C2	15-C2	15-C3	EPA Residential Soil PRGs
Sample ID	15-B7A	15-B7B	15-C1	15-C10	15-C2A	15-C2B	15-C3	
Sample Date	10/22/88	10/22/88	10/22/88	10/22/88	10/22/88	10/22/88	10/22/88	
Sample Depth	0.50 - 0.50	1.50 - 1.50	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50	1.50 - 1.50	0.50 - 0.50	
PCBs/Pesticides (mg/kg)								
AROCLOR-1260	< 0.16 U	< 0.16 U	< 0.16 U	< 0.16 U	< 0.16 U	< 0.16 U	**0.57**	0.22

TABLE 14-2: ANALYTICAL RESULTS FOR IRP SITE 15 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	15-C4	15-C5	15-C6	15-C7	15-C8	15-C9	15-E5	EPA Residential Soil PRGs
Sample ID	15-C4	15-C5	15-C6	15-C7	15-C8	15-C9	15-E5A	
Sample Date	10/22/88	10/22/88	10/22/88	10/22/88	10/22/88	10/22/88	10/22/88	
Sample Depth	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50	0.50 - 0.50	
PCBs/Pesticides (mg/kg)								
AROCLOR-1260	**0.62**	< 0.16 U	< 0.16 U	< 0.16 U	< 0.16 U	< 0.16 U	< 0.16 U	0.22

TABLE 14-2: ANALYTICAL RESULTS FOR IRP SITE 15 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	**15-E5**	**15-G2**	**15-G2**	**15-H7**	**15-H7**	**15-J1**	**15-J1**	EPA Residential Soil PRGs
Sample ID	15-E5B	15-G2A	15-G2B	15-H7A	15-H7B	15-J1A	15-J1B	
Sample Date	10/22/88	10/22/88	10/22/88	10/22/88	10/22/88	10/22/88	10/22/88	
Sample Depth	1.50 - 1.50	0.50 - 0.50	1.50 - 1.50	0.50 - 0.50	1.50 - 1.50	0.50 - 0.50	1.50 - 1.50	
PCBs/Pesticides (mg/kg)								
AROCLOR-1260	< 0.16 U	**0.7**	< 0.16 U	< 0.16 U	< 0.16 U	**2.3**	< 0.16 U	0.22

TABLE 14-2: ANALYTICAL RESULTS FOR IRP SITE 15 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	15-K6	15-K6	15-N3	15-N3	15-N7	15-N7	S15-GB01	EPA Residential Soil PRGs
Sample ID	15-K6A	15-K6B	15-N3A	15-N3B	15-N7A	15-N7B	274001	
Sample Date	10/22/88	10/22/88	10/22/88	10/22/88	10/22/88	10/22/88	07/08/99	
Sample Depth	0.50 - 0.50	1.50 - 1.50	0.50 - 0.50	1.50 - 1.50	0.50 - 0.50	1.50 - 1.50	0.50 - 1.50	
PCBs/Pesticides (mg/kg)								
AROCLOR-1260	< 0.16 U	< 0.16 U	**0.54**	< 0.16 U	< 0.16 U	< 0.16 U	< 0.019 U	0.22

TABLE 14-2: ANALYTICAL RESULTS FOR IRP SITE 15 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S15-GB01	S15-GB01	S15-GB02	S15-GB02	S15-GB02	S15-GB03	S15-GB03	EPA Residential Soil PRGs
Sample ID	274002	274003	274004	274005	274006	274007	274008	
Sample Date	07/08/99	07/08/99	07/08/99	07/08/99	07/08/99	07/08/99	07/08/99	
Sample Depth	1.50 - 3.00	3.00 - 5.00	0.50 - 1.50	1.50 - 3.00	3.00 - 5.00	0.50 - 1.50	1.50 - 3.00	
PCBs/Pesticides (mg/kg)								
AROCLOR-1260	< 0.098 UJ	< 0.02 U	< 0.018 U	< 0.019 U	< 0.021 UJ	< 0.019 U	< 0.019 U	0.22

TABLE 14-2: ANALYTICAL RESULTS FOR IRP SITE 15 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S15-GB03	EPA Residential Soil PRGs
Sample ID	274009	
Sample Date	07/08/99	
Sample Depth	3.00 - 5.00	
PCBs/Pesticides (mg/kg)		
AROCLOR-1260	< 0.019 U	0.22

Notes: Categories of analyses are shown, but only detected compounds are presented. Analyte results in boldface type exceed EPA residential soil PRGs.

ID	Identification
J	Estimated value
mg/kg	Milligrams per kilogram
PRG	Preliminary remediation goals
U	Nondetected

15.0 IRP SITE 16 – PAINT STORAGE YARD

This section provides the site background and description for IRP Site 16; summarizes the previous investigations, activities, and existing data; and discusses data gap findings and strategies for eliminating data gaps at IRP Site 16.

15.1 SITE BACKGROUND

The following sections discuss the site background for IRP Site 16, including a general site description, discussion of previous and current site activities, and a summary of previous investigations that have been completed at the site.

15.1.1 Site Description

The paint storage yard is located west of Track No. 13 Road in the north-central portion of CBC Port Hueneme, northeast of Building 325 (Figure 15-1). IRP Site 16 occupies an area of approximately 10,000 square feet.

15.1.2 Site Activities

From 1942 until 1980, IRP Site 16 was used to collect waste paint. Long-time employees stated that waste paint, thinners, and solvents were disposed of on the ground surface in this area until the 1970s. Based on 1985 generation rates of waste thinners, paints, and solvents at the paint shop, an estimated maximum of 10,000 gallons of waste paint and thinners may have been spilled or poured onto the ground surface (PRC and Montgomery Watson 1996).

15.1.3 Previous Investigations

Previous investigations that have been completed at IRP Site 16 include an IAS (SCS and Landau Associates 1985), a final SI (PRC and Montgomery Watson 1996), and a basewide groundwater investigation (Tetra Tech and LFR 2001).

15.1.3.1 Initial Assessment Study (SCS and Landau Associates 1985)

The IAS suggested that most of the thinners and solvents evaporated after spillage onto the ground surface, while paint residues remained on the ground with minimal migration or infiltration due to their strong affinity for soil. The IAS concluded that there was no migration potential and no receptors for the waste on IRP Site 16; therefore, the site was not considered a potential threat and no additional study was recommended.

15.1.3.2 Final Site Inspection Report (PRC and Montgomery Watson 1996)

Four soil borings (S16-SB1 thru S16-SB4) and one monitoring well (S16MW01) were drilled and sampled during the SI field effort (Figure 15-1). A total of 11 surface and subsurface samples were collected at 0.5 and 3 feet bgs in all borings and analyzed for VOCs, SVOCs, and metals. Geotechnical soil samples were collected in monitoring well S16MW01 at depths of 5.0 to 6.0 and 7.0 to 8.0 feet bgs. Three groundwater samples were collected from monitoring well S16MW01 in August and November 1993 and analyzed for VOCs, SVOCs, and metals. Table 15-1 summarizes the samples collected at IRP Site 16. A slug test was conducted in the well to estimate hydraulic conductivity.

No SVOCs were detected in any soil sample. VOCs (2-hexanone and 4-methyl-2-pentanone) and metals were detected at various locations and depths throughout IRP Site 16. No VOCs or SVOCs were detected in any groundwater sample collected from monitoring well S16MW01. Manganese was detected in the groundwater at concentrations exceeding MCLs but below the 1999 Region 9 tap water PRG.

A BHHRA was completed for IRP Site 16 to evaluate potential risks from exposure to soil. Soil exposure pathways evaluated were ingestion of soil, dermal contact with soil, inhalation of VOCs and particulates released from soil to outdoor air. The BHHRA was completed because samples exceeded screening criteria during a screening level evaluation. Samples were screened against EPA PRGs, MCLs, and NAWQC; background metal concentrations for CBC Port Hueneme (see Appendix B); and STLCs for metals. However, the BHHRA only included an evaluation of soil risks. No COCs were identified in the soil at IRP Site 16. The total cancer risk at IRP Site 16 was less than 1×10^{-6}, and the total HI was less than the noncancer HI threshold value of 1.0. Based on the results of the BHHRA, the SI recommended no further action for IRP Site 16. The recommendations did not specify further action in regards to groundwater.

15.1.3.3 Draft Groundwater Remedial Investigation Report (Tetra Tech and LFR 2001)

From 1997 to 2001, a basewide RI evaluated the condition of the Semi-Perched Aquifer at CBC Port Hueneme. One round of samples was collected from monitoring well S16MW01 (Figure 15-1). The samples were analyzed for VOCs, SVOCs, total and metals, TPH-p and TPH-e, and water quality parameters. Based on the results of the initial analysis, no additional sampling was recommended for monitoring well S16MW01. Table 15-1 summarizes the samples collected at IRP Site 16.

Chemical concentrations in groundwater were screened against NAWQC for the protection of saltwater aquatic life and MCLs. If concentrations of an organic compound exceeded the NAWQC and/or MCL in at least one sampling round at a given location, that compound was considered a COPEC and/or COPC, respectively, at that location. If concentrations of an inorganic compound exceeded the NAWQC and/or MCL in more than one sampling event at a given location, that compound was considered a COPEC and/or a COPC, respectively, at that

location. Inorganics were screened differently because they often occur naturally. No COPECs or COPCs were identified for the samples collected from the IRP Site 16 monitoring well. No further evaluation of groundwater within the Semi-Perched Aquifer was recommended for IRP Site 16.

Following submittal of the draft basewide groundwater investigation report, and review of the groundwater model, DTSC requested that additional site-specific groundwater data be collected (if necessary) and site-specific groundwater data be evaluated to adequately characterize the site.

15.1.4 Previous and Current Actions and Decisions

The Navy provided advanced notice of the SI recommendations to the regulatory agencies in a letter dated March 4, 1996 (NBVC Port Hueneme 1996). In a response letter dated April 3, 1996, DTSC concurred with the recommendations of no further action for IRP Site 16 (DTSC 1996). The recommendations did not specify further action in regards to groundwater; however, review of existing groundwater data indicates that further evaluation of groundwater conditions is appropriate to provide an HHRA for groundwater. A copy of the 1996 DTSC letter is included as Appendix E.

15.2 Compilation of Existing Site Data

No further action is needed to evaluate soil data (DTSC 1996); therefore, only available groundwater data has been compiled and tabulated for use in identifying data gaps and additional site activities required to obtain site closure. The available groundwater data were screened against the EPA tap water PRGs. Table 15-2 includes the groundwater analytical data for IRP Site 16.

15.3 Data Gaps

For this SMP, the previous investigations and collected data for IRP Site 16 were reviewed to verify that sufficient information is available to support the final actions and documentation needed to close the site. Identified data gaps and proposed actions to eliminate those data gaps are discussed below.

15.3.1 Soil Data Gaps

Based on a review of the existing soil data for the site, the number of soil samples previously collected is sufficient to support the no further action decision for soil at IRP Site 16. No additional soil borings or soil sampling is recommended for this site.

15.3.2 Groundwater Data Gaps

Based on a review of the existing groundwater data, additional groundwater sampling is recommended at IRP Site 16 to assess groundwater conditions and support an HHRA and ERA. One groundwater sample will be collected from existing monitoring well S16MW01 to supplement existing data.

15.3.3 Human Health Risk Assessment Data Gaps

Only soil exposures were evaluated in the 1996 BHHRA completed for IRP Site 16 (PRC and Montgomery Watson 1996). Potential risks for exposure to soil do not need to be reevaluated because no further action is required for soil (DTSC 1996). Potential risks from exposure to groundwater have not been evaluated for the site. Additional groundwater sampling is proposed at the site; therefore, existing and new groundwater data will be evaluated in a new HHRA. The HHRA will evaluate potential risks for exposure to groundwater at the site. The HHRA will use contemporary EPA, DTSC, and Navy risk assessment guidance to ensure that the site groundwater risk assessment is based on current methodology.

15.3.4 Ecological Risk Assessment Data Gaps

An ERA has not been completed for this site; however, a 1996 DTSC letter states that no further action is needed for soil (DTSC 1996). Therefore, an ERA for exposure to surface soil is not required. A habitat survey of IRP Site 16 should be completed to determine if there is viable habitat for burrowing ecological receptors. If evidence of viable burrowing habitat is present and proposed groundwater sampling indicates potential for a vapor intrusion exposure pathway, the habitat survey should be supplemented by an ERA.

15.4 STRATEGY FOR ELIMINATING DATA GAPS

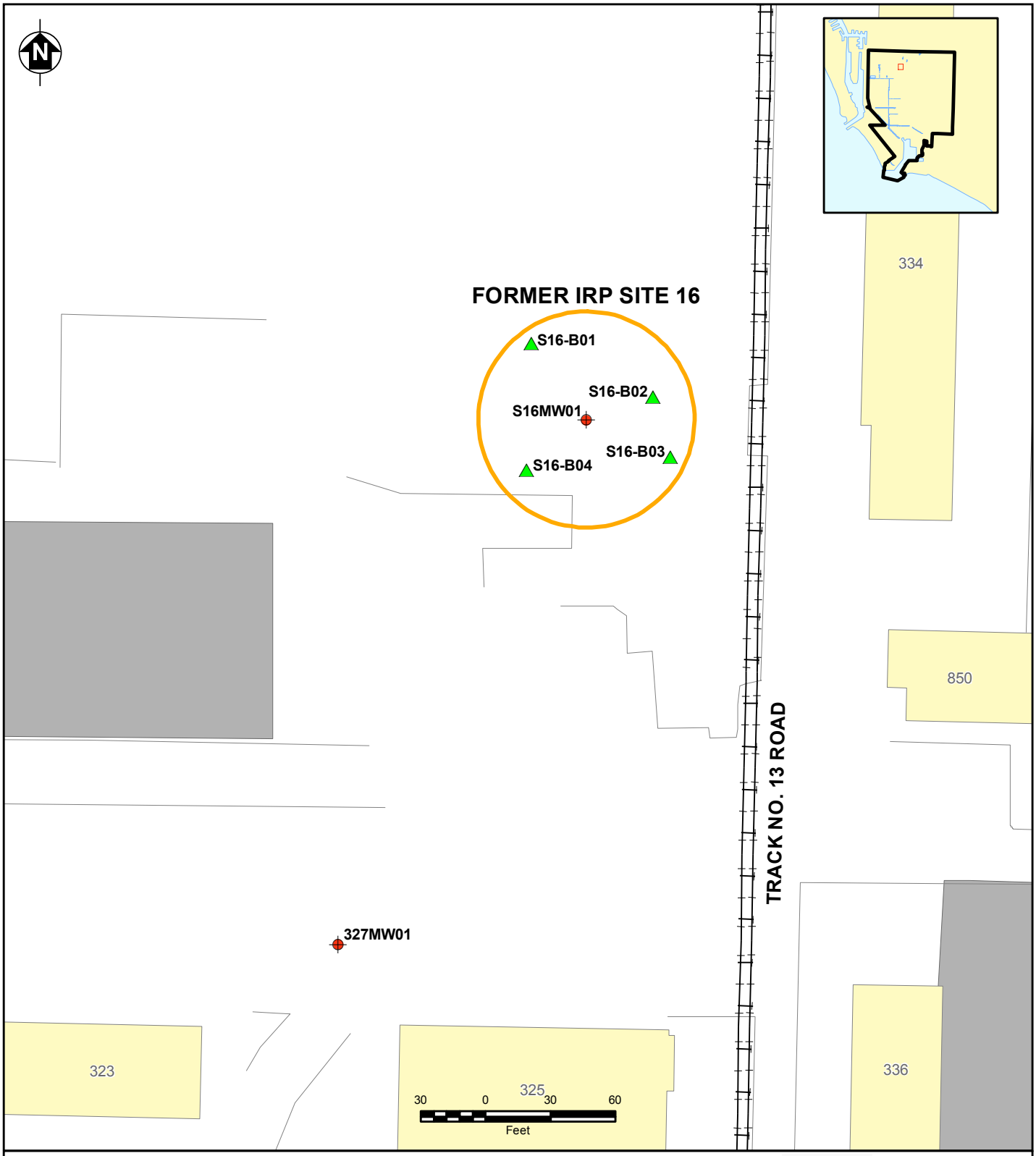
To eliminate the data gaps identified for IRP Site 16, one groundwater sample will be collected from the existing groundwater monitoring well on the site (S16MW01) (Figure 15-2). The sample will be analyzed for VOCs, SVOCs, TPH-p and TPH-e, pesticides/PCBs, and metals. The results from this groundwater sample would then be combined with the previous groundwater monitoring results for the site to further evaluate environmental conditions at IRP Site 16. The following table shows the proposed groundwater sampling scheme for IRP Site 16:

Well ID	Well Diameter (inches)	Well Depth (feet bgs)	Screened Interval (feet bgs)	Analyses
S16MW01	4.0	14	4-14	VOC, SVOC, TPH-purgeable, TPH-extractable, pesticides/PCB, metals

The groundwater data will be compiled, combined with previously collected data presented in Table 15-2, and evaluated for cumulative risk using EPA tap water PRGs. The data will be and evaluated in an HHRA to identify site-specific risks to human health. The HHRA will evaluate groundwater risks only. In addition, a habitat survey of IRP Site 16 will be completed to determine if there is viable habitat for burrowing ecological receptors. If there is evidence of burrowing animals at the site, a screening level ERA may be conducted to evaluate vapor exposure for these animals in their burrows. The screening level ERA will be conducted based on the presence of VOCs in the new groundwater sample. To establish whether a complete vapor exposure pathway exists for burrowing animals, the depth to the Semi-Perched Aquifer will also be considered in this analysis.

The results of these evaluations, as well as with conclusions and recommendations for any additional site activities, will be presented in an RI report.

FIGURES



SOIL BORING
MONITORING WELL
IRP SITE
RAILROAD
CURB
BUILDING
PAVED AREA (NOT ROAD)

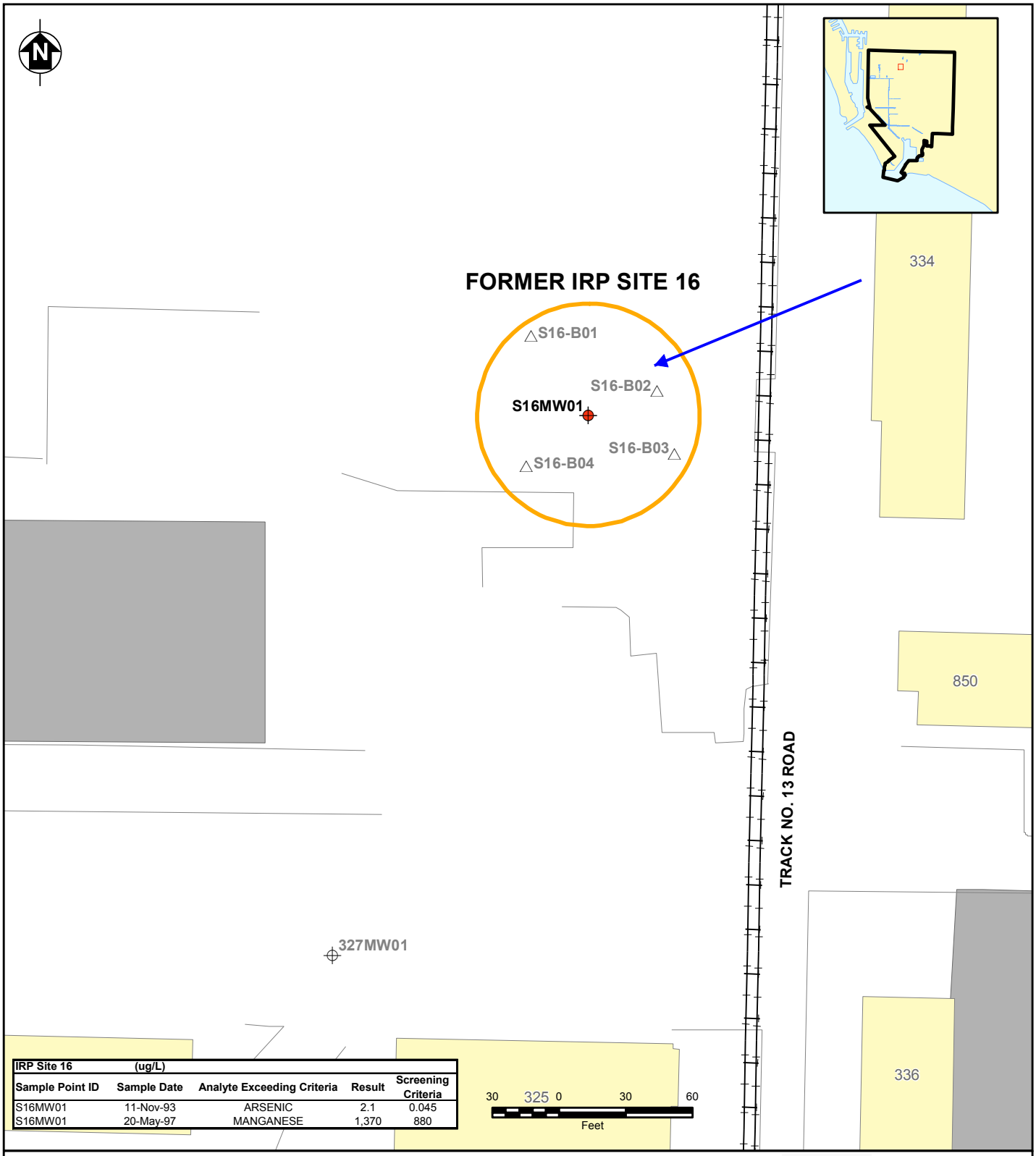
SulTech

CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 15-1
IRP SITE 16 - PAINT STORAGE YARD SITE MAP

Site Management Plan

fig15-1_PHFSMP_IRPsite16_sitemap_122004.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases



IRP Site 16	(ug/L)			
Sample Point ID	Sample Date	Analyte Exceeding Criteria	Result	Screening Criteria
S16MW01	11-Nov-93	ARSENIC	2.1	0.045
S16MW01	20-May-97	MANGANESE	1,370	880

PROPOSED SAMPLE LOCATIONS
In black text
MONITORING WELL
PREVIOUS SAMPLE LOCATIONS
In gray text
SOIL SAMPLE
MONITORING WELL

IRP SITE
RAILROAD
CURB
GROUNDWATER FLOW
BUILDING
PAVED AREA (NOT ROAD)

SulTech

CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 15-2
IRP SITE 16 - PAINT STORAGE YARD PROPOSED GROUNDWATER SAMPLING LOCATION
Site Management Plan

fig15-2_PHFSMP_IRPsite16_GW_122704.mxd TtEMI-HE Ed Madej
Data Source: SulTech GIS databases

TABLES

TABLE 15-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 16

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
234-S16-001	SOIL	07/07/93	S16-SB01	ORIG	0.50 - 0.50	✓			✓			✓					
234-S16-002	SOIL	07/07/93	S16-SB01	ORIG	3.00 - 3.00	✓			✓			✓					
234-S16-003	SOIL	07/07/93	S16-SB01	DUP	3.00 - 3.00	✓			✓			✓					
234-S16-004	SOIL	07/07/93	S16-SB02	ORIG	0.50 - 0.50	✓			✓			✓					
234-S16-005	SOIL	07/07/93	S16-SB02	ORIG	3.00 - 3.00	✓			✓			✓					
234-S16-006	SOIL	07/07/93	S16-SB03	ORIG	0.50 - 0.50	✓			✓			✓					
234-S16-007	SOIL	07/07/93	S16-SB03	ORIG	3.00 - 3.00	✓			✓			✓					
234-S16-010	SOIL	07/07/93	S16-SB04	ORIG	0.50 - 0.50	✓			✓			✓					
234-S16-011	SOIL	07/07/93	S16-SB04	ORIG	3.00 - 3.00	✓			✓			✓					
234-S16-008	SOIL	07/07/93	S16MW01	ORIG	0.50 - 0.50	✓			✓			✓					
234-S16-009	SOIL	07/07/93	S16MW01	ORIG	3.00 - 3.00	✓			✓			✓					
234-S16-012	WATER	08/11/93	S16MW01	ORIG	NA			✓	✓			✓					
234-S16-023	WATER	09/08/93	S16MW01	DUP	NA	✓											
234-S16-013	WATER	11/11/93	S16MW01	ORIG	NA	✓			✓			✓					
234-S16-014	WATER	11/11/93	S16MW01	DUP	NA	✓			✓			✓					
08797052001GDT	WATER	05/20/97	S16MW01	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797052001GDTF	WATER	05/20/97	S16MW01	FIL	NA								✓				
TOTAL						15	1	2	15	0	0	15	1	1	0	0	0

Notes:

DMETL	Metals (filtered)	ORGPB	Organic Lead	SVOC	Semivolatile organic compound
GMETL	General mineral	PCB	Polychlorinated biphenyls	TPH-e	Total petroleum hydrocarbons, extractables
METL	Metals (total - unfiltered)	PEST	Pesticides	TPH-p	Total petroleum hydrocarbons, purgeables
NA	Not applicable	PESTO	Organophosphorus pesticides	VOC	Volatile organic compound
				✓	Sample collected and analyzed; blank cell indicates no sample collected.

TABLE 15-2: ANALYTICAL RESULTS FOR IRP SITE 16 GROUNDWATER SAMPLES

Site Management Plan, CBC Port Hueneme

Sample Location ID	S16MW01	S16MW01	S16MW01	S16MW01	S16MW01	S16MW01	
Sample ID	234-S16-012	234-S16-023	234-S16-013	234-S16-014	08797052001GD	08797052001GD	EPA Tap Water PRGs
Sample Date	08/11/1993	09/08/1993	11/11/1993	11/11/1993	05/20/1997	05/20/1997	
Volatile Organic Compounds (µg/L)							
None Detected	NA	ND	ND	ND	ND	NA	NC
Petroleum Hydrocarbons (mg/L)							
Diesel/Motor Oil Range (extractables)							
None Detected	NA	NA	NA	NA	ND	NA	NC
Gasoline Range (purgeables)							
None Detected	ND	NA	NA	NA	ND	NA	NC
Semivolatile Organic Compounds (µg/L)							
None Detected	ND	NA	ND	ND	ND	NA	NC
Metals (µg/L)							
Unfiltered							
ALUMINUM	< 286 U	NA	< 100 U	< 100 U	310 J	NA	36,000
ANTIMONY	< 50 U	NA	< 50 U	< 50 U	1.5 J	NA	15
ARSENIC	< 2 UJ	NA	< 2 U	**2.1**	< 4.8 UJ	NA	0.045
BARIUM	100 R	NA	100 R	100 R	27.6 J	NA	2,600
CALCIUM	336,000	NA	360,000 J	365,000 J	345,000 J	NA	NC
COBALT	< 10 U	NA	< 10 U	< 10 U	2.9 J	NA	730
COPPER	< 20 U	NA	< 10 U	< 10 U	1.5 J	NA	1,500
IRON	374 J	NA	< 73.4 U	< 240 U	4,210 J	NA	11,000
LEAD	5.4 J	NA	< 2 U	3.2	< 1 UJ	NA	NC
MAGNESIUM	144,000	NA	153,000	153,000	144,000 J	NA	NC
MANGANESE	349 J	NA	245	411 J	**1,370 J**	NA	880
MOLYBDENUM	NA	NA	42.2	42.8	50.9 J	NA	180
POTASSIUM	3,890	NA	3,390	3,390	5,340 J	NA	NC
SODIUM	231,000	NA	235,000 J	240,000 J	239,000 J	NA	NC
VANADIUM	< 47.6 U	NA	< 10 U	< 10 U	2 J	NA	260
ZINC	41.8	NA	< 10 U	< 10 U	< 5.1 UJ	NA	11,000
FIltered							
BARIUM	NA	NA	NA	NA	NA	17.6 J	2,600
CADMIUM	NA	NA	NA	NA	NA	0.23 J	18
CALCIUM	NA	NA	NA	NA	NA	335,000	NC
COBALT	NA	NA	NA	NA	NA	0.51 J	730

TABLE 15-2: ANALYTICAL RESULTS FOR IRP SITE 16 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S16MW01	S16MW01	S16MW01	S16MW01	S16MW01	S16MW01	
Sample ID	234-S16-012	234-S16-023	234-S16-013	234-S16-014	08797052001GD	08797052001GD	EPA Tap Water PRGs
Sample Date	08/11/1993	09/08/1993	11/11/1993	11/11/1993	05/20/1997	05/20/1997	
Metals (µg/L)							
FIltered							
IRON	NA	NA	NA	NA	NA	425	11,000
MAGNESIUM	NA	NA	NA	NA	NA	147,000	NC
MANGANESE	NA	NA	NA	NA	NA	421	880
MOLYBDENUM	NA	NA	NA	NA	NA	57.9	180
NICKEL	NA	NA	NA	NA	NA	1.4 J	730
POTASSIUM	NA	NA	NA	NA	NA	6,340 J	NC
SODIUM	NA	NA	NA	NA	NA	218,000	NC
ZINC	NA	NA	NA	NA	NA	5.2 J	11,000
General Mineral							
CALCIUM	NA	NA	NA	NA	342,000	NA	NC
IRON	NA	NA	NA	NA	65.2 J	NA	11,000
MAGNESIUM	NA	NA	NA	NA	136,000 J	NA	NC
POTASSIUM	NA	NA	NA	NA	4,170	NA	NC
SODIUM	NA	NA	NA	NA	227,000	NA	NC

Notes: Categories of analyses are shown, but only detected compounds are presented. Analyte results in boldface type exceed EPA tap water PRGs.

ID	Identification
J	Estimated value
mg/L	Milligrams per liter
NA	Not analyzed
NC	No criteria
ND	None detected
PRG	Preliminary remediation goals
R	Result rejected during quality assurance review.
U	Nondetected
µg/L	Micrograms per liter

16.0 IRP SITE 17 – WASTE MAGAZINES

This section provides the site background and description for IRP Site 17; summarizes the previous investigations, activities, and existing data; and discusses data gap findings and strategies for eliminating data gaps at IRP Site 17.

16.1 SITE BACKGROUND

The following sections discuss the site background for IRP Site 17, including a general site description, discussion of previous and current site activities, and a summary of previous investigations that have been completed at the site.

16.1.1 Site Description

IRP Site 17, the Hazardous Waste Magazines area, is located in the northwestern corner of CBC Port Hueneme, and encompasses approximately 1.5 acres. The site is surrounded by a locked chain-link fence and consists of a triangular-shaped, unpaved area containing two small bunkers and seven large concrete bunkers covered with soil. The bunkers were constructed to store hazardous materials from the base and other Pacific area operations. The site is bounded by Roundhouse Road to the north, Track 14 Road to the east, and the golf course to the west (Figure 16-1).

16.1.2 Site Activities

From the 1960s through the early 1980s, IRP Site 17 was used for accumulation and storage of various hazardous materials generated at the installation and from Pacific Theater operations (SCS and Landau Associates 1985). Various chemical spills reportedly occurred at these bunkers. Before the 1960s, the site was used for ammunition storage and temporary storage of construction materials and refuse. The materials were disposed of off the base in 1983 (ERTEC 1991a). A 1,000-gallon UST, used to store waste oil, was formerly located south of Bunker 5133. The UST was removed as part of the UST Program (PRC 1995b). In 1980, CBC Port Hueneme applied for a RCRA Part B permit for storage of hazardous waste at the installation. IRP Site 17, along with two other sites at CBC Port Hueneme, was identified on the permit application, and thus required closure under the RCRA program. Contaminated materials were removed in 1997 under the RCRA program.

16.1.3 Previous Investigations

Previous investigations that have been completed at IRP Site 17 include an IAS (SCS and Landau Associates 1985), a preliminary soil survey (Environmental Monitoring and Services, Inc. [EMSI] 1987) a final SI (ERTEC 1991a), a UST removal (PRC 1995c), a final RI (PRC 1997a), and a basewide groundwater investigation (Tetra Tech and LFR 2001).

16.1.3.1 Initial Assessment Study (SCS and Landau Associates 1985)

The IAS included records search and personnel interviews to evaluate potential for contamination at IRP Site 17. The IAS concluded that an additional investigation should be conducted to verify presence and location of potentially contaminated soil.

16.1.3.2 Collection and Analysis of Samples (EMSI 1987)

A preliminary soil survey conducted in 1987 included collection and analysis of five surface-soil samples. Four surface-soil samples were collected within the site boundaries. The fifth sample was collected outside of IRP Site 17 to establish soil background levels (Figure 16-1). The samples were analyzed for VOCs, SVOCs, metals, pesticides, PCBs, asbestos, and pH. SVOCs, pesticides, and metals were detected in one or more samples. The preliminary survey concluded that additional investigation was needed to evaluate the vertical and horizontal extents of the possible soil contamination.

16.1.3.3 Final Site Inspection Study (ERTEC 1991a)

An SI was performed from October 1988 to April 1989, and a supplemental SI was performed from October 1989 to December 1990. A total of 17 borings were drilled (S17-SB01 through S17-SB17), and 14 soil samples were collected during the SI (Figure 16-1). Samples were analyzed for VOCs, SVOCs, OP pesticides, pesticides, vapam, metals, and pH. Three additional samples were collected during the supplemental SI and analyzed for metals. Minor concentrations of VOCs and SVOCs were detected in many samples. Lead was detected at elevated concentrations in samples from three of the borings, with the highest concentration at 650 mg/kg in a sample collected from S17-SB17.

16.1.3.4 UST Removal (PRC 1995c)

UST MAG-01, a 1,000 gallon steel tank, was located south of Bunker 5133, southwest of the intersection of Roundhouse Road and Track 14 Road within IRP Site 17 (Figure 16-1). The tank was removed in December 1993 as part of the UST Storage Tank Program. The tank reportedly had been used for disposal of waste oil, and was observed empty and in relatively good condition at the time of removal. Soil samples were collected from the bottom of the excavation approximately 7.5 to 7.8 feet bgs and from the stockpiled excavated soil. One groundwater sample was collected from near the center of the excavation at 7.8 feet bgs. TPH-e, VOCs, SVOCs, pesticides, and metals were detected in soil and groundwater samples. The UST investigation concluded that a petroleum release from MAG-01 had occurred. In addition, several VOCs, SVOCs, pesticides, and metals in soil and groundwater samples indicated presence of non-petroleum contamination. The investigation recommended further investigation of UST MAG-01 in conjunction with IRP Site 17 under the IRP.

16.1.3.5 Final Remedial Investigation Report Sites 9, 14, 17, and 21 (PRC 1997a)

The purpose of the RI was to further define the extent of contamination detected at IRP Site 17 during previous investigations. A total of 19 soil borings (S17-SB18 through S17-SB36) and three groundwater monitoring wells (S17-MW01 through S17-MW03) were installed during the RI (Figure 16-1). IRP Site 17 soil borings were drilled to groundwater, which typically occurred at approximately 10 feet bgs. Monitoring wells were drilled to approximately 5.0 to 7.0 feet below first encountered groundwater. Eighty-one surface and subsurface-soil samples were collected at IRP Site 17. Seven of these samples were collected from the monitoring well borings. The samples were analyzed for VOCs, SVOCs, pesticides/PCBs, TPH-e and TPH-p, and metals. In addition, soil samples collected from S17-SB18 and S17-SB19 were also analyzed for pesticides and vapam. Groundwater samples were collected quarterly from the monitoring wells for one year and analyzed for VOCs, SVOCs, pesticides/PCBs, TPH-e and TPH-p, metals, and general chemistry parameters. Slug tests were also conducted to estimate hydraulic conductivity. Sample analytical results were compared to basewide background levels for metals (see Appendix B), STLCs for metals, EPA PRGs, MCLs, and AWQC screening criteria. Table 16-1 summarizes the samples collected at IRP Site 17.

SVOCs, TPH-p, and pesticides were not detected in soils at IRP Site 17. TPH-e, benzene, xylene, pesticides, vapam, and metals were detected at various locations and depths throughout IRP Site 17. Except for carbon tetrachloride, organic constituents were not detected within groundwater samples collected from IRP Site 17. Copper and silver were detected in groundwater samples at concentrations that exceeded their applicable screening criteria.

An HHRA for soils was completed during the RI. The OC pesticide heptachlor was identified as the only COC at IRP Site 17. Results of the HHRA indicated that the cancer risk for a future recreational golfer and future industrial exposure scenarios are below the EPA risk management range of 1×10^{-4} to 1×10^{-6}. The cancer risk for a future residential scenario is within the risk management range. Based on the results of the HHRA, the RI did not recommend further investigation of soil at IRP Site 17.

16.1.3.6 Draft Groundwater Remedial Investigation Report (Tetra Tech and LFR 2001)

From 1997 to 2001, a basewide RI was completed to evaluate the condition of the Semi-Perched Aquifer at CBC Port Hueneme. Four quarters of groundwater samples were collected from monitoring well S17MW03. One round of samples was collected from monitoring wells S17MW01 and S17MW02. The samples were analyzed for VOCs, SVOCs, total and metals, TPH-p and TPH-e, and water quality parameters. Table 16-1 summarizes the samples collected at IRP Site 17.

Chemical concentrations in groundwater were screened against NAWQC for the protection of saltwater aquatic life and MCLs. If concentrations of an organic compound exceeded the NAWQC and/or MCL in at least one sampling round at a given location, that compound was considered a COPEC and/or COPC, respectively, at that location. If concentrations of an inorganic compound exceeded the NAWQC and/or MCL in more than one sampling at a given location, that compound was considered a COPEC and/or a COPC, respectively, at that location. Inorganics were screened differently because they often occur naturally. No COPECs or COPCs were identified for the samples collected from the IRP Site 17 monitoring wells. No further evaluation of groundwater within the Semi-Perched Aquifer was recommended for IRP Site 17.

Following submittal of the draft basewide groundwater investigation report, and review of the groundwater model, DTSC requested that additional site-specific groundwater data be collected (if necessary) and site-specific groundwater data be evaluated to adequately characterize the site.

16.1.4 Previous and Current Actions and Decisions

Following the completion of field work associated with the RI (PRC 1997a), the Navy conducted a RCRA action. In 2002, DTSC issued a letter indicating that no further action was required at IRP Site 17 as of April 10, 2002 (DTSC 2002), in accordance with a revised closure certification report dated June 2001 and a Navy letter dated April 10, 2002 (Navy 2002b). The DTSC 2002 letter stipulated that the Navy should continue the basewide groundwater investigation and that any groundwater contamination impacting the site should be addressed in an FS. A copy of this letter is included in Appendix E.

16.2 COMPILATION OF EXISTING SITE DATA

No further action is needed to evaluate soil at IRP Site 17 (DTSC 2002); therefore only available groundwater data has been compiled and tabulated for use in identifying data gaps and additional site activities required to obtain site closure. The available data were screened against the EPA tap water PRGs. Table 16-2 and Figure 16-2 summarize the groundwater analytical data for IRP Site 16.

16.3 DATA GAPS

For this SMP, the previous investigations and collected data for IRP Site 17 were reviewed to verify that sufficient information is available to support the final actions and documentation needed to close the site. Identified data gaps and proposed actions to eliminate those data gaps are discussed below.

16.3.1 Soil Data Gaps

Based on a 2002 DTSC letter (DTSC 2002) no further action is required for soils at IRP Site 17.

16.3.2 Groundwater Data Gaps

The DTSC 2002 letter stipulated that the Navy should continue the basewide groundwater investigation and that any groundwater contamination impacting the site should be addressed in an FS. The Navy should evaluate the existing groundwater data to determine whether an HHRA is necessary. Additional groundwater sampling is not necessary.

16.3.3 Human Health Risk Assessment Data Gaps

Only soil exposures were evaluated in the HHRA completed during the RI. Potential risks for exposure to soil do not need to be reevaluated because no further action is required for soil (DTSC 2002). Potential risks from exposure to groundwater have not been evaluated at the site. Based on a review of existing groundwater data, additional groundwater sampling is not needed at the site. Existing groundwater data will be evaluated in a new HHRA. The HHRA will evaluate potential risks for exposure to groundwater at the site. The HHRA will use contemporary EPA, DTSC, and Navy risk assessment guidance to ensure the groundwater risk assessment is based on current methodology.

16.3.4 Ecological Risk Assessment Data Gaps

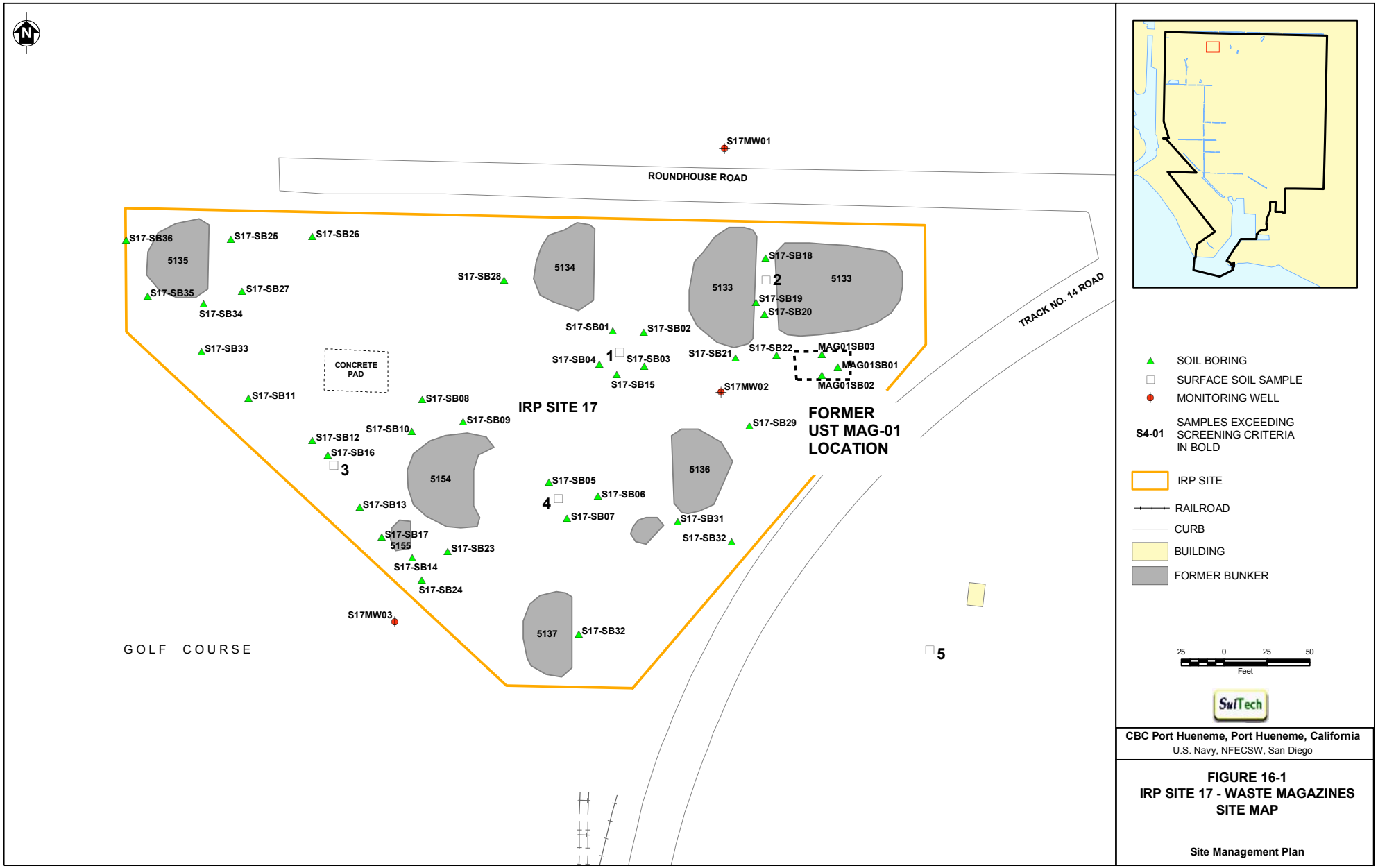
An ERA has not been completed for IRP Site 17; however, based on a 2002 DTSC letter, no further action is needed for soil (DTSC 2002). Therefore, an ERA for exposure to surface soil is not required. A habitat survey for IRP Site 17 should be completed to determine if there is viable habitat for burrowing ecological receptors. If evidence of burrowing habitat is present review of existing groundwater data indicates a potential for a vapor intrusion exposure pathway, the habitat survey should be supplemented by an ERA.

16.4 STRATEGY FOR ELIMINATING DATA GAPS

The groundwater data will be compiled and evaluated for cumulative risk using EPA tap water PRGs. The data presented in Table 16-2 will be evaluated in an HHRA to identify site-specific risks to human health, if necessary. In addition, a habitat survey of IRP Site 17 will be completed to determine if there is viable habitat for burrowing ecological receptors. If viable habitat does exist, a screening level ERA will be conducted. The ERA would focus on an evaluation of the vapor intrusion pathway for burrowing animals. To establish whether a vapor exposure pathway exists for burrowing animals, the depth to the Semi-Perched Aquifer will also be considered in this analysis.

The results of these evaluations, as well as conclusions and recommendations for any additional site activities, will be presented in an RI report.

FIGURES

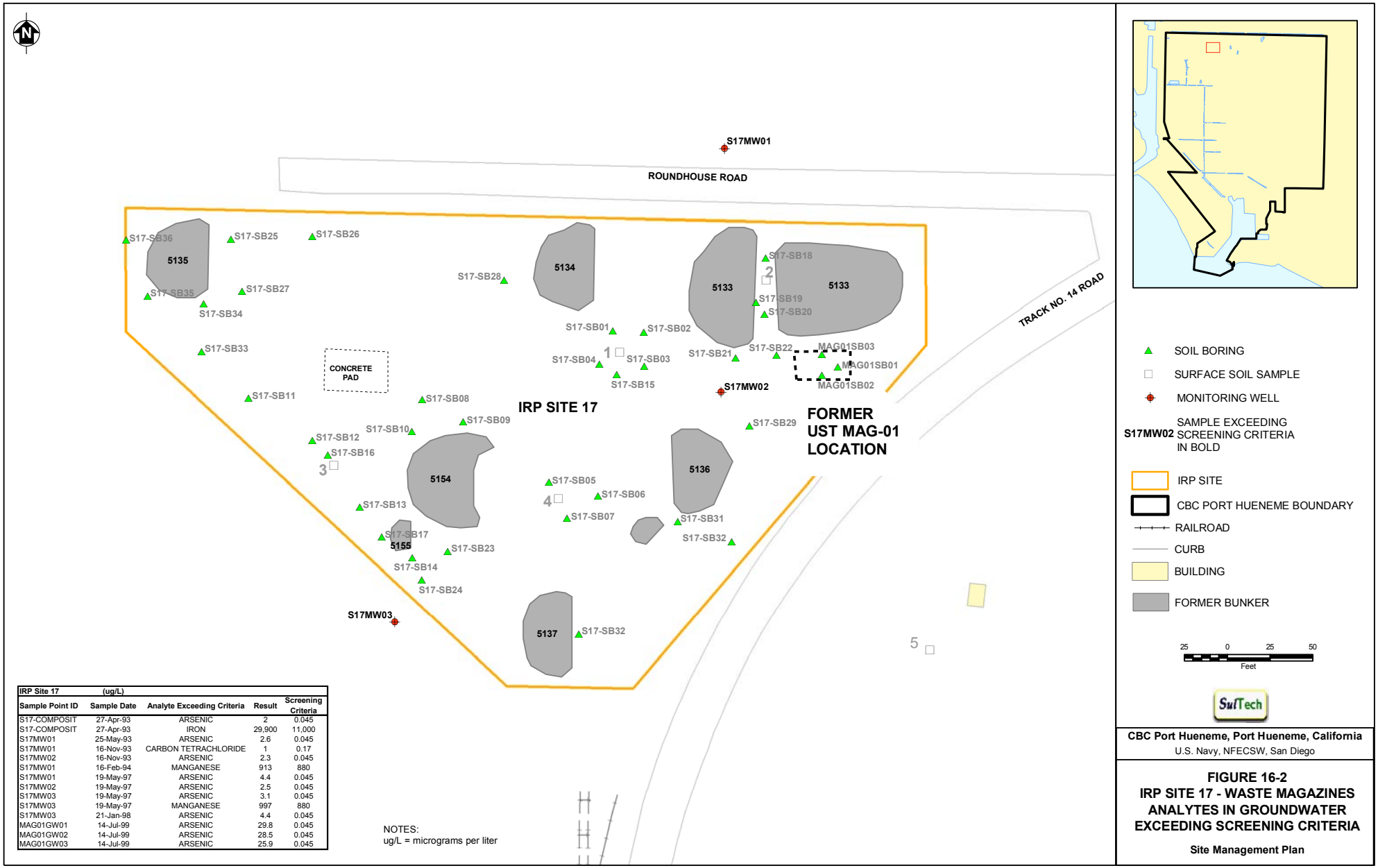


CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 16-1
IRP SITE 17 - WASTE MAGAZINES SITE MAP

Site Management Plan

fig16-1_PHFSMP_IRPsite17_sitemap_122004.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases



IRP Site 17	(ug/L)			
Sample Point ID	**Sample Date**	**Analyte Exceeding Criteria**	**Result**	**Screening Criteria**
S17-COMPOSIT	27-Apr-93	ARSENIC	2	0.045
S17-COMPOSIT	27-Apr-93	IRON	29,900	11,000
S17MW01	25-May-93	ARSENIC	2.6	0.045
S17MW01	16-Nov-93	CARBON TETRACHLORIDE	1	0.17
S17MW02	16-Nov-93	ARSENIC	2.3	0.045
S17MW01	16-Feb-94	MANGANESE	913	880
S17MW01	19-May-97	ARSENIC	4.4	0.045
S17MW02	19-May-97	ARSENIC	2.5	0.045
S17MW03	19-May-97	ARSENIC	3.1	0.045
S17MW03	19-May-97	MANGANESE	997	880
S17MW03	21-Jan-98	ARSENIC	4.4	0.045
MAG01GW01	14-Jul-99	ARSENIC	29.8	0.045
MAG01GW02	14-Jul-99	ARSENIC	28.5	0.045
MAG01GW03	14-Jul-99	ARSENIC	25.9	0.045

NOTES:
ug/L = micrograms per liter

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U.S. Navy, NFECSW, San Diego

FIGURE 16-2
IRP SITE 17 - WASTE MAGAZINES
ANALYTES IN GROUNDWATER
EXCEEDING SCREENING CRITERIA

Site Management Plan

fig16-2_PHFSMP_IRPsite17_GW_122004.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases

TABLES

TABLE 16-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 17

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
269070	SOIL	07/14/99	MAG01SB01	ORIG	3.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
269071	SOIL	07/14/99	MAG01SB01	ORIG	5.00 - 7.00	✓	✓	✓	✓	✓	✓	✓					
269072	SOIL	07/14/99	MAG01SB02	ORIG	3.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
269073	SOIL	07/14/99	MAG01SB02	ORIG	5.00 - 7.00	✓	✓	✓	✓	✓	✓	✓					
269074	SOIL	07/14/99	MAG01SB03	ORIG	3.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
269075	SOIL	07/14/99	MAG01SB03	ORIG	5.00 - 7.00	✓	✓	✓	✓	✓	✓	✓					
025MAG01SS01	SOIL	07/09/04	MAG01SB04	ORIG	5.00 - 6.50	✓		✓	✓	✓	✓	✓					
025MAG01SS02	SOIL	07/09/04	MAG01SB04	ORIG	6.50 - 8.00	✓		✓	✓	✓	✓	✓					
025MAG01SS05	SOIL	07/09/04	MAG01SB05	ORIG	2.50 - 4.00	✓		✓	✓	✓	✓	✓					
025MAG01SS06	SOIL	07/09/04	MAG01SB05	ORIG	6.00 - 7.50	✓		✓	✓	✓	✓	✓					
025MAG01SS07	SOIL	07/09/04	MAG01SB06	ORIG	3.00 - 4.50	✓		✓	✓	✓	✓	✓					
025MAG01SS08	SOIL	07/09/04	MAG01SB06	ORIG	6.00 - 7.50	✓		✓	✓	✓	✓	✓					
025MAG01SS09	SOIL	07/09/04	MAG01SB07	ORIG	2.50 - 4.00	✓		✓	✓	✓	✓	✓					
025MAG01SS10	SOIL	07/09/04	MAG01SB08	ORIG	2.50 - 4.00	✓		✓	✓	✓	✓	✓					
025MAG01SS11	SOIL	07/09/04	MAG01SB09	ORIG	2.50 - 4.00	✓		✓	✓	✓	✓	✓					
025MAG01SS12	SOIL	07/09/04	MAG01SB10	ORIG	2.50 - 4.00	✓		✓	✓	✓	✓	✓					
025MAG01SS13	SOIL	07/09/04	MAG01SB11	ORIG	2.50 - 4.00	✓		✓	✓	✓	✓	✓					
025MAG01SS14	SOIL	07/09/04	MAG01SB12	ORIG	2.50 - 4.00	✓		✓	✓	✓	✓	✓					
123-S17-165	SOIL	04/27/93	S17-COMPOSIT	ORIG	0.00 - 0.00	✓	✓	✓	✓	✓	✓	✓					
123-S17-166	SOIL	05/04/93	S17-COMPOSIT	ORIG	0.00 - 0.00	✓	✓	✓	✓	✓	✓	✓					
123-S17-001	SOIL	05/17/93	S17-SB18	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					✓
123-S17-002	SOIL	05/17/93	S17-SB18	ORIG	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
123-S17-003	SOIL	05/17/93	S17-SB18	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					✓
123-S17-004	SOIL	05/17/93	S17-SB18	ORIG	7.00 - 7.00	✓	✓	✓	✓	✓	✓	✓					
123-S17-006	SOIL	05/17/93	S17-SB19	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					✓

TABLE 16-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 17 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
123-S17-007	SOIL	05/17/93	S17-SB19	ORIG	2.00 - 2.00	✓	✓	✓	✓	✓	✓	✓					
123-S17-008	SOIL	05/17/93	S17-SB19	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					✓
123-S17-012	SOIL	05/17/93	S17-SB20	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
123-S17-013	SOIL	05/17/93	S17-SB20	ORIG	2.00 - 2.00	✓	✓	✓	✓	✓	✓	✓					
123-S17-014	SOIL	05/17/93	S17-SB20	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S17-017	SOIL	04/25/93	S17-SB21	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
123-S17-018	SOIL	04/25/93	S17-SB21	ORIG	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
123-S17-019	SOIL	04/25/93	S17-SB21	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S17-147	SOIL	04/25/93	S17-SB21	DUP	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
123-S17-023	SOIL	04/26/93	S17-SB22	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
123-S17-024	SOIL	04/26/93	S17-SB22	ORIG	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
123-S17-025	SOIL	04/26/93	S17-SB22	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S17-028	SOIL	04/25/93	S17-SB23	ORIG	0.50 - 0.50							✓					
123-S17-029	SOIL	04/25/93	S17-SB23	ORIG	2.50 - 2.50							✓					
123-S17-030	SOIL	04/25/93	S17-SB23	ORIG	5.00 - 5.00							✓					
123-S17-031	SOIL	04/25/93	S17-SB23	DUP	5.00 - 5.00							✓					
123-S17-034	SOIL	04/26/93	S17-SB24	ORIG	0.50 - 0.50							✓					
123-S17-035	SOIL	04/26/93	S17-SB24	ORIG	2.50 - 2.50							✓					
123-S17-036	SOIL	04/26/93	S17-SB24	ORIG	5.00 - 5.00							✓					
123-S17-039	SOIL	04/25/93	S17-SB25	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
123-S17-040	SOIL	04/25/93	S17-SB25	ORIG	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
123-S17-042	SOIL	04/25/93	S17-SB25	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S17-148	SOIL	04/25/93	S17-SB25	DUP	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S17-045	SOIL	04/25/93	S17-SB26	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
123-S17-046	SOIL	04/25/93	S17-SB26	ORIG	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					

TABLE 16-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 17 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
123-S17-047	SOIL	04/25/93	S17-SB26	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S17-050	SOIL	04/25/93	S17-SB27	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
123-S17-052	SOIL	04/25/93	S17-SB27	ORIG	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
123-S17-053	SOIL	04/25/93	S17-SB27	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S17-056	SOIL	04/26/93	S17-SB28	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
123-S17-057	SOIL	04/26/93	S17-SB28	ORIG	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
123-S17-058	SOIL	04/26/93	S17-SB28	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S17-153	SOIL	04/26/93	S17-SB28	DUP	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S17-062	SOIL	04/25/93	S17-SB29	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
123-S17-063	SOIL	04/25/93	S17-SB29	ORIG	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
123-S17-064	SOIL	04/25/93	S17-SB29	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S17-067	SOIL	04/25/93	S17-SB30	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
123-S17-068	SOIL	04/25/93	S17-SB30	ORIG	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
123-S17-069	SOIL	04/25/93	S17-SB30	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S17-070	SOIL	04/25/93	S17-SB30	ORIG	7.50 - 7.50	✓	✓	✓	✓	✓	✓	✓					
123-S17-071	SOIL	04/25/93	S17-SB30	DUP	7.50 - 7.50	✓	✓	✓	✓	✓	✓	✓					
123-S17-073	SOIL	04/25/93	S17-SB31	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
123-S17-074	SOIL	04/25/93	S17-SB31	ORIG	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
123-S17-075	SOIL	04/25/93	S17-SB31	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S17-076	SOIL	04/25/93	S17-SB31	ORIG	7.50 - 7.50	✓	✓	✓	✓	✓	✓	✓					
123-S17-078	SOIL	04/25/93	S17-SB32	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
123-S17-079	SOIL	04/25/93	S17-SB32	ORIG	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
123-S17-080	SOIL	04/25/93	S17-SB32	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S17-081	SOIL	04/25/93	S17-SB32	DUP	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S17-082	SOIL	04/25/93	S17-SB32	ORIG	7.50 - 7.50	✓	✓	✓	✓	✓	✓	✓					

TABLE 16-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 17 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
123-S17-154	SOIL	04/26/93	S17-SB33	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
123-S17-155	SOIL	04/26/93	S17-SB33	ORIG	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
123-S17-156	SOIL	04/26/93	S17-SB33	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S17-149	SOIL	04/25/93	S17-SB34	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
123-S17-150	SOIL	04/25/93	S17-SB34	ORIG	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
123-S17-151	SOIL	04/25/93	S17-SB34	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S17-157	SOIL	04/26/93	S17-SB35	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
123-S17-158	SOIL	04/26/93	S17-SB35	ORIG	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
123-S17-159	SOIL	04/26/93	S17-SB35	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S17-160	SOIL	04/26/93	S17-SB36	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					
123-S17-161	SOIL	04/26/93	S17-SB36	ORIG	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
123-S17-162	SOIL	04/26/93	S17-SB36	ORIG	5.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
123-S17-163	SOIL	04/26/93	S17-SB36	DUP	6.00 - 6.00	✓	✓	✓	✓	✓	✓	✓					
123-S17-084	SOIL	04/26/93	S17MW01	ORIG	0.50 - 0.50					✓	✓						
123-S17-085	SOIL	04/26/93	S17MW01	ORIG	1.00 - 1.00					✓	✓	✓					
123-S17-086	SOIL	04/26/93	S17MW01	ORIG	3.00 - 3.00					✓	✓	✓					
123-S17-087	SOIL	04/26/93	S17MW01	ORIG	5.50 - 5.50					✓	✓	✓					
123-S17-090	SOIL	04/27/93	S17MW02	ORIG	0.50 - 0.50	✓	✓	✓	✓	✓	✓	✓					✓
123-S17-091	SOIL	04/27/93	S17MW02	ORIG	2.50 - 2.50	✓	✓	✓	✓	✓	✓	✓					
123-S17-092	SOIL	04/27/93	S17MW02	ORIG	6.00 - 6.00	✓	✓	✓	✓	✓	✓	✓					✓
123-S17-095	SOIL	04/26/93	S17MW03	ORIG	0.50 - 0.50							✓					
123-S17-096	SOIL	04/26/93	S17MW03	ORIG	2.50 - 2.50							✓					
123-S17-097	SOIL	04/26/93	S17MW03	ORIG	5.00 - 5.00							✓					
123-S17-164	SOIL	04/26/93	S17MW03	DUP	2.50 - 2.50							✓					
269095	WATER	07/14/99	MAG01SB01	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					

TABLE 16-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 17 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
269096	WATER	07/14/99	MAG01SB02	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
269097	WATER	07/14/99	MAG01SB03	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
123-S17-101	WATER	05/25/93	S17MW01	ORIG	NA	✓	✓		✓	✓	✓	✓					
123-S17-102	WATER	05/25/93	S17MW01	DUP	NA	✓	✓		✓	✓	✓	✓					
123-S17-103	WATER	08/20/93	S17MW01	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
123-S17-104	WATER	11/16/93	S17MW01	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
123-S17-105	WATER	02/16/94	S17MW01	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
08797051901GDT	WATER	05/19/97	S17MW01	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797051901GDTF	WATER	05/19/97	S17MW01	FIL	NA								✓				
123-S17-106	WATER	05/26/93	S17MW02	ORIG	NA	✓	✓		✓	✓	✓	✓					
123-S17-107	WATER	08/20/93	S17MW02	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
123-S17-108	WATER	11/16/93	S17MW02	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
123-S17-109	WATER	02/16/94	S17MW02	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
123-S17-110	WATER	02/16/94	S17MW02	DUP	NA	✓		✓	✓			✓					
08797051902GDT	WATER	05/19/97	S17MW02	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797051902GDTF	WATER	05/19/97	S17MW02	FIL	NA								✓				
123-S17-111	WATER	05/24/93	S17MW03	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
123-S17-112	WATER	08/20/93	S17MW03	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
123-S17-113	WATER	11/16/93	S17MW03	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
123-S17-114	WATER	02/16/94	S17MW03	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
08797051903GDT	WATER	05/19/97	S17MW03	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797051903GDTF	WATER	05/19/97	S17MW03	FIL	NA								✓				
08797101612B	WATER	10/16/97	S17MW03	ORIG	NA	✓	✓	✓	✓				✓	✓			
08797101613B	WATER	10/16/97	S17MW03	DUP	NA	✓	✓	✓	✓				✓	✓			
08798012133B	WATER	01/21/98	S17MW03	ORIG	NA	✓	✓	✓	✓				✓	✓			

TABLE 16-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 17 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
08798040204J	WATER	04/02/98	S17MW03	ORIG	NA	✓	✓	✓	✓				✓	✓			
TOTAL						108	95	105	108	104	104	118	7	7	0	0	6

Notes:

DMETL	Metals (filtered)	ORGPB	Organic Lead	SVOC	Semivolatile organic compound
GMETL	General mineral	PCB	Polychlorinated biphenyls	TPH-e	Total petroleum hydrocarbons, extractables
METL	Metals (total - unfiltered)	PEST	Pesticides	TPH-p	Total petroleum hydrocarbons, purgeables
NA	Not applicable	PESTO	Organophosphorus pesticides	VOC	Volatile organic compound
				✓	Sample collected and analyzed; blank cell indicates no sample collected.

TABLE 16-2: ANALYTICAL RESULTS FOR IRP SITE 17 GROUNDWATER SAMPLES

Site Management Plan, CBC Port Hueneme

Sample Location ID	MAG01SB01	MAG01SB02	MAG01SB03	S17MW01	S17MW01	S17MW01	S17MW01	
Sample ID	269095	269096	269097	123-S17-101	123-S17-102	123-S17-103	123-S17-104	EPA Tap Water PRGs
Sample Date	07/14/99	07/14/99	07/14/99	05/25/93	05/25/93	08/20/93	11/16/93	
Volatile Organic Compounds (µg/L)								
CARBON TETRACHLORIDE	< 0.5 U	< 0.5 U	< 0.5 U	< 2 U	< 2 U	< 0.5 U	**1**	0.17
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	0.03 J	< 0.1 U	< 0.1 U	NA	NA	< 0.25 U	< 0.25 U	NC
MOTOR OIL RANGE ORGANICS	0.06 J	< 0.5 U	< 0.5 U	NA	NA	< 0.5 U	< 0.5 U	NC
Gasoline Range (purgeables)								
None Detected	ND	ND	ND	NA	NA	ND	ND	NC
Semivolatile Organic Compounds (µg/L)								
None Detected	ND	ND	ND	ND	ND	ND	ND	NC
PCBs/Pesticides (µg/L)								
None Detected	ND	ND	ND	ND	ND	ND	ND	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	NA	NA	NA	< 50.4 U	< 54.7 U	< 100 UJ	< 100 U	36,000
ANTIMONY	< 1.7 U	< 1.7 U	< 1.7 U	< 31 U	< 31 U	< 50 U	< 50 U	15
ARSENIC	**29.8**	**28.5**	**25.9**	**2.6 J**	**2 R**	< 2 UJ	< 2 U	0.045
BARIUM	833	857	724	22.8 J	22.1 J	< 100 U	< 100 U	2,600
BERYLLIUM	< 0.13 U	< 0.13 U	< 0.13 U	< 1 U	< 1 U	< 2 U	< 2 U	73
CADMIUM	4.4 J	2.9 J	3.9 J	< 4 U	< 4 U	< 4 U	< 4 U	18
CALCIUM	NA	NA	NA	269,000	259,000	257,000 J	264,000	NC
CHROMIUM	99.2	115	111	< 3 U	< 3 U	< 5 U	< 5 U	NC
COBALT	37.2 J	31.5 J	37.4 J	< 2 U	< 2 U	< 10 U	< 10 U	730
COPPER	106	94.1	126	< 2 U	< 2 U	< 10 U	10.2	1,500
IRON	NA	NA	NA	< 5 U	< 29.2 U	137	< 50 U	11,000
LEAD	28.3	28.3	26.5	< 1 U	< 1 U	2.2 J	< 2 U	NC
MAGNESIUM	NA	NA	NA	166,000 J	159,000 J	158,000	170,000	NC
MANGANESE	NA	NA	NA	523	504	444 J	521	880
MERCURY	0.59	0.39	0.33	< 0.2 U	< 0.2 U	< 0.2 UJ	< 0.2 U	NC
MOLYBDENUM	39.6	41.3	43.1	NA	NA	NA	38.7	180
NICKEL	92.1	79.3	93.1	< 7 U	< 7 U	< 20 U	< 20 U	730
POTASSIUM	NA	NA	NA	3,140	3,320	2,910	< 2,000 U	NC
SELENIUM	27.1	18.5	17.8	< 30 UJ	< 30 UJ	1 R	< 2 UJ	180

TABLE 16-2: ANALYTICAL RESULTS FOR IRP SITE 17 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	MAG01SB01	MAG01SB02	MAG01SB03	S17MW01	S17MW01	S17MW01	S17MW01	EPA Tap Water PRGs
Sample ID	269095	269096	269097	123-S17-101	123-S17-102	123-S17-103	123-S17-104	
Sample Date	07/14/99	07/14/99	07/14/99	05/25/93	05/25/93	08/20/93	11/16/93	
Metals (µg/L)								
Unfiltered								
SILVER	< 0.54 U	< 0.54 U	< 0.54 U	2.2	< 2 U	< 5 U	< 6 U	180
SODIUM	NA	NA	NA	266,000 J	255,000 J	207,000	174,000	NC
VANADIUM	**163**	**138**	**165**	< 2 U	< 2 U	**37.6**	< 10 U	37
ZINC	257	240	304	< 4.8 U	< 5.2 U	15.4	< 10 U	11,000
FIltered								
ARSENIC	NA	NA	NA	NA	NA	NA	NA	0.045
BARIUM	NA	NA	NA	NA	NA	NA	NA	2,600
CADMIUM	NA	NA	NA	NA	NA	NA	NA	18
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NC
COBALT	NA	NA	NA	NA	NA	NA	NA	730
COPPER	NA	NA	NA	NA	NA	NA	NA	1,500
IRON	NA	NA	NA	NA	NA	NA	NA	11,000
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NC
MANGANESE	NA	NA	NA	NA	NA	NA	NA	880
MOLYBDENUM	NA	NA	NA	NA	NA	NA	NA	180
NICKEL	NA	NA	NA	NA	NA	NA	NA	730
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NC
SODIUM	NA	NA	NA	NA	NA	NA	NA	NC
VANADIUM	NA	NA	NA	NA	NA	NA	NA	37
ZINC	NA	NA	NA	NA	NA	NA	NA	11,000
General Mineral								
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NC
IRON	NA	NA	NA	NA	NA	NA	NA	11,000
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NC
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NC
SODIUM	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 16-2: ANALYTICAL RESULTS FOR IRP SITE 17 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S17MW01	S17MW01	S17MW01	S17MW02	S17MW02	S17MW02	S17MW02	
Sample ID	123-S17-105	08797051901GD	08797051901GD	123-S17-106	123-S17-107	123-S17-108	123-S17-109	
Sample Date	02/16/94	05/19/97	05/19/97	05/26/93	08/20/93	11/16/93	02/16/94	EPA Tap Water PRGs
Volatile Organic Compounds (µg/L)								
CARBON TETRACHLORIDE	< 0.5 U	< 10 U	NA	< 2 U	< 0.5 U	< 0.5 U	< 0.5 U	0.17
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	< 0.1 U	< 0.11 U	NA	NA	< 0.25 U	< 0.25 U	< 0.1 UJ	NC
MOTOR OIL RANGE ORGANICS	< 0.2 U	< 0.54 U	NA	NA	< 0.5 U	< 0.5 U	< 0.2 U	NC
Gasoline Range (purgeables)								
None Detected	ND	ND	NA	NA	ND	ND	ND	NC
Semivolatile Organic Compounds (µg/L)								
None Detected	ND	ND	NA	ND	ND	ND	ND	NC
PCBs/Pesticides (µg/L)								
None Detected	ND	NA	NA	ND	ND	ND	ND	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	< 30.1 U	154 J	NA	< 45.4 U	118 J	< 100 U	< 30.1 U	36,000
ANTIMONY	3.4	< 1.4 UJ	NA	< 31 U	< 50 U	< 50 U	3.2	15
ARSENIC	< 2 U	< 4.1 UJ	NA	**2 R**	< 2 UJ	**2.3**	< 2 U	0.045
BARIUM	22.1	51.1 J	NA	21.5 J	< 100 U	< 100 U	19.7	2,600
BERYLLIUM	0.54	< 0.03 UJ	NA	< 1 U	< 2 U	< 2 U	0.54	73
CADMIUM	< 2.9 U	< 0.25 UJ	NA	< 4 U	< 4 U	< 4 U	< 2.9 U	18
CALCIUM	265,000	364,000 J	NA	313,000	273,000 J	240,000	265,000	NC
CHROMIUM	< 3.1 U	< 0.27 UJ	NA	< 3 U	< 5 U	6.5	< 3.1 U	NC
COBALT	< 3.3 U	0.7 J	NA	< 2 U	< 10 U	< 10 U	< 3.3 U	730
COPPER	4.5	1.5 J	NA	3	< 10 U	13.8	< 3.3 U	1,500
IRON	< 10.2 U	868 J	NA	< 5 U	< 50 U	< 50 U	< 27 U	11,000
LEAD	< 3 U	< 1 UJ	NA	< 1 U	4.2 J	< 2 U	< 3 U	NC
MAGNESIUM	166,000	179,000 J	NA	206,000 J	194,000	185,000	166,000	NC
MANGANESE	**913**	703 J	NA	90.8	18.5	17.2	111	880
MERCURY	< 0.2 U	< 0.2 UJ	NA	< 0.2 U	< 0.2 UJ	< 0.2 U	< 0.2 U	NC
MOLYBDENUM	27.1	33 J	NA	NA	NA	29.2	36.1	180
NICKEL	< 6.8 U	< 0.77 UJ	NA	< 7 U	< 20 U	< 20 U	< 6.8 U	730
POTASSIUM	1,390	4,350 J	NA	4,080	3,300	< 2,000 U	1,390	NC
SELENIUM	< 2 UJ	< 1.4 UJ	NA	< 30 UJ	1 R	< 2 UJ	< 2 UJ	180

TABLE 16-2: ANALYTICAL RESULTS FOR IRP SITE 17 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S17MW01	S17MW01	S17MW01	S17MW02	S17MW02	S17MW02	S17MW02	
Sample ID	123-S17-105	08797051901GD	08797051901GD	123-S17-106	123-S17-107	123-S17-108	123-S17-109	EPA Tap Water PRGs
Sample Date	02/16/94	05/19/97	05/19/97	05/26/93	08/20/93	11/16/93	02/16/94	
Metals (µg/L)								
Unfiltered								
SILVER	< 5.3 U	< 0.43 UJ	NA	2.2	< 5 U	< 6 U	< 5.3 U	180
SODIUM	194,000	200,000 J	NA	351,000 J	203,000	208,000	235,000	NC
VANADIUM	< 3.8 U	1.1 J	NA	< 2 U	**38.1**	< 10 U	< 3.8 U	37
ZINC	< 2.4 U	< 9.1 UJ	NA	< 2.8 U	10.9	< 10 U	< 7 U	11,000
FIltered								
ARSENIC	NA	NA	**4.4**	NA	NA	NA	NA	0.045
BARIUM	NA	NA	50.8 J	NA	NA	NA	NA	2,600
CADMIUM	NA	NA	< 0.13 U	NA	NA	NA	NA	18
CALCIUM	NA	NA	371,000	NA	NA	NA	NA	NC
COBALT	NA	NA	< 0.6 U	NA	NA	NA	NA	730
COPPER	NA	NA	< 0.4 U	NA	NA	NA	NA	1,500
IRON	NA	NA	272	NA	NA	NA	NA	11,000
MAGNESIUM	NA	NA	182,000	NA	NA	NA	NA	NC
MANGANESE	NA	NA	704	NA	NA	NA	NA	880
MOLYBDENUM	NA	NA	33.8	NA	NA	NA	NA	180
NICKEL	NA	NA	< 0.7 U	NA	NA	NA	NA	730
POTASSIUM	NA	NA	4,040	NA	NA	NA	NA	NC
SODIUM	NA	NA	205,000	NA	NA	NA	NA	NC
VANADIUM	NA	NA	< 0.57 U	NA	NA	NA	NA	37
ZINC	NA	NA	1.6 J	NA	NA	NA	NA	11,000
General Mineral								
CALCIUM	NA	403,000	NA	NA	NA	NA	NA	NC
IRON	NA	187	NA	NA	NA	NA	NA	11,000
MAGNESIUM	NA	196,000	NA	NA	NA	NA	NA	NC
POTASSIUM	NA	4,310	NA	NA	NA	NA	NA	NC
SODIUM	NA	223,000	NA	NA	NA	NA	NA	NC

TABLE 16-2: ANALYTICAL RESULTS FOR IRP SITE 17 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S17MW02	S17MW02	S17MW02	S17MW03	S17MW03	S17MW03	S17MW03	
Sample ID	123-S17-110	08797051902GD	08797051902GD	123-S17-111	123-S17-112	123-S17-113	123-S17-114	EPA Tap Water PRGs
Sample Date	02/16/94	05/19/97	05/19/97	05/24/93	08/20/93	11/16/93	02/16/94	
Volatile Organic Compounds (µg/L)								
CARBON TETRACHLORIDE	< 0.5 U	< 10 U	NA	< 2 U	< 0.5 U	< 0.5 U	< 0.5 U	0.17
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	< 0.1 U	NA	NA	< 0.25 U	< 0.25 U	< 0.1 U	NC
MOTOR OIL RANGE ORGANICS	NA	< 0.5 U	NA	NA	< 0.5 U	< 0.5 U	< 0.2 U	NC
Gasoline Range (purgeables)								
None Detected	ND	ND	NA	ND	ND	ND	ND	NC
Semivolatile Organic Compounds (µg/L)								
None Detected	ND	ND	NA	ND	ND	ND	ND	NC
PCBs/Pesticides (µg/L)								
None Detected	NA	NA	NA	ND	ND	ND	ND	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	< 30.1 U	909 J	NA	22.6	125 J	< 100 U	< 30.1 U	36,000
ANTIMONY	4.9	< 1.4 UJ	NA	< 31 U	< 50 U	< 50 U	5.1	15
ARSENIC	< 2 U	< 1.2 UJ	NA	< 2 UJ	< 2 UJ	< 2 U	< 2 U	0.045
BARIUM	16.7	38.5 J	NA	18.2	< 100 U	< 100 U	19.1	2,600
BERYLLIUM	0.54	< 0.03 UJ	NA	< 1 U	< 2 U	< 2 U	0.62	73
CADMIUM	< 2.9 U	< 0.52 UJ	NA	< 4 U	< 4 U	< 4 U	< 2.9 U	18
CALCIUM	262,000	317,000 J	NA	247,000	290,000 J	245,000	276,000	NC
CHROMIUM	< 3.1 U	< 0.6 UJ	NA	< 3 U	< 5 U	< 5 U	< 3.1 U	NC
COBALT	< 3.3 U	1.2 J	NA	< 2 U	< 10 U	< 10 U	< 3.3 U	730
COPPER	< 3.3 U	2.5 J	NA	< 2 U	< 10 U	10.5	< 3.3 U	1,500
IRON	< 29.8 U	1,450 J	NA	159	< 50 U	75.8	823	11,000
LEAD	< 3 U	< 1 UJ	NA	1.1 J	3.4 J	< 2.6 U	< 3 U	NC
MAGNESIUM	164,000	187,000 J	NA	138,000	155,000	132,000	161,000	NC
MANGANESE	111	762 J	NA	528	700 J	531	579	880
MERCURY	< 0.2 U	< 0.2 UJ	NA	< 0.2 U	< 0.2 UJ	< 0.2 U	< 0.2 U	NC
MOLYBDENUM	36.3	50.1 J	NA	NA	NA	52.6	39.6	180
NICKEL	< 6.8 U	< 0.77 UJ	NA	< 7 U	< 20 U	< 20 U	< 6.8 U	730
POTASSIUM	1,490	5,120 J	NA	< 5,650 U	4,700	2,040	2,330	NC
SELENIUM	< 2 U	< 4.1 UJ	NA	< 3 UJ	1 R	< 2 UJ	< 2 UJ	180

TABLE 16-2: ANALYTICAL RESULTS FOR IRP SITE 17 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S17MW02	S17MW02	S17MW02	S17MW03	S17MW03	S17MW03	S17MW03	
Sample ID	123-S17-110	08797051902GD	08797051902GD	123-S17-111	123-S17-112	123-S17-113	123-S17-114	EPA Tap Water PRGs
Sample Date	02/16/94	05/19/97	05/19/97	05/24/93	08/20/93	11/16/93	02/16/94	
Metals (µg/L)								
Unfiltered								
SILVER	< 5.3 U	< 0.43 UJ	NA	< 2 UJ	< 5 U	< 6 U	< 5.3 U	180
SODIUM	233,000	312,000 J	NA	236,000	231,000	197,000	283,000	NC
VANADIUM	< 3.8 U	3.3 J	NA	< 2 U	**40.7**	< 10 U	< 3.8 U	37
ZINC	< 1.5 U	21.7 J	NA	< 5.1 U	12.6	< 10 U	< 2.3 U	11,000
FIltered								
ARSENIC	NA	NA	**2.5 J**	NA	NA	NA	NA	0.045
BARIUM	NA	NA	19.9 J	NA	NA	NA	NA	2,600
CADMIUM	NA	NA	< 0.13 U	NA	NA	NA	NA	18
CALCIUM	NA	NA	321,000	NA	NA	NA	NA	NC
COBALT	NA	NA	< 0.6 U	NA	NA	NA	NA	730
COPPER	NA	NA	0.87 J	NA	NA	NA	NA	1,500
IRON	NA	NA	18.9 J	NA	NA	NA	NA	11,000
MAGNESIUM	NA	NA	185,000	NA	NA	NA	NA	NC
MANGANESE	NA	NA	86.2	NA	NA	NA	NA	880
MOLYBDENUM	NA	NA	50.5	NA	NA	NA	NA	180
NICKEL	NA	NA	< 0.7 U	NA	NA	NA	NA	730
POTASSIUM	NA	NA	4,600	NA	NA	NA	NA	NC
SODIUM	NA	NA	329,000	NA	NA	NA	NA	NC
VANADIUM	NA	NA	< 0.57 U	NA	NA	NA	NA	37
ZINC	NA	NA	1.4 J	NA	NA	NA	NA	11,000
General Mineral								
CALCIUM	NA	365,000	NA	NA	NA	NA	NA	NC
IRON	NA	138	NA	NA	NA	NA	NA	11,000
MAGNESIUM	NA	208,000	NA	NA	NA	NA	NA	NC
POTASSIUM	NA	5,380	NA	NA	NA	NA	NA	NC
SODIUM	NA	290,000 J	NA	NA	NA	NA	NA	NC

TABLE 16-2: ANALYTICAL RESULTS FOR IRP SITE 17 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S17MW03	S17MW03	S17MW03	S17MW03	S17MW03	S17MW03	
Sample ID	08797051903GD	08797051903GD	08797101612B	08797101613B	08798012133B	08798040204J	EPA Tap Water PRGs
Sample Date	05/19/97	05/19/97	10/16/97	10/16/97	01/21/98	04/02/98	
Volatile Organic Compounds (µg/L)							
CARBON TETRACHLORIDE	< 10 U	NA	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	0.17
Petroleum Hydrocarbons (mg/L)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	< 0.1 U	NA	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	NC
MOTOR OIL RANGE ORGANICS	< 0.5 U	NA	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	NC
Gasoline Range (purgeables)							
None Detected	ND	NA	ND	ND	ND	ND	NC
Semivolatile Organic Compounds (µg/L)							
None Detected	ND	NA	ND	ND	ND	ND	NC
PCBs/Pesticides (µg/L)							
None Detected	NA	NA	NA	NA	NA	NA	NC
Metals (µg/L)							
Unfiltered							
ALUMINUM	537 J	NA	NA	NA	NA	NA	36,000
ANTIMONY	< 1.4 UJ	NA	NA	NA	NA	NA	15
ARSENIC	< 1.8 UJ	NA	NA	NA	NA	NA	0.045
BARIUM	60 J	NA	NA	NA	NA	NA	2,600
BERYLLIUM	< 0.03 UJ	NA	NA	NA	NA	NA	73
CADMIUM	< 0.69 UJ	NA	NA	NA	NA	NA	18
CALCIUM	556,000 J	NA	NA	NA	NA	NA	NC
CHROMIUM	< 0.27 UJ	NA	NA	NA	NA	NA	NC
COBALT	1.8 J	NA	NA	NA	NA	NA	730
COPPER	1.6 J	NA	NA	NA	NA	NA	1,500
IRON	1,560 J	NA	NA	NA	NA	NA	11,000
LEAD	< 1 UJ	NA	NA	NA	NA	NA	NC
MAGNESIUM	370,000 J	NA	NA	NA	NA	NA	NC
MANGANESE	**997 J**	NA	NA	NA	NA	NA	880
MERCURY	< 0.2 UJ	NA	NA	NA	NA	NA	NC
MOLYBDENUM	58.5 J	NA	NA	NA	NA	NA	180
NICKEL	< 0.77 UJ	NA	NA	NA	NA	NA	730
POTASSIUM	5,680 J	NA	NA	NA	NA	NA	NC
SELENIUM	< 1.4 UJ	NA	NA	NA	NA	NA	180

TABLE 16-2: ANALYTICAL RESULTS FOR IRP SITE 17 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S17MW03	S17MW03	S17MW03	S17MW03	S17MW03	S17MW03	
Sample ID	08797051903GD	08797051903GD	08797101612B	08797101613B	08798012133B	08798040204J	EPA Tap Water PRGs
Sample Date	05/19/97	05/19/97	10/16/97	10/16/97	01/21/98	04/02/98	
Metals (µg/L)							
Unfiltered							
SILVER	< 0.43 UJ	NA	NA	NA	NA	NA	180
SODIUM	717,000 J	NA	NA	NA	NA	NA	NC
VANADIUM	3.7 J	NA	NA	NA	NA	NA	37
ZINC	< 4.1 UJ	NA	NA	NA	NA	NA	11,000
FIltered							
ARSENIC	NA	**3.1 J**	< 2.6 UJ	< 2.6 UJ	**4.4 J**	< 1.8 U	0.045
BARIUM	NA	51.3 J	38.7 J	38.7 J	40.2 J	51 J	2,600
CADMIUM	NA	0.46 J	0.29 J	0.31 J	1.2 J	< 0.46 UJ	18
CALCIUM	NA	272,000	NA	NA	NA	NA	NC
COBALT	NA	0.81 J	< 0.65 U	< 0.65 U	< 0.85 U	< 0.7 U	730
COPPER	NA	1.2 J	< 0.55 U	< 0.55 U	< 1.2 U	< 0.6 U	1,500
IRON	NA	32.1 J	NA	NA	NA	NA	11,000
MAGNESIUM	NA	183,000	NA	NA	NA	NA	NC
MANGANESE	NA	699	589	609	438	666	880
MOLYBDENUM	NA	54.5	66.8	66.2	64.8	56.6	180
NICKEL	NA	1.4 J	2.4 J	2.3 J	2.6 J	3 J	730
POTASSIUM	NA	5,040	NA	NA	NA	NA	NC
SODIUM	NA	349,000	NA	NA	NA	NA	NC
VANADIUM	NA	1.2 J	1.6 J	1.2 J	2.2 J	< 1.3 UJ	37
ZINC	NA	1.4 J	1.6 J	2.4 J	7.5 J	< 0.8 U	11,000
General Mineral							
CALCIUM	319,000	NA	288,000	286,000	295,000	334,000	NC
IRON	157	NA	900 J	830 J	758 J	< 72.8 UJ	11,000
MAGNESIUM	213,000	NA	182,000	181,000	172,000	205,000	NC
POTASSIUM	6,070	NA	5,080 J	4,970 J	7,260 J	< 5,800 U	NC
SODIUM	354,000 J	NA	81,200	81,100	351,000	387,000	NC

TABLE 16-2: ANALYTICAL RESULTS FOR IRP SITE 17 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Notes: Categories of analyses are shown, but only detected compounds are presented. Analyte results in boldface type exceed EPA tap water PRGs.

ID	Identification
J	Estimated value
mg/L	Milligrams per liter
NA	Not analyzed
NC	No criteria
ND	None detected
PRG	Preliminary remediation goals
R	Result rejected during quality assurance review.
U	Nondetected
µg/L	Micrograms per liter

17.0 IRP SITE 18 – RAILROAD OIL SPILLS

This section provides the site background and description for IRP Site 18; summarizes the previous investigations, activities, and existing data; and discusses data gap findings and strategies for eliminating data gaps at IRP Site 18.

17.1 SITE BACKGROUND

The following sections discuss the site background for IRP Site 18, including a general site description, discussion of previous and current site activities, and a summary of previous investigations that have been completed at the site.

17.1.1 Site Description

IRP Site 18 is located parallel to Islip Road, north of Building 1285 and southwest of Building 372. A railroad track runs parallel to the site on the south (Figure 17-1).

17.1.2 Site Activities

From 1971 until 1983, 10,000-gallon railroad tank cars, each filled with fuel oil, were parked along this track. Fuel from fifteen 10,000-gallon railroad tank cars supplied the boiler plant in building 373 with No. 5 fuel oil. One main hose ran under Islip road from the tank cars to the plant. In 1983, the fill line connecting the tank cars to the boiler leaked, and a 200-gallon fuel spill occurred in the area.

17.1.3 Previous Investigations

Previous investigations that have been completed at IRP Site 18 include an IAS (SCS and Landau Associates 1985), installation of three soil borings (NBVC Port Hueneme 1991), and a final SI (PRC and Montgomery Watson 1996).

17.1.3.1 Initial Assessment Report (SCS and Landau Associates 1985)

The IAS reported that oil may have spilled from the hose that ran from the tank cars to the plant. Also, reportedly between 1978 and 1983 approximately 100 gallons of No. 5 fuel oil was spilled from the railcars into a cement-lined box culvert that runs parallel to the track.

17.1.3.2 Environmental Testing for Placement of Buried Water Main (NBVC Port Hueneme 1991)

Three borings (S18-B1, S18-B2 and S18-B3) were installed in 1991 prior to construction of a buried freshwater line in the vicinity of IRP Site 18 (Figure 17-1). Samples were analyzed for BTEX and TPH as diesel. Only the surface sample at S18-B3 had detectable contamination with TPH as diesel at 200 mg/kg.

17.1.3.3 Final Site Inspection Report (PRC and Montgomery Watson 1996)

Nine soil borings (S18-B4 thru S18-B12) were drilled, and soil samples were collected from 0.5 and 3 feet bgs in all borings (Figure 17-1). Samples were analyzed for VOCs, TPH-p and TPH-e, and metals. A water sample was also collected from S18-SB12 and analyzed for SVOCs; however, no monitoring well was completed at this location. Three grab sediment samples (S18-G1 through S18-G3) were also collected from the box culvert and analyzed for TPH-p and TPH-e, and metals. Table 17-1 summarizes the samples collected at IRP Site 18.

No VOCs or TPH-p compounds were detected in any soil sample. TPH-e as motor oil was detected in four surface-soil samples at concentrations ranging from 12 to 170 mg/kg. No TPH-e compounds were found in the deeper samples. Barium, manganese, and nickel were detected at levels exceeding the basewide background levels for metals (see Appendix B). No metal detection exceeded 10 times the STLC. Sediment samples collected from the box culvert had TPH-e concentrations ranging from 1,360 to 1,950 mg/kg. TPH-e mixtures were characterized as diesel fuel, motor oil, and Navy special fuel oil (NSFO). Twenty-three metals were detected in at least one sample from the box culvert. No detectable concentrations of SVOCs were in the groundwater sample collected. No other hydrogeologic data are available for IRP Site 18 because no monitoring wells were installed during the investigation. Groundwater was first encountered in borings at 7.0 feet bgs.

COCs were not identified at IRP Site 18 because only petroleum constituents were detected in samples collected at the site and petroleum is excluded from CERCLA.

17.1.4 Previous and Current Actions and Decisions

In a 1996 letter, DTSC concurred that site contamination was restricted to petroleum constituents and the site cleanup should be conducted under the petroleum program (DTSC 1996). DTSC deferred further action decisions to the RWQCB. In 1999, RWQCB issued a letter to the Navy determining that no further action is necessary at IRP Site 18 based on their review of soil and groundwater data (RWQCB 1999). A copy of this letter has been included in Appendix E. A DD will be prepared for Site 18.

17.2 COMPILATION OF EXISTING SITE DATA

A review of existing data was not conducted for IRP Site 18 because no further action is required for either soil or groundwater based on letters received from DTSC and RWQCB (DTSC 1996; RWQCB 1999).

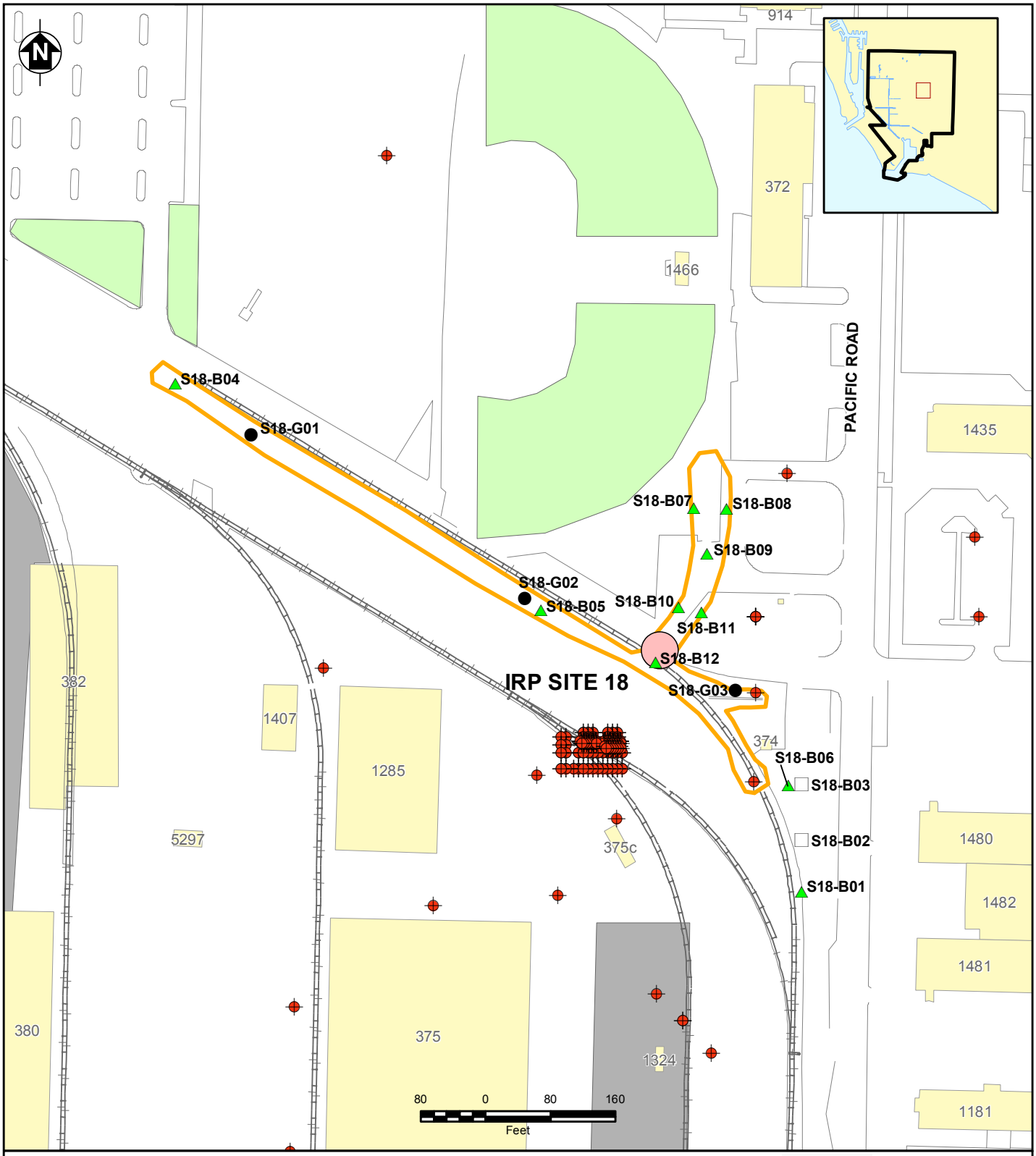
17.3 DATA GAPS

No data gaps were identified for IRP Site 18.

17.4 STRATEGY FOR ELIMINATING DATA GAPS

No soil or groundwater data gaps exist at IRP Site 18. The Navy will evaluate preparation of a PP and DD to document site closure.

FIGURES



SulTech

CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 17-1
IRP SITE 18 - RAILROAD OIL SPILLS SITE MAP

Site Management Plan

fig17-1_PHFSMP_IRPsite18_sitemap_122004.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases

TABLES

TABLE 17-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 18

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
234-S18-021	SEDIMENT	07/28/93	S18-G01	ORIG	0.00 - 0.00		✓	✓				✓					
234-S18-022	SEDIMENT	07/28/93	S18-G02	ORIG	0.00 - 0.00		✓	✓				✓					
234-S18-023	SEDIMENT	07/28/93	S18-G03	ORIG	0.00 - 0.00		✓	✓				✓					
234-S18-024	SEDIMENT	07/28/93	S18-G03	DUP	0.00 - 0.00		✓	✓				✓					
234-S18-001	SOIL	07/13/93	S18-B04	ORIG	0.50 - 0.50	✓	✓	✓				✓					
234-S18-002	SOIL	07/13/93	S18-B04	ORIG	3.00 - 3.00	✓	✓	✓				✓					
234-S18-003	SOIL	07/13/93	S18-B05	ORIG	0.50 - 0.50	✓	✓	✓				✓					
234-S18-004	SOIL	07/13/93	S18-B05	ORIG	3.00 - 3.00	✓	✓	✓				✓					
234-S18-005	SOIL	07/13/93	S18-B06	ORIG	0.50 - 0.50	✓	✓	✓				✓					
234-S18-006	SOIL	07/13/93	S18-B06	ORIG	3.00 - 3.00	✓	✓	✓				✓					
234-S18-007	SOIL	07/13/93	S18-B07	ORIG	0.50 - 0.50	✓	✓	✓				✓					
234-S18-008	SOIL	07/13/93	S18-B07	DUP	2.00 - 2.00	✓	✓	✓				✓					
234-S18-009	SOIL	07/13/93	S18-B07	ORIG	3.50 - 3.50	✓	✓	✓				✓					
234-S18-010	SOIL	07/13/93	S18-B08	ORIG	0.50 - 0.50	✓	✓	✓				✓					
234-S18-011	SOIL	07/13/93	S18-B08	ORIG	3.00 - 3.00	✓	✓	✓				✓					
234-S18-012	SOIL	07/13/93	S18-B09	ORIG	0.50 - 0.50	✓	✓	✓				✓					
234-S18-013	SOIL	07/13/93	S18-B09	ORIG	3.00 - 3.00	✓	✓	✓				✓					
234-S18-014	SOIL	07/13/93	S18-B10	ORIG	0.50 - 0.50	✓	✓	✓				✓					
234-S18-015	SOIL	07/13/93	S18-B10	ORIG	3.00 - 3.00	✓	✓	✓				✓					
234-S18-016	SOIL	07/13/93	S18-B11	ORIG	0.50 - 0.50	✓	✓	✓				✓					
234-S18-017	SOIL	07/13/93	S18-B11	ORIG	3.00 - 3.00	✓	✓	✓				✓					
234-S18-035	SOIL	07/13/93	S18-B11	DUP	3.00 - 3.00	✓	✓	✓				✓					
234-S18-018	SOIL	07/13/93	S18-B12	ORIG	0.50 - 0.50	✓	✓	✓				✓					
234-S18-019	SOIL	07/13/93	S18-B12	ORIG	3.00 - 3.00	✓	✓	✓				✓					
234-S18-034	WATER	07/13/93	S18-B12	ORIG	NA				✓								

TABLE 17-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 18 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
TOTAL						20	24	24	1	0	0	24	0	0	0	0	0

Notes:

DMETL	Metals (filtered)	ORGPB	Organic Lead	SVOC	Semivolatile organic compound
GMETL	General mineral	PCB	Polychlorinated biphenyls	TPH-e	Total petroleum hydrocarbons, extractables
METL	Metals (total - unfiltered)	PEST	Pesticides	TPH-p	Total petroleum hydrocarbons, purgeables
NA	Not applicable	PESTO	Organophosphorus pesticides	VOC	Volatile organic compound
				✓	Sample collected and analyzed; blank cell indicates no sample collected.

18.0 IRP SITE 19 – SURFACE-WATER DITCHES

This section provides the site background and description for IRP Site 19; summarizes the previous investigations, activities, and existing data; and discusses data gap findings and strategies for eliminating data gaps at IRP Site 19.

18.1 SITE BACKGROUND

The following sections discuss the site background for IRP Site 19, including a general site description, discussion of previous and current site activities, and a summary of previous investigations that have been completed at the site.

18.1.1 Site Description

IRP Site 19 consists of Port Hueneme Harbor and a system of surface-water drainage ditches (Figure 18-1). Port Hueneme Harbor is located at the southern end of CBC Port Hueneme. The drainage ditches are located in the southern and western sections of the facility. The original site name is Harbor and Canals; however, the term of reference to the surface-water drainage system is now more commonly ditches, not canals. The surface-water ditches serve to drain precipitation that falls on the ground surface either directly or through the subsurface storm water system. The ditches discharge to Hueneme Harbor.

18.1.2 Site Activities

Port Hueneme Harbor is used for commercial and naval activities, and provides maritime support for the Navy Construction Force. The Navy operates four deepwater wharves in the northern and western portions of the harbor to support various cargo operations. The Oxnard Harbor District (OHD) maintains five berths in the eastern channel (Channel A) for deep-draft mooring and cargo transfer (U.S. Army Corps of Engineers [USACE] 1999). The aerial extent of the harbor is approximately 80 acres (SCS and Landau Associates 1985). The depth of the harbor is 35 feet below mean lower low water. To accommodate deeper draft ships, the OHD and USACE plan to dredge Port Hueneme Harbor to deepen the approach and entrance channels, the turning basin, and Channel A by 5 feet.

Surface water from the base is drained to the harbor by several ditches located primarily in the southern and western areas of CBC Port Hueneme, north of the harbor. The roadside drainage ditches are approximately 8 feet deep, 20 to 30 feet wide at the top, and 10 feet wide at the bottom. The east-west ditches all drain into the north-south (Pennsylvania Road) ditch, which drains to the tidal gate and the channel leading to the harbor.

Oily wastewater from ships, as well as wastewater from vehicle and equipment wash racks, has historically discharged to Hueneme Harbor. Industrial wastes from the sewage treatment plant were also discharged to the harbor between 1942 and 1972. Other IRP sites are suspected of discharging contaminants to the surface water via overland flow during storm events or through groundwater that discharges to the ditches.

18.1.3 Previous Investigations

Previous investigations that have been completed at IRP Site 19 include an IAS (SCS and Landau Associates 1985), a final SI (ERTEC 1991a), a risk evaluation (PRC 1995a), sediment sampling (Leedshill-Herkenhoff 1990), a deep-draft navigation FS (USACE 1999), predredge sampling (Bechtel Environmental, Inc. [BEI] 2001), and a basewide groundwater investigation (Tetra Tech and LFR 2001).

18.1.3.1 Initial Assessment Study (SCS and Landau Associates 1985)

In 1985, SCS and Landau Associates conducted an IAS at CBC Port Hueneme to identify and assess sites posing a potential threat to human health or the environment due to contamination from past handling of hazardous materials. The IAS concluded that contamination at IRP Site 19 resulted from wastes entering the harbor and ditches—either directly from spills or leaks, or indirectly from storm sewers or the old sewage treatment plant at the base. Effluent from the old sewage treatment plant discharged directly to Port Hueneme Harbor until 1971, when all sanitary sewers were diverted to an off-base municipal treatment plant. Wastes discharged to the sanitary sewer included pesticide rinsate, dilute chlorinated solvent from the plumbing shop, and laboratory waste from the former Naval Civil Engineering Laboratory (NCEL) and the photography laboratory. Wastes discharged to the drainage ditches included caustics and solvents used to clean vehicle parts, antifreeze, painting wastes, wastewater from vehicle and equipment wash racks, Stoddard solvent, and hydraulic fluid. Spills and leaks discharged directly into the harbor included primarily oil, fuel, bilge water, and ballast water from port operations (SCS and Landau Associates 1985).

18.1.3.2 Final Site Inspection Study (ERTEC 1991a)

In 1991, a site inspection study was completed for IRP Site 19 at CBC Port Hueneme. Sediment samples were collected from nine locations in the harbor, and surface-water and sediment samples were collected from nine locations in the drainage ditch system. Elevated levels of PCBs and pesticides were reported in sediment samples from both the harbor and drainage ditches. Low levels of SVOCs were reported in drainage ditch sediments. Results of the metals analyses indicated concentrations of arsenic, barium, cadmium, lead, and zinc exceeded base background concentrations (see Appendix B).

18.1.3.3 IRP Site 19 – Surface Water Ditches Risk Evaluation (PRC 1995a)

In 1995, an ERA and HHRA was completed for IRP Site 19 that focused on the drainage ditches at IRP Site 19. Sediment and surface-water samples were collected from the drainage ditches, and fish samples were collected from Port Hueneme Harbor. The risk evaluation report concluded that potential sources of contamination to the drainage ditches included IRP Sites 8, 9, 12A, 13, 14, 18, and 22. The evaluation concluded that contaminant pathways at IRP Site 19 were sediment and surface water in the drainage ditch system and Port Hueneme Harbor.

Cancer risk for the ditch maintenance worker was calculated as 1.6×10^{-5}. Cancer risk drivers were PCBs and chromium. (Total chromium was conservatively assumed to consist entirely of hexavalent chromium.) The HI for the ditch maintenance worker was calculated as 2.2 and was driven by PCBs and arsenic. Cancer risk for the recreational fisherman was calculated as 7.1×10^{-3}, based on tissue concentrations of fish caught in the harbor. Cancer risk drivers included PAHs, pesticides, PCBs, beryllium, and chromium. The HI for the recreational fisherman was calculated as 30, and the risk drivers were pesticides, PCBs, tributyltin, antimony, arsenic, and mercury. The general ecology of the surface-water ditches was reported to consist of jurisdictional wetland and upland habitats that support a variety of freshwater and intertidal marsh plants, fresh and brackish water fishes, waterfowl, wading birds, and mammals. Ditch sediments were reported to contain bioavailable contaminants that have been shown to cause toxic effects in laboratory tests and could represent a significant risk to ecological receptors. Ecological COPCs included PAHs, pesticides, PCBs, and lead.

The DTSC reviewed the risk evaluation report and concluded that the ERA met DTSC requirements for an ecological scoping assessment. The DTSC also indicated that further ecological evaluation should be conducted in the form of a Phase I predictive ERA (Chernoff 1995).

18.1.3.4 Reconnaissance-Level Soil Sampling Investigation (Leedshill-Herkenhoff 1990)

In 1990, Leedshill-Herkenhoff, Inc. collected sediment samples from 12 drainage ditch locations at depths of 4 to 10 inches below the sediment surface. PCBs were not reported above laboratory detection limits. Lead was reported at a concentration of 121 mg/kg in a sample from the Lehman Road Ditch.

In 1992, West Coast Environmental collected 10 sediment samples from the 23rd Avenue ditch at depths up to 18 inches below the sediment surface. Aroclor 1260 was reported in one sample from the 23rd Avenue ditch at a concentration of 10,110 micrograms per liter (µg/L). In 1992, approximately 70 yd^3 of soil was removed from the drainage ditch adjacent to Pennsylvania Avenue during urgent repairs to a washed out road structure across the ditch. Low levels of arsenic and lead were reported in one sample from the excavated soil (Sollenberger 1992). In 1997, SOTA Environmental Technology, Inc. (SOTA) collected soil samples from the drainage ditch system as part of a storm water facilities upgrade project (SOTA 1997). Samples were collected from 12 locations along 23rd Avenue and Pennsylvania Road at depths up to 5 feet below the sediment surface. Elevated levels of pesticides, PCBs, and lead were reported.

18.1.3.5 Deep-Draft Navigation Feasibility Study (USACE 1999)

The Los Angeles District of the USACE conducted a deep-draft navigation FS at CBC Port Hueneme to investigate the feasibility of and economic justification for deepening Port Hueneme Harbor to improve navigation and meet the port's projected navigation needs. The report contained an environmental assessment that presented results of sediment samples collected in

1996 from 12 locations within the proposed dredge site. Results indicated low levels or no detectable concentrations of organic contaminants. At most test sites, metal results were below the effects range-low (ER-L) value at which the analyte is likely to exert biological effects (Long and Morgan 1990). Cadmium exceeded the ER-L at one location, and mercury exceeded the ER-L at two locations, but the findings indicated that sediments were similar to those at the proposed placement area at Hueneme Beach.

18.1.3.6 Predredge Sampling (BEI 2001)

USACE conducted predredge sampling in May 2001. Twenty samples were collected from within the dredge footprint, and five samples were collected from the northern part of the harbor, outside the dredge footprint. Results indicated elevated PCB, PAH, and pesticide concentrations in limited areas of the harbor. Metals were not reported above background threshold values (see Appendix B). The HHRA results supported placement of the dredge material in the nearshore environment (BEI 2001). However, in 2003, DTSC and RWQCB recommended that USACE further evaluate potential ecological impacts associated with harbor sediments before a final decision is made related to disposition of these sediments (Than 2003; Lyons 2003).

18.1.3.7 Draft Basewide Groundwater Remedial Investigation (Tetra Tech and LFR 2001)

A basewide groundwater investigation was completed to address surface-water and groundwater issues at CBC Port Hueneme, and evaluate potential for chemicals to migrate from groundwater to surface water. Surface water features included Port Hueneme Harbor, Channel Islands Harbor, and the drainage ditch system. Groundwater hydrogeologic units included the Semi-Perched Aquifer, the Oxnard aquifer, and the clay cap aquitard between the two aquifers. The study concluded that groundwater in the Semi-Perched Aquifer generally discharges to the Pacific Ocean, but some groundwater discharges to the surface water drainage ditch system. Applying NAWQC for protection of saltwater aquatic life, the investigators screened chemical concentrations in groundwater and surface water to identify chemicals of potential ecological concern. Analytes were not reported in surface water above ecological screening values. Chemical concentrations in groundwater were screened against MCLs to identify COPCs for human health. Surface water data collected from drainage ditches and Port Hueneme Harbor were not evaluated against MCLs because surface water at the base is not likely to be used as a drinking water supply.

The draft basewide groundwater investigation report is currently under review. DTSC comments on the draft report recommend further evaluation of sediment and surface water data and clarification regarding vertical gradients within the Semi-Perched Aquifer and between the Semi-Perched Aquifer and the Oxnard aquifer (DTSC 2003). Further RI is currently being performed at the site.

18.2 COMPILATION OF EXISTING SITE DATA

An ERA and HHRA that focused on the drainage ditches at IRP Site 19 was completed in 1995. The results are summarized in Section 18.1.3.3. The DTSC reviewed the report and concluded that the ERA met DTSC requirements for an ecological scoping assessment. DTSC also indicated that further ecological evaluation should be conducted in the form of a Phase I predictive ERA (Chernoff 1995).

18.3 DATA GAPS

The following sections present the data gaps identified for IRP Site 19.

18.3.1 Sediment Data Gaps

Based on a review of the existing data for the site, the Navy has determined that additional analytical data is necessary to evaluate the nature and origin of contamination in surface water ditches.

18.3.2 Surface Water and Groundwater Data Gaps

Based on a review of the existing data for the site, the Navy has determined that additional analytical data is necessary to evaluate the nature and origin of possible contamination in surface water ditches and to evaluate transport of suspended solids.

Additionally, to address DTSC concerns regarding vertical gradients within the Semi-Perched Aquifer and between the Semi-Perched Aquifer and the Oxnard Aquifer, the Navy will consider installation of piezometer clusters in several areas of the base to provide data that can clarify whether vertical gradients are upward or vertical.

18.3.3 Human Health Risk Assessment Data Gaps

No HHRA data gaps were identified for IRP Site 19.

18.3.4 Ecological Risk Assessment Data Gaps

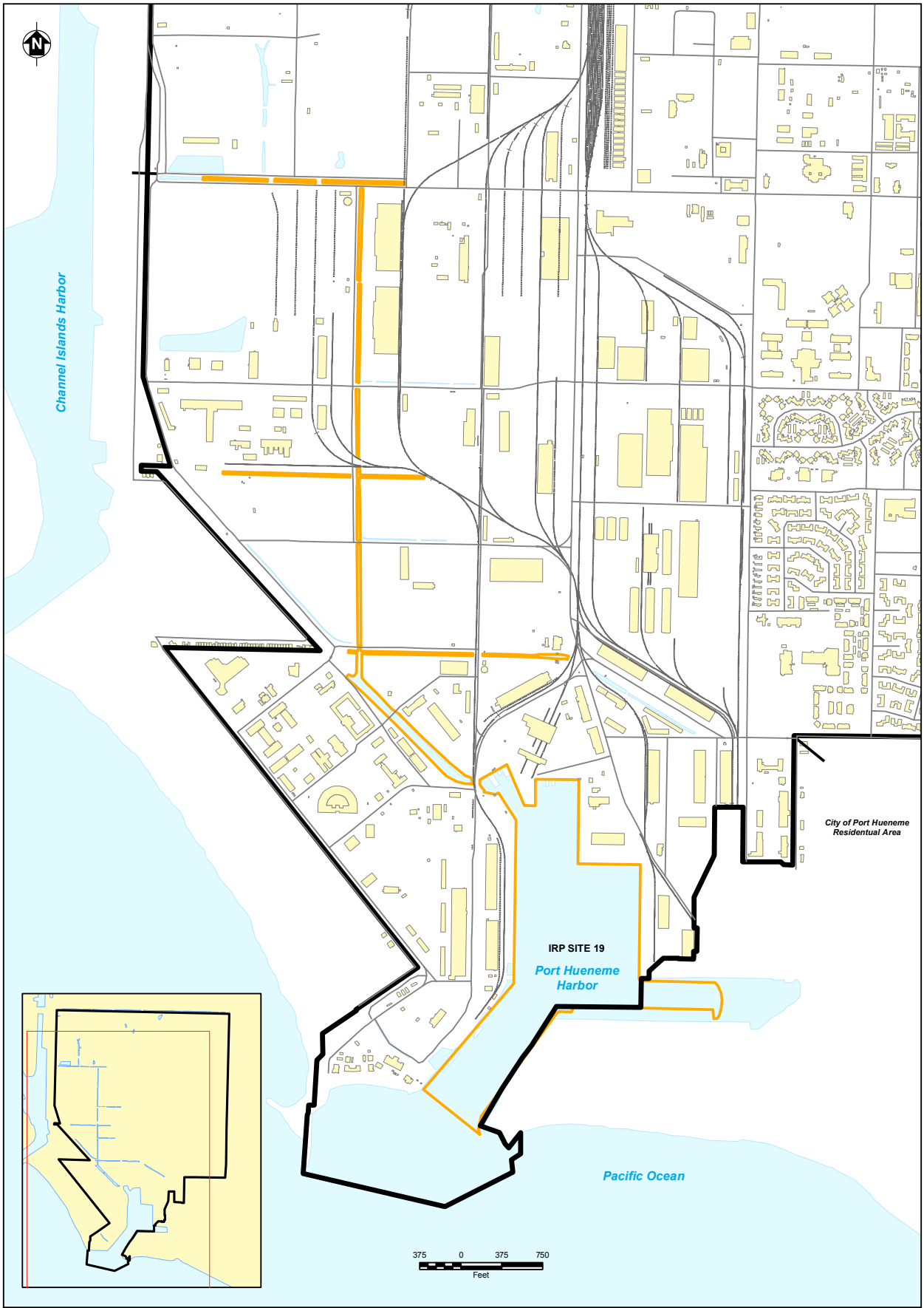
An ecological scoping assessment has been completed for IRP Site 19. DTSC reviewed the report and concluded that the ERA met DTSC requirements for an ecological scoping assessment. Further ERA is being conducted in an IRP Site 19 RI (Bechtel 2003).

18.4 STRATEGY FOR ELIMINATING DATA GAPS

To confirm findings of the basewide groundwater investigation, and to further characterize the nature and extent of COPCs, an RI will be completed for the IRP Site 19 surface water ditches (Bechtel 2003). The scope of the investigation includes surface water and sediment sampling. Results of this investigation will be used to further assess potential ecological risks from COPCs.

To address DTSC concerns regarding vertical gradients within the Semi-Perched Aquifer and between the Semi-Perched Aquifer and the Oxnard Aquifer, the Navy will consider installation of piezometer clusters in several areas of the base outside the area of tidal influence. Each area would include three piezometers to monitor the upper and lower portions of the Semi-Perched Aquifer and the upper portion of the Oxnard Aquifer. Water level data from these piezometers will indicate whether vertical gradients within the Semi-Perched Aquifer and between the Semi-Perched Aquifer and the Oxnard Aquifer are upwards or downwards.

FIGURES



IRP SITE 19 - HARBOR AND SURFACE WATER DITCHES

CBC PORT HUENEME BOUNDARY

RAILROAD

MAIN ROAD

BUILDING

SulTech

CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 18-1
IRP SITE 19 - HARBOR AND SURFACE WATER DITCHES SITE MAP
Site Management Plan

fig18-1_PHFSMP_IRPsite19_sitemap_122004.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases

19.0 IRP SITE 20 – NAVAL CONSTRUCTION TRAINING CENTER BUILDING SITE

This section provides the site background and description for IRP Site 20; summarizes the previous investigations, activities, and existing data; and discusses data gap findings and strategies for eliminating data gaps at IRP Site 20.

19.1 SITE BACKGROUND

The following sections discuss the site background for IRP Site 20, including a general site description, discussion of previous and current site activities, and a summary of previous investigations that have been completed at the site.

19.1.1 Site Description

IRP Site 20, the Naval Construction Training Center (NCTC), is located in the northwest quadrant of the CBC Port Hueneme, immediately east of West Road (Figure 19-1). A fuel pumping station and three USTs (2 gasoline and 1 diesel) were previously located in the area, one of which is UST 796-04.

19.1.2 Site Activities

Previous investigations indicate possible presence of petroleum- and solvent-related chemicals in soil and groundwater at the site. Visible soil contamination was observed during construction of the NCTC, thus initiating investigation of IRP Site 20 in the late 1980s. Historical chemical releases at the site appear to be related to the fuel pumping station and three USTs. Two of the USTs (including UST 796-04) and associated piping were removed in 1994, and 1 new UST was installed at the site. The new UST was removed in 1997. Investigative results indicate presence of petroleum- and solvent-related chemicals in soil and groundwater at the site.

19.1.3 Previous Investigations

Previous investigations that have been completed at IRP Site 20 include an IAS (SCS and Landau Associates 1985), a geotechnical study, a soil gas survey (Holguin and Associates 1988), a final and supplemental SI (ERTEC 1991a; 1991b), a UST removal (Tetra Tech 1998a), post-field sampling (Tetra Tech 1999a), a basewide groundwater investigation (Tetra Tech and LFR 2001), and a focused SI (Tetra Tech 2002b).

19.1.3.1 Initial Assessment Study (SCS and Landau Associates 1985)

IRP Site 20 was previously investigated in the IAS under the IRP in accordance with CERCLA and state and local petroleum UST unauthorized release cleanup programs. The IAS reported that potentially contaminated soil was encountered during construction activities at the site. The IAS concluded that the potentially contaminated soil posed a risk to human health.

19.1.3.2 Geotechnical Study

In August 1988, as part of a geotechnical study for construction of a new access road to the base, the Ventura County Public Works Agency conducted a materials report for IRP Site 20. The investigation included drilling and sampling of six soil borings for geotechnical testing. Volatile organic vapors, assumed to be gasoline from the on-site USTs, were reported in one of the boreholes. A soil gas survey was recommended.

19.1.3.3 Soil Gas Survey (Holguin and Associates 1988)

In September 1988, a soil gas survey was conducted at IRP Site 20 in the vicinity of the USTs. Soil vapor were collected from selected points around the area of suspected contamination and analyzed for gasoline constituents. Results of the soil gas survey indicated elevated levels of gasoline constituents in the vadoze zone, between 1 to 5 feet bgs.

19.1.3.4 Final and Supplemental Site Inspection Report (ERTEC 1991a and 1991b)

In October 1988, a site inspection study of IRP Site 20 was conducted. The study included drilling 12 soil boreholes, five of which were converted to monitoring wells (S20MW01 through S20MW03, S20MW05, and S20MW06; remaining boreholes are B1, B2, B3, B5, B6, B7, and B8). Figure 19-1 shows the borehole and monitoring well locations. A sixth monitoring well (S20-W4) had been installed but was subsequently destroyed. Soil and water samples were collected and sent for laboratory analyses. The results of the investigation indicated that vadoze zone hydrocarbons were present in the soil, downgradient from the USTs. In October 1989, two soil samples were collected from beneath a removed 2,000 diesel tank. These samples were analyzed for lead; results from both samples indicated that lead concentrations in the soil did not exceed screening levels. In 1990, a supplemental SI was completed at IRP Site 20. Six additional soil boreholes were drilled (B11 through B16), and seven additional monitoring wells were installed (S20MW07 through S20MW11, S20OW1, and S20OW2). Soil and groundwater samples were collected and analyzed for VOCs, SVOCs, TPH-p and TPH-e, and metals. The following constituents were detected in groundwater samples at concentrations above their MCLs: benzene and 1,2-dichloroethane. Methylene chloride was detected in one soil sample at concentrations exceeding the residential PRG, but well below the industrial PRG. The following constituents were detected in soil samples at concentrations exceeding their residential and industrial PRGs: benzene, xylenes, and ethylbenzene. Significant concentrations of TPH ranging from 322 to 26,182 mg/kg were detected in soil samples. The source of benzene, ethylbenzene, xylenes, and TPH may be related to the USTs; however, the wide distribution of contamination suggests other sources such as refueling locations or petroleum distribution piping.

19.1.3.5 Underground Storage Tank Program Phase II Removal Summary Report (Tetra Tech 1998a)

Subsequent to the supplemental SI, UST 796-04 and associated distribution piping were removed in March 1994. One soil sample and one groundwater sample were collected from the excavation pit at the time of removal. Analytical results indicated a petroleum release to soil and groundwater on the basis of TPH and VOC detections.

19.1.3.6 Draft Post-Field Investigation Technical Memorandum for Underground Storage Tanks (Tetra Tech 1999a)

Confirmation sampling of soil and groundwater in relation to former UST 796-04 was conducted to determine contaminant concentrations in subsurface soil and groundwater, and to obtain sufficient site characterization data to support recommendations for no further action or develop a corrective action plan (CAP), if necessary. Former UST 796-04 lies within the boundaries of IRP Site 20. The former UST 796-04 was identified for evaluation due to the potential release of nonpetroleum constituents to soil and groundwater. Further characterization of the sites was recommended as a result of potentially contaminated soil used to backfill the former UST excavations, and because a petroleum sheen was observed on the groundwater within the former excavations. The post-field technical memorandum recommended further evaluation of results for former UST 796-04 in conjunction with the IRP Site 20 focused SI.

19.1.3.7 Draft Groundwater Remedial Investigation Report (Tetra Tech and LFR 2001)

From 1997 to 2001, a basewide RI evaluated the condition of the Semi-Perched Aquifer at CBC Port Hueneme. Four quarters of groundwater samples were collected from all existing IRP Site 20 monitoring wells during the first round of sampling in May and June 1997. Results of the first round of sampling provided rationale for reducing the number of wells to be sampled during subsequent rounds. As a result, only monitoring wells S20MW07 and S20MW09 were sampled during the second, third, and fourth rounds. The samples were analyzed for VOCs, SVOCs, metals, TPH-p and TPH-e, and water quality parameters.

Chemical concentrations in groundwater were screened against NAWQC for the protection of saltwater aquatic life and MCLs. If concentrations of an organic compound exceeded the NAWQC and/or MCL in at least one sampling round at a given location, that compound was considered a COPEC and/or COPC, respectively, at that location. If concentrations of an inorganic compound exceeded the NAWQC and/or MCL in more than one sampling at a given location, that compound was considered a COPEC and/or a COPC, respectively, at that location. Inorganics were screened differently because they often occur naturally. 1,2-Dichloroethane and benzene were identified as COPCs for samples collected from IRP Site 20. The basewide groundwater investigation recommended an HHRA for IRP Site 20.

19.1.3.8 Focused Site Inspection Report (Tetra Tech 2002b)

A focused SI report was completed in 1999 to investigate a possible source of soil and groundwater contamination, delineate contamination, and provide recommendations for site closure. The field investigation consisted of a site characterization and analysis penetrometer system (SCAPS) survey; soil and groundwater confirmation sampling; monitoring well installation and sampling; and well decommissioning. Eleven previously installed monitoring wells were decommissioned, (S20MW01 to S20MW03, S20MW05 to S20MW11, and S20OW02), one existing monitoring well was retained (S20OW1), and four new monitoring wells were installed at IRP Site 20 (S20MW001 to S20MW004; subsequently renamed S20MW12 to S20MW15; respectively) (Figure 19-1). One groundwater sample was collected from each of the four newly installed monitoring wells. Sixteen soil samples were collected using the SCAPS cone penetrometer test (CPT) platform at 3-foot intervals at depths ranging from 2.5 to 11 feet bgs. Four soil samples were collected during monitoring well installation at depths ranging from 5.0 to 8.5 feet bgs. In addition, a direct-push drill rig was used to advance two borings at the former site of UST 796-04 (79604SB01 and 79604SB02) (Figure 19-1). Three soil samples were collected. Soil samples collected with the CPT platform were analyzed for chemical, geochemical, and biological components. Permeability tests were performed on the four soil samples collected from the monitoring well borings. Soil samples collected during confirmation sampling in association with former UST Site 796-04 were analyzed for organic and inorganic compounds (TPH-e and TPH-p, VOCs, SVOCs, and organic lead). Benzene; 1,2,4-trimethylbenzene; 1,3,5-trimethylbenzene; 1,2-dichloroethane; PCBs (Aroclor 1260); and arsenic were detected in site soils at concentrations exceeding their applicable screening criteria.

Eleven groundwater samples were collected, five during the SCAPS data collection activities, one from each monitoring well installation, and one from each Geoprobe boring. All groundwater samples were analyzed for TPH-p and TPH-e, VOCs, SVOCs, and general chemistry. In addition, the five groundwater samples collected during the SCAPS activities were analyzed for ferrous iron. Various VOCs, SVOCs, and metals were detected in groundwater samples at concentrations exceeding their applicable screening criteria.

Results of the investigation indicated that a removal action, contingent on an engineering evaluation and cost analysis, and an action memorandum, would address soil contamination at the site, and that this contaminant source removal would eliminate further groundwater contamination. Future groundwater monitoring was recommended to evaluate seasonal variation and groundwater migration effects on contaminant concentrations.

19.2 COMPILATION OF EXISTING SITE DATA

Available data, typically that collected after 1993, has been compiled and tabulated for use in identifying data gaps and additional site activities required to obtain site closure. The available data were screened against the EPA residential soil and tap water PRGs. Additional data may be available in previous reports prepared for this site. Dependent upon the site activities identified to obtain site closure, this data may also be reviewed to determine if it is suitable for use in additional evaluations.

Table 19-1 is a summary of the samples collected at IRP Site 20. Table 19-2 includes the soil analytical data for IRP Site 20, and Figure 19-2 shows concentrations of constituents in soil samples that were detected above the respective screening criteria. Table 19-3 includes the groundwater analytical data for IRP Site 20, and Figure 19-3 shows concentrations of constituents in groundwater samples that exceed the applicable screening criteria. Additional data for UST 796-04 is located in Tables 23-4a, 23-4b, and 23-4c.

19.3 DATA GAPS

For this SMP, the previous investigations and collected data for IRP Site 20 were reviewed to verify that sufficient information is available to support the final actions and documentation needed to close the site. Identified data gaps and proposed actions to eliminate those data gaps are discussed below.

19.3.1 Soil Data Gaps

Based on a review of the existing soil data for the site, an insufficient number of surface and subsurface samples exist to provide an adequately sized data set to perform an HHRA and ERA. Additional sampling is recommended for this site to provide an adequately sized data set to complete an HHRA and ERA.

19.3.2 Groundwater Data Gaps

Additional monitoring wells are needed around an area proposed for corrective action in the vicinity of UST 796-04 to characterize and evaluate the nature and extent of potential groundwater contamination associated with a contaminant source in soil. Additional groundwater sampling is required to assess groundwater conditions and support an HHRA and ERA.

19.3.3 Human Health Risk Assessment Data Gaps

Potential risks from exposure to soil or groundwater have not been evaluated for the site. Additional soil and groundwater sampling is proposed at the site; therefore, existing and new soil and groundwater data will be evaluated in an HHRA. The HHRA will evaluate potential risks for exposure to both soil and groundwater at the site. The new HHRA will use contemporary EPA, DTSC, and Navy risk assessment guidance to ensure that site soil and groundwater risk are based on current methodology.

19.3.4 Ecological Risk Assessment Data Gaps

An ERA has not been completed for this site. A habitat survey of IRP Site 20 will be completed to determine if a viable habitat exists for ecological receptors.

19.4 STRATEGY FOR ELIMINATING DATA GAPS

It is recommended that three additional monitoring wells be installed at IRP Site 20, one well to be installed upgradient (S20MW16), and two wells to be installed downgradient (S20MW17 and S20MW18) (Figure 19-4). It is further recommended that four additional quarters of groundwater samples be collected from five existing (S20MW03, S20MW12, S20MW13, S20MW14, and S20MW15) and three proposed groundwater monitoring wells. The results from these groundwater samples will then be utilized to further evaluate environmental conditions at IRP Site 20. The proposed monitoring well installation and sampling scheme for IRP Site 20 is presented below. The groundwater data will be compiled and screened against EPA tap water PRGs.

Well ID	Borehole Diameter (inches)	Well Diameter (inches)	Well Depth (feet bgs)	Screened Interval (feet bgs)	Up/Down Gradient	Estimated Water Level (feet bgs)
S20MW16	8.0	2.0	15	5-15	Up	6
S20MW17	8.0	2.0	15	5-15	Down	6
S20MW18	8.0	2.0	15	5-15	Down	6

Well ID	Well Diameter (inches)	Well Depth (feet bgs)	Screened Interval (feet bgs)	Analyses
S20MW03	4.0	19.3	3.7-18.2	VOC, SVOC, TPH-purgeable, TPH-extractable, pesticides/PCB, metals
S20MW12 (former MW001)	Unknown	Unknown	Unknown	Same as above
S20MW13 (former MW002)	Unknown	Unknown	Unknown	Same as above
S20MW14 (former MW003)	Unknown	Unknown	Unknown	Same as above
S20MW15 (former MW004)	Unknown	Unknown	Unknown	Same as above
S20MW16	2.0	15	5-15	Same as above
S20MW17	2.0	15	5-15	Same as above
S20MW18	2.0	15	5-15	Same as above

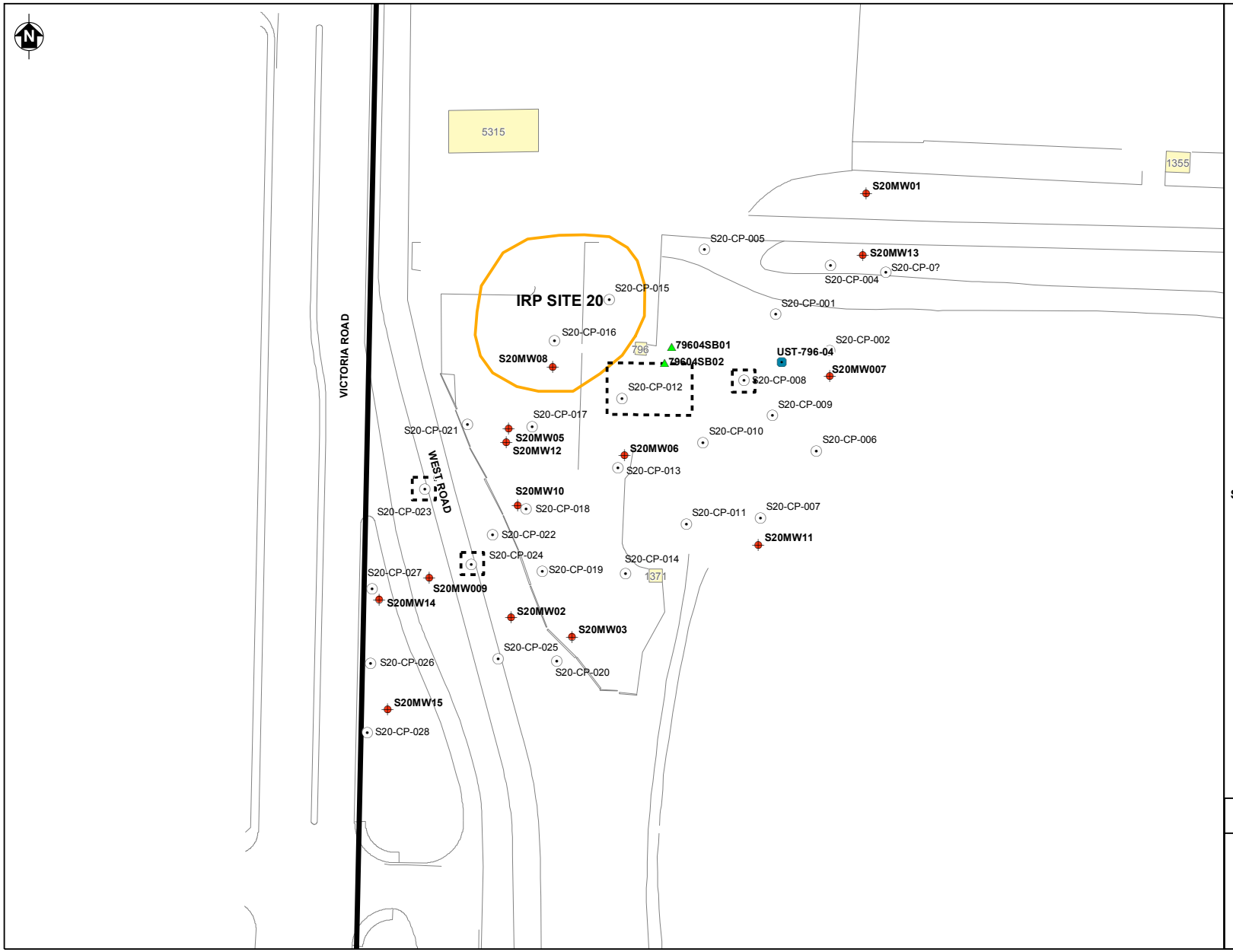
To provide an adequately sized data set for an HHRA and ERA, seven additional soil borings will be advanced at IRP Site 20 (Figure 19-4). Seven surface and four subsurface samples will be collected from 0.0 to 2.0 and from 5.0 to 7.0 feet bgs, respectively. An additional three surface and subsurface samples will be collected from 0.0 to 2.0 feet bgs from the proposed monitoring wells. The samples should be analyzed for VOCs, SVOCs, PAHs, TPH-p, TPH-e, pesticides/PCBs, and metals. The following table shows the proposed soil sampling scheme for IRP Site 20:

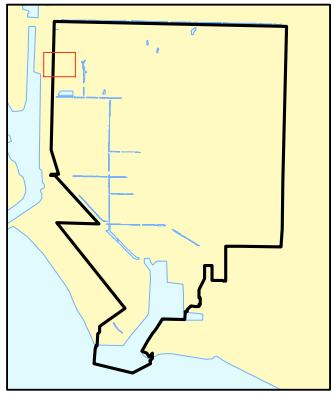
Sample Location ID	Depth (feet bgs)	Analytical Group	Rationale/Comment
S20SB01	Surface (0-2)	VOC, SVOC, PAH, TPH-purgeable, TPH-extractable, pesticides/PCB, metals	Provide additional data for HHRA and ERA
S20SB01	Subsurface (5-7)	Same as above	Same as above
S20SB02	Surface (0-2)	Same as above	Same as above
S20SB02	Subsurface (5-7)	Same as above	Same as above
S20SB03	Surface (0-2)	Same as above	Same as above
S20SB03	Subsurface (5-7)	Same as above	Same as above
S20SB04	Surface (0-2)	Same as above	Same as above
S20SB04	Subsurface (5-7)	Same as above	Same as above
S20SB05	Surface (0-2)	Same as above	Same as above
S20SB06	Surface (0-2)	Same as above	Same as above
S20SB07	Surface (0-2)	Same as above	Same as above
S20MW16	Surface (0-2)	Same as above	Same as above
S20MW16	Subsurface (5-7)	Same as above	Same as above
S20MW17	Surface (0-2)	Same as above	Same as above
S20MW17	Subsurface (5-7)	Same as above	Same as above
S20MW18	Surface (0-2)	Same as above	Same as above
S20MW18	Subsurface (5-7)	Same as above	Same as above

The new soil and groundwater data will be compiled, combined with previously collected data presented in Tables 19-2 and 19-3, and evaluated for cumulative risk using EPA Region 9 PRGs for soil and tap water. The data will be evaluated in an HHRA to identify site-specific risks to human health from soil and groundwater. In addition, a habitat survey of IRP Site 20 will be completed to determine if there is viable habitat for ecological receptors. If viable habitat does exist, a screening level ERA, based on surface soil data collected at the site, will be conducted. If there is evidence of burrowing animals at the site, the ERA will include an evaluation of vapor exposure for these animals in their burrows. To establish whether a complete vapor exposure pathway exists for burrowing animals, the depth to the Semi-Perched Aquifer will also be considered in this analysis.

The results of these evaluations, as well as conclusions and recommendations for any additional site activities, will be presented in an RI report.

FIGURES





SCAPS Hydropunch Locations

SOIL BORING

TEST PIT

MONITORING WELL

FORMER MONITORING WELL

S20MW01 SAMPLE EXCEEDING SCREENING CRITERIA IN BOLD

IRP SITE

CBC PORT HUENEME BOUNDARY

PROPOSED UST SITE 796-04 CORRECTIVE ACTION EXCAVATION AREAS

RAILROAD

CURB

BUILDING

UST SITE

40 0 40 80
Feet

SulTech

CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 19-1
IRP SITE 20 - NCTC BUILDING SITE SITE MAP

Site Management Plan

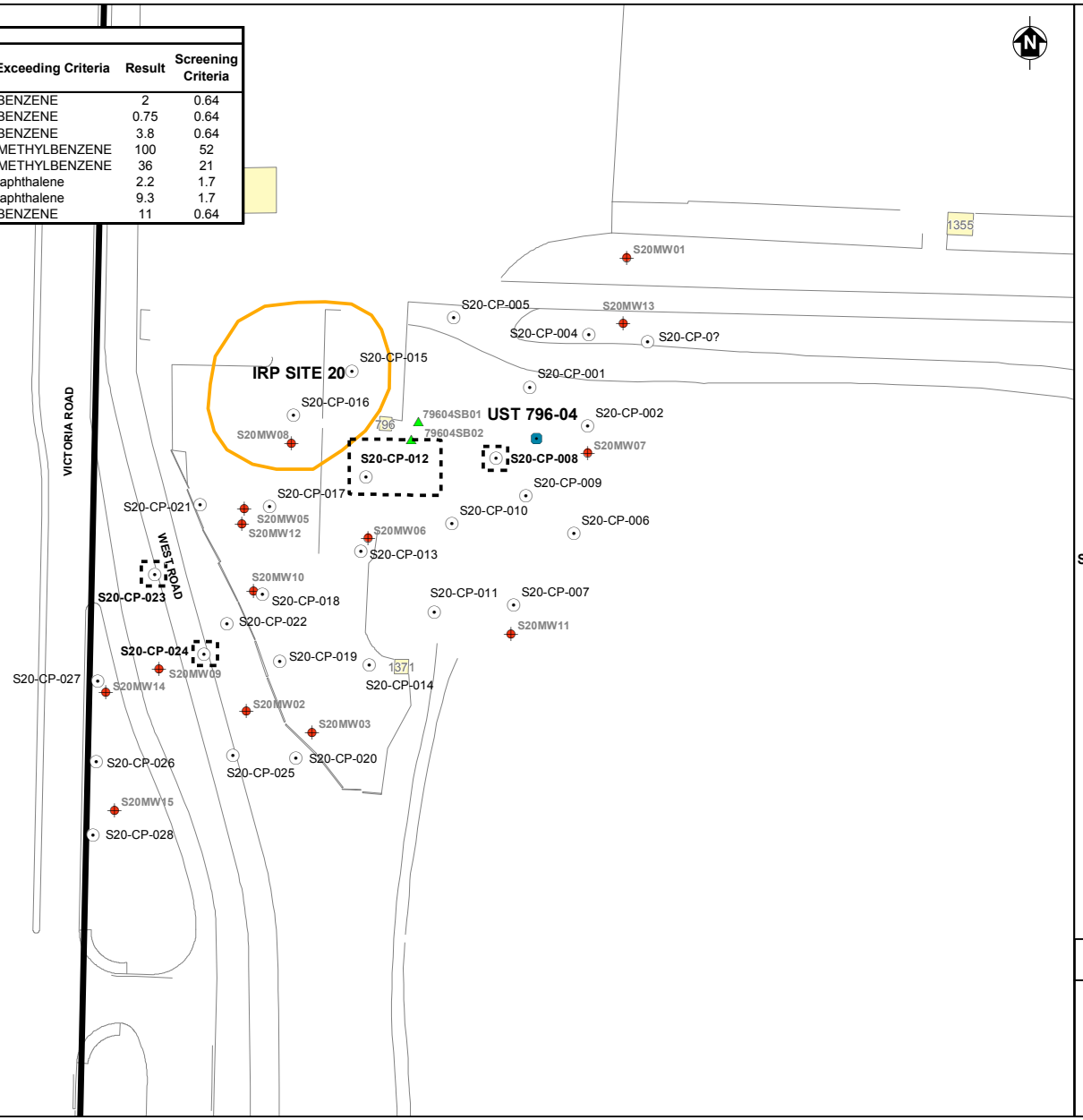
fig19-1_PHFSMP_IRPsite20_sitemap_122004.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases

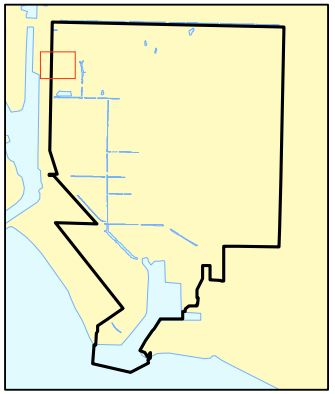
IRP Site 20	(mg/kg)				
Sample Point ID	Sample Date	Sample Depth (ft bgs)	Analyte Exceeding Criteria	Result	Screening Criteria
S20-CP-039	11-Aug-99	NR	BENZENE	2	0.64
S20-CP-043	12-Aug-99	NR	BENZENE	0.75	0.64
S20-CP-048	12-Aug-99	NR	BENZENE	3.8	0.64
S20-CP-049	12-Aug-99	NR	1,2,4-TRIMETHYLBENZENE	100	52
S20-CP-049	12-Aug-99	NR	1,3,5-TRIMETHYLBENZENE	36	21
S20-CP-043	12-Aug-99	NR	Naphthalene	2.2	1.7
S20-CP-049	12-Aug-99	NR	Naphthalene	9.3	1.7
S20-CP-049	12-Aug-99	NR	BENZENE	11	0.64

NOTES:
ID = Identification
mg/kg = milligrams per kilogram
ft bgs = feet below ground surface
NR = sample depth not recorded

NOTES:
The Sample IDs correspond to the locations shown on the figure as follows:

S20-CP-039 = S20-CP-012
S20-CP-043 = S20-CP-008
S20-CP-048= S20-CP-023
S20-CP-049 = S20-CP-024





SCAPS Hydropunch Locations
SOIL BORING
TEST PIT
MONITORING WELL
S20-CP-008 SAMPLE EXCEEDING SCREENING CRITERIA IN BOLD
IRP SITE
CBC PORT HUENEME BOUNDARY
RAILROAD
CURB
BUILDING
PROPOSED UST SITE 796-04 CORRECTIVE ACTION EXCAVATION AREAS
UST SITE

50 0 50 100
Feet

SulTech

CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

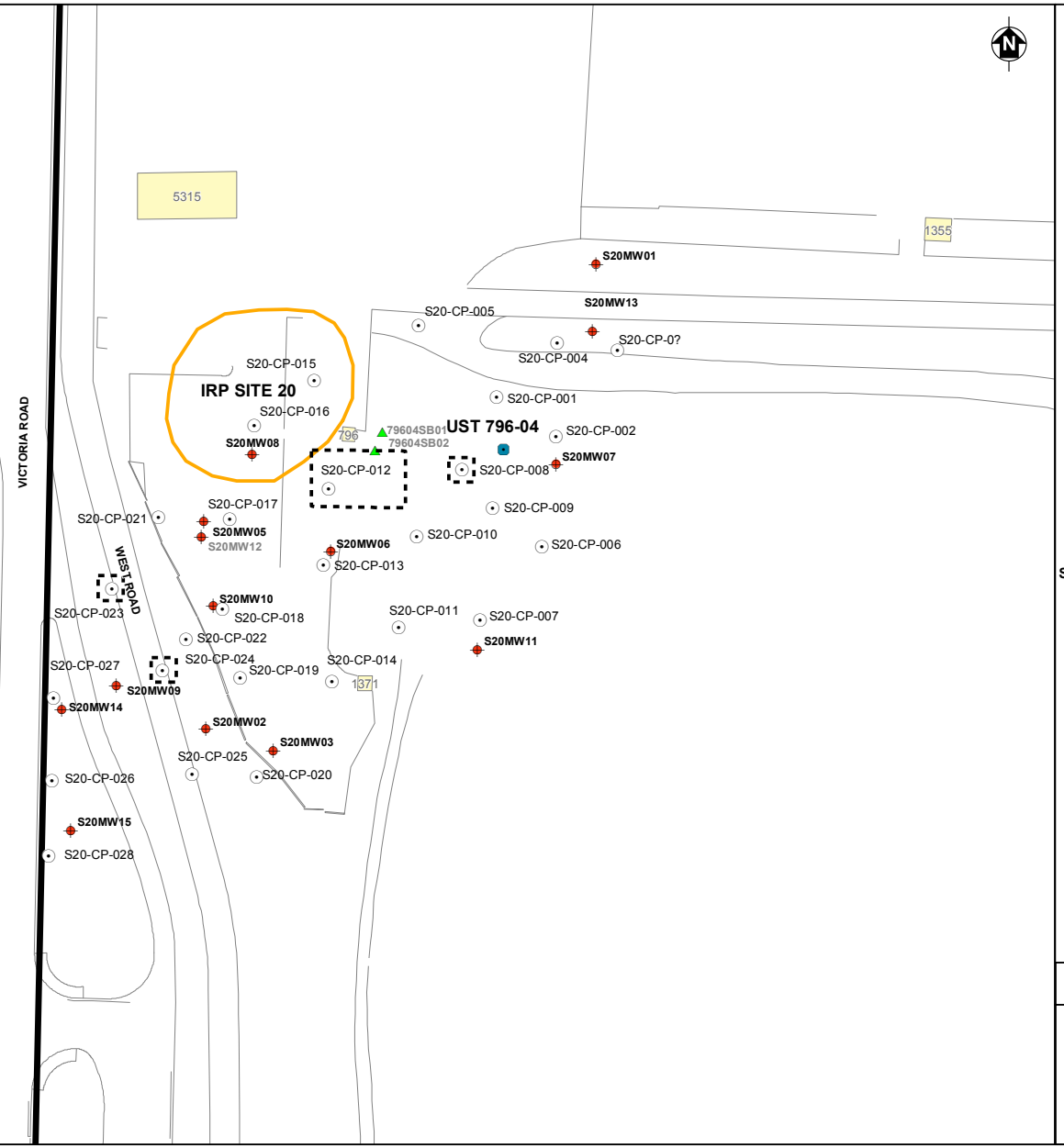
FIGURE 19-2
IRP SITE 20 - NCTC BUILDING SITE ANALYTES IN SOIL EXCEEDING SCREENING CRITERIA

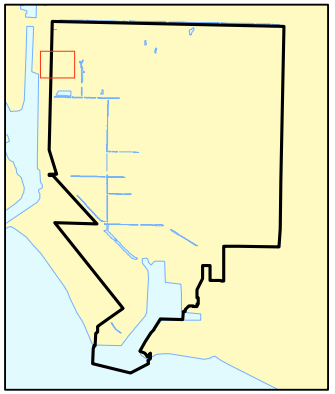
Site Management Plan

fig19-2_PHFSMP_IRPsite20_soils_122304.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases

IRP Site 20	(ug/L)			
Sample Point ID	Sample Date	Analyte Exceeding Criteria	Result	Screening Criteria
S20MW03	19-May-97	MANGANESE	1,470	880
S20MW03	19-May-97	ARSENIC	8.1	0.045
S20MW03	19-May-97	MANGANESE	2,630	880
S20MW06	19-May-97	BENZENE	1	0.35
S20MW06	19-May-97	ARSENIC	8.2	0.045
S20MW09	19-May-97	METHYL TERTIARY BUTYLETHER	10	6.2
S20MW09	19-May-97	ARSENIC	9.2	0.045
S20MW09	19-May-97	MANGANESE	1,080	880
S20MW09	19-May-97	MANGANESE	1,110	880
S20MW09	19-May-97	ARSENIC	26.1	0.045
S20MW09	19-May-97	MANGANESE	1,100	880
S20MW09	19-May-97	ARSENIC	24.2	0.045
S20MW09	19-May-97	MANGANESE	1,130	880
S20MW10	19-May-97	1,2-DICHLOROETHANE	2	0.12
S20MW10	19-May-97	BENZENE	4	0.35
S20MW10	19-May-97	TETRACHLOROETHENE	2	0.10
S20MW10	19-May-97	TRICHLOROETHENE	1	0.028
S20MW10	19-May-97	MANGANESE	974	880
S20MW10	19-May-97	MANGANESE	1,040	880
S20OW01	19-May-97	CHLOROFORM	1	0.17
S20OW01	19-May-97	ARSENIC	11.3	0.045
S20OW01	19-May-97	MANGANESE	1,490	880
S20OW01	19-May-97	ARSENIC	48	0.045
S20OW01	19-May-97	IRON	39,900	11,000
S20OW01	19-May-97	MANGANESE	1,980	880
S20OW02	19-May-97	ARSENIC	11.3	0.045
S20OW02	19-May-97	MANGANESE	1,220	880
S20OW02	19-May-97	ARSENIC	39.1	0.045
S20OW02	19-May-97	IRON	16,900	11,000
S20OW02	19-May-97	MANGANESE	1,420	880
S20MW01	20-May-97	MANGANESE	1,580	880
S20MW01	20-May-97	MANGANESE	1,500	880
S20MW01	20-May-97	ARSENIC	12.4	0.045
S20MW01	20-May-97	MANGANESE	2,040	880
S20MW01	20-May-97	ARSENIC	15.4	0.045
S20MW01	20-May-97	MANGANESE	2,620	880
S20MW02	20-May-97	MANGANESE	1,230	880
S20MW02	20-May-97	ARSENIC	9.3	0.045
S20MW02	20-May-97	MANGANESE	1,380	880
S20MW05	20-May-97	ARSENIC	9.3	0.045
S20MW05	20-May-97	MANGANESE	1,060	880
S20MW05	20-May-97	ARSENIC	11.9	0.045
S20MW05	20-May-97	MANGANESE	1,250	880
S20MW07	20-May-97	MANGANESE	1,070	880
S20MW07	20-May-97	MANGANESE	4,890	880
S20MW08	20-May-97	ARSENIC	10	0.045
S20MW08	20-May-97	MANGANESE	1,110	880
S20MW08	20-May-97	ARSENIC	23.1	0.045
S20MW08	20-May-97	MANGANESE	1,120	880
S20MW11	22-May-97	MANGANESE	2,770	880
S20MW11	22-May-97	ARSENIC	21.7	0.045
S20MW11	22-May-97	IRON	13,100	11,000
S20MW11	22-May-97	MANGANESE	6,070	880
S20MW11	5-Jun-97	CHLOROFORM	1	0.17
S20MW07	15-Oct-97	ARSENIC	3.5	0.045
S20MW07	15-Oct-97	MANGANESE	1,690	880
S20MW09	15-Oct-97	ARSENIC	12.4	0.045
S20MW09	15-Oct-97	MANGANESE	1,080	880
S20MW09	15-Oct-97	1,2-DICHLOROETHANE	2	0.12
S20MW09	15-Oct-97	ARSENIC	12.6	0.045
S20MW09	15-Oct-97	MANGANESE	1,090	880
S20MW09	15-Oct-97	1,2-DICHLOROETHANE	2	0.12
S20MW09	14-Jan-98	MANGANESE	1,050	880
S20MW09	14-Jan-98	1,2-DICHLOROETHANE	2	0.12
S20MW09	14-Jan-98	BENZENE	12	0.35
S20MW07	22-Jan-98	ARSENIC	3.7	0.045
S20MW09	6-Apr-98	ARSENIC	7.3	0.045
S20MW09	6-Apr-98	MANGANESE	1,180	880
S20MW09	6-Apr-98	1,2-DICHLOROETHANE	1	0.12
S20MW09	6-Apr-98	BENZENE	9	0.35
S20MW09	6-Apr-98	METHYL TERTIARY BUTYLETHER	32	6.2
S20-CP-031	12-Aug-99	NAPHTHALENE	240	0.093
S20-CP-031	12-Aug-99	1,2,4-TRIMETHYLBENZENE	2,000	12
S20-CP-031	12-Aug-99	1,2-DICHLOROETHANE	39	0.12
S20-CP-031	12-Aug-99	1,3,5-TRIMETHYLBENZENE	740	12
S20-CP-031	12-Aug-99	BENZENE	1,800	0.35
S20-CP-031	12-Aug-99	ETHYLBENZENE	3,700	1300
S20-CP-031	12-Aug-99	N-PROPYLBENZENE	490	240
S20-CP-031	12-Aug-99	NAPHTHALENE	230	0.093
S20-CP-031	12-Aug-99	XYLENE (TOTAL)	890	210
S20MW002	20-Aug-99	CHLOROFORM	1	0.17
S20MW002	20-Aug-99	CHLOROFORM	1	0.17
S20MW003	20-Aug-99	1,2-DICHLOROETHANE	2	0.12
S20MW003	20-Aug-99	BENZENE	3	0.35
S20MW004	20-Aug-99	BROMODICHLOROMETHANE	2	0.18
S20MW004	20-Aug-99	CHLOROFORM	2	0.17
S20MW004	20-Aug-99	DIBROMOCHLOROMETHANE	2	0.13

NOTES:
µg/L = micrograms per liter





SCAPS Hydropunch Locations
SOIL BORING
TEST PIT
MONITORING WELL
S20-MW02 SAMPLE EXCEEDING SCREENING CRITERIA IN BOLD
IRP SITE
CBC PORT HUENEME BOUNDARY
RAILROAD
CURB
BUILDING
PROPOSED UST SITE 796-04 CORRECTIVE ACTION EXCAVATION AREAS
UST SITE

50 0 50 100
Feet

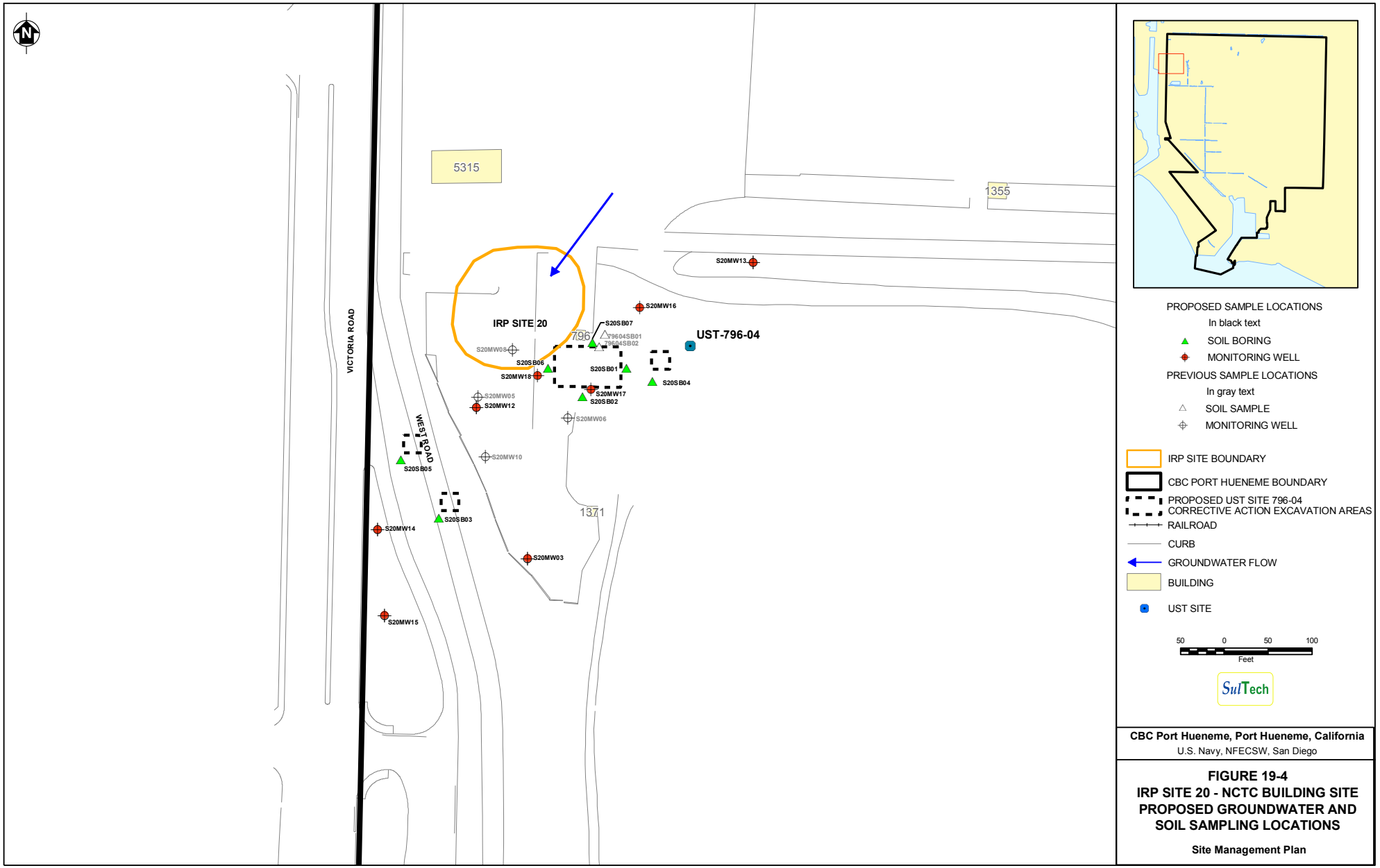
SulTech

CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 19-3
IRP SITE 20 - NCTC BUILDING SITE ANALYTES IN GROUNDWATER EXCEEDING SCREENING CRITERIA

Site Management Plan

fig19-3_PHFSMP_IRPsite20_gw_122304.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases



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U.S. Navy, NFECSW, San Diego

FIGURE 19-4
IRP SITE 20 - NCTC BUILDING SITE
PROPOSED GROUNDWATER AND SOIL SAMPLING LOCATIONS

Site Management Plan

fig19-4_PHFSMP_IRPsite20_sitemap_122304.mxd TtEMI-HE Ed Madej
Data Source: SulTech GIS databases

TABLES

TABLE 19-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 20

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
225CP034-S01	SOIL	08/11/99	S20-CP-034	ORIG	0.00 - 0.00	✓	✓	✓	✓						✓		
225CP035-S01	SOIL	08/11/99	S20-CP-035	ORIG	0.00 - 0.00	✓	✓	✓	✓						✓		
225CP036-S01	SOIL	08/11/99	S20-CP-036	ORIG	0.00 - 0.00	✓	✓	✓	✓						✓		
225CP037-S01	SOIL	08/11/99	S20-CP-037	ORIG	0.00 - 0.00	✓	✓	✓	✓						✓		
225CP038-S01	SOIL	08/11/99	S20-CP-038	ORIG	0.00 - 0.00	✓	✓	✓	✓						✓		
225CP039-S01	SOIL	08/11/99	S20-CP-039	ORIG	0.00 - 0.00	✓	✓	✓	✓						✓		
225CP040-S01	SOIL	08/11/99	S20-CP-040	ORIG	0.00 - 0.00	✓	✓	✓	✓						✓		
225CP041-S01	SOIL	08/11/99	S20-CP-041	ORIG	0.00 - 0.00	✓	✓	✓	✓						✓		
225CP042-S01	SOIL	08/11/99	S20-CP-042	ORIG	0.00 - 0.00	✓	✓	✓	✓						✓		
225CP043-S01	SOIL	08/12/99	S20-CP-043	ORIG	0.00 - 0.00	✓	✓	✓	✓						✓		
225CP044-S01	SOIL	08/12/99	S20-CP-044	ORIG	0.00 - 0.00	✓	✓	✓	✓						✓		
225CP045-S01	SOIL	08/12/99	S20-CP-045	ORIG	0.00 - 0.00	✓	✓	✓	✓						✓		
225CP046-S01	SOIL	08/12/99	S20-CP-046	ORIG	0.00 - 0.00	✓	✓	✓	✓						✓		
225CP047-S01	SOIL	08/12/99	S20-CP-047	ORIG	0.00 - 0.00	✓	✓	✓	✓						✓		
225CP048-S01	SOIL	08/12/99	S20-CP-048	ORIG	0.00 - 0.00	✓	✓	✓	✓						✓		
225CP049-S01	SOIL	08/12/99	S20-CP-049	ORIG	0.00 - 0.00	✓	✓	✓	✓						✓		
225CP050-S01	SOIL	08/12/99	S20-CP-050	ORIG	0.00 - 0.00	✓	✓	✓	✓						✓		
225FD001-W01	WATER	08/12/99	FD001-W01	ORIG	NA	✓	✓	✓							✓		
225CP030-W01	WATER	08/12/99	S20-CP-030	ORIG	NA	✓	✓	✓	✓						✓		
225CP031-W01	WATER	08/12/99	S20-CP-031	ORIG	NA	✓	✓	✓	✓						✓		
225CP032-W01	WATER	08/12/99	S20-CP-032	ORIG	NA	✓	✓	✓	✓						✓		
225CP033-W01	WATER	08/12/99	S20-CP-033	ORIG	NA	✓	✓	✓	✓						✓		
225CP051-W01	WATER	08/12/99	S20-CP-051	ORIG	NA	✓	✓	✓	✓								
08797052002BJM	WATER	05/20/97	S20MW01	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797052002BJMF	WATER	05/20/97	S20MW01	FIL	NA								✓				

TABLE 19-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 20 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
08797052003BJM	WATER	05/20/97	S20MW01	DUP	NA	✓	✓	✓	✓			✓		✓			
08797052003BJMF	WATER	05/20/97	S20MW01	FILD	NA								✓				
08797052006BJM	WATER	05/20/97	S20MW02	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797052006BJMF	WATER	05/20/97	S20MW02	FIL	NA								✓				
08797051903BJM	WATER	05/19/97	S20MW03	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797051903BJMF	WATER	05/19/97	S20MW03	FIL	NA								✓				
08797052005BJM	WATER	05/20/97	S20MW05	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797052005BJMF	WATER	05/20/97	S20MW05	FIL	NA								✓				
08797051907BJM	WATER	05/19/97	S20MW06	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797051907BJMF	WATER	05/19/97	S20MW06	FIL	NA								✓				
08797052001BJM	WATER	05/20/97	S20MW07	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797052001BJMF	WATER	05/20/97	S20MW07	FIL	NA								✓				
08797101506B	WATER	10/15/97	S20MW07	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798012233D	WATER	01/22/98	S20MW07	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798040106W	WATER	04/01/98	S20MW07	ORIG	NA	✓	✓	✓	✓				✓	✓			
08797052004BJM	WATER	05/20/97	S20MW08	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797052004BJMF	WATER	05/20/97	S20MW08	FIL	NA								✓				
08797051901BJM	WATER	05/19/97	S20MW09	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797051901BJMF	WATER	05/19/97	S20MW09	FIL	NA								✓				
08797051902BJM	WATER	05/19/97	S20MW09	DUP	NA	✓	✓	✓	✓			✓		✓			
08797051902BJMF	WATER	05/19/97	S20MW09	FILD	NA								✓				
08797101504B	WATER	10/15/97	S20MW09	ORIG	NA	✓	✓	✓	✓				✓	✓			
08797101505B	WATER	10/15/97	S20MW09	DUP	NA	✓	✓	✓	✓				✓	✓			
08798011404D	WATER	01/14/98	S20MW09	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798040621W	WATER	04/06/98	S20MW09	ORIG	NA	✓	✓	✓	✓				✓	✓			

TABLE 19-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 20 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
08797051905BJM	WATER	05/19/97	S20MW10	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797051905BJMF	WATER	05/19/97	S20MW10	FIL	NA								✓				
08797052206BJM	WATER	05/22/97	S20MW11	ORIG	NA		✓		✓			✓		✓			
08797052206BJMF	WATER	05/22/97	S20MW11	FIL	NA								✓				
08797060501GDT	WATER	06/05/97	S20MW11	ORIG	NA	✓		✓									
08797060502GDT	WATER	06/05/97	S20MW11	DUP	NA	✓		✓									
225S20MW001-W01	WATER	08/20/99	S20MW12	ORIG	NA	✓	✓	✓	✓								
225FIELD DUP	WATER	08/20/99	S20MW13	DUP	NA	✓	✓	✓	✓								
225S20MW002-W01	WATER	08/20/99	S20MW13	ORIG	NA	✓	✓	✓	✓								
225S20MW003-W01	WATER	08/20/99	S20MW14	ORIG	NA	✓	✓	✓	✓								
225S20MW004-W01	WATER	08/20/99	S20MW15	ORIG	NA	✓	✓	✓	✓								
08797051906BJM	WATER	05/19/97	S20OW01	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797051906BJMF	WATER	05/19/97	S20OW01	FIL	NA								✓				
08797051904BJM	WATER	05/19/97	S20OW02	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797051904BJMF	WATER	05/19/97	S20OW02	FIL	NA								✓				
TOTAL						50	49	50	48	0	0	14	21	21	22	0	0

Notes:

DMETL	Metals (filtered)	ORGPB	Organic Lead	SVOC	Semivolatile organic compound
GMETL	General mineral	PCB	Polychlorinated biphenyls	TPH-e	Total petroleum hydrocarbons, extractables
METL	Metals (total - unfiltered)	PEST	Pesticides	TPH-p	Total petroleum hydrocarbons, purgeables
NA	Not applicable	PESTO	Organophosphorus pesticides	VOC	Volatile organic compound
				✓	Sample collected and analyzed; blank cell indicates no sample collected.

TABLE 19-2: ANALYTICAL RESULTS FOR IRP SITE 20 SOIL SAMPLES

Site Management Plan, CBC Port Hueneme

Sample Location ID	S20-CP-034	S20-CP-035	S20-CP-036	S20-CP-037	S20-CP-038	S20-CP-039	S20-CP-040	EPA Residential Soil PRGs
Sample ID	225CP034-S01	225CP035-S01	225CP036-S01	225CP037-S01	225CP038-S01	225CP039-S01	225CP040-S01	
Sample Date	08/11/1999	08/11/1999	08/11/1999	08/11/1999	08/11/1999	08/11/1999	08/11/1999	
Sample Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	
Volatile Organic Compounds (mg/kg)								
1,2,4-TRIMETHYLBENZENE	< 0.006 U	< 0.006 U	< 0.6 U	0.003 J	< 0.006 U	< 1.1 U	< 0.006 U	52
1,3,5-TRIMETHYLBENZENE	< 0.006 U	< 0.006 U	< 0.6 U	< 0.006 U	< 0.006 U	< 1.1 U	< 0.006 U	21
ACETONE	< 0.006 UJ	0.006 R	0.6 R	0.048 R	0.006 R	1.1 R	0.03 R	14,000
BENZENE	< 0.006 U	< 0.006 U	0.23 J	< 0.006 U	< 0.006 U	**2**	< 0.006 U	0.64
ETHYLBENZENE	< 0.006 U	< 0.006 U	0.24 J	< 0.006 U	< 0.006 U	36	< 0.006 U	400
ISOPROPYLBENZENE	< 0.006 U	< 0.006 U	1.4 R	< 0.006 U	< 0.006 U	4	< 0.006 U	570
N-PROPYLBENZENE	< 0.006 U	< 0.006 U	5.4	< 0.006 U	< 0.006 U	16	< 0.006 U	240
NAPHTHALENE	< 0.006 U	< 0.006 U	1.6	0.007	< 0.006 U	< 1.1 U	< 0.006 U	1.7 *
PARA-ISOPROPYL TOLUENE	< 0.006 U	< 0.006 U	< 0.6 U	< 0.006 U	< 0.006 U	< 1.1 U	< 0.006 U	NC
SEC-BUTYLBENZENE	< 0.006 U	< 0.006 U	0.71	< 0.006 U	< 0.006 U	2.2	< 0.006 U	220
TOLUENE	< 0.006 U	< 0.006 U	< 0.6 U	< 0.006 U	< 0.006 U	< 1.1 U	< 0.006 U	520
XYLENE (TOTAL)	< 0.006 U	< 0.006 U	< 0.6 U	< 0.006 U	< 0.006 U	< 1.1 U	< 0.006 U	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	< 81 U	26 Y	56 Y	< 8 U	< 8 U	110 Y	60 Y	NC
MOTOR OIL RANGE ORGANICS	700 Y	240 Y	150 Y	9 Y	< 8 U	11 Y	350 Y	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	< 0.6 U	< 0.6 U	76 Y	3 Y	< 0.6 U	70,000 Y	< 0.6 U	NC
Semivolatile Organic Compounds (mg/kg)								
2,4-DIMETHYLPHENOL	< 0.4 U	< 0.43 U	< 0.43 U	< 0.41 U	< 0.42 U	< 0.42 U	< 0.37 U	1,200
2-METHYLNAPHTHALENE	< 0.4 U	< 0.43 U	0.36 J	< 0.41 U	< 0.42 U	< 0.42 U	< 0.37 U	NC
4-METHYLPHENOL	< 0.4 U	< 0.43 U	< 0.43 U	< 0.41 U	< 0.42 U	< 0.42 U	< 0.37 U	310
ACENAPHTHENE	< 0.4 U	< 0.43 U	< 0.43 U	< 0.41 U	< 0.42 U	< 0.42 U	< 0.37 U	3,700
ANTHRACENE	< 0.4 U	< 0.43 U	< 0.43 U	< 0.41 U	< 0.42 U	< 0.42 U	< 0.37 U	22,000
DIBENZOFURAN	< 0.4 U	< 0.43 U	< 0.43 U	< 0.41 U	< 0.42 U	< 0.42 U	< 0.37 U	150
FLUORANTHENE	< 0.4 U	< 0.43 U	< 0.43 U	< 0.41 U	< 0.42 U	< 0.42 U	< 0.37 U	2,300
FLUORENE	< 0.4 U	< 0.43 U	< 0.43 U	< 0.41 U	< 0.42 U	0.034 J	< 0.37 U	2,700
NAPHTHALENE	< 0.4 U	< 0.43 U	0.98	0.022 J	< 0.42 U	< 0.42 U	< 0.37 U	1.7 *
PHENANTHRENE	< 0.4 U	< 0.43 U	< 0.43 U	< 0.41 U	< 0.42 U	0.061 J	< 0.37 U	NC
PYRENE	< 0.4 U	< 0.43 U	< 0.43 U	< 0.41 U	< 0.42 U	< 0.42 U	< 0.37 U	2,300
Organic Lead (mg/kg)								
ORGANIC LEAD	2.8	< 0.5 U	0.68	< 0.5 U	< 0.57 U	< 0.68 U	< 0.5 U	NC

TABLE 19-2: ANALYTICAL RESULTS FOR IRP SITE 20 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S20-CP-041	S20-CP-042	S20-CP-043	S20-CP-044	S20-CP-045	S20-CP-046	S20-CP-047	EPA Residential Soil PRGs
Sample ID	225CP041-S01	225CP042-S01	225CP043-S01	225CP044-S01	225CP045-S01	225CP046-S01	225CP047-S01	
Sample Date	08/11/1999	08/11/1999	08/12/1999	08/12/1999	08/12/1999	08/12/1999	08/12/1999	
Sample Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	
Volatile Organic Compounds (mg/kg)								
1,2,4-TRIMETHYLBENZENE	< 0.006 U	< 0.006 U	25	< 0.006 U	0.035	< 0.006 U	0.61 J	52
1,3,5-TRIMETHYLBENZENE	< 0.006 U	< 0.006 U	8.6	< 0.006 U	0.015	< 0.006 U	0.16 J	21
ACETONE	0.11 J	0.027 R	0.81 R	0.006 R	0.014 R	0.006 R	0.094 R	14,000
BENZENE	< 0.006 U	< 0.006 U	**0.75 J**	< 0.006 U	0.029	0.002 J	0.18 J	0.64
ETHYLBENZENE	< 0.006 U	< 0.006 U	7.6	< 0.006 U	0.18	< 0.006 U	0.2 J	400
ISOPROPYLBENZENE	< 0.006 U	< 0.006 U	0.76 J	< 0.006 U	0.006 J	< 0.006 U	0.009 J	570
N-PROPYLBENZENE	< 0.006 U	< 0.006 U	2.9	< 0.006 U	0.01 J	< 0.006 U	0.024 J	240
NAPHTHALENE	< 0.006 U	< 0.006 U	**2.2**	< 0.006 U	< 0.014 U	< 0.006 U	0.016 J	1.7 *
PARA-ISOPROPYL TOLUENE	< 0.006 U	< 0.006 U	0.64 J	< 0.006 U	< 0.014 U	< 0.006 U	< 0.023 U	NC
SEC-BUTYLBENZENE	< 0.006 U	< 0.006 U	< 0.81 U	< 0.006 U	< 0.014 U	< 0.006 U	< 0.023 U	220
TOLUENE	< 0.006 U	< 0.006 U	< 0.81 U	< 0.006 U	0.006 J	< 0.006 U	< 0.023 U	520
XYLENE (TOTAL)	< 0.006 U	< 0.006 U	12	< 0.006 U	0.59	< 0.006 U	0.14 J	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	< 8 U	< 8 U	230 Y	< 8 U	44 Y	39 Y	54 Y	NC
MOTOR OIL RANGE ORGANICS	< 8 U	120 Y	60 Y	100 Y	9 Y	23 Y	9 Y	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	< 0.6 UJ	< 0.6 U	24,000 Y	< 0.6 U	2 Y	4 JY	2 Y	NC
Semivolatile Organic Compounds (mg/kg)								
2,4-DIMETHYLPHENOL	< 0.41 U	< 0.38 U	< 0.38 U	< 0.38 U	< 0.39 U	0.044 J	< 0.41 U	1,200
2-METHYLNAPHTHALENE	< 0.41 U	< 0.38 U	9	0.023 J	0.72	0.48	0.046 J	NC
4-METHYLPHENOL	< 0.41 U	< 0.38 U	0.22 J	< 0.38 U	< 0.39 U	< 0.41 U	< 0.41 U	310
ACENAPHTHENE	< 0.41 U	< 0.38 U	0.09 J	< 0.38 U	< 0.39 U	< 0.41 U	< 0.41 U	3,700
ANTHRACENE	< 0.41 U	< 0.38 U	0.044 J	< 0.38 U	< 0.39 U	< 0.41 U	< 0.41 U	22,000
DIBENZOFURAN	< 0.41 U	< 0.38 U	< 0.38 U	< 0.38 U	< 0.39 U	< 0.41 U	< 0.41 U	150
FLUORANTHENE	< 0.41 U	< 0.38 U	0.042 J	< 0.38 U	< 0.39 U	< 0.41 U	< 0.41 U	2,300
FLUORENE	< 0.41 U	< 0.38 U	0.16 J	< 0.38 U	< 0.39 U	< 0.41 U	0.022 J	2,700
NAPHTHALENE	< 0.41 U	0.023 J	**12 D**	0.054 J	0.79	0.39 J	0.19 J	1.7 *
PHENANTHRENE	< 0.41 U	< 0.38 U	0.23 J	< 0.38 U	0.024 J	< 0.41 U	0.027 J	NC
PYRENE	< 0.41 U	< 0.38 U	0.057 J	< 0.38 U	< 0.39 U	< 0.41 U	< 0.41 U	2,300
Organic Lead (mg/kg)								
ORGANIC LEAD	< 0.76 U	< 0.59 U	< 0.77 U	< 0.5 U	< 0.56 U	< 0.8 U	< 1.9 U	NC

TABLE 19-2: ANALYTICAL RESULTS FOR IRP SITE 20 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S20-CP-048	S20-CP-049	S20-CP-050	EPA Residential Soil PRGs
Sample ID	225CP048-S01	225CP049-S01	225CP050-S01	
Sample Date	08/12/1999	08/12/1999	08/12/1999	
Sample Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	
Volatile Organic Compounds (mg/kg)				
1,2,4-TRIMETHYLBENZENE	< 1.7 U	**100**	< 0.006 U	52
1,3,5-TRIMETHYLBENZENE	< 1.7 U	**36**	< 0.006 U	21
ACETONE	1.7 R	3 R	0.074 J	14,000
BENZENE	**3.8**	**11**	< 0.006 U	0.64
ETHYLBENZENE	64	42	< 0.006 U	400
ISOPROPYLBENZENE	6.6	3.2	0.006 R	570
N-PROPYLBENZENE	29	13	< 0.006 U	240
NAPHTHALENE	1 J	**9.3**	< 0.006 U	1.7 *
PARA-ISOPROPYL TOLUENE	< 1.7 U	2.7 J	< 0.006 U	NC
SEC-BUTYLBENZENE	3.4	< 3 U	< 0.006 U	220
TOLUENE	< 1.7 U	0.74 J	0.005 J	520
XYLENE (TOTAL)	< 1.7 U	98	< 0.006 U	270
Petroleum Hydrocarbons (mg/kg)				
Diesel/Motor Oil Range (extractables)				
DIESEL RANGE ORGANICS	< 8 U	300 Y	< 8 U	NC
MOTOR OIL RANGE ORGANICS	< 8 U	< 38 U	< 8 U	NC
Gasoline Range (purgeables)				
GASOLINE RANGE ORGANICS	100,000 Y	120,000 Y	1 Y	NC
Semivolatile Organic Compounds (mg/kg)				
2,4-DIMETHYLPHENOL	< 0.41 U	< 0.38 U	< 0.4 U	1,200
2-METHYLNAPHTHALENE	0.033 J	22	0.035 J	NC
4-METHYLPHENOL	< 0.41 U	< 0.38 U	< 0.4 U	310
ACENAPHTHENE	< 0.41 U	0.18 J	< 0.4 U	3,700
ANTHRACENE	< 0.41 U	0.063 J	< 0.4 U	22,000
DIBENZOFURAN	< 0.41 U	0.056 J	< 0.4 U	150
FLUORANTHENE	< 0.41 U	0.058 J	< 0.4 U	2,300
FLUORENE	< 0.41 U	0.28 J	< 0.4 U	2,700
NAPHTHALENE	0.15 J	**35**	0.066 J	1.7 *
PHENANTHRENE	< 0.41 U	0.43	< 0.4 U	NC
PYRENE	< 0.41 U	0.082 J	< 0.4 U	2,300
Organic Lead (mg/kg)				
ORGANIC LEAD	< 0.64 U	< 0.5 U	< 0.67 U	NC

TABLE 19-2: ANALYTICAL RESULTS FOR IRP SITE 20 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Notes: Categories of analyses are shown, but only detected compounds are presented. Analyte results in boldface type exceed EPA residential soil PRGs.

*	California modified PRGs
D	Chromatographic pattern resembles diesel.
ID	Identification
J	Estimated value
mg/kg	Milligrams per kilogram
NC	No criteria
PRG	Preliminary remediation goals
R	Result rejected during quality assurance review.
U	Nondetected
Y	Chromatographic pattern resembles hydrocarbon fuel pattern and was quantitated using the standard it resembled most.

TABLE 19-3: ANALYTICAL RESULTS FOR IRP SITE 20 GROUNDWATER SAMPLES

Site Management Plan, CBC Port Hueneme

Sample Location ID	FD001-W01	S20-CP-030	S20-CP-031	S20-CP-032	S20-CP-033	S20-CP-051	S20MW01	EPA Tap Water PRGs
Sample ID	225FD001-W01	225CP030-W01	225CP031-W01	225CP032-W01	225CP033-W01	225CP051-W01	08797052002BJ	
Sample Date	08/12/1999	08/12/1999	08/12/1999	08/12/1999	08/12/1999	08/12/1999	05/20/1997	
Volatile Organic Compounds (µg/L)								
1,2,4-TRIMETHYLBENZENE	< 5 U	< 5 U	**2,000**	< 5 U	< 5 U	< 5 U	NA	12
1,2-DICHLOROETHANE	< 5 U	< 5 U	**39 J**	< 5 U	< 5 U	< 5 U	< 10 U	0.12
1,3,5-TRIMETHYLBENZENE	< 5 U	< 5 U	**740**	< 5 U	< 5 U	< 5 U	NA	12
2-HEXANONE	< 5 UJ	< 5 UJ	< 140 UJ	< 5 UJ	< 5 UJ	< 5 UJ	< 10 U	NC
ACETONE	8 R	10 R	1,600 R	7 R	15 R	12 R	< 10 UJ	5,500
BENZENE	< 5 U	< 5 U	**1,800**	< 5 U	< 5 U	< 5 U	< 10 U	0.35
BROMODICHLOROMETHANE	< 5 U	< 5 U	< 140 U	< 5 U	< 5 U	< 5 U	< 10 U	0.18
CARBON DISULFIDE	< 5 U	< 5 U	< 140 U	< 5 U	< 5 U	< 5 U	< 10 U	1,000
CHLOROBENZENE	< 5 U	< 5 U	< 140 U	< 5 U	< 5 U	< 5 U	< 10 U	110
CHLOROFORM	< 5 U	< 5 U	< 140 U	< 5 U	< 5 U	< 5 U	< 10 U	0.17
DIBROMOCHLOROMETHANE	< 5 U	< 5 U	< 140 U	< 5 U	< 5 U	< 5 U	< 10 U	0.13
ETHYLBENZENE	< 5 U	< 5 U	**3,700**	< 5 U	< 5 U	1 J	< 10 U	1,300
ISOPROPYLBENZENE	< 5 U	< 5 U	150	< 5 U	< 5 U	< 5 U	NA	660
METHYL TERTIARY BUTYLETHER	< 5 U	< 5 U	< 140 U	< 5 U	< 5 U	< 5 U	< 10 U	6.2
N-PROPYLBENZENE	< 5 U	< 5 U	**490**	< 5 U	< 5 U	< 5 U	NA	240
NAPHTHALENE	< 5 U	< 5 U	**230**	< 5 U	< 5 U	< 5 U	NA	0.093 *
STYRENE	< 5 U	< 5 U	< 140 U	< 5 U	< 5 U	< 5 U	< 10 U	1,600
TETRACHLOROETHENE	< 5 U	< 5 U	< 140 U	< 5 U	< 5 U	< 5 U	< 10 U	0.10
TOLUENE	3 J	< 5 U	< 140 U	2 J	< 5 U	10	< 10 U	720
TRICHLOROETHENE	< 5 U	< 5 U	< 140 U	< 5 U	< 5 U	< 5 U	< 10 U	0.028
XYLENE (TOTAL)	2 J	< 5 U	**890**	2 J	< 5 U	4 J	< 10 U	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	< 0.1 U	< 0.1 U	26 Y	< 0.1 U	< 0.1 U	0.2 Y	< 0.1 U	NC
MOTOR OIL RANGE ORGANICS	0.2 Y	0.2 Y	< 2 U	0.4 Y	0.1 Y	0.2 Y	< 0.52 U	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	< 0.05 U	< 0.05 U	24 Y	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	NC
Semivolatile Organic Compounds (µg/L)								
2-METHYLNAPHTHALENE	NA	< 14 U	70	< 10 U	< 10 U	< 12 U	< 10 U	NC
4-NITROPHENOL	NA	< 36 U	< 28 U	26 R	< 25 U	< 31 U	< 25 U	NC
FLUORENE	NA	< 14 U	0.9 J	< 10 U	< 10 U	< 12 U	< 10 U	240
NAPHTHALENE	NA	< 14 U	**240**	< 10 U	< 10 U	< 12 U	< 10 U	0.093 *

TABLE 19-3: ANALYTICAL RESULTS FOR IRP SITE 20 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	FD001-W01	S20-CP-030	S20-CP-031	S20-CP-032	S20-CP-033	S20-CP-051	S20MW01	EPA Tap Water PRGs
Sample ID	225FD001-W01	225CP030-W01	225CP031-W01	225CP032-W01	225CP033-W01	225CP051-W01	08797052002BJ	
Sample Date	08/12/1999	08/12/1999	08/12/1999	08/12/1999	08/12/1999	08/12/1999	05/20/1997	
Semivolatile Organic Compounds (µg/L)								
PHENANTHRENE	NA	< 14 U	1 J	< 10 U	< 10 U	< 12 U	< 10 U	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	NA	NA	NA	NA	NA	NA	261	36,000
ANTIMONY	NA	NA	NA	NA	NA	NA	< 1.4 U	15
ARSENIC	NA	NA	NA	NA	NA	NA	**12.4**	0.045
BARIUM	NA	NA	NA	NA	NA	NA	24.9 J	2,600
CADMIUM	NA	NA	NA	NA	NA	NA	< 0.13 U	18
CALCIUM	NA	NA	NA	NA	NA	NA	347,000	NC
CHROMIUM	NA	NA	NA	NA	NA	NA	< 0.27 U	NC
COBALT	NA	NA	NA	NA	NA	NA	< 0.63 UJ	730
COPPER	NA	NA	NA	NA	NA	NA	< 0.68 UJ	1,500
IRON	NA	NA	NA	NA	NA	NA	1,870	11,000
LEAD	NA	NA	NA	NA	NA	NA	< 1 U	NC
MAGNESIUM	NA	NA	NA	NA	NA	NA	141,000	NC
MANGANESE	NA	NA	NA	NA	NA	NA	**2,040**	880
MOLYBDENUM	NA	NA	NA	NA	NA	NA	51.6	180
NICKEL	NA	NA	NA	NA	NA	NA	< 0.89 UJ	730
POTASSIUM	NA	NA	NA	NA	NA	NA	10,500 J	NC
SELENIUM	NA	NA	NA	NA	NA	NA	2.9	180
SODIUM	NA	NA	NA	NA	NA	NA	391,000	NC
VANADIUM	NA	NA	NA	NA	NA	NA	< 1.2 UJ	260
ZINC	NA	NA	NA	NA	NA	NA	3.2 J	11,000
FIltered								
ARSENIC	NA	NA	NA	NA	NA	NA	NA	0.045
BARIUM	NA	NA	NA	NA	NA	NA	NA	2,600
CADMIUM	NA	NA	NA	NA	NA	NA	NA	18
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NC
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NC
COBALT	NA	NA	NA	NA	NA	NA	NA	730
COPPER	NA	NA	NA	NA	NA	NA	NA	1,500

TABLE 19-3: ANALYTICAL RESULTS FOR IRP SITE 20 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	FD001-W01	S20-CP-030	S20-CP-031	S20-CP-032	S20-CP-033	S20-CP-051	S20MW01	EPA Tap Water PRGs
Sample ID	225FD001-W01	225CP030-W01	225CP031-W01	225CP032-W01	225CP033-W01	225CP051-W01	08797052002BJ	
Sample Date	08/12/1999	08/12/1999	08/12/1999	08/12/1999	08/12/1999	08/12/1999	05/20/1997	
Metals (µg/L)								
FIltered								
IRON	NA	NA	NA	NA	NA	NA	NA	11,000
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NC
MANGANESE	NA	NA	NA	NA	NA	NA	NA	880
MERCURY	NA	NA	NA	NA	NA	NA	NA	NC
MOLYBDENUM	NA	NA	NA	NA	NA	NA	NA	180
NICKEL	NA	NA	NA	NA	NA	NA	NA	730
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NC
SELENIUM	NA	NA	NA	NA	NA	NA	NA	180
SODIUM	NA	NA	NA	NA	NA	NA	NA	NC
THALLIUM	NA	NA	NA	NA	NA	NA	NA	2.4
VANADIUM	NA	NA	NA	NA	NA	NA	NA	260
ZINC	NA	NA	NA	NA	NA	NA	NA	11,000
General Mineral								
CALCIUM	NA	NA	NA	NA	NA	NA	337,000	NC
IRON	NA	NA	NA	NA	NA	NA	91.5 J	11,000
MAGNESIUM	NA	NA	NA	NA	NA	NA	133,000 J	NC
POTASSIUM	NA	NA	NA	NA	NA	NA	6,890	NC
SODIUM	NA	NA	NA	NA	NA	NA	379,000	NC
Organic Lead (µg/L)								
None Detected	ND	ND	ND	ND	ND	NA	NA	NC

TABLE 19-3: ANALYTICAL RESULTS FOR IRP SITE 20 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S20MW01	S20MW01	S20MW01	S20MW02	S20MW02	S20MW03	S20MW03	
Sample ID	08797052002BJ	08797052003BJ	08797052003BJ	08797052006BJ	08797052006BJ	08797051903BJ	08797051903BJ	EPA Tap Water PRGs
Sample Date	05/20/1997	05/20/1997	05/20/1997	05/20/1997	05/20/1997	05/19/1997	05/19/1997	
Volatile Organic Compounds (µg/L)								
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	12
1,2-DICHLOROETHANE	NA	< 10 U	NA	< 10 U	NA	< 10 U	NA	0.12
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	12
2-HEXANONE	NA	< 10 U	NA	< 10 U	NA	< 10 U	NA	NC
ACETONE	NA	< 10 UJ	NA	< 10 UJ	NA	< 10 UJ	NA	5,500
BENZENE	NA	< 10 U	NA	< 10 U	NA	< 10 U	NA	0.35
BROMODICHLOROMETHANE	NA	< 10 U	NA	< 10 U	NA	< 10 U	NA	0.18
CARBON DISULFIDE	NA	< 10 U	NA	< 10 U	NA	< 10 U	NA	1,000
CHLOROBENZENE	NA	< 10 U	NA	< 10 U	NA	< 10 U	NA	110
CHLOROFORM	NA	< 10 U	NA	< 10 U	NA	< 10 U	NA	0.17
DIBROMOCHLOROMETHANE	NA	< 10 U	NA	< 10 U	NA	< 10 U	NA	0.13
ETHYLBENZENE	NA	< 10 U	NA	< 10 U	NA	< 10 U	NA	1,300
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	660
METHYL TERTIARY BUTYLETHER	NA	< 10 U	NA	< 10 U	NA	< 10 U	NA	6.2
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	240
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	0.093 *
STYRENE	NA	< 10 U	NA	< 10 U	NA	< 10 U	NA	1,600
TETRACHLOROETHENE	NA	< 10 U	NA	< 10 U	NA	< 10 U	NA	0.10
TOLUENE	NA	< 10 U	NA	< 10 U	NA	< 10 U	NA	720
TRICHLOROETHENE	NA	< 10 U	NA	< 10 U	NA	< 10 U	NA	0.028
XYLENE (TOTAL)	NA	< 10 U	NA	< 10 U	NA	< 10 U	NA	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	< 0.1 U	NA	< 0.1 U	NA	< 0.1 U	NA	NC
MOTOR OIL RANGE ORGANICS	NA	< 0.52 U	NA	< 0.5 U	NA	< 0.5 U	NA	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	< 0.05 U	NA	< 0.05 U	NA	< 0.05 U	NA	NC
Semivolatile Organic Compounds (µg/L)								
2-METHYLNAPHTHALENE	NA	< 10 U	NA	< 10 U	NA	< 10 U	NA	NC
4-NITROPHENOL	NA	< 25 U	NA	< 25 U	NA	< 25 U	NA	NC
FLUORENE	NA	< 10 U	NA	< 10 U	NA	< 10 U	NA	240
NAPHTHALENE	NA	< 10 U	NA	< 10 U	NA	< 10 U	NA	0.093 *

TABLE 19-3: ANALYTICAL RESULTS FOR IRP SITE 20 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S20MW01	S20MW01	S20MW01	S20MW02	S20MW02	S20MW03	S20MW03	
Sample ID	08797052002BJ	08797052003BJ	08797052003BJ	08797052006BJ	08797052006BJ	08797051903BJ	08797051903BJ	EPA Tap Water PRGs
Sample Date	05/20/1997	05/20/1997	05/20/1997	05/20/1997	05/20/1997	05/19/1997	05/19/1997	
Semivolatile Organic Compounds (µg/L)								
PHENANTHRENE	NA	< 10 U	NA	< 10 U	NA	< 10 U	NA	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	NA	362	NA	1,390	NA	3,520 J	NA	36,000
ANTIMONY	NA	2.9 J	NA	2.2 J	NA	< 1.4 UJ	NA	15
ARSENIC	NA	**15.4**	NA	**9.3**	NA	**8.1 J**	NA	0.045
BARIUM	NA	32.8 J	NA	61.7 J	NA	41.4 J	NA	2,600
CADMIUM	NA	< 0.13 U	NA	< 0.31 UJ	NA	2.5 J	NA	18
CALCIUM	NA	349,000	NA	247,000	NA	251,000 J	NA	NC
CHROMIUM	NA	< 0.27 U	NA	< 2.3 UJ	NA	< 4.1 UJ	NA	NC
COBALT	NA	< 0.8 UJ	NA	< 0.97 UJ	NA	1.8 J	NA	730
COPPER	NA	< 0.4 U	NA	5.3 J	NA	7.8 J	NA	1,500
IRON	NA	2,390	NA	4,400	NA	5,890 J	NA	11,000
LEAD	NA	< 1 U	NA	< 1 U	NA	1.4 J	NA	NC
MAGNESIUM	NA	148,000	NA	146,000	NA	155,000 J	NA	NC
MANGANESE	NA	**2,620**	NA	**1,380**	NA	**2,630 J**	NA	880
MOLYBDENUM	NA	53.8	NA	48.3	NA	48.5 J	NA	180
NICKEL	NA	< 0.77 U	NA	< 1.8 UJ	NA	< 0.77 UJ	NA	730
POTASSIUM	NA	11,800 J	NA	9,570 J	NA	7,800 J	NA	NC
SELENIUM	NA	< 1.4 U	NA	< 1.4 U	NA	< 1.4 UJ	NA	180
SODIUM	NA	396,000	NA	398,000	NA	436,000 J	NA	NC
VANADIUM	NA	3.4 J	NA	4.5 J	NA	10.8 J	NA	260
ZINC	NA	6.7	NA	29.4	NA	75 J	NA	11,000
FIltered								
ARSENIC	< 5.6 UJ	NA	< 4 UJ	NA	< 5.8 UJ	NA	< 7 UJ	0.045
BARIUM	18.7 J	NA	17.8 J	NA	54.9 J	NA	19.2 J	2,600
CADMIUM	< 0.13 U	NA	< 0.13 U	NA	< 0.13 U	NA	0.81 J	18
CALCIUM	343,000	NA	341,000	NA	255,000	NA	247,000	NC
CHROMIUM	< 0.27 U	NA	< 0.27 U	NA	< 0.27 U	NA	0.55 J	NC
COBALT	0.45 J	NA	< 0.4 U	NA	< 0.4 U	NA	1.1 J	730
COPPER	< 0.4 U	NA	< 0.4 U	NA	< 0.4 U	NA	< 0.4 U	1,500

TABLE 19-3: ANALYTICAL RESULTS FOR IRP SITE 20 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S20MW01	S20MW01	S20MW01	S20MW02	S20MW02	S20MW03	S20MW03	
Sample ID	08797052002BJ	08797052003BJ	08797052003BJ	08797052006BJ	08797052006BJ	08797051903BJ	08797051903BJ	EPA Tap Water PRGs
Sample Date	05/20/1997	05/20/1997	05/20/1997	05/20/1997	05/20/1997	05/19/1997	05/19/1997	
Metals (µg/L)								
FIltered								
IRON	808	NA	777	NA	1,060	NA	384	11,000
MAGNESIUM	154,000	NA	146,000	NA	157,000	NA	159,000	NC
MANGANESE	**1,580**	NA	**1,500**	NA	**1,230**	NA	**1,470**	880
MERCURY	< 0.1 UJ	NA	< 0.1 UJ	NA	< 0.1 UJ	NA	< 0.1 UJ	NC
MOLYBDENUM	55.8	NA	51.9	NA	53.1	NA	47.7	180
NICKEL	< 0.77 U	NA	< 0.77 U	NA	< 0.77 U	NA	< 0.77 U	730
POTASSIUM	11,900 J	NA	11,400 J	NA	9,480 J	NA	8,680 J	NC
SELENIUM	< 1.4 U	NA	< 2.6 UJ	NA	< 1.4 U	NA	< 2.8 UJ	180
SODIUM	368,000	NA	369,000	NA	385,000	NA	400,000	NC
THALLIUM	< 1.4 UJ	NA	< 1.4 UJ	NA	< 1.4 UJ	NA	< 1.4 UJ	2.4
VANADIUM	< 0.5 U	NA	< 0.5 U	NA	< 0.5 U	NA	< 0.5 U	260
ZINC	< 0.92 UJ	NA	< 1.1 UJ	NA	4.4 J	NA	8.8	11,000
General Mineral								
CALCIUM	NA	357,000	NA	262,000	NA	276,000	NA	NC
IRON	NA	100 J	NA	146 J	NA	115 J	NA	11,000
MAGNESIUM	NA	141,000 J	NA	144,000 J	NA	160,000 J	NA	NC
POTASSIUM	NA	7,840	NA	4,890	NA	5,430	NA	NC
SODIUM	NA	406,000	NA	415,000	NA	472,000	NA	NC
Organic Lead (µg/L)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 19-3: ANALYTICAL RESULTS FOR IRP SITE 20 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S20MW05	S20MW05	S20MW06	S20MW06	S20MW07	S20MW07	S20MW07	EPA Tap Water PRGs
Sample ID	08797052005BJ	08797052005BJ	08797051907BJ	08797051907BJ	08797052001BJ	08797052001BJ	08797101506B	
Sample Date	05/20/1997	05/20/1997	05/19/1997	05/19/1997	05/20/1997	05/20/1997	10/15/1997	
Volatile Organic Compounds (µg/L)								
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	12
1,2-DICHLOROETHANE	< 10 U	NA	< 10 U	NA	< 10 U	NA	< 0.5 U	0.12
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	12
2-HEXANONE	< 10 UJ	NA	< 10 U	NA	< 10 U	NA	< 1 U	NC
ACETONE	< 10 U	NA	< 10 UJ	NA	< 10 UJ	NA	1 R	5,500
BENZENE	< 10 U	NA	**1 J**	NA	< 10 U	NA	< 0.5 U	0.35
BROMODICHLOROMETHANE	< 10 U	NA	< 10 U	NA	< 10 U	NA	< 1 U	0.18
CARBON DISULFIDE	< 10 U	NA	< 10 U	NA	< 10 U	NA	< 1 U	1,000
CHLOROBENZENE	< 10 U	NA	< 10 U	NA	< 10 U	NA	< 1 U	110
CHLOROFORM	< 10 U	NA	< 10 U	NA	< 10 U	NA	< 1 U	0.17
DIBROMOCHLOROMETHANE	< 10 U	NA	< 10 U	NA	< 10 U	NA	< 1 U	0.13
ETHYLBENZENE	< 10 U	NA	< 10 U	NA	< 10 U	NA	< 1 U	1,300
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	660
METHYL TERTIARY BUTYLETHER	< 10 U	NA	< 10 U	NA	< 10 U	NA	< 1 U	6.2
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	240
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	0.093 *
STYRENE	< 10 U	NA	< 10 U	NA	< 10 U	NA	< 1 U	1,600
TETRACHLOROETHENE	< 10 U	NA	< 10 U	NA	< 10 U	NA	< 1 U	0.10
TOLUENE	< 10 U	NA	< 10 U	NA	< 10 U	NA	< 1 U	720
TRICHLOROETHENE	< 10 U	NA	< 10 U	NA	< 10 U	NA	< 1 U	0.028
XYLENE (TOTAL)	< 10 U	NA	< 10 U	NA	< 10 U	NA	< 1 U	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	0.14	NA	< 0.1 U	NA	< 0.1 U	NA	< 0.1 U	NC
MOTOR OIL RANGE ORGANICS	< 0.51 U	NA	< 0.5 U	NA	< 0.51 U	NA	< 0.5 U	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	< 0.05 U	NA	< 0.05 U	NA	< 0.05 U	NA	< 0.05 UJ	NC
Semivolatile Organic Compounds (µg/L)								
2-METHYLNAPHTHALENE	< 10 U	NA	< 10 U	NA	< 10 U	NA	< 10 U	NC
4-NITROPHENOL	< 25 U	NA	< 25 U	NA	< 25 U	NA	< 25 U	NC
FLUORENE	< 10 U	NA	< 10 U	NA	< 10 U	NA	< 10 U	240
NAPHTHALENE	< 10 U	NA	< 10 U	NA	< 10 U	NA	< 10 U	0.093 *

TABLE 19-3: ANALYTICAL RESULTS FOR IRP SITE 20 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S20MW05	S20MW05	S20MW06	S20MW06	S20MW07	S20MW07	S20MW07	EPA Tap Water PRGs
Sample ID	08797052005BJ	08797052005BJ	08797051907BJ	08797051907BJ	08797052001BJ	08797052001BJ	08797101506B	
Sample Date	05/20/1997	05/20/1997	05/19/1997	05/19/1997	05/20/1997	05/20/1997	10/15/1997	
Semivolatile Organic Compounds (µg/L)								
PHENANTHRENE	< 10 U	NA	< 10 U	NA	< 10 U	NA	< 10 U	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	939	NA	170 J	NA	4,300	NA	NA	36,000
ANTIMONY	< 1.4 U	NA	< 1.4 UJ	NA	3.3 J	NA	NA	15
ARSENIC	**11.9**	NA	**8.2 J**	NA	< 7.1 UJ	NA	NA	0.045
BARIUM	35.3 J	NA	35.4 J	NA	47.2 J	NA	NA	2,600
CADMIUM	< 1.7 UJ	NA	< 0.18 UJ	NA	1.3 J	NA	NA	18
CALCIUM	251,000	NA	225,000 J	NA	213,000	NA	NA	NC
CHROMIUM	1.4 J	NA	< 0.27 UJ	NA	6	NA	NA	NC
COBALT	< 0.92 UJ	NA	< 0.4 UJ	NA	3.3 J	NA	NA	730
COPPER	3.3 J	NA	1.1 J	NA	15.6	NA	NA	1,500
IRON	3,740	NA	4,900 J	NA	6,810	NA	NA	11,000
LEAD	< 1 U	NA	< 1 UJ	NA	< 4.1 UJ	NA	NA	NC
MAGNESIUM	126,000	NA	121,000 J	NA	149,000	NA	NA	NC
MANGANESE	**1,250**	NA	827 J	NA	**4,890**	NA	NA	880
MOLYBDENUM	40.4	NA	46.8 J	NA	61.5	NA	NA	180
NICKEL	< 1.6 UJ	NA	< 0.77 UJ	NA	7.5 J	NA	NA	730
POTASSIUM	11,400 J	NA	9,130 J	NA	7,020 J	NA	NA	NC
SELENIUM	< 1.4 U	NA	< 1.4 UJ	NA	1.8	NA	NA	180
SODIUM	340,000	NA	413,000 J	NA	378,000	NA	NA	NC
VANADIUM	< 3 UJ	NA	0.9 J	NA	16 J	NA	NA	260
ZINC	40.2	NA	< 2.7 UJ	NA	32.7	NA	NA	11,000
FIltered								
ARSENIC	NA	**9.3**	NA	< 2.5 UJ	NA	< 2.4 UJ	**3.5 J**	0.045
BARIUM	NA	26.6 J	NA	32.6 J	NA	8.8 J	13.5 J	2,600
CADMIUM	NA	0.76 J	NA	< 0.13 U	NA	0.3 J	< 0.2 U	18
CALCIUM	NA	263,000	NA	224,000	NA	227,000	NA	NC
CHROMIUM	NA	< 0.27 U	NA	< 0.27 U	NA	< 0.27 U	< 0.45 U	NC
COBALT	NA	< 0.4 U	NA	< 0.4 U	NA	< 0.4 U	< 0.65 U	730
COPPER	NA	< 0.4 U	NA	< 0.4 U	NA	13.2	< 1.9 UJ	1,500

TABLE 19-3: ANALYTICAL RESULTS FOR IRP SITE 20 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S20MW05	S20MW05	S20MW06	S20MW06	S20MW07	S20MW07	S20MW07	EPA Tap Water PRGs
Sample ID	08797052005BJ	08797052005BJ	08797051907BJ	08797051907BJ	08797052001BJ	08797052001BJ	08797101506B	
Sample Date	05/20/1997	05/20/1997	05/19/1997	05/19/1997	05/20/1997	05/20/1997	10/15/1997	
Metals (µg/L)								
FIltered								
IRON	NA	1,930	NA	1,830	NA	231	NA	11,000
MAGNESIUM	NA	135,000	NA	131,000	NA	165,000	NA	NC
MANGANESE	NA	**1,060**	NA	855	NA	**1,070**	**1,690**	880
MERCURY	NA	< 0.1 UJ	NA	< 0.1 UJ	NA	< 0.1 UJ	0.3	NC
MOLYBDENUM	NA	44.2	NA	44.3	NA	56.5	55.4	180
NICKEL	NA	< 0.77 U	NA	< 0.77 U	NA	1.7 J	< 1.6 UJ	730
POTASSIUM	NA	12,200 J	NA	11,800 J	NA	6,590 J	NA	NC
SELENIUM	NA	< 1.4 U	NA	< 1.4 U	NA	< 2.3 UJ	< 2 U	180
SODIUM	NA	339,000	NA	349,000	NA	364,000	NA	NC
THALLIUM	NA	< 1.4 UJ	NA	< 1.4 UJ	NA	< 1.4 UJ	< 3 U	2.4
VANADIUM	NA	< 0.5 U	NA	0.82 J	NA	2.1 J	1.3 J	260
ZINC	NA	18.8	NA	< 1.1 UJ	NA	8.2	6.4 J	11,000
General Mineral								
CALCIUM	265,000	NA	239,000	NA	213,000	NA	231,000	NC
IRON	118 J	NA	255 J	NA	35.8 J	NA	174 J	11,000
MAGNESIUM	124,000 J	NA	126,000 J	NA	142,000 J	NA	155,000	NC
POTASSIUM	8,500	NA	7,450	NA	4,250	NA	5,360 J	NC
SODIUM	357,000	NA	378,000	NA	376,000	NA	430,000	NC
Organic Lead (µg/L)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 19-3: ANALYTICAL RESULTS FOR IRP SITE 20 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S20MW07	S20MW07	S20MW08	S20MW08	S20MW09	S20MW09	S20MW09	
Sample ID	08798012233D	08798040106W	08797052004BJ	08797052004BJ	08797051901BJ	08797051901BJ	08797051902BJ	EPA Tap Water PRGs
Sample Date	01/22/1998	04/01/1998	05/20/1997	05/20/1997	05/19/1997	05/19/1997	05/19/1997	
Volatile Organic Compounds (µg/L)								
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	12
1,2-DICHLOROETHANE	< 0.5 U	< 0.5 U	< 10 U	NA	< 10 U	NA	< 10 U	0.12
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	12
2-HEXANONE	< 1 U	< 1 UJ	< 10 U	NA	< 10 U	NA	< 10 U	NC
ACETONE	< 1 U	6	< 10 UJ	NA	< 10 UJ	NA	< 10 UJ	5,500
BENZENE	< 0.5 U	< 0.5 U	< 10 U	NA	< 10 U	NA	< 10 U	0.35
BROMODICHLOROMETHANE	< 1 U	< 1 U	< 10 U	NA	< 10 U	NA	< 10 U	0.18
CARBON DISULFIDE	< 1 U	< 1 U	< 10 U	NA	< 10 U	NA	< 10 U	1,000
CHLOROBENZENE	< 1 U	< 1 U	< 10 U	NA	< 10 U	NA	< 10 U	110
CHLOROFORM	< 1 U	< 1 UJ	< 10 U	NA	< 10 U	NA	< 10 U	0.17
DIBROMOCHLOROMETHANE	< 1 U	< 1 U	< 10 U	NA	< 10 U	NA	< 10 U	0.13
ETHYLBENZENE	< 1 U	< 1 U	< 10 U	NA	< 10 U	NA	< 10 U	1,300
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	660
METHYL TERTIARY BUTYLETHER	< 1 U	< 1 U	< 10 U	NA	**10 J**	NA	< 10 U	6.2
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	240
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	0.093 *
STYRENE	< 1 U	< 1 U	< 10 U	NA	< 10 U	NA	< 10 U	1,600
TETRACHLOROETHENE	< 1 U	< 1 U	< 10 U	NA	< 10 U	NA	< 10 U	0.10
TOLUENE	< 1 U	< 1 U	< 10 U	NA	< 10 U	NA	< 10 U	720
TRICHLOROETHENE	< 1 U	< 1 U	< 10 U	NA	< 10 U	NA	< 10 U	0.028
XYLENE (TOTAL)	< 1 U	< 1 U	< 10 U	NA	< 10 U	NA	< 10 U	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	< 0.1 U	< 0.1 U	< 0.1 U	NA	< 0.1 U	NA	< 0.1 U	NC
MOTOR OIL RANGE ORGANICS	< 0.5 U	< 0.6 U	< 0.53 U	NA	< 0.5 U	NA	< 0.5 U	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	< 0.05 U	< 0.05 U	< 0.05 U	NA	< 0.05 U	NA	< 0.05 U	NC
Semivolatile Organic Compounds (µg/L)								
2-METHYLNAPHTHALENE	< 10 U	< 10 U	< 10 U	NA	< 10 UJ	NA	< 10 U	NC
4-NITROPHENOL	< 25 U	< 26 U	< 25 U	NA	< 25 U	NA	< 25 U	NC
FLUORENE	< 10 U	< 10 U	< 10 U	NA	< 10 U	NA	< 10 U	240
NAPHTHALENE	< 10 U	< 10 U	< 10 U	NA	< 10 U	NA	< 10 U	0.093 *

TABLE 19-3: ANALYTICAL RESULTS FOR IRP SITE 20 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S20MW07	S20MW07	S20MW08	S20MW08	S20MW09	S20MW09	S20MW09	EPA Tap Water PRGs
Sample ID	08798012233D	08798040106W	08797052004BJ	08797052004BJ	08797051901BJ	08797051901BJ	08797051902BJ	
Sample Date	01/22/1998	04/01/1998	05/20/1997	05/20/1997	05/19/1997	05/19/1997	05/19/1997	
Semivolatile Organic Compounds (µg/L)								
PHENANTHRENE	< 10 U	< 10 U	< 10 U	NA	< 10 U	NA	< 10 U	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	NA	NA	< 28.7 UJ	NA	< 67.2 UJ	NA	< 53 UJ	36,000
ANTIMONY	NA	NA	< 1.4 U	NA	< 1.4 UJ	NA	< 1.4 UJ	15
ARSENIC	NA	NA	**23.1**	NA	**26.1 J**	NA	**24.2 J**	0.045
BARIUM	NA	NA	29.7 J	NA	44.1 J	NA	44.4 J	2,600
CADMIUM	NA	NA	< 0.13 U	NA	< 0.13 UJ	NA	< 0.18 UJ	18
CALCIUM	NA	NA	308,000	NA	208,000 J	NA	229,000 J	NC
CHROMIUM	NA	NA	< 0.27 U	NA	< 0.27 UJ	NA	< 0.27 UJ	NC
COBALT	NA	NA	< 0.4 U	NA	< 0.4 UJ	NA	< 0.4 UJ	730
COPPER	NA	NA	< 0.4 U	NA	0.72 J	NA	< 0.4 UJ	1,500
IRON	NA	NA	7,920	NA	6,560 J	NA	6,580 J	11,000
LEAD	NA	NA	< 1 U	NA	< 1 UJ	NA	< 1 UJ	NC
MAGNESIUM	NA	NA	133,000	NA	160,000 J	NA	162,000 J	NC
MANGANESE	NA	NA	**1,120**	NA	**1,100 J**	NA	**1,130 J**	880
MOLYBDENUM	NA	NA	45	NA	44.1 J	NA	44 J	180
NICKEL	NA	NA	< 0.77 U	NA	< 0.77 UJ	NA	< 0.77 UJ	730
POTASSIUM	NA	NA	13,600 J	NA	17,500 J	NA	15,500 J	NC
SELENIUM	NA	NA	3.5	NA	< 1.4 UJ	NA	< 1.4 UJ	180
SODIUM	NA	NA	324,000	NA	456,000 J	NA	428,000 J	NC
VANADIUM	NA	NA	< 0.5 U	NA	0.62 J	NA	< 0.5 UJ	260
ZINC	NA	NA	3.7 J	NA	< 4.7 UJ	NA	< 5.5 UJ	11,000
FIltered								
ARSENIC	**3.7 J**	< 1.8 U	NA	**10**	NA	**9.2**	NA	0.045
BARIUM	10.7 J	14 J	NA	24.1 J	NA	33 J	NA	2,600
CADMIUM	< 0.15 U	< 0.25 UJ	NA	< 0.13 U	NA	< 0.13 U	NA	18
CALCIUM	NA	NA	NA	307,000	NA	237,000	NA	NC
CHROMIUM	< 0.55 U	< 0.45 U	NA	< 0.27 U	NA	< 0.4 U	NA	NC
COBALT	< 0.85 U	< 0.7 U	NA	0.47 J	NA	< 0.6 U	NA	730
COPPER	1.3 J	< 0.6 U	NA	< 0.44 UJ	NA	< 0.4 U	NA	1,500

TABLE 19-3: ANALYTICAL RESULTS FOR IRP SITE 20 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S20MW07	S20MW07	S20MW08	S20MW08	S20MW09	S20MW09	S20MW09	
Sample ID	08798012233D	08798040106W	08797052004BJ	08797052004BJ	08797051901BJ	08797051901BJ	08797051902BJ	EPA Tap Water PRGs
Sample Date	01/22/1998	04/01/1998	05/20/1997	05/20/1997	05/19/1997	05/19/1997	05/19/1997	
Metals (µg/L)								
FIltered								
IRON	NA	NA	NA	2,750	NA	3,000	NA	11,000
MAGNESIUM	NA	NA	NA	142,000	NA	170,000	NA	NC
MANGANESE	326	54.7	NA	**1,110**	NA	**1,080**	NA	880
MERCURY	< 0.2 U	< 0.1 U	NA	< 0.1 UJ	NA	< 0.1 U	NA	NC
MOLYBDENUM	55.2	60.6	NA	48.9	NA	37.2	NA	180
NICKEL	< 1 U	2.3 J	NA	0.85 J	NA	< 0.7 U	NA	730
POTASSIUM	NA	NA	NA	14,700 J	NA	14,200	NA	NC
SELENIUM	3.6	4.7 J	NA	< 1.9 UJ	NA	< 1 UJ	NA	180
SODIUM	NA	NA	NA	303,000	NA	453,000	NA	NC
THALLIUM	< 3.2 UJ	< 3.4 U	NA	< 1.4 UJ	NA	1.8 J	NA	2.4
VANADIUM	1.6 J	< 1.9 UJ	NA	0.73 J	NA	< 0.57 U	NA	260
ZINC	< 4.2 UJ	< 0.8 U	NA	< 2.2 UJ	NA	1.9 J	NA	11,000
General Mineral								
CALCIUM	266,000	441,000	309,000	NA	262,000	NA	259,000	NC
IRON	1,220	76.5 J	258 J	NA	216	NA	226 J	11,000
MAGNESIUM	185,000	293,000	128,000 J	NA	186,000	NA	179,000	NC
POTASSIUM	6,190 J	8,820 J	8,580	NA	16,300	NA	11,300	NC
SODIUM	413,000	684,000	329,000	NA	417,000 J	NA	485,000	NC
Organic Lead (µg/L)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 19-3: ANALYTICAL RESULTS FOR IRP SITE 20 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S20MW09	S20MW09	S20MW09	S20MW09	S20MW09	S20MW10	S20MW10	
Sample ID	08797051902BJ	08797101504B	08797101505B	08798011404D	08798040621W	08797051905BJ	08797051905BJ	EPA Tap Water PRGs
Sample Date	05/19/1997	10/15/1997	10/15/1997	01/14/1998	04/06/1998	05/19/1997	05/19/1997	
Volatile Organic Compounds (µg/L)								
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	12
1,2-DICHLOROETHANE	NA	**2**	**2**	**2**	**1**	**2 J**	NA	0.12
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	NA	NA	NA	12
2-HEXANONE	NA	< 1 U	< 1 U	< 1 U	< 1 UJ	3 J	NA	NC
ACETONE	NA	1 R	1 R	1 R	< 5 UJ	< 14 UJ	NA	5,500
BENZENE	NA	< 0.5 U	< 0.5 U	**12**	**9**	**4 J**	NA	0.35
BROMODICHLOROMETHANE	NA	< 1 U	< 1 U	< 1 U	< 1 U	< 10 U	NA	0.18
CARBON DISULFIDE	NA	< 1 U	< 1 U	< 1 U	< 1 U	0.9 J	NA	1,000
CHLOROBENZENE	NA	< 1 U	< 1 U	< 1 U	< 1 U	1 J	NA	110
CHLOROFORM	NA	< 1 U	< 1 U	< 1 U	< 1 U	< 10 U	NA	0.17
DIBROMOCHLOROMETHANE	NA	< 1 U	< 1 U	< 1 U	< 1 U	< 10 U	NA	0.13
ETHYLBENZENE	NA	< 1 U	< 1 U	1	0.4 J	2 J	NA	1,300
ISOPROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	660
METHYL TERTIARY BUTYLETHER	NA	0.8 J	0.7 J	< 1 U	**32 J**	< 10 U	NA	6.2
N-PROPYLBENZENE	NA	NA	NA	NA	NA	NA	NA	240
NAPHTHALENE	NA	NA	NA	NA	NA	NA	NA	0.093 *
STYRENE	NA	< 1 U	< 1 U	< 1 U	< 1 U	1 J	NA	1,600
TETRACHLOROETHENE	NA	< 1 U	< 1 U	< 1 U	< 1 U	**2 J**	NA	0.10
TOLUENE	NA	< 1 U	< 1 U	< 1 U	< 1 U	1 J	NA	720
TRICHLOROETHENE	NA	< 1 U	< 1 U	< 1 U	< 1 U	**1 J**	NA	0.028
XYLENE (TOTAL)	NA	< 1 U	< 1 U	< 1 U	12	5 J	NA	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 U	NA	NC
MOTOR OIL RANGE ORGANICS	NA	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	< 0.5 U	NA	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	< 0.05 UJ	< 0.05 UJ	< 0.05 U	0.08 Z	< 0.05 U	NA	NC
Semivolatile Organic Compounds (µg/L)								
2-METHYLNAPHTHALENE	NA	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	NA	NC
4-NITROPHENOL	NA	25 J	< 26 U	< 26 UJ	< 26 U	< 25 U	NA	NC
FLUORENE	NA	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	NA	240
NAPHTHALENE	NA	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	NA	0.093 *

TABLE 19-3: ANALYTICAL RESULTS FOR IRP SITE 20 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S20MW09	S20MW09	S20MW09	S20MW09	S20MW09	S20MW10	S20MW10	EPA Tap Water PRGs
Sample ID	08797051902BJ	08797101504B	08797101505B	08798011404D	08798040621W	08797051905BJ	08797051905BJ	
Sample Date	05/19/1997	10/15/1997	10/15/1997	01/14/1998	04/06/1998	05/19/1997	05/19/1997	
Semivolatile Organic Compounds (µg/L)								
PHENANTHRENE	NA	< 10 U	< 10 U	< 10 U	< 11 U	< 10 U	NA	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	NA	NA	NA	NA	NA	< 21 UJ	NA	36,000
ANTIMONY	NA	NA	NA	NA	NA	< 1.4 U	NA	15
ARSENIC	NA	NA	NA	NA	NA	< 3.3 UJ	NA	0.045
BARIUM	NA	NA	NA	NA	NA	24.7 J	NA	2,600
CADMIUM	NA	NA	NA	NA	NA	< 0.75 UJ	NA	18
CALCIUM	NA	NA	NA	NA	NA	224,000	NA	NC
CHROMIUM	NA	NA	NA	NA	NA	< 0.27 UJ	NA	NC
COBALT	NA	NA	NA	NA	NA	< 0.4 U	NA	730
COPPER	NA	NA	NA	NA	NA	< 1.1 UJ	NA	1,500
IRON	NA	NA	NA	NA	NA	1,480 J	NA	11,000
LEAD	NA	NA	NA	NA	NA	< 1 UJ	NA	NC
MAGNESIUM	NA	NA	NA	NA	NA	158,000	NA	NC
MANGANESE	NA	NA	NA	NA	NA	**1,040**	NA	880
MOLYBDENUM	NA	NA	NA	NA	NA	38.9	NA	180
NICKEL	NA	NA	NA	NA	NA	< 0.77 U	NA	730
POTASSIUM	NA	NA	NA	NA	NA	12,100 J	NA	NC
SELENIUM	NA	NA	NA	NA	NA	< 1.4 UJ	NA	180
SODIUM	NA	NA	NA	NA	NA	391,000 J	NA	NC
VANADIUM	NA	NA	NA	NA	NA	< 0.5 U	NA	260
ZINC	NA	NA	NA	NA	NA	86.3 J	NA	11,000
FIltered								
ARSENIC	< 7.7 UJ	**12.4**	**12.6**	< 8.8 UJ	**7.3**	NA	< 2.7 UJ	0.045
BARIUM	33.8 J	39.5 J	38.7 J	32.6 J	32.1 J	NA	23.4 J	2,600
CADMIUM	< 0.13 U	< 0.2 U	< 0.2 U	< 0.3 UJ	0.63 J	NA	< 0.13 U	18
CALCIUM	226,000	NA	NA	NA	NA	NA	240,000	NC
CHROMIUM	< 0.27 U	< 0.45 U	< 0.45 U	< 0.55 U	< 0.45 U	NA	< 0.27 U	NC
COBALT	< 0.4 U	< 0.65 U	< 0.65 U	< 0.85 U	< 0.7 U	NA	< 0.4 U	730
COPPER	< 0.4 U	< 1 UJ	< 0.64 UJ	< 1.2 U	< 0.6 U	NA	< 0.4 U	1,500

TABLE 19-3: ANALYTICAL RESULTS FOR IRP SITE 20 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S20MW09	S20MW09	S20MW09	S20MW09	S20MW09	S20MW10	S20MW10	EPA Tap Water PRGs
Sample ID	08797051902BJ	08797101504B	08797101505B	08798011404D	08798040621W	08797051905BJ	08797051905BJ	
Sample Date	05/19/1997	10/15/1997	10/15/1997	01/14/1998	04/06/1998	05/19/1997	05/19/1997	
Metals (µg/L)								
FIltered								
IRON	3,110	NA	NA	NA	NA	NA	2,720	11,000
MAGNESIUM	158,000	NA	NA	NA	NA	NA	161,000	NC
MANGANESE	**1,110**	**1,080**	**1,090**	**1,050**	**1,180**	NA	**974**	880
MERCURY	< 0.1 UJ	0.94	0.23	< 0.2 U	< 0.1 U	NA	< 0.1 UJ	NC
MOLYBDENUM	39	42.2	41.8	36.4	39.7	NA	37.5	180
NICKEL	< 0.77 U	< 0.83 UJ	< 0.52 UJ	< 1 U	< 1 UJ	NA	< 0.77 UJ	730
POTASSIUM	18,700 J	NA	NA	NA	NA	NA	12,500 J	NC
SELENIUM	< 1.4 U	< 2 U	< 2 U	< 2.4 U	< 1.6 U	NA	< 1.4 U	180
SODIUM	413,000	NA	NA	NA	NA	NA	408,000	NC
THALLIUM	< 1.4 UJ	< 3 U	< 3 U	< 3.2 UJ	< 3.4 U	NA	< 1.4 UJ	2.4
VANADIUM	< 0.5 U	< 0.6 U	< 0.6 U	< 0.8 U	< 0.75 U	NA	< 0.5 U	260
ZINC	< 1.1 UJ	< 4.5 UJ	< 3 UJ	< 5 UJ	< 5.4 UJ	NA	27 J	11,000
General Mineral								
CALCIUM	NA	248,000	252,000	241,000	244,000	253,000	NA	NC
IRON	NA	4,370	4,060	892 J	200 J	149 J	NA	11,000
MAGNESIUM	NA	175,000	178,000	172,000	176,000	162,000 J	NA	NC
POTASSIUM	NA	15,400 J	15,900 J	15,200 J	13,500 J	8,340 J	NA	NC
SODIUM	NA	478,000	458,000	425,000	514,000	447,000	NA	NC
Organic Lead (µg/L)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 19-3: ANALYTICAL RESULTS FOR IRP SITE 20 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S20MW11	S20MW11	S20MW11	S20MW11	S20MW12	S20MW13	S20MW13	EPA Tap Water PRGs
Sample ID	08797052206BJ	08797052206BJ	08797060501GD	08797060502GD	225S20MW001-	225FIELD DUP	225S20MW002-	
Sample Date	05/22/1997	05/22/1997	06/05/1997	06/05/1997	08/20/1999	08/20/1999	08/20/1999	
Volatile Organic Compounds (µg/L)								
1,2,4-TRIMETHYLBENZENE	NA	NA	NA	NA	< 5 U	< 5 U	< 5 U	12
1,2-DICHLOROETHANE	NA	NA	< 10 U	< 10 U	< 5 U	< 5 U	< 5 U	0.12
1,3,5-TRIMETHYLBENZENE	NA	NA	NA	NA	< 5 U	< 5 U	< 5 U	12
2-HEXANONE	NA	NA	< 10 U	< 10 U	< 5 UJ	< 5 UJ	< 5 UJ	NC
ACETONE	NA	NA	< 10 UJ	< 12 UJ	5 R	9 R	< 5 UJ	5,500
BENZENE	NA	NA	< 10 U	< 10 U	< 5 U	< 5 U	< 5 U	0.35
BROMODICHLOROMETHANE	NA	NA	< 10 U	< 10 U	< 5 U	< 5 U	< 5 U	0.18
CARBON DISULFIDE	NA	NA	< 10 U	< 10 U	1 J	2 J	< 5 U	1,000
CHLOROBENZENE	NA	NA	< 10 U	< 10 U	< 5 U	< 5 U	< 5 U	110
CHLOROFORM	NA	NA	< 10 U	**1 J**	< 5 U	**1 J**	**1 J**	0.17
DIBROMOCHLOROMETHANE	NA	NA	< 10 U	< 10 U	< 5 U	< 5 U	< 5 U	0.13
ETHYLBENZENE	NA	NA	< 10 U	< 10 U	< 5 U	< 5 U	< 5 U	1,300
ISOPROPYLBENZENE	NA	NA	NA	NA	5 R	5 R	5 R	660
METHYL TERTIARY BUTYLETHER	NA	NA	**10 R**	**10 R**	1 J	< 5 U	< 5 U	6.2
N-PROPYLBENZENE	NA	NA	NA	NA	< 5 U	< 5 U	< 5 U	240
NAPHTHALENE	NA	NA	NA	NA	< 5 U	< 5 U	< 5 U	0.093 *
STYRENE	NA	NA	< 10 U	< 10 U	< 5 U	< 5 U	< 5 U	1,600
TETRACHLOROETHENE	NA	NA	< 10 U	< 10 U	< 5 U	< 5 U	< 5 U	0.10
TOLUENE	NA	NA	< 10 U	< 10 U	< 5 U	< 5 U	< 5 U	720
TRICHLOROETHENE	NA	NA	< 10 U	< 10 U	< 5 U	< 5 U	< 5 U	0.028
XYLENE (TOTAL)	NA	NA	< 10 U	< 10 U	< 5 U	< 5 U	< 5 U	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	< 0.1 U	NA	NA	NA	< 0.1 U	< 0.1 U	< 0.1 U	NC
MOTOR OIL RANGE ORGANICS	< 0.5 U	NA	NA	NA	< 0.1 U	2 Y	0.2 Y	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	NA	< 0.05 U	< 0.05 U	0.05 Y	< 0.05 U	< 0.05 U	NC
Semivolatile Organic Compounds (µg/L)								
2-METHYLNAPHTHALENE	< 10 U	NA	NA	NA	< 10 U	< 10 U	< 10 U	NC
4-NITROPHENOL	< 25 UJ	NA	NA	NA	< 26 U	< 26 U	< 26 U	NC
FLUORENE	< 10 U	NA	NA	NA	< 10 U	< 10 U	< 10 U	240
NAPHTHALENE	< 10 U	NA	NA	NA	< 10 U	< 10 U	< 10 U	0.093 *

TABLE 19-3: ANALYTICAL RESULTS FOR IRP SITE 20 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S20MW11	S20MW11	S20MW11	S20MW11	S20MW12	S20MW13	S20MW13	EPA Tap Water PRGs
Sample ID	08797052206BJ	08797052206BJ	08797060501GD	08797060502GD	225S20MW001-	225FIELD DUP	225S20MW002-	
Sample Date	05/22/1997	05/22/1997	06/05/1997	06/05/1997	08/20/1999	08/20/1999	08/20/1999	
Semivolatile Organic Compounds (µg/L)								
PHENANTHRENE	< 10 U	NA	NA	NA	< 10 U	< 10 U	< 10 U	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	3,600	NA	NA	NA	NA	NA	NA	36,000
ANTIMONY	< 1.4 U	NA	NA	NA	NA	NA	NA	15
ARSENIC	**21.7**	NA	NA	NA	NA	NA	NA	0.045
BARIUM	60.1 J	NA	NA	NA	NA	NA	NA	2,600
CADMIUM	1.3 J	NA	NA	NA	NA	NA	NA	18
CALCIUM	291,000	NA	NA	NA	NA	NA	NA	NC
CHROMIUM	4.3	NA	NA	NA	NA	NA	NA	NC
COBALT	3.1 J	NA	NA	NA	NA	NA	NA	730
COPPER	9.2	NA	NA	NA	NA	NA	NA	1,500
IRON	**13,100**	NA	NA	NA	NA	NA	NA	11,000
LEAD	< 1 U	NA	NA	NA	NA	NA	NA	NC
MAGNESIUM	133,000	NA	NA	NA	NA	NA	NA	NC
MANGANESE	**6,070**	NA	NA	NA	NA	NA	NA	880
MOLYBDENUM	44.1	NA	NA	NA	NA	NA	NA	180
NICKEL	< 6.7 UJ	NA	NA	NA	NA	NA	NA	730
POTASSIUM	7,980 J	NA	NA	NA	NA	NA	NA	NC
SELENIUM	2.2	NA	NA	NA	NA	NA	NA	180
SODIUM	331,000	NA	NA	NA	NA	NA	NA	NC
VANADIUM	13.5 J	NA	NA	NA	NA	NA	NA	260
ZINC	21.8	NA	NA	NA	NA	NA	NA	11,000
FIltered								
ARSENIC	NA	< 1 U	NA	NA	NA	NA	NA	0.045
BARIUM	NA	17.7 J	NA	NA	NA	NA	NA	2,600
CADMIUM	NA	0.16 J	NA	NA	NA	NA	NA	18
CALCIUM	NA	202,000	NA	NA	NA	NA	NA	NC
CHROMIUM	NA	< 0.27 U	NA	NA	NA	NA	NA	NC
COBALT	NA	< 0.4 U	NA	NA	NA	NA	NA	730
COPPER	NA	< 0.55 UJ	NA	NA	NA	NA	NA	1,500

TABLE 19-3: ANALYTICAL RESULTS FOR IRP SITE 20 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S20MW11	S20MW11	S20MW11	S20MW11	S20MW12	S20MW13	S20MW13	
Sample ID	08797052206BJ	08797052206BJ	08797060501GD	08797060502GD	225S20MW001-	225FIELD DUP	225S20MW002-	
Sample Date	05/22/1997	05/22/1997	06/05/1997	06/05/1997	08/20/1999	08/20/1999	08/20/1999	EPA Tap Water PRGs
Metals (µg/L)								
FIltered								
IRON	NA	87.3 J	NA	NA	NA	NA	NA	11,000
MAGNESIUM	NA	144,000	NA	NA	NA	NA	NA	NC
MANGANESE	NA	**2,770**	NA	NA	NA	NA	NA	880
MERCURY	NA	< 0.1 U	NA	NA	NA	NA	NA	NC
MOLYBDENUM	NA	51	NA	NA	NA	NA	NA	180
NICKEL	NA	0.93 J	NA	NA	NA	NA	NA	730
POTASSIUM	NA	8,020 J	NA	NA	NA	NA	NA	NC
SELENIUM	NA	< 1.4 UJ	NA	NA	NA	NA	NA	180
SODIUM	NA	194,000	NA	NA	NA	NA	NA	NC
THALLIUM	NA	< 1.4 U	NA	NA	NA	NA	NA	2.4
VANADIUM	NA	< 0.5 U	NA	NA	NA	NA	NA	260
ZINC	NA	< 2.7 UJ	NA	NA	NA	NA	NA	11,000
General Mineral								
CALCIUM	322,000	NA	NA	NA	NA	NA	NA	NC
IRON	233 J	NA	NA	NA	NA	NA	NA	11,000
MAGNESIUM	146,000	NA	NA	NA	NA	NA	NA	NC
POTASSIUM	7,080	NA	NA	NA	NA	NA	NA	NC
SODIUM	332,000 J	NA	NA	NA	NA	NA	NA	NC
Organic Lead (µg/L)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 19-3: ANALYTICAL RESULTS FOR IRP SITE 20 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S20MW14	S20MW15	S20OW01	S20OW01	S20OW02	S20OW02	
Sample ID	225S20MW003-	225S20MW004-	08797051906BJ	08797051906BJ	08797051904BJ	08797051904BJ	EPA Tap Water PRGs
Sample Date	08/20/1999	08/20/1999	05/19/1997	05/19/1997	05/19/1997	05/19/1997	
Volatile Organic Compounds (µg/L)							
1,2,4-TRIMETHYLBENZENE	< 5 U	< 5 U	NA	NA	NA	NA	12
1,2-DICHLOROETHANE	**2 J**	< 5 U	< 10 U	NA	< 10 U	NA	0.12
1,3,5-TRIMETHYLBENZENE	< 5 U	< 5 U	NA	NA	NA	NA	12
2-HEXANONE	< 5 UJ	< 5 UJ	< 10 U	NA	< 10 U	NA	NC
ACETONE	5 R	8 R	< 10 UJ	NA	< 10 UJ	NA	5,500
BENZENE	**3 J**	< 5 U	< 10 U	NA	< 10 U	NA	0.35
BROMODICHLOROMETHANE	< 5 U	**2 J**	< 10 U	NA	< 10 U	NA	0.18
CARBON DISULFIDE	< 5 U	< 5 U	< 10 U	NA	< 10 U	NA	1,000
CHLOROBENZENE	< 5 U	< 5 U	< 10 U	NA	< 10 U	NA	110
CHLOROFORM	< 5 U	**2 J**	**1 J**	NA	< 10 U	NA	0.17
DIBROMOCHLOROMETHANE	< 5 U	**2 J**	< 10 U	NA	< 10 U	NA	0.13
ETHYLBENZENE	4 J	< 5 U	< 10 U	NA	< 10 U	NA	1,300
ISOPROPYLBENZENE	5 R	5 R	NA	NA	NA	NA	660
METHYL TERTIARY BUTYLETHER	< 5 U	< 5 U	< 10 U	NA	< 10 U	NA	6.2
N-PROPYLBENZENE	1 J	< 5 U	NA	NA	NA	NA	240
NAPHTHALENE	< 5 U	< 5 U	NA	NA	NA	NA	0.093 *
STYRENE	< 5 U	< 5 U	< 10 U	NA	< 10 U	NA	1,600
TETRACHLOROETHENE	< 5 U	< 5 U	< 10 U	NA	< 10 U	NA	0.10
TOLUENE	< 5 U	< 5 U	< 10 U	NA	< 10 U	NA	720
TRICHLOROETHENE	< 5 U	< 5 U	< 10 U	NA	< 10 U	NA	0.028
XYLENE (TOTAL)	< 5 U	< 5 U	< 10 U	NA	1 J	NA	210
Petroleum Hydrocarbons (mg/L)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	< 0.1 U	< 0.1 U	< 0.1 U	NA	< 0.1 U	NA	NC
MOTOR OIL RANGE ORGANICS	0.7 Y	< 0.1 U	< 0.5 U	NA	< 0.5 U	NA	NC
Gasoline Range (purgeables)							
GASOLINE RANGE ORGANICS	< 0.05 U	< 0.05 U	< 0.05 U	NA	< 0.05 U	NA	NC
Semivolatile Organic Compounds (µg/L)							
2-METHYLNAPHTHALENE	< 11 U	< 11 U	< 10 U	NA	< 10 U	NA	NC
4-NITROPHENOL	< 28 U	26 R	< 25 U	NA	< 25 U	NA	NC
FLUORENE	< 11 U	< 11 U	< 10 U	NA	< 10 U	NA	240
NAPHTHALENE	< 11 U	< 11 U	< 10 U	NA	< 10 U	NA	0.093 *

TABLE 19-3: ANALYTICAL RESULTS FOR IRP SITE 20 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S20MW14	S20MW15	S20OW01	S20OW01	S20OW02	S20OW02	
Sample ID	225S20MW003-	225S20MW004-	08797051906BJ	08797051906BJ	08797051904BJ	08797051904BJ	EPA Tap Water PRGs
Sample Date	08/20/1999	08/20/1999	05/19/1997	05/19/1997	05/19/1997	05/19/1997	
Semivolatile Organic Compounds (µg/L)							
PHENANTHRENE	< 11 U	< 11 U	< 10 U	NA	< 10 U	NA	NC
Metals (µg/L)							
Unfiltered							
ALUMINUM	NA	NA	14,700 J	NA	4,780 J	NA	36,000
ANTIMONY	NA	NA	1.9 J	NA	1.9 J	NA	15
ARSENIC	NA	NA	**48 J**	NA	**39.1 J**	NA	0.045
BARIUM	NA	NA	136 J	NA	73.5 J	NA	2,600
CADMIUM	NA	NA	5.6 J	NA	< 0.92 UJ	NA	18
CALCIUM	NA	NA	330,000 J	NA	216,000 J	NA	NC
CHROMIUM	NA	NA	25.1 J	NA	7.4 J	NA	NC
COBALT	NA	NA	9.2 J	NA	2.2 J	NA	730
COPPER	NA	NA	44.8 J	NA	9.7 J	NA	1,500
IRON	NA	NA	**39,900 J**	NA	**16,900 J**	NA	11,000
LEAD	NA	NA	8.7 J	NA	1.5 J	NA	NC
MAGNESIUM	NA	NA	158,000 J	NA	149,000 J	NA	NC
MANGANESE	NA	NA	**1,980 J**	NA	**1,420 J**	NA	880
MOLYBDENUM	NA	NA	34.7 J	NA	49.6 J	NA	180
NICKEL	NA	NA	< 16.9 UJ	NA	< 1.2 UJ	NA	730
POTASSIUM	NA	NA	14,500 J	NA	13,400 J	NA	NC
SELENIUM	NA	NA	< 1.4 UJ	NA	< 1.4 UJ	NA	180
SODIUM	NA	NA	455,000 J	NA	363,000 J	NA	NC
VANADIUM	NA	NA	52.9 J	NA	17.1 J	NA	260
ZINC	NA	NA	99.2 J	NA	62.3 J	NA	11,000
FIltered							
ARSENIC	NA	NA	NA	**11.3**	NA	**11.3**	0.045
BARIUM	NA	NA	NA	22.2 J	NA	31.5 J	2,600
CADMIUM	NA	NA	NA	< 0.13 U	NA	< 0.13 U	18
CALCIUM	NA	NA	NA	279,000	NA	277,000	NC
CHROMIUM	NA	NA	NA	< 0.27 U	NA	< 0.27 U	NC
COBALT	NA	NA	NA	0.66 J	NA	< 0.4 U	730
COPPER	NA	NA	NA	< 0.4 U	NA	< 0.4 U	1,500

TABLE 19-3: ANALYTICAL RESULTS FOR IRP SITE 20 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S20MW14	S20MW15	S20OW01	S20OW01	S20OW02	S20OW02	
Sample ID	225S20MW003-	225S20MW004-	08797051906BJ	08797051906BJ	08797051904BJ	08797051904BJ	EPA Tap Water PRGs
Sample Date	08/20/1999	08/20/1999	05/19/1997	05/19/1997	05/19/1997	05/19/1997	
Metals (µg/L)							
FIltered							
IRON	NA	NA	NA	2,820	NA	2,490	11,000
MAGNESIUM	NA	NA	NA	154,000	NA	150,000	NC
MANGANESE	NA	NA	NA	**1,490**	NA	**1,220**	880
MERCURY	NA	NA	NA	< 0.1 UJ	NA	< 0.1 UJ	NC
MOLYBDENUM	NA	NA	NA	52.9	NA	50.4	180
NICKEL	NA	NA	NA	< 0.77 U	NA	< 0.77 U	730
POTASSIUM	NA	NA	NA	13,000 J	NA	14,200 J	NC
SELENIUM	NA	NA	NA	< 1.4 U	NA	< 2.3 UJ	180
SODIUM	NA	NA	NA	366,000	NA	339,000	NC
THALLIUM	NA	NA	NA	< 1.4 UJ	NA	< 1.4 UJ	2.4
VANADIUM	NA	NA	NA	0.78 J	NA	< 0.5 U	260
ZINC	NA	NA	NA	< 1.7 UJ	NA	5.6 J	11,000
General Mineral							
CALCIUM	NA	NA	325,000	NA	303,000	NA	NC
IRON	NA	NA	86 J	NA	152 J	NA	11,000
MAGNESIUM	NA	NA	161,000 J	NA	150,000 J	NA	NC
POTASSIUM	NA	NA	8,730	NA	9,780	NA	NC
SODIUM	NA	NA	434,000	NA	383,000	NA	NC
Organic Lead (µg/L)							
None Detected	NA	NA	NA	NA	NA	NA	NC

TABLE 19-3: ANALYTICAL RESULTS FOR IRP SITE 20 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Notes: Categories of analyses are shown, but only detected compounds are presented. Analyte results in boldface type exceed EPA tap water PRGs.

*	California modified PRGs
ID	Identification
J	Estimated value
mg/L	Milligrams per liter
NA	Not analyzed
NC	No criteria
ND	None detected
PRG	Preliminary remediation goals
R	Result rejected during quality assurance review.
TPH	Total petroleum hydrocarbons
U	Nondetected
Y	Chromatographic pattern resembles hydrocarbon fuel pattern and was quantitated using the standard it resembled most.
Z	Chromatographic pattern does not resemble TPH fuel pattern (individual peaks).
µg/L	Micrograms per liter

20.0 IRP SITE 21 – OLD WASTE DISPOSAL PIT

This section provides the site background and description for IRP Site 21; summarizes the previous investigations, activities, and existing data; and discusses data gap findings and strategies for eliminating data gaps at IRP Site 21.

20.1 SITE BACKGROUND

The following sections discuss the site background for IRP Site 21, including a general site description, discussion of previous and current site activities, and a summary of previous investigations that have been completed at the site.

20.1.1 Site Description

IRP Site 21 is located in the northwestern corner of CBC Port Hueneme. The site is bounded by Building 1420 to the east and Building 1422 to the south it is currently a graded unpaved area about 156 feet by 145 feet (Figure 20-1).

20.1.2 Site Activities

A lagoon constructed at IRP Site 21 was used to test pontoon and propulsion systems between 1946 and the late 1950s. Later, it was used for disposal of construction debris and waste burning ash. The waste debris was excavated, treated, and then removed to the county landfill that has since been closed. Approximately 3000 yd^3 of construction debris and ash were deposited in the pond. Construction debris included wire cable, wood, concrete, asphalt, rebar, and ash. The ash was generated from burning at the IRP Site 9 burning pit. Most of the burned waste had been trash generated at the installation, with less than two percent deemed hazardous. During construction activities in the 1980s, additional debris and soil were unearthed. About 1,800 yd^3 of soil was removed and disposed of off site.

20.1.3 Previous Investigations

Previous investigations that have been completed at IRP Site 21 include soil removal during construction activities (Chemical Research Laboratories [CRL] 1986), a final RI (PRC 1997a), a basewide groundwater investigation (Tetra Tech and LFR 2001), and a revised HHRA (Bechtel 2002a).

20.1.3.1 Navy Memorandums, Notes, Correspondence (CRL 1986)

IRP Site 21 was identified following completion of the IAS conducted in 1985, and thus not included in that document. Following removal of soils during construction activities, composite soil samples were analyzed for VOCs, SVOCs, pesticides, PCBs, and metals. Samples were also

analyzed for dioxins, furans, and chlorinated acid herbicides. VOCs, SVOCs, pesticides, and metals were detected in one or more samples.

In a supplemental study, 60 discrete samples were collected from the excavated soil piles and analyzed for lead and copper (EMSI 1987). Based on results of testing, the soil was treated via a chemical fixation process (Conor Process) and disposed of at an off-site Class III landfill in 1989.

20.1.3.2 Final Remedial Investigation Report (PRC 1997a)

A total of 16 soil borings (S21-SB01 through S21-SB16) and 4 groundwater monitoring wells (S21MW01 through S21MW04) were installed during the RI (Figure 20-1). Eleven of the borings were drilled to the groundwater table at approximately 5.0 feet bgs. The remaining borings were drilled to several feet below the water table. Monitoring wells were drilled to 5.0 to 7.0 feet below the water table. A total of 65 surface and subsurface soil samples were analyzed for VOCs, SVOCs, pesticides/PCBs, and metals. Soil samples were not collected from monitoring well borings. Groundwater samples were collected from the monitoring wells and analyzed for VOCs, SVOCs, pesticides/PCBs, TPH-p and TPH-e, metals, and general chemistry parameters.

Soil sample results indicated a sporadic distribution of VOCs, SVOCs, and pesticides/PCBs throughout the disposal pit. Metals were detected throughout IRP Site 21. Toluene, SVOCs, TPH, and metals were detected in groundwater samples collected from the monitoring wells.

An HHRA was completed during the RI to evaluate potential risks from exposure to surface and subsurface soil under industrial, construction worker, and residential exposure scenarios. Potential cancer risks for the industrial and residential exposure scenarios were within the EPA risk management range of 1×10^{-4} to 1×10^{-6}. The cancer risk for the construction worker scenario was below 1×10^{-6}. The noncancer HIs were below the threshold value of 1.0 for all exposure scenarios. Based on the results of the HHRA, the RI recommended maintaining the existing site cover and completing an FS to evaluate the effectiveness of the existing cover and site drainage, and to identify alternative remedial selections. The HHRA did not include an evaluation for exposure to groundwater.

20.1.3.3 Draft Groundwater Remedial Investigation Report (Tetra Tech and LFR 2001)

From 1997 to 2001, a basewide RI was completed to evaluate the condition of the Semi-Perched Aquifer at CBC Port Hueneme. Four quarters of groundwater samples were collected from monitoring well S21-MW01, S21-MW03, and S21-MW04, and one round of samples was collected from S21-MW02. The samples were analyzed for VOCs, SVOCs, metals, TPH-p and TPH-e, and water quality parameters.

Chemical concentrations in groundwater were screened against NAWQC for the protection of saltwater aquatic life and MCLs. If concentrations of an organic compound exceeded the NAWQC and/or MCL in at least one sampling round at a given location, that compound was considered a COPEC and/or COPC, respectively, at that location. If concentrations of an inorganic compound exceeded the NAWQC and/or MCL in more than one sampling at a given location, that compound was considered a COPEC and/or a COPC, respectively, at that location. Inorganics were screened differently because they often occur naturally. No COPECs or COPCs were identified for the samples collected from the IRP Site 21 monitoring wells. No further evaluation of groundwater within the Semi-Perched Aquifer was recommended for IRP Site 21.

Following submittal of the draft basewide groundwater investigation report, and review of the groundwater model, DTSC requested that additional site-specific groundwater data be collected (if necessary) and site-specific groundwater data be evaluated to adequately characterize the site.

20.1.3.4 Risk Assessment Technical Memorandum (Bechtel 2002a)

In 2002, Bechtel revised the BHHRA completed during the RI for IRP Site 21. The BHHRA was revised to address DTSC comments, dated July 28, 1995, regarding the methodology used in RI to identify metals as COPCs. Bechtel revised the BHHRA to incorporate DTSCs suggested methodology for identifying metals as COPCs. The revisions did not change the cancer risk estimates for the industrial or hypothetical residential exposure scenarios. The revised noncancer HI increased slightly for IRP Site 21. Bechtel concluded that the results of the revised risk calculations did not significantly change the cancer risk or noncancer HI for IRP Site 21. The estimated cancer risks for the industrial or hypothetical residential scenarios at the site were still within the EPA risk management range of 1×10^{-4} to 1×10^{-6}, and the nonhazard HIs were still less than 1.0.

20.2 COMPILATION OF EXISTING SITE DATA

Available data, typically that collected after 1993, has been compiled and tabulated for use in identifying data gaps and additional site activities required to obtain site closure. The available data were screened against the EPA residential soil and tap water PRGs. Additional data may be available in previous reports prepared for this site. Dependent upon the site activities identified to obtain site closure, this data may also be reviewed to determine if it is suitable for use in additional evaluations.

Table 20-1 summarizes the samples collected at IRP Site 21. Table 20-2 includes the soil analytical data for IRP Site 21, and Figure 20-2 shows concentrations of constituents in soil samples detected above the respective screening criteria. Table 20-3 includes the groundwater analytical data for IRP Site 21, and Figure 20-3 shows concentrations of constituents in groundwater samples that exceed the applicable screening criteria.

20.3 DATA GAPS

For this SMP, the previous investigations and collected data for IRP Site 21 were reviewed to verify that sufficient information is available to support the final actions and documentation needed to close the site. Identified data gaps and proposed actions to eliminate those data gaps are discussed below.

20.3.1 Soil Data Gaps

Based on a review of the existing soil data for the site, the number of soil samples previously collected is sufficient to further evaluate the environmental conditions at IRP Site 21. No additional soil sampling is recommended for this site.

20.3.2 Groundwater Data Gaps

Groundwater monitoring wells are located upgradient and downgradient of the disposal pit. Based on a review of the existing groundwater data for the site, the number of samples previously collected is sufficient to further evaluate the environmental conditions at IRP Site 21.

20.3.3 Human Health Risk Assessment Data Gaps

Only soil exposures were evaluated in the BHHRA (PRC 1997a) and the revised 2002 BHHRA (Bechtel 2002a) for IRP Site 21. Potential risks from exposure to groundwater have not been evaluated for the site. Therefore, existing soil and groundwater data will be evaluated in a new HHRA. The HHRA will evaluate potential risks for exposure to both soil and groundwater at the site. The new HHRA will use contemporary EPA, DTSC, and Navy risk assessment guidance to ensure that the site soil and groundwater risks are based on current methodology.

20.3.4 Ecological Risk Assessment

An ERA has not been completed for this site. A habitat survey of IRP Site 21 should be completed to determine if a viable habitat exists for ecological receptors.

20.4 STRATEGY FOR ELIMINATING DATA GAPS

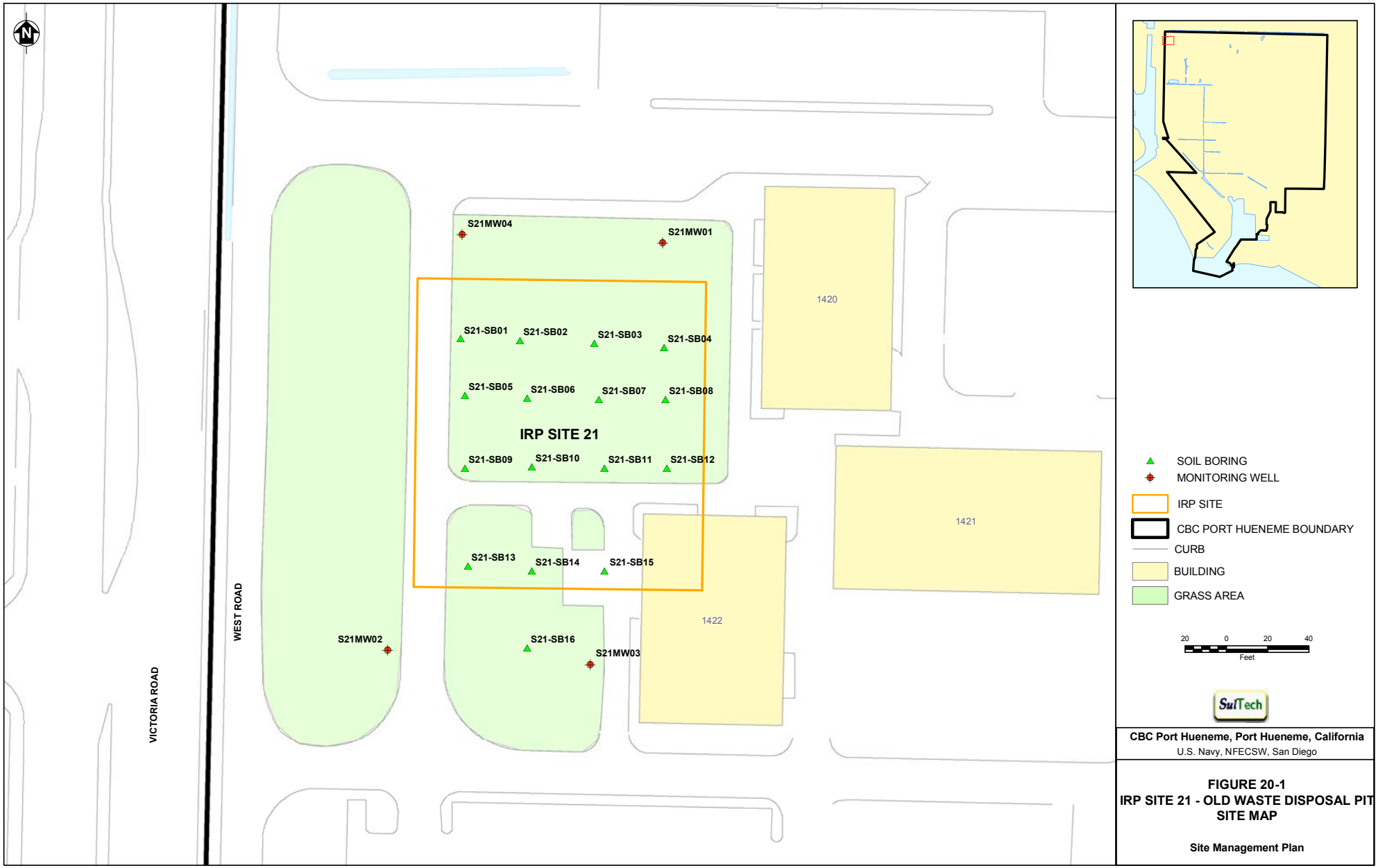
No additional soil or groundwater sampling is proposed for IRP Site 21. Previously collected data will be evaluated in an HHRA to identify site-specific risks to human health. Groundwater has not previously been evaluated in a site-specific HHRA. The HHRA will evaluate both soil and groundwater risks.

A habitat survey of the site will be conducted to identify viable habitat for ecological receptors on site. If viable habitat does exist, a screening level ERA, based on surface soil data collected at the site, will be conducted. If there is evidence of burrowing animals at the site, the ERA will

include an evaluation of vapor exposure for these animals in their burrows. To establish whether a complete vapor exposure pathway exists for burrowing animals, the depth to the Semi-Perched Aquifer will also be considered in this analysis.

The results of these evaluations, as well as conclusions and recommendations for any additional site activities, will be presented in an RI report.

FIGURES



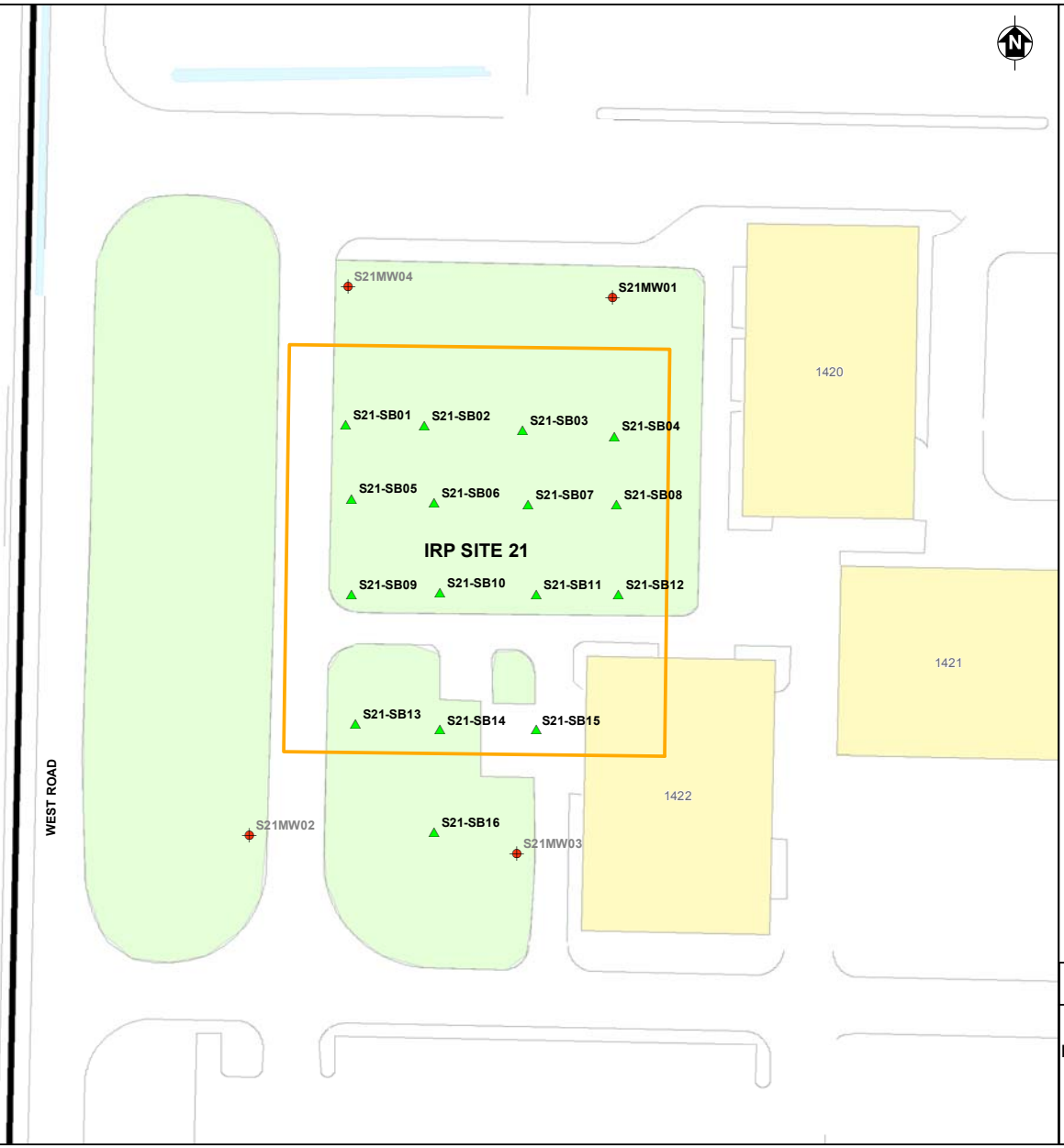
CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

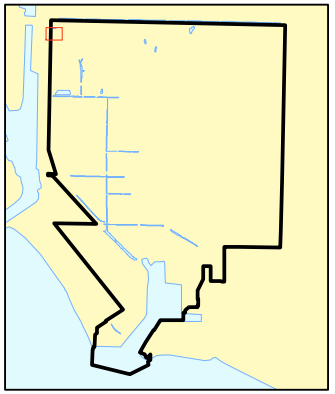
FIGURE 20-1
IRP SITE 21 - OLD WASTE DISPOSAL PIT SITE MAP

Site Management Plan

fig20-1_PHFSMP_IRPsite21_sitemap_111604.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases

IRP Site 21	(mg/kg)				
Sample Point ID	Sample Date	Sample Depth (ft bgs)	Analyte Exceeding Criteria	Result	Screening Criteria
S21-SB01	27-Apr-93	NR	ARSENIC	3.5	0.39
S21-SB01	27-Apr-93	NR	IRON	30,700	23,000
S21-SB01	27-Apr-93	1.5	ARSENIC	2.4	0.39
S21-SB01	27-Apr-93	1.5	BENZO(A)PYRENE	0.17	0.062
S21-SB01	27-Apr-93	2.5	ARSENIC	1.9	0.39
S21-SB02	27-Apr-93	NR	ARSENIC	2.9	0.39
S21-SB02	27-Apr-93	NR	AROCLOR-1260	0.51	0.22
S21-SB02	27-Apr-93	2.5	ARSENIC	3.1	0.39
S21-SB02	27-Apr-93	2.5	IRON	31,200	23,000
S21-SB02	27-Apr-93	3.5	ARSENIC	2.1	0.39
S21-SB03	27-Apr-93	NR	ARSENIC	1.6	0.39
S21-SB03	27-Apr-93	2.5	ARSENIC	1.9	0.39
S21-SB04	27-Apr-93	NR	ARSENIC	1.8	0.39
S21-SB04	27-Apr-93	2	ARSENIC	1.7	0.39
S21-SB05	27-Apr-93	0.5	ARSENIC	2.7	0.39
S21-SB05	27-Apr-93	0.5	BENZO(A)PYRENE	0.15	0.062
S21-SB05	27-Apr-93	2.5	ARSENIC	4.7	0.39
S21-SB06	27-Apr-93	0.5	ARSENIC	2.9	0.39
S21-SB06	27-Apr-93	0.5	IRON	24,900	23,000
S21-SB06	27-Apr-93	0.5	BENZO(A)PYRENE	0.19	0.062
S21-SB06	27-Apr-93	4.5	ARSENIC	2.1	0.39
S21-SB06	27-Apr-93	2	ARSENIC	1.8	0.39
S21-SB07	28-Apr-93	0.5	ARSENIC	2.5	0.39
S21-SB07	28-Apr-93	2	ARSENIC	1.6	0.39
S21-SB07	28-Apr-93	3.5	ARSENIC	1.8	0.39
S21-SB08	28-Apr-93	0.5	ARSENIC	2.1	0.39
S21-SB08	28-Apr-93	2	ARSENIC	1.8	0.39
S21-SB08	28-Apr-93	3.5	ARSENIC	1.5	0.39
S21-SB09	28-Apr-93	5	ARSENIC	2.7	0.39
S21-SB09	28-Apr-93	6.5	ARSENIC	3	0.39
S21-SB09	28-Apr-93	8	ARSENIC	2	0.39
S21-SB09	28-Apr-93	3.5	ARSENIC	2.9	0.39
S21-SB09	28-Apr-93	3.5	ARSENIC	3.4	0.39
S21-SB09	28-Apr-93	0.5	ARSENIC	3.4	0.39
S21-SB09	28-Apr-93	2	ARSENIC	1.7	0.39
S21-SB10	28-Apr-93	NR	ARSENIC	1.9	0.39
S21-SB10	28-Apr-93	1.5	ARSENIC	2.4	0.39
S21-SB10	28-Apr-93	3	ARSENIC	9.8	0.39
S21-SB10	28-Apr-93	3	IRON	38,600	23,000
S21-SB10	28-Apr-93	3	LEAD	294	150
S21-SB11	28-Apr-93	NR	ARSENIC	3.8	0.39
S21-SB11	28-Apr-93	3	ARSENIC	3.8	0.39
S21-SB11	28-Apr-93	3	IRON	25,800	23,000
S21-SB11	28-Apr-93	1.5	ARSENIC	2.5	0.39
S21-SB11	28-Apr-93	7.5	ARSENIC	0.96	0.39
S21-SB11	28-Apr-93	1.5	ARSENIC	2.1	0.39
S21-SB12	28-Apr-93	0.5	ARSENIC	4.3	0.39
S21-SB12	28-Apr-93	2.5	ARSENIC	2.5	0.39
S21-SB12	28-Apr-93	5	ARSENIC	1.6	0.39
S21-SB13	28-Apr-93	0.5	ARSENIC	1.6	0.39
S21-SB13	28-Apr-93	2.5	ARSENIC	4.4	0.39
S21-SB13	28-Apr-93	4	ARSENIC	1.6	0.39
S21-SB13	28-Apr-93	4	AROCLOR-1260	0.38	0.22
S21-SB14	28-Apr-93	0.5	ARSENIC	2.1	0.39
S21-SB14	28-Apr-93	0.5	IRON	33,800	23,000
S21-SB14	28-Apr-93	0.5	BENZO(A)PYRENE	0.13	0.062
S21-SB14	28-Apr-93	2.5	ARSENIC	4.1	0.39
S21-SB14	28-Apr-93	4.5	ARSENIC	2	0.39
S21-SB14	28-Apr-93	4.5	AROCLOR-1260	0.36	0.22
S21-SB15	28-Apr-93	0.5	ARSENIC	2.8	0.39
S21-SB15	28-Apr-93	2	ARSENIC	3.9	0.39
S21-SB15	28-Apr-93	3.5	ARSENIC	3.4	0.39
S21-SB15	28-Apr-93	5	ARSENIC	7.3	0.39
S21-SB15	28-Apr-93	5	AROCLOR-1260	0.49	0.22
S21-SB15	28-Apr-93	7.5	ARSENIC	1.8	0.39
S21-SB15	28-Apr-93	7.5	AROCLOR-1260	0.3	0.22
S21-SB15	28-Apr-93	7.5	ARSENIC	1.8	0.39
S21-SB15	28-Apr-93	7.5	IRON	23,900	23,000
S21-SB15	28-Apr-93	7.5	AROCLOR-1260	1.3	0.22
S21-SB16	03-May-93	0.5	ARSENIC	4	0.39
S21-SB16	03-May-93	2.5	ARSENIC	2.6	0.39
S21-SB16	03-May-93	5	ARSENIC	4	0.39
S21-SB16	03-May-93	6.5	ARSENIC	2.7	0.39
S21-SB16	03-May-93	6.5	IRON	26,500	23,000
S21-SB16	03-May-93	8	ARSENIC	3.7	0.39
S21-SB16	03-May-93	8	IRON	26,100	23,000
S21-SB16	03-May-93	9.5	ARSENIC	2.3	0.39
S21MW01	03-May-93	0.5	ARSENIC	3.5	0.39
S21MW01	03-May-93	2.5	ARSENIC	2.1	0.39
S21MW01	03-May-93	5	ARSENIC	2.5	0.39
S21MW01	03-May-93	7.5	ARSENIC	3.1	0.39
S21MW01	03-May-93	10	ARSENIC	1.6	0.39
S21MW01	03-May-93	5	ARSENIC	3.4	0.39





SOIL BORING

MONITORING WELL

S21-SB03 SAMPLES EXCEEDING SCREENING CRITERIA IN BOLD

IRP SITE

CBC PORT HUENEME BOUNDARY

CURB

BUILDING

GRASS AREA

20 0 20 40
Feet

SulTech

CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 20-2
IRP SITE 21 - OLD WASTE DISPOSAL PIT
ANALYTES IN SOIL
EXCEEDING SCREENING CRITERIA

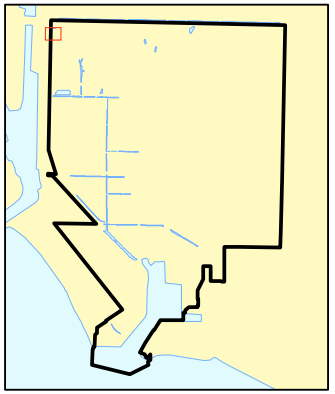
Site Management Plan

NOTES:
ID = Identification
mg/kg = milligrams per kilogram
ft bgs = feet below ground surface
NR = sample depth not recorded

fig20-2_PHFSMP_IRPsite21_soils_122704.mxdTtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases

IRP Site 21	(ug/L)			
Sample Point ID	Sample Date	Analyte Exceeding Criteria	Result	Screening Criteria
S21MW04	24-May-93	MANGANESE	989	876.00
S21MW04	24-May-93	MANGANESE	3090	876.00
S21MW04	13-Aug-93	ARSENIC	5.7	0.04
S21MW04	13-Aug-93	MANGANESE	3080	876.00
S21MW04	13-Aug-93	ARSENIC	11.9	0.04
S21MW04	13-Aug-93	MANGANESE	936	876.00
S21MW04	15-Nov-93	ARSENIC	5.6	0.04
S21MW04	15-Nov-93	MANGANESE	3280	876.00
S21MW04	15-Nov-93	ARSENIC	5.1	0.04
S21MW04	15-Feb-94	ARSENIC	4.6	0.04
S21MW04	15-Feb-94	MANGANESE	3150	876.00
S21MW04	15-Feb-94	ARSENIC	6.6	0.04
S21MW01	7-May-97	ARSENIC	1.7	0.04
S21MW01	7-May-97	ARSENIC	1.5	0.04
S21MW02	7-May-97	ARSENIC	1.6	0.04
S21MW02	7-May-97	MANGANESE	966	876.00
S21MW02	7-May-97	MANGANESE	970	876.00
S21MW03	7-May-97	ARSENIC	9.1	0.04
S21MW03	7-May-97	MANGANESE	3260	876.00
S21MW03	7-May-97	THALLIUM	4.2	2.41
S21MW03	7-May-97	ARSENIC	35.5	0.04
S21MW03	7-May-97	IRON	19700	10949.88
S21MW03	7-May-97	MANGANESE	3430	876.00
S21MW04	7-May-97	ARSENIC	8.1	0.04
S21MW04	7-May-97	MANGANESE	3210	876.00
S21MW04	7-May-97	THALLIUM	3.8	2.41
S21MW04	7-May-97	ARSENIC	28	0.04
S21MW04	7-May-97	IRON	18300	10949.88
S21MW01	14-Oct-97	ARSENIC	4.4	0.04
S21MW03	14-Oct-97	ARSENIC	6	0.04
S21MW03	14-Oct-97	MANGANESE	3640	876.00
S21MW03	14-Oct-97	ARSENIC	9.6	0.04
S21MW03	14-Oct-97	MANGANESE	3700	876.00
S21MW03	14-Oct-97	ARSENIC	9.3	0.04
S21MW03	14-Oct-97	MANGANESE	3740	876.00
S21MW04	14-Oct-97	ARSENIC	9.3	0.04
S21MW04	14-Oct-97	MANGANESE	900	876.00
S21MW03	14-Jan-98	MANGANESE	3830	876.00
S21MW01	1-Apr-98	ARSENIC	2.6	0.04
S21MW03	1-Apr-98	ARSENIC	8	0.04
S21MW03	1-Apr-98	MANGANESE	3610	876.00
S21MW04	1-Apr-98	ARSENIC	4.8	0.04
S21MW04	1-Apr-98	MANGANESE	936	876.00

NOTES:
ug/L = micrograms per liter



SOIL BORING

MONITORING WELL

S21MW01 SAMPLES EXCEEDING SCREENING CRITERIA IN BOLD

IRP SITE

CBC PORT HUENEME BOUNDARY

CURB

BUILDING

GRASS AREA

20 0 20 40
Feet

SulTech

CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 20-3
IRP SITE 21 - OLD WASTE DISPOSAL PIT
ANALYTES IN GROUNDWATER
EXCEEDING SCREENING CRITERIA

Site Management Plan

fig20-3_PHFSMP_IRPsite21_GW_122704.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases

TABLES

TABLE 20-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 21

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
123-S21-001	SOIL	04/27/93	S21-SB01	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-002	SOIL	04/27/93	S21-SB01	DUP	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-003	SOIL	04/27/93	S21-SB01	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-007	SOIL	04/27/93	S21-SB02	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-008	SOIL	04/27/93	S21-SB02	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-140	SOIL	04/27/93	S21-SB02	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-013	SOIL	04/27/93	S21-SB03	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-014	SOIL	04/27/93	S21-SB03	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-018	SOIL	04/27/93	S21-SB04	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-019	SOIL	04/27/93	S21-SB04	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-024	SOIL	04/27/93	S21-SB05	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-025	SOIL	04/27/93	S21-SB05	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-029	SOIL	04/27/93	S21-SB06	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					✓
123-S21-031	SOIL	04/27/93	S21-SB06	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					✓
123-S21-141	SOIL	04/27/93	S21-SB06	DUP	0.00 - 0.00	✓			✓	✓	✓	✓					✓
123-S21-034	SOIL	04/28/93	S21-SB07	ORIG	0.50 - 0.50	✓			✓	✓	✓	✓					✓
123-S21-035	SOIL	04/28/93	S21-SB07	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-036	SOIL	04/28/93	S21-SB07	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					✓
123-S21-039	SOIL	04/28/93	S21-SB08	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-040	SOIL	04/28/93	S21-SB08	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-042	SOIL	04/28/93	S21-SB08	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-045	SOIL	04/28/93	S21-SB09	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-046	SOIL	04/28/93	S21-SB09	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-047	SOIL	04/28/93	S21-SB09	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-048	SOIL	04/28/93	S21-SB09	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					

TABLE 20-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 21 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
123-S21-049	SOIL	04/28/93	S21-SB09	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-142	SOIL	04/28/93	S21-SB09	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-143	SOIL	04/28/93	S21-SB09	DUP	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-050	SOIL	04/28/93	S21-SB10	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					✓
123-S21-051	SOIL	04/28/93	S21-SB10	DUP	0.00 - 0.00	✓			✓	✓	✓	✓					✓
123-S21-052	SOIL	04/28/93	S21-SB10	ORIG	0.00 - 0.00	✓				✓	✓	✓					
123-S21-056	SOIL	04/28/93	S21-SB11	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					✓
123-S21-057	SOIL	04/28/93	S21-SB11	ORIG	3.00 - 3.00	✓			✓	✓	✓	✓					
123-S21-058	SOIL	04/28/93	S21-SB11	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					✓
123-S21-059	SOIL	04/28/93	S21-SB11	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-144	SOIL	04/28/93	S21-SB11	DUP	0.00 - 0.00	✓			✓	✓	✓	✓					✓
123-S21-062	SOIL	04/28/93	S21-SB12	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-063	SOIL	04/28/93	S21-SB12	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-064	SOIL	04/28/93	S21-SB12	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-067	SOIL	04/28/93	S21-SB13	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-068	SOIL	04/28/93	S21-SB13	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-069	SOIL	04/28/93	S21-SB13	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-073	SOIL	04/28/93	S21-SB14	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-074	SOIL	04/28/93	S21-SB14	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-075	SOIL	04/28/93	S21-SB14	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-078	SOIL	04/28/93	S21-SB15	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-079	SOIL	04/28/93	S21-SB15	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-080	SOIL	04/28/93	S21-SB15	DUP	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-081	SOIL	04/28/93	S21-SB15	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-082	SOIL	04/28/93	S21-SB15	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					

TABLE 20-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 21 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
123-S21-145	SOIL	04/28/93	S21-SB15	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-084	SOIL	05/03/93	S21-SB16	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-085	SOIL	05/03/93	S21-SB16	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-086	SOIL	05/03/93	S21-SB16	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-087	SOIL	05/03/93	S21-SB16	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-088	SOIL	05/03/93	S21-SB16	ORIG	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-146	SOIL	05/03/93	S21-SB16	DUP	0.00 - 0.00	✓			✓	✓	✓	✓					
123-S21-089	SOIL	05/03/93	S21MW01	ORIG	0.00 - 0.00					✓	✓	✓					
123-S21-091	SOIL	05/03/93	S21MW01	ORIG	2.50 - 2.50					✓	✓	✓					
123-S21-092	SOIL	05/03/93	S21MW01	ORIG	0.00 - 0.00					✓	✓	✓					
123-S21-093	SOIL	05/03/93	S21MW01	ORIG	0.00 - 0.00					✓	✓	✓					
123-S21-094	SOIL	05/03/93	S21MW01	ORIG	0.00 - 0.00					✓	✓	✓					
123-S21-147	SOIL	05/03/93	S21MW01	DUP	0.00 - 0.00					✓	✓	✓					
123-S21-095	WATER	05/24/93	21MW01	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
123-S21-096	WATER	08/13/93	S21MW01	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
123-S21-097	WATER	11/15/93	S21MW01	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
123-S21-098	WATER	02/15/94	S21MW01	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
08797050704GDT	WATER	05/07/97	S21MW01	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797050704GDTF	WATER	05/07/97	S21MW01	FIL	NA								✓				
08797101403B	WATER	10/14/97	S21MW01	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798011402D	WATER	01/14/98	S21MW01	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798040102W	WATER	04/01/98	S21MW01	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798040103W	WATER	04/01/98	S21MW01	DUP	NA	✓	✓	✓	✓				✓	✓			
08797050701GDT	WATER	05/07/97	S21MW02	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797050701GDTF	WATER	05/07/97	S21MW02	FIL	NA								✓				

TABLE 20-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 21 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
08797050703GDT	WATER	05/07/97	S21MW03	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797050703GDTF	WATER	05/07/97	S21MW03	FIL	NA								✓				
08797101401B	WATER	10/14/97	S21MW03	ORIG	NA	✓	✓	✓	✓				✓	✓			
08797101410B	WATER	10/14/97	S21MW03	ORIG	NA							✓					
08797101411B	WATER	10/14/97	S21MW03	ORIG	NA							✓					
08798011403D	WATER	01/14/98	S21MW03	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798040105W	WATER	04/01/98	S21MW03	ORIG	NA	✓	✓	✓	✓				✓	✓			
123-S21-099	WATER	05/24/93	S21MW04	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
123-S21-104	WATER	05/24/93	S21MW04	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
123-S21-100	WATER	08/13/93	S21MW04	DUP	NA	✓		✓									
123-S21-101	WATER	08/13/93	S21MW04	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
123-S21-105	WATER	08/13/93	S21MW04	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
123-S21-148	WATER	08/13/93	S21MW04	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
123-S21-102	WATER	11/15/93	S21MW04	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
123-S21-106	WATER	11/15/93	S21MW04	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
123-S21-149	WATER	11/15/93	S21MW04	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
123-S21-103	WATER	02/15/94	S21MW04	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
123-S21-107	WATER	02/15/94	S21MW04	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
123-S21-150	WATER	02/15/94	S21MW04	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
08797050702GDT	WATER	05/07/97	S21MW04	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797050702GDTF	WATER	05/07/97	S21MW04	FIL	NA								✓				
08797101402B	WATER	10/14/97	S21MW04	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798011401D	WATER	01/14/98	S21MW04	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798040104W	WATER	04/01/98	S21MW04	ORIG	NA	✓	✓	✓	✓				✓	✓			

TABLE 20-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 21 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
TOTAL						87	29	30	85	78	78	84	14	14	0	0	10

Notes:

DMETL	Metals (filtered)	ORGPB	Organic Lead	SVOC	Semivolatile organic compound
GMETL	General mineral	PCB	Polychlorinated biphenyls	TPH-e	Total petroleum hydrocarbons, extractables
METL	Metals (total - unfiltered)	PEST	Pesticides	TPH-p	Total petroleum hydrocarbons, purgeables
NA	Not applicable	PESTO	Organophosphorus pesticides	VOC	Volatile organic compound
				✓	Sample collected and analyzed; blank cell indicates no sample collected.

TABLE 20-2: ANALYTICAL RESULTS FOR IRP SITE 21 SOIL SAMPLES

Site Management Plan, CBC Port Hueneme

Sample Location ID	S21-SB01	S21-SB01	S21-SB01	S21-SB02	S21-SB02	S21-SB02	S21-SB03	EPA Residential Soil PRGs
Sample ID	123-S21-001	123-S21-002	123-S21-003	123-S21-007	123-S21-008	123-S21-140	123-S21-013	
Sample Date	04/27/1993	04/27/1993	04/27/1993	04/27/1993	04/27/1993	04/27/1993	04/27/1993	
Sample Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	
Volatile Organic Compounds (mg/kg)								
1,2-DICHLOROETHENE (TOTAL)	< 0.011 U	< 0.011 U	< 0.011 U	< 0.01 U	< 0.011 U	< 0.011 U	< 0.01 U	NC
4-METHYL-2-PENTANONE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.01 U	< 0.011 U	< 0.011 U	< 0.01 U	5,300
ACETONE	< 0.011 U	< 0.011 U	< 0.031 U	< 0.01 U	< 0.011 U	< 0.011 U	< 0.01 U	14,000
BENZENE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.01 U	< 0.011 U	< 0.011 U	< 0.01 U	0.64
CARBON DISULFIDE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.01 U	< 0.011 U	< 0.011 U	< 0.01 U	360
TETRACHLOROETHENE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.01 U	< 0.011 U	< 0.011 U	< 0.01 U	0.48
TOLUENE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.01 U	< 0.011 U	< 0.011 U	< 0.01 U	520
XYLENE (TOTAL)	< 0.011 U	< 0.011 U	< 0.011 U	< 0.01 U	< 0.011 U	< 0.011 U	< 0.01 U	270
Semivolatile Organic Compounds (mg/kg)								
2-METHYLNAPHTHALENE	< 0.37 U	< 0.36 U	< 0.36 U	< 0.34 U	< 0.37 U	< 0.36 U	< 0.34 U	NC
ACENAPHTHENE	< 0.37 U	< 0.36 U	< 0.36 U	< 0.34 U	< 0.37 U	< 0.36 U	< 0.34 U	3,700
ANTHRACENE	< 0.37 U	0.044 J	< 0.36 U	< 0.34 U	< 0.37 U	< 0.36 U	< 0.34 U	22,000
BENZO(A)ANTHRACENE	0.058 J	0.17 J	< 0.36 U	< 0.34 U	< 0.37 U	< 0.36 U	< 0.34 U	0.62
BENZO(A)PYRENE	0.046 J	**0.17 J**	< 0.36 U	< 0.34 U	< 0.37 U	< 0.36 U	< 0.34 U	0.062
BENZO(B)FLUORANTHENE	0.075 J	< 0.36 U	< 0.36 U	0.08 J	< 0.37 U	< 0.36 U	< 0.34 U	0.62
BENZO(K)FLUORANTHENE	0.07 J	< 0.36 U	< 0.36 U	0.06 J	< 0.37 U	< 0.36 U	< 0.34 U	0.38 *
CARBAZOLE	< 0.37 UJ	0.044 J	< 0.36 UJ	< 0.34 UJ	< 0.37 UJ	< 0.36 UJ	< 0.34 UJ	24
CHRYSENE	0.085 J	0.24 J	0.048 J	0.063 J	< 0.37 U	< 0.36 U	< 0.34 U	3.8 *
FLUORANTHENE	0.15 J	0.35 J	0.042 J	0.07 J	0.05 J	< 0.36 U	< 0.34 U	2,300
FLUORENE	< 0.37 U	< 0.36 U	< 0.36 U	< 0.34 U	< 0.37 U	< 0.36 U	< 0.34 U	2,700
INDENO(1,2,3-CD)PYRENE	< 0.37 U	0.048 J	< 0.36 U	< 0.34 U	< 0.37 U	< 0.36 U	< 0.34 U	0.62
NAPHTHALENE	< 0.37 U	< 0.36 U	< 0.36 U	< 0.34 U	< 0.37 U	< 0.36 U	< 0.34 U	1.7 *
PHENANTHRENE	0.09 J	0.19 J	< 0.36 U	< 0.34 U	0.039 J	< 0.36 U	< 0.34 U	NC
PYRENE	0.12 J	0.35 J	0.051 J	0.068 J	0.06 J	< 0.36 U	< 0.34 U	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	0.0035 J	0.0079 J	0.002 J	0.023 J	0.0098 J	< 0.0036 U	< 0.0034 U	2.4
4,4'-DDE	0.0021 J	0.0023 J	0.002 J	0.098 J	0.03 J	< 0.0036 U	< 0.0034 U	1.7
4,4'-DDT	0.004 J	0.0085 J	0.0028 J	0.078 J	0.027 J	< 0.0036 U	< 0.0034 U	1.7
ALDRIN	< 0.0019 U	< 0.0019 UJ	< 0.0018 U	< 0.0018 U	< 0.0019 UJ	< 0.0019 U	< 0.0018 U	0.029
ALPHA-CHLORDANE	< 0.0019 U	< 0.0019 UJ	< 0.0018 U	< 0.0018 U	< 0.0019 UJ	< 0.0019 U	< 0.0018 U	1.6
AROCLOR-1260	0.018 J	< 0.036 UJ	< 0.036 U	**0.51 J**	0.067 J	< 0.036 U	< 0.034 U	0.22
DELTA-BHC	< 0.0019 U	< 0.0019 UJ	< 0.0018 U	< 0.0018 U	< 0.0019 UJ	< 0.0019 U	< 0.0018 U	NC
DIELDRIN	< 0.0037 U	< 0.0036 UJ	< 0.0036 U	< 0.0034 U	0.001 J	< 0.0036 U	< 0.0034 U	0.030

TABLE 20-2: ANALYTICAL RESULTS FOR IRP SITE 21 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S21-SB01	S21-SB01	S21-SB01	S21-SB02	S21-SB02	S21-SB02	S21-SB03	EPA Residential Soil PRGs
Sample ID	123-S21-001	123-S21-002	123-S21-003	123-S21-007	123-S21-008	123-S21-140	123-S21-013	
Sample Date	04/27/1993	04/27/1993	04/27/1993	04/27/1993	04/27/1993	04/27/1993	04/27/1993	
Sample Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	
PCBs/Pesticides (mg/kg)								
ENDOSULFAN I	< 0.0019 U	< 0.0019 UJ	< 0.0018 U	0.00093 J	< 0.0019 UJ	< 0.0019 U	< 0.0018 U	NC
ENDOSULFAN SULFATE	< 0.0037 U	< 0.0036 UJ	< 0.0036 U	< 0.0034 U	< 0.0037 UJ	< 0.0036 U	< 0.0034 U	NC
ENDRIN	< 0.0037 U	< 0.0036 UJ	< 0.0036 U	< 0.0034 U	< 0.0037 UJ	< 0.0036 U	< 0.0034 U	18
ENDRIN KETONE	< 0.0037 U	< 0.0036 UJ	< 0.0036 U	< 0.0034 U	< 0.0037 UJ	< 0.0036 U	< 0.0034 U	NC
GAMMA-CHLORDANE	< 0.0019 U	< 0.0019 UJ	< 0.0018 U	0.00073 J	< 0.0019 UJ	< 0.0019 U	< 0.0018 U	1.6
HEPTACHLOR EPOXIDE	< 0.0019 U	< 0.0019 UJ	< 0.0018 U	< 0.0018 U	< 0.0019 UJ	< 0.0019 U	< 0.0018 U	0.053
Metals (mg/kg)								
ALUMINUM	12,900	9,330	5,310	7,930	14,000	5,010	4,210	76,000
ARSENIC	**3.5 J**	**2.4 J**	**1.9 J**	**2.9 J**	**3.1 J**	**2.1 J**	**1.6 J**	0.39
BARIUM	221	171	83.7	90.2	110	94.2	53.4	5,400
BERYLLIUM	< 0.44 UJ	< 0.44 U	< 0.43 U	0.43 J	< 0.43 U	< 0.41 U	< 0.39 U	150
CADMIUM	< 2.2 U	< 1.1 U	< 1.1 U	< 0.94 U	< 2.1 U	< 1 U	< 0.97 U	37 *
CALCIUM	18,000	9,730	9,300	8,930	12,100	7,460	6,240	NC
CHROMIUM	22.2	14.1	8.7	13.3	21.3	9.6	6.8	210
COBALT	17.1	12.1	5	7	18	5	3.8	900
COPPER	24.9	17.2	8	18.7	25.7	8.1	5.9	3,100
IRON	**30,700**	21,100	9,510	14,200	**31,200**	9,470	8,310	23,000
LEAD	15.8	6.6	6.5	7.5	13.6	11	3.7	150 *
MAGNESIUM	9,470	6,500	3,050	4,270	9,300	2,820	2,280	NC
MANGANESE	454	310	154	228	463	140	126	1,800
MERCURY	< 0.09 U	< 0.09 U	< 0.1 U	< 0.09 U	< 0.08 U	< 0.1 U	< 0.07 U	23
NICKEL	21.7 J	14.4	9.3	12.9	19.6	8.7	6.2	1,600
POTASSIUM	1,270 J	887	1,480	2,140	1,350	1,420	1,120	NC
SELENIUM	< 0.62 UJ	< 0.63 U	< 0.62 U	< 0.59 U	< 0.64 U	< 0.62 U	< 0.6 U	390
SILVER	< 4.4 UJ	< 2.2 U	< 2.2 U	< 1.9 U	< 4.3 U	< 2.1 U	< 1.9 U	390
SODIUM	1,260	1,000	647	207	987	344	469	NC
VANADIUM	52.8	37.7	17.8	26.2	50.5	18	15.2	550
ZINC	83.8	41	31.2	51.5	64.8	33	22.3	23,000
Organophosphorus pesticides (mg/kg)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 20-2: ANALYTICAL RESULTS FOR IRP SITE 21 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S21-SB03	S21-SB04	S21-SB04	S21-SB05	S21-SB05	S21-SB06	S21-SB06	EPA Residential Soil PRGs
Sample ID	123-S21-014	123-S21-018	123-S21-019	123-S21-024	123-S21-025	123-S21-029	123-S21-031	
Sample Date	04/27/1993	04/27/1993	04/27/1993	04/27/1993	04/27/1993	04/27/1993	04/27/1993	
Sample Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	
Volatile Organic Compounds (mg/kg)								
1,2-DICHLOROETHENE (TOTAL)	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	NC
4-METHYL-2-PENTANONE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	0.002 J	< 0.012 U	5,300
ACETONE	< 0.011 U	< 0.011 UJ	< 0.011 UJ	< 0.011 UJ	< 0.013 UJ	< 0.011 UJ	< 0.012 UJ	14,000
BENZENE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	0.0005 J	0.0007 J	< 0.012 U	0.64
CARBON DISULFIDE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	360
TETRACHLOROETHENE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	0.48
TOLUENE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	0.0009 J	< 0.012 U	520
XYLENE (TOTAL)	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	270
Semivolatile Organic Compounds (mg/kg)								
2-METHYLNAPHTHALENE	< 0.37 U	< 0.36 U	< 0.37 U	< 0.73 U	< 0.38 U	< 0.73 U	< 0.38 U	NC
ACENAPHTHENE	< 0.37 U	< 0.36 U	< 0.37 U	< 0.73 U	< 0.38 U	< 0.73 U	< 0.38 U	3,700
ANTHRACENE	< 0.37 U	< 0.36 U	< 0.37 U	< 0.73 U	< 0.38 U	0.049 J	< 0.38 U	22,000
BENZO(A)ANTHRACENE	< 0.37 U	< 0.36 U	< 0.37 U	0.15 J	< 0.38 U	0.19 J	< 0.38 U	0.62
BENZO(A)PYRENE	< 0.37 U	< 0.36 U	< 0.37 U	**0.15 J**	< 0.38 U	**0.19 J**	< 0.38 U	0.062
BENZO(B)FLUORANTHENE	< 0.37 U	< 0.36 U	< 0.37 U	0.19 J	< 0.38 U	0.18 J	< 0.38 U	0.62
BENZO(K)FLUORANTHENE	< 0.37 U	< 0.36 U	< 0.37 U	0.15 J	< 0.38 U	0.22 J	< 0.38 U	0.38 *
CARBAZOLE	< 0.37 UJ	< 0.36 U	< 0.37 U	< 0.73 U	< 0.38 U	< 0.73 U	< 0.38 U	24
CHRYSENE	< 0.37 U	< 0.36 U	< 0.37 U	0.18 J	< 0.38 U	0.22 J	< 0.38 U	3.8 *
FLUORANTHENE	< 0.37 U	< 0.36 U	< 0.37 U	0.26 J	0.039 J	0.31 J	< 0.38 U	2,300
FLUORENE	< 0.37 U	< 0.36 U	< 0.37 U	< 0.73 U	< 0.38 U	< 0.73 U	< 0.38 U	2,700
INDENO(1,2,3-CD)PYRENE	< 0.37 U	< 0.36 U	< 0.37 U	< 0.73 U	< 0.38 U	< 0.73 U	< 0.38 U	0.62
NAPHTHALENE	< 0.37 U	< 0.36 U	< 0.37 U	< 0.73 U	< 0.38 U	< 0.73 U	< 0.38 U	1.7 *
PHENANTHRENE	< 0.37 U	< 0.36 U	< 0.37 U	0.17 J	< 0.38 U	0.23 J	< 0.38 U	NC
PYRENE	< 0.37 U	< 0.36 U	< 0.37 U	0.26 J	0.053 J	0.32 J	< 0.38 U	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.0037 U	0.005 J	< 0.0037 U	< 0.0036 U	0.013 J	< 0.0037 U	< 0.0038 U	2.4
4,4'-DDE	< 0.0037 U	0.0024 J	< 0.0037 U	0.0012 J	0.0052	< 0.0037 U	< 0.0038 U	1.7
4,4'-DDT	< 0.0037 U	0.011 J	< 0.0037 U	0.0075 J	< 0.0038 U	0.005 J	< 0.0038 U	1.7
ALDRIN	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.002 U	< 0.0019 U	< 0.002 U	0.029
ALPHA-CHLORDANE	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.002 U	0.00078 J	< 0.002 U	1.6
AROCLOR-1260	< 0.037 U	0.036 J	< 0.037 U	< 0.036 U	< 0.038 U	< 0.064 U	< 0.038 U	0.22
DELTA-BHC	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.002 U	< 0.0019 U	< 0.002 U	NC
DIELDRIN	< 0.0037 U	< 0.0036 U	< 0.0037 U	0.0012 J	0.0015 J	< 0.0037 U	< 0.0038 U	0.030

TABLE 20-2: ANALYTICAL RESULTS FOR IRP SITE 21 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S21-SB03	S21-SB04	S21-SB04	S21-SB05	S21-SB05	S21-SB06	S21-SB06	EPA Residential Soil PRGs
Sample ID	123-S21-014	123-S21-018	123-S21-019	123-S21-024	123-S21-025	123-S21-029	123-S21-031	
Sample Date	04/27/1993	04/27/1993	04/27/1993	04/27/1993	04/27/1993	04/27/1993	04/27/1993	
Sample Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	
PCBs/Pesticides (mg/kg)								
ENDOSULFAN I	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.002 U	< 0.0019 U	< 0.002 U	NC
ENDOSULFAN SULFATE	< 0.0037 U	< 0.0036 U	< 0.0037 U	< 0.0036 U	< 0.0038 U	< 0.0037 U	< 0.0038 U	NC
ENDRIN	< 0.0037 U	< 0.0036 U	< 0.0037 U	< 0.0036 U	< 0.0038 U	< 0.0037 U	< 0.0038 U	18
ENDRIN KETONE	< 0.0037 U	< 0.0036 U	< 0.0037 U	< 0.0036 U	< 0.0038 U	< 0.0037 U	< 0.0038 U	NC
GAMMA-CHLORDANE	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	0.0021	< 0.0019 U	< 0.002 U	1.6
HEPTACHLOR EPOXIDE	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.0019 U	< 0.002 U	< 0.0019 U	< 0.002 U	0.053
Metals (mg/kg)								
ALUMINUM	4,990	3,600	4,590	9,020	8,000	12,600	3,720	76,000
ARSENIC	**1.9 J**	**1.8**	**1.7**	**2.7**	**4.7**	**2.9**	**2.1**	0.39
BARIUM	71.5	48.1	62.5	111	122	98	62.6	5,400
BERYLLIUM	< 0.43 U	< 0.22 U	< 0.23 U	< 0.22 U	0.38	0.34	< 0.23 U	150
CADMIUM	< 1.1 U	1.1	< 0.91 U	1.9	1.7	2	1.1	37 *
CALCIUM	7,190	10,700	8,670	16,400	15,600	15,600	10,000	NC
CHROMIUM	8.2	7.5	7.9	14.3	17.4	22.1	7.4	210
COBALT	4.7	3.9	3	10.6	7	9.3	2.6	900
COPPER	6.6	9	7.4	19.9	112	24	7.4	3,100
IRON	9,390	9,070	9,390	22,300	21,900	**24,900**	8,130	23,000
LEAD	5.6	8.4 J	6.5 J	11.8 J	93.5 J	14 J	37.6 J	150 *
MAGNESIUM	2,900	3,660	2,780	7,140	5,860	8,040	3,610	NC
MANGANESE	142	190	163	398	374	362	146	1,800
MERCURY	< 0.08 U	< 0.11 U	< 0.11 U	< 0.11 U	0.12	< 0.11 U	< 0.12 U	23
NICKEL	7.6	7.8 J	8.3 J	13.2	17.5	17.5	5.4 J	1,600
POTASSIUM	1,460	995	1,230	907	2,270	1,730	1,300	NC
SELENIUM	< 0.62 U	< 0.66 U	< 0.68 U	< 0.66 U	< 0.7 U	< 0.67 U	< 0.69 U	390
SILVER	< 2.2 U	< 0.44 U	< 0.45 U	< 0.44 U	4.6	< 0.44 U	< 0.46 U	390
SODIUM	815	262	196	1,180	1,340	807	346	NC
VANADIUM	17.3	16.3	15.7	35.7	29.3	45.1	13	550
ZINC	27.4	29.5 J	29.8 J	65.3 J	570 J	70.2 J	28.5 J	23,000
Organophosphorus pesticides (mg/kg)								
None Detected	NA	NA	NA	NA	NA	ND	ND	NC

TABLE 20-2: ANALYTICAL RESULTS FOR IRP SITE 21 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S21-SB06	S21-SB07	S21-SB07	S21-SB07	S21-SB08	S21-SB08	S21-SB08	EPA Residential Soil PRGs
Sample ID	123-S21-141	123-S21-035	123-S21-036	123-S21-034	123-S21-039	123-S21-040	123-S21-042	
Sample Date	04/27/1993	04/28/1993	04/28/1993	04/28/1993	04/28/1993	04/28/1993	04/28/1993	
Sample Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.50 - 0.50	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	
Volatile Organic Compounds (mg/kg)								
1,2-DICHLOROETHENE (TOTAL)	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	NC
4-METHYL-2-PENTANONE	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	5,300
ACETONE	< 0.011 U	< 0.011 UJ	< 0.012 U	< 0.011 UJ	< 0.011 U	< 0.011 U	< 0.011 UJ	14,000
BENZENE	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	0.64
CARBON DISULFIDE	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	360
TETRACHLOROETHENE	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	0.48
TOLUENE	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	520
XYLENE (TOTAL)	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	270
Semivolatile Organic Compounds (mg/kg)								
2-METHYLNAPHTHALENE	< 0.36 U	< 0.38 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.37 U	< 0.38 U	NC
ACENAPHTHENE	< 0.36 U	< 0.38 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.37 U	< 0.38 U	3,700
ANTHRACENE	< 0.36 U	< 0.38 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.37 U	< 0.38 U	22,000
BENZO(A)ANTHRACENE	< 0.36 U	< 0.38 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.37 U	< 0.38 U	0.62
BENZO(A)PYRENE	< 0.36 U	< 0.38 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.37 U	< 0.38 U	0.062
BENZO(B)FLUORANTHENE	< 0.36 U	< 0.38 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.37 U	< 0.38 U	0.62
BENZO(K)FLUORANTHENE	< 0.36 U	< 0.38 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.37 U	< 0.38 U	0.38 *
CARBAZOLE	< 0.36 U	< 0.38 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.37 U	< 0.38 U	24
CHRYSENE	< 0.36 U	< 0.38 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.37 U	< 0.38 U	3.8 *
FLUORANTHENE	0.03 J	< 0.38 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.37 U	< 0.38 U	2,300
FLUORENE	< 0.36 U	< 0.38 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.37 U	< 0.38 U	2,700
INDENO(1,2,3-CD)PYRENE	< 0.36 U	< 0.38 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.37 U	< 0.38 U	0.62
NAPHTHALENE	< 0.36 U	< 0.38 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.37 U	< 0.38 U	1.7 *
PHENANTHRENE	< 0.36 U	< 0.38 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.37 U	< 0.38 U	NC
PYRENE	0.034 J	< 0.38 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.37 U	< 0.38 U	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.0036 U	< 0.0038 U	< 0.0038 U	< 0.0035 U	< 0.0038 U	< 0.0037 U	< 0.0038 U	2.4
4,4'-DDE	< 0.0036 U	< 0.0038 U	0.01	< 0.0035 U	0.0054	< 0.0037 U	< 0.0038 U	1.7
4,4'-DDT	0.0032 J	< 0.0038 U	0.007	< 0.0035 U	0.0038 J	< 0.0037 U	< 0.0038 U	1.7
ALDRIN	< 0.0018 U	< 0.002 U	< 0.002 U	< 0.0018 U	< 0.002 U	< 0.0019 U	< 0.002 U	0.029
ALPHA-CHLORDANE	< 0.0018 U	< 0.002 U	< 0.002 U	< 0.0018 U	< 0.002 U	< 0.0019 U	< 0.002 U	1.6
AROCLOR-1260	< 0.036 U	< 0.038 U	< 0.038 U	< 0.035 U	< 0.038 U	< 0.037 U	< 0.038 U	0.22
DELTA-BHC	< 0.0018 U	< 0.002 U	< 0.002 U	< 0.0018 U	< 0.002 U	< 0.0019 U	< 0.002 U	NC
DIELDRIN	< 0.0036 U	< 0.0038 U	< 0.0038 U	< 0.0035 U	< 0.0038 U	< 0.0037 U	< 0.0038 U	0.030

TABLE 20-2: ANALYTICAL RESULTS FOR IRP SITE 21 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S21-SB06	S21-SB07	S21-SB07	S21-SB07	S21-SB08	S21-SB08	S21-SB08	EPA Residential Soil PRGs
Sample ID	123-S21-141	123-S21-035	123-S21-036	123-S21-034	123-S21-039	123-S21-040	123-S21-042	
Sample Date	04/27/1993	04/28/1993	04/28/1993	04/28/1993	04/28/1993	04/28/1993	04/28/1993	
Sample Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.50 - 0.50	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	
PCBs/Pesticides (mg/kg)								
ENDOSULFAN I	< 0.0018 U	< 0.002 U	< 0.002 U	< 0.0018 U	< 0.002 U	< 0.0019 U	< 0.002 U	NC
ENDOSULFAN SULFATE	< 0.0036 U	< 0.0038 U	< 0.0038 U	< 0.0035 U	< 0.0038 U	< 0.0037 U	< 0.0038 U	NC
ENDRIN	< 0.0036 U	< 0.0038 U	< 0.0038 U	< 0.0035 U	< 0.0038 U	< 0.0037 U	< 0.0038 U	18
ENDRIN KETONE	< 0.0036 U	< 0.0038 U	< 0.0038 U	< 0.0035 U	< 0.0038 U	< 0.0037 U	< 0.0038 U	NC
GAMMA-CHLORDANE	< 0.0018 U	< 0.002 U	< 0.002 U	< 0.0018 U	< 0.002 U	< 0.0019 U	< 0.002 U	1.6
HEPTACHLOR EPOXIDE	< 0.0018 U	< 0.002 U	< 0.002 U	< 0.0018 U	< 0.002 U	< 0.0019 U	< 0.002 U	0.053
Metals (mg/kg)								
ALUMINUM	5,770	3,930	3,350	7,410	5,180	4,790	3,160	76,000
ARSENIC	**1.8**	**1.6**	**1.8**	**2.5**	**2.1**	**1.8**	**1.5**	0.39
BARIUM	113	60.8	54.1	84.8	67.9	53.3	61.6	5,400
BERYLLIUM	0.25	< 0.23 U	< 0.23 U	0.33	0.27	0.22	< 0.23 U	150
CADMIUM	1.8	< 0.92 U	< 0.93 U	< 0.85 U	< 0.92 U	1.5	< 0.92 U	37 *
CALCIUM	12,400	8,110	8,140	12,700	11,800	10,600	7,770	NC
CHROMIUM	10.6	7.3	6.3	13.6	9.6	9.9	5.9	210
COBALT	5.9	2.3	3	4.9	4.3	2.5	2.6	900
COPPER	15.1	6.6	10.8	15.1	11.9	8.3	7.3	3,100
IRON	14,700	7,990	8,030	14,700	11,300	9,650	7,380	23,000
LEAD	11.6 J	5.2 J	9 J	10.7 J	12.1 J	4.1 J	4.6 J	150 *
MAGNESIUM	4,850	2,590	2,540	5,180	3,710	3,370	2,290	NC
MANGANESE	285	138	150	247	212	162	136	1,800
MERCURY	< 0.11 U	< 0.12 U	< 0.12 U	< 0.11 U	< 0.11 U	< 0.11 U	< 0.11 U	23
NICKEL	11.3 J	7.2 J	7.1 J	11.5 J	10.6 J	8.5 J	7.3 J	1,600
POTASSIUM	1,280	1,170	1,160	1,740	1,370	1,260	928	NC
SELENIUM	< 0.66 U	< 0.69 U	< 0.7 U	< 0.64 U	< 0.69 U	< 0.67 U	< 0.69 U	390
SILVER	< 0.44 U	< 0.46 U	< 0.47 U	< 0.43 U	< 0.46 U	< 0.45 U	< 0.46 U	390
SODIUM	406	302	513	822	599	737	263	NC
VANADIUM	23.3	13.6	12.6	25.9	18.6	19	11.2	550
ZINC	54.1 J	28.8 J	32.7 J	49.5 J	50.6 J	30.2 J	25.9 J	23,000
Organophosphorus pesticides (mg/kg)								
None Detected	ND	NA	ND	ND	NA	NA	NA	NC

TABLE 20-2: ANALYTICAL RESULTS FOR IRP SITE 21 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S21-SB09	S21-SB09	S21-SB09	S21-SB09	S21-SB09	S21-SB09	S21-SB09	EPA Residential Soil PRGs
Sample ID	123-S21-045	123-S21-046	123-S21-047	123-S21-048	123-S21-049	123-S21-142	123-S21-143	
Sample Date	04/28/1993	04/28/1993	04/28/1993	04/28/1993	04/28/1993	04/28/1993	04/28/1993	
Sample Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	
Volatile Organic Compounds (mg/kg)								
1,2-DICHLOROETHENE (TOTAL)	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.011 U	NC
4-METHYL-2-PENTANONE	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.011 U	5,300
ACETONE	< 0.011 UJ	< 0.03 UJ	< 0.084 U	0.17	< 0.067 U	< 0.049 U	< 0.022 U	14,000
BENZENE	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.011 U	0.64
CARBON DISULFIDE	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	0.004 J	< 0.011 U	360
TETRACHLOROETHENE	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.011 U	0.002 J	0.48
TOLUENE	< 0.011 U	< 0.011 U	< 0.012 U	0.005 J	< 0.012 U	< 0.011 U	< 0.011 U	520
XYLENE (TOTAL)	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.011 U	270
Semivolatile Organic Compounds (mg/kg)								
2-METHYLNAPHTHALENE	< 0.36 U	< 0.36 U	< 0.38 U	< 0.38 U	< 0.39 U	< 0.37 U	0.086 J	NC
ACENAPHTHENE	< 0.36 U	< 0.36 U	< 0.38 U	< 0.38 U	< 0.39 U	< 0.37 U	< 0.37 U	3,700
ANTHRACENE	< 0.36 U	< 0.36 U	< 0.38 U	< 0.38 U	< 0.39 U	< 0.37 U	< 0.37 U	22,000
BENZO(A)ANTHRACENE	< 0.36 U	< 0.36 U	< 0.38 U	< 0.38 U	< 0.39 U	< 0.37 U	< 0.37 U	0.62
BENZO(A)PYRENE	< 0.36 U	< 0.36 U	< 0.38 U	< 0.38 U	< 0.39 U	< 0.37 U	< 0.37 U	0.062
BENZO(B)FLUORANTHENE	< 0.36 U	< 0.36 U	< 0.38 U	< 0.38 U	< 0.39 U	< 0.37 U	< 0.37 U	0.62
BENZO(K)FLUORANTHENE	< 0.36 U	< 0.36 U	< 0.38 U	< 0.38 U	< 0.39 U	< 0.37 U	< 0.37 U	0.38 *
CARBAZOLE	< 0.36 U	< 0.36 U	< 0.38 U	< 0.38 U	< 0.39 U	< 0.37 U	< 0.37 U	24
CHRYSENE	< 0.36 U	< 0.36 U	< 0.38 U	0.056 J	< 0.39 U	0.043 J	< 0.37 U	3.8 *
FLUORANTHENE	< 0.36 U	0.058 J	< 0.38 U	0.042 J	< 0.39 U	0.048 J	< 0.37 U	2,300
FLUORENE	< 0.36 U	< 0.36 U	< 0.38 U	0.039 J	< 0.39 U	< 0.37 U	< 0.37 U	2,700
INDENO(1,2,3-CD)PYRENE	< 0.36 U	< 0.36 U	< 0.38 U	< 0.38 U	< 0.39 U	< 0.37 U	< 0.37 U	0.62
NAPHTHALENE	< 0.36 U	< 0.36 U	< 0.38 U	< 0.38 U	< 0.39 U	< 0.37 U	0.068 J	1.7 *
PHENANTHRENE	< 0.36 U	< 0.36 U	< 0.38 U	0.11 J	< 0.39 U	0.051 J	0.048 J	NC
PYRENE	0.026 J	0.071 J	< 0.38 U	0.071 J	< 0.39 U	0.058 J	< 0.37 U	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	0.0032 J	0.0083 J	0.027 J	0.043 J	< 0.0032 U	0.029 J	0.028	2.4
4,4'-DDE	0.0026 J	0.0055	0.011 J	0.012 J	0.0025 J	0.008 J	0.0092 J	1.7
4,4'-DDT	0.013 J	0.0019 J	0.0015 J	0.006 J	< 0.0039 U	< 0.0037 U	0.0021 J	1.7
ALDRIN	< 0.0018 U	< 0.0019 U	< 0.002 UJ	0.001 J	< 0.002 U	< 0.0019 U	< 0.0019 U	0.029
ALPHA-CHLORDANE	< 0.0018 U	< 0.0019 U	0.0014 J	0.00089 J	< 0.002 U	< 0.0019 U	< 0.0019 U	1.6
AROCLOR-1260	0.1 J	0.025 J	0.015 J	0.065 J	< 0.039 U	0.11	0.065	0.22
DELTA-BHC	< 0.0018 U	< 0.0019 U	< 0.002 UJ	< 0.002 UJ	< 0.002 U	< 0.0019 U	< 0.0019 U	NC
DIELDRIN	0.0018 J	< 0.0036 U	< 0.0038 UJ	0.0018 J	< 0.0039 U	< 0.0037 U	< 0.0037 U	0.030

TABLE 20-2: ANALYTICAL RESULTS FOR IRP SITE 21 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S21-SB09	S21-SB09	S21-SB09	S21-SB09	S21-SB09	S21-SB09	S21-SB09	EPA Residential Soil PRGs
Sample ID	123-S21-045	123-S21-046	123-S21-047	123-S21-048	123-S21-049	123-S21-142	123-S21-143	
Sample Date	04/28/1993	04/28/1993	04/28/1993	04/28/1993	04/28/1993	04/28/1993	04/28/1993	
Sample Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	
PCBs/Pesticides (mg/kg)								
ENDOSULFAN I	< 0.0018 U	< 0.0019 U	< 0.002 UJ	< 0.002 UJ	< 0.002 U	< 0.0019 U	< 0.0019 U	NC
ENDOSULFAN SULFATE	< 0.0036 U	< 0.0036 U	< 0.0038 UJ	0.0014 J	< 0.0039 U	< 0.0037 U	< 0.0037 U	NC
ENDRIN	0.0021 J	< 0.0036 U	< 0.0038 UJ	0.0013 J	< 0.0039 U	< 0.0037 U	< 0.0037 U	18
ENDRIN KETONE	< 0.0036 U	< 0.0036 U	< 0.0038 UJ	< 0.0038 UJ	< 0.0039 U	< 0.0037 U	< 0.0037 U	NC
GAMMA-CHLORDANE	0.0013 J	< 0.0019 U	0.0011 J	0.0011 J	< 0.002 U	0.0013 J	0.001 J	1.6
HEPTACHLOR EPOXIDE	< 0.0018 U	< 0.0019 U	< 0.002 UJ	< 0.002 UJ	< 0.002 U	< 0.0019 U	< 0.0019 U	0.053
Metals (mg/kg)								
ALUMINUM	7,210	5,260	7,850	8,600	9,790	7,310	7,020	76,000
ARSENIC	**3.4**	**1.7**	**2.7**	**3**	**2**	**2.9**	**3.4**	0.39
BARIUM	92.3	76.1	96.3	91.3	96.9	76	97.9	5,400
BERYLLIUM	0.35	0.29	< 0.43 U	< 0.45 U	< 0.47 U	< 0.43 U	< 0.42 U	150
CADMIUM	1.2	< 0.88 U	< 1.1 U	< 1.1 U	1.3	1.1	1.6	37 *
CALCIUM	12,700	13,500	8,760	8,560	9,210	7,240	9,410	NC
CHROMIUM	14.8	10.5	14.8	20.1	17.7	14.8	14.4	210
COBALT	6.7	4.2	7.7	8.2	8.7	8	7.6	900
COPPER	21.3	13.3	14.2 J	86.1 J	14.1 J	14.1 J	29.6 J	3,100
IRON	17,100	12,400	16,300 J	17,800 J	18,600 J	15,200 J	16,600 J	23,000
LEAD	30.3 J	15.4 J	9.4	26.5	12.6	18	73.2	150 *
MAGNESIUM	5,570	4,480	3,960	4,610	4,400	4,200	4,780	NC
MANGANESE	308	236	388	264	434	221	274	1,800
MERCURY	< 0.11 U	< 0.11 U	< 0.1 U	< 0.07 U	< 0.11 U	< 0.08 U	< 0.08 U	23
NICKEL	12.5	9.8 J	17.5	29.8	14.7	13.3	14.6	1,600
POTASSIUM	1,760	964	2,460	2,430	2,950	2,090	1,940	NC
SELENIUM	< 0.66 U	< 0.66 U	< 0.67 UJ	< 0.68 UJ	< 0.68 UJ	< 0.65 UJ	< 0.67 UJ	390
SILVER	< 0.44 U	< 0.44 U	< 2.2 U	< 2.2 U	< 2.3 U	< 2.1 U	2.5	390
SODIUM	334	375	< 400 U	496	465	475	598	NC
VANADIUM	28.4	20.6	31.4	32.7	35.2	27.3	27.5	550
ZINC	69.3 J	43.7 J	58.1	105	53	64.3	185	23,000
Organophosphorus pesticides (mg/kg)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 20-2: ANALYTICAL RESULTS FOR IRP SITE 21 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S21-SB10	S21-SB10	S21-SB10	S21-SB11	S21-SB11	S21-SB11	S21-SB11	EPA Residential Soil PRGs
Sample ID	123-S21-050	123-S21-051	123-S21-052	123-S21-056	123-S21-058	123-S21-059	123-S21-057	
Sample Date	04/28/1993	04/28/1993	04/28/1993	04/28/1993	04/28/1993	04/28/1993	04/28/1993	
Sample Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	3.00 - 3.00	
Volatile Organic Compounds (mg/kg)								
1,2-DICHLOROETHENE (TOTAL)	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	NC
4-METHYL-2-PENTANONE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	5,300
ACETONE	< 0.011 UJ	< 0.011 UJ	< 0.021 UJ	< 0.011 UJ	< 0.015 U	< 0.011 U	< 0.012 U	14,000
BENZENE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	0.64
CARBON DISULFIDE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	360
TETRACHLOROETHENE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	0.48
TOLUENE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	520
XYLENE (TOTAL)	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	270
Semivolatile Organic Compounds (mg/kg)								
2-METHYLNAPHTHALENE	< 0.35 U	< 0.35 U	NA	0.084 J	< 0.4 U	< 11 U	0.053 J	NC
ACENAPHTHENE	< 0.35 U	< 0.35 U	NA	< 0.37 U	0.041 J	< 11 U	< 0.39 U	3,700
ANTHRACENE	0.23 J	< 0.35 U	NA	< 0.37 U	0.1 J	< 11 U	< 0.39 U	22,000
BENZO(A)ANTHRACENE	0.043 J	< 0.35 U	NA	< 0.37 U	0.066 J	< 11 U	< 0.39 U	0.62
BENZO(A)PYRENE	0.038 J	< 0.35 U	NA	< 0.37 U	< 0.4 U	< 11 U	< 0.39 U	0.062
BENZO(B)FLUORANTHENE	0.044 J	< 0.35 U	NA	< 0.37 U	0.054 J	< 11 U	< 0.39 U	0.62
BENZO(K)FLUORANTHENE	0.069 J	< 0.35 U	NA	< 0.37 U	0.054 J	< 11 U	< 0.39 U	0.38 *
CARBAZOLE	< 0.35 U	< 0.35 U	NA	< 0.37 U	< 0.4 U	< 11 U	< 0.39 U	24
CHRYSENE	0.13 J	< 0.35 U	NA	< 0.37 U	0.086 J	< 11 U	< 0.39 U	3.8 *
FLUORANTHENE	< 0.35 U	< 0.35 U	NA	0.065 J	0.31 J	< 11 U	< 0.39 U	2,300
FLUORENE	< 0.35 U	< 0.35 U	NA	< 0.37 U	< 0.4 U	< 11 U	< 0.39 U	2,700
INDENO(1,2,3-CD)PYRENE	< 0.35 U	< 0.35 U	NA	< 0.37 U	< 0.4 U	< 11 U	< 0.39 U	0.62
NAPHTHALENE	< 0.35 U	< 0.35 U	NA	0.1 J	< 0.4 U	< 11 U	0.062 J	1.7 *
PHENANTHRENE	< 0.35 U	< 0.35 U	NA	0.091 J	< 0.4 U	< 11 U	0.044 J	NC
PYRENE	< 0.35 U	< 0.35 U	NA	0.054 J	0.24 J	< 11 U	< 0.39 U	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.0035 U	0.0073 J	0.14 J	0.013 J	0.037	0.024 J	0.0078 J	2.4
4,4'-DDE	< 0.0035 U	0.0039 J	0.059 J	0.0042 J	0.011	0.002 J	0.0049 J	1.7
4,4'-DDT	0.0042 J	0.0046 J	0.0096 J	0.016 J	0.0026 J	< 0.0035 U	0.02 J	1.7
ALDRIN	< 0.0018 U	< 0.0018 UJ	< 0.0019 U	< 0.0019 UJ	< 0.0021 U	< 0.0018 U	< 0.002 UJ	0.029
ALPHA-CHLORDANE	< 0.0018 U	< 0.0018 UJ	0.0038	< 0.0019 UJ	0.0012 J	< 0.0018 U	< 0.002 UJ	1.6
AROCLOR-1260	< 0.035 U	< 0.035 UJ	0.15	0.08 J	0.07	< 0.035 U	0.072 J	0.22
DELTA-BHC	< 0.0018 U	< 0.0018 UJ	< 0.0019 U	< 0.0019 UJ	< 0.0021 U	< 0.0018 U	< 0.002 UJ	NC
DIELDRIN	< 0.0035 U	< 0.0035 UJ	0.004 J	< 0.0037 UJ	< 0.004 U	0.0017 J	< 0.0039 UJ	0.030

TABLE 20-2: ANALYTICAL RESULTS FOR IRP SITE 21 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S21-SB10	S21-SB10	S21-SB10	S21-SB11	S21-SB11	S21-SB11	S21-SB11	EPA Residential Soil PRGs
Sample ID	123-S21-050	123-S21-051	123-S21-052	123-S21-056	123-S21-058	123-S21-059	123-S21-057	
Sample Date	04/28/1993	04/28/1993	04/28/1993	04/28/1993	04/28/1993	04/28/1993	04/28/1993	
Sample Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	3.00 - 3.00	
PCBs/Pesticides (mg/kg)								
ENDOSULFAN I	< 0.0018 U	< 0.0018 UJ	< 0.0019 U	< 0.0019 UJ	< 0.0021 U	< 0.0035 U	< 0.002 UJ	NC
ENDOSULFAN SULFATE	< 0.0035 U	< 0.0035 UJ	0.0031 J	< 0.0037 UJ	< 0.004 UJ	0.011 J	0.001 J	NC
ENDRIN	< 0.0035 U	< 0.0035 UJ	< 0.0037 U	< 0.0037 UJ	< 0.004 U	< 0.0035 U	< 0.0039 UJ	18
ENDRIN KETONE	< 0.0035 U	0.003 J	0.0024 J	< 0.0037 UJ	< 0.004 U	0.015 J	< 0.0039 UJ	NC
GAMMA-CHLORDANE	< 0.0018 U	< 0.0018 UJ	0.004 J	< 0.0019 UJ	0.0014 J	0.0015 J	< 0.002 UJ	1.6
HEPTACHLOR EPOXIDE	< 0.0018 U	< 0.0018 UJ	0.001 J	< 0.0019 UJ	< 0.0021 U	< 0.0035 U	0.0002 J	0.053
Metals (mg/kg)								
ALUMINUM	6,440	4,990	9,360	8,900	6,110	4,080	9,140	76,000
ARSENIC	**1.9**	**2.4**	**9.8**	**3.8**	**2.5**	**0.96**	**3.8**	0.39
BARIUM	80.3	78.4	129	124	66	43.4	128	5,400
BERYLLIUM	< 0.41 U	< 0.42 U	< 0.43 U	< 0.44 U	< 0.48 U	< 0.41 U	< 0.47 U	150
CADMIUM	1.3	< 1.1 U	4.2	2	1.2	< 1 U	2.8	37 *
CALCIUM	10,200	8,450	12,900	12,400	6,090	11,600	12,800	NC
CHROMIUM	12.9	9.3	27.6	23.2	16.4	8.5	22.1	210
COBALT	6.1	4.8	12.7	9.1	6.7	4.5	13.1	900
COPPER	20.8 J	< 12.5 U	143 J	51.3 J	13 J	< 7.5 U	143 J	3,100
IRON	13,200 J	10,100 J	**38,600 J**	19,600 J	13,100 J	9,140 J	**25,800 J**	23,000
LEAD	13.9	17	**294**	68.5	40.8	3.7	108	150 *
MAGNESIUM	4,090	2,870	5,880	5,200	3,250	2,650	5,550	NC
MANGANESE	211	165	575	314	149	227	474	1,800
MERCURY	< 0.09 U	< 0.08 U	0.11	< 0.1 U	< 0.09 U	< 0.07 U	0.13	23
NICKEL	12.5	9.2	24.5	17.7	13	14.4	23.6	1,600
POTASSIUM	1,500	1,540	1,970	2,000	1,830	847	2,270	NC
SELENIUM	< 0.6 UJ	< 0.62 UJ	< 0.67 UJ	< 0.64 UJ	< 0.69 UJ	< 0.64 UJ	< 0.7 UJ	390
SILVER	< 2.1 U	< 2.1 U	9.6	< 2.2 U	< 2.4 U	< 2 U	6.2	390
SODIUM	641	537	1,390	728	935	< 386 U	1,100	NC
VANADIUM	24.7	19.6	39.2	34.4	23.9	27.1	34.1	550
ZINC	50.6	44.5	1,270	176	77.5	21.7	471	23,000
Organophosphorus pesticides (mg/kg)								
None Detected	ND	ND	NA	ND	ND	NA	NA	NC

TABLE 20-2: ANALYTICAL RESULTS FOR IRP SITE 21 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S21-SB11	S21-SB12	S21-SB12	S21-SB12	S21-SB13	S21-SB13	S21-SB13	EPA Residential Soil PRGs
Sample ID	123-S21-144	123-S21-062	123-S21-063	123-S21-064	123-S21-067	123-S21-068	123-S21-069	
Sample Date	04/28/1993	04/28/1993	04/28/1993	04/28/1993	04/28/1993	04/28/1993	04/28/1993	
Sample Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	
Volatile Organic Compounds (mg/kg)								
1,2-DICHLOROETHENE (TOTAL)	< 0.011 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	NC
4-METHYL-2-PENTANONE	< 0.011 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	5,300
ACETONE	< 0.018 U	< 0.026 U	< 0.03 U	< 0.077 U	< 0.011 UJ	< 0.046 U	0.071 J	14,000
BENZENE	< 0.011 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	0.64
CARBON DISULFIDE	0.001 J	< 0.012 U	< 0.011 U	0.003 J	< 0.011 U	< 0.011 U	0.002 J	360
TETRACHLOROETHENE	< 0.011 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	0.48
TOLUENE	< 0.011 U	0.002 J	< 0.011 U	0.002 J	< 0.011 U	< 0.011 U	< 0.011 U	520
XYLENE (TOTAL)	< 0.011 U	0.002 J	< 0.011 U	0.002 J	< 0.011 U	< 0.011 U	< 0.011 U	270
Semivolatile Organic Compounds (mg/kg)								
2-METHYLNAPHTHALENE	< 0.35 U	< 0.39 U	< 0.37 U	< 0.38 U	< 0.35 U	< 0.38 U	0.054 J	NC
ACENAPHTHENE	< 0.35 U	< 0.39 U	< 0.37 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.36 U	3,700
ANTHRACENE	< 0.35 U	< 0.39 U	< 0.37 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.36 U	22,000
BENZO(A)ANTHRACENE	< 0.35 U	< 0.39 U	< 0.37 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.36 U	0.62
BENZO(A)PYRENE	< 0.35 U	< 0.39 U	< 0.37 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.36 U	0.062
BENZO(B)FLUORANTHENE	< 0.35 U	< 0.39 U	< 0.37 U	< 0.38 U	< 0.35 UJ	< 0.38 U	0.08 J	0.62
BENZO(K)FLUORANTHENE	< 0.35 U	< 0.39 U	< 0.37 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.36 U	0.38 *
CARBAZOLE	< 0.35 U	< 0.39 U	< 0.37 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.36 U	24
CHRYSENE	< 0.35 U	< 0.39 U	< 0.37 U	< 0.38 U	< 0.35 U	< 0.38 U	0.059 J	3.8 *
FLUORANTHENE	< 0.35 U	< 0.39 U	< 0.37 U	< 0.38 U	< 0.35 U	< 0.38 U	0.05 J	2,300
FLUORENE	< 0.35 U	< 0.39 U	< 0.37 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.36 U	2,700
INDENO(1,2,3-CD)PYRENE	< 0.35 U	< 0.39 U	< 0.37 U	< 0.38 U	< 0.35 U	< 0.38 U	< 0.36 U	0.62
NAPHTHALENE	< 0.35 U	< 0.39 U	< 0.37 U	0.093 J	< 0.35 U	< 0.38 U	< 0.36 U	1.7 *
PHENANTHRENE	< 0.35 U	< 0.39 U	< 0.37 U	< 0.38 U	< 0.35 U	< 0.38 U	0.055 J	NC
PYRENE	< 0.35 U	< 0.39 U	< 0.37 U	< 0.38 U	< 0.35 U	< 0.38 U	0.077 J	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.0035 U	0.0082	0.012 J	0.038	< 0.0035 U	0.019	0.071 J	2.4
4,4'-DDE	< 0.0035 U	0.0084	0.0042	0.019	< 0.0035 U	0.0077	0.013	1.7
4,4'-DDT	0.0017 J	0.027 J	0.034 J	0.0027 J	< 0.0035 U	0.026 J	0.0034 J	1.7
ALDRIN	< 0.0018 U	< 0.002 U	< 0.0019 U	< 0.002 U	< 0.0018 U	< 0.002 U	< 0.0018 U	0.029
ALPHA-CHLORDANE	< 0.0018 U	< 0.002 U	< 0.0019 U	0.0021 J	< 0.0018 U	0.0015 J	0.0029	1.6
AROCLOR-1260	< 0.035 U	0.038 J	0.15	0.025 J	< 0.035 U	0.079	**0.38 J**	0.22
DELTA-BHC	< 0.0018 U	< 0.002 U	< 0.0019 U	< 0.002 U	< 0.0018 U	< 0.002 U	< 0.0018 U	NC
DIELDRIN	< 0.0035 U	< 0.002 U	< 0.00037 U	< 0.0038 U	< 0.0035 U	< 0.0038 U	< 0.0036 U	0.030

TABLE 20-2: ANALYTICAL RESULTS FOR IRP SITE 21 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S21-SB11	S21-SB12	S21-SB12	S21-SB12	S21-SB13	S21-SB13	S21-SB13	EPA Residential Soil PRGs
Sample ID	123-S21-144	123-S21-062	123-S21-063	123-S21-064	123-S21-067	123-S21-068	123-S21-069	
Sample Date	04/28/1993	04/28/1993	04/28/1993	04/28/1993	04/28/1993	04/28/1993	04/28/1993	
Sample Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	
PCBs/Pesticides (mg/kg)								
ENDOSULFAN I	< 0.0018 U	< 0.002 U	< 0.0019 U	< 0.002 U	< 0.0018 U	< 0.002 U	< 0.0018 U	NC
ENDOSULFAN SULFATE	< 0.0035 U	< 0.0039 U	< 0.0037 U	< 0.0038 U	< 0.0035 U	< 0.0038 U	< 0.0036 U	NC
ENDRIN	< 0.0035 U	< 0.0039 U	< 0.0037 UJ	< 0.0038 U	< 0.0035 U	< 0.0038 U	< 0.0036 U	18
ENDRIN KETONE	< 0.0035 U	< 0.0039 U	< 0.0037 U	< 0.0038 U	< 0.0035 U	< 0.0038 U	< 0.0036 U	NC
GAMMA-CHLORDANE	< 0.0018 U	< 0.002 U	< 0.0019 U	0.0024 J	< 0.0018 U	0.0011 J	0.0018 J	1.6
HEPTACHLOR EPOXIDE	< 0.0018 U	< 0.002 U	< 0.0019 U	< 0.002 U	< 0.0018 U	< 0.002 U	< 0.0018 U	0.053
Metals (mg/kg)								
ALUMINUM	4,420	12,400	8,780	7,430	5,780	11,000	7,440	76,000
ARSENIC	**2.1**	**4.3**	**2.5**	**1.6**	**1.6**	**4.4**	**1.6**	0.39
BARIUM	63.1	123	60.7	84.2	66.7	130	59.7	5,400
BERYLLIUM	< 0.41 U	< 0.46 U	< 0.41 U	< 0.42 U	0.58	0.87	0.55	150
CADMIUM	< 1 U	1.4	1.2	1.3	< 1 U	1.7	1.2	37 *
CALCIUM	7,550	17,600	11,000	6,180	15,200	18,800	8,440	NC
CHROMIUM	8.6	21.5	25.1	13.6	9.4	21	14.9	210
COBALT	4.5	10.6	8.3	7.4	4.9	10.4	8.6	900
COPPER	< 7.5 U	19.9 J	16.9 J	13.7 J	9.5	34.9	23	3,100
IRON	9,040 J	22,000 J	16,300 J	15,500 J	11,500	21,100	16,500	23,000
LEAD	4.6	11.5	12.7	8.6	4 J	24.2 J	22.5 J	150 *
MAGNESIUM	2,470	7,260	5,900	3,910	4,700	8,050	5,120	NC
MANGANESE	142	410	254	287	226 J	388 J	255 J	1,800
MERCURY	< 0.06 U	< 0.08 U	< 0.07 U	< 0.07 U	< 0.09 U	< 0.12 U	< 0.1 U	23
NICKEL	8.7	22.1	16	14.1	12	26.4	16.7	1,600
POTASSIUM	1,360	3,330	1,600	2,650	927	2,930	1,510	NC
SELENIUM	< 0.59 UJ	< 0.66 UJ	< 0.64 UJ	< 0.64 UJ	< 0.59 UJ	< 0.65 UJ	< 0.61 UJ	390
SILVER	< 2.1 U	< 2.3 U	< 2 U	< 2.1 U	< 2 U	< 2.2 U	< 1.9 U	390
SODIUM	423	648	880	541	360	937	1,060	NC
VANADIUM	16.8	42.5	33.9	27.8	22.6	42.7	26.1	550
ZINC	25.3	62.6	47.8	56.7	42.3	106	66.9	23,000
Organophosphorus pesticides (mg/kg)								
None Detected	ND	NA	NA	NA	NA	NA	NA	NC

TABLE 20-2: ANALYTICAL RESULTS FOR IRP SITE 21 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S21-SB14	S21-SB14	S21-SB14	S21-SB15	S21-SB15	S21-SB15	S21-SB15	EPA Residential Soil PRGs
Sample ID	123-S21-073	123-S21-074	123-S21-075	123-S21-078	123-S21-079	123-S21-080	123-S21-081	
Sample Date	04/28/1993	04/28/1993	04/28/1993	04/28/1993	04/28/1993	04/28/1993	04/28/1993	
Sample Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	
Volatile Organic Compounds (mg/kg)								
1,2-DICHLOROETHENE (TOTAL)	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	NC
4-METHYL-2-PENTANONE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	5,300
ACETONE	< 0.011 UJ	< 0.026 UJ	< 0.04 UJ	< 0.027 UJ	< 0.036 U	< 0.042 U	< 0.061 UJ	14,000
BENZENE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	0.64
CARBON DISULFIDE	< 0.011 UJ	< 0.011 UJ	< 0.011 UJ	< 0.011 UJ	< 0.011 UJ	< 0.012 UJ	< 0.011 UJ	360
TETRACHLOROETHENE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	0.003 J	< 0.012 U	< 0.011 U	0.48
TOLUENE	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	520
XYLENE (TOTAL)	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	270
Semivolatile Organic Compounds (mg/kg)								
2-METHYLNAPHTHALENE	< 0.37 U	0.042 J	< 0.37 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.37 U	NC
ACENAPHTHENE	< 0.37 U	< 0.36 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.37 U	3,700
ANTHRACENE	0.057 J	< 0.36 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.38 U	0.062 J	22,000
BENZO(A)ANTHRACENE	0.21 J	< 0.36 U	< 0.37 UJ	< 0.37 U	< 0.37 U	< 0.38 U	0.076 J	0.62
BENZO(A)PYRENE	**0.13 J**	< 0.36 UJ	NA	< 0.37 UJ	< 0.37 UJ	< 0.38 U	< 0.092 UJ	0.062
BENZO(B)FLUORANTHENE	0.35 J	< 0.36 UJ	NA	< 0.37 UJ	< 0.37 UJ	< 0.38 U	< 0.13 UJ	0.62
BENZO(K)FLUORANTHENE	0.17 J	< 0.36 UJ	NA	< 0.37 UJ	< 0.37 UJ	< 0.38 U	< 0.086 UJ	0.38 *
CARBAZOLE	0.044 J	< 0.36 U	< 0.37 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.37 U	24
CHRYSENE	0.22 J	0.039 J	< 0.37 UJ	< 0.37 U	< 0.37 U	< 0.38 U	0.16 J	3.8 *
FLUORANTHENE	0.44	0.044 J	< 0.37 U	0.038 J	< 0.37 U	< 0.38 U	0.097 J	2,300
FLUORENE	< 0.37 U	< 0.36 U	0.06 J	< 0.37 U	< 0.37 U	< 0.38 U	< 0.37 U	2,700
INDENO(1,2,3-CD)PYRENE	0.043 J	< 0.36 UJ	NA	< 0.37 UJ	< 0.37 UJ	< 0.38 U	< 0.37 UJ	0.62
NAPHTHALENE	< 0.37 U	0.046 J	< 0.37 U	< 0.37 U	< 0.37 U	< 0.38 U	< 0.37 U	1.7 *
PHENANTHRENE	0.26 J	0.064 J	0.22 J	< 0.37 U	0.043 J	< 0.38 U	0.076 J	NC
PYRENE	0.39	0.066 J	< 0.37 UJ	0.06 J	< 0.37 U	< 0.38 U	0.18 J	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	0.0038 J	< 0.0036 U	0.074 J	0.013 J	0.027 J	0.024 J	0.44	2.4
4,4'-DDE	0.0023 J	< 0.0036 U	0.011 J	0.0043 J	0.0065 J	0.0092 J	0.039 J	1.7
4,4'-DDT	0.0056 J	< 0.0036 UJ	< 0.0037 UJ	0.023 J	0.0058 J	0.012 J	0.013 J	1.7
ALDRIN	< 0.0019 UJ	< 0.0019 U	< 0.0019 UJ	< 0.0019 UJ	< 0.0019 UJ	< 0.002 UJ	< 0.0019 UJ	0.029
ALPHA-CHLORDANE	< 0.0019 UJ	< 0.0019 U	< 0.0017 UJ	< 0.0019 UJ	< 0.0019 UJ	< 0.002 UJ	< 0.0019 UJ	1.6
AROCLOR-1260	< 0.037 UJ	< 0.036 U	**0.36 J**	0.079 J	0.19 J	0.1 J	**0.49 J**	0.22
DELTA-BHC	< 0.0019 UJ	< 0.0019 U	< 0.0019 UJ	< 0.0019 UJ	< 0.0019 UJ	< 0.002 UJ	0.0022 J	NC
DIELDRIN	< 0.0037 UJ	< 0.0036 U	0.002 J	0.0052 J	< 0.0037 UJ	< 0.0038 UJ	0.0058 J	0.030

TABLE 20-2: ANALYTICAL RESULTS FOR IRP SITE 21 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S21-SB14	S21-SB14	S21-SB14	S21-SB15	S21-SB15	S21-SB15	S21-SB15	EPA Residential Soil PRGs
Sample ID	123-S21-073	123-S21-074	123-S21-075	123-S21-078	123-S21-079	123-S21-080	123-S21-081	
Sample Date	04/28/1993	04/28/1993	04/28/1993	04/28/1993	04/28/1993	04/28/1993	04/28/1993	
Sample Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	
PCBs/Pesticides (mg/kg)								
ENDOSULFAN I	< 0.0019 UJ	< 0.0019 U	< 0.0019 UJ	< 0.0019 UJ	< 0.0019 UJ	< 0.002 UJ	< 0.0019 UJ	NC
ENDOSULFAN SULFATE	< 0.0037 UJ	< 0.0036 U	< 0.0037 UJ	< 0.0018 UJ	< 0.0037 UJ	< 0.0026 UJ	0.0067 J	NC
ENDRIN	< 0.0037 UJ	< 0.0036 UJ	< 0.0037 UJ	< 0.0037 UJ	< 0.0037 UJ	< 0.0038 UJ	< 0.0037 UJ	18
ENDRIN KETONE	< 0.0037 UJ	< 0.0036 U	< 0.0037 UJ	< 0.0022 UJ	< 0.0037 UJ	< 0.0038 UJ	< 0.0037 UJ	NC
GAMMA-CHLORDANE	< 0.0019 UJ	< 0.0019 U	< 0.0019 UJ	< 0.0019 UJ	< 0.0019 UJ	< 0.002 UJ	< 0.0019 UJ	1.6
HEPTACHLOR EPOXIDE	0.0019 J	< 0.0019 U	< 0.0019 UJ	< 0.0019 UJ	< 0.0019 UJ	< 0.002 UJ	< 0.0019 UJ	0.053
Metals (mg/kg)								
ALUMINUM	13,400	6,330	9,300	8,980	9,300	9,740	7,830	76,000
ARSENIC	**2.1**	**4.1**	**2**	**2.8**	**3.9**	**3.4**	**7.3**	0.39
BARIUM	147	76.4	33	104	116	105	68.8	5,400
BERYLLIUM	0.55	0.55	0.61	0.59	0.59	0.88	0.65	150
CADMIUM	< 2 U	1.7	< 1.1 U	< 1 U	1.6	1.3	1.3	37 *
CALCIUM	16,200	11,100	9,480	14,000	16,800	15,400	12,100	NC
CHROMIUM	19.6	12.8	18.8	16.1	29.9	25	15.5	210
COBALT	19.9	6.2	11.5	8.6	8.9	9.4	9	900
COPPER	29.2	48.1	18	19.9	23.7	20.1	18.1	3,100
IRON	**33,800**	14,900	21,500	16,900	18,100	18,700	18,000	23,000
LEAD	9.8 J	56.9 J	8.9 J	25.8 J	62.6 J	39.2 J	27.8 J	150 *
MAGNESIUM	9,700	3,730	6,240	5,430	6,180	6,120	5,240	NC
MANGANESE	538 J	241 J	264 J	290 J	326 J	327 J	281 J	1,800
MERCURY	< 0.1 U	< 0.08 U	< 0.11 U	< 0.11 U	< 0.11 U	< 0.1 U	< 0.1 U	23
NICKEL	28.1	18.9	18.5	18.7	21.4	21	19	1,600
POTASSIUM	1,080	1,650	880	2,130	2,230	2,390	1,730	NC
SELENIUM	< 3.3 UJ	< 0.64 UJ	< 0.64 UJ	< 0.66 UJ	< 0.66 UJ	< 0.67 UJ	< 0.67 UJ	390
SILVER	< 3.9 U	< 1.9 U	< 2.1 U	< 2.1 U	< 2.1 U	< 2.2 U	< 2.3 U	390
SODIUM	976	664	691	616	950	953	735	NC
VANADIUM	61.8	24.4	39.2	32.6	33	34.1	34.4	550
ZINC	78.1	213	47.5	85.4	120	168	64.3	23,000
Organophosphorus pesticides (mg/kg)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 20-2: ANALYTICAL RESULTS FOR IRP SITE 21 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S21-SB15	S21-SB15	S21-SB16	S21-SB16	S21-SB16	S21-SB16	S21-SB16	EPA Residential Soil PRGs
Sample ID	123-S21-082	123-S21-145	123-S21-084	123-S21-085	123-S21-086	123-S21-087	123-S21-088	
Sample Date	04/28/1993	04/28/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	
Sample Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	
Volatile Organic Compounds (mg/kg)								
1,2-DICHLOROETHENE (TOTAL)	0.002 J	0.002 J	< 0.011 U	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	NC
4-METHYL-2-PENTANONE	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	5,300
ACETONE	< 0.047 U	< 0.025 UJ	< 0.011 U	< 0.012 U	< 0.012 U	< 0.027 U	< 0.039 U	14,000
BENZENE	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	0.64
CARBON DISULFIDE	< 0.011 UJ	0.012 J	< 0.011 U	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	360
TETRACHLOROETHENE	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	0.48
TOLUENE	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	520
XYLENE (TOTAL)	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.012 U	< 0.011 U	< 0.011 U	270
Semivolatile Organic Compounds (mg/kg)								
2-METHYLNAPHTHALENE	< 3.7 U	< 0.38 U	< 0.37 U	< 0.39 U	< 0.39 U	< 0.37 U	< 0.37 U	NC
ACENAPHTHENE	< 3.7 U	< 0.38 U	< 0.37 U	< 0.39 U	< 0.39 U	< 0.37 U	< 0.37 U	3,700
ANTHRACENE	< 3.7 U	< 0.38 U	< 0.37 U	< 0.39 U	< 0.39 U	< 0.37 U	< 0.37 U	22,000
BENZO(A)ANTHRACENE	< 3.7 U	< 0.38 U	< 0.37 U	< 0.39 U	< 0.39 U	< 0.37 U	< 0.37 U	0.62
BENZO(A)PYRENE	< 3.7 U	< 0.38 U	< 0.37 U	< 0.39 U	< 0.39 U	< 0.37 U	< 0.37 U	0.062
BENZO(B)FLUORANTHENE	< 3.7 U	< 0.38 U	< 0.37 U	< 0.39 U	< 0.39 U	< 0.37 U	< 0.37 U	0.62
BENZO(K)FLUORANTHENE	< 3.7 U	< 0.38 U	< 0.37 U	< 0.39 U	< 0.39 U	< 0.37 U	< 0.37 U	0.38 *
CARBAZOLE	< 3.7 U	< 0.38 U	< 0.37 U	< 0.39 U	< 0.39 U	< 0.37 U	< 0.37 U	24
CHRYSENE	< 3.7 U	< 0.38 U	< 0.37 U	< 0.39 U	< 0.39 U	0.03 J	< 0.37 U	3.8 *
FLUORANTHENE	< 3.7 U	< 0.38 U	< 0.37 U	0.079 J	< 0.39 U	0.027 J	0.049 J	2,300
FLUORENE	< 3.7 U	< 0.38 U	< 0.37 U	< 0.39 U	< 0.39 U	< 0.37 U	< 0.37 U	2,700
INDENO(1,2,3-CD)PYRENE	< 3.7 U	< 0.38 U	< 0.37 U	< 0.39 U	< 0.39 U	< 0.37 U	< 0.37 U	0.62
NAPHTHALENE	< 3.7 U	< 0.38 U	< 0.37 U	< 0.39 U	< 0.39 U	< 0.37 U	< 0.37 U	1.7 *
PHENANTHRENE	< 3.7 U	< 0.38 U	< 0.37 U	0.053 J	< 0.39 U	< 0.37 U	0.12 J	NC
PYRENE	< 3.7 U	< 0.38 U	< 0.37 U	0.04 J	< 0.39 U	0.038 J	0.035 J	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	0.087 J	0.13 J	< 0.019 U	< 0.039 U	< 0.019 U	< 0.0037 U	< 0.0037 U	2.4
4,4'-DDE	0.011 J	0.021 J	< 0.019 U	< 0.039 U	< 0.019 U	< 0.0037 U	< 0.0037 U	1.7
4,4'-DDT	0.0041 J	< 0.003 UJ	0.024 J	0.014 J	0.012 J	< 0.0037 U	< 0.0037 U	1.7
ALDRIN	< 0.0019 UJ	< 0.002 UJ	< 0.0096 U	< 0.02 U	< 0.01 U	< 0.0019 U	< 0.0019 U	0.029
ALPHA-CHLORDANE	0.0037 J	< 0.0016 UJ	< 0.0096 U	< 0.02 U	< 0.01 U	< 0.0019 U	< 0.0019 U	1.6
AROCLOR-1260	**0.3 J**	**1.3 J**	0.12 J	0.089 J	0.042 J	< 0.037 U	< 0.037 U	0.22
DELTA-BHC	< 0.0019 UJ	< 0.002 UJ	< 0.0096 U	< 0.02 U	< 0.01 U	< 0.0019 U	< 0.0019 U	NC
DIELDRIN	< 0.0019 UJ	< 0.0027 UJ	< 0.019 U	< 0.039 U	< 0.019 U	< 0.0037 U	< 0.0037 U	0.030

TABLE 20-2: ANALYTICAL RESULTS FOR IRP SITE 21 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S21-SB15	S21-SB15	S21-SB16	S21-SB16	S21-SB16	S21-SB16	S21-SB16	EPA Residential Soil PRGs
Sample ID	123-S21-082	123-S21-145	123-S21-084	123-S21-085	123-S21-086	123-S21-087	123-S21-088	
Sample Date	04/28/1993	04/28/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	
Sample Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	
PCBs/Pesticides (mg/kg)								
ENDOSULFAN I	< 0.0019 UJ	< 0.002 U	< 0.0096 U	< 0.02 U	< 0.01 U	< 0.0019 U	< 0.0019 U	NC
ENDOSULFAN SULFATE	< 0.0037 UJ	0.0052 J	< 0.019 U	< 0.039 U	< 0.019 U	< 0.0037 U	< 0.0037 U	NC
ENDRIN	< 0.0037 UJ	< 0.0038 UJ	< 0.019 U	< 0.039 U	< 0.019 U	< 0.0037 U	< 0.0037 U	18
ENDRIN KETONE	< 0.0037 UJ	< 0.0038 UJ	< 0.019 U	< 0.039 U	< 0.019 U	< 0.0037 U	< 0.0037 U	NC
GAMMA-CHLORDANE	0.0031 J	< 0.002 UJ	< 0.0096 U	< 0.02 U	< 0.01 U	< 0.0019 U	< 0.0019 U	1.6
HEPTACHLOR EPOXIDE	< 0.0012 UJ	< 0.002 UJ	< 0.0096 U	< 0.02 U	< 0.01 U	< 0.0019 U	< 0.0019 U	0.053
Metals (mg/kg)								
ALUMINUM	8,240	10,900	11,500	10,100	11,000	12,200	9,910	76,000
ARSENIC	**1.8**	**1.8**	**4**	**2.6**	**4**	**2.7**	**3.7**	0.39
BARIUM	53.4	66.4	105	108	127	110	87	5,400
BERYLLIUM	0.85	0.5	0.55	< 0.45 U	0.48	0.46 J	< 0.45 U	150
CADMIUM	1.2	1.8	1.2	< 0.9 U	< 0.9 U	< 0.88 U	< 0.9 U	37 *
CALCIUM	11,500	15,300	15,800	18,900	20,200	26,300	18,100	NC
CHROMIUM	13.2	19	21.9	18.2	20.1	37.2	19.7	210
COBALT	8.6	12.3	9.7	8.8	9.1	13.3	10.7	900
COPPER	30.1	28.6	28.9	25.3	25.7	29.3	26.9	3,100
IRON	17,600	**23,900**	21,600	20,200	22,100	**26,500**	**26,100**	23,000
LEAD	13.7 J	17.1 J	17	33.4	14.5	23.5	23.3	150 *
MAGNESIUM	5,680	7,460	7,160	6,960	7,600	9,840	7,380	NC
MANGANESE	299 J	435 J	358 J	345 J	329 J	435 J	384 J	1,800
MERCURY	< 0.1 U	< 0.12 U	< 0.17 U	< 0.18 U	< 0.18 U	< 0.17 U	< 0.17 U	23
NICKEL	20.9	23.9	17.4	17.2	20.1	27.7	15.4	1,600
POTASSIUM	1,410	1,680	2,380	1,810	2,500	2,570	1,690	NC
SELENIUM	< 3.2 UJ	< 3.4 UJ	0.22	< 0.23 U	0.59	< 0.22 UJ	< 0.22 U	390
SILVER	< 2.1 U	< 2.2 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	< 1.1 U	390
SODIUM	640	875	593	629	649	1,030	988	NC
VANADIUM	39.8	44.3	37.4	32	38.3	46	34.9	550
ZINC	53.2	72.7	75.4 J	82.2 J	75.1 J	74.6 J	87.4 J	23,000
Organophosphorus pesticides (mg/kg)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 20-2: ANALYTICAL RESULTS FOR IRP SITE 21 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S21-SB16	S21MW01	S21MW01	S21MW01	S21MW01	S21MW01	S21MW01	EPA Residential Soil PRGs
Sample ID	123-S21-146	123-S21-089	123-S21-092	123-S21-093	123-S21-094	123-S21-147	123-S21-091	
Sample Date	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	
Sample Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	2.50 - 2.50	
Volatile Organic Compounds (mg/kg)								
1,2-DICHLOROETHENE (TOTAL)	< 0.015 U	NA	NA	NA	NA	NA	NA	NC
4-METHYL-2-PENTANONE	< 0.015 U	NA	NA	NA	NA	NA	NA	5,300
ACETONE	< 0.015 U	NA	NA	NA	NA	NA	NA	14,000
BENZENE	< 0.015 U	NA	NA	NA	NA	NA	NA	0.64
CARBON DISULFIDE	< 0.015 U	NA	NA	NA	NA	NA	NA	360
TETRACHLOROETHENE	< 0.015 U	NA	NA	NA	NA	NA	NA	0.48
TOLUENE	< 0.015 U	NA	NA	NA	NA	NA	NA	520
XYLENE (TOTAL)	< 0.015 U	NA	NA	NA	NA	NA	NA	270
Semivolatile Organic Compounds (mg/kg)								
2-METHYLNAPHTHALENE	< 0.49 U	NA	NA	NA	NA	NA	NA	NC
ACENAPHTHENE	< 0.49 U	NA	NA	NA	NA	NA	NA	3,700
ANTHRACENE	< 0.49 U	NA	NA	NA	NA	NA	NA	22,000
BENZO(A)ANTHRACENE	< 0.49 U	NA	NA	NA	NA	NA	NA	0.62
BENZO(A)PYRENE	< 0.49 U	NA	NA	NA	NA	NA	NA	0.062
BENZO(B)FLUORANTHENE	< 0.49 U	NA	NA	NA	NA	NA	NA	0.62
BENZO(K)FLUORANTHENE	< 0.49 U	NA	NA	NA	NA	NA	NA	0.38 *
CARBAZOLE	< 0.49 U	NA	NA	NA	NA	NA	NA	24
CHRYSENE	< 0.49 U	NA	NA	NA	NA	NA	NA	3.8 *
FLUORANTHENE	< 0.49 U	NA	NA	NA	NA	NA	NA	2,300
FLUORENE	< 0.49 U	NA	NA	NA	NA	NA	NA	2,700
INDENO(1,2,3-CD)PYRENE	< 0.49 U	NA	NA	NA	NA	NA	NA	0.62
NAPHTHALENE	< 0.49 U	NA	NA	NA	NA	NA	NA	1.7 *
PHENANTHRENE	< 0.49 U	NA	NA	NA	NA	NA	NA	NC
PYRENE	< 0.49 U	NA	NA	NA	NA	NA	NA	2,300
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.0049 U	< 0.02 U	< 0.015 U	< 0.0041 U	< 0.0042 U	< 0.015 U	< 0.039 U	2.4
4,4'-DDE	< 0.0049 U	0.015 J	< 0.015 U	< 0.0041 U	< 0.0042 U	< 0.015 U	0.04	1.7
4,4'-DDT	< 0.0049 U	0.014 J	< 0.015 U	< 0.0041 U	< 0.0042 U	< 0.015 U	0.063	1.7
ALDRIN	< 0.0025 U	< 0.01 U	< 0.0076 U	< 0.0021 U	< 0.0022 U	< 0.0076 U	< 0.02 U	0.029
ALPHA-CHLORDANE	< 0.0025 U	< 0.01 U	< 0.0076 U	< 0.0021 U	< 0.0022 U	< 0.0076 U	< 0.02 U	1.6
AROCLOR-1260	< 0.049 U	0.04 J	< 0.15 U	< 0.041 U	< 0.042 U	< 0.15 U	0.14 J	0.22
DELTA-BHC	< 0.0025 U	< 0.01 U	< 0.0076 U	< 0.0021 U	< 0.0022 U	< 0.0076 U	< 0.02 U	NC
DIELDRIN	< 0.0049 U	< 0.02 U	< 0.015 U	< 0.0041 U	< 0.0042 U	< 0.015 U	< 0.039 U	0.030

TABLE 20-2: ANALYTICAL RESULTS FOR IRP SITE 21 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S21-SB16	S21MW01	S21MW01	S21MW01	S21MW01	S21MW01	S21MW01	EPA Residential Soil PRGs
Sample ID	123-S21-146	123-S21-089	123-S21-092	123-S21-093	123-S21-094	123-S21-147	123-S21-091	
Sample Date	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	05/03/1993	
Sample Depth	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	0.00 - 0.00	2.50 - 2.50	
PCBs/Pesticides (mg/kg)								
ENDOSULFAN I	< 0.0025 U	< 0.01 U	< 0.0076 U	< 0.0021 U	< 0.0022 U	< 0.0076 U	< 0.02 U	NC
ENDOSULFAN SULFATE	< 0.0049 U	< 0.02 U	< 0.015 U	< 0.0041 U	< 0.0042 U	< 0.015 U	< 0.039 U	NC
ENDRIN	< 0.0049 U	< 0.02 U	< 0.015 U	< 0.0041 U	< 0.0042 U	< 0.015 U	< 0.039 U	18
ENDRIN KETONE	< 0.0049 U	< 0.02 U	< 0.015 U	< 0.0041 U	< 0.0042 U	< 0.015 U	< 0.039 U	NC
GAMMA-CHLORDANE	< 0.0025 U	< 0.01 U	< 0.0076 U	< 0.0021 U	< 0.0022 U	< 0.0076 U	< 0.02 U	1.6
HEPTACHLOR EPOXIDE	< 0.0025 U	< 0.01 U	< 0.0076 U	< 0.0021 U	< 0.0022 U	< 0.0076 U	< 0.02 U	0.053
Metals (mg/kg)								
ALUMINUM	15,600	9,370	6,720	12,100	5,530	10,200	9,780	76,000
ARSENIC	**2.3**	**3.5**	**2.5**	**3.1**	**1.6**	**3.4**	**2.1**	0.39
BARIUM	132	100	92.4	123	84.2	88.7	65.1	5,400
BERYLLIUM	0.77	< 0.47 U	< 0.44 U	< 0.48 U	< 0.5 U	< 0.44 U	< 0.46 U	150
CADMIUM	< 1.2 U	1	< 0.88 U	< 0.96 U	< 1 U	< 0.88 U	< 0.93 U	37 *
CALCIUM	107,000	20,500	8,550	37,400	6,580	12,200	12,200	NC
CHROMIUM	25.6	19.5	16.3	22.2	11.9	30.6	19.3	210
COBALT	10.5	8.1	7	9	5.5	11.4	10.7	900
COPPER	28.4	57.1	45.4	47.8	27.8	36.1	27.7	3,100
IRON	22,200	19,000	13,900	20,300	9,970	20,900	22,500	23,000
LEAD	9	17.7	54.1	5.9	4.3	8.1	24.4	150 *
MAGNESIUM	10,200	7,530	4,520	9,040	3,440	6,900	7,050	NC
MANGANESE	364 J	322 J	241 J	560 J	130 J	289 J	296 J	1,800
MERCURY	< 0.23 U	< 0.18 U	< 0.17 U	< 0.19 U	< 0.19 U	< 0.17 U	< 0.18 U	23
NICKEL	19.1	19.6	10.7	20.2	10.6	25.4	14.8	1,600
POTASSIUM	3,450	1,710	1,170	2,950	1,470	1,590	1,730	NC
SELENIUM	< 1.5 U	< 0.23 U	0.21	< 0.25 U	< 0.25 U	< 0.22 U	< 0.23 U	390
SILVER	< 1.5 U	< 1.2 U	< 1.1 U	< 1.2 U	< 1.3 U	< 1.1 U	< 1.2 U	390
SODIUM	1,190	1,240	568	1,070	606	836	494	NC
VANADIUM	33.6	39.3	24.4	39.8	19.8	36.5	35.9	550
ZINC	81.2 J	77.8 J	79.6 J	69.8 J	45.4 J	64.6 J	91.2 J	23,000
Organophosphorus pesticides (mg/kg)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 20-2: ANALYTICAL RESULTS FOR IRP SITE 21 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Notes: Categories of analyses are shown, but only detected compounds are presented. Analyte results in boldface type exceed EPA residential soil PRGs.

*	California modified PRGs
ID	Identification
J	Estimated value
mg/kg	Milligrams per kilogram
NA	Not analyzed
NC	No criteria
ND	None detected
PRG	Preliminary remediation goals
U	Nondetected

TABLE 20-3: ANALYTICAL RESULTS FOR IRP SITE 21 GROUNDWATER SAMPLES

Site Management Plan, CBC Port Hueneme

Sample Location ID	21MW01	S21MW01	S21MW01	S21MW01	S21MW01	S21MW01	S21MW01	
Sample ID	123-S21-095	123-S21-096	123-S21-097	123-S21-098	08797050704GD	08797050704GD	08797101403B	
Sample Date	05/24/1993	08/13/1993	11/15/1993	02/15/1994	05/07/1997	05/07/1997	10/14/1997	EPA Tap Water PRGs
Volatile Organic Compounds (µg/L)								
CARBON DISULFIDE	< 2 UJ	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 1 U	1,000
TOLUENE	1 J	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 1 U	720
XYLENE (TOTAL)	< 2 UJ	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 1 U	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	< 0.25 U	< 0.25 U	< 0.1 UJ	< 0.11 UJ	NA	< 0.1 U	NC
TPH - NAVY SPECIAL FUEL OIL	NA	< 0.25 U	NA	NA	NA	NA	NA	NC
TPH - UNKNOWN HYDROCARBON	< 0.05 U	NA	NA	NA	NA	NA	NA	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	< 0.05 U	< 0.05 U	< 0.05 U	< 0.05 U	NA	< 0.05 U	NC
TPH - UNKNOWN HYDROCARBON	< 0.0005 U	NA	NA	NA	NA	NA	NA	NC
Semivolatile Organic Compounds (µg/L)								
1,2-DICHLOROBENZENE	< 10 U	< 10 U	< 10 U	< 10 U	< 5 U	NA	< 5 U	370
2-METHYLNAPHTHALENE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NA	< 10 U	NC
DIETHYLPHTHALATE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NA	< 10 U	29,000
N-NITROSODIPHENYLAMINE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NA	< 10 U	14
NAPHTHALENE	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NA	< 10 U	0.093 *
PCBs/Pesticides (µg/L)								
None Detected	ND	ND	ND	ND	NA	NA	NA	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	35.8	< 100 U	< 100 U	< 30.1 U	< 108 UJ	NA	NA	36,000
ANTIMONY	< 31 U	< 50 U	< 50 U	5.3	1.4 R	NA	NA	15
ARSENIC	< 2 UJ	< 2 U	< 2 U	< 2 U	**1.5 J**	NA	NA	0.045
BARIUM	26	< 100 UJ	< 100 U	31.8	30.9 J	NA	NA	2,600
BERYLLIUM	< 1 U	< 2 U	< 2 U	0.77	< 0.03 U	NA	NA	73
CADMIUM	< 4 U	< 4 U	< 4 U	< 2.9 U	< 0.13 U	NA	NA	18
CALCIUM	298,000	254,000	235,000	250,000	203,000	NA	NA	NC
CHROMIUM	< 3 U	< 5 U	< 5 U	< 3.1 U	4.7 J	NA	NA	NC
COBALT	< 2 U	< 10 U	< 10 U	< 3.3 U	1.3 J	NA	NA	730
COPPER	< 2 U	< 10 U	< 10 U	< 3.3 U	1.7 J	NA	NA	1,500
IRON	364	498	427	680	1,050 J	NA	NA	11,000

TABLE 20-3: ANALYTICAL RESULTS FOR IRP SITE 21 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	21MW01	S21MW01	S21MW01	S21MW01	S21MW01	S21MW01	S21MW01	
Sample ID	123-S21-095	123-S21-096	123-S21-097	123-S21-098	08797050704GD	08797050704GD	08797101403B	EPA Tap Water PRGs
Sample Date	05/24/1993	08/13/1993	11/15/1993	02/15/1994	05/07/1997	05/07/1997	10/14/1997	
Metals (µg/L)								
Unfiltered								
LEAD	1.2 J	< 2 U	< 2 U	< 3 U	1 R	NA	NA	NC
MAGNESIUM	99,900	110,000	115,000	113,000	81,800	NA	NA	NC
MANGANESE	420	488	561	429	280	NA	NA	880
MERCURY	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	NA	NA	NC
MOLYBDENUM	NA	NA	18.8	10.8	12.5	NA	NA	180
NICKEL	< 7 U	< 20 U	< 20 U	< 6.8 U	17.4	NA	NA	730
POTASSIUM	11,000	10,700	9,480	8,490	9,840 J	NA	NA	NC
SELENIUM	< 3 UJ	< 1 UJ	< 2 UJ	< 2 UJ	< 1.4 U	NA	NA	180
SILVER	2.2 J	< 5 U	< 6 U	< 5.3 U	< 0.43 U	NA	NA	180
SODIUM	295,000	257,000	287,000	262,000	220,000	NA	NA	NC
VANADIUM	< 2 U	< 10 U	< 10 U	< 3.8 U	1.2 J	NA	NA	260
ZINC	< 3.4 U	12.1	< 10 U	< 5.9 U	< 4.7 UJ	NA	NA	11,000
FIltered								
ALUMINUM	NA	NA	NA	NA	NA	< 7.8 UJ	15.4 J	36,000
ANTIMONY	NA	NA	NA	NA	NA	< 1.2 U	< 1.4 U	15
ARSENIC	NA	NA	NA	NA	NA	**1.7 J**	**4.4 J**	0.045
BARIUM	NA	NA	NA	NA	NA	29.3 J	64.7 J	2,600
CALCIUM	NA	NA	NA	NA	NA	218,000	NA	NC
CHROMIUM	NA	NA	NA	NA	NA	< 0.4 U	< 0.45 U	NC
COBALT	NA	NA	NA	NA	NA	1 J	1.5 J	730
IRON	NA	NA	NA	NA	NA	37	NA	11,000
MAGNESIUM	NA	NA	NA	NA	NA	93,100	NA	NC
MANGANESE	NA	NA	NA	NA	NA	289 J	698	880
MERCURY	NA	NA	NA	NA	NA	< 0.1 U	0.34	NC
MOLYBDENUM	NA	NA	NA	NA	NA	13.4 J	11.2	180
NICKEL	NA	NA	NA	NA	NA	1.1 J	< 1.7 UJ	730
POTASSIUM	NA	NA	NA	NA	NA	9,540 J	NA	NC
SELENIUM	NA	NA	NA	NA	NA	< 0.87 U	< 2 U	180
SILVER	NA	NA	NA	NA	NA	< 0.5 U	< 0.55 U	180
SODIUM	NA	NA	NA	NA	NA	259,000	NA	NC
THALLIUM	NA	NA	NA	NA	NA	< 1.4 U	< 3 U	2.4

TABLE 20-3: ANALYTICAL RESULTS FOR IRP SITE 21 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	21MW01	S21MW01	S21MW01	S21MW01	S21MW01	S21MW01	S21MW01	
Sample ID	123-S21-095	123-S21-096	123-S21-097	123-S21-098	08797050704GD	08797050704GD	08797101403B	EPA Tap Water PRGs
Sample Date	05/24/1993	08/13/1993	11/15/1993	02/15/1994	05/07/1997	05/07/1997	10/14/1997	
Metals (µg/L)								
FIltered								
VANADIUM	NA	NA	NA	NA	NA	0.81 J	1 J	260
ZINC	NA	NA	NA	NA	NA	5.9 J	< 4.3 UJ	11,000
General Mineral								
CALCIUM	NA	NA	NA	NA	212,000	NA	295,000	NC
IRON	NA	NA	NA	NA	190 J	NA	1,830	11,000
MAGNESIUM	NA	NA	NA	NA	91,400	NA	168,000	NC
POTASSIUM	NA	NA	NA	NA	11,900 J	NA	14,300 J	NC
SODIUM	NA	NA	NA	NA	264,000 J	NA	401,000	NC

TABLE 20-3: ANALYTICAL RESULTS FOR IRP SITE 21 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S21MW01	S21MW01	S21MW01	S21MW02	S21MW02	S21MW03	S21MW03	
Sample ID	08798011402D	08798040102W	08798040103W	08797050701GD	08797050701GD	08797050703GD	08797050703GD	EPA Tap Water PRGs
Sample Date	01/14/1998	04/01/1998	04/01/1998	05/07/1997	05/07/1997	05/07/1997	05/07/1997	
Volatile Organic Compounds (µg/L)								
CARBON DISULFIDE	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 10 U	NA	1,000
TOLUENE	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 10 U	NA	720
XYLENE (TOTAL)	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 10 U	NA	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	< 0.1 U	< 0.1 U	< 0.1 U	< 0.1 UJ	NA	< 0.1 UJ	NA	NC
TPH - NAVY SPECIAL FUEL OIL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - UNKNOWN HYDROCARBON	NA	NA	NA	NA	NA	NA	NA	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	< 0.05 U	< 0.05 U	< 0.05 UJ	< 0.05 U	NA	< 0.05 U	NA	NC
TPH - UNKNOWN HYDROCARBON	NA	NA	NA	NA	NA	NA	NA	NC
Semivolatile Organic Compounds (µg/L)								
1,2-DICHLOROBENZENE	< 5 U	< 5 U	< 5 U	0.9 J	NA	< 5 U	NA	370
2-METHYLNAPHTHALENE	< 10 U	< 10 U	< 10 U	< 10 U	NA	< 10 U	NA	NC
DIETHYLPHTHALATE	< 10 U	< 10 U	< 10 U	< 10 U	NA	< 10 U	NA	29,000
N-NITROSODIPHENYLAMINE	< 10 U	< 10 U	< 10 U	< 10 U	NA	< 10 U	NA	14
NAPHTHALENE	< 10 U	< 10 U	< 10 U	< 10 U	NA	< 10 U	NA	0.093 *
PCBs/Pesticides (µg/L)								
None Detected	NA	NA	NA	NA	NA	NA	NA	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	NA	NA	NA	280 J	NA	231 J	NA	36,000
ANTIMONY	NA	NA	NA	1.4 R	NA	1.4 R	NA	15
ARSENIC	NA	NA	NA	< 1 U	NA	**35.5**	NA	0.045
BARIUM	NA	NA	NA	161 J	NA	31.4 J	NA	2,600
BERYLLIUM	NA	NA	NA	< 0.03 U	NA	< 0.03 U	NA	73
CADMIUM	NA	NA	NA	< 0.2 UJ	NA	< 0.29 UJ	NA	18
CALCIUM	NA	NA	NA	295,000	NA	389,000	NA	NC
CHROMIUM	NA	NA	NA	1.2 J	NA	< 0.27 UJ	NA	NC
COBALT	NA	NA	NA	0.66 J	NA	0.43 J	NA	730
COPPER	NA	NA	NA	2.6 J	NA	0.61 J	NA	1,500
IRON	NA	NA	NA	1,710 J	NA	**19,700 J**	NA	11,000

TABLE 20-3: ANALYTICAL RESULTS FOR IRP SITE 21 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S21MW01	S21MW01	S21MW01	S21MW02	S21MW02	S21MW03	S21MW03	
Sample ID	08798011402D	08798040102W	08798040103W	08797050701GD	08797050701GD	08797050703GD	08797050703GD	EPA Tap Water PRGs
Sample Date	01/14/1998	04/01/1998	04/01/1998	05/07/1997	05/07/1997	05/07/1997	05/07/1997	
Metals (µg/L)								
Unfiltered								
LEAD	NA	NA	NA	1 R	NA	1 R	NA	NC
MAGNESIUM	NA	NA	NA	209,000	NA	182,000	NA	NC
MANGANESE	NA	NA	NA	**970**	NA	**3,430**	NA	880
MERCURY	NA	NA	NA	< 0.2 U	NA	< 0.2 U	NA	NC
MOLYBDENUM	NA	NA	NA	9.1	NA	53.9	NA	180
NICKEL	NA	NA	NA	< 0.77 U	NA	< 0.77 U	NA	730
POTASSIUM	NA	NA	NA	16,600 J	NA	8,150 J	NA	NC
SELENIUM	NA	NA	NA	< 1.4 U	NA	< 1.4 U	NA	180
SILVER	NA	NA	NA	< 0.43 U	NA	< 0.43 U	NA	180
SODIUM	NA	NA	NA	610,000	NA	512,000	NA	NC
VANADIUM	NA	NA	NA	2.9 J	NA	1.6 J	NA	260
ZINC	NA	NA	NA	< 1.7 UJ	NA	< 6.7 UJ	NA	11,000
FIltered								
ALUMINUM	< 6.2 U	< 8.7 UJ	< 4 U	NA	< 13.5 UJ	NA	< 12.9 UJ	36,000
ANTIMONY	< 1.8 U	< 2.6 U	< 2.6 U	NA	< 1.2 U	NA	< 1.2 U	15
ARSENIC	< 2.4 UJ	< 1.8 U	**2.6 J**	NA	**1.6 J**	NA	**9.1**	0.045
BARIUM	53.6 J	42.6 J	43 J	NA	162	NA	20.7 J	2,600
CALCIUM	NA	NA	NA	NA	322,000	NA	437,000	NC
CHROMIUM	< 0.55 U	< 0.45 U	< 0.45 U	NA	< 0.4 U	NA	< 0.4 U	NC
COBALT	2.2 J	1.6 J	1.6 J	NA	< 0.6 U	NA	< 0.6 U	730
IRON	NA	NA	NA	NA	259 J	NA	5,680 J	11,000
MAGNESIUM	NA	NA	NA	NA	225,000	NA	203,000	NC
MANGANESE	540	318	321	NA	**966 J**	NA	**3,260 J**	880
MERCURY	< 0.2 U	< 0.1 U	< 0.1 U	NA	< 0.1 U	NA	< 0.1 U	NC
MOLYBDENUM	12.2	14.8	15.4	NA	4 J	NA	55.7 J	180
NICKEL	< 1 U	2.9 J	2.4 J	NA	0.99 J	NA	1.1 J	730
POTASSIUM	NA	NA	NA	NA	14,800 J	NA	6,800 J	NC
SELENIUM	< 2.4 U	< 2.2 U	< 2.2 U	NA	< 0.87 U	NA	< 0.87 U	180
SILVER	< 1 U	0.67 J	0.86 J	NA	< 0.5 U	NA	< 0.5 U	180
SODIUM	NA	NA	NA	NA	691,000 J	NA	587,000 J	NC
THALLIUM	< 3.2 UJ	< 3.4 U	< 3.4 U	NA	< 1.4 U	NA	**4.2**	2.4

TABLE 20-3: ANALYTICAL RESULTS FOR IRP SITE 21 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S21MW01	S21MW01	S21MW01	S21MW02	S21MW02	S21MW03	S21MW03	
Sample ID	08798011402D	08798040102W	08798040103W	08797050701GD	08797050701GD	08797050703GD	08797050703GD	EPA Tap Water PRGs
Sample Date	01/14/1998	04/01/1998	04/01/1998	05/07/1997	05/07/1997	05/07/1997	05/07/1997	
Metals (µg/L)								
FIltered								
VANADIUM	1.3 J	< 3.9 UJ	< 3.8 UJ	NA	1.7 J	NA	< 0.57 U	260
ZINC	< 7.3 UJ	< 0.8 U	< 0.8 U	NA	< 2.2 UJ	NA	6 J	11,000
General Mineral								
CALCIUM	311,000	299,000	323,000	318,000	NA	420,000	NA	NC
IRON	839 J	716 J	97.6 J	470 J	NA	515 J	NA	11,000
MAGNESIUM	162,000	143,000	154,000	226,000	NA	197,000	NA	NC
POTASSIUM	14,700 J	10,900 J	11,800 J	19,800 J	NA	9,350 J	NA	NC
SODIUM	370,000	367,000	398,000	722,000 J	NA	602,000 J	NA	NC

TABLE 20-3: ANALYTICAL RESULTS FOR IRP SITE 21 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S21MW03	S21MW03	S21MW03	S21MW03	S21MW03	S21MW04	S21MW04	EPA Tap Water PRGs
Sample ID	08797101401B	08797101410B	08797101411B	08798011403D	08798040105W	123-S21-099	123-S21-104	
Sample Date	10/14/1997	10/14/1997	10/14/1997	01/14/1998	04/01/1998	05/24/1993	05/24/1993	
Volatile Organic Compounds (µg/L)								
CARBON DISULFIDE	< 1 U	NA	NA	< 1 U	< 1 U	0.2 J	< 2 U	1,000
TOLUENE	< 1 U	NA	NA	< 1 U	< 1 U	3	< 2 U	720
XYLENE (TOTAL)	< 1 U	NA	NA	< 1 U	< 1 U	0.9 J	< 2 U	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	< 0.1 U	NA	NA	< 0.1 U	< 0.1 U	NA	NA	NC
TPH - NAVY SPECIAL FUEL OIL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - UNKNOWN HYDROCARBON	NA	NA	NA	NA	NA	< 0.05 U	0.033 J	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	< 0.05 U	NA	NA	< 0.05 U	< 0.05 U	NA	NA	NC
TPH - UNKNOWN HYDROCARBON	NA	NA	NA	NA	NA	0.062 J	< 0.0005 U	NC
Semivolatile Organic Compounds (µg/L)								
1,2-DICHLOROBENZENE	< 5 U	NA	NA	< 5 U	< 5 U	< 10 U	< 10 U	370
2-METHYLNAPHTHALENE	< 10 U	NA	NA	< 10 U	< 10 U	0.5 J	< 10 U	NC
DIETHYLPHTHALATE	< 10 U	NA	NA	< 10 U	< 20 UJ	< 10 U	< 10 U	29,000
N-NITROSODIPHENYLAMINE	< 10 U	NA	NA	< 10 U	< 10 U	< 10 U	< 10 U	14
NAPHTHALENE	< 10 U	NA	NA	< 10 U	< 10 U	< 10 U	< 10 U	0.093 *
PCBs/Pesticides (µg/L)								
None Detected	NA	NA	NA	NA	NA	ND	ND	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	NA	31.9 J	< 11 U	NA	NA	146	40.2	36,000
ANTIMONY	NA	< 1.4 U	< 1.4 U	NA	NA	< 31 U	< 31 U	15
ARSENIC	NA	**9.6**	**9.3**	NA	NA	< 2 UJ	< 2 UJ	0.045
BARIUM	NA	23.9 J	23.3 J	NA	NA	56.4	19	2,600
BERYLLIUM	NA	< 0.05 U	< 0.05 U	NA	NA	< 1 U	< 1 U	73
CADMIUM	NA	< 0.2 U	< 0.2 U	NA	NA	< 4 U	< 4 U	18
CALCIUM	NA	NA	NA	NA	NA	295,000	345,000	NC
CHROMIUM	NA	0.73 J	0.61 J	NA	NA	< 3 U	< 3 U	NC
COBALT	NA	< 0.65 U	< 0.65 U	NA	NA	< 2 U	2	730
COPPER	NA	< 1.1 UJ	< 0.6 UJ	NA	NA	< 2 U	< 2 U	1,500
IRON	NA	NA	NA	NA	NA	312	3,360	11,000

TABLE 20-3: ANALYTICAL RESULTS FOR IRP SITE 21 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S21MW03	S21MW03	S21MW03	S21MW03	S21MW03	S21MW04	S21MW04	EPA Tap Water PRGs
Sample ID	08797101401B	08797101410B	08797101411B	08798011403D	08798040105W	123-S21-099	123-S21-104	
Sample Date	10/14/1997	10/14/1997	10/14/1997	01/14/1998	04/01/1998	05/24/1993	05/24/1993	
Metals (µg/L)								
Unfiltered								
LEAD	NA	< 0.85 UJ	< 0.85 UJ	NA	NA	1.9 J	1.3 J	NC
MAGNESIUM	NA	NA	NA	NA	NA	190,000	176,000	NC
MANGANESE	NA	**3,700**	**3,740**	NA	NA	**989**	**3,090**	880
MERCURY	NA	0.16 J	0.19 J	NA	NA	< 0.2 U	< 0.2 U	NC
MOLYBDENUM	NA	59.6	59.6	NA	NA	NA	NA	180
NICKEL	NA	< 1.8 UJ	< 1.5 UJ	NA	NA	< 7 U	< 7 U	730
POTASSIUM	NA	NA	NA	NA	NA	11,000	< 6,050 U	NC
SELENIUM	NA	2.4 J	< 2 U	NA	NA	< 3 UJ	< 3 UJ	180
SILVER	NA	< 0.55 U	< 0.55 U	NA	NA	< 2 UJ	< 2 UJ	180
SODIUM	NA	NA	NA	NA	NA	615,000	525,000	NC
VANADIUM	NA	< 0.6 U	< 0.6 U	NA	NA	< 2 U	< 2 U	260
ZINC	NA	7.7 J	< 3.5 UJ	NA	NA	< 7.1 U	< 6.1 U	11,000
FIltered								
ALUMINUM	12.9 J	NA	NA	< 6.2 U	< 5.9 UJ	NA	NA	36,000
ANTIMONY	< 1.4 U	NA	NA	< 1.8 U	< 2.6 U	NA	NA	15
ARSENIC	**6**	NA	NA	< 8.3 UJ	**8**	NA	NA	0.045
BARIUM	22.8 J	NA	NA	22.4 J	22 J	NA	NA	2,600
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NC
CHROMIUM	< 0.45 U	NA	NA	< 0.55 U	0.55 J	NA	NA	NC
COBALT	< 0.65 U	NA	NA	< 0.85 U	0.94 J	NA	NA	730
IRON	NA	NA	NA	NA	NA	NA	NA	11,000
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NC
MANGANESE	**3,640**	NA	NA	**3,830**	**3,610**	NA	NA	880
MERCURY	0.4	NA	NA	< 0.2 U	< 0.1 U	NA	NA	NC
MOLYBDENUM	59	NA	NA	53.9	57.9	NA	NA	180
NICKEL	< 1.3 UJ	NA	NA	< 1 U	2.4 J	NA	NA	730
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NC
SELENIUM	< 2 U	NA	NA	< 2.4 U	2.9 J	NA	NA	180
SILVER	< 0.55 U	NA	NA	< 1 U	0.81 J	NA	NA	180
SODIUM	NA	NA	NA	NA	NA	NA	NA	NC
THALLIUM	< 3 U	NA	NA	< 3.2 UJ	< 3.4 U	NA	NA	2.4

TABLE 20-3: ANALYTICAL RESULTS FOR IRP SITE 21 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S21MW03	S21MW03	S21MW03	S21MW03	S21MW03	S21MW04	S21MW04	EPA Tap Water PRGs
Sample ID	08797101401B	08797101410B	08797101411B	08798011403D	08798040105W	123-S21-099	123-S21-104	
Sample Date	10/14/1997	10/14/1997	10/14/1997	01/14/1998	04/01/1998	05/24/1993	05/24/1993	
Metals (µg/L)								
FIltered								
VANADIUM	< 0.6 U	NA	NA	< 0.8 U	< 0.75 U	NA	NA	260
ZINC	< 4.2 UJ	NA	NA	< 5.9 UJ	< 0.8 U	NA	NA	11,000
General Mineral								
CALCIUM	469,000	NA	NA	448,000	500,000	NA	NA	NC
IRON	6,380	NA	NA	3,190 J	515 J	NA	NA	11,000
MAGNESIUM	211,000	NA	NA	206,000	226,000	NA	NA	NC
POTASSIUM	6,860 J	NA	NA	8,120 J	7,890 J	NA	NA	NC
SODIUM	642,000	NA	NA	589,000	594,000	NA	NA	NC

TABLE 20-3: ANALYTICAL RESULTS FOR IRP SITE 21 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S21MW04	S21MW04	S21MW04	S21MW04	S21MW04	S21MW04	S21MW04	
Sample ID	123-S21-100	123-S21-101	123-S21-105	123-S21-148	123-S21-102	123-S21-106	123-S21-149	EPA Tap Water PRGs
Sample Date	08/13/1993	08/13/1993	08/13/1993	08/13/1993	11/15/1993	11/15/1993	11/15/1993	
Volatile Organic Compounds (µg/L)								
CARBON DISULFIDE	< 1 U	< 1 U	< 1 U	< 1 U	2	< 1 U	< 1 U	1,000
TOLUENE	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	720
XYLENE (TOTAL)	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	< 1 U	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	0.35	< 0.25 U	< 0.25 U	1	< 0.25 U	< 0.25 U	NC
TPH - NAVY SPECIAL FUEL OIL	NA	0.57	0.28	0.36	NA	NA	NA	NC
TPH - UNKNOWN HYDROCARBON	NA	NA	NA	NA	NA	NA	NA	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	0.23 Z	0.21 Z	< 0.05 U	< 0.05 U	0.14 Z	< 0.05 U	< 0.05 U	NC
TPH - UNKNOWN HYDROCARBON	NA	NA	NA	NA	NA	NA	NA	NC
Semivolatile Organic Compounds (µg/L)								
1,2-DICHLOROBENZENE	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	370
2-METHYLNAPHTHALENE	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	NC
DIETHYLPHTHALATE	NA	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	29,000
N-NITROSODIPHENYLAMINE	NA	< 10 U	< 10 U	< 10 U	0.8 J	< 10 U	< 10 U	14
NAPHTHALENE	NA	**0.6 J**	< 10 U	< 10 U	< 10 U	< 10 U	< 10 U	0.093 *
PCBs/Pesticides (µg/L)								
None Detected	NA	ND	ND	ND	ND	ND	ND	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	NA	101	< 100 U	< 100 U	< 100 U	< 100 U	< 100 U	36,000
ANTIMONY	NA	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U	15
ARSENIC	NA	< 2 U	**5.7**	**11.9**	< 2 U	**5.6 J**	**5.1**	0.045
BARIUM	NA	< 100 UJ	< 100 UJ	< 100 UJ	114	< 100 U	< 100 U	2,600
BERYLLIUM	NA	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	73
CADMIUM	NA	< 4 U	< 4 U	< 4 U	< 4 U	9	< 4 U	18
CALCIUM	NA	311,000	362,000	265,000	263,000	358,000	274,000	NC
CHROMIUM	NA	< 5 U	< 5 U	< 5 U	6	11.1	< 5 U	NC
COBALT	NA	< 10 U	< 10 U	< 10 U	< 10 U	10.1	< 10 U	730
COPPER	NA	< 10.5 U	< 19.8 U	< 10 U	11	15.9	< 10 U	1,500
IRON	NA	392	5,490	3,490	287	5,620	685	11,000

TABLE 20-3: ANALYTICAL RESULTS FOR IRP SITE 21 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S21MW04	S21MW04	S21MW04	S21MW04	S21MW04	S21MW04	S21MW04	EPA Tap Water PRGs
Sample ID	123-S21-100	123-S21-101	123-S21-105	123-S21-148	123-S21-102	123-S21-106	123-S21-149	
Sample Date	08/13/1993	08/13/1993	08/13/1993	08/13/1993	11/15/1993	11/15/1993	11/15/1993	
Metals (µg/L)								
Unfiltered								
LEAD	NA	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	< 2 U	NC
MAGNESIUM	NA	206,000	190,000	135,000	218,000	194,000	144,000	NC
MANGANESE	NA	867	**3,080**	**936**	460	**3,280**	828	880
MERCURY	NA	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	NC
MOLYBDENUM	NA	NA	NA	NA	< 10 U	56.7	28.2	180
NICKEL	NA	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	< 20 U	730
POTASSIUM	NA	12,400	6,100	10,600	12,400	5,090	8,290	NC
SELENIUM	NA	< 1 UJ	< 1 UJ	< 1 UJ	< 2 UJ	< 2 UJ	< 2 UJ	180
SILVER	NA	< 5 U	< 5 U	< 5 U	< 6 U	< 6 U	< 6 U	180
SODIUM	NA	617,000	532,000	419,000	782,000	537,000	422,000	NC
VANADIUM	NA	< 19 U	< 23.9 U	< 10 U	< 10 U	< 10 U	< 10 U	260
ZINC	NA	22.5	14.8	20.6	< 10 U	15.1	< 10 U	11,000
FIltered								
ALUMINUM	NA	NA	NA	NA	NA	NA	NA	36,000
ANTIMONY	NA	NA	NA	NA	NA	NA	NA	15
ARSENIC	NA	NA	NA	NA	NA	NA	NA	0.045
BARIUM	NA	NA	NA	NA	NA	NA	NA	2,600
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NC
CHROMIUM	NA	NA	NA	NA	NA	NA	NA	NC
COBALT	NA	NA	NA	NA	NA	NA	NA	730
IRON	NA	NA	NA	NA	NA	NA	NA	11,000
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NC
MANGANESE	NA	NA	NA	NA	NA	NA	NA	880
MERCURY	NA	NA	NA	NA	NA	NA	NA	NC
MOLYBDENUM	NA	NA	NA	NA	NA	NA	NA	180
NICKEL	NA	NA	NA	NA	NA	NA	NA	730
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NC
SELENIUM	NA	NA	NA	NA	NA	NA	NA	180
SILVER	NA	NA	NA	NA	NA	NA	NA	180
SODIUM	NA	NA	NA	NA	NA	NA	NA	NC
THALLIUM	NA	NA	NA	NA	NA	NA	NA	2.4

TABLE 20-3: ANALYTICAL RESULTS FOR IRP SITE 21 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S21MW04	S21MW04	S21MW04	S21MW04	S21MW04	S21MW04	S21MW04	
Sample ID	123-S21-100	123-S21-101	123-S21-105	123-S21-148	123-S21-102	123-S21-106	123-S21-149	EPA Tap Water PRGs
Sample Date	08/13/1993	08/13/1993	08/13/1993	08/13/1993	11/15/1993	11/15/1993	11/15/1993	
Metals (µg/L)								
FIltered								
VANADIUM	NA	NA	NA	NA	NA	NA	NA	260
ZINC	NA	NA	NA	NA	NA	NA	NA	11,000
General Mineral								
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NC
IRON	NA	NA	NA	NA	NA	NA	NA	11,000
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NC
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NC
SODIUM	NA	NA	NA	NA	NA	NA	NA	NC

TABLE 20-3: ANALYTICAL RESULTS FOR IRP SITE 21 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S21MW04	S21MW04	S21MW04	S21MW04	S21MW04	S21MW04	S21MW04	
Sample ID	123-S21-103	123-S21-107	123-S21-150	08797050702GD	08797050702GD	08797101402B	08798011401D	EPA Tap Water PRGs
Sample Date	02/15/1994	02/15/1994	02/15/1994	05/07/1997	05/07/1997	10/14/1997	01/14/1998	
Volatile Organic Compounds (µg/L)								
CARBON DISULFIDE	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 1 U	< 1 U	1,000
TOLUENE	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 1 UJ	< 1 U	720
XYLENE (TOTAL)	< 1 U	< 1 U	< 1 U	< 10 U	NA	< 1 U	< 1 U	210
Petroleum Hydrocarbons (mg/L)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	NA	< 0.1 UJ	NA	< 0.11 UJ	NA	< 0.1 U	< 0.1 U	NC
TPH - NAVY SPECIAL FUEL OIL	NA	NA	NA	NA	NA	NA	NA	NC
TPH - UNKNOWN HYDROCARBON	0.27 Z	NA	0.21 Z	NA	NA	NA	NA	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	NA	< 0.05 U	NA	< 0.05 U	NA	< 0.05 U	< 0.05 U	NC
TPH - UNKNOWN HYDROCARBON	0.11 Z	NA	NA	NA	NA	NA	NA	NC
Semivolatile Organic Compounds (µg/L)								
1,2-DICHLOROBENZENE	< 20 U	< 10 U	< 10 U	< 5 U	NA	< 5 U	< 5 U	370
2-METHYLNAPHTHALENE	< 20 U	< 10 U	< 10 U	< 10 U	NA	< 10 U	< 10 U	NC
DIETHYLPHTHALATE	< 20 U	< 10 U	< 10 U	< 10 U	NA	< 10 U	< 10 U	29,000
N-NITROSODIPHENYLAMINE	< 20 U	< 10 U	< 10 U	< 10 U	NA	< 10 U	< 10 U	14
NAPHTHALENE	< 20 U	< 10 U	< 10 U	< 10 U	NA	< 10 U	< 10 U	0.093 *
PCBs/Pesticides (µg/L)								
None Detected	ND	ND	ND	NA	NA	NA	NA	NC
Metals (µg/L)								
Unfiltered								
ALUMINUM	< 30.1 U	< 30.1 U	< 30.1 U	374 J	NA	NA	NA	36,000
ANTIMONY	3.5	4.6	5.2	1.4 R	NA	NA	NA	15
ARSENIC	< 2 U	**4.6**	**6.6**	**28**	NA	NA	NA	0.045
BARIUM	105	19.1	35.2	51.3 J	NA	NA	NA	2,600
BERYLLIUM	0.67	0.64	0.61	< 0.03 U	NA	NA	NA	73
CADMIUM	< 2.9 U	< 2.9 U	< 2.9 U	< 0.4 UJ	NA	NA	NA	18
CALCIUM	292,000	364,000	280,000	287,000	NA	NA	NA	NC
CHROMIUM	< 3.1 U	< 3.1 U	< 3.1 U	1 J	NA	NA	NA	NC
COBALT	< 3.3 U	< 3.3 U	< 3.3 U	0.59 J	NA	NA	NA	730
COPPER	< 3.3 U	< 3.3 U	< 3.3 U	5.5 J	NA	NA	NA	1,500
IRON	177	5,950	4,580	**18,300 J**	NA	NA	NA	11,000

TABLE 20-3: ANALYTICAL RESULTS FOR IRP SITE 21 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S21MW04	S21MW04	S21MW04	S21MW04	S21MW04	S21MW04	S21MW04	
Sample ID	123-S21-103	123-S21-107	123-S21-150	08797050702GD	08797050702GD	08797101402B	08798011401D	EPA Tap Water PRGs
Sample Date	02/15/1994	02/15/1994	02/15/1994	05/07/1997	05/07/1997	10/14/1997	01/14/1998	
Metals (µg/L)								
Unfiltered								
LEAD	< 3 U	< 3 U	< 3 U	1.1 J	NA	NA	NA	NC
MAGNESIUM	210,000	191,000	149,000	143,000	NA	NA	NA	NC
MANGANESE	511	**3,150**	778	803	NA	NA	NA	880
MERCURY	< 0.2 U	< 0.2 U	< 0.2 U	< 0.2 U	NA	NA	NA	NC
MOLYBDENUM	< 6.9 U	45.7	14	21.3	NA	NA	NA	180
NICKEL	< 6.8 U	< 6.8 U	< 6.8 U	< 0.77 U	NA	NA	NA	730
POTASSIUM	11,800	3,750	7,530	12,900 J	NA	NA	NA	NC
SELENIUM	< 20 UJ	< 20 UJ	< 2 UJ	< 1.4 U	NA	NA	NA	180
SILVER	< 5.3 U	< 5.3 U	< 5.3 U	< 0.43 U	NA	NA	NA	180
SODIUM	626,000	539,000	398,000	491,000	NA	NA	NA	NC
VANADIUM	< 3.8 U	< 3.8 U	< 3.8 U	3 J	NA	NA	NA	260
ZINC	< 6.6 U	< 5.4 U	< 9.1 U	16.5 J	NA	NA	NA	11,000
FIltered								
ALUMINUM	NA	NA	NA	NA	< 9.3 UJ	11.8 J	< 6.2 U	36,000
ANTIMONY	NA	NA	NA	NA	< 1.2 U	< 1.4 UJ	< 1.8 U	15
ARSENIC	NA	NA	NA	NA	**8.1**	**9.3 J**	< 7.6 UJ	0.045
BARIUM	NA	NA	NA	NA	20.3 J	39.1 J	24.8 J	2,600
CALCIUM	NA	NA	NA	NA	428,000	NA	NA	NC
CHROMIUM	NA	NA	NA	NA	< 0.4 U	< 0.45 U	< 0.55 U	NC
COBALT	NA	NA	NA	NA	< 0.6 U	< 0.65 U	< 0.85 U	730
IRON	NA	NA	NA	NA	5,680 J	NA	NA	11,000
MAGNESIUM	NA	NA	NA	NA	197,000	NA	NA	NC
MANGANESE	NA	NA	NA	NA	**3,210 J**	**900**	605	880
MERCURY	NA	NA	NA	NA	< 0.1 U	0.47	< 0.2 U	NC
MOLYBDENUM	NA	NA	NA	NA	54.1 J	25.9	24.7	180
NICKEL	NA	NA	NA	NA	1.2 J	< 0.97 UJ	< 1 U	730
POTASSIUM	NA	NA	NA	NA	6,570 J	NA	NA	NC
SELENIUM	NA	NA	NA	NA	< 0.87 U	2.1 J	< 2.4 U	180
SILVER	NA	NA	NA	NA	< 0.5 U	< 0.55 U	< 1 U	180
SODIUM	NA	NA	NA	NA	575,000 J	NA	NA	NC
THALLIUM	NA	NA	NA	NA	**3.8**	< 3 U	< 3.2 UJ	2.4

TABLE 20-3: ANALYTICAL RESULTS FOR IRP SITE 21 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S21MW04	S21MW04	S21MW04	S21MW04	S21MW04	S21MW04	S21MW04	EPA Tap Water PRGs
Sample ID	123-S21-103	123-S21-107	123-S21-150	08797050702GD	08797050702GD	08797101402B	08798011401D	
Sample Date	02/15/1994	02/15/1994	02/15/1994	05/07/1997	05/07/1997	10/14/1997	01/14/1998	
Metals (µg/L)								
Filtered								
VANADIUM	NA	NA	NA	NA	< 0.57 U	< 0.6 U	< 0.8 U	260
ZINC	NA	NA	NA	NA	5.7 J	< 5.3 UJ	< 9.8 UJ	11,000
General Mineral								
CALCIUM	NA	NA	NA	302,000	NA	312,000	401,000	NC
IRON	NA	NA	NA	357 J	NA	6,220	2,300 J	11,000
MAGNESIUM	NA	NA	NA	152,000	NA	156,000	214,000	NC
POTASSIUM	NA	NA	NA	14,800 J	NA	11,100 J	13,700 J	NC
SODIUM	NA	NA	NA	585,000 J	NA	510,000	645,000	NC

TABLE 20-3: ANALYTICAL RESULTS FOR IRP SITE 21 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S21MW04	EPA Tap Water PRGs
Sample ID	08798040104W	
Sample Date	04/01/1998	
Volatile Organic Compounds (µg/L)		
CARBON DISULFIDE	< 1 U	1,000
TOLUENE	< 1 U	720
XYLENE (TOTAL)	< 1 U	210
Petroleum Hydrocarbons (mg/L)		
Diesel/Motor Oil Range (extractables)		
DIESEL RANGE ORGANICS	< 0.1 U	NC
TPH - NAVY SPECIAL FUEL OIL	NA	NC
TPH - UNKNOWN HYDROCARBON	NA	NC
Gasoline Range (purgeables)		
GASOLINE RANGE ORGANICS	< 0.05 U	NC
TPH - UNKNOWN HYDROCARBON	NA	NC
Semivolatile Organic Compounds (µg/L)		
1,2-DICHLOROBENZENE	< 5 U	370
2-METHYLNAPHTHALENE	< 10 U	NC
DIETHYLPHTHALATE	62	29,000
N-NITROSODIPHENYLAMINE	< 10 U	14
NAPHTHALENE	< 10 U	0.093 *
PCBs/Pesticides (µg/L)		
None Detected	NA	NC
Metals (µg/L)		
Unfiltered		
ALUMINUM	NA	36,000
ANTIMONY	NA	15
ARSENIC	NA	0.045
BARIUM	NA	2,600
BERYLLIUM	NA	73
CADMIUM	NA	18
CALCIUM	NA	NC
CHROMIUM	NA	NC
COBALT	NA	730
COPPER	NA	1,500
IRON	NA	11,000

TABLE 20-3: ANALYTICAL RESULTS FOR IRP SITE 21 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S21MW04	EPA Tap Water PRGs
Sample ID	08798040104W	
Sample Date	04/01/1998	
Metals (µg/L)		
Unfiltered		
LEAD	NA	NC
MAGNESIUM	NA	NC
MANGANESE	NA	880
MERCURY	NA	NC
MOLYBDENUM	NA	180
NICKEL	NA	730
POTASSIUM	NA	NC
SELENIUM	NA	180
SILVER	NA	180
SODIUM	NA	NC
VANADIUM	NA	260
ZINC	NA	11,000
FIltered		
ALUMINUM	7.7 J	36,000
ANTIMONY	2.6 J	15
ARSENIC	**4.8 J**	0.045
BARIUM	30.7 J	2,600
CALCIUM	NA	NC
CHROMIUM	< 0.45 U	NC
COBALT	1.1 J	730
IRON	NA	11,000
MAGNESIUM	NA	NC
MANGANESE	**936**	880
MERCURY	< 0.1 U	NC
MOLYBDENUM	24.6	180
NICKEL	4.9 J	730
POTASSIUM	NA	NC
SELENIUM	< 2.2 U	180
SILVER	0.74 J	180
SODIUM	NA	NC
THALLIUM	< 3.4 U	2.4

TABLE 20-3: ANALYTICAL RESULTS FOR IRP SITE 21 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	S21MW04	EPA Tap Water PRGs
Sample ID	08798040104W	
Sample Date	04/01/1998	
Metals (µg/L)		
FIltered		
VANADIUM	< 0.98 UJ	260
ZINC	< 0.8 U	11,000
General Mineral		
CALCIUM	415,000	NC
IRON	204 J	11,000
MAGNESIUM	215,000	NC
POTASSIUM	13,100 J	NC
SODIUM	713,000	NC

Notes: Categories of analyses are shown, but only detected compounds are presented. Analyte results in boldface type exceed EPA tap water PRGs.

*	California modified PRGs
ID	Identification
J	Estimated value
mg/L	Milligrams per liter
NA	Not analyzed
NC	No criteria
ND	None detected
PRG	Preliminary remediation goals
R	Result rejected during quality assurance review.
TPH	Total petroleum hydrocarbons
U	Nondetected
Z	Chromatographic pattern does not resemble TPH fuel pattern (individual peaks).
µg/L	Micrograms per liter

21.0 IRP SITE 22 – ABOVEGROUND FUEL FARM

This section provides the site background and description for IRP Site 22; summarizes the previous investigations, activities, and existing data; and discusses data gap findings and strategies for eliminating data gaps at IRP Site 22.

21.1 SITE BACKGROUND

The following sections discuss the site background for IRP Site 22, including a general site description, discussion of previous and current site activities, and a summary of previous investigations that have been completed at the site.

21.1.1 Site Description

The aboveground fuel farm is located in the southwestern portion of the base (Figure 21-1), approximately 1,000 feet west of the harbor; it includes five large capacity aboveground tanks (Nos. 5021, 5022, 5025, 5113, and 5114) containing fuel oil for ships. The tanks were constructed between 1942 and 1969, and are surrounded by a series of berms that restrict surface runoff. Overflow pipes in the two largest tanks lead to unlined sumps near the tanks. IRP Site 22 also includes a former slop tank and refueling area, and an area north of Tank No. 5022 where a UST was previously removed

21.1.2 Site Activities

The five large tanks on the site and their previous uses are listed below; all of the site tanks have been demolished.

- Tank 5025 was an 80,000-barrel capacity tank that stored NSFO (similar to Bunker C); the tank was drained in 1992 and has recently been demolished.
- Tank 5114 was a 10,500-barrel capacity tank that stored marine diesel fuel; the tank was drained 1991 and has recently been demolished.
- Tank 5113was a 1,000-barrel capacity tank that stored DF-2 diesel fuel and fuel oil No. 5; the tank has recently been demolished.
- Tank 5021 was a 1,000-barrel capacity tank that stored fuel oil No. 5, NSFO, and kerosene; the tank was drained in 1991 and has recently been demolished.

Operations of the tanks reportedly caused fuel spills in the surrounding area and possible leakage from underground fuel lines. The slop tank east of tank 5021 and 5022 is a 300-barrel capacity tank that was used to store excess waste oil; the tank was removed in 1993 in good condition. Hydrocarbon staining and PID readings up to 10 parts per million (ppm) were observed during the excavation. The existing refueling area is still in use with light fuel oil and diesel fuel No. 2.

21.1.3 Previous Investigations

Previous investigations that have been completed at IRP Site 22 include a technical assistance visit (Navy 1984), a supplemental site assessment (Krispar Technologies, Inc. [Krispar] 1990), a general site visit (NBVC Port Hueneme 1991), and a final SI (PRC and Montgomery Watson 1996).

21.1.3.1 Technical Assistance Memorandum (Navy 1984)

In a 1984 technical assistance visit to IRP Site 22, the Navy Petroleum Office was to identify improvements for proper operation. The visit memorandum noted that pipelines leading into and out of tank 5114 were severely corroded, possibly leaking. Evidence of leaking fuel was identified at tanks 5021 and 5022. A past leak at a pipe elbow for tank 5025 was also reported.

21.1.3.2 Supplemental Site Assessment (Krispar 1990)

A supplemental inspection of tank 5025 (Krispar 1990) involved drilling one 30-foot boring (B1) and two 80-foot borings (B2 and B3) east of tank 5025 (Figure 21-1). B2 and B3 were advanced to obtain geotechnical information. B1 was completed as a monitoring well (S22MW05) (Figure 21-1). Logging of B1 revealed clean sand from 0.0 to 6.5 feet bgs; soils striated with dark gray to black sand and a tar odor from 6.5 to 11 feet bgs; and black soil with oily substance and odor at 15 feet bgs. Soil samples were collected at 2.0, 9.5, and 15 feet bgs, and analyzed for TRPH; the 15-foot sample was also analyzed for lead. TRPH was detected at 58,750 mg/kg in the sample collected from B1 at 15 feet bgs. A groundwater sample was also collected from B1 and analyzed for TRPH. TRPH was detected at 8,000 µg/L in the sample.

21.1.3.3 Site Visit (NBVC Port Hueneme 1991)

During an October 1991 site visit, moisture and staining were noted around the base of tank 5025, and an unlined sump contained stained soil. An unlined sump at tank 5114 was filled with a water and fuel mixture. The Navy reported that a similar mixture had been previously pumped out but the fluid had returned in several days. The source was not known.

21.1.3.4 Final Site Inspection Report (PRC and Montgomery Watson 1996)

A total of 17 soil borings (S22-B1 through S22-B17) and four monitoring wells (S22MW01 through S22MW04) were installed during the investigation of the aboveground fuel farm portion of IRP Site 22 (Figure 21-1). Eighty-seven surface and subsurface soil samples were collected at depths up to 12.5 feet bgs and analyzed for SVOC and TPH-p and TPH-e. Groundwater samples were collected from the four new monitoring wells in August and November 1993 and analyzed for SVOC, TPH-p and TPH-e. The water levels varied from 15 to 23 feet bgs. Surface grab samples (S22-G1 and S22-G2) were collected at two unlined sumps and analyzed for VOC, SVOC, TPH-p and TPH-e, and metals. Three surface samples (S22-G3 through S22-G5) were collected from soil piles generated during an earlier UST removal at the planned location for

boring S22-B18; the samples were analyzed for SVOC, and TPH-e and TPH-p. An additional 24 soil borings (S22-B19 through S22-B42) were drilled and sampled during the investigation of the fuel distribution lines leading from the fuel farm to the Hueneme Harbor wharves. These wells are located around the wharf area and therefore are not shown on Figure 21-1. Fifty soil samples were collected from approximately 2.5 and 5.0 feet bgs, and analyzed for TPH-p and TPH-e. Table 21-1 is a summary of the samples collected at IRP Site 22.

Several SVOCs were detected at the aboveground fuel farm potion of IRP Site 22 at various concentrations from samples taken at depths of 0.0 to 13 feet bgs. Most of the compounds were detected around tank Nos. 5021, 5022, and 5114; soil boring S22-B17; and the soil piles. Several PAHs were detected in samples from these areas, including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, and indeno(1,2,3-cd)pyrene. TPH-e and TPH-p were also detected in soil and sediment samples. Soil TPH values ranged up to 32,540 mg/kg (S22MW03) at 20 feet bgs. Sediment TPH values ranged up to 130,000 mg/kg in unlined sumps.

Several SVOCs were detected at low concentrations in the groundwater samples, including 2-methylnaphthalene, 4-methylphenol, acenaphthene, bis(2-ethylhexyl)phthalate, dibenzofuran, fluorine, naphthalene, and phenanthrene. Samples were screened against EPA PRGs, MCLs, and NAWQC; background metal concentrations for CBC Port Hueneme (see Appendix B); and STLCs for metals. TPH was also detected in the samples at concentrations up to 8,700 µg/L (in S22MW3). COPCs were not defined because the site was a petroleum site and thus excluded from CERCLA. IRP Site 22 was not further considered in the BHHRA completed for the SI.

21.1.4 Previous and Current Actions and Decisions

In a 1996 letter, DTSC concurred that site contamination was restricted to petroleum constituents and the site cleanup should be conducted under the petroleum program (DTSC 1996). RWQCB issued a letter in 1999 determining that no further action is necessary at IRP Site 22 based on their review of soil and groundwater data (RWQCB 1999). A copy of this letter has been included in Appendix E. A DD will be prepared for IRP Site 22.

21.2 Compilation of Existing Site Data

A review of existing data was not conducted for IRP Site 22 because no further action is required for either soil or groundwater under the IRP based on letters received from DTSC and RWQCB (DTSC 1996; RWQCB 1999).

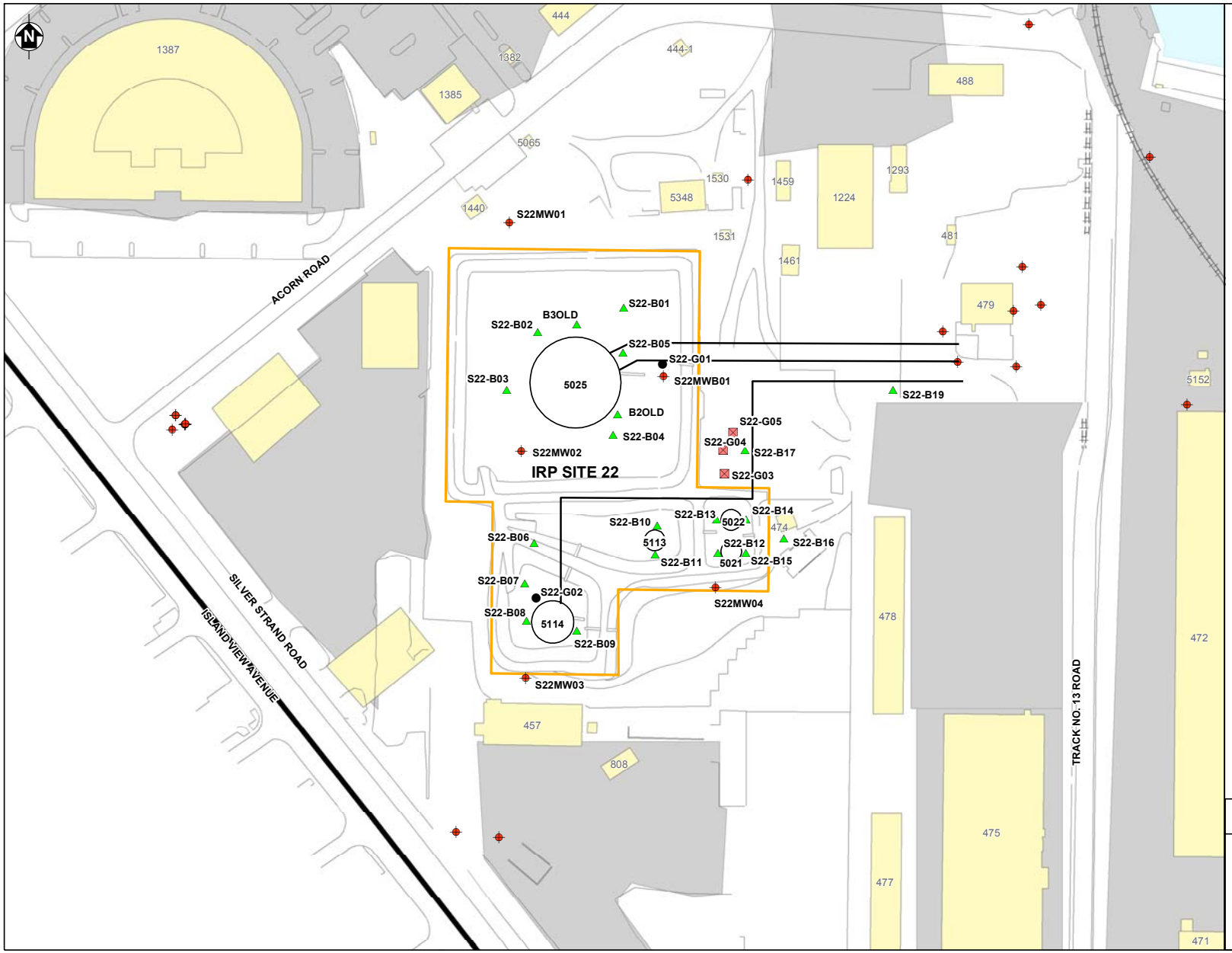
21.3 Data Gaps

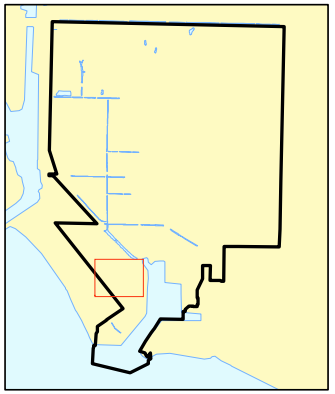
No data gaps were identified for IRP Site 22.

21.4 STRATEGY FOR ELIMINATING DATA GAPS

No soil or groundwater data gaps exist at IRP Site 22. The Navy will evaluate preparation of a PP and DD to document site closure.

FIGURES





SOIL PILE GRAB SAMPLE

FORMER ABOVE GROUND STORAGE TANK

SOIL BORING

TEST PIT

MONITORING WELL

IRP SITE

CBC PORT HUENEME BOUNDARY

RAILROAD

FUEL PIPELINE

CURB

BUILDING

PAVED AREA (NOT ROAD)

60 0 60 120

Feet

SulTech

CBC Port Hueneme, Port Hueneme, California

U.S. Navy, NFECSW, San Diego

FIGURE 21-1
IRP SITE 22 - FUEL FARM
SITE MAP

Site Management Plan

fig21-1_PHFSMP_IRPsite22_sitemap_111604.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases

TABLES

TABLE 21-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 22

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
234-S22-149	SEDIMENT	07/24/93	S22-G01	ORIG	0.00 - 0.00	✓	✓	✓	✓			✓					
234-S22-150	SEDIMENT	07/24/93	S22-G01	DUP	0.00 - 0.00	✓	✓	✓	✓			✓					
234-S22-151	SEDIMENT	07/24/93	S22-G02	ORIG	0.00 - 0.00	✓	✓	✓	✓			✓					
234-S22-182	SOIL	07/22/93	S22-B01	ORIG	0.50 - 0.50		✓	✓	✓								
234-S22-183	SOIL	07/22/93	S22-B01	ORIG	5.00 - 5.00		✓	✓	✓								
234-S22-184	SOIL	07/22/93	S22-B01	ORIG	10.00 - 10.00		✓	✓	✓								
234-S22-185	SOIL	07/22/93	S22-B01	ORIG	11.50 - 11.50		✓	✓	✓								
234-S22-186	SOIL	07/22/93	S22-B02	ORIG	2.50 - 2.50		✓	✓	✓								
234-S22-187	SOIL	07/22/93	S22-B02	ORIG	5.00 - 5.00		✓	✓	✓								
234-S22-188	SOIL	07/22/93	S22-B02	ORIG	10.00 - 10.00		✓	✓	✓								
234-S22-189	SOIL	07/22/93	S22-B02	ORIG	11.50 - 11.50		✓	✓	✓								
234-S22-190	SOIL	07/22/93	S22-B03	ORIG	0.50 - 0.50		✓	✓	✓								
234-S22-191	SOIL	07/22/93	S22-B03	ORIG	3.50 - 3.50		✓	✓	✓								
234-S22-192	SOIL	07/22/93	S22-B03	DUP	6.50 - 6.50		✓	✓	✓								
234-S22-193	SOIL	07/22/93	S22-B03	ORIG	10.00 - 10.00		✓	✓	✓								
234-S22-194	SOIL	07/22/93	S22-B03	ORIG	11.50 - 11.50		✓	✓	✓								
234-S22-001	SOIL	07/22/93	S22-B04	ORIG	0.50 - 0.50		✓	✓	✓								
234-S22-002	SOIL	07/22/93	S22-B04	ORIG	5.00 - 5.00		✓	✓	✓								
234-S22-003	SOIL	07/22/93	S22-B04	ORIG	10.00 - 10.00		✓	✓	✓								
234-S22-004	SOIL	07/22/93	S22-B04	ORIG	11.50 - 11.50		✓	✓	✓								
234-S22-005	SOIL	07/21/93	S22-B05	ORIG	0.50 - 0.50		✓	✓	✓								
234-S22-006	SOIL	07/21/93	S22-B05	ORIG	5.00 - 5.00		✓	✓	✓								
234-S22-007	SOIL	07/21/93	S22-B05	ORIG	10.00 - 10.00		✓	✓	✓								
234-S22-008	SOIL	07/21/93	S22-B05	ORIG	11.50 - 11.50		✓	✓	✓								
234-S22-009	SOIL	07/21/93	S22-B06	ORIG	0.50 - 0.50		✓	✓	✓								

TABLE 21-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 22 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
234-S22-010	SOIL	07/21/93	S22-B06	ORIG	5.00 - 5.00		✓	✓	✓								
234-S22-011	SOIL	07/21/93	S22-B06	DUP	6.50 - 6.50		✓	✓	✓								
234-S22-012	SOIL	07/21/93	S22-B06	ORIG	10.00 - 10.00		✓	✓	✓								
234-S22-013	SOIL	07/21/93	S22-B06	ORIG	11.50 - 11.50		✓	✓	✓								
234-S22-014	SOIL	07/13/93	S22-B07	ORIG	0.50 - 0.50		✓	✓	✓								
234-S22-015	SOIL	07/13/93	S22-B07	ORIG	5.00 - 5.00		✓	✓	✓								
234-S22-016	SOIL	07/13/93	S22-B07	ORIG	9.50 - 9.50		✓	✓	✓								
234-S22-017	SOIL	07/13/93	S22-B07	ORIG	11.50 - 11.50		✓	✓	✓								
234-S22-018	SOIL	07/13/93	S22-B08	ORIG	0.50 - 0.50		✓	✓	✓								
234-S22-019	SOIL	07/13/93	S22-B08	ORIG	5.00 - 5.00		✓	✓	✓								
234-S22-020	SOIL	07/13/93	S22-B08	ORIG	9.50 - 9.50		✓	✓	✓								
234-S22-021	SOIL	07/13/93	S22-B08	ORIG	11.00 - 11.00		✓	✓	✓								
234-S22-022	SOIL	07/13/93	S22-B08	DUP	9.50 - 9.50		✓	✓	✓								
234-S22-023	SOIL	07/21/93	S22-B09	ORIG	0.50 - 0.50		✓	✓	✓								
234-S22-024	SOIL	07/21/93	S22-B09	ORIG	5.00 - 5.00		✓	✓	✓								
234-S22-025	SOIL	07/21/93	S22-B09	ORIG	10.00 - 10.00		✓	✓	✓								
234-S22-026	SOIL	07/21/93	S22-B09	ORIG	11.50 - 11.50		✓	✓	✓								
234-S22-027	SOIL	07/21/93	S22-B10	ORIG	0.50 - 0.50		✓	✓	✓								
234-S22-028	SOIL	07/21/93	S22-B10	ORIG	5.00 - 5.00		✓	✓	✓								
234-S22-029	SOIL	07/21/93	S22-B10	ORIG	10.00 - 10.00		✓	✓	✓								
234-S22-030	SOIL	07/21/93	S22-B10	ORIG	11.50 - 11.50		✓	✓	✓								
234-S22-031	SOIL	07/21/93	S22-B11	ORIG	0.50 - 0.50		✓	✓	✓								
234-S22-032	SOIL	07/21/93	S22-B11	DUP	2.00 - 2.00		✓	✓	✓								
234-S22-033	SOIL	07/21/93	S22-B11	ORIG	5.00 - 5.00		✓	✓	✓								
234-S22-034	SOIL	07/21/93	S22-B11	ORIG	10.00 - 10.00		✓	✓	✓								

TABLE 21-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 22 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
234-S22-035	SOIL	07/21/93	S22-B11	ORIG	13.00 - 13.00		✓	✓	✓								
234-S22-036	SOIL	08/09/93	S22-B12	ORIG	0.00 - 0.00		✓	✓	✓								
234-S22-037	SOIL	08/09/93	S22-B12	ORIG	5.00 - 5.00		✓	✓	✓								
234-S22-038	SOIL	08/09/93	S22-B12	ORIG	10.00 - 10.00		✓	✓	✓								
234-S22-039	SOIL	08/09/93	S22-B12	ORIG	11.00 - 11.00		✓	✓	✓								
234-S22-040	SOIL	07/30/93	S22-B13	ORIG	0.50 - 0.50		✓	✓	✓								
234-S22-041	SOIL	07/30/93	S22-B13	ORIG	5.00 - 5.00		✓	✓	✓								
234-S22-042	SOIL	07/30/93	S22-B13	ORIG	9.50 - 9.50		✓	✓	✓								
234-S22-043	SOIL	07/30/93	S22-B13	DUP	10.50 - 10.50		✓	✓	✓								
234-S22-044	SOIL	07/30/93	S22-B13	ORIG	11.50 - 11.50		✓	✓	✓								
234-S22-045	SOIL	07/30/93	S22-B14	ORIG	0.50 - 0.50		✓	✓	✓								
234-S22-046	SOIL	07/30/93	S22-B14	ORIG	5.00 - 5.00		✓	✓	✓								
234-S22-047	SOIL	07/30/93	S22-B14	ORIG	10.00 - 10.00		✓	✓	✓								
234-S22-049	SOIL	07/28/93	S22-B15	ORIG	0.50 - 0.50		✓	✓	✓								
234-S22-050	SOIL	07/28/93	S22-B15	ORIG	5.00 - 5.00		✓	✓	✓								
234-S22-051	SOIL	07/28/93	S22-B15	ORIG	10.00 - 10.00		✓	✓	✓								
234-S22-052	SOIL	07/28/93	S22-B15	ORIG	12.50 - 12.50		✓	✓	✓								
234-S22-053	SOIL	07/22/93	S22-B16	ORIG	0.50 - 0.50		✓	✓	✓								
234-S22-054	SOIL	07/22/93	S22-B16	ORIG	5.00 - 5.00		✓	✓	✓								
234-S22-055	SOIL	07/22/93	S22-B16	DUP	6.50 - 6.50		✓	✓	✓								
234-S22-056	SOIL	07/22/93	S22-B16	ORIG	9.50 - 9.50		✓	✓	✓								
234-S22-057	SOIL	07/22/93	S22-B16	ORIG	11.00 - 11.00		✓	✓	✓								
234-S22-058	SOIL	07/22/93	S22-B17	ORIG	0.50 - 0.50		✓	✓	✓								
234-S22-059	SOIL	07/22/93	S22-B17	ORIG	5.00 - 5.00		✓	✓	✓								
234-S22-060	SOIL	07/22/93	S22-B17	ORIG	9.50 - 9.50		✓	✓	✓								

TABLE 21-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 22 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
234-S22-061	SOIL	07/22/93	S22-B17	ORIG	11.00 - 11.00		✓	✓	✓								
234-S22-067	SOIL	07/24/93	S22-B19	ORIG	2.50 - 2.50		✓	✓									
234-S22-068	SOIL	07/24/93	S22-B19	ORIG	5.00 - 5.00		✓	✓									
234-S22-071	SOIL	07/14/93	S22-B20	ORIG	2.50 - 2.50		✓	✓									
234-S22-072	SOIL	07/14/93	S22-B20	ORIG	5.00 - 5.00		✓	✓									
234-S22-075	SOIL	07/14/93	S22-B21	ORIG	2.50 - 2.50		✓	✓									
234-S22-076	SOIL	07/14/93	S22-B21	ORIG	5.00 - 5.00		✓	✓									
234-S22-080	SOIL	07/24/93	S22-B22	ORIG	2.50 - 2.50		✓	✓									
234-S22-081	SOIL	07/24/93	S22-B22	ORIG	5.00 - 5.00		✓	✓									
234-S22-082	SOIL	07/23/93	S22-B23	ORIG	2.50 - 2.50		✓	✓									
234-S22-083	SOIL	07/23/93	S22-B23	ORIG	5.00 - 5.00		✓	✓									
234-S22-084	SOIL	07/23/93	S22-B24	ORIG	2.50 - 2.50		✓	✓									
234-S22-085	SOIL	07/23/93	S22-B24	ORIG	5.00 - 5.00		✓	✓									
234-S22-086	SOIL	07/23/93	S22-B25	ORIG	2.50 - 2.50		✓	✓									
234-S22-087	SOIL	07/23/93	S22-B25	ORIG	5.00 - 5.00		✓	✓									
234-S22-088	SOIL	07/23/93	S22-B26	ORIG	2.00 - 2.00		✓	✓									
234-S22-089	SOIL	07/23/93	S22-B26	DUP	3.50 - 3.50		✓	✓									
234-S22-090	SOIL	07/23/93	S22-B26	ORIG	5.00 - 5.00		✓	✓									
234-S22-091	SOIL	07/23/93	S22-B27	ORIG	2.50 - 2.50		✓	✓									
234-S22-092	SOIL	07/23/93	S22-B27	ORIG	5.00 - 5.00		✓	✓									
234-S22-093	SOIL	07/14/93	S22-B28	ORIG	2.50 - 2.50		✓	✓									
234-S22-094	SOIL	07/14/93	S22-B28	ORIG	5.00 - 5.00		✓	✓									
234-S22-095	SOIL	07/23/93	S22-B29	ORIG	2.50 - 2.50		✓	✓									
234-S22-096	SOIL	07/23/93	S22-B29	ORIG	5.00 - 5.00		✓	✓									
234-S22-097	SOIL	07/23/93	S22-B30	ORIG	2.50 - 2.50		✓	✓									

TABLE 21-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 22 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
234-S22-098	SOIL	07/23/93	S22-B30	ORIG	5.00 - 5.00		✓	✓									
234-S22-099	SOIL	07/14/93	S22-B31	ORIG	2.00 - 2.00		✓	✓									
234-S22-102	SOIL	07/14/93	S22-B32	ORIG	2.50 - 2.50		✓	✓									
234-S22-103	SOIL	07/14/93	S22-B32	ORIG	5.00 - 5.00		✓	✓									
234-S22-104	SOIL	07/24/93	S22-B33	ORIG	2.50 - 2.50		✓	✓									
234-S22-105	SOIL	07/24/93	S22-B33	ORIG	5.00 - 5.00		✓	✓									
234-S22-106	SOIL	07/23/93	S22-B34	ORIG	2.50 - 2.50		✓	✓									
234-S22-107	SOIL	07/23/93	S22-B34	ORIG	5.00 - 5.00		✓	✓									
234-S22-108	SOIL	07/24/93	S22-B35	ORIG	2.50 - 2.50		✓	✓									
234-S22-109	SOIL	07/24/93	S22-B35	ORIG	5.00 - 5.00		✓	✓									
234-S22-110	SOIL	07/24/93	S22-B36	ORIG	2.50 - 2.50		✓	✓									
234-S22-111	SOIL	07/24/93	S22-B36	ORIG	5.00 - 5.00		✓	✓									
234-S22-112	SOIL	07/24/93	S22-B37	ORIG	2.00 - 2.00		✓	✓									
234-S22-113	SOIL	07/24/93	S22-B37	DUP	3.50 - 3.50		✓	✓									
234-S22-114	SOIL	07/24/93	S22-B37	ORIG	5.00 - 5.00		✓	✓									
234-S22-115	SOIL	07/24/93	S22-B38	ORIG	2.50 - 2.50		✓	✓									
234-S22-116	SOIL	07/24/93	S22-B38	ORIG	5.00 - 5.00		✓	✓									
234-S22-117	SOIL	07/24/93	S22-B39	ORIG	2.50 - 2.50		✓	✓									
234-S22-118	SOIL	07/24/93	S22-B39	ORIG	5.00 - 5.00		✓	✓									
234-S22-119	SOIL	07/23/93	S22-B40	ORIG	2.50 - 2.50		✓	✓									
234-S22-120	SOIL	07/23/93	S22-B40	ORIG	5.00 - 5.00		✓	✓									
234-S22-121	SOIL	07/23/93	S22-B41	ORIG	2.50 - 2.50		✓	✓									
234-S22-122	SOIL	07/23/93	S22-B41	ORIG	5.00 - 5.00		✓	✓									
234-S22-123	SOIL	07/23/93	S22-B42	ORIG	2.50 - 2.50		✓	✓									
234-S22-124	SOIL	07/23/93	S22-B42	ORIG	5.00 - 5.00		✓	✓									

TABLE 21-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 22 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
234-S22-125	SOIL	07/23/93	S22-B42	DUP	6.50 - 6.50		✓	✓									
234-S22-062	SOIL	07/24/93	S22-G03	ORIG	0.00 - 0.00		✓	✓	✓								
234-S22-063	SOIL	07/24/93	S22-G04	ORIG	0.00 - 0.00		✓	✓	✓								
234-S22-064	SOIL	07/24/93	S22-G05	ORIG	0.00 - 0.00		✓	✓	✓								
234-S22-145	SOIL	07/15/93	S22MW01	ORIG	0.50 - 0.50		✓	✓	✓								
234-S22-146	SOIL	07/15/93	S22MW01	ORIG	5.00 - 5.00		✓	✓	✓								
234-S22-147	SOIL	07/15/93	S22MW01	ORIG	8.50 - 8.50		✓	✓	✓								
234-S22-148	SOIL	07/15/93	S22MW01	ORIG	12.00 - 12.00		✓	✓	✓								
234-S22-132	SOIL	07/15/93	S22MW02	ORIG	0.50 - 0.50		✓	✓	✓								
234-S22-133	SOIL	07/15/93	S22MW02	ORIG	5.00 - 5.00		✓	✓	✓								
234-S22-134	SOIL	07/15/93	S22MW02	ORIG	10.00 - 10.00		✓	✓	✓								
234-S22-135	SOIL	07/15/93	S22MW02	ORIG	12.00 - 12.00		✓	✓	✓								
234-S22-136	SOIL	07/14/93	S22MW03	ORIG	0.50 - 0.50		✓	✓	✓								
234-S22-137	SOIL	07/14/93	S22MW03	DUP	0.50 - 0.50		✓	✓	✓								
234-S22-138	SOIL	07/14/93	S22MW03	ORIG	10.00 - 10.00		✓	✓	✓								
234-S22-139	SOIL	07/14/93	S22MW03	ORIG	15.00 - 15.00		✓	✓	✓								
234-S22-140	SOIL	07/14/93	S22MW03	ORIG	20.00 - 20.00		✓	✓	✓								
234-S22-141	SOIL	07/14/93	S22MW04	ORIG	0.00 - 0.00		✓	✓	✓								
234-S22-142	SOIL	07/14/93	S22MW04	ORIG	5.00 - 5.00		✓	✓	✓								
234-S22-143	SOIL	07/14/93	S22MW04	ORIG	8.00 - 8.00		✓	✓	✓								
234-S22-144	SOIL	07/14/93	S22MW04	ORIG	12.00 - 12.00		✓	✓	✓								
08797052201BJM	WATER	05/22/97	S22MW01	ORIG	NA		✓		✓			✓		✓			
08797052201BJMF	WATER	05/22/97	S22MW01	FIL	NA								✓				
08797060509GDT	WATER	06/05/97	S22MW01	ORIG	NA	✓		✓									
08797102215D	WATER	10/22/97	S22MW01	ORIG	NA	✓	✓	✓	✓				✓	✓			

TABLE 21-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 22 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
08798012245M	WATER	01/22/98	S22MW01	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798040308J	WATER	04/03/98	S22MW01	ORIG	NA	✓	✓	✓	✓				✓	✓			
234-S22-152	WATER	08/12/93	S22MW02	ORIG	NA		✓	✓	✓								
234-S22-153	WATER	11/11/93	S22MW02	ORIG	NA		✓	✓	✓								
08797052205BJM	WATER	05/22/97	S22MW02	ORIG	NA		✓		✓			✓		✓			
08797052205BJMF	WATER	05/22/97	S22MW02	FIL	NA								✓				
08797060507GDT	WATER	06/05/97	S22MW02	ORIG	NA	✓		✓									
08797102216D	WATER	10/22/97	S22MW02	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798012353M	WATER	01/23/98	S22MW02	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798040316W	WATER	04/03/98	S22MW02	ORIG	NA	✓	✓	✓	✓				✓	✓			
234-S22-154	WATER	08/12/93	S22MW03	ORIG	NA		✓	✓	✓								
234-S22-155	WATER	11/12/93	S22MW03	ORIG	NA		✓	✓	✓								
08797052203BJM	WATER	05/22/97	S22MW03	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797052203BJMF	WATER	05/22/97	S22MW03	FIL	NA								✓				
08797052204BJM	WATER	05/22/97	S22MW03	DUP	NA	✓	✓	✓	✓			✓		✓			
08797052204BJMF	WATER	05/22/97	S22MW03	FILD	NA								✓				
08797102128S	WATER	10/21/97	S22MW03	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798012352M	WATER	01/23/98	S22MW03	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798040314W	WATER	04/03/98	S22MW03	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798040315W	WATER	04/03/98	S22MW03	DUP	NA	✓	✓	✓	✓				✓	✓			
234-S22-156	WATER	08/12/93	S22MW04	ORIG	NA		✓	✓	✓								
234-S22-157	WATER	11/11/93	S22MW04	ORIG	NA		✓	✓	✓								
08797052202BJM	WATER	05/22/97	S22MW04	ORIG	NA		✓		✓			✓		✓			
08797052202BJMF	WATER	05/22/97	S22MW04	FIL	NA								✓				
08797060508GDT	WATER	06/05/97	S22MW04	ORIG	NA	✓		✓									

TABLE 21-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 22 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
08797101402A	WATER	10/14/97	S22MW04	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798012350M	WATER	01/23/98	S22MW04	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798012351M	WATER	01/23/98	S22MW04	DUP	NA	✓	✓	✓	✓				✓	✓			
08798040307J	WATER	04/03/98	S22MW04	ORIG	NA	✓	✓	✓	✓				✓	✓			
234-S22-158	WATER	08/12/93	S22MW05	ORIG	NA		✓	✓	✓								
234-S22-159	WATER	11/11/93	S22MW05	ORIG	NA		✓	✓	✓								
TOTAL						22	173	173	123	0	0	8	19	19	0	0	0

Notes:

DMETL	Metals (filtered)	ORGPB	Organic Lead	SVOC	Semivolatile organic compound
GMETL	General mineral	PCB	Polychlorinated biphenyls	TPH-e	Total petroleum hydrocarbons, extractables
METL	Metals (total - unfiltered)	PEST	Pesticides	TPH-p	Total petroleum hydrocarbons, purgeables
NA	Not applicable	PESTO	Organophosphorus pesticides	VOC	Volatile organic compound
				✓	Sample collected and analyzed; blank cell indicates no sample collected.

22.0 IRP SITE 23 – SURFACE TARGETS

This section provides the site background and description for IRP Site 23; summarizes the previous investigations, activities, and existing data; and discusses data gap findings and strategies for eliminating data gaps at IRP Site 23.

22.1 SITE BACKGROUND

The following sections discuss the site background for IRP Site 23, including a general site description, discussion of previous and current site activities, and a summary of previous investigations that have been completed at the site.

22.1.1 Site Description

IRP Site 23, Surface Targets, consists of a flat, unpaved, roughly triangular area of approximately 0.15 acre located in the southwestern portion of CBC Port Hueneme (Figure 22-1). Access to the site is restricted by a chain-link fence on the north and east sides, and a line of stacked cargo containers along the remaining perimeter. No surface targets (targets for Navy artillery fire) or any other materials are currently stored at the site. Hueneme Harbor lies approximately 800 feet east of IRP Site 23.

22.1.2 Site Activities

IRP Site 23 was used as a scrap metal accumulation area and as a temporary storage area for Navy surface targets for many years before 1986. The area was cleared of materials in 1991 (PRC and Montgomery Watson 1996). Available information does not account for the source of PCBs at IRP Site 23.

22.1.3 Previous Investigations

Previous investigations that have been completed at IRP Site 23 include an initial investigation (Sollenberger 1993), a final SI (PRC and Montgomery Watson 1996), an EE/CA (Tetra Tech 1998c), a preliminary ecological risk evaluation (Fisher 1999), a basewide groundwater investigation (Tetra Tech and LFR 2001), an AM (Navy 2002a), a removal action (GEOFON 2002), and an On-Scene Coordinators report (Tetra Tech 2003).

22.1.3.1 Initial Investigations (Sollenberger 1993)

One surface sample was collected by the Navy on March 21, 1991, and analyzed for pesticides, PCBs, ignitability, BTEX, and TPH-p. The location of the sample has not been determined. The sampling was conducted in response to a December 1990 compliance evaluation inspection. The only analyte detected in the sample was the PCB Aroclor-1254. A second surface-soil sampling event performed by the Navy on April 9, 1991, collected and analyzed 23 soil samples from 3 to

5 inches bgs. The sampling was conducted to determine the extent of contamination and to obtain data for the design and implementation of cleanup measures. PCBs were detected in 17 of the 23 samples. Aroclor-1254 was detected in 5 samples, and Aroclor-1260 was detected in 14 samples.

22.1.3.2 Final Site Inspection Report (PRC and Montgomery Watson 1996)

Three soil borings (S23-B1 through S23-B3) and one monitoring well boring (S23MW01) were drilled within IRP Site 23 during the 1993 SI field effort (Figure 22-1). The soil borings were completed to depths ranging from 7.5 to 13 feet bgs; the monitoring well was completed at 13 feet bgs and screened from 3 to 13 feet bgs. Twelve surface and subsurface samples were collected from 0.5 to 6.0 feet bgs and analyzed for VOCs, TPH-p, pesticides, PCBs, and ignitability. No geotechnical samples were collected at IRP Site 23. Groundwater samples were collected from monitoring well S23MW01 in August and November 1993, and analyzed for VOCs, TPH-p, and pesticides/PCBs. Table 22-1 summarizes the samples collected at IRP Site 23.

No VOCs, TPH-p, or PCBs were detected in any soil sample. The OC pesticide 4-4'-DDT was detected in one soil sample. No pesticides/PCBs or TPH-p were detected in the groundwater samples collected; a VOC (chloroform) was detected in the groundwater sample collected in November 1993.

Soil analytical results from the 1996 SI were used to perform a BHHRA for IRP Site 23. Samples were screened against EPA PRGs, MCLs, and NAWQC; background metal concentrations for CBC Port Hueneme (see Appendix B); and STLCs for metals. The PCB Aroclor-1260 was identified as the only COC for IRP Site 23 soil in the SI. Average exposure and RME cancer risks for child and adult residents exceeded the EPA risk management range of 1×10^{-4}. The HI also exceeded the non-carcinogenic target point of departure of 1.0. The SI report recommended a removal action for IRP Site 23 to prevent potential exposure of on-site workers to PCB-contaminated soil. The groundwater pathway was not evaluated in the BHHRA

22.1.3.3 Final EE/CA, Non-time Critical Removal Action for IRP Sites 9, 12B, and 23 (Tetra Tech 1998c)

In 1998, an EE/CA was prepared for IRP Site 23 to identify and analyze alternative removal actions for addressing the soil contaminated with PCBs at the site. Four removal alternatives were evaluated: soil removal and offsite disposal; soil removal with ex situ physical treatment; in situ biological treatment; and in situ thermal treatment. Based on a comparative analysis of the alternatives, the recommended removal action alternative was removal and off-site disposal.

22.1.3.4 Preliminary Ecological Risk Evaluation at IRP Site 9, 12B, and 23 (Fisher 1999)

The Navy conducted a preliminary ERA at IRP Site 23 in January 1999, to determine whether the site presents a risk to nearby ecological receptors. The purpose of the preliminary risk evaluation was to determine if sufficient natural resources would be at risk from site contamination or proposed removal actions to warrant a Phase 1 ERA. Results of the preliminary ecological risk evaluation indicated that there are no sensitive species at this site and no clear pathways for contaminants to cause long-term damage to natural resources; therefore, a Phase I ERA was not warranted for IRP Site 23, and that the proposed removal action should proceed as planned.

22.1.3.5 Draft Groundwater Remedial Investigation Report (Tetra Tech and LFR 2001)

From 1997 to 2001, a basewide RI was completed to evaluate the condition of the Semi-Perched Aquifer at CBC Port Hueneme. Four quarters of groundwater samples were collected from monitoring well S23MW01 and analyzed for VOCs, SVOCs, metals, TPH-p and TPH-e, and water quality parameters (Figure 22-1). Table 22-1 summarizes the samples collected at IRP Site 23.

Chemical concentrations in groundwater were screened against NAWQC for the protection of saltwater aquatic life and MCLs. If concentrations of an organic compound exceeded the NAWQC and/or MCL in at least one sampling round at a given location, that compound was considered a COPEC and/or COPC, respectively, at that location. If concentrations of an inorganic compound exceeded the NAWQC and/or MCL in more than one sampling at a given location, that compound was considered a COPEC and/or a COPC, respectively, at that location. Inorganics were screened differently because they often occur naturally. No COPECs or COPCs were identified for the samples collected from the IRP Site 23 monitoring wells. The minor detection of chloroform from the SI is not associated with site activities as the only COC identified for the site has been PCBs in soil. No further evaluation of groundwater within the Semi-Perched Aquifer was recommended for IRP Site 23.

22.1.3.6 Action Memorandum, Sites 9, 12B, and 23 (Navy 2002a)

In 2002, an AM was prepared to document the Navy's decision to undertake a nontime-critical removal action to remove soil contaminated with PCBs at IRP Site 23.

22.1.3.7 Final Field Activities Report, Soil Removal and Disposal for the CERCLA Non-time-Critical Removal Action at IRP Sites 12B and 23 (GEOFON 2002)

In March and April 2002, a removal action was completed at IRP Site 23 to address PCB contaminated soil. About 590 tons of soil was excavated from a maximum of 2 feet bgs. The

material was temporarily stockpiled and then transported and disposed of at Chemical Waste Management's Kettleman Hill Facility in Kettleman City, California. A total of 30 confirmation and quality control samples were collected following the removal action. The 24 final confirmation samples are shown on Figure 22-1. No PCBs were detected in any of the final confirmation samples at concentrations exceeding the EPA TSCA action level of 1 mg/kg. The final confirmation samples are presented as Appendix F.

22.1.3.8 CERCLA Non-time-Critical Removal Action, IRP Sites 12B and 23 (Tetra Tech 2003)

Following the removal action at IRP Site 23, a BHHRA incorporating post-removal action confirmation sampling results was prepared. The estimated cancer risk for future industrial scenario was below 1×10^{-6}, and the cancer risk for the residential scenario was at the low end of the EPA risk management range of 1×10^{-4} to 1×10^{-6}. The total noncancer HIs for future and residential scenarios was found to be less than the threshold of 1.0. Based on the results of the BHHRA, the Navy recommended closure of IRP Site 23 with no further action, in accordance with the results of the basewide groundwater investigation.

22.2 COMPILATION OF EXISTING SITE DATA

Soil analytical results from the 1996 SI were used to perform a BHHRA for IRP Site 23. The SI report recommended a removal action for IRP Site 23 to prevent potential exposure of on-site workers to PCB-contaminated soil. A removal action has conducted at the site to remove PCB-contaminated soil. Confirmation samples collected following the removal action indicate that PCB concentrations in all remaining soil are below the applicable screening criteria of 1 ppm. The confirmation samples are shown on Figure 22-1, and the results are included as Appendix F.

22.3 DATA GAPS

For this SMP, the previous investigations and collected data for IRP Site 23 were reviewed to verify that sufficient information is available to support the final actions and documentation needed to close the site. Identified data gaps and proposed actions to eliminate those data gaps are discussed below.

22.3.1 Soil Data Gaps

Based on a review of the existing soil data for the site, the number of soil samples previously collected is sufficient to further evaluate the environmental conditions at IRP Site 23. No additional soil borings or soil sampling is recommended for this site.

22.3.2 Groundwater Data Gaps

No contaminants of concern have been detected in groundwater samples collected from the site. In addition, the potential source area for migration to the shallow groundwater was removed during a 2002 removal action. Therefore, no additional groundwater sampling is recommended for this site.

22.3.3 Human Health Risk Assessment Data Gaps

Only soil exposures were evaluated in the BHHRA for IRP Site 23 (PRC and Montgomery Watson 1996). Since the completion of the BHHRA, a removal action was conducted at the site removing contaminated soils to levels acceptable for unrestricted land use. Furthermore, existing groundwater data indicates that further evaluation, including an HHRA, is not necessary

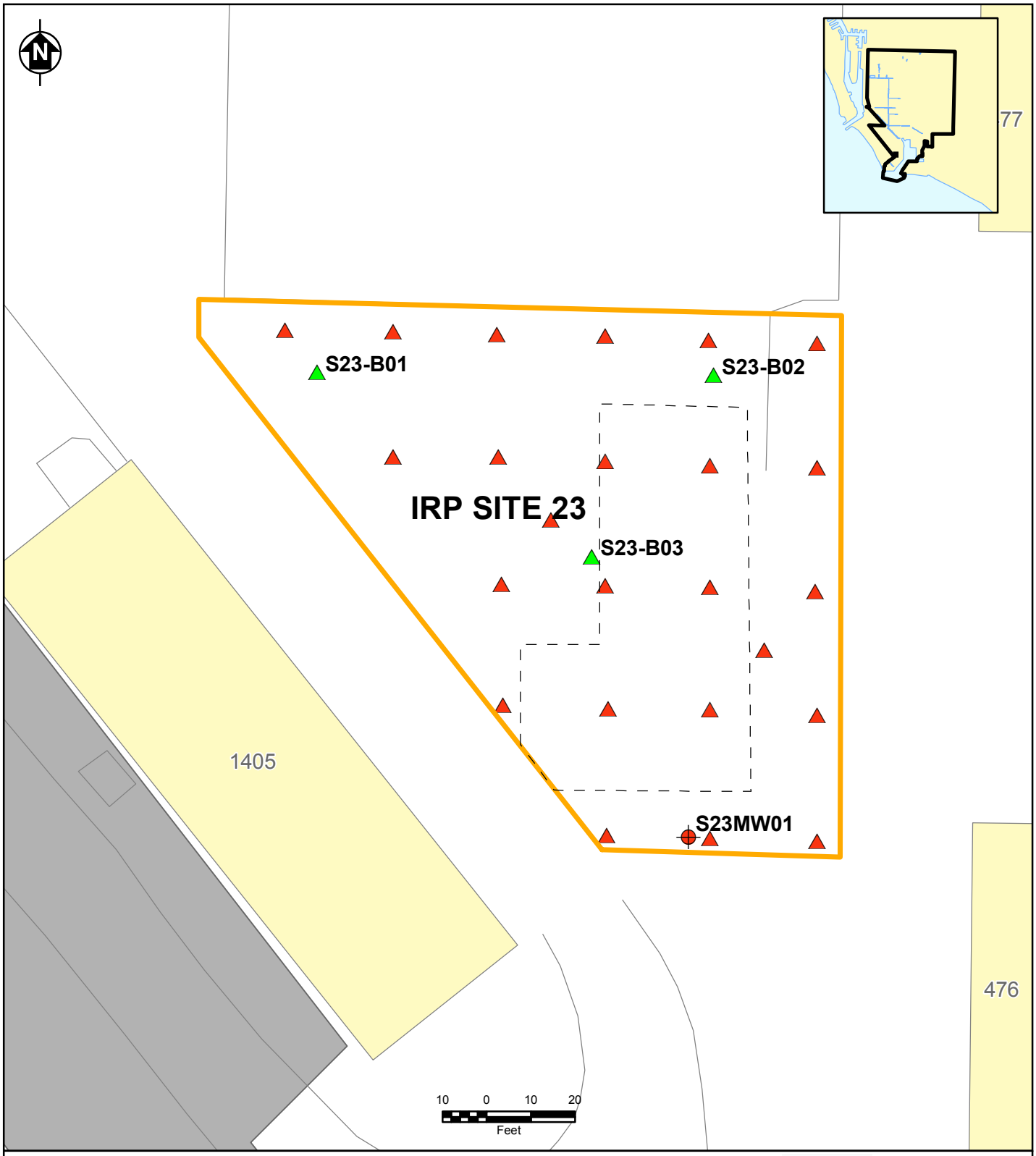
22.3.4 Ecological Risk Assessment Data Gaps

A preliminary ecological risk evaluation was completed at the site in 1999. Additional ERA is not recommended for IRP Site 23 because a removal action has subsequently removed PCBs in soil resulting in no further action and eliminating exposure pathways.

22.4 STRATEGY FOR ELIMINATING DATA GAPS

Further sampling is not necessary at this site because no data gaps have been identified. Similarly, an HHRA and ERA are not necessary. Available information will be compiled in a request for closure letter, which will be followed by a PP and a DD.

FIGURES



CONFIRMATION SOIL SAMPLES
SOIL BORING
MONITORING WELL
ADDITIONAL EXCAVATION
IRP SITE
CURB
BUILDING
PAVED AREA (NOT ROAD)

SulTech

CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 22-1
IRP SITE 23 - SURFACE TARGETS SITE MAP

Site Management Plan

fig22-1_PHFSMP_IRPsite23_sitemap_111604.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases

TABLES

TABLE 22-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 23

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
234-S23-001	SOIL	07/23/93	S23-B01	ORIG	0.50 - 0.50	✓		✓		✓	✓						
234-S23-002	SOIL	07/23/93	S23-B01	ORIG	5.00 - 5.00	✓		✓		✓	✓						
234-S23-024	SOIL	07/23/93	S23-B01	ORIG	2.00 - 2.00	✓		✓		✓	✓						
234-S23-004	SOIL	07/23/93	S23-B02	ORIG	0.50 - 0.50	✓		✓		✓	✓						
234-S23-005	SOIL	07/23/93	S23-B02	ORIG	3.00 - 3.00	✓		✓		✓	✓						
234-S23-007	SOIL	07/23/93	S23-B02	ORIG	5.50 - 5.50	✓		✓		✓	✓						
234-S23-008	SOIL	07/23/93	S23-B03	ORIG	0.50 - 0.50	✓		✓		✓	✓						
234-S23-009	SOIL	07/23/93	S23-B03	ORIG	3.00 - 3.00	✓		✓		✓	✓						
234-S23-010	SOIL	07/23/93	S23-B03	ORIG	6.00 - 6.00	✓		✓		✓	✓						
234-S23-011	SOIL	07/24/93	S23-B04	ORIG	0.50 - 0.50	✓		✓		✓	✓						
234-S23-012	SOIL	07/24/93	S23-B04	ORIG	3.00 - 3.00	✓		✓		✓	✓						
234-S23-013	SOIL	07/24/93	S23-B04	ORIG	4.50 - 4.50	✓		✓		✓	✓						
234-S23-014	SOIL	07/24/93	S23MW01	ORIG	6.00 - 6.00	✓		✓		✓	✓						
234-S23-025	WATER	08/12/93	S23MW01	ORIG	NA	✓		✓		✓	✓						
234-S23-025A	WATER	11/12/93	S23MW01	ORIG	NA	✓		✓		✓	✓						
08797050801BJM	WATER	05/08/97	S23MW01	ORIG	NA	✓	✓	✓	✓			✓		✓			
08797050801BJMF	WATER	05/08/97	S23MW01	FIL	NA								✓				
08797102127S	WATER	10/21/97	S23MW01	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798012354M	WATER	01/23/98	S23MW01	ORIG	NA	✓	✓	✓	✓				✓	✓			
08798040306J	WATER	04/03/98	S23MW01	ORIG	NA	✓	✓	✓	✓				✓	✓			

TABLE 22-1: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT IRP SITE 23 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
TOTAL						19	4	19	4	15	15	1	4	4	0	0	0

Notes:

DMETL	Metals (filtered)	ORGPB	Organic Lead	SVOC	Semivolatile organic compound
GMETL	General mineral	PCB	Polychlorinated biphenyls	TPH-e	Total petroleum hydrocarbons, extractables
METL	Metals (total - unfiltered)	PEST	Pesticides	TPH-p	Total petroleum hydrocarbons, purgeables
NA	Not applicable	PESTO	Organophosphorus pesticides	VOC	Volatile organic compound
				✓	Sample collected and analyzed; blank cell indicates no sample collected.

23.0 WASTE OIL UST SITES

This section provides the site background and description for the UST sites; summarizes the previous investigations, activities, and existing data; and discusses data gap findings and strategies for eliminating data gaps at the UST sites.

23.1 SITE BACKGROUND

The following sections discuss the site background for the UST sites, including a general site description, discussion of previous and current site activities, and a summary of previous investigations that have been completed at the sites.

23.1.1 Site Description

Former UST sites are located throughout CBC Port Hueneme (as shown in Figure 1-2). Sites are identified by the number of the building nearest the former UST. Many of these buildings have been demolished. UST sites were used for vehicle refueling, fuel supplies for buildings, and waste oil receptacles. USTs contained petroleum hydrocarbon substances including gasoline, diesel fuel, Navy special fuel oil, and waste oils. Petroleum is not considered a CERCLA contaminant and therefore is not evaluated under the IRP program; however, these sites are being evaluated in conjunction with the IRP program because previous sampling has detected non-petroleum-related contaminants as well as petroleum related contaminants in soil or groundwater.

23.1.2 SITE ACTIVITIES

The Navy completed removal of all known inactive or abandoned USTs within CBC Port Hueneme in two phases. Phase I involved removal of 16 USTs and Phase II involved removal of 48 USTs and 5 flow-through process tanks. Based on the findings during UST removal activities, the Navy identified the following ten UST sites as requiring further sampling and analysis: 42-01, 283-01, 305-01, 305-02, 796-04, 813-01, 1146-02, 1317-01, 1317-02, and MAG-01. The layouts of the UST sites are shown on Figures 23-1a through 23-8a.

23.1.3 Previous Investigations

Previous investigations that have been completed at the UST sites include a Phase II removal (Tetra Tech 1998a), a post-field investigation (Tetra Tech 1999a), and a CAP (Tetra Tech 2004).

23.1.3.1 Phase II Removal Summary Report (Tetra Tech 1998a)

In May 1998, the Navy conducted Phase II oversight and sampling activities, and prepared a UST summary report that presented results of tank removal activities and recommendations of no further action for 43 of 53 USTs that had been removed. The report included analysis of soil

and groundwater samples collected from the UST excavations. Subsequent laboratory analyses indicated waste oil contamination was present at ten of these sites, including USTs 42-01, 283-01, 305-01, 305-02, 796-04, 813-01, 1146-02, 1317-01, 1317-02, and MAG-01. RWQCB, the lead agency for UST sites with petroleum releases at CBC Port Hueneme, referred the ten former USTs to DTSC for review due to potential presence of nonpetroleum waste in soil and groundwater at the sites (RWQCB 1997). DTSC recommended further characterization of the ten sites, noting: (1) possibility that contaminated soil was used to backfill the former UST excavations, (2) observation of a petroleum sheen on the groundwater surface within the former excavations, and (3) possibility that soil and groundwater contamination may not have been adequately delineated.

23.1.3.2 Draft Post-Field Investigation Technical Memorandum for Former Underground Storage Tanks (Tetra Tech 1999a)

The objectives for the post-field investigation were to: (1) determine contaminant concentrations in subsurface soil and groundwater at each of the ten identified UST sites, and (2) to obtain sufficient site characterization data either to support recommendations for no further action or to develop CAPs.

A total of 28 borings were advanced at the 10 previously identified UST sites. A total of 52 soil samples were collected at depths of approximately 3.0 to 5.0 and 5.0 to 7.0 feet bgs. All soil samples were analyzed for VOCs, SVOCs, pesticides, PCBs, TPH-e and TPH-p, and metals.

A total of 28 groundwater samples were collected at the UST sites. All groundwater samples were analyzed for VOCs, SVOCs, pesticides, PCBs, TPH-e and TPH-p, and metals. A summary of contaminants detected at each waste-oil UST site are provided below:

UST Site 42-01

The site map of former UST Site 42-01 is shown as Figure 23-1a. Sample identifications and laboratory analyses are summarized on Table 23-1a. Soil and groundwater sampling results are shown on Tables 23-1b and 23-1c.

Soil Results. Arsenic was detected in all soil samples at former UST Site 42-01 at concentrations within the range of established background concentrations for CBC Port Hueneme (see Appendix B), and slightly above the background 95 percent upper confidence limit (UCL 95) or equivalent percentile value. Analyses of soil samples yielded no detectable concentrations of TPH as diesel fuel or motor oil. TPH as gasoline results ranged from nondetect to 0.66 mg/kg. In the absence of risk drivers (the toxic components of petroleum), TPH in soil has not been a factor in determining site closures at CBC Port Hueneme. No other constituents were detected above screening criteria at UST Site 42-01.

Analytical results at UST Site 42-01 did not indicate evidence of residual soil contamination associated with the former UST, and organic and inorganic constituents were detected at concentrations below or within established screening criteria.

Groundwater Results. Arsenic was detected in all groundwater samples collected at the site above the EPA Region 9 tap water PRG, but below the EPA MCL and the NAWQC. Thallium was detected in the groundwater sample from sample 42-01SB01 at a concentration above the EPA Region 9 tap water PRG and the MCL, but below the NAWQC. No detectable concentrations of TPH as diesel fuel, motor oil, or gasoline were found in groundwater samples collected from this site.

Presence of arsenic in groundwater at concentrations above criteria appeared to be related to the high turbidity of the groundwater samples collected at this site. The statistical metals analysis conducted under the basewide groundwater investigation indicated that unfiltered samples yield significantly higher concentrations of inorganic constituents as compared to filtered samples, and that results from filtered samples were more representative of inorganic concentrations in groundwater at CBC Port Hueneme (Tetra Tech and LFR 1998). The statistical analysis showed that presence of sediment in unfiltered samples contributed to relatively high inorganic concentrations. Presence of thallium at a concentration exceeding criteria was also likely related to the turbidity of the sample. Because a residual contaminant source of arsenic or thallium in soil at the site was not apparent, these constituents likely were not related to a contaminant release. Furthermore, both constituents were detected at concentrations below NAWQC, the overriding criteria for groundwater at the base. The basewide groundwater investigation did not identify groundwater contamination concerns in the vicinity of UST Site 42-01 (Tetra Tech and LFR 2001).

UST Site 283-01

The site map of former UST Site 283-01 is shown as Figure 23-2a. Sample identifications and laboratory analyses are summarized on Table 23-2a. Soil and groundwater sampling results are shown on Tables 23-2b and 23-2c.

Soil Results. Arsenic was detected in one soil sample from boring 283-01SB01 at a concentration within the range of established background concentrations for CBC Port Hueneme (see Appendix B), and slightly above the background UCL 95 or equivalent percentile value. Analyses of soil samples yielded concentrations of TPH as diesel fuel ranging from nondetect to 1,200 mg/kg; TPH-as-motor oil results ranging from nondetect to 24,500 mg/kg; and TPH as gasoline ranging from nondetect to 0.6 mg/kg. In the absence of risk drivers (the toxic components of petroleum), TPH in soil has not been a factor in determining site closures at CBC Port Hueneme. No other constituents were detected above screening criteria.

Analytical results at UST Site 283-01 do not indicate evidence of residual soil contamination associated with the former UST, and organic and inorganic constituents were detected at concentrations below or within established screening criteria.

Groundwater Results. Arsenic, barium, cadmium, lead, thallium, trichloroethene, and vanadium were detected at concentrations above EPA Region 9 tap water PRGs in all groundwater samples collected from the site. Arsenic concentrations in boring 283-01SB03 also exceeded MCLs and NAWQC. Lead was detected in each sample at concentrations above MCLs and NAWQC. Thallium concentrations in samples from borings 283-01SB01 and 283-01SB02 exceeded MCLs but not NAWQC. Barium and cadmium exceeded MCLs in boring 283-01SB03. Cadmium concentration in the groundwater sample from this boring also exceeded NAWQC. Trichloroethene concentration in the sample from boring 283-01SB02 exceeded the MCL. Analyses of groundwater samples yielded concentrations of TPH as diesel fuel ranging from 0.5 to 5.0 µg/L, TPH as motor oil ranging from 7.0 to 61 µg/L, and TPH as gasoline ranging from 0.31 to 2.15 µg/L. In the absence of risk drivers (the toxic components of petroleum), TPH in groundwater has not been a factor in determining site closures at CBC Port Hueneme.

Presence of inorganic constituents in groundwater at concentrations above criteria appears to be related to the high turbidity of the groundwater samples collected at this site. The statistical metals analysis showed that presence of sediment in unfiltered samples generally contributes to relatively high inorganic concentrations (Tetra Tech and LFR 1998). Because a residual inorganic contaminant source was not apparent in soil at the site, these constituents likely are not related to a contaminant release. Lead was the only inorganic constituent detected consistently above all criteria. Arsenic exceeded all criteria in one sample. The statistical analysis (Tetra Tech and LFR 1998) showed that high concentrations of inorganic constituents in groundwater samples clearly result from turbidity in unfiltered samples. Trichloroethene was the only organic constituent that exceeded criteria; however, the NAWQC was not exceeded. The basewide groundwater investigation did not identify groundwater contamination concerns in the vicinity of UST Site 283-01 (Tetra Tech and LFR 2001).

UST Sites 305-01 and 305-02

The site map of former UST Sites 305-01 and 305-02 is shown as Figure 23-3a. Sample identifications and laboratory analyses are summarized on Table 23-3a. Soil and groundwater sampling results are shown on Tables 23-3b and 23-3c.

Soil Results. Arsenic was detected in soil samples from former UST Sites 305-01 and 305-02 at concentrations within the range of established background concentrations for CBC Port Hueneme (see Appendix B), and slightly above the background UCL 95 or equivalent percentile value. The PCB Aroclor 1260 was detected in two soil samples at concentrations above its EPA Region 9 residential and industrial PRGs. Analyses of soil samples yielded concentrations of TPH as diesel fuel ranging from nondetect to 1,100 mg/kg, TPH as motor oil ranging from nondetect to 5,500 mg/kg, and TPH as gasoline ranging from nondetect to 0.6 mg/kg. In the absence of risk drivers (the toxic components of petroleum), TPH in soil has not been a factor in determining site closures at CBC Port Hueneme.

Presence of Aroclor-1260 in soil at concentrations above screening criteria indicates the possibility of residual PCB waste in soil at former UST Site 305-01; however, the concentrations are below EPA's cleanup value of 25 mg/kg for low occupancy sites, as defined in the TSCA (40 CFR, Section 761.61). Low occupancy sites correlate to industrial use sites. Because former UST Site 305-01 was designated by the base as an industrial site, further action to address PCBs in soil was not recommended.

Analytical results at former UST Sites 305-01 and 305-02 did not indicate evidence of residual soil contamination associated with arsenic.

Groundwater Results. Arsenic, barium, cadmium, lead, thallium, and vanadium were detected above EPA Region 9 tap water PRGs in groundwater samples collected from the site. Lead also exceeded MCLs and NAWQC in three samples. Arsenic exceeded the MCL in one sample and NAWQC in two samples. Thallium, barium, and cadmium exceeded MCLs in one sample, and cadmium also exceeded NAWQC in the same sample. Analyses of groundwater samples yielded no detectable concentrations of TPH as motor oil or gasoline. Concentrations of TPH as diesel fuel were reported in groundwater ranging from nondetect to 0.21 µg/L. In the absence of risk drivers (the toxic components of petroleum), TPH in groundwater has not been a factor in determining site closures at CBC Port Hueneme.

Presence of inorganic constituents in groundwater at concentrations above criteria appears to be related to the high turbidity of the groundwater samples collected at this site. The statistical metals analysis showed that presence of sediment in unfiltered samples generally contributes to relatively high inorganic concentrations (Tetra Tech and LFR 1998). Because a residual inorganic contaminant source was not apparent in soil at the site, these constituents likely are not related to a contaminant release. Lead was the only inorganic constituent detected consistently above all criteria. Arsenic exceeded all criteria in two samples. The statistical analysis (Tetra Tech and LFR 1998) showed that high concentrations of inorganic constituents in groundwater samples clearly result from turbidity in unfiltered samples. The basewide groundwater investigation did not identify groundwater contamination concerns in the vicinity of UST Sites 305-01 and 305-02 (Tetra Tech and LFR 2001).

UST Site 796-04

Former UST Site 796-04 lies within IRP Site 20 as shown in Figure 23-4a. Sample identifications and laboratory analyses are summarized on Table 23-4a. Soil and groundwater sampling results are shown on Tables 23-4b and 23-4c.

Soil Results. Arsenic was detected in one soil sample at a concentration within the range of established background concentrations for CBC Port Hueneme (see Appendix B), and slightly above the background UCL 95 or equivalent percentile value. Aroclor-1260 was detected in one sample at a concentration above the EPA Region 9 residential PRG but below the industrial PRG. Benzene was detected in three samples at concentrations of 1.4, 22, and 76 mg/kg. All three benzene detections are above the EPA Region 9 industrial PRG, and one detection, 1.4 mg/kg, is above the residential PRG. Xylene and 1,2-dichloroethane were detected in one

sample at a concentration above EPA Region 9 residential and industrial PRGs. Analyses of soil samples yielded concentrations of TPH as diesel fuel ranging from nondetect to 990 mg/kg, TPH as motor oil ranging from nondetect to 920 mg/kg, and TPH as gasoline ranging from 20 to 2,000 mg/kg. In the absence of risk drivers (the toxic components of petroleum), TPH in soil has not been a factor in determining site closures at CBC Port Hueneme.

The detected Aroclor 1260 concentration is below EPA's cleanup value of 1.0 mg/kg for high-occupancy sites, as defined in TSCA (40 CFR, Section 761.61). High occupancy sites correlate to residential sites. The data indicated that the site was suitable for unrestricted land use in regards to PCBs.

Analytical results at former UST Site 796-04 did not indicate evidence of residual soil contamination associated with arsenic.

Groundwater Results. Arsenic and lead were detected above all criteria in groundwater samples collected from the site. Benzene was detected above the EPA Region 9 tap water PRG and the MCL in groundwater samples collected from the site. Molybdenum was detected above the EPA Region 9 tap water PRG in one sample. Analysis of groundwater samples yielded no detectable concentrations of TPH as diesel fuel or motor oil. Concentrations of TPH as gasoline were reported ranging from 0.18 to 1.15 µg/L. In the absence of risk drivers (the toxic components of petroleum), TPH in groundwater has not been a factor in determining site closures at CBC Port Hueneme.

Presence of inorganic constituents in groundwater at concentrations above criteria appears to be related to the high turbidity of the groundwater samples collected at this site. The statistical metals analysis showed that presence of sediment in unfiltered samples generally contributes to relatively high inorganic concentrations (Tetra Tech and LFR 1998). Because a residual inorganic contaminant source was not apparent in soil at the site, these constituents likely are not related to a contaminant release. Lead was the only inorganic constituent detected consistently above all criteria. Arsenic exceeded all criteria in one sample. The statistical analysis (Tetra Tech and LFR 1998) showed that high concentrations of inorganic constituents in groundwater samples clearly result from turbidity in unfiltered samples.

UST Site 813-01

The site map of former UST Site 813-01 is shown as Figure 23-5a. Sample identifications and laboratory analyses are summarized on Table 23-5a. Soil and groundwater sampling results are shown on Tables 23-5b and 23-5c.

Soil Results. Arsenic was detected in one soil sample at a concentration within the range of established background concentrations for CBC Port Hueneme (see Appendix B) and slightly above the background UCL 95 or equivalent percentile value. Aroclor 1260 was detected in two samples at concentrations above the EPA Region 9 residential PRG but below the industrial PRG. Benzo(a)pyrene was detected in one sample above the EPA Region 9 residential PRG but

below the industrial PRG. Analyses of soil samples yielded no detectable concentrations of TPH as diesel fuel and motor oil. Concentrations of TPH as gasoline were reported ranging from nondetect to 0.6 mg/kg. In the absence of risk drivers (the toxic components of petroleum), TPH in soil has not been a factor in determining site closures at CBC Port Hueneme.

The detected Aroclor 1260 concentration was below EPA's cleanup value of 1.0 mg/kg for high-occupancy sites, as defined in TSCA (40 CFR, Section 761.61). High occupancy sites correlate to residential sites. The data indicate that the site was suitable for unrestricted land use in regards to PCBs; however, it was designated an industrial site.

Analytical results at former UST Site 813-01 did not indicate evidence of residual soil contamination associated with arsenic.

Groundwater Results. Arsenic, 1,2-dichloroethane, barium, cadmium, lead, thallium, trichloroethene, vinyl chloride, and vanadium were detected above EPA Region 9 tap water PRGs in groundwater samples collected from the site. Lead was detected above MCLs and NAWQC in all samples, and arsenic was detected above MCLs and NAWQC criteria in two samples. Cadmium was detected above MCLs and NAWQC in one sample. Thallium was detected above MCLs in two samples, and barium was detected above MCLs in one sample. 1,2-dichloroethane was detected above MCLs in all samples. Trichloroethene was detected above MCLs in one sample. Analyses of groundwater samples yielded no detectable concentrations of TPH as motor oil or gasoline. Concentrations of TPH as diesel fuel were reported ranging from nondetect to 0.49 milligrams per liter (mg/L). In the absence of risk drivers (the toxic components of petroleum), TPH in groundwater has not been a factor in determining site closures at CBC Port Hueneme.

Presence of inorganic constituents in groundwater at concentrations above criteria appeared to be related to the high turbidity of the groundwater samples collected at this site. The statistical metals analysis showed that presence of sediment in unfiltered samples generally contributes to relatively high inorganic concentrations (Tetra Tech and LFR 1998). Because a residual inorganic contaminant source was not apparent in soil at the site, these constituents likely are not related to a contaminant release. Lead was the only inorganic constituent detected consistently above all criteria. Arsenic exceeded all criteria in two samples. The statistical analysis (Tetra Tech and LFR 1998) showed that high concentrations of inorganic constituents in groundwater samples clearly resulted from turbidity in unfiltered samples.

Trichloroethene, vinyl chloride, and 1,2-dichloroethane were detected well below the NAWQC, and their presence in groundwater does not appear to be related to a residual source in soil. The basewide groundwater investigation did not identify groundwater contamination concerns in the vicinity of UST Site 813-01 (Tetra Tech and LFR 2001).

UST Site 1146-02

The site map of former UST Site 1146-02 is shown as Figure 23-6a. Sample identifications and laboratory analyses are summarized on Table 23-6a. Soil and groundwater sampling results are shown on Tables 23-6b and 23-6c. Sample locations and soil and groundwater analytical detections above screening criteria for UST Site 1146-02 are provided on Figures 23-6b and 23-6c.

Soil Results. Aroclor 1260 was detected in samples from two borings at concentrations above EPA Region 9 residential and industrial PRGs. Analyses of soil samples yielded no detectable concentrations of TPH as diesel fuel or gasoline. Concentrations of TPH as motor oil were reported ranging from 190 to 920 mg/kg. In the absence of risk drivers (the toxic components of petroleum), TPH in soil has not been a factor in determining site closures at CBC Port Hueneme. No other constituents were detected in soil above screening criteria.

The detected Aroclor 1260 concentration is below EPA's cleanup value of 1.0 mg/kg for high-occupancy sites, as defined in TSCA (40 CFR, Section 761.61). High occupancy sites correlate to residential sites. The data indicated that the site was suitable for unrestricted land use in regards to soil.

Groundwater Results. Arsenic, barium, cadmium, lead, and vanadium were recorded above screening criteria in groundwater samples from this site. Lead, arsenic, cadmium, and nickel exceeded all criteria in some samples. Analyses of groundwater samples yielded no detectable concentrations of TPH as motor oil or gasoline. Concentrations of TPH as diesel fuel were reported ranging from nondetect to 0.2 mg/L. In the absence of risk drivers (the toxic components of petroleum), TPH in groundwater has not been a factor in determining site closures at CBC Port Hueneme.

Presence of inorganic constituents in groundwater at concentrations above criteria appeared to be related to the high turbidity of the groundwater samples collected at this site. The statistical metals analysis showed that presence of sediment in unfiltered samples generally contributes to relatively high inorganic concentrations (Tetra Tech and LFR 1998). Because a residual inorganic contaminant source was not apparent in soil at the site, these constituents likely are not related to a contaminant release. Lead, arsenic, and nickel were the only inorganic constituents detected above all criteria. The statistical analysis (Tetra Tech and LFR 1998) showed that high concentrations of inorganic constituents in groundwater samples clearly result from turbidity in unfiltered samples. The basewide groundwater investigation did not identify groundwater contamination concerns related to UST Site 1146-02 (Tetra Tech and LFR 2001).

UST Sites 1317-01 and 1317-02

The site map of former UST Sites 1317-01 and 1317-02 is shown as Figure 23-7a. Sample identifications and laboratory analyses are summarized on Table 23-7a. Soil and groundwater sampling results are shown on Tables 23-7b and 23-7c. Sample locations and soil and groundwater analytical detections above screening criteria for UST Sites 1317-01 and 1317-02 are provided on Figures 23-7b and 23-7c.

Soil Results. Arsenic was detected in three soil samples at concentrations within the range of established background concentrations for CBC Port Hueneme (see Appendix B) and slightly above the background UCL 95 or equivalent percentile value. Analyses of soil samples yielded no detectable concentrations of TPH as diesel fuel or motor oil. Concentrations of TPH as gasoline were reported ranging from nondetect to 0.6 mg/kg. In the absence of risk drivers (the toxic components of petroleum), TPH in soil has not been a factor in determining site closures at CBC Port Hueneme.

Analytical results at former UST Sites 1317-01 and 1317-02 did not indicate evidence of residual soil contamination associated with arsenic.

Groundwater Results. Arsenic, antimony, lead, and vanadium were recorded above EPA Region 9 tap water PRGs in groundwater samples collected from the site. Lead and arsenic were detected above all criteria in some samples, and antimony was detected above MCLs in one sample. Analyses of groundwater samples yielded no detectable concentrations of TPH as diesel fuel, motor oil, or gasoline.

Presence of inorganic constituents in groundwater at concentrations above criteria appears to be related to the high turbidity of the groundwater samples collected at this site. The statistical metals analysis showed that presence of sediment in unfiltered samples generally contributes to relatively high inorganic concentrations (Tetra Tech and LFR 1998). Because a residual inorganic contaminant source was not apparent in soil at the site, these constituents likely are not related to a contaminant release. Lead and arsenic were the only inorganic constituents detected above all criteria. The statistical analysis (Tetra Tech and LFR 1998) showed that high concentrations of inorganic constituents in groundwater samples clearly result from turbidity in unfiltered samples. The basewide groundwater investigation did not identify groundwater contamination concerns in the vicinity of UST Sites 1317-01 and 1317-02 (Tetra Tech and LFR 2001).

UST Site MAG-01

The site map for UST MAG-01 is shown as Figure 23-8a. Because UST MAG-01 is located on IRP Site 17, analytical results for UST Site MAG-01 are provided on Figure 16-2 and in Tables 16-1 and 16-2.

Soil Results. Arsenic was detected in two soil samples at concentrations within the range of established background concentrations for CBC Port Hueneme (see Appendix B) and slightly above the background UCL 95 or equivalent percentile value. Analyses of soil samples yielded no detectable concentrations of TPH as diesel fuel or motor oil. Concentrations of TPH as gasoline were reported ranging from nondetect to 0.66 mg/kg. In the absence of risk drivers (the toxic components of petroleum), TPH in soil has not been a factor in determining site closures at CBC Port Hueneme.

Analytical results at former UST Site MAG-01 did not indicate evidence of residual soil contamination associated with arsenic.

Groundwater Results. Lead was detected above all criteria in each groundwater sample from the site. Arsenic was detected above the EPA Region 9 tap water PRGs in each groundwater sample collected from the site. Analyses of groundwater samples yielded no detectable concentrations of TPH as diesel fuel, motor oil, or gasoline.

Presence of lead and arsenic in groundwater at concentrations above criteria appeared to be related to the high turbidity of the groundwater samples collected at this site. The statistical metals analysis showed that presence of sediment in unfiltered samples generally contributes to relatively high inorganic concentrations (Tetra Tech and LFR 1998). Because a residual inorganic contaminant source was not apparent in soil at the site, these constituents likely are not related to a contaminant release. Lead was the only inorganic constituent detected above all criteria. The statistical analysis (Tetra Tech and LFR 1998) showed that high concentrations of inorganic constituents in groundwater samples clearly result from turbidity in unfiltered samples. The basewide groundwater investigation did not identify groundwater contamination concerns in the vicinity of UST Site MAG-01 (Tetra Tech and LFR 2001).

23.1.3.3 Draft Corrective Action Plan, Waste Oil Site 796-04 (Tetra Tech 2004)

A draft CAP is pending submittal for UST Site 796-04 to address soil contamination associated with the former UST (Tetra Tech 2004, pending final Navy review). The CAP identifies a primary and three secondary areas of contamination and recommends excavation and off-site disposal of affected soil, followed by verification monitoring to evaluate the effectiveness of the corrective action. The CAP is planned for 2004.

Results of confirmation sampling associated with this corrective action will be incorporated into the IRP Site 20 investigation.

23.2 COMPILATION OF EXISTING SITE DATA

Existing data has been summarized into summary tables and figures as described in Section 23.1. HHRAs and ERAs have not been completed for the former UST sites.

23.3 DATA GAPS

For this SMP, the previous investigations and collected data for UST sites were reviewed to verify that sufficient information was available to support the final actions and documentation needed to close the sites. The identified data gaps and proposed actions to address the data gaps were similar for all ten of the former UST sites, and thus are not discussed separately in the following text.

23.3.1 Soil Data Gaps

Based on a review of the existing soil data for the each of the former UST sites, an insufficient number of surface and subsurface samples exist to adequately characterize the UST sites and perform an HHRA and ERA for these sites. No surface soil samples are available for any of the ten UST sites. Additional surface and subsurface soil sampling is recommended for all ten of the former UST sites to support HHRAs and ERAs.

23.3.2 Groundwater Data Gaps

Based on a review of the existing groundwater data, additional groundwater sampling is recommended at the 10 UST sites to assess groundwater conditions and support HHRAs and ERAs.

23.3.3 Human Health Risk Assessment Data Gaps

Potential risks from exposure to soil or groundwater have not been evaluated in an HHRA for any of the UST sites. Additional soil and groundwater sampling is proposed at the site; therefore, existing and new soil and groundwater data will be evaluated in HHRAs. The HHRAs will evaluate potential risks for exposure to both soil and groundwater at the sites. The new HHRAs will use contemporary EPA, DTSC, and Navy risk assessment guidance to ensure site soil and groundwater risks are based on current methodology.

23.3.4 Ecological Risk Assessment Data Gaps

ERAs have not been completed for the UST sites. Habitat surveys of these sites should be completed to determine if a viable habitat exists for ecological receptors.

23.4 STRATEGY FOR ELIMINATING DATA GAPS

To eliminate the data gaps identified for the UST sites, a total of 22 new monitoring wells will be installed at the UST sites to ensure that groundwater is sampled from locations upgradient and downgradient of each potentially contaminated site. Four quarters of groundwater sampling will be conducted at existing and proposed monitoring wells. The following tables summarize the new monitoring wells to be installed at former UST Sites 42-01, 283-01, 305-01 and 02, 813-01,

1146-02, 1317-01 and 02, and MAG-01; monitoring well locations are shown on Figures 23-1b, 23-2b, 23-3b, 23-5b, 23-6d, 23-7d, and 23-8b. Data for UST Site 796-04 will be collected as part of the IRP Site 20 evaluation

Former UST Site 42-01

Well ID	Borehole Diameter (inches)	Well Diameter (inches)	Well Depth (feet bgs)	Screened Interval (feet bgs)	Up/Down Gradient	Estimated Water Level (feet bgs)
4201MW01	8.0	2.0	15	5-15	Up	5
4201MW02	8.0	2.0	15	5-15	Down	5
4201MW03	8.0	2.0	15	5-15	Down	5

Former UST Site 283-01

Well ID	Borehole Diameter (inches)	Well Diameter (inches)	Well Depth (feet bgs)	Screened Interval (feet bgs)	Up/Down Gradient	Estimated Water Level (feet bgs)
283MW01	8.0	2.0	15	5-15	Up	5
283MW02	8.0	2.0	15	5-15	Down	5
283MW03	8.0	2.0	15	5-15	Down	5

Former UST Sites 305-01 and 305-02

Well ID	Borehole Diameter (inches)	Well Diameter (inches)	Well Depth (feet bgs)	Screened Interval (feet bgs)	Up/Down Gradient	Estimated Water Level (feet bgs)
305MW01	8.0	2.0	15	5-15	Up	5
305MW02	8.0	2.0	15	5-15	Down	5
305MW03	8.0	2.0	15	5-15	Up	5
305MW04	8.0	2.0	15	5-15	Down	5

Former UST Site 813-01

Well ID	Borehole Diameter (inches)	Well Diameter (inches)	Well Depth (feet bgs)	Screened Interval (feet bgs)	Up/Down Gradient	Estimated Water Level (feet bgs)
813MW04	8.0	2.0	15	5-15	Up	5
813MW05	8.0	2.0	15	5-15	Down	5
813MW06	8.0	2.0	15	5-15	Down	5

Former UST Site 1146-02

Well ID	Borehole Diameter (inches)	Well Diameter (inches)	Well Depth (feet bgs)	Screened Interval (feet bgs)	Up/Down Gradient	Estimated Water Level (feet bgs)
1146MW01	8.0	2.0	15	5-15	Up	5
1146MW02	8.0	2.0	15	5-15	Down	5
1146MW03	8.0	2.0	15	5-15	Down	5

Former UST Sites 1317-01 and 1317-02

Well ID	Borehole Diameter (inches)	Well Diameter (inches)	Well Depth (feet bgs)	Screened Interval (feet bgs)	Up/Down Gradient	Estimated Water Level (feet bgs)
1317MW01	8.0	2.0	15	5-15	Up	5
1317MW02	8.0	2.0	15	5-15	Down	5
1317MW03	8.0	2.0	15	5-15	Up	5
1317MW04	8.0	2.0	15	5-15	Down	5

Former UST Site MAG-01

Well ID	Borehole Diameter (inches)	Well Diameter (inches)	Well Depth (feet bgs)	Screened Interval (feet bgs)	Up/Down Gradient	Estimated Water Level (feet bgs)
MAG01MW04	8.0	2.0	15	5-15	Down	5

Groundwater samples will be analyzed for VOCs, SVOCs, TPH-p and TPH-e, pesticides/PCBs, and dissolved metals. Proposed groundwater samples to be collected at former UST sites 42-01, 283-01, 305-01 and 02, 813-01, 1146-02, 1317-01 and 02, and MAG-01 are presented below.

Well ID	Well Diameter (inches)	Well Depth (feet bgs)	Screened Interval (feet bgs)	Analyses
4201MW01	2.0	15	5-15	VOC, SVOC, TPH-purgeable, TPH-extractable, pesticides/PCB, metals
4201MW02	2.0	15	5-15	Same as above
4201MW03	2.0	15	5-15	Same as above
283MW01	2.0	15	5-15	Same as above
283MW02	2.0	15	5-15	Same as above

Well ID	Well Diameter (inches)	Well Depth (feet bgs)	Screened Interval (feet bgs)	Analyses
283MW03	2.0	15	5-15	Same as above
305MW01	2.0	15	5-15	Same as above
305MW02	2.0	15	5-15	Same as above
305MW03	2.0	15	5-15	Same as above
305MW04	2.0	15	5-15	Same as above
813MW04	2.0	15	5-15	Same as above
813MW05	2.0	15	5-15	Same as above
813MW06	2.0	15	5-15	Same as above
1146MW01	2.0	15	5-15	Same as above
1146MW02	2.0	15	5-15	Same as above
1146MW03	2.0	15	5-15	Same as above
1317MW01	2.0	15	5-15	Same as above
1317MW02	2.0	15	5-15	Same as above
1317MW03	2.0	15	5-15	Same as above
1317MW04	2.0	15	5-15	Same as above
S17MW02	2.0	15	5-15	Same as above
S17MW03	2.0	15	5-15	Same as above
MAG01MW04	2.0	15	5-15	Same as above

To eliminate data gaps identified for the UST sites, 89 surface and 41 subsurface soil samples will be collected at 0.0 to 2.0 feet bgs and 5.0 to 7.0 feet bgs, respectively. These samples will be analyzed for VOCs, SVOCs, PAHs, TPH-p and TPH-e, pesticides/PCBs, and metals. Proposed soil samples for individual former UST sites 42-01, 283-01, 305-01 and 02, 813-01, 1146-02, 1317-01 and 02, and MAG-01 are presented in the following tables; boring locations are shown on Figures 23-1b, 23-2b, 23-3b, 23-5b, 23-6d, 23-7d, and 23-8b.

Former UST Site 42-01

Sample Location ID	Depth (feet bgs)	Analytical Group	Rationale/Comment
4201MW01	Surface (0-2)	VOC, SVOC, PAH, TPH-purgeable, TPH-extractable, pesticides/PCB, metals	Provide more data for HHRA and ERA
4201MW01	Subsurface (5-7)	Same as above	Same as above
4201MW02	Surface (0-2)	Same as above	Same as above
4201MW02	Subsurface (5-7)	Same as above	Same as above
4201MW03	Surface (0-2)	Same as above	Same as above
4201MW03	Subsurface (5-7)	Same as above	Same as above
4201SB05	Surface (0-2)	Same as above	Same as above
4201SB05	Subsurface (5-7)	Same as above	Same as above
4201SB06	Surface (0-2)	Same as above	Same as above
4201SB07	Surface (0-2)	Same as above	Same as above
4201SB08	Surface (0-2)	Same as above	Same as above
4201SB09	Surface (0-2)	Same as above	Same as above
4201SB10	Surface (0-2)	Same as above	Same as above
401SB11	Surface (0-2)	Same as above	Same as above

Former UST Site 283-01

Sample Location ID	Depth (feet bgs)	Analytical Group	Rationale/Comment
283MW01	Surface (0-2)	VOC, SVOC, PAH, TPH-purgeable, TPH-extractable, pesticides/PCB, metals	Provide more data for HHRA and ERA
283MW01	Subsurface (5-7)	Same as above	Same as above
283MW02	Surface (0-2)	Same as above	Same as above
283MW02	Subsurface (5-7)	Same as above	Same as above
283MW03	Surface (0-2)	Same as above	Same as above
283MW03	Subsurface (5-7)	Same as above	Same as above
283SB01	Surface (0-2)	Same as above	Same as above
283SB01	Subsurface (5-7)	Same as above	Same as above
283SB02	Surface (0-2)	Same as above	Same as above
283SB02	Subsurface (5-7)	Same as above	Same as above
283SB03	Surface (0-2)	Same as above	Same as above
283SB04	Surface (0-2)	Same as above	Same as above
283SB05	Surface (0-2)	Same as above	Same as above
283SB06	Surface (0-2)	Same as above	Same as above
283SB07	Surface (0-2)	Same as above	Same as above

Former UST Sites 305-01 and 305-02

Sample Location ID	Depth (feet bgs)	Analytical Group	Rationale/Comment
305MW01	Surface (0-2)	VOC, SVOC, PAH, TPH-purgeable, TPH-extractable, pesticides/PCB, metals	Provide more data for HHRA and ERA
305MW01	Subsurface (5-7)	Same as above	Same as above
305MW02	Surface (0-2)	Same as above	Same as above
305MW02	Subsurface (5-7)	Same as above	Same as above
305SB01	Surface (0-2)	Same as above	Same as above
305SB01	Subsurface (5-7)	Same as above	Same as above
305SB02	Surface (0-2)	Same as above	Same as above
305SB02	Subsurface (5-7)	Same as above	Same as above
305SB03	Surface (0-2)	Same as above	Same as above
305SB03	Subsurface (5-7)	Same as above	Same as above
305SB04	Surface (0-2)	Same as above	Same as above
305SB04	Subsurface (5-7)	Same as above	Same as above
305SB05	Surface (0-2)	Same as above	Same as above
305SB06	Surface (0-2)	Same as above	Same as above
305SB07	Surface (0-2)	Same as above	Same as above
305SB08	Surface (0-2)	Same as above	Same as above
305MW03	Surface (0-2)	Same as above	Same as above
305MW03	Subsurface (5-7)	Same as above	Same as above
305MW04	Surface (0-2)	Same as above	Same as above
305MW04	Subsurface (5-7)	Same as above	Same as above
305SB09	Surface (0-2)	Same as above	Same as above
305SB09	Subsurface (5-7)	Same as above	Same as above
305SB10	Surface (0-2)	Same as above	Same as above
305SB10	Subsurface (5-7)	Same as above	Same as above
305SB11	Surface (0-2)	Same as above	Same as above
305SB13	Surface (0-2)	Same as above	Same as above
305SB14	Surface (0-2)	Same as above	Same as above
305SB15	Surface (0-2)	Same as above	Same as above
305SB16	Surface (0-2)	Same as above	Same as above

Former UST Site 813-01

Sample Location ID	Depth (feet bgs)	Analytical Group	Rationale/Comment
813MW04	Surface (0-2)	VOC, SVOC, PAH, TPH-purgeable, TPH-extractable, pesticides/PCB, metals	Provide more data for HHRA and ERA
813MW04	Subsurface (5-7)	Same as above	Same as above
813MW05	Surface (0-2)	Same as above	Same as above
813MW05	Subsurface (5-7)	Same as above	Same as above
813MW06	Surface (0-2)	Same as above	Same as above
813MW06	Subsurface (5-7)	Same as above	Same as above
813SB01	Surface (0-2)	Same as above	Same as above
813SB01	Subsurface (5-7)	Same as above	Same as above
813SB02	Surface (0-2)	Same as above	Same as above
813SB02	Subsurface (5-7)	Same as above	Same as above
813SB03	Surface (0-2)	Same as above	Same as above
813SB04	Surface (0-2)	Same as above	Same as above
813SB05	Surface (0-2)	Same as above	Same as above
813SB06	Surface (0-2)	Same as above	Same as above
813SB07	Surface (0-2)	Same as above	Same as above

Former UST Site 1146-02

Sample Location ID	Depth (feet bgs)	Analytical Group	Rationale/Comment
1146MW01	Surface (0-2)	VOC, SVOC, PAH, TPH-purgeable, TPH-extractable, pesticides/PCB, metals	Provide more data for HHRA and ERA
1146MW01	Subsurface (5-7)	Same as above	Same as above
1146MW02	Surface (0-2)	Same as above	Same as above
1146MW02	Subsurface (5-7)	Same as above	Same as above
1146MW03	Surface (0-2)	Same as above	Same as above
1146MW03	Subsurface (5-7)	Same as above	Same as above
1146SB01	Surface (0-2)	Same as above	Same as above
1146SB01	Subsurface (5-7)	Same as above	Same as above
1146SB02	Surface (0-2)	Same as above	Same as above
1146SB02	Subsurface (5-7)	Same as above	Same as above
1146SB03	Surface (0-2)	Same as above	Same as above
1146SB04	Surface (0-2)	Same as above	Same as above
1146SB05	Surface (0-2)	Same as above	Same as above
1146SB06	Surface (0-2)	Same as above	Same as above
1146SB07	Surface (0-2)	Same as above	Same as above

Former UST Sites 1317-01 and 1317-02

Sample Location ID	Depth (feet bgs)	Analytical Group	Rationale/Comment
1317MW01	Surface (0-2)	VOC, SVOC, PAH, TPH-purgeable, TPH-extractable, pesticides/PCB, metals	Provide more data for HHRA and ERA
1317MW01	Subsurface (5-7)	Same as above	Same as above
1317MW02	Surface (0-2)	Same as above	Same as above
1317MW02	Subsurface (5-7)	Same as above	Same as above
1317SB01	Surface (0-2)	Same as above	Same as above
1317SB01	Subsurface (5-7)	Same as above	Same as above
1317SB02	Surface (0-2)	Same as above	Same as above
1317SB02	Subsurface (5-7)	Same as above	Same as above
1317SB03	Surface (0-2)	Same as above	Same as above
1317SB04	Surface (0-2)	Same as above	Same as above
1317SB05	Surface (0-2)	Same as above	Same as above
1317SB06	Surface (0-2)	Same as above	Same as above
1317SB07	Surface (0-2)	Same as above	Same as above
1317SB08	Surface (0-2)	Same as above	Same as above
1317MW03	Surface (0-2)	Same as above	Same as above
1317MW03	Subsurface (5-7)	Same as above	Same as above
1317MW04	Surface (0-2)	Same as above	Same as above
1317MW04	Subsurface (5-7)	Same as above	Same as above
1317SB09	Surface (0-2)	Same as above	Same as above
1317SB09	Subsurface (5-7)	Same as above	Same as above
1317SB10	Surface (0-2)	Same as above	Same as above
1317SB10	Subsurface (5-7)	Same as above	Same as above
1317SB11	Surface (0-2)	Same as above	Same as above
1317SB12	Surface (0-2)	Same as above	Same as above
1317SB13	Surface (0-2)	Same as above	Same as above
1317SB14	Surface (0-2)	Same as above	Same as above
1317SB15	Surface (0-2)	Same as above	Same as above
1317SB16	Surface (0-2)	Same as above	Same as above

Former UST Site MAG-01

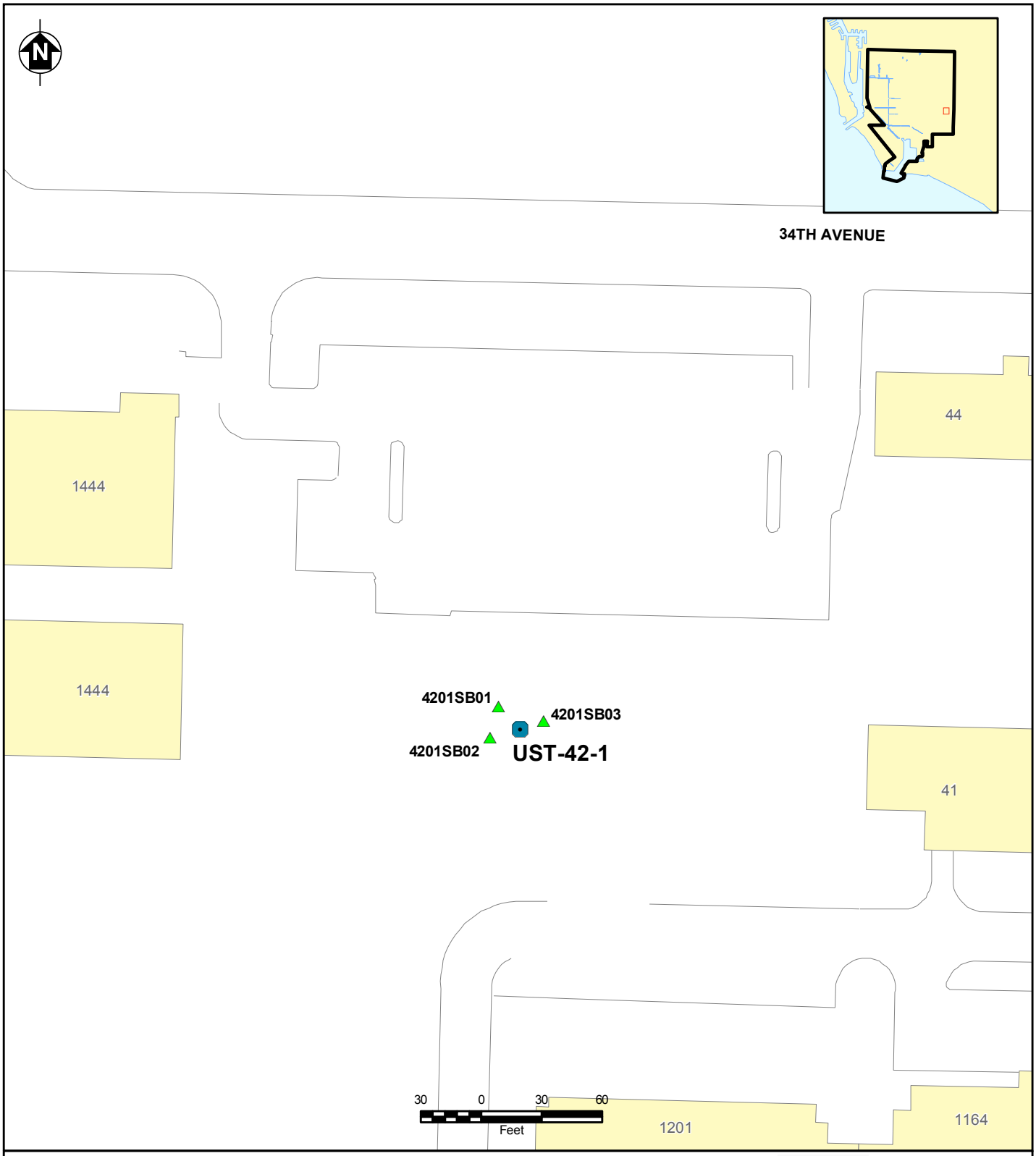
Sample Location ID	Depth (feet bgs)	Analytical Group	Rationale/Comment
MAG01MW04	Surface (0-2)	VOC, SVOC, PAH, TPH-purgeable, TPH-extractable, pesticides/PCB, metals	Provide more data for HHRA and ERA
MAG01MW04	Subsurface (5-7)	Same as above	Same as above
MAG01SB01	Surface (0-2)	Same as above	Same as above
MAG01SB01	Subsurface (5-7)	Same as above	Same as above
MAG01SB02	Surface (0-2)	Same as above	Same as above
MAG01SB02	Subsurface (5-7)	Same as above	Same as above
MAG01SB03	Surface (0-2)	Same as above	Same as above
MAG01SB03	Subsurface (5-7)	Same as above	Same as above
MAG01SB04	Surface (0-2)	Same as above	Same as above
MAG01SB05	Surface (0-2)	Same as above	Same as above
MAG01SB06	Surface (0-2)	Same as above	Same as above
MAG01SB07	Surface (0-2)	Same as above	Same as above
MAG01SB08	Surface (0-2)	Same as above	Same as above
MAG01SB09	Surface (0-2)	Same as above	Same as above

Soil and groundwater sampling, in addition to verification monitoring associated with the corrective action at former UST Site 796-04, is being conducted as part of the IRP Site 20 investigation as discussed in Section 19.0 of this SMP. The data for IRP Site 20 will serve to fill data gaps for UST Site 796-04 as well.

The new soil and groundwater data will be compiled, combined with previously collected data presented in the tables, and evaluated for cumulative risk using residential soil and tapwater PRGs. The data will be evaluated in an HHRA to identify site-specific risks to human health from soil and groundwater. In addition, a habitat survey of each of the UST sites will be completed to determine if there is viable habitat for ecological receptors. If viable habitat does exist, a screening level ERA, based on surface soil data collected at the site, will be conducted. If there is evidence of burrowing animals at the site, the ERA will include an evaluation of vapor exposure for these animals in their burrows. To establish whether a complete vapor exposure pathway exists for burrowing animals, the depth to the Semi-Perched Aquifer will also be considered in this analysis.

The results of these evaluations, as well as conclusions and recommendations for any additional site activities, will be presented in an RI report.

FIGURES



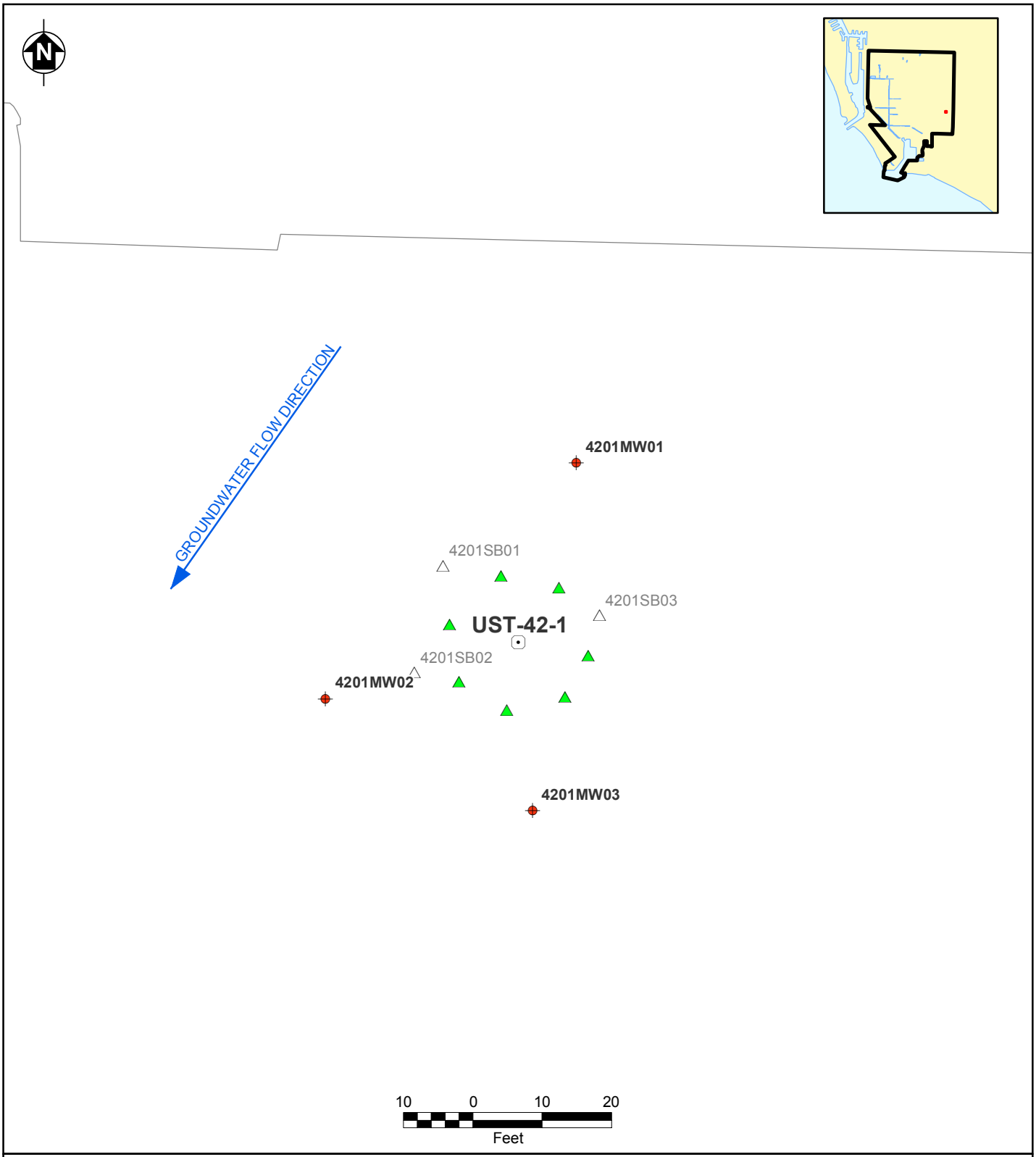
SulTech

CBC Port Hueneme, Port Hueneme California
U.S. Navy, NFECSW, San Diego

FIGURE 23-1a
FORMER UST SITE 42-01
SITE MAP

Site Management Plan

fig23-1a_PHFSMP_UST_42-01_sitemap_111604.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases



PROPOSED SAMPLE LOCATIONS
In black text
SOIL SAMPLE
MONITORING WELL

PREVIOUS SAMPLE LOCATIONS
In gray text
SOIL SAMPLE

FORMER UST
ROAD
GROUNDWATER FLOW

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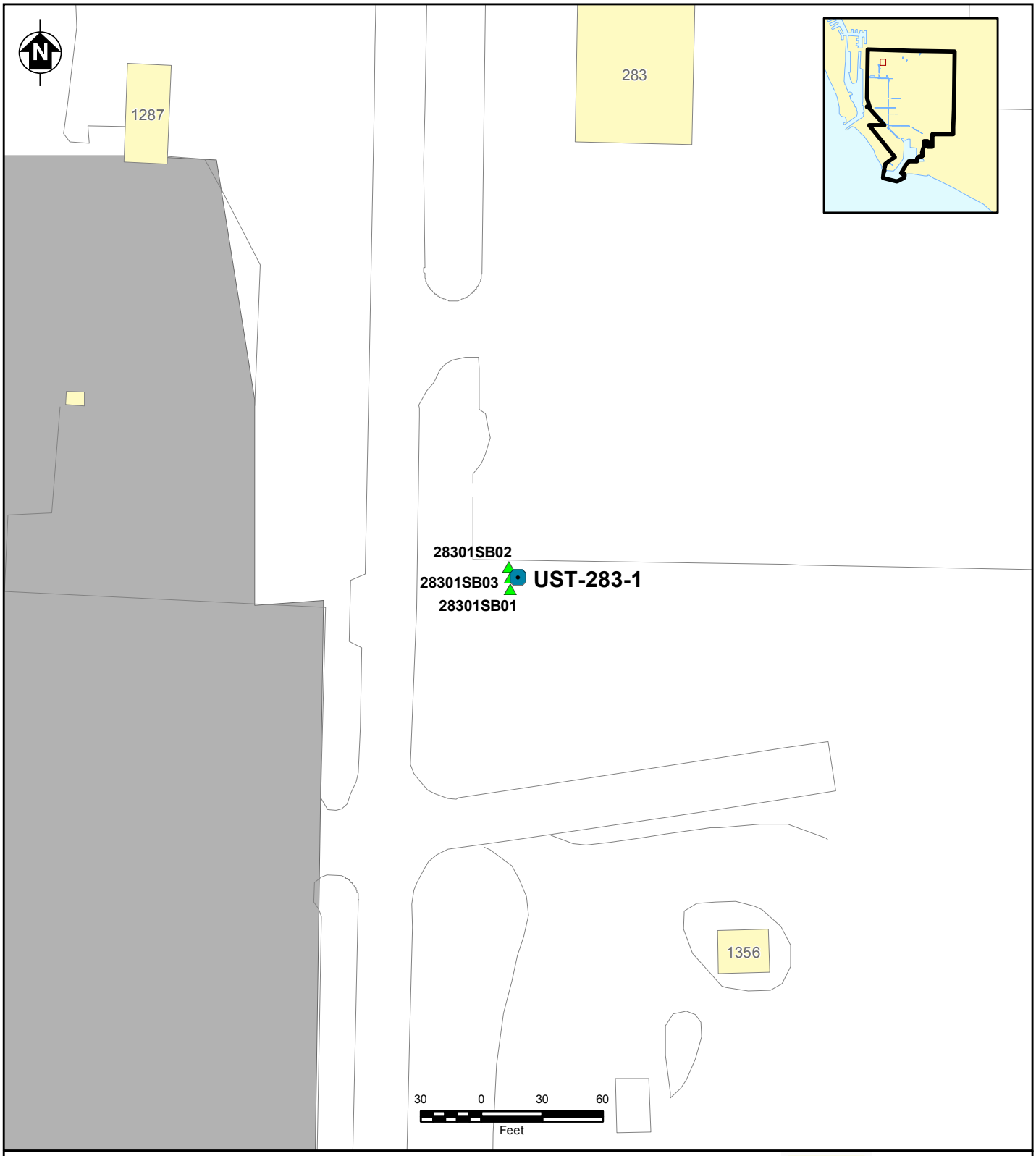
U.S. Navy, NFESCSW, San Diego

FIGURE 23-1b
FORMER UST SITE 42-01
PROPOSED GROUNDWATER AND SOIL SAMPLING LOCATIONS

Site Management Plan

Fig23-1b_PHFSMP_UST_42-10_100604.pdf SulTech - SD Shane DeGross
Data Source: SulTech GIS databases



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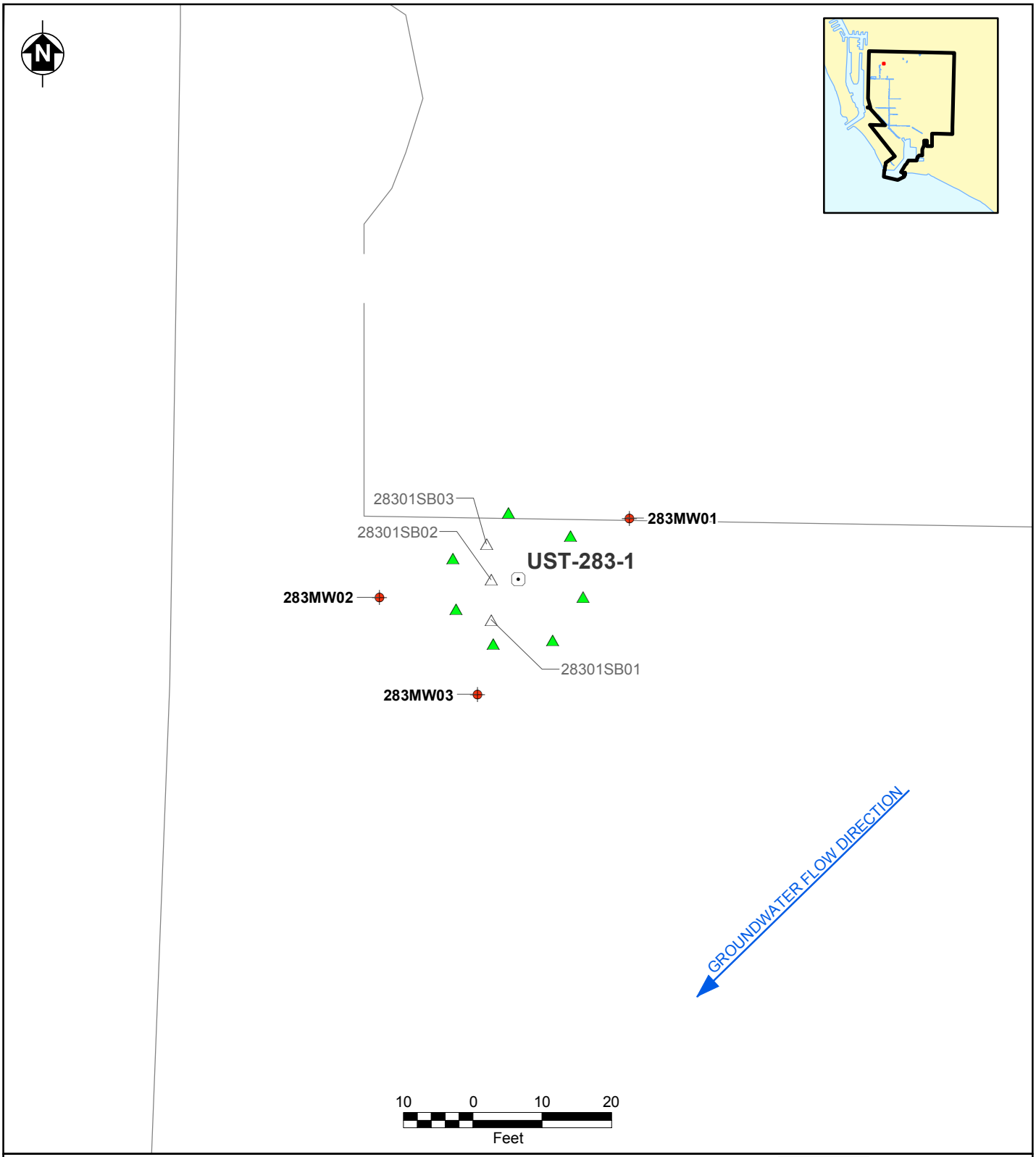
U.S. Navy, NFECSW, San Diego

FIGURE 23-2a
FORMER UST SITE 283-01
SITE MAP

Site Management Plan

fig23-2a_PHFSMP_UST_283-01_sitemap_111604.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases



PROPOSED SAMPLE LOCATIONS
In black text
SOIL SAMPLE
MONITORING WELL
PREVIOUS SAMPLE LOCATIONS
In gray text
SOIL SAMPLE
FORMER UST
ROAD
GROUNDWATER FLOW

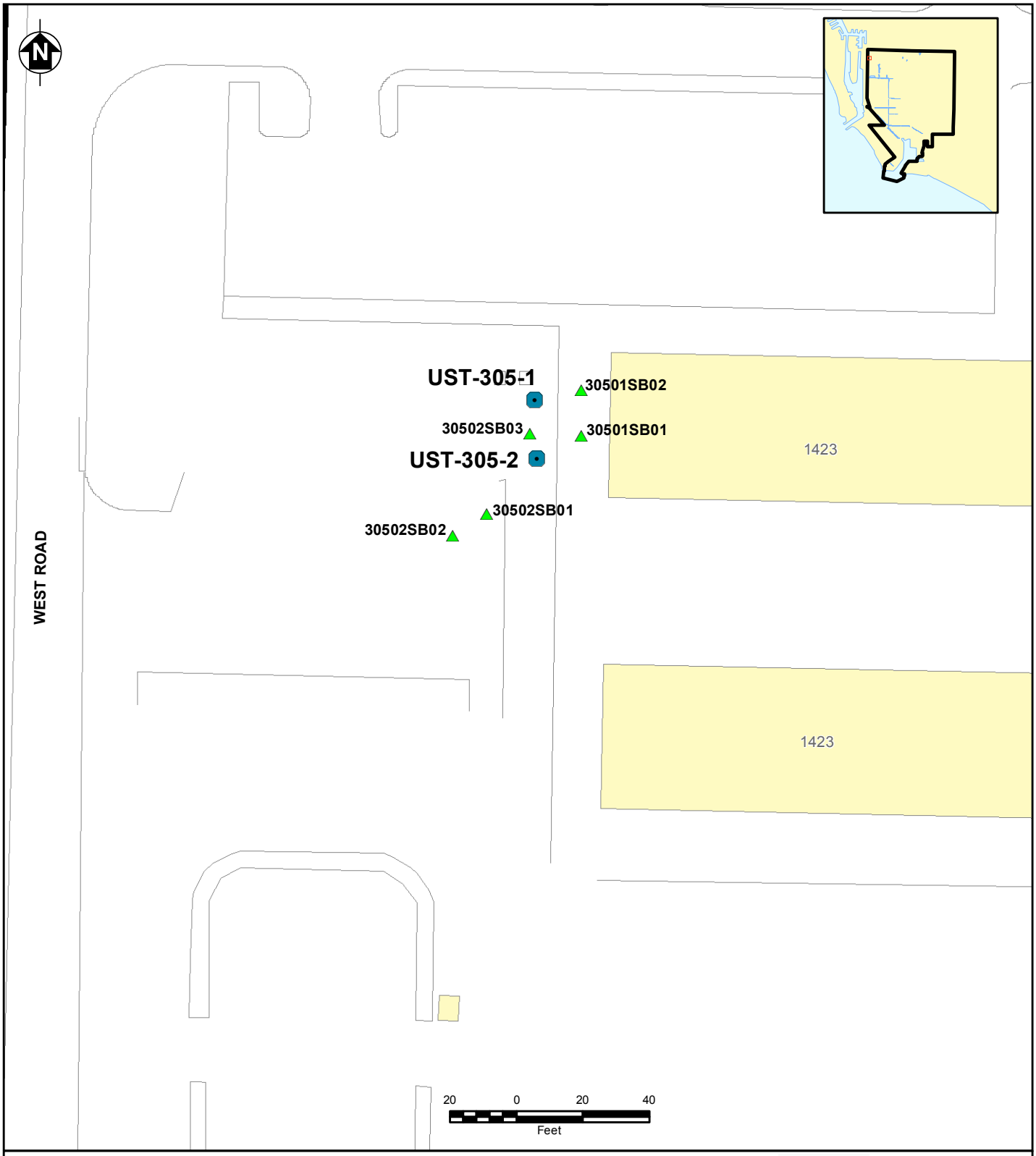
SulTech

CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 23-2b
FORMER UST SITE 283-01
PROPOSED GROUNDWATER AND SOIL SAMPLING LOCATIONS

Site Management Plan

Fig23-2b_PHFSMP_UST_283-1_100404.pdf SulTech - SD Shane DeGross
Data Source: SulTech GIS databases



FORMER UST
SOIL BORING
IRP SITE
CBC PORT HUENEME BOUNDARY
ROAD
BUILDING

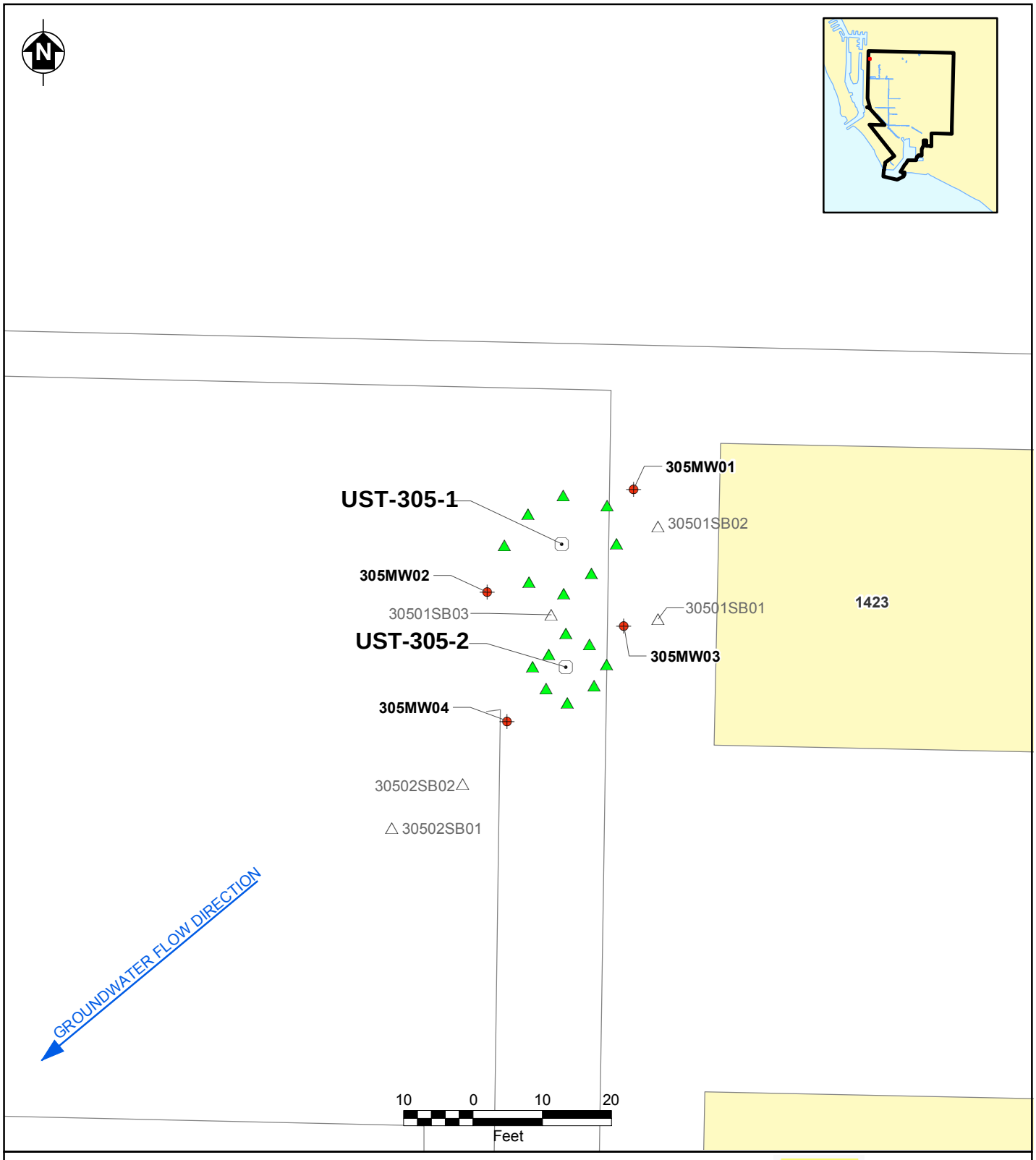
SulTech

CBC Port Hueneme, Port Hueneme California
U.S. Navy, NFECSW, San Diego

FIGURE 23-3a
FORMER UST SITES 305-01 AND 305-02
SITE MAP

Site Management Plan

fig23-3a_PHFSMP_UST_305-01_and_02_sitemap_111604.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases



PROPOSED SAMPLE LOCATIONS
In black text
SOIL SAMPLE
MONITORING WELL
PREVIOUS SAMPLE LOCATIONS
In gray text
SOIL SAMPLE

FORMER UST
ROAD
GROUNDWATER FLOW
BUILDING

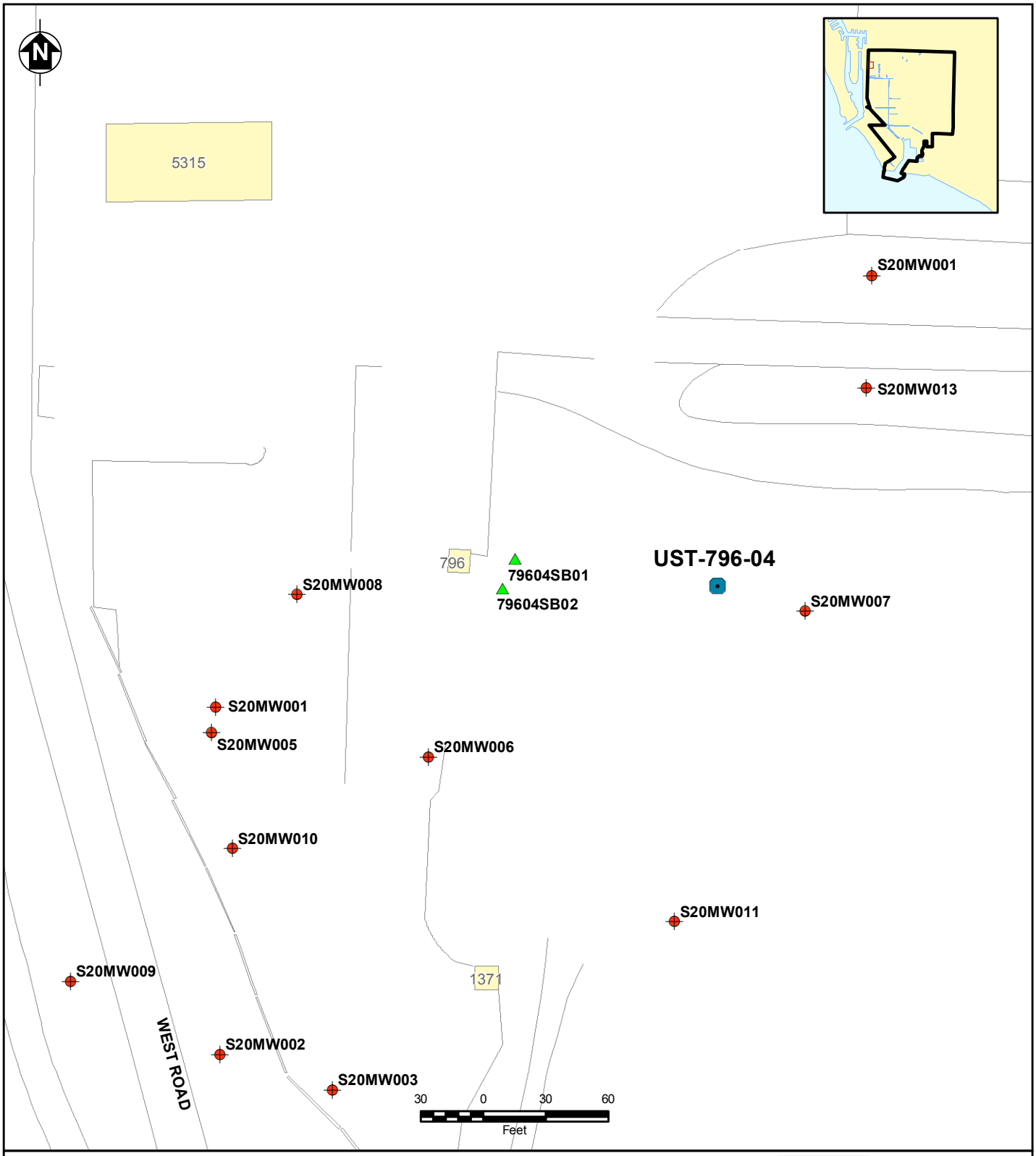
SulTech

CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 23-3b
FORMER UST SITES 305-01 AND 305-02
PROPOSED GROUNDWATER AND SOIL SAMPLING LOCATIONS

Site Management Plan

Fig23-3b_PHFSMP_UST_305-01_and_UST_305-021_100404.pdf SulTech - SD Shane DeGross
Data Source: SulTech GIS databases



FORMER UST
SOIL BORING
MONITORING WELL
IRP SITE
CBC PORT HUENEME BOUNDARY
ROAD
BUILDING

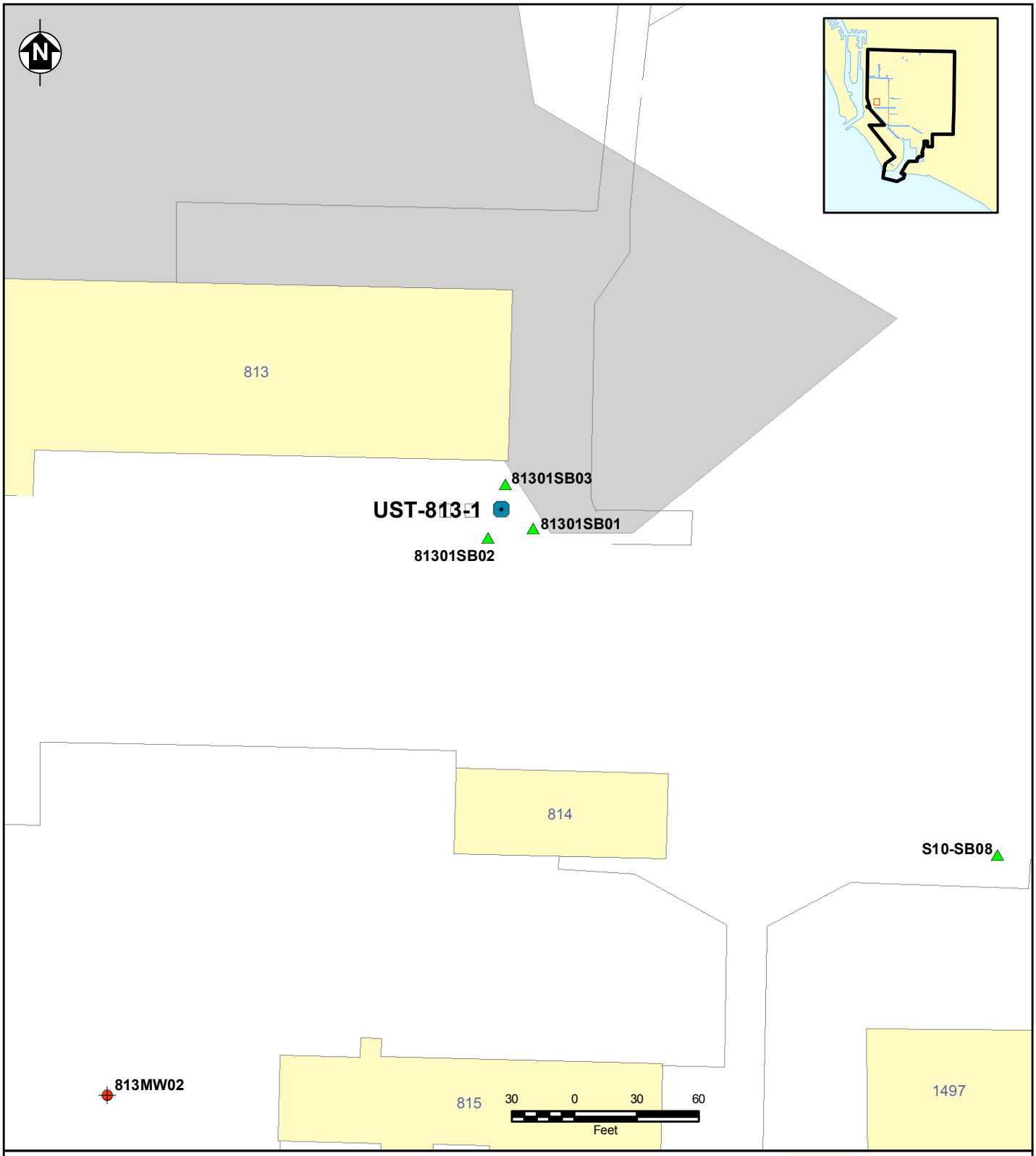
SulTech

CBC Port Hueneme, Port Hueneme California
U.S. Navy, NFECSW, San Diego

FIGURE 23-4a
FORMER UST SITE 796-04
SITE MAP

Site Management Plan

fig23-4a_PHFSMP_UST_796-04_sitemap_111604.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases



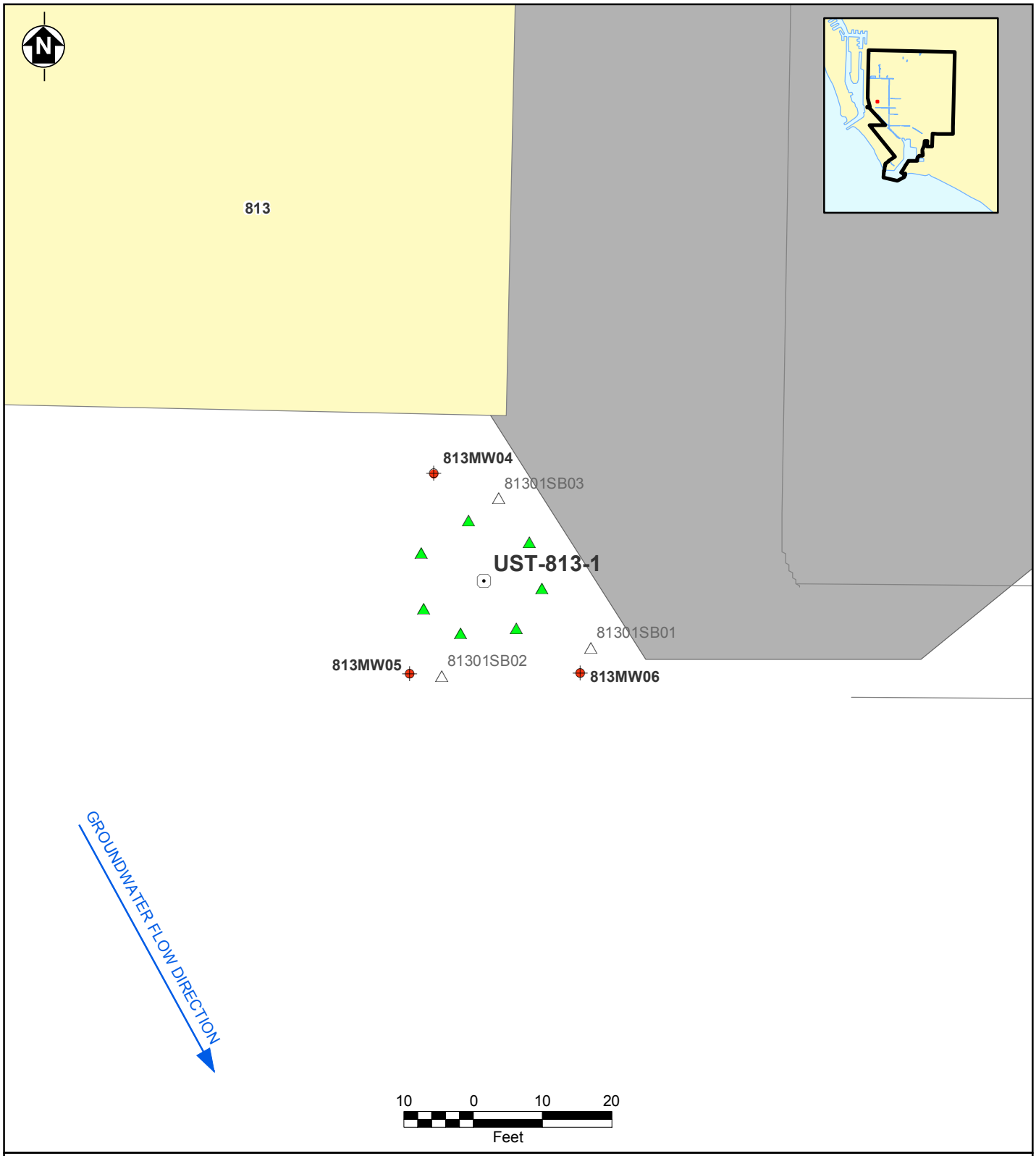
SulTech

CBC Port Hueneme, Port Hueneme California
U.S. Navy, NFECSW, San Diego

FIGURE 23-5a
FORMER UST SITE 813-01
SITE MAP

Site Management Plan

fig23-5a_PHFSMP_UST_813-01_sitemap_111604.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases



PROPOSED SAMPLE LOCATIONS
In black text
SOIL SAMPLE
MONITORING WELL
PREVIOUS SAMPLE LOCATIONS
In gray text
SOIL SAMPLE

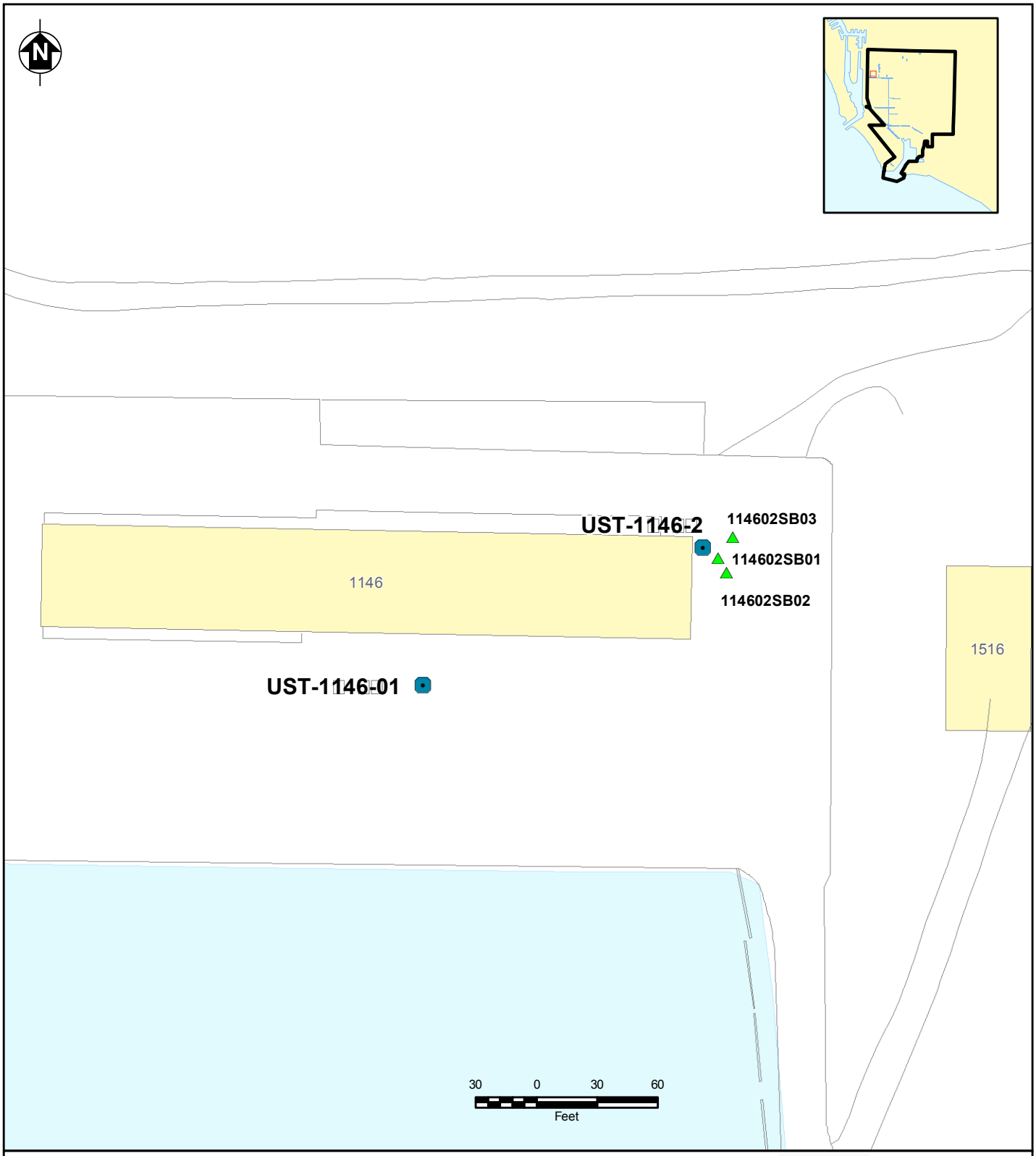
FORMER UST
ROAD
GROUNDWATER FLOW
BUILDING
PAVED AREA (NOT ROAD)

SulTech

CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 23-5b
FORMER UST SITE 813-01
PROPOSED GROUNDWATER AND SOIL SAMPLING LOCATIONS
Site Management Plan

Fig23-5b_PHFSMP_UST_813-01_100404.pdf SulTech - SD Shane DeGross
Data Source: SulTech GIS databases



FORMER UST
SOIL BORING
IRP SITE
CBC PORT HUENEME BOUNDARY
ROAD
BUILDING

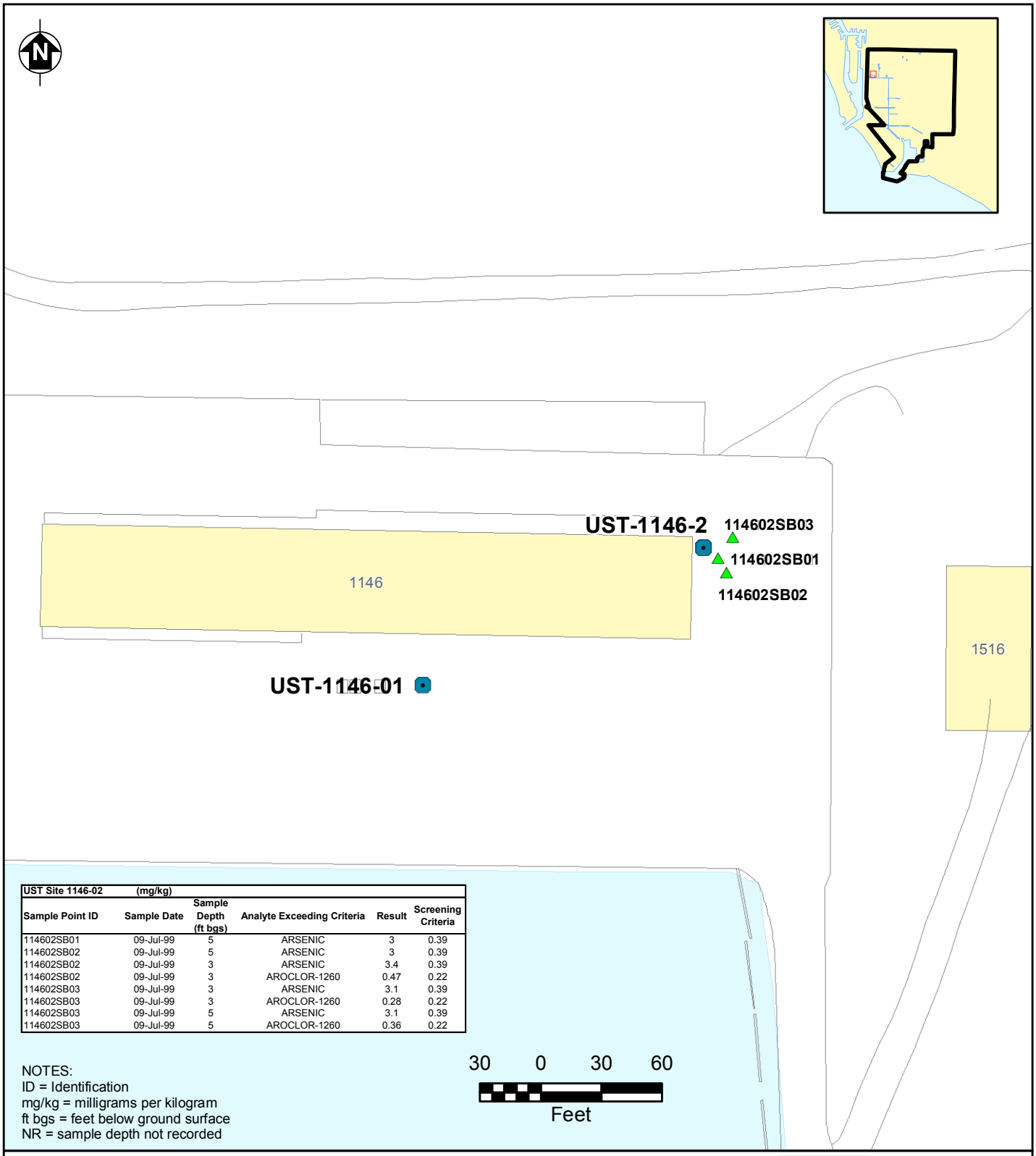
SulTech

CBC Port Hueneme, Port Hueneme California
U.S. Navy, NFECSW, San Diego

FIGURE 23-6a
FORMER UST SITE 1146-02
SITE MAP

Site Management Plan

fig23-6a_PHFSMP_UST_1146-02_sitemap_111604.mxdTtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases



UST Site 1146-02 (mg/kg)					
Sample Point ID	Sample Date	Sample Depth (ft bgs)	Analyte Exceeding Criteria	Result	Screening Criteria
114602SB01	09-Jul-99	5	ARSENIC	3	0.39
114602SB02	09-Jul-99	5	ARSENIC	3	0.39
114602SB02	09-Jul-99	3	ARSENIC	3.4	0.39
114602SB02	09-Jul-99	3	AROCLOR-1260	0.47	0.22
114602SB03	09-Jul-99	3	ARSENIC	3.1	0.39
114602SB03	09-Jul-99	3	AROCLOR-1260	0.28	0.22
114602SB03	09-Jul-99	5	ARSENIC	3.1	0.39
114602SB03	09-Jul-99	5	AROCLOR-1260	0.36	0.22

NOTES:
ID = Identification
mg/kg = milligrams per kilogram
ft bgs = feet below ground surface
NR = sample depth not recorded

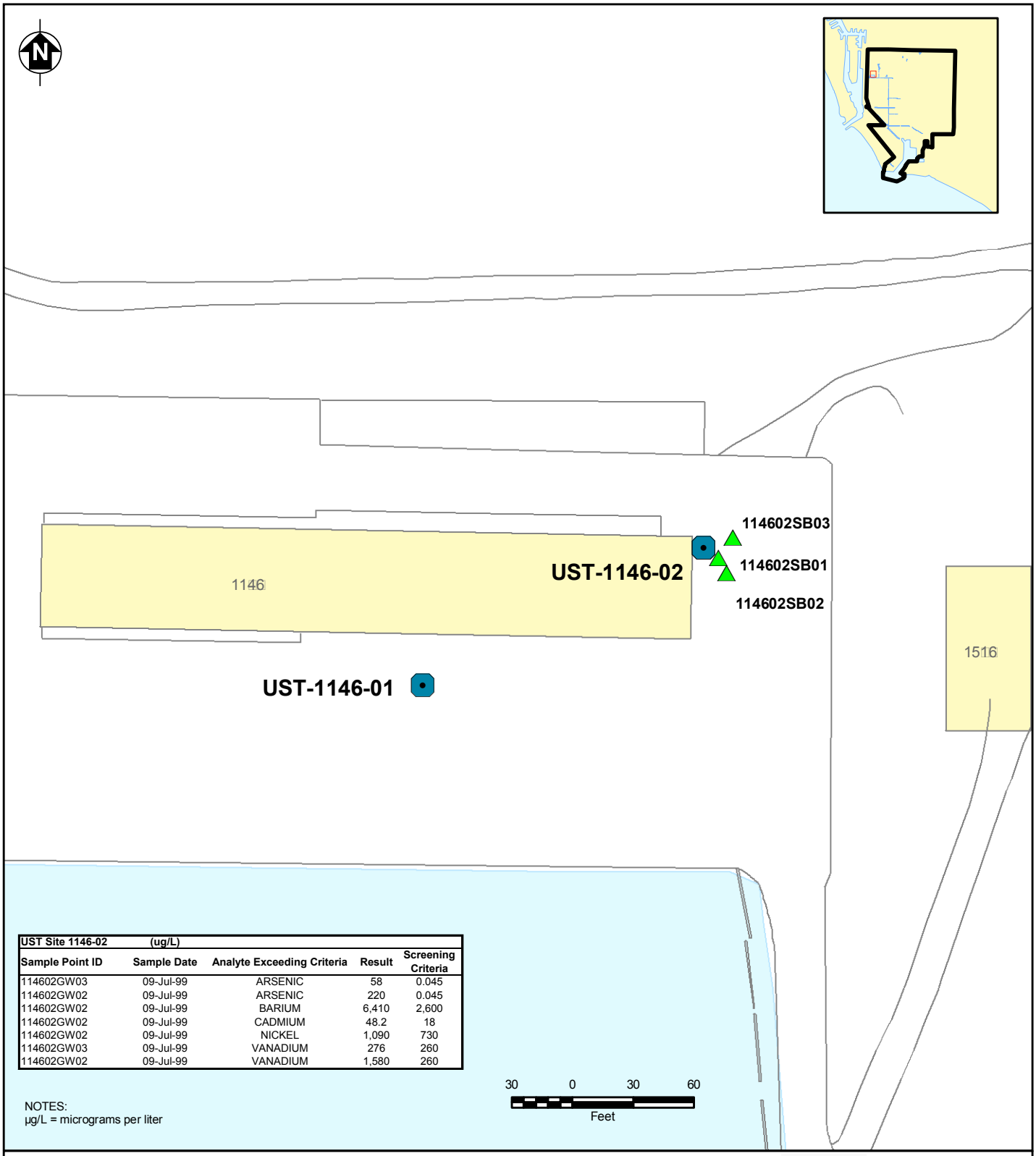
FORMER UST
SOIL BORING
114602SB01 SAMPLE EXCEEDING SCREENING CRITERIA IN BOLD
IRP SITE
CBC PORT HUENEME BOUNDARY
ROAD
BUILDING

SulTech

CBC Port Hueneme, Port Hueneme California
U.S. Navy, NFECSW, San Diego

FIGURE 23-6b
FORMER UST SITE 1146-02
ANALYTES IN SOIL
EXCEEDING SCREENING CRITERIA
Site Management Plan

fig23-6b_PHFSMP_UST_1146-02_soil_010405.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases



UST Site 1146-02	(ug/L)			
Sample Point ID	Sample Date	Analyte Exceeding Criteria	Result	Screening Criteria
114602GW03	09-Jul-99	ARSENIC	58	0.045
114602GW02	09-Jul-99	ARSENIC	220	0.045
114602GW02	09-Jul-99	BARIUM	6,410	2,600
114602GW02	09-Jul-99	CADMIUM	48.2	18
114602GW02	09-Jul-99	NICKEL	1,090	730
114602GW03	09-Jul-99	VANADIUM	276	260
114602GW02	09-Jul-99	VANADIUM	1,580	260

NOTES:
µg/L = micrograms per liter

FORMER UST

SOIL BORING

114602GW03 SAMPLES EXCEEDING SCREENING CRITERIA IN BOLD

IRP SITE

CBC PORT HUENEME BOUNDARY

RAILROAD

ROAD

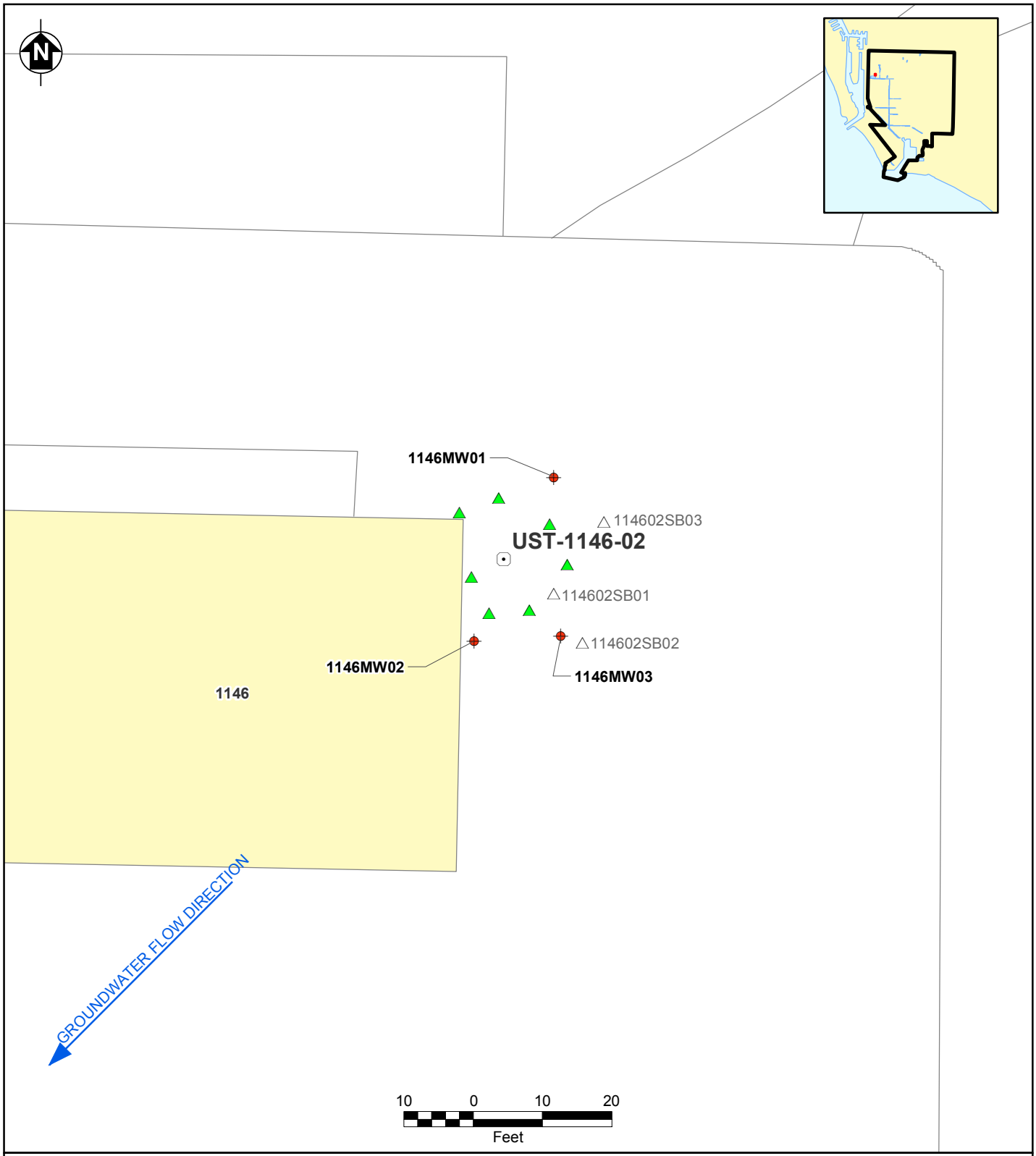
BUILDING

SulTech

CBC Port Hueneme, Port Hueneme California
U.S. Navy, NFECSW, San Diego

FIGURE 23-6c
FORMER UST SITE 1146-02
ANALYTES IN GROUNDWATER EXCEEDING SCREENING CRITERIA
Site Management Plan

fig23-6c_PHFSMP_UST_1146-02_GW_010405.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases



PROPOSED SAMPLE LOCATIONS
In black text
▲ SOIL SAMPLE
⊕ MONITORING WELL
PREVIOUS SAMPLE LOCATIONS
In gray text
△ SOIL SAMPLE

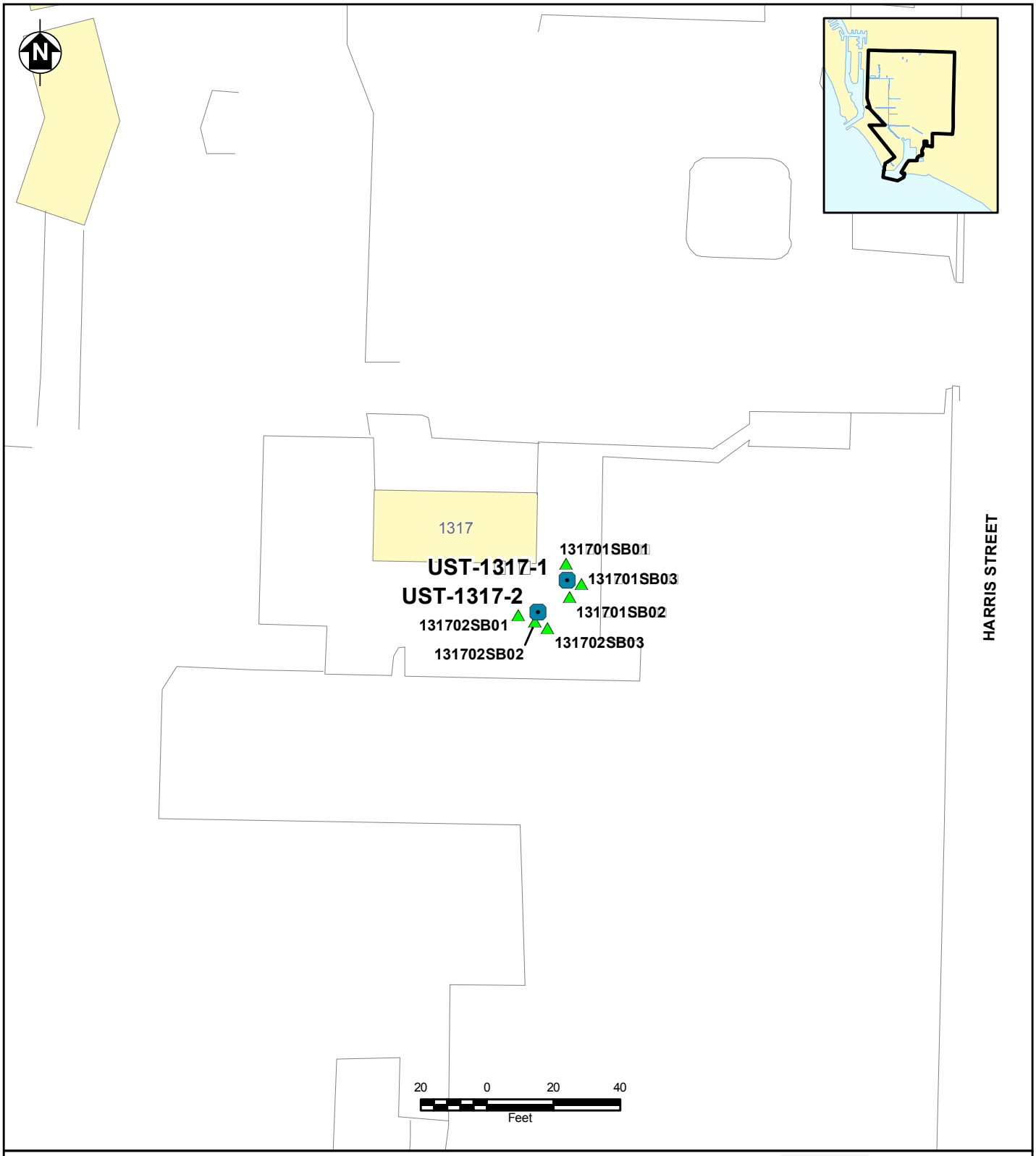
⊙ FORMER UST
ROAD
GROUNDWATER FLOW
BUILDING

SulTech

CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 23-6d
FORMER UST SITE 1146-02 PROPOSED GROUNDWATER AND SOIL SAMPLING LOCATIONS
Site Management Plan

Fig23-6d_PHFSMP_UST_1146-02_100404.pdf SulTech - SD Shane DeGross
Data Source: SulTech GIS databases



FORMER UST
SOIL BORING
IRP SITE
CBC PORT HUENEME BOUNDARY
ROAD
BUILDING

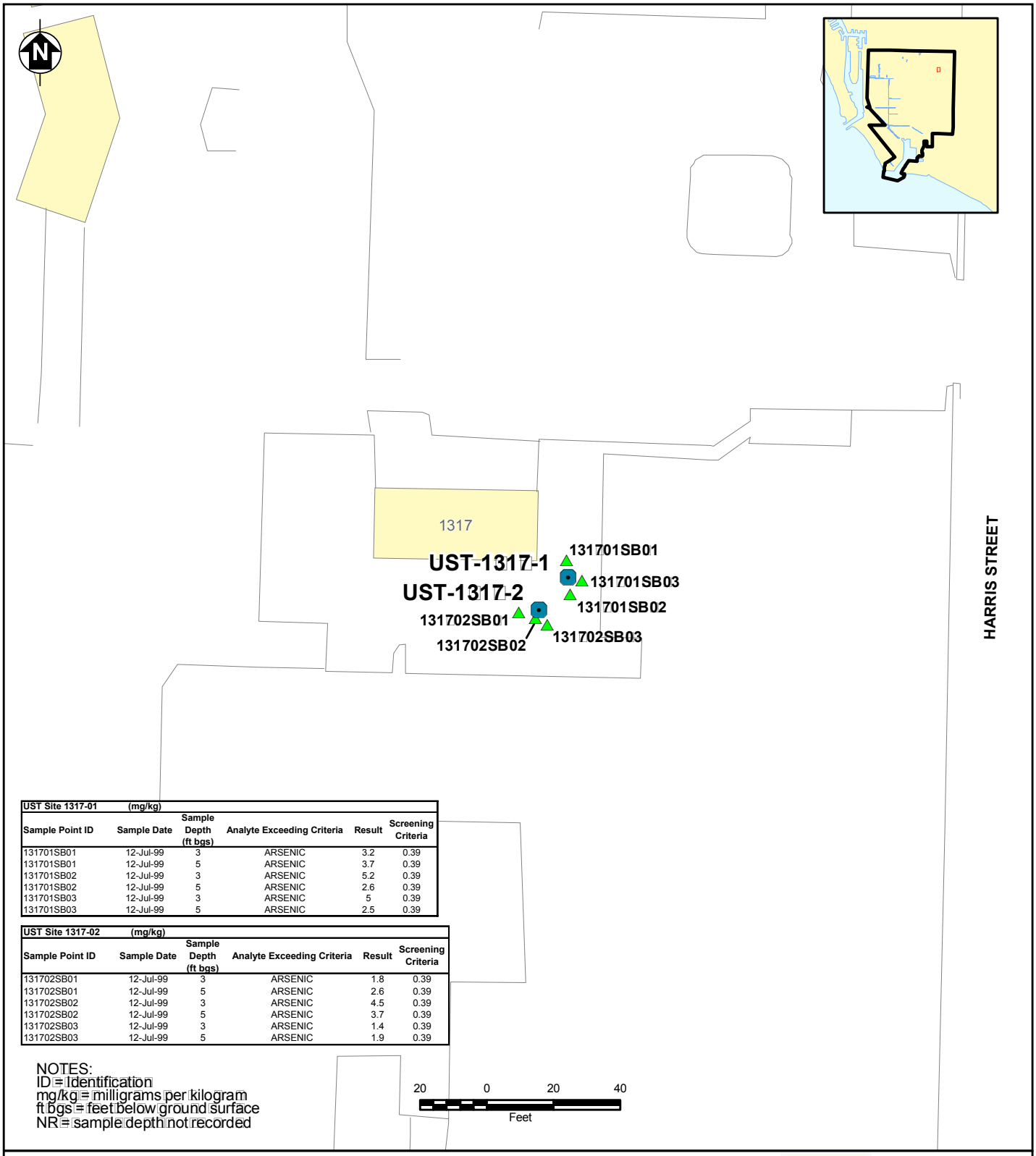
SulTech

CBC Port Hueneme, Port Hueneme California
U.S. Navy, NFECSW, San Diego

FIGURE 23-7a
FORMER UST SITES 1317-01 AND 1317-02
SITE MAP

Site Management Plan

fig23-7a_PHFSMP_UST_1317-01_and_02_sitemap_111604.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases



UST Site 1317-01	(mg/kg)				
Sample Point ID	Sample Date	Sample Depth (ft bgs)	Analyte Exceeding Criteria	Result	Screening Criteria
131701SB01	12-Jul-99	3	ARSENIC	3.2	0.39
131701SB01	12-Jul-99	5	ARSENIC	3.7	0.39
131701SB02	12-Jul-99	3	ARSENIC	5.2	0.39
131701SB02	12-Jul-99	5	ARSENIC	2.6	0.39
131701SB03	12-Jul-99	3	ARSENIC	5	0.39
131701SB03	12-Jul-99	5	ARSENIC	2.5	0.39

UST Site 1317-02	(mg/kg)				
Sample Point ID	Sample Date	Sample Depth (ft bgs)	Analyte Exceeding Criteria	Result	Screening Criteria
131702SB01	12-Jul-99	3	ARSENIC	1.8	0.39
131702SB01	12-Jul-99	5	ARSENIC	2.6	0.39
131702SB02	12-Jul-99	3	ARSENIC	4.5	0.39
131702SB02	12-Jul-99	5	ARSENIC	3.7	0.39
131702SB03	12-Jul-99	3	ARSENIC	1.4	0.39
131702SB03	12-Jul-99	5	ARSENIC	1.9	0.39

NOTES:
ID = Identification
mg/kg = milligrams per kilogram
ft bgs = feet below ground surface
NR = sample depth not recorded

FORMER UST

SOIL BORING

131701SB01 SAMPLE EXCEEDING SCREENING CRITERIA IN BOLD

IRP SITE

CBC PORT HUENEME BOUNDARY

ROAD

BUILDING

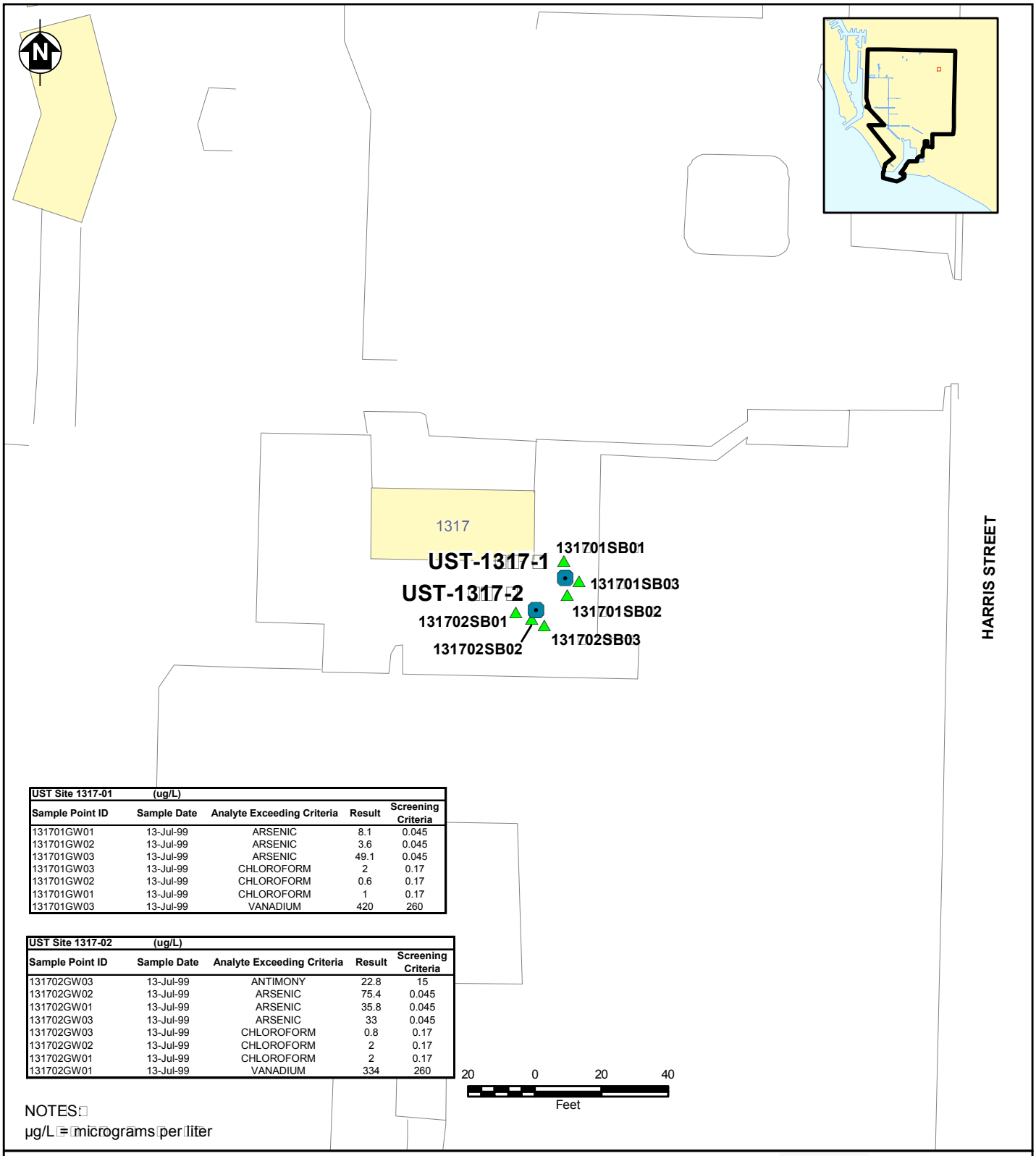
SulTech

CBC Port Hueneme, Port Hueneme California
U.S. Navy, NFECSW, San Diego

FIGURE 23-7b
FORMER UST SITES 1317-01 AND 1317-02 ANALYTES IN SOIL EXCEEDING SCREENING CRITERIA

Site Management Plan

fig23-7b_PHFSMP_UST_1317-01_and_02_soil_010405.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases



UST Site 1317-01	(ug/L)			
Sample Point ID	**Sample Date**	**Analyte Exceeding Criteria**	**Result**	**Screening Criteria**
131701GW01	13-Jul-99	ARSENIC	8.1	0.045
131701GW02	13-Jul-99	ARSENIC	3.6	0.045
131701GW03	13-Jul-99	ARSENIC	49.1	0.045
131701GW03	13-Jul-99	CHLOROFORM	2	0.17
131701GW02	13-Jul-99	CHLOROFORM	0.6	0.17
131701GW01	13-Jul-99	CHLOROFORM	1	0.17
131701GW03	13-Jul-99	VANADIUM	420	260

UST Site 1317-02	(ug/L)			
Sample Point ID	**Sample Date**	**Analyte Exceeding Criteria**	**Result**	**Screening Criteria**
131702GW03	13-Jul-99	ANTIMONY	22.8	15
131702GW02	13-Jul-99	ARSENIC	75.4	0.045
131702GW01	13-Jul-99	ARSENIC	35.8	0.045
131702GW03	13-Jul-99	ARSENIC	33	0.045
131702GW03	13-Jul-99	CHLOROFORM	0.8	0.17
131702GW02	13-Jul-99	CHLOROFORM	2	0.17
131702GW01	13-Jul-99	CHLOROFORM	2	0.17
131702GW01	13-Jul-99	VANADIUM	334	260

NOTES:
µg/L = micrograms per liter

FORMER UST

SOIL BORING

131701GW01 SAMPLE EXCEEDING SCREENING CRITERIA IN BOLD

IRP SITE

CBC PORT HUENEME BOUNDARY

ROAD

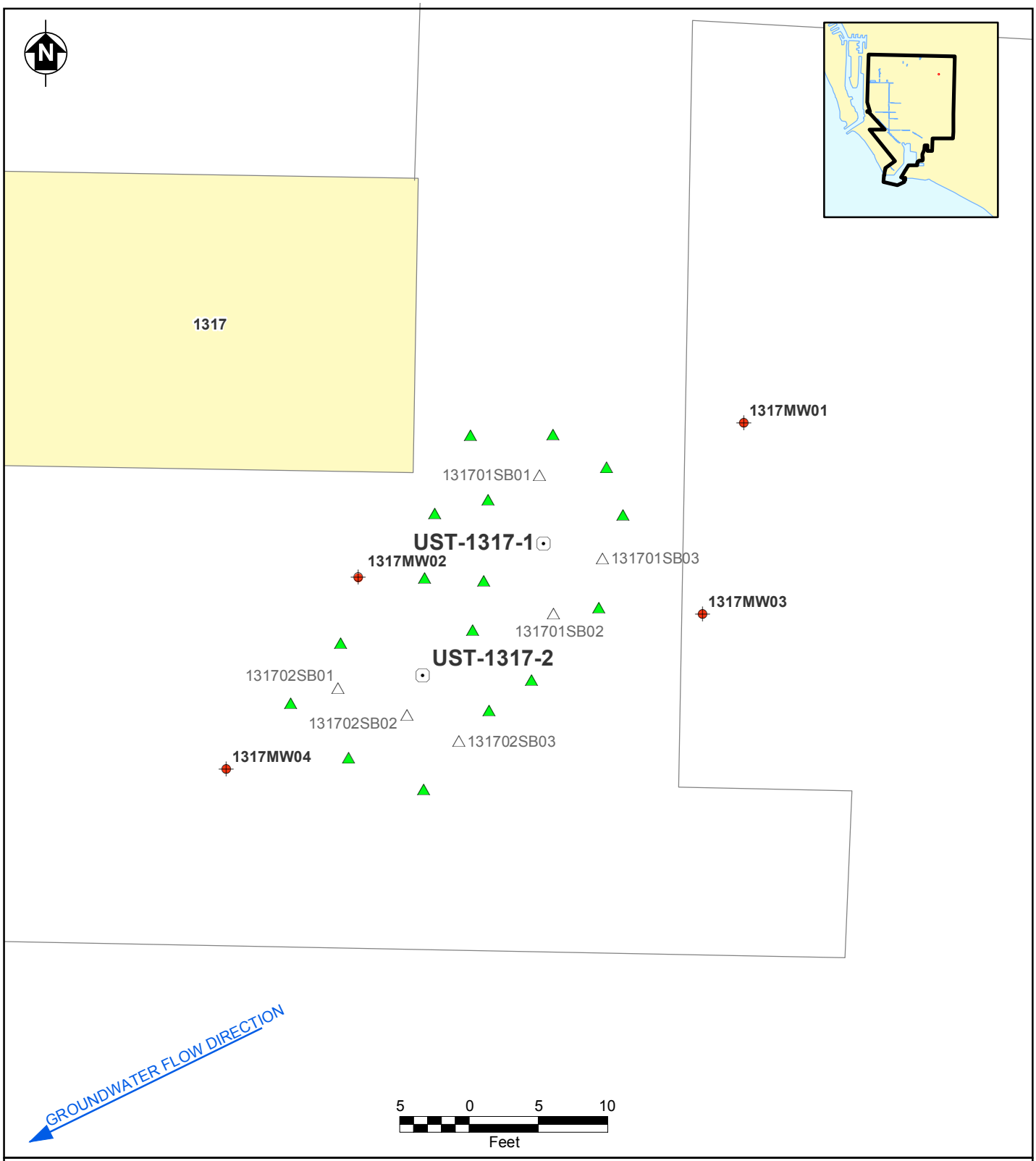
BUILDING

SulTech

CBC Port Hueneme, Port Hueneme California
U.S. Navy, NFECSW, San Diego

FIGURE 23-7c
FORMER UST SITES 1317-01 AND 1317-02 ANALYTES IN GROUNDWATER EXCEEDING SCREENING CRITERIA
Site Management Plan

fig23-7c_PHFSMP_UST_1317-01_and_02_GW_010405.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases



PROPOSED SAMPLE LOCATIONS
In black text
▲ SOIL SAMPLE
⌖ MONITORING WELL
PREVIOUS SAMPLE LOCATIONS
In gray text
△ SOIL SAMPLE

⊙ FORMER UST
ROAD
GROUNDWATER FLOW
BUILDING

SulTech

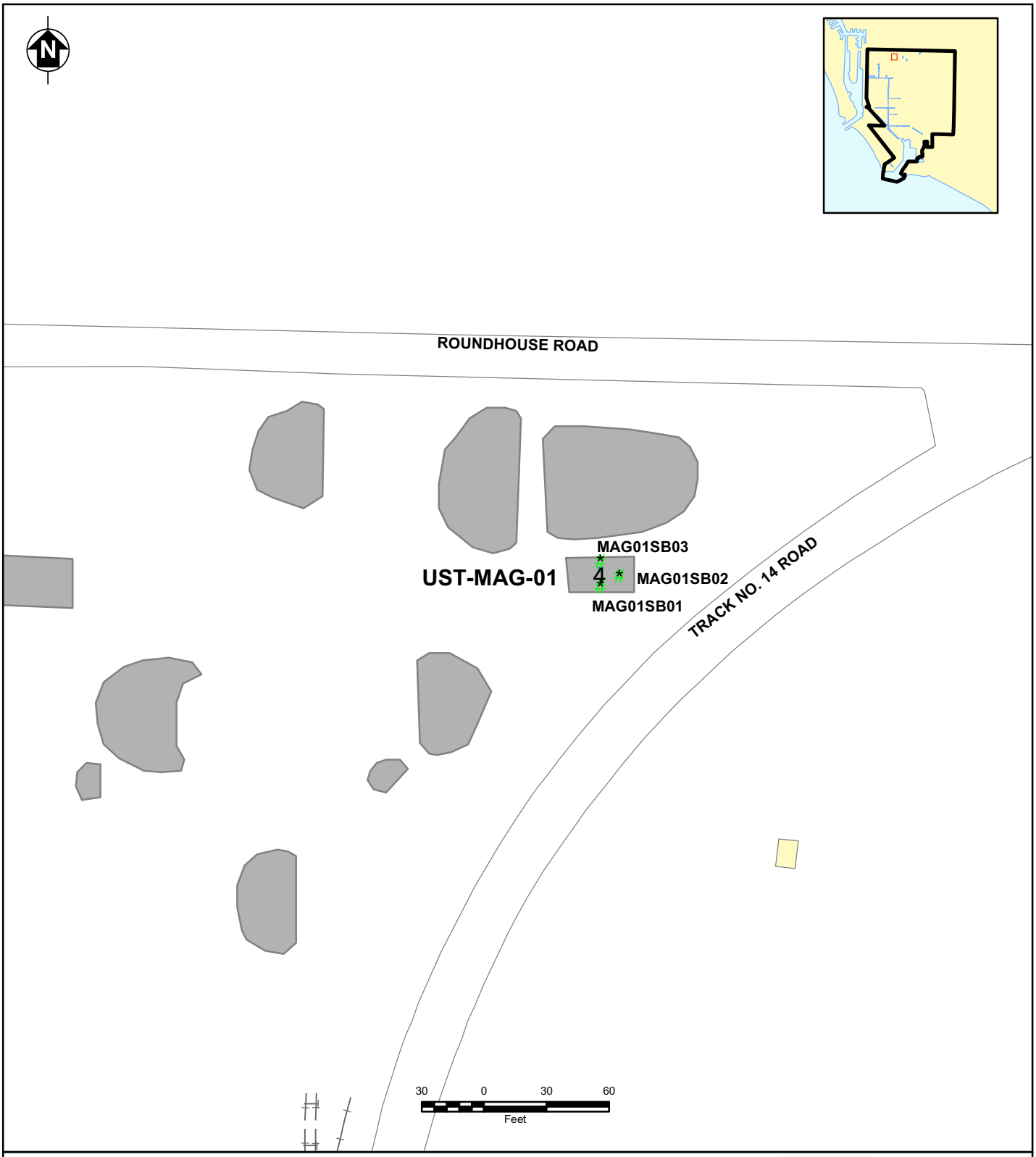
CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 23-7d

FORMER UST SITES 1317-01 AND 1317-02 PROPOSED GROUNDWATER AND SOIL SAMPLING LOCATIONS

Site Management Plan

Fig23-7d_PHFSMP_UST_1317-01_100404.pdf SulTech - SD Shane DeGross
Data Source: SulTech GIS databases



4 FORMER UST

SOIL BORING

IRP SITE

CBC PORT HUENEME BOUNDARY

RAILROAD

ROAD

BUILDING

PAVED AREA (NOT ROAD)

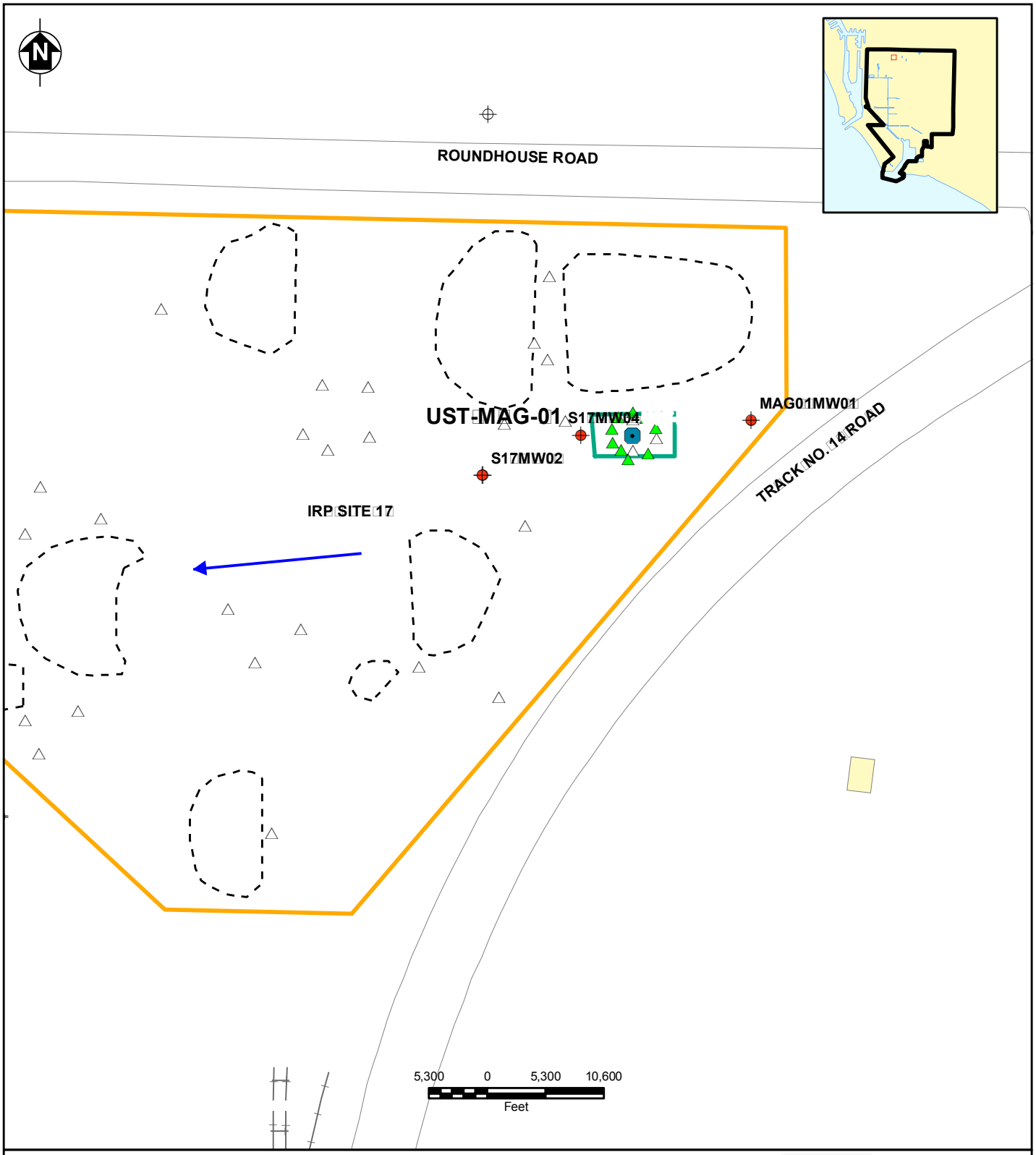
SulTech

CBC Port Hueneme, Port Hueneme California
U.S. Navy, NFECSW, San Diego

FIGURE 23-8a
FORMER UST SITE MAG-01
SITE MAP

Site Management Plan

fig23-8a_PHFSMP_UST_MAG01_sitemap_111604.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases



PROPOSED SAMPLE LOCATIONS
In black text
- SOIL BORING
- MONITORING WELL

PREVIOUS SAMPLE LOCATIONS
In gray text
- SOIL SAMPLE
- MONITORING WELL
- TEST PIT

- FENCE
- RAILROAD
- CURB
- GROUNDWATER FLOW
- BUILDING
- FORMER BUNKERS

SulTech

CBC Port Hueneme, Port Hueneme, California
U.S. Navy, NFECSW, San Diego

FIGURE 23-8b
FORMER UST SITE MAG-01
PROPOSED GROUNDWATER SAMPLING LOCATIONS
Site Management Plan

fig23-8b_PHHSP_UST_MAG01_GW_011105.mxd TtEMI-HE Ed Madej
Data Source: Tetra Tech EMI GIS databases

TABLES

TABLE 23-1a: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT UST SITE 42-01

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
269064	SOIL	07/14/99	42-01SB01	ORIG	3.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
269065	SOIL	07/14/99	42-01SB01	ORIG	5.00 - 7.00	✓	✓	✓	✓	✓	✓	✓					
269066	SOIL	07/14/99	42-01SB02	ORIG	3.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
269067	SOIL	07/14/99	42-01SB02	ORIG	5.00 - 7.00	✓	✓	✓	✓	✓	✓	✓					
269068	SOIL	07/14/99	42-01SB03	ORIG	3.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
269069	SOIL	07/14/99	42-01SB03	ORIG	5.00 - 7.00	✓	✓	✓	✓	✓	✓	✓					
269060	WATER	07/14/99	42-01SB01	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
269061	WATER	07/14/99	42-01SB02	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
269062	WATER	07/14/99	42-01SB03	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
TOTAL						9	9	9	9	9	9	9	0	0	0	0	0

Notes:

DMETL	Metals (filtered)	ORGPB	Organic Lead	SVOC	Semivolatile organic compound
GMETL	General mineral	PCB	Polychlorinated biphenyls	TPH-e	Total petroleum hydrocarbons, extractables
METL	Metals (total - unfiltered)	PEST	Pesticides	TPH-p	Total petroleum hydrocarbons, purgeables
NA	Not applicable	PESTO	Organophosphorus pesticides	VOC	Volatile organic compound
				✓	Sample collected and analyzed; blank cell indicates no sample collected.

TABLE 23-1b: ANALYTICAL RESULTS FOR UST SITE 42-01 SOIL SAMPLES

Site Management Plan, CBC Port Hueneme

Sample Location ID	42-01SB01	42-01SB01	42-01SB02	42-01SB02	42-01SB03	42-01SB03	EPA Residential Soil PRGs
Sample ID	269064	269065	269066	269067	269068	269069	
Sample Date	07/14/1999	07/14/1999	07/14/1999	07/14/1999	07/14/1999	07/14/1999	
Sample Depth	3.00 - 5.00	5.00 - 7.00	3.00 - 5.00	5.00 - 7.00	3.00 - 5.00	5.00 - 7.00	
Volatile Organic Compounds (mg/kg)							
BENZENE	0.004 J	< 0.013 U	< 0.013 U	< 0.012 U	< 0.013 U	< 0.012 U	0.64
CARBON DISULFIDE	< 0.011 U	< 0.013 U	0.003 J	< 0.012 U	< 0.013 U	< 0.012 U	360
ETHYLBENZENE	0.025	< 0.013 U	< 0.013 U	< 0.012 U	< 0.013 U	< 0.012 U	400
XYLENE (TOTAL)	0.05	< 0.013 U	< 0.013 U	< 0.012 U	< 0.013 U	< 0.012 U	270
Petroleum Hydrocarbons (mg/kg)							
Diesel/Motor Oil Range (extractables)							
MOTOR OIL RANGE ORGANICS	< 11 U	7 J	< 13 U	100	< 13 U	22 Y	NC
Gasoline Range (purgeables)							
None Detected	ND	ND	ND	ND	ND	ND	NC
Semivolatile Organic Compounds (mg/kg)							
BENZO(A)ANTHRACENE	< 0.36 U	< 0.41 U	< 0.43 U	0.21 J	< 0.43 U	< 0.41 U	0.62
FLUORANTHENE	< 0.36 U	< 0.41 U	< 0.43 U	0.19 J	< 0.43 U	< 0.41 U	2,300
PYRENE	< 0.36 U	< 0.41 U	< 0.43 U	0.18 J	< 0.43 U	< 0.41 U	2,300
PCBs/Pesticides (mg/kg)							
None Detected	ND	ND	ND	ND	ND	ND	NC
Metals (mg/kg)							
ARSENIC	**4.2**	**5.3**	**4.5**	**5.9**	**5.9**	**4.8**	0.39
BARIUM	81.4	144	151	164	179	144	5,400
BERYLLIUM	< 0.0029 U	0.13 J	0.02 J	0.45	0.1 J	0.05 J	150
CADMIUM	0.5 J	1.2 J	0.99 J	1.8 J	1 J	0.87 J	37 *
CHROMIUM	16	26.1	26.8	32.1	29.4	28.6	210
COBALT	6.5	10.6	10.2	12.1	12.3	13.9	900
COPPER	11.6 J	20.3 J	19 J	31.2 J	25.4 J	25.1 J	3,100
LEAD	7.4 J	8.4 J	7.4 J	11.2 J	9.2 J	14.9 J	150 *
MERCURY	< 0.076 U	0.033 J	0.037 J	0.065	0.041 J	0.15	23
MOLYBDENUM	0.74	2.7	1.6	2.7	2.2	2.5	390
NICKEL	13.7	22.8	25.3	30.4	27.5	27.8	1,600
SELENIUM	1.5	< 0.21 U	0.46	1.2	2.3	1.2	390
VANADIUM	31.5	51.2	52.9	60.1	58.1	57.6	550
ZINC	46.2	67.3	62.3	90.8	81.4	84.6	23,000

TABLE 23-1b: ANALYTICAL RESULTS FOR UST SITE 42-01 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Notes: Categories of analyses are shown, but only detected compounds are presented. Analyte results in boldface type exceed EPA residential soil PRGs.

*	California modified PRGs
ID	Identification
J	Estimated value
mg/kg	Milligrams per kilogram
NC	No criteria
ND	None detected
PRG	Preliminary remediation goals
U	Nondetected
Y	Chromatographic pattern resembles hydrocarbon fuel pattern and was quantitated using the standard it resembled most.

TABLE 23-1c: ANALYTICAL RESULTS FOR UST SITE 42-01 GROUNDWATER SAMPLES

Site Management Plan, CBC Port Hueneme

Sample Location ID	42-01SB01	42-01SB02	42-01SB03	
Sample ID	269060	269061	269062	EPA Tap Water PRGs
Sample Date	07/14/1999	07/14/1999	07/14/1999	
Volatile Organic Compounds (µg/L)				
CARBON DISULFIDE	< 2 U	< 2 U	37 J	1,000
CHLOROFORM	**1 J**	**0.9 J**	**1 J**	0.17
Petroleum Hydrocarbons (mg/L)				
Diesel/Motor Oil Range (extractables)				
None Detected	ND	ND	ND	NC
Gasoline Range (purgeables)				
None Detected	ND	ND	ND	NC
Semivolatile Organic Compounds (µg/L)				
None Detected	ND	ND	ND	NC
PCBs/Pesticides (µg/L)				
None Detected	ND	ND	ND	NC
Metals (µg/L)				
Unfiltered				
ANTIMONY	7.1	< 2.2 U	< 2.2 U	15
ARSENIC	**6.3 J**	**2.8 J**	**2.8 J**	0.045
BARIUM	203	37.6 J	57.7 J	2,600
CADMIUM	0.61 J	< 0.22 U	< 0.22 U	18
CHROMIUM	22.4	< 4.2 UJ	8.7 J	NC
COBALT	5.4 J	2.2 J	2 J	730
COPPER	17.5	4.2	4.2	1,500
MERCURY	0.29	0.22	0.21	NC
MOLYBDENUM	42.9	30.7	36.9	180
NICKEL	13.4	12.6	6.8 J	730
THALLIUM	**3.6**	**2.6**	< 2 U	2.4
VANADIUM	25.8 J	< 0.65 U	< 2.5 UJ	260
ZINC	49.5	9.5 J	18.5 J	11,000

TABLE 23-1c: ANALYTICAL RESULTS FOR UST SITE 42-01 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Notes: Categories of analyses are shown, but only detected compounds are presented. Analyte results in boldface type exceed EPA tap water PRGs.

ID	Identification
J	Estimated value
mg/L	Milligrams per liter
NC	No criteria
ND	None detected
PRG	Preliminary remediation goals
U	Nondetected
µg/L	Micrograms per liter

TABLE 23-2a: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT UST SITE 283-01

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
269045	SOIL	07/12/99	283SB01	ORIG	3.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
269046	SOIL	07/12/99	283SB01	ORIG	5.00 - 7.00	✓	✓	✓	✓	✓	✓	✓					
269047	SOIL	07/12/99	283SB02	ORIG	3.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
269048	SOIL	07/12/99	283SB03	ORIG	3.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
269049	SOIL	07/12/99	283SB03	ORIG	5.00 - 7.00	✓	✓	✓	✓	✓	✓	✓					
025283SS07	SOIL	07/12/04	283SB04	ORIG	2.00 - 3.50	✓		✓	✓	✓	✓	✓					
025283SS08	SOIL	07/12/04	283SB04	ORIG	3.50 - 5.00	✓		✓	✓	✓	✓	✓					
025283SS09	SOIL	07/12/04	283SB05	ORIG	2.00 - 3.50	✓		✓	✓	✓	✓	✓					
025283SS10	SOIL	07/12/04	283SB05	ORIG	3.50 - 5.00	✓		✓	✓	✓	✓	✓					
025283SS11	SOIL	07/12/04	283SB06	ORIG	2.00 - 4.00	✓		✓	✓	✓	✓	✓					
025283SS12	SOIL	07/12/04	283SB07	ORIG	2.00 - 3.50	✓		✓	✓	✓	✓	✓					
025283SS13	SOIL	07/12/04	283SB08	ORIG	2.00 - 3.50	✓		✓	✓	✓	✓	✓					
025283SS14	SOIL	07/12/04	283SB09	ORIG	1.00 - 3.50	✓		✓	✓	✓	✓	✓					
025283SS15	SOIL	07/12/04	283SB10	ORIG	2.00 - 3.50	✓		✓	✓	✓	✓	✓					
269001	WATER	07/12/99	283SB01	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
269002	WATER	07/12/99	283SB02	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
269013	WATER	07/12/99	283SB03	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
TOTAL						17	8	17	17	17	17	17	0	0	0	0	0

Notes:

DMETL	Metals (filtered)	ORGPB	Organic Lead	SVOC	Semivolatile organic compound
GMETL	General mineral	PCB	Polychlorinated biphenyls	TPH-e	Total petroleum hydrocarbons, extractables
METL	Metals (total - unfiltered)	PEST	Pesticides	TPH-p	Total petroleum hydrocarbons, purgeables
NA	Not applicable	PESTO	Organophosphorus pesticides	VOC	Volatile organic compound
				✓	Sample collected and analyzed; blank cell indicates no sample collected.

TABLE 23-2b: ANALYTICAL RESULTS FOR UST SITE 283-01 SOIL SAMPLES

Site Management Plan, CBC Port Hueneme

Sample Location ID	283SB01	283SB01	283SB02	283SB03	283SB03	283SB04	283SB04	EPA Residential Soil PRGs
Sample ID	269045	269046	269047	269048	269049	025283SS07	025283SS08	
Sample Date	07/12/1999	07/12/1999	07/12/1999	07/12/1999	07/12/1999	07/12/2004	07/12/2004	
Sample Depth	3.00 - 5.00	5.00 - 7.00	3.00 - 5.00	3.00 - 5.00	5.00 - 7.00	2.00 - 3.50	3.50 - 5.00	
Volatile Organic Compounds (mg/kg)								
ETHYLBENZENE	< 0.012 U	0.54 J	< 0.012 U	< 0.012 U	< 0.011 U	< 0.0062 U	< 0.0058 U	400
TOLUENE	< 0.012 U	< 5.8 U	< 0.012 U	< 0.012 U	< 0.011 U	< 0.0062 U	< 0.0058 U	520
XYLENE (TOTAL)	< 0.012 U	1.5 J	< 0.012 U	< 0.012 U	< 0.011 U	< 0.012 U	< 0.012 U	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables) MOTOR OIL RANGE ORGANICS	10 JY	24,500 J	11 JY	2,600 J	12,000 J	NA	NA	NC
Gasoline Range (purgeables) GASOLINE RANGE ORGANICS	< 0.6 U	340 Z	< 0.58 U	< 0.6 U	< 0.56 U	< 1.2 U	< 1.5 U	NC
Semivolatile Organic Compounds (mg/kg)								
None Detected	ND	ND	ND	ND	ND	ND	ND	NC
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.0039 U	< 0.019 U	< 0.0039 U	< 0.0039 U	< 0.019 U	< 0.005 U	< 0.0048 U	2.4
4,4'-DDT	< 0.0039 U	< 0.019 U	< 0.0039 U	< 0.0039 U	< 0.019 U	< 0.005 UJ	< 0.0048 UJ	1.7
ENDRIN	< 0.0039 U	< 0.019 U	< 0.0039 U	0.002 J	< 0.019 UJ	< 0.005 U	< 0.0048 U	18
ENDRIN KETONE	< 0.0039 U	< 0.019 U	< 0.0039 U	0.003 J	< 0.019 U	< 0.005 U	< 0.0048 U	NC
Metals (mg/kg)								
ALUMINUM	NA	NA	NA	NA	NA	13,600	6,860	76,000
ANTIMONY	< 0.13 U	< 0.13 U	< 0.13 U	< 0.13 U	< 0.12 U	< 12.4 UJ	2.71 J	31
ARSENIC	**6**	**3.3**	**1.6 J**	**3.3**	**2.5**	**4.91**	**2.45**	0.39
BARIUM	182	83	43 J	85.1	68.3	136	62.9	5,400
BERYLLIUM	0.086 J	< 0.0032 U	< 0.0032 U	< 0.0032 U	< 0.003 U	0.559 J	0.278 J	150
CADMIUM	0.93 J	0.86 J	0.21 J	0.3 J	0.42 J	0.898 J	< 1.19 U	37 *
CALCIUM	NA	NA	NA	NA	NA	23,600	6,710	NC
CHROMIUM	30.5	15.8	6.8	18	19.3	20.9	10.6	210
COBALT	13	6.7 J	5.2 J	10.2 J	10.7 J	8.2	3.64	900
COPPER	< 24.1 UJ	12.7 J	11.4 J	17.5 J	19.8 J	18.4	8.78	3,100
IRON	NA	NA	NA	NA	NA	**23,500**	12,000	23,000
LEAD	< 10.3 UJ	9.9 J	2.6 J	55.1 J	21.3 J	6.3	3.56	150 *
MAGNESIUM	NA	NA	NA	NA	NA	8,450	3,400	NC
MANGANESE	NA	NA	NA	NA	NA	321 J	282 J	1,800
MERCURY	< 0.084 U	< 0.082 U	0.044	< 0.084 U	0.036 J	< 0.124 U	< 0.119 U	23
MOLYBDENUM	4.2	2.6	0.89 J	3.3	1.1 J	3.46 J	1.36 J	390

TABLE 23-2b: ANALYTICAL RESULTS FOR UST SITE 283-01 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	283SB01	283SB01	283SB02	283SB03	283SB03	283SB04	283SB04	EPA Residential Soil PRGs
Sample ID	269045	269046	269047	269048	269049	025283SS07	025283SS08	
Sample Date	07/12/1999	07/12/1999	07/12/1999	07/12/1999	07/12/1999	07/12/2004	07/12/2004	
Sample Depth	3.00 - 5.00	5.00 - 7.00	3.00 - 5.00	3.00 - 5.00	5.00 - 7.00	2.00 - 3.50	3.50 - 5.00	
Metals (mg/kg)								
NICKEL	29.2	17	9.8	18.5	17.2	19.8	10.8	1,600
POTASSIUM	NA	NA	NA	NA	NA	3,180	1,390	NC
SELENIUM	2.1	< 0.2 U	0.24 J	2.1	0.95 J	< 1.24 U	< 1.19 U	390
SILVER	< 0.056 U	< 0.055 U	< 0.055 U	< 0.056 U	< 0.053 U	1.32 J	0.797 J	390
SODIUM	NA	NA	NA	NA	NA	365	145	NC
THALLIUM	< 0.12 U	< 0.12 U	< 0.12 U	< 0.12 U	< 0.11 U	< 1.24 U	< 1.19 U	5.2
VANADIUM	57.3	33.1	16.2	39.3	39	38.1	20.5	550
ZINC	77.5	41.6	18.2	53.7	69.7	64.8	30.8	23,000

TABLE 23-2b: ANALYTICAL RESULTS FOR UST SITE 283-01 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	283SB05	283SB05	283SB06	283SB07	283SB08	283SB09	283SB10	EPA Residential Soil PRGs
Sample ID	025283SS09	025283SS10	025283SS11	025283SS12	025283SS13	025283SS14	025283SS15	
Sample Date	07/12/2004	07/12/2004	07/12/2004	07/12/2004	07/12/2004	07/12/2004	07/12/2004	
Sample Depth	2.00 - 3.50	3.50 - 5.00	2.00 - 4.00	2.00 - 3.50	2.00 - 3.50	1.00 - 3.50	2.00 - 3.50	
Volatile Organic Compounds (mg/kg)								
ETHYLBENZENE	< 0.0081 U	< 0.0053 U	< 0.0058 U	< 0.0069 U	< 0.0088 U	< 0.011 U	< 0.0063 U	400
TOLUENE	< 0.0081 U	< 0.0053 U	< 0.0058 U	< 0.0069 U	0.0066 J	< 0.011 U	0.0029 J	520
XYLENE (TOTAL)	< 0.016 U	< 0.011 U	< 0.012 U	< 0.014 U	< 0.018 U	< 0.023 U	< 0.013 U	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables) MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NC
Gasoline Range (purgeables) GASOLINE RANGE ORGANICS	< 1.7 U	< 1.3 U	< 1.7 U	1.6 Z	< 1.6 U	5 Z	< 1.3 U	NC
Semivolatile Organic Compounds (mg/kg)								
None Detected	ND	ND	ND	ND	ND	ND	ND	NC
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.005 UJ	< 0.0051 UJ	0.0032 J	< 0.0046 UJ	< 0.0041 UJ	< 0.0046 UJ	< 0.005 U	2.4
4,4'-DDT	< 0.005 U	< 0.0051 U	0.01	< 0.0046 U	< 0.0041 U	< 0.0046 U	< 0.005 UJ	1.7
ENDRIN	< 0.005 U	< 0.0051 U	< 0.0042 UJ	< 0.0046 U	< 0.0041 U	< 0.0046 U	< 0.005 U	18
ENDRIN KETONE	< 0.005 U	< 0.0051 U	< 0.0042 U	< 0.0046 U	< 0.0041 U	< 0.0046 U	< 0.005 U	NC
Metals (mg/kg)								
ALUMINUM	14,800	9,490	10,500	15,800	6,190	14,600	14,700	76,000
ANTIMONY	< 12.5 UJ	2.8 J	3 J	< 11.5 UJ	< 10.4 UJ	2.67 J	< 12.5 UJ	31
ARSENIC	**5.53**	**4.18**	**3.83**	**2.12**	**1.65**	**4.1**	**5.42**	0.39
BARIUM	147 J	119 J	100 J	47.7 J	57.3 J	99.9 J	131 J	5,400
BERYLLIUM	0.82 J	0.606 J	0.584 J	0.432 J	0.3 J	0.591 J	0.84 J	150
CADMIUM	0.958 J	0.938 J	0.71 J	0.645 J	< 1.04 U	0.982 J	1.32	37 *
CALCIUM	22,400 J	33,600 J	30,600 J	14,000 J	8,910 J	11,300 J	47,100 J	NC
CHROMIUM	24.4	16.6	17.2	20.5	11	22.4	25.7	210
COBALT	10.3	6.17	7.63	20	5.56	13.3	9.37	900
COPPER	21.6	12.9	15.1	28.3	11.2	30.2	20.5	3,100
IRON	**26,000**	18,700	18,600	**39,900**	13,700	**30,500**	**25,000**	23,000
LEAD	7.74	5.08	4.88	2.42	5.29	20.8	7.18	150 *
MAGNESIUM	8,860	6,640	6,400	12,900	4,220	9,120	11,000	NC
MANGANESE	394	231	325	628	211	476	413	1,800
MERCURY	< 0.125 U	< 0.127 U	< 0.105 U	< 0.115 U	< 0.104 U	< 0.114 U	< 0.125 U	23
MOLYBDENUM	2.21 J	3.45 J	2.24 J	< 5.75 U	< 5.18 U	< 5.71 U	2.54 J	390

TABLE 23-2b: ANALYTICAL RESULTS FOR UST SITE 283-01 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	283SB05	283SB05	283SB06	283SB07	283SB08	283SB09	283SB10	EPA Residential Soil PRGs
Sample ID	025283SS09	025283SS10	025283SS11	025283SS12	025283SS13	025283SS14	025283SS15	
Sample Date	07/12/2004	07/12/2004	07/12/2004	07/12/2004	07/12/2004	07/12/2004	07/12/2004	
Sample Depth	2.00 - 3.50	3.50 - 5.00	2.00 - 4.00	2.00 - 3.50	2.00 - 3.50	1.00 - 3.50	2.00 - 3.50	
Metals (mg/kg)								
NICKEL	22.5	15.1	17.6	21.6	9.72	22.6	23.8	1,600
POTASSIUM	3,130	1,730	1,980	1,810	1,090	3,610	2,970	NC
SELENIUM	< 1.25 U	< 1.27 U	< 1.05 U	< 1.15 U	< 1.04 U	< 1.14 U	< 1.25 U	390
SILVER	0.804 J	< 2.54 U	< 2.1 U	0.937 J	0.679 J	0.793 J	< 2.51 U	390
SODIUM	300	305	343	720	300	469	423	NC
THALLIUM	< 1.25 U	< 1.27 U	< 1.05 U	0.727 J	< 1.04 U	< 1.14 U	< 1.25 U	5.2
VANADIUM	42.8	31.1	30.1	45.5	20.5	44.5	43.4	550
ZINC	75.6	51.5	53.4	63.4	34.8	109	73.3	23,000

Notes: Categories of analyses are shown, but only detected compounds are presented. Analyte results in boldface type exceed EPA residential soil PRGs.

*	California modified PRGs
ID	Identification
J	Estimated value
mg/kg	Milligrams per kilogram
NA	Not analyzed
NC	No criteria
ND	None detected
PRG	Preliminary remediation goals
TPH	Total petroleum hydrocarbons
U	Nondetected
Y	Chromatographic pattern resembles hydrocarbon fuel pattern and was quantitated using the standard it resembled most.
Z	Chromatographic pattern does not resemble TPH fuel pattern (individual peaks).

TABLE 23-2c: ANALYTICAL RESULTS FOR UST SITE 283-01 GROUNDWATER SAMPLES

Site Management Plan, CBC Port Hueneme

Sample Location ID	283SB01	283SB02	283SB03	
Sample ID	269001	269002	269013	EPA Tap Water PRGs
Sample Date	07/12/1999	07/12/1999	07/12/1999	
Volatile Organic Compounds (µg/L)				
TOLUENE	6 J	< 20 U	< 10 U	720
TRICHLOROETHENE	< 10 U	**6 J**	**4 J**	0.028
XYLENE (TOTAL)	4 J	11 J	5 J	210
Petroleum Hydrocarbons (mg/L)				
Diesel/Motor Oil Range (extractables)				
MOTOR OIL RANGE ORGANICS	61	7	8.3	NC
Gasoline Range (purgeables)				
GASOLINE RANGE ORGANICS	0.65	2.15	0.31	NC
Semivolatile Organic Compounds (µg/L)				
None Detected	ND	ND	ND	NC
PCBs/Pesticides (µg/L)				
None Detected	ND	ND	ND	NC
Metals (µg/L)				
Unfiltered				
ANTIMONY	2.6 J	< 2.2 U	< 2.2 U	15
ARSENIC	**28.8**	**32**	**114**	0.045
BARIUM	631	1,180	**2,880**	2,600
BERYLLIUM	0.17 J	1 J	2.6 J	73
CADMIUM	2 J	5.6	**20.6**	18
CHROMIUM	100	185	549	NC
COBALT	28 J	106	211	730
COPPER	60.4	183	469	1,500
LEAD	26.1	406	1,690	NC
MERCURY	0.28	0.32	1	NC
MOLYBDENUM	52	43.8	154	180
NICKEL	68.2	190	476	730
SELENIUM	22.2	7.9	27	180
THALLIUM	**28.3**	**16.1**	< 2 U	2.4
VANADIUM	108	**327**	**800**	260
ZINC	180	582	1,470	11,000

TABLE 23-2c: ANALYTICAL RESULTS FOR UST SITE 283-01 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Notes: Categories of analyses are shown, but only detected compounds are presented. Analyte results in boldface type exceed EPA tap water PRGs.

ID	Identification
J	Estimated value
mg/L	Milligrams per liter
NC	No criteria
ND	None detected
PRG	Preliminary remediation goals
U	Nondetected
µg/L	Micrograms per liter

TABLE 23-3a: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT UST SITES 305-01 AND 305-02

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
269012	SOIL	07/12/99	30501SB01	ORIG	5.00 - 7.00	✓	✓	✓	✓	✓	✓	✓					
269034	SOIL	07/12/99	30501SB01	ORIG	3.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
269035	SOIL	07/12/99	30501SB02	ORIG	3.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
269036	SOIL	07/12/99	30501SB02	ORIG	5.00 - 7.00	✓	✓	✓	✓	✓	✓	✓					
269028	SOIL	07/12/99	30502SB01	ORIG	3.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
269029	SOIL	07/12/99	30502SB01	ORIG	5.00 - 7.00	✓	✓	✓	✓	✓	✓	✓					
269030	SOIL	07/12/99	30502SB02	ORIG	3.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
269031	SOIL	07/12/99	30502SB02	ORIG	5.00 - 7.00	✓	✓	✓	✓	✓	✓	✓					
269032	SOIL	07/12/99	30502SB03	ORIG	3.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
269033	SOIL	07/12/99	30502SB03	ORIG	5.00 - 7.00	✓	✓	✓	✓	✓	✓	✓					
025305SS05	SOIL	07/13/04	305SB01	ORIG	1.00 - 2.50	✓		✓	✓	✓	✓	✓					
025305SS06	SOIL	07/13/04	305SB01	ORIG	5.00 - 6.50	✓		✓	✓	✓	✓	✓					
025305SS07	SOIL	07/13/04	305SB02	ORIG	1.00 - 2.50	✓		✓	✓	✓	✓	✓					
025305SS08	SOIL	07/13/04	305SB02	ORIG	5.00 - 6.50	✓		✓	✓	✓	✓	✓					
025305SS09	SOIL	07/13/04	305SB03	ORIG	1.00 - 2.50	✓		✓	✓	✓	✓	✓					
025305SS10	SOIL	07/13/04	305SB03	ORIG	5.00 - 6.50	✓		✓	✓	✓	✓	✓					
025305SS11	SOIL	07/13/04	305SB04	ORIG	1.00 - 2.50	✓		✓	✓	✓	✓	✓					
025305SS12	SOIL	07/13/04	305SB04	ORIG	5.00 - 6.50	✓		✓	✓	✓	✓	✓					
025305SS21	SOIL	07/13/04	305SB09	ORIG	1.00 - 2.50	✓		✓	✓	✓	✓	✓					
025305SS22	SOIL	07/13/04	305SB09	ORIG	5.00 - 6.50	✓		✓	✓	✓	✓	✓					
025305SS23	SOIL	07/13/04	305SB10	ORIG	1.00 - 2.50	✓		✓	✓	✓	✓	✓					
025305SS24	SOIL	07/13/04	305SB10	ORIG	5.00 - 6.50	✓		✓	✓	✓	✓	✓					
269014	WATER	07/12/99	30501SB01	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
269024	WATER	07/12/99	30501SB02	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
269026	WATER	07/12/99	30502SB01	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					

TABLE 23-3a: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT UST SITE 305-01 AND 305-02 (Continued)

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
269027	WATER	07/12/99	30502SB02	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
269025	WATER	07/12/99	30502SB03	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
TOTAL						27	15	27	27	27	27	27	0	0	0	0	0

Notes:

DMETL	Metals (filtered)	ORGPB	Organic Lead	SVOC	Semivolatile organic compound
GMETL	General mineral	PCB	Polychlorinated biphenyls	TPH-e	Total petroleum hydrocarbons, extractables
METL	Metals (total - unfiltered)	PEST	Pesticides	TPH-p	Total petroleum hydrocarbons, purgeables
NA	Not applicable	PESTO	Organophosphorus pesticides	VOC	Volatile organic compound
				✓	Sample collected and analyzed; blank cell indicates no sample collected.

TABLE 23-3b: ANALYTICAL RESULTS FOR UST SITES 305-01 AND 305-02 SOIL SAMPLES

Site Management Plan, CBC Port Hueneme

Sample Location ID	30501SB01	30501SB01	30501SB02	30501SB02	30502SB01	30502SB01	30502SB02	EPA Residential Soil PRGs
Sample ID	269034	269012	269035	269036	269028	269029	269030	
Sample Date	07/12/1999	07/12/1999	07/12/1999	07/12/1999	07/12/1999	07/12/1999	07/12/1999	
Sample Depth	3.00 - 5.00	5.00 - 7.00	3.00 - 5.00	5.00 - 7.00	3.00 - 5.00	5.00 - 7.00	3.00 - 5.00	
Volatile Organic Compounds (mg/kg)								
BENZENE	< 0.011 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	0.64
CARBON DISULFIDE	< 0.011 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	360
TOLUENE	< 0.011 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	520
XYLENE (TOTAL)	< 0.011 U	< 0.012 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.011 U	< 0.012 U	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables) MOTOR OIL RANGE ORGANICS	5,500 Y	293	690	24 Y	440 Y	950	1,500	NC
Gasoline Range (purgeables) GASOLINE RANGE ORGANICS	0.2 JY	< 0.6 U	< 0.57 U	< 0.57 U	< 0.59 U	< 0.57 U	< 0.58 U	NC
Semivolatile Organic Compounds (mg/kg)								
None Detected	ND	ND	ND	ND	ND	ND	ND	NC
PCBs/Pesticides (mg/kg)								
4,4'-DDD	0.016 J	< 0.004 U	0.021	< 0.0038 U	0.002 J	0.004 J	0.0078	2.4
4,4'-DDE	< 0.018 UJ	< 0.004 U	0.029	< 0.0038 U	< 0.0039 UJ	0.003 J	0.002 J	1.7
4,4'-DDT	0.08	< 0.004 U	0.559	< 0.0038 U	0.0059	0.01	0.008	1.7
ALPHA-BHC	< 0.0094 U	< 0.0021 U	< 0.0097 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	0.090
ALPHA-CHLORDANE	< 0.0094 UJ	< 0.0021 U	< 0.0097 UJ	< 0.002 U	< 0.002 UJ	< 0.002 UJ	< 0.002 UJ	1.6
AROCLOR-1260	**1.4**	< 0.019 U	**3.22**	< 0.018 U	0.06	0.089	0.074	0.22
BETA-BHC	< 0.0094 U	< 0.0021 U	< 0.0097 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	0.32
DELTA-BHC	< 0.0094 U	< 0.0021 U	< 0.0097 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	NC
ENDRIN KETONE	< 0.018 U	< 0.004 U	< 0.019 U	< 0.0038 U	< 0.0039 U	< 0.0038 U	< 0.0038 U	NC
GAMMA-CHLORDANE	0.014	< 0.0021 U	0.017	< 0.002 U	0.001 J	0.0021	0.002	1.6
Metals (mg/kg)								
ALUMINUM	NA	NA	NA	NA	NA	NA	NA	76,000
ANTIMONY	< 0.12 U	< 0.13 U	< 0.13 U	< 0.13 U	< 0.13 U	< 0.13 U	< 0.13 U	31
ARSENIC	**1.8 J**	**4.5**	**3.9 J**	**2.5 J**	**10.1 J**	**3.3 J**	**3.8 J**	0.39
BARIUM	62.5	100	93.3	83.5	82.8	89.3	120	5,400
BERYLLIUM	< 0.003 U	< 0.0033 U	< 0.0031 U	< 0.0031 U	< 0.0032 U	< 0.0031 U	0.073 J	150
CADMIUM	0.55 J	0.83 J	0.49 J	0.61 J	0.58 J	1.7 J	0.88 J	37 *
CALCIUM	NA	NA	NA	NA	NA	NA	NA	NC
CHROMIUM	20.2	38.7	26.5	26.7	16	34.4	24.7	210
COBALT	13.6	11 J	14.5	12.8	8	12.6	10.4	900

TABLE 23-3b: ANALYTICAL RESULTS FOR UST SITE 305-01 AND 305-02 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	30501SB01	30501SB01	30501SB02	30501SB02	30502SB01	30502SB01	30502SB02	EPA Residential Soil PRGs
Sample ID	269034	269012	269035	269036	269028	269029	269030	
Sample Date	07/12/1999	07/12/1999	07/12/1999	07/12/1999	07/12/1999	07/12/1999	07/12/1999	
Sample Depth	3.00 - 5.00	5.00 - 7.00	3.00 - 5.00	5.00 - 7.00	3.00 - 5.00	5.00 - 7.00	3.00 - 5.00	
Metals (mg/kg)								
COPPER	22	22.1 J	24.7	23.4	17.6	24.5	21.3	3,100
IRON	NA	NA	NA	NA	NA	NA	NA	23,000
LEAD	100 J	11.2 J	16.9 J	11.5 J	24.3 J	12.5 J	12.2 J	150 *
MAGNESIUM	NA	NA	NA	NA	NA	NA	NA	NC
MANGANESE	NA	NA	NA	NA	NA	NA	NA	1,800
MERCURY	< 0.077 U	< 0.085 U	< 0.08 U	< 0.08 U	< 0.082 U	< 0.08 U	< 0.081 U	23
MOLYBDENUM	0.46	2	1.2	1.1	0.86	1.3	1.8	390
NICKEL	19.9	31.7	25.8	24.6	15.9	27.1	23.1	1,600
POTASSIUM	NA	NA	NA	NA	NA	NA	NA	NC
SELENIUM	0.76 J	1 J	0.97 J	0.59 J	0.94 J	0.81 J	1.6 J	390
SILVER	< 0.052 U	< 0.057 U	< 0.054 U	< 0.054 U	< 0.055 U	< 0.054 U	< 0.055 U	390
SODIUM	NA	NA	NA	NA	NA	NA	NA	NC
THALLIUM	< 0.11 U	< 0.12 U	< 0.11 U	< 0.11 U	< 0.12 U	< 0.11 U	< 0.12 U	5.2
VANADIUM	47.3	51.7	54.6	46.2	32.8	53.2	46.5	550
ZINC	62.6	77	72.4	59.4	57.7	67.3	68.7	23,000

TABLE 23-3b: ANALYTICAL RESULTS FOR UST SITE 305-01 AND 305-02 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	30502SB02	30502SB03	30502SB03	305SB01	305SB01	305SB02	305SB02	EPA Residential Soil PRGs
Sample ID	269031	269032	269033	025305SS05	025305SS06	025305SS07	025305SS08	
Sample Date	07/12/1999	07/12/1999	07/12/1999	07/13/2004	07/13/2004	07/13/2004	07/13/2004	
Sample Depth	5.00 - 7.00	3.00 - 5.00	5.00 - 7.00	1.00 - 2.50	5.00 - 6.50	1.00 - 2.50	5.00 - 6.50	
Volatile Organic Compounds (mg/kg)								
BENZENE	< 0.012 U	< 0.011 U	< 0.011 U	< 0.005 U	< 0.01 U	< 0.0051 U	< 0.0057 U	0.64
CARBON DISULFIDE	< 0.012 U	< 0.011 U	< 0.011 U	< 0.005 U	< 0.01 U	< 0.0051 U	< 0.0057 U	360
TOLUENE	< 0.012 U	< 0.011 U	< 0.011 U	< 0.005 U	< 0.01 U	< 0.0051 U	< 0.0057 U	520
XYLENE (TOTAL)	< 0.012 U	< 0.011 U	< 0.011 U	< 0.01 U	< 0.02 U	< 0.01 U	< 0.011 U	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables) MOTOR OIL RANGE ORGANICS	1,100	1,800 Y	150	NA	NA	NA	NA	NC
Gasoline Range (purgeables) GASOLINE RANGE ORGANICS	< 0.6 U	< 0.55 U	< 0.57 U	< 1.2 U	2 H	< 0.93 U	1.3 H	NC
Semivolatile Organic Compounds (mg/kg)								
None Detected	ND	ND	ND	ND	ND	ND	ND	NC
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.004 UJ	< 0.018 U	< 0.0037 U	< 0.0045 U	< 0.0044 UJ	< 0.0045 UJ	< 0.0046 UJ	2.4
4,4'-DDE	< 0.004 UJ	< 0.018 UJ	< 0.0037 U	< 0.0045 U	< 0.0044 UJ	< 0.0045 UJ	< 0.0046 UJ	1.7
4,4'-DDT	< 0.004 UJ	0.011 J	< 0.0037 U	< 0.0045 U	< 0.0044 U	< 0.0045 U	< 0.0046 U	1.7
ALPHA-BHC	< 0.002 U	< 0.0093 U	< 0.0019 U	< 0.0023 U	< 0.0022 U	< 0.0023 UJ	< 0.0023 U	0.090
ALPHA-CHLORDANE	< 0.002 U	< 0.0093 UJ	< 0.0019 U	0.0025 J	< 0.0022 U	< 0.0023 U	< 0.0023 U	1.6
AROCLOR-1260	< 0.019 UJ	0.094	< 0.018 U	< 0.057 U	< 0.056 U	< 0.057 U	< 0.057 U	0.22
BETA-BHC	< 0.002 U	< 0.0093 U	< 0.0019 U	< 0.0023 U	< 0.0022 U	< 0.0023 U	< 0.0023 U	0.32
DELTA-BHC	< 0.002 U	< 0.0093 U	< 0.0019 U	< 0.0023 U	< 0.0022 U	< 0.0023 U	< 0.0023 U	NC
ENDRIN KETONE	< 0.004 U	< 0.018 U	< 0.0037 U	< 0.0045 U	< 0.0044 U	< 0.0045 U	< 0.0046 U	NC
GAMMA-CHLORDANE	< 0.002 U	0.005 J	< 0.0019 U	0.002 J	< 0.0022 U	< 0.0023 U	< 0.0023 U	1.6
Metals (mg/kg)								
ALUMINUM	NA	NA	NA	6,290	12,700	9,230	8,900	76,000
ANTIMONY	< 0.13 U	< 0.12 U	< 0.12 U	< 11.4 UJ	3.04 J	< 11.4 UJ	< 11.4 UJ	31
ARSENIC	**4.9 J**	**7.7 J**	**3.6 J**	**2.02**	**1.29**	**3.23**	**3.16**	0.39
BARIUM	128	90	94.4	58.1	30.6	84.8	99.9	5,400
BERYLLIUM	< 0.0032 U	< 0.003 U	< 0.0031 U	0.182 J	0.18 J	0.36 J	0.3 J	150
CADMIUM	0.78 J	0.93 J	0.7 J	0.584 J	1.32	0.98 J	0.865 J	37 *
CALCIUM	NA	NA	NA	15,500 J	10,600 J	5,810 J	12,200 J	NC
CHROMIUM	29	21.4	23.1	16.4	11.7	14.7	19	210
COBALT	11.1	12.2	12.6	3.86	12.4	6.29	5.39	900

TABLE 23-3b: ANALYTICAL RESULTS FOR UST SITE 305-01 AND 305-02 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	30502SB02	30502SB03	30502SB03	305SB01	305SB01	305SB02	305SB02	EPA Residential Soil PRGs
Sample ID	269031	269032	269033	025305SS05	025305SS06	025305SS07	025305SS08	
Sample Date	07/12/1999	07/12/1999	07/12/1999	07/13/2004	07/13/2004	07/13/2004	07/13/2004	
Sample Depth	5.00 - 7.00	3.00 - 5.00	5.00 - 7.00	1.00 - 2.50	5.00 - 6.50	1.00 - 2.50	5.00 - 6.50	
Metals (mg/kg)								
COPPER	22.5	31.4	23.1	13.9	19.6	13.8	17.3	3,100
IRON	NA	NA	NA	11,000	**27,200**	16,900	14,600	23,000
LEAD	12.9 J	24.7 J	19.9 J	6.87	5.9	5.03	11	150 *
MAGNESIUM	NA	NA	NA	4,770	9,500	4,900	5,520	NC
MANGANESE	NA	NA	NA	194 J	297 J	263 J	243 J	1,800
MERCURY	< 0.084 U	< 0.077 U	< 0.079 U	< 0.114 U	< 0.111 U	< 0.114 U	< 0.114 U	23
MOLYBDENUM	2.2	2	2	< 5.68 U	< 5.56 U	< 5.68 U	2.26 J	390
NICKEL	24.9	21.7	24.4	15.2	17.7	15.6	18.5	1,600
POTASSIUM	NA	NA	NA	951	1,020	2,830	1,870	NC
SELENIUM	0.93 J	1 J	0.38 J	< 1.14 U	< 1.11 U	< 1.14 U	< 1.14 U	390
SILVER	< 0.056 U	< 0.052 U	< 0.053 U	< 2.27 U	1.74 J	1.06 J	1.15 J	390
SODIUM	NA	NA	NA	364	897	270	324	NC
THALLIUM	< 0.12 U	< 0.11 U	< 0.11 U	< 1.14 U	0.764 J	< 1.14 U	< 1.14 U	5.2
VANADIUM	52.2	49	49.9	22.4	25.8	26.4	31.5	550
ZINC	75.3	102	67	32.8	47.7	47.5	79.2	23,000

TABLE 23-3b: ANALYTICAL RESULTS FOR UST SITE 305-01 AND 305-02 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	305SB03	305SB03	305SB04	305SB04	305SB09	305SB09	305SB10	EPA Residential Soil PRGs
Sample ID	025305SS09	025305SS10	025305SS11	025305SS12	025305SS21	025305SS22	025305SS23	
Sample Date	07/13/2004	07/13/2004	07/13/2004	07/13/2004	07/13/2004	07/13/2004	07/13/2004	
Sample Depth	1.00 - 2.50	5.00 - 6.50	1.00 - 2.50	5.00 - 6.50	1.00 - 2.50	5.00 - 6.50	1.00 - 2.50	
Volatile Organic Compounds (mg/kg)								
BENZENE	< 0.0058 U	< 0.0058 U	< 0.0073 U	< 0.0062 U	< 0.0077 U	0.0024 J	< 0.0063 U	0.64
CARBON DISULFIDE	< 0.0058 U	< 0.0058 U	0.0031 J	< 0.0062 U	< 0.0077 U	< 0.0055 U	0.0037 J	360
TOLUENE	< 0.0058 U	< 0.0058 U	< 0.0073 U	< 0.0062 U	< 0.0077 U	0.003 J	0.011	520
XYLENE (TOTAL)	< 0.012 U	< 0.012 U	< 0.015 U	< 0.012 U	< 0.015 U	< 0.011 U	0.0077 J	270
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables) MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NC
Gasoline Range (purgeables) GASOLINE RANGE ORGANICS	< 1.1 U	1.9 H	< 1.1 U	< 1.2 U	< 2 U	< 1.4 U	< 1.4 U	NC
Semivolatile Organic Compounds (mg/kg)								
None Detected	ND	ND	ND	ND	ND	ND	ND	NC
PCBs/Pesticides (mg/kg)								
4,4'-DDD	< 0.0042 UJ	< 0.0046 UJ	< 0.0042 UJ	< 0.0045 UJ	< 0.0041 UJ	< 0.0044 UJ	< 0.0042 UJ	2.4
4,4'-DDE	< 0.0042 UJ	< 0.0046 UJ	< 0.0042 UJ	< 0.0045 UJ	< 0.0041 UJ	< 0.0044 UJ	< 0.0042 UJ	1.7
4,4'-DDT	< 0.0042 UJ	< 0.0046 U	< 0.0042 U	< 0.0045 U	0.0072	< 0.0044 UJ	< 0.0042 UJ	1.7
ALPHA-BHC	0.0037 J	0.0023 J	< 0.0021 U	0.0068 J	< 0.0021 U	0.0029 J	0.0011 J	0.090
ALPHA-CHLORDANE	< 0.0021 UJ	< 0.0023 U	< 0.0021 U	< 0.0023 U	0.0022 J	< 0.0022 UJ	< 0.0021 UJ	1.6
AROCLOR-1260	0.032 J	< 0.058 U	< 0.052 U	< 0.057 U	0.02 J	< 0.055 U	< 0.053 U	0.22
BETA-BHC	0.0071 J	< 0.0023 U	< 0.0021 U	< 0.0023 U	< 0.0021 U	< 0.0022 UJ	< 0.0021 UJ	0.32
DELTA-BHC	< 0.0021 UJ	< 0.0023 U	< 0.0021 U	< 0.0023 U	< 0.0021 U	0.0034 J	< 0.0021 UJ	NC
ENDRIN KETONE	0.0024 J	< 0.0046 U	< 0.0042 U	< 0.0045 U	< 0.0041 U	< 0.0044 UJ	< 0.0042 UJ	NC
GAMMA-CHLORDANE	< 0.0021 UJ	< 0.0023 U	< 0.0021 U	< 0.0023 U	0.0029 J	< 0.0022 UJ	< 0.0021 UJ	1.6
Metals (mg/kg)								
ALUMINUM	8,010	10,100	7,660	10,800	6,370	8,570	7,620	76,000
ANTIMONY	< 10.6 UJ	2.48 J	< 10.4 UJ	< 11.3 UJ	< 10.3 UJ	< 11 UJ	< 10.5 UJ	31
ARSENIC	**2.49**	**1.62**	**2.49**	**2.46**	**2.07**	**2.94**	**2.37**	0.39
BARIUM	71.6	67.8	66	88.5	54.9	90	67.5	5,400
BERYLLIUM	0.278 J	0.24 J	0.271 J	0.341 J	0.217 J	0.279 J	0.246 J	150
CADMIUM	0.698 J	1.04 J	0.629 J	1.05 J	0.547 J	0.591 J	0.679 J	37 *
CALCIUM	9,790 J	11,100 J	7,460 J	15,300 J	7,390 J	14,400 J	7,360 J	NC
CHROMIUM	13	19.4	12.6	19.2	10.9	13.3	12.9	210
COBALT	5.25	8.21	6.13	9.37	4.26	5.96	5.65	900

TABLE 23-3b: ANALYTICAL RESULTS FOR UST SITE 305-01 AND 305-02 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	305SB03	305SB03	305SB04	305SB04	305SB09	305SB09	305SB10	EPA Residential Soil PRGs
Sample ID	025305SS09	025305SS10	025305SS11	025305SS12	025305SS21	025305SS22	025305SS23	
Sample Date	07/13/2004	07/13/2004	07/13/2004	07/13/2004	07/13/2004	07/13/2004	07/13/2004	
Sample Depth	1.00 - 2.50	5.00 - 6.50	1.00 - 2.50	5.00 - 6.50	1.00 - 2.50	5.00 - 6.50	1.00 - 2.50	
Metals (mg/kg)								
COPPER	14	18.8	13.5	19.5	10.3	15.4	12.5	3,100
IRON	14,500	20,600	13,900	20,300	11,300	15,800	14,400	23,000
LEAD	8.74	13.8	5.16	9.62	4.74	8.7	5.78	150 *
MAGNESIUM	4,790	6,900	5,110	6,760	3,530	5,360	4,580	NC
MANGANESE	219 J	312 J	217 J	315 J	170 J	244 J	241 J	1,800
MERCURY	< 0.106 U	0.0465 J	< 0.104 U	< 0.113 U	< 0.103 U	< 0.11 U	< 0.105 U	23
MOLYBDENUM	1.16 J	< 5.76 U	0.9 J	1.24 J	1.33 J	0.945 J	1.25 J	390
NICKEL	14.3	18.7	20.2	20.6	11.5	14.6	13.2	1,600
POTASSIUM	2,130	1,790	2,130	2,220	1,790	1,850	2,010	NC
SELENIUM	< 1.06 U	< 1.15 U	< 1.04 U	< 1.13 U	< 1.03 U	< 1.1 U	< 1.05 U	390
SILVER	1.14 J	1.62 J	0.974 J	1.6 J	0.721 J	1.29 J	1.26 J	390
SODIUM	654	602	319	486	248	536	306	NC
THALLIUM	< 1.06 U	< 1.15 U	< 1.04 U	0.613 J	< 1.03 U	< 1.1 U	< 1.05 U	5.2
VANADIUM	24.9	34.4	21.8	32	18.5	25	22.2	550
ZINC	44.5	53.7	39.6	55.6	32.9	50	40.6	23,000

TABLE 23-3b: ANALYTICAL RESULTS FOR UST SITE 305-01 AND 305-02 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	305SB10	EPA Residential Soil PRGs
Sample ID	025305SS24	
Sample Date	07/13/2004	
Sample Depth	5.00 - 6.50	
Volatile Organic Compounds (mg/kg)		
BENZENE	< 0.0053 U	0.64
CARBON DISULFIDE	< 0.0053 U	360
TOLUENE	< 0.0053 U	520
XYLENE (TOTAL)	< 0.011 U	270
Petroleum Hydrocarbons (mg/kg)		
Diesel/Motor Oil Range (extractables)		
MOTOR OIL RANGE ORGANICS	NA	NC
Gasoline Range (purgeables)		
GASOLINE RANGE ORGANICS	< 0.98 U	NC
Semivolatile Organic Compounds (mg/kg)		
None Detected	ND	NC
PCBs/Pesticides (mg/kg)		
4,4'-DDD	< 0.0044 UJ	2.4
4,4'-DDE	< 0.0044 UJ	1.7
4,4'-DDT	< 0.0044 U	1.7
ALPHA-BHC	0.0037 J	0.090
ALPHA-CHLORDANE	< 0.0022 U	1.6
AROCLOR-1260	< 0.055 U	0.22
BETA-BHC	< 0.0022 U	0.32
DELTA-BHC	< 0.0022 U	NC
ENDRIN KETONE	< 0.0044 U	NC
GAMMA-CHLORDANE	< 0.0022 U	1.6
Metals (mg/kg)		
ALUMINUM	13,500	76,000
ANTIMONY	< 11.1 UJ	31
ARSENIC	**4.03**	0.39
BARIUM	110	5,400
BERYLLIUM	0.498 J	150
CADMIUM	0.977 J	37 *
CALCIUM	19,300 J	NC
CHROMIUM	20.9	210
COBALT	7.27	900

TABLE 23-3b: ANALYTICAL RESULTS FOR UST SITE 305-01 AND 305-02 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	305SB10	EPA Residential Soil PRGs
Sample ID	025305SS24	
Sample Date	07/13/2004	
Sample Depth	5.00 - 6.50	
Metals (mg/kg)		
COPPER	20.5	3,100
IRON	20,400	23,000
LEAD	6.67	150 *
MAGNESIUM	8,280	NC
MANGANESE	287 J	1,800
MERCURY	< 0.111 U	23
MOLYBDENUM	3.52 J	390
NICKEL	19.7	1,600
POTASSIUM	3,940	NC
SELENIUM	< 1.11 U	390
SILVER	1.53 J	390
SODIUM	861	NC
THALLIUM	< 1.11 U	5.2
VANADIUM	37.8	550
ZINC	63.5	23,000

Notes: Categories of analyses are shown, but only detected compounds are presented. Analyte results in boldface type exceed EPA residential soil PRGs.

*	California modified PRGs
H	Chromatographic pattern is in the heavier hydrocarbon end of the analyte's range in the standard.
ID	Identification
J	Estimated value
mg/kg	Milligrams per kilogram
NA	Not analyzed
NC	No criteria
ND	None detected
PRG	Preliminary remediation goals
U	Nondetected
Y	Chromatographic pattern resembles hydrocarbon fuel pattern and was quantitated using the standard it resembled most.

TABLE 23-3c: ANALYTICAL RESULTS FOR UST SITES 305-01 AND 305-02 GROUNDWATER SAMPLES

Site Management Plan, CBC Port Hueneme

Sample Location ID	30501SB01	30501SB02	30502SB01	30502SB02	30502SB03	
Sample ID	269014	269024	269026	269027	269025	EPA Tap Water PRGs
Sample Date	07/12/1999	07/12/1999	07/12/1999	07/12/1999	07/12/1999	
Volatile Organic Compounds (µg/L)						
TOLUENE	< 2 U	< 2 U	< 2 U	0.9 J	< 2 U	720
XYLENE (TOTAL)	< 2 U	< 2 U	< 2 U	0.5 J	< 2 U	210
Petroleum Hydrocarbons (mg/L)						
Diesel/Motor Oil Range (extractables)						
DIESEL RANGE ORGANICS	< 0.21 UJ	0.21 Z	0.02 JZ	< 0.1 U	< 0.1 U	NC
MOTOR OIL RANGE ORGANICS	< 0.5 U	0.03 JZ	0.02 JZ	0.04 JZ	0.2 JZ	NC
Gasoline Range (purgeables)						
None Detected	ND	ND	ND	ND	ND	NC
Semivolatile Organic Compounds (µg/L)						
BIS(2-ETHYLHEXYL)PHTHALATE	< 4 U	< 4 UJ	< 4 U	< 17 UJ	**85**	4.8
DIETHYLPHTHALATE	93	< 10 U	< 10 U	< 10 U	< 10 U	29,000
PCBs/Pesticides (µg/L)						
None Detected	ND	ND	ND	ND	ND	NC
Metals (µg/L)						
Unfiltered						
ANTIMONY	2.8 J	2.1 J	< 1.7 U	1.8 J	< 1.7 U	15
ARSENIC	< 4.4 UJ	**45.1**	**263**	**32.3**	**2.3 J**	0.045
BARIUM	50.8 J	1,330	**7,730**	1,070	133 J	2,600
CADMIUM	< 0.22 U	12.2	**20**	4.5	0.4 J	18
CHROMIUM	< 5.9 UJ	159	491	246	11	NC
COBALT	< 0.34 U	78.9	190	57	< 3.6 UJ	730
COPPER	< 7.2 UJ	184	487	135	< 10.2 UJ	1,500
LEAD	< 1.3 U	70.4	182	43.7	3.3	NC
MERCURY	< 0.14 U	0.35	1.9	0.3	< 0.14 U	NC
MOLYBDENUM	44.2	59.6	90.2	87.3	40.1	180
NICKEL	3.1 J	186	451	137	11.4	730
THALLIUM	**3.9**	< 1.7 U	< 1.7 U	< 1.7 U	< 1.7 U	2.4
VANADIUM	< 2.8 UJ	**333**	**757**	225	15.6 J	260
ZINC	< 12.4 UJ	522	1,510	362	28.6	11,000

TABLE 23-3c: ANALYTICAL RESULTS FOR UST SITE 305-01 AND 305-02 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Notes: Categories of analyses are shown, but only detected compounds are presented. Analyte results in boldface type exceed EPA tap water PRGs.

ID	Identification
J	Estimated value
mg/L	Milligrams per liter
NC	No criteria
ND	None detected
PRG	Preliminary remediation goals
TPH	Total petroleum hydrocarbons
U	Nondetected
Z	Chromatographic pattern does not resemble TPH fuel pattern (individual peaks).
µg/L	Micrograms per liter

TABLE 23-4a: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT UST SITE 796-04

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
269076	SOIL	07/14/99	794-04SB01	ORIG	3.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
269077	SOIL	07/14/99	794-04SB01	ORIG	5.00 - 7.00	✓	✓	✓	✓	✓	✓	✓					
269078	SOIL	07/14/99	794-04SB02	ORIG	3.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
269093	WATER	07/14/99	794-04SB01	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
269094	WATER	07/14/99	794-04SB02	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
TOTAL						5	5	5	5	5	5	5	0	0	0	0	0

Notes:

DMETL	Metals (filtered)	ORGPB	Organic Lead	SVOC	Semivolatile organic compound
GMETL	General mineral	PCB	Polychlorinated biphenyls	TPH-e	Total petroleum hydrocarbons, extractables
METL	Metals (total - unfiltered)	PEST	Pesticides	TPH-p	Total petroleum hydrocarbons, purgeables
NA	Not applicable	PESTO	Organophosphorus pesticides	VOC	Volatile organic compound
				✓	Sample collected and analyzed; blank cell indicates no sample collected.

TABLE 23-4b: ANALYTICAL RESULTS FOR UST SITE 796-04 SOIL SAMPLES

Site Management Plan, CBC Port Hueneme

Sample Location ID	794-04SB01	794-04SB01	794-04SB02	EPA Residential Soil PRGs
Sample ID	269076	269077	269078	
Sample Date	07/14/1999	07/14/1999	07/14/1999	
Sample Depth	3.00 - 5.00	5.00 - 7.00	3.00 - 5.00	
Volatile Organic Compounds (mg/kg)				
1,2-DICHLOROETHANE	0.032 J	**1.8 J**	< 11 U	0.28
BENZENE	**1.4**	**76**	**22**	0.64
ETHYLBENZENE	1.3	150	41	400
TOLUENE	0.08 J	3.8 J	< 11 U	520
XYLENE (TOTAL)	2.78	220	64	270
Petroleum Hydrocarbons (mg/kg)				
Diesel/Motor Oil Range (extractables)				
DIESEL RANGE ORGANICS	990	317 Z	5 J	NC
MOTOR OIL RANGE ORGANICS	920	12 J	55	NC
Gasoline Range (purgeables)				
GASOLINE RANGE ORGANICS	20	2,000	43	NC
Semivolatile Organic Compounds (mg/kg)				
2,4-DIMETHYLPHENOL	< 3.1 U	< 3.5 U	0.038 J	1,200
2-METHYLNAPHTHALENE	< 3.1 U	14	< 0.36 U	NC
4-METHYLPHENOL	< 3.1 U	< 3.5 U	0.19 J	310
NAPHTHALENE	< 3.1 U	**19**	< 0.36 U	1.7 *
PHENOL	< 3.1 U	< 3.5 U	0.18 J	18,000
PCBs/Pesticides (mg/kg)				
4,4'-DDD	0.026	0.0043 R	< 0.0036 U	2.4
4,4'-DDT	0.039	0.0043 R	< 0.0036 U	1.7
AROCLOR-1260	**0.31**	0.021 R	< 0.017 U	0.22
GAMMA-CHLORDANE	0.008 J	0.0022 R	< 0.0018 U	1.6
Metals (mg/kg)				
ARSENIC	**3.5**	**6**	**1.3**	0.39
BARIUM	92.1	137	16.1	5,400
BERYLLIUM	0.0053 J	0.17 J	< 0.0029 U	150
CADMIUM	0.89 J	0.93 J	< 0.066 UJ	37 *
CHROMIUM	20	20.2	35.3	210
COBALT	9.1	8.3	29.6	900
COPPER	16.9 J	17.5 J	46.2 J	3,100
LEAD	12.4 J	11.2 J	1.9 J	150 *
MOLYBDENUM	2.3	2.7	< 0.043 U	390

TABLE 23-4b: ANALYTICAL RESULTS FOR UST SITE 796-04 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	794-04SB01	794-04SB01	794-04SB02	EPA Residential Soil PRGs
Sample ID	269076	269077	269078	
Sample Date	07/14/1999	07/14/1999	07/14/1999	
Sample Depth	3.00 - 5.00	5.00 - 7.00	3.00 - 5.00	
Metals (mg/kg)				
NICKEL	19.3	19.5	31.6	1,600
SELENIUM	0.48	1.3	1.3	390
VANADIUM	38.6	43.1	81.9	550
ZINC	54.3	56.4	61.6	23,000

Notes: Categories of analyses are shown, but only detected compounds are presented. Analyte results in boldface type exceed EPA residential soil PRGs.

*	California modified PRGs
ID	Identification
J	Estimated value
mg/kg	Milligrams per kilogram
NC	No criteria
PRG	Preliminary remediation goals
R	Result rejected during quality assurance review.
TPH	Total petroleum hydrocarbons
U	Nondetected
Z	Chromatographic pattern does not resemble TPH fuel pattern (individual peaks).

TABLE 23-4c: ANALYTICAL RESULTS FOR UST SITE 796-04 GROUNDWATER SAMPLES

Site Management Plan, CBC Port Hueneme

Sample Location ID	794-04SB01	794-04SB02	EPA Tap Water PRGs
Sample ID	269093	269094	
Sample Date	07/14/1999	07/14/1999	
Volatile Organic Compounds (µg/L)			
1,2-DICHLOROETHANE	< 0.5 U	**1.3**	0.12
BENZENE	**76.4 J**	**41.3**	0.35
ETHYLBENZENE	19	17	1,300
TOLUENE	1 J	1 J	720
TRICHLOROETHENE	**0.5 J**	**0.8 J**	0.028
XYLENE (TOTAL)	19	14	210
Petroleum Hydrocarbons (mg/L)			
Diesel/Motor Oil Range (extractables)			
MOTOR OIL RANGE ORGANICS	0.04 J	< 0.5 U	NC
Gasoline Range (purgeables)			
GASOLINE RANGE ORGANICS	1.15	0.18	NC
Semivolatile Organic Compounds (µg/L)			
NAPHTHALENE	**2 J**	< 10 UJ	0.093 *
PCBs/Pesticides (µg/L)			
None Detected	ND	ND	NC
Metals (µg/L)			
Unfiltered			
ARSENIC	**66.6**	**34.7**	0.045
BARIUM	469	753	2,600
CADMIUM	3.3 J	2.6 J	18
CHROMIUM	68.3	74.2	NC
COBALT	34.1 J	28.3 J	730
COPPER	74.9	54.2	1,500
LEAD	33.5	31.9	NC
MERCURY	0.32	0.28	NC
MOLYBDENUM	**616**	148	180
NICKEL	87.3	73.8	730
SELENIUM	17.3	10.4	180
VANADIUM	173	115	260
ZINC	200	180	11,000

TABLE 23-4c: ANALYTICAL RESULTS FOR UST SITE 796-04 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Notes: Categories of analyses are shown, but only detected compounds are presented. Analyte results in boldface type exceed EPA tap water PRGs.

*	California modified PRGs
ID	Identification
J	Estimated value
mg/L	Milligrams per liter
NC	No criteria
ND	None detected
PRG	Preliminary remediation goals
U	Nondetected
µg/L	Micrograms per liter

TABLE 23-5a: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT UST SITE 813-01

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
269015	SOIL	07/09/99	81301SB01	ORIG	5.00 - 7.00	✓	✓	✓	✓	✓	✓	✓					
269010	SOIL	07/09/99	81301SB02	ORIG	3.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
269011	SOIL	07/09/99	81301SB02	ORIG	5.00 - 7.00	✓	✓	✓	✓	✓	✓	✓					
269016	SOIL	07/09/99	81301SB03	ORIG	5.00 - 7.00	✓	✓	✓	✓	✓	✓	✓					
269017	SOIL	07/09/99	81301SB03	ORIG	3.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
025813SS07	SOIL	07/12/04	813SB01	ORIG	1.00 - 2.50	✓		✓	✓	✓	✓	✓					
025813SS08	SOIL	07/12/04	813SB01	ORIG	5.00 - 6.50	✓		✓	✓	✓	✓	✓					
025813SS09	SOIL	07/12/04	813SB02	ORIG	1.00 - 2.50	✓		✓	✓	✓	✓	✓					
025813SS10	SOIL	07/12/04	813SB02	ORIG	5.00 - 6.50	✓		✓	✓	✓	✓	✓					
025813SS11	SOIL	07/12/04	813SB03	ORIG	1.00 - 2.50	✓		✓	✓	✓	✓	✓					
025813SS12	SOIL	07/12/04	813SB04	ORIG	1.00 - 2.50	✓		✓	✓	✓	✓	✓					
025813SS13	SOIL	07/12/04	813SB05	ORIG	1.00 - 2.50	✓		✓	✓	✓	✓	✓					
025813SS14	SOIL	07/12/04	813SB06	ORIG	1.00 - 2.50	✓		✓	✓	✓	✓	✓					
025813SS15	SOIL	07/12/04	813SB07	ORIG	1.00 - 2.50	✓		✓	✓	✓	✓	✓					
269020	WATER	07/09/99	81301SB01	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
269018	WATER	07/09/99	81301SB02	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
269019	WATER	07/09/99	81301SB03	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
TOTAL						17	8	17	17	17	17	17	0	0	0	0	0

Notes:

DMETL	Metals (filtered)	ORGPB	Organic Lead	SVOC	Semivolatile organic compound
GMETL	General mineral	PCB	Polychlorinated biphenyls	TPH-e	Total petroleum hydrocarbons, extractables
METL	Metals (total - unfiltered)	PEST	Pesticides	TPH-p	Total petroleum hydrocarbons, purgeables
NA	Not applicable	PESTO	Organophosphorus pesticides	VOC	Volatile organic compound
				✓	Sample collected and analyzed; blank cell indicates no sample collected.

TABLE 23-5b: ANALYTICAL RESULTS FOR UST SITE 813-01 SOIL SAMPLES

Site Management Plan, CBC Port Hueneme

Sample Location ID	81301SB01	81301SB02	81301SB02	81301SB03	81301SB03	813SB01	813SB01	EPA Residential Soil PRGs
Sample ID	269015	269010	269011	269017	269016	025813SS07	025813SS08	
Sample Date	07/09/1999	07/09/1999	07/09/1999	07/09/1999	07/09/1999	07/12/2004	07/12/2004	
Sample Depth	5.00 - 7.00	3.00 - 5.00	5.00 - 7.00	3.00 - 5.00	5.00 - 7.00	1.00 - 2.50	5.00 - 6.50	
Volatile Organic Compounds (mg/kg)								
1,2-DICHLOROETHENE	< 0.012 U	< 0.011 U	< 0.011 U	< 0.012 U	0.001 J	NA	NA	NC
1,2-DICHLOROETHENE (TOTAL)	NA	NA	NA	NA	NA	< 0.0052 U	0.0053 J	NC
CARBON DISULFIDE	< 0.012 U	< 0.011 U	< 0.011 U	< 0.012 U	0.004 J	< 0.0052 U	< 0.0055 U	360
TETRACHLOROETHENE	0.002 J	< 0.011 U	< 0.011 U	0.002 J	0.007 J	0.013	< 0.0055 U	0.48
TOLUENE	< 0.012 U	< 0.011 U	< 0.011 U	< 0.012 U	< 0.012 U	< 0.0052 U	0.0027 J	520
TRICHLOROETHENE	< 0.012 U	< 0.011 U	< 0.011 U	< 0.012 U	0.002 J	< 0.0052 U	< 0.0055 U	0.052
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
MOTOR OIL RANGE ORGANICS	67	29	21	26	8 J	NA	NA	NC
Gasoline Range (purgeables)								
GASOLINE RANGE ORGANICS	< 0.58 U	< 0.57 U	< 0.57 U	< 0.58 U	< 0.6 U	< 1.2 U	< 1.1 U	NC
Semivolatile Organic Compounds (mg/kg)								
BENZO(A)ANTHRACENE	0.19 J	< 0.38 U	< 0.38 U	< 0.38 U	< 0.4 U	NA	NA	0.62
BENZO(A)PYRENE	**0.14 J**	< 0.38 U	< 0.38 U	< 0.38 U	< 0.4 U	NA	NA	0.062
BENZO(B)FLUORANTHENE	0.2 J	< 0.38 U	< 0.38 U	< 0.38 U	< 0.4 U	NA	NA	0.62
CHRYSENE	0.2 J	< 0.38 U	< 0.38 U	< 0.38 U	< 0.4 U	NA	NA	3.8 *
FLUORANTHENE	0.638	< 0.38 U	< 0.38 U	< 0.38 U	< 0.4 U	NA	NA	2,300
PYRENE	0.52	< 0.38 U	< 0.38 U	< 0.38 U	< 0.4 U	NA	NA	2,300
PCBs/Pesticides (mg/kg)								
AROCLOR-1260	0.14	**0.837 J**	**0.512 J**	< 0.018 U	< 0.019 U	< 0.052 U	< 0.058 U	0.22
DIELDRIN	< 0.00035 U	< 0.00034 UJ	< 0.00034 UJ	< 0.00035 U	< 0.00036 U	< 0.0042 U	< 0.0047 U	0.030
ENDOSULFAN SULFATE	< 0.0038 U	< 0.0038 UJ	< 0.0038 UJ	< 0.0038 U	< 0.004 U	< 0.0042 U	< 0.0047 U	NC
ENDRIN	< 0.0038 U	< 0.0038 UJ	< 0.0038 UJ	< 0.0038 U	< 0.004 U	< 0.0042 U	< 0.0047 U	18
Metals (mg/kg)								
ALUMINUM	NA	NA	NA	NA	NA	4,310	6,190	76,000
ANTIMONY	< 0.13 U	< 0.13 U	< 0.13 U	< 0.13 U	< 0.13 U	3.31 J	< 11.6 UJ	31
ARSENIC	**2.1 J**	**2 J**	**4.3**	**2 J**	**1.5 J**	**0.972 J**	**2.34**	0.39
BARIUM	186	57.3	476	43.3 J	65.8	30.7	62.1	5,400
BERYLLIUM	0.18 J	< 0.0031 U	0.095 J	< 0.0031 U	< 0.0032 U	< 1.04 U	0.245 J	150
CADMIUM	2.3	0.27 J	2.6	0.32 J	0.32 J	< 1.04 U	< 1.16 U	37 *
CALCIUM	NA	NA	NA	NA	NA	5,790	7,270	NC
CHROMIUM	16.7	12.6	21.5	13.5	11.7	4.95	9.85	210

TABLE 23-5b: ANALYTICAL RESULTS FOR UST SITE 813-01 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	81301SB01	81301SB02	81301SB02	81301SB03	81301SB03	813SB01	813SB01	EPA Residential Soil PRGs
Sample ID	269015	269010	269011	269017	269016	025813SS07	025813SS08	
Sample Date	07/09/1999	07/09/1999	07/09/1999	07/09/1999	07/09/1999	07/12/2004	07/12/2004	
Sample Depth	5.00 - 7.00	3.00 - 5.00	5.00 - 7.00	3.00 - 5.00	5.00 - 7.00	1.00 - 2.50	5.00 - 6.50	
Metals (mg/kg)								
COBALT	2.6 J	7.3 J	4.4 J	9 J	4.6 J	3.95	3.82	900
COPPER	9 J	12.1 J	14.5 J	11.9 J	6.9 J	5.05	8.1	3,100
IRON	NA	NA	NA	NA	NA	8,770	10,400	23,000
LEAD	2.3 J	7.3 J	4.1 J	4.1 J	2.8 J	1.17	2.74	150 *
MAGNESIUM	NA	NA	NA	NA	NA	2,680	4,510	NC
MANGANESE	NA	NA	NA	NA	NA	116 J	134 J	1,800
MOLYBDENUM	2.6	< 0.34 UJ	4	< 0.34 UJ	< 0.24 UJ	< 5.19 U	< 5.82 U	390
NICKEL	13.3	12.1	26.4	13.2	9.7	5.5	8.78	1,600
POTASSIUM	NA	NA	NA	NA	NA	860	2,230	NC
SELENIUM	0.81 J	< 0.19 U	1.3	0.25 J	0.98 J	< 1.04 U	< 1.16 U	390
SILVER	< 0.054 U	< 0.053 U	< 0.57 UJ	< 0.054 U	< 0.056 U	< 2.08 U	< 2.33 U	390
SODIUM	NA	NA	NA	NA	NA	433	378	NC
THALLIUM	< 0.12 U	< 0.11 U	1.3	< 0.12 U	< 0.12 U	< 1.04 U	< 1.16 U	5.2
VANADIUM	39.8	28.1	53.1	31.6	22.3	11.2	18	550
ZINC	29.8	32.9	39.1	34.2	25.8	17.1	28.8	23,000

TABLE 23-5b: ANALYTICAL RESULTS FOR UST SITE 813-01 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	813SB02	813SB02	813SB03	813SB04	813SB05	813SB06	813SB07	EPA Residential Soil PRGs
Sample ID	025813SS09	025813SS10	025813SS11	025813SS12	025813SS13	025813SS14	025813SS15	
Sample Date	07/12/2004	07/12/2004	07/12/2004	07/12/2004	07/12/2004	07/12/2004	07/12/2004	
Sample Depth	1.00 - 2.50	5.00 - 6.50	1.00 - 2.50	1.00 - 2.50	1.00 - 2.50	1.00 - 2.50	1.00 - 2.50	
Volatile Organic Compounds (mg/kg)								
1,2-DICHLOROETHENE	NA	NA	NA	NA	NA	NA	NA	NC
1,2-DICHLOROETHENE (TOTAL)	< 0.0095 U	0.015	< 0.0064 U	< 0.0095 U	< 0.0054 U	< 0.0053 U	< 0.0053 U	NC
CARBON DISULFIDE	< 0.0095 U	0.0033 J	< 0.0064 U	< 0.0095 U	< 0.0054 U	< 0.0053 U	< 0.0053 U	360
TETRACHLOROETHENE	< 0.0095 U	< 0.0079 U	0.0028 J	< 0.0095 U	< 0.0054 U	0.0044 J	0.0083	0.48
TOLUENE	< 0.0095 U	< 0.0079 U	< 0.0064 U	< 0.0095 U	< 0.0054 U	< 0.0053 U	< 0.0053 U	520
TRICHLOROETHENE	< 0.0095 U	< 0.0079 U	< 0.0064 U	< 0.0095 U	< 0.0054 U	< 0.0053 U	< 0.0053 U	0.052
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables) MOTOR OIL RANGE ORGANICS	NA	NA	NA	NA	NA	NA	NA	NC
Gasoline Range (purgeables) GASOLINE RANGE ORGANICS	< 1.4 U	43 H	< 1.2 U	< 1.8 U	< 2.5 U	< 1.1 U	5.4 H	NC
Semivolatile Organic Compounds (mg/kg)								
BENZO(A)ANTHRACENE	NA	NA	NA	NA	NA	NA	NA	0.62
BENZO(A)PYRENE	NA	NA	NA	NA	NA	NA	NA	0.062
BENZO(B)FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	0.62
CHRYSENE	NA	NA	NA	NA	NA	NA	NA	3.8 *
FLUORANTHENE	NA	NA	NA	NA	NA	NA	NA	2,300
PYRENE	NA	NA	NA	NA	NA	NA	NA	2,300
PCBs/Pesticides (mg/kg)								
AROCLOR-1260	0.098	**0.911**	**1.28**	0.094	**1.2**	**1.21**	**0.468**	0.22
DIELDRIN	< 0.0045 U	0.0093 J	< 0.0043 U	< 0.0042 U	< 0.0044 U	< 0.0043 U	< 0.0044 UJ	0.030
ENDOSULFAN SULFATE	< 0.0045 U	< 0.0048 U	0.0084	< 0.0042 U	0.0084	0.0083	0.0031 J	NC
ENDRIN	< 0.0045 U	< 0.0048 U	< 0.0043 U	< 0.0042 U	0.011 J	< 0.0043 U	< 0.0044 U	18
Metals (mg/kg)								
ALUMINUM	5,650	8,280	4,890	5,860	4,450	4,470	4,450	76,000
ANTIMONY	< 11.1 UJ	< 12.1 UJ	< 10.6 UJ	2.68 J	< 10.9 UJ	< 10.7 UJ	< 10.9 UJ	31
ARSENIC	**3.23**	**2.83**	**1.54**	**1.82**	**1.45**	**1.86**	**1.35**	0.39
BARIUM	90.9	61.1	35.7	51.6	34.2	36.5	26.4	5,400
BERYLLIUM	0.187 J	0.198 J	< 1.06 U	0.191 J	< 1.09 U	< 1.07 U	< 1.09 U	150
CADMIUM	1.75	0.881 J	< 1.06 U	< 1.05 U	< 1.09 U	< 1.07 U	< 1.09 U	37 *
CALCIUM	26,500	12,800	7,190	6,800	13,900	6,810	5,730	NC
CHROMIUM	19.7	13.5	6.65	7.57	6.12	5.47	5.42	210

TABLE 23-5b: ANALYTICAL RESULTS FOR UST SITE 813-01 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	813SB02	813SB02	813SB03	813SB04	813SB05	813SB06	813SB07	EPA Residential Soil PRGs
Sample ID	025813SS09	025813SS10	025813SS11	025813SS12	025813SS13	025813SS14	025813SS15	
Sample Date	07/12/2004	07/12/2004	07/12/2004	07/12/2004	07/12/2004	07/12/2004	07/12/2004	
Sample Depth	1.00 - 2.50	5.00 - 6.50	1.00 - 2.50	1.00 - 2.50	1.00 - 2.50	1.00 - 2.50	1.00 - 2.50	
Metals (mg/kg)								
COBALT	3.93	5.71	3.9	4.62	3.73	3.41	3.45	900
COPPER	15.4	13.9	6.92	8.71	6.39	6.32	5.33	3,100
IRON	12,600	19,600	9,760	11,300	9,080	9,020	8,830	23,000
LEAD	2.84	4.05	2.34	3.03	2.23	2.43	1.32	150 *
MAGNESIUM	5,740	6,360	2,940	3,720	3,070	2,850	2,690	NC
MANGANESE	289 J	244 J	149 J	183 J	174 J	154 J	123 J	1,800
MOLYBDENUM	2.79 J	< 6.05 U	< 5.32 U	< 5.25 U	< 5.46 U	< 5.35 U	< 5.46 U	390
NICKEL	14.9	13	7.71	9.8	7.75	6.81	6	1,600
POTASSIUM	2,000	1,770	1,160	1,470	1,010	900	814	NC
SELENIUM	< 1.11 U	< 1.21 U	< 1.06 U	< 1.05 U	< 1.09 U	< 1.07 U	< 1.09 U	390
SILVER	1.19 J	1.23 J	0.688 J	< 2.1 U	< 2.19 U	< 2.14 U	< 2.18 U	390
SODIUM	846	1,090	312	333	304	425	256	NC
THALLIUM	< 1.11 U	< 1.21 U	< 1.06 U	< 1.05 U	< 1.09 U	< 1.07 U	< 1.09 U	5.2
VANADIUM	56.7	26.6	14.2	14.9	14.5	12.2	11.1	550
ZINC	39.3	40.6	23.1	38.1	21	21.6	17.7	23,000

Notes: Categories of analyses are shown, but only detected compounds are presented. Analyte results in boldface type exceed EPA residential soil PRGs.

*	California modified PRGs
H	Chromatographic pattern is in the heavier hydrocarbon end of the analyte's range in the standard.
ID	Identification
J	Estimated value
mg/kg	Milligrams per kilogram
NA	Not analyzed
NC	No criteria
PRG	Preliminary remediation goals
U	Nondetected

TABLE 23-5c: ANALYTICAL RESULTS FOR UST SITE 813-01 GROUNDWATER SAMPLES

Site Management Plan, CBC Port Hueneme

Sample Location ID	81301SB01	81301SB02	81301SB03	
Sample ID	269020	269018	269019	EPA Tap Water PRGs
Sample Date	07/09/1999	07/09/1999	07/09/1999	
Volatile Organic Compounds (µg/L)				
1,2-DICHLOROETHANE	**3**	**4.3**	**6**	0.12
1,2-DICHLOROETHENE	319	< 2 U	< 2 U	NC
CHLOROFORM	< 10 U	**0.7 J**	< 2 U	0.17
TRICHLOROETHENE	**4 J**	< 2 U	< 2 U	0.028
VINYL CHLORIDE	**3 J**	< 2 U	< 2 U	0.020
Petroleum Hydrocarbons (mg/L)				
Diesel/Motor Oil Range (extractables)				
None Detected	ND	ND	ND	NC
Gasoline Range (purgeables)				
None Detected	ND	ND	ND	NC
Semivolatile Organic Compounds (µg/L)				
None Detected	ND	ND	ND	NC
PCBs/Pesticides (µg/L)				
ALPHA-CHLORDANE	0.007 J	< 0.05 U	< 0.05 U	NC
DELTA-BHC	0.02 J	< 0.05 U	< 0.05 U	NC
Metals (µg/L)				
Unfiltered				
ARSENIC	**65.3**	**69.3**	**43.6**	0.045
BARIUM	**2,730**	2,020	1,110	2,600
BERYLLIUM	4.5	1.8 J	1.3 J	73
CADMIUM	**25.3**	11.7	12.6	18
CHROMIUM	410	298	119	NC
COBALT	119	149	47 J	730
COPPER	392	414	130	1,500
LEAD	119	98.3	34	NC
MERCURY	0.71	0.62	0.24	NC
MOLYBDENUM	98	112	76.6	180
NICKEL	382	329	155	730
SELENIUM	25.2	52.4	7.8	180
THALLIUM	**4.3**	**3.3**	< 2 U	2.4
VANADIUM	**610**	**575**	214	260
ZINC	1,140	1,060	391	11,000

TABLE 23-5c: ANALYTICAL RESULTS FOR UST SITE 813-01 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Notes: Categories of analyses are shown, but only detected compounds are presented. Analyte results in boldface type exceed EPA tap water PRGs.

ID	Identification
J	Estimated value
mg/L	Milligrams per liter
NC	No criteria
ND	None detected
PRG	Preliminary remediation goals
U	Nondetected
µg/L	Micrograms per liter

TABLE 23-6a: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT UST SITE 1146-02

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
269022	SOIL	07/09/99	114602SB01	ORIG	5.00 - 7.00	✓	✓	✓	✓	✓	✓	✓					
269005	SOIL	07/09/99	114602SB02	ORIG	5.00 - 7.00	✓	✓	✓	✓	✓	✓	✓					
269023	SOIL	07/09/99	114602SB02	ORIG	3.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
269007	SOIL	07/09/99	114602SB03	ORIG	3.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
269008	SOIL	07/09/99	114602SB03	ORIG	5.00 - 7.00	✓	✓	✓	✓	✓	✓	✓					
269003	WATER	07/09/99	114602SB01	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
269006	WATER	07/09/99	114602SB02	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
269009	WATER	07/09/99	114602SB03	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
TOTAL						8	8	8	8	8	8	8	0	0	0	0	0

Notes:

DMETL	Metals (filtered)	ORGPB	Organic Lead	SVOC	Semivolatile organic compound
GMETL	General mineral	PCB	Polychlorinated biphenyls	TPH-e	Total petroleum hydrocarbons, extractables
METL	Metals (total - unfiltered)	PEST	Pesticides	TPH-p	Total petroleum hydrocarbons, purgeables
NA	Not applicable	PESTO	Organophosphorus pesticides	VOC	Volatile organic compound
				✓	Sample collected and analyzed; blank cell indicates no sample collected.

TABLE 23-6b: ANALYTICAL RESULTS FOR UST SITE 1146-02 SOIL SAMPLES

Site Management Plan, CBC Port Hueneme

Sample Location ID	114602SB01	114602SB02	114602SB02	114602SB03	114602SB03	EPA Residential Soil PRGs
Sample ID	269022	269023	269005	269007	269008	
Sample Date	07/09/1999	07/09/1999	07/09/1999	07/09/1999	07/09/1999	
Sample Depth	5.00 - 7.00	3.00 - 5.00	5.00 - 7.00	3.00 - 5.00	5.00 - 7.00	
Volatile Organic Compounds (mg/kg)						
METHYLENE CHLORIDE	< 0.012 U	0.002 J	< 0.011 U	< 0.011 U	< 0.011 U	9.1
Petroleum Hydrocarbons (mg/kg)						
Diesel/Motor Oil Range (extractables) MOTOR OIL RANGE ORGANICS	190	250	920	271	340	NC
Gasoline Range (purgeables) None Detected	ND	ND	ND	ND	ND	NC
Semivolatile Organic Compounds (mg/kg)						
None Detected	ND	ND	ND	ND	ND	NC
PCBs/Pesticides (mg/kg)						
AROCLOR-1260	0.036	**0.47**	0.22	**0.28**	**0.36**	0.22
Metals (mg/kg)						
ARSENIC	**3**	**3.4**	**3**	**3.1**	**3.1**	0.39
BARIUM	87.7	88.7	89	94.7	91.8	5,400
CADMIUM	0.62 J	0.62 J	0.5 J	0.6 J	0.65 J	37 *
CHROMIUM	21.4	22.2	21.2	23.4	29	210
COBALT	8.5 J	8.6 J	8.6 J	9.6 J	10.5 J	900
COPPER	15.8 J	14.8 J	17 J	18.5 J	22.2 J	3,100
LEAD	13.3 J	9.1 J	12.3 J	11.6 J	12.7 J	150 *
MOLYBDENUM	1.8	2.3	2.2	2.2	2.4	390
NICKEL	17.8	18.9	18.1	21.1	24	1,600
SELENIUM	2	< 0.19 U	1.5	< 0.19 U	0.99 J	390
VANADIUM	38.7	36.9	38.2	41.5	47.6	550
ZINC	50.6	49.8	52.5	53.8	58.1	23,000

Notes: Categories of analyses are shown, but only detected compounds are presented. Analyte results in boldface type exceed EPA residential soil PRGs.

*	California modified PRGs
ID	Identification
J	Estimated value
mg/kg	Milligrams per kilogram
NC	No criteria
ND	None detected
PRG	Preliminary remediation goals
U	Nondetected

TABLE 23-6c: ANALYTICAL RESULTS FOR UST SITE 1146-02 GROUNDWATER SAMPLES

Site Management Plan, CBC Port Hueneme

Sample Location ID	114602SB01	114602SB02	114602SB03	
Sample ID	269003	269006	269009	EPA Tap Water PRGs
Sample Date	07/09/1999	07/09/1999	07/09/1999	
Volatile Organic Compounds (µg/L)				
TOLUENE	< 2 U	< 2 U	14	720
XYLENE (TOTAL)	< 2 U	< 2 U	2 J	210
Petroleum Hydrocarbons (mg/L)				
Diesel/Motor Oil Range (extractables)				
None Detected	ND	ND	ND	NC
Gasoline Range (purgeables)				
GASOLINE RANGE ORGANICS	< 0.05 U	< 0.05 U	0.04 J	NC
Semivolatile Organic Compounds (µg/L)				
None Detected	ND	ND	ND	NC
PCBs/Pesticides (µg/L)				
None Detected	ND	ND	ND	NC
Metals (µg/L)				
Unfiltered				
ANTIMONY	10.5	< 2.2 U	< 2.2 U	15
ARSENIC	< 1.6 U	**220**	**58**	0.045
BARIUM	337	**6,410**	1,420	2,600
BERYLLIUM	< 0.053 U	13.7	1.2 J	73
CADMIUM	2.7 J	**48.2**	7.2	18
CHROMIUM	32.6	1,150	242	NC
COBALT	8.4 J	462	78	730
COPPER	35.5	1,110	187	1,500
LEAD	< 5.9 UJ	485	74.8	NC
MERCURY	< 0.14 U	2.1	0.33	NC
MOLYBDENUM	76.8	135	82.8	180
NICKEL	26.3	**1,090**	178	730
SELENIUM	< 3.3 U	38.4	21.6	180
VANADIUM	60.1	**1,580**	**276**	260
ZINC	75.8	3,240	481	11,000

TABLE 23-6c: ANALYTICAL RESULTS FOR UST SITE 1146-02 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Notes: Categories of analyses are shown, but only detected compounds are presented. Analyte results in boldface type exceed EPA tap water PRGs.

ID	Identification
J	Estimated value
mg/L	Milligrams per liter
NC	No criteria
ND	None detected
PRG	Preliminary remediation goals
U	Nondetected
µg/L	Micrograms per liter

TABLE 23-7a: SAMPLES COLLECTED AND LABORATORY ANALYSES PERFORMED AT UST SITES 1317-01 AND 1317-02

Site Management Plan, CBC Port Hueneme

Sample No.	Matrix	Sample Date	Sample Location	Sample Type	Depth	VOC	TPH-e	TPH-p	SVOC	PCB	PEST	METL	DMETL	GMETL	ORGPB	DIOXIN	PESTO
269050	SOIL	07/12/99	131701SB01	ORIG	3.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
269051	SOIL	07/12/99	131701SB01	ORIG	5.00 - 7.00	✓	✓	✓	✓	✓	✓	✓					
269052	SOIL	07/12/99	131701SB02	ORIG	3.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
269053	SOIL	07/12/99	131701SB02	ORIG	5.00 - 7.00	✓	✓	✓	✓	✓	✓	✓					
269037	SOIL	07/12/99	131701SB03	ORIG	3.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
269038	SOIL	07/12/99	131701SB03	ORIG	5.00 - 7.00	✓	✓	✓	✓	✓	✓	✓					
269039	SOIL	07/12/99	131702SB01	ORIG	3.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
269040	SOIL	07/12/99	131702SB01	ORIG	5.00 - 7.00	✓	✓	✓	✓	✓	✓	✓					
269041	SOIL	07/12/99	131702SB02	ORIG	3.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
269042	SOIL	07/12/99	131702SB02	ORIG	5.00 - 7.00	✓	✓	✓	✓	✓	✓	✓					
269043	SOIL	07/12/99	131702SB03	ORIG	3.00 - 5.00	✓	✓	✓	✓	✓	✓	✓					
269044	SOIL	07/12/99	131702SB03	ORIG	5.00 - 7.00	✓	✓	✓	✓	✓	✓	✓					
269055	WATER	07/13/99	131701SB01	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
269056	WATER	07/13/99	131701SB02	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
269054	WATER	07/13/99	131701SB03	ORIG	NA	✓		✓				✓					
269057	WATER	07/13/99	131702SB01	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
269059	WATER	07/13/99	131702SB02	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
269058	WATER	07/13/99	131702SB03	ORIG	NA	✓	✓	✓	✓	✓	✓	✓					
TOTAL						18	17	18	17	17	17	18	0	0	0	0	0

Notes:

DMETL	Metals (filtered)	ORGPB	Organic Lead	SVOC	Semivolatile organic compound
GMETL	General mineral	PCB	Polychlorinated biphenyls	TPH-e	Total petroleum hydrocarbons, extractables
METL	Metals (total - unfiltered)	PEST	Pesticides	TPH-p	Total petroleum hydrocarbons, purgeables
NA	Not applicable	PESTO	Organophosphorus pesticides	VOC	Volatile organic compound
				✓	Sample collected and analyzed; blank cell indicates no sample collected.

TABLE 23-7b: ANALYTICAL RESULTS FOR UST SITES 1317-01 AND 1317-02 SOIL SAMPLES

Site Management Plan, CBC Port Hueneme

Sample Location ID	131701SB01	131701SB01	131701SB02	131701SB02	131701SB03	131701SB03	131702SB01	EPA Residential Soil PRGs
Sample ID	269050	269051	269052	269053	269037	269038	269039	
Sample Date	07/12/1999	07/12/1999	07/12/1999	07/12/1999	07/12/1999	07/12/1999	07/12/1999	
Sample Depth	3.00 - 5.00	5.00 - 7.00	3.00 - 5.00	5.00 - 7.00	3.00 - 5.00	5.00 - 7.00	3.00 - 5.00	
Volatile Organic Compounds (mg/kg)								
None Detected	ND	ND	ND	ND	ND	ND	ND	NC
Petroleum Hydrocarbons (mg/kg)								
Diesel/Motor Oil Range (extractables)								
DIESEL RANGE ORGANICS	< 12 U	< 12 U	< 12 U	< 10 U	< 11 U	< 12 U	8 JZ	NC
MOTOR OIL RANGE ORGANICS	30 Y	14 Y	5 J	6 J	2 JY	5 JY	9 JY	NC
Gasoline Range (purgeables)								
None Detected	ND	ND	ND	ND	ND	ND	ND	NC
Semivolatile Organic Compounds (mg/kg)								
None Detected	ND	ND	ND	ND	ND	ND	ND	NC
PCBs/Pesticides (mg/kg)								
4,4'-DDD	0.028	0.026	< 0.004 U	< 0.0034 U	< 0.0038 U	< 0.0038 U	< 0.0036 U	2.4
4,4'-DDE	0.134	0.076	< 0.004 UJ	< 0.0034 U	< 0.0038 UJ	< 0.0038 U	< 0.0036 U	1.7
4,4'-DDT	0.072	0.059	< 0.004 UJ	< 0.0034 U	< 0.0038 UJ	< 0.0038 U	< 0.0036 U	1.7
ALPHA-CHLORDANE	< 0.002 UJ	< 0.002 UJ	< 0.002 U	< 0.0018 U	< 0.0019 U	< 0.002 U	< 0.0018 U	1.6
AROCLOR-1260	< 0.019 U	< 0.018 U	< 0.019 U	< 0.017 U	< 0.018 UJ	< 0.018 U	< 0.017 U	0.22
ENDOSULFAN SULFATE	0.0066	0.003 J	< 0.004 U	< 0.0034 U	< 0.0038 U	< 0.0038 U	< 0.0036 U	NC
ENDRIN	< 0.004 U	< 0.0038 U	< 0.004 U	< 0.0034 U	< 0.0038 U	< 0.0038 U	< 0.0036 U	18
GAMMA-CHLORDANE	< 0.002 UJ	< 0.002 UJ	< 0.002 U	< 0.0018 U	< 0.0019 U	< 0.002 U	< 0.0018 U	1.6
Metals (mg/kg)								
ANTIMONY	< 0.13 U	0.35 J	< 0.13 U	< 0.11 U	< 0.13 UJ	< 0.32 UJ	< 0.12 U	31
ARSENIC	**3.2**	**3.7**	**5.2**	**2.6**	**5**	**2.5 J**	**1.8 J**	0.39
BARIUM	80.3	93.9	152	72.9	137	70.4	56.2	5,400
BERYLLIUM	< 0.0032 U	< 0.0031 U	0.13 J	< 0.0028 U	0.14 J	0.031 J	< 0.0029 U	150
CADMIUM	0.66 J	0.7 J	1 J	0.37 J	1 J	0.26 J	0.33 J	37 *
CHROMIUM	19	20.2	27.9	12.8	26.1	9.2	9.8	210
COBALT	7.4 J	8.4 J	11.2 J	5.3 J	10.1	4.1	4.3	900
COPPER	14.5 J	15.6 J	22.6 J	9.5 J	22.7	7.4	6.7	3,100
LEAD	18.6 J	20.1 J	9.9 J	16.2 J	9 J	3.9 J	3.5 J	150 *
MERCURY	0.057	0.039	0.048	0.44	< 0.08 U	< 0.081 U	< 0.076 U	23
MOLYBDENUM	1 J	1.6	2.4	1.1	2.2	1	1	390
NICKEL	17	18.5	25.9	11.5	24.8	9.2	8.9	1,600
SELENIUM	1.3	0.25 J	1.4	0.2 J	0.78 J	0.69 J	< 0.18 UJ	390

TABLE 23-7b: ANALYTICAL RESULTS FOR UST SITE 1317-01 AND 1317-02 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	131701SB01	131701SB01	131701SB02	131701SB02	131701SB03	131701SB03	131702SB01	EPA Residential Soil PRGs
Sample ID	269050	269051	269052	269053	269037	269038	269039	
Sample Date	07/12/1999	07/12/1999	07/12/1999	07/12/1999	07/12/1999	07/12/1999	07/12/1999	
Sample Depth	3.00 - 5.00	5.00 - 7.00	3.00 - 5.00	5.00 - 7.00	3.00 - 5.00	5.00 - 7.00	3.00 - 5.00	
Metals (mg/kg)								
VANADIUM	35.7	38	53.4	27.8	50.8	20	21.4	550
ZINC	64.6	106	75.1	33.1	74	24.5	24.2	23,000

TABLE 23-7b: ANALYTICAL RESULTS FOR UST SITE 1317-01 AND 1317-02 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	131702SB01	131702SB02	131702SB02	131702SB03	131702SB03	
Sample ID	269040	269041	269042	269043	269044	EPA Residential Soil PRGs
Sample Date	07/12/1999	07/12/1999	07/12/1999	07/12/1999	07/12/1999	
Sample Depth	5.00 - 7.00	3.00 - 5.00	5.00 - 7.00	3.00 - 5.00	5.00 - 7.00	
Volatile Organic Compounds (mg/kg)						
None Detected	ND	ND	ND	ND	ND	NC
Petroleum Hydrocarbons (mg/kg)						
Diesel/Motor Oil Range (extractables)						
DIESEL RANGE ORGANICS	< 12 U	< 12 U	< 12 U	< 11 U	< 11 U	NC
MOTOR OIL RANGE ORGANICS	110 Y	93	110	15 Y	12 Y	NC
Gasoline Range (purgeables)						
None Detected	ND	ND	ND	ND	ND	NC
Semivolatile Organic Compounds (mg/kg)						
None Detected	ND	ND	ND	ND	ND	NC
PCBs/Pesticides (mg/kg)						
4,4'-DDD	< 0.0038 U	0.0066	< 0.004 U	< 0.0036 U	< 0.0035 U	2.4
4,4'-DDE	< 0.0038 UJ	0.019	0.0046	< 0.0036 U	< 0.0035 U	1.7
4,4'-DDT	0.0043	0.031	0.015	< 0.0036 U	< 0.0035 U	1.7
ALPHA-CHLORDANE	< 0.002 UJ	0.0039	< 0.002 UJ	< 0.0019 U	< 0.0018 U	1.6
AROCLOR-1260	0.035	0.16	0.087	< 0.017 U	< 0.017 U	0.22
ENDOSULFAN SULFATE	< 0.0038 U	< 0.0039 U	< 0.004 U	< 0.0036 U	< 0.0035 U	NC
ENDRIN	< 0.0038 U	< 0.0039 U	0.0044	< 0.0036 U	< 0.0035 U	18
GAMMA-CHLORDANE	< 0.002 UJ	0.0037	0.001 J	< 0.0019 U	< 0.0018 U	1.6
Metals (mg/kg)						
ANTIMONY	< 0.13 U	< 0.13 U	< 0.13 U	< 0.12 U	< 0.12 U	31
ARSENIC	**2.6 J**	**4.5 J**	**3.7 J**	**1.4 J**	**1.9 J**	0.39
BARIUM	78.2	133	118	44.1	44.8	5,400
BERYLLIUM	0.0085 J	0.014 J	0.066 J	< 0.0029 U	< 0.0029 U	150
CADMIUM	0.35 J	0.72 J	0.65 J	0.31 J	0.28 J	37 *
CHROMIUM	13.2	25.7	18.8	6.7	11.4	210
COBALT	5	11.4	7.5	3.1	4.5	900
COPPER	9.2	22.8	14.6	5.1	12.4	3,100
LEAD	4.4 J	12.2 J	6.5 J	2 J	6.1 J	150 *
MERCURY	< 0.081 U	< 0.082 U	< 0.084 U	< 0.076 U	< 0.074 U	23
MOLYBDENUM	1.2	2	3.1	0.93	0.96	390
NICKEL	11.7	24.4	17	6.8	9.5	1,600
SELENIUM	0.57 J	1.9 J	2 J	0.78 J	0.64 J	390

TABLE 23-7b: ANALYTICAL RESULTS FOR UST SITE 1317-01 AND 1317-02 SOIL SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Sample Location ID	131702SB01	131702SB02	131702SB02	131702SB03	131702SB03	EPA Residential Soil PRGs
Sample ID	269040	269041	269042	269043	269044	
Sample Date	07/12/1999	07/12/1999	07/12/1999	07/12/1999	07/12/1999	
Sample Depth	5.00 - 7.00	3.00 - 5.00	5.00 - 7.00	3.00 - 5.00	5.00 - 7.00	
Metals (mg/kg)						
VANADIUM	28	49.5	40.4	14.6	22.5	550
ZINC	32.3	82.8	46.1	23.1	50.6	23,000

Notes: Categories of analyses are shown, but only detected compounds are presented. Analyte results in boldface type exceed EPA residential soil PRGs.

*	California modified PRGs
ID	Identification
J	Estimated value
mg/kg	Milligrams per kilogram
NC	No criteria
ND	None detected
PRG	Preliminary remediation goals
TPH	Total petroleum hydrocarbons
U	Nondetected
Y	Chromatographic pattern resembles hydrocarbon fuel pattern and was quantitated using the standard it resembled most.
Z	Chromatographic pattern does not resemble TPH fuel pattern (individual peaks).

TABLE 23-7c: ANALYTICAL RESULTS FOR UST SITES 1317-01 AND 1317-02 GROUNDWATER SAMPLES

Site Management Plan, CBC Port Hueneme

Sample Location ID	131701SB01	131701SB02	131701SB03	131702SB01	131702SB02	131702SB03	EPA Tap Water PRGs
Sample ID	269055	269056	269054	269057	269059	269058	
Sample Date	07/13/1999	07/13/1999	07/13/1999	07/13/1999	07/13/1999	07/13/1999	
Volatile Organic Compounds (µg/L)							
CHLOROFORM	**1 J**	**0.6 J**	**2 J**	**2 J**	**2 J**	**0.8 J**	0.17
TOLUENE	4	< 2 U	5 J	< 2 U	< 2 U	< 2 U	720
Petroleum Hydrocarbons (mg/L)							
Diesel/Motor Oil Range (extractables)							
DIESEL RANGE ORGANICS	< 0.1 U	0.08 J	NA	< 0.1 U	< 0.1 U	< 0.1 U	NC
MOTOR OIL RANGE ORGANICS	< 0.5 U	0.1 J	NA	< 0.5 U	< 0.5 U	< 0.5 U	NC
Gasoline Range (purgeables)							
None Detected	ND	ND	ND	ND	ND	ND	NC
Semivolatile Organic Compounds (µg/L)							
None Detected	ND	ND	NA	ND	ND	ND	NC
PCBs/Pesticides (µg/L)							
None Detected	ND	ND	NA	ND	ND	ND	NC
Metals (µg/L)							
Unfiltered							
ANTIMONY	< 2.2 U	< 2.2 U	< 2.2 U	< 2.2 U	12.8	**22.8**	15
ARSENIC	**8.1 J**	**3.6 J**	**49.1**	**35.8**	**75.4**	**33**	0.045
BARIUM	155 J	146 J	1,480	1,080	540	486	2,600
BERYLLIUM	< 0.053 U	< 0.053 U	1.9 J	1.7 J	< 1.1 UJ	< 0.93 UJ	73
CADMIUM	0.75 J	0.78 J	8.5	8.2	5.9	3.7	18
CHROMIUM	24.7	20.2	308	269	118	98.9	NC
COBALT	10.6 J	6.4 J	113	79.5	52.1	44.9 J	730
COPPER	19.4	13.6	211	198	127	110	1,500
LEAD	< 8.6 UJ	< 5.5 UJ	119	73.4	46.6	40.1	NC
MERCURY	0.16 J	0.17 J	0.78	0.34	0.26	0.22	NC
MOLYBDENUM	23.4	27.4	59.9	47.5	50.8	34.3	180
NICKEL	21.2	16.9	244	215	128	114	730
SELENIUM	12.2	5.4	39.2	17.7	34.2	< 3.3 U	180
THALLIUM	< 2 U	2	< 2 U	< 2 U	< 2 U	< 2 U	2.4
VANADIUM	34.5 J	22.4 J	**420**	**334**	170	175	260
ZINC	57	37.4	651	598	310	303	11,000

TABLE 23-7c: ANALYTICAL RESULTS FOR UST SITE 1317-01 AND 1317-02 GROUNDWATER SAMPLES (Continued)

Site Management Plan, CBC Port Hueneme

Notes: Categories of analyses are shown, but only detected compounds are presented. Analyte results in boldface type exceed EPA tap water PRGs.

ID	Identification
J	Estimated value
mg/L	Milligrams per liter
NA	Not analyzed
NC	No criteria
ND	None detected
PRG	Preliminary remediation goals
U	Nondetected
µg/L	Micrograms per liter

24.0 IMPLEMENTATION

This section discusses how the proposed work discussed in this SMP will be implemented, including site groupings, field work, risk assessment, reporting and documentation, and scheduling.

24.1 SITE GROUPINGS

This SMP identifies site groupings for accelerated site investigations and reporting. The site groupings were based on site characteristics, available data, proposed field work, and reporting requirements for each site. A schedule for the environmental investigations and restoration is also included as Appendix A. Revisions to this schedule are anticipated in response to information developed during ongoing investigation and cleanup projects, and the schedules will be revised as required. For site closure, most sites discussed in this document require additional soil and/or groundwater investigation, risk assessment, and reporting. RIs are proposed for IRP Sites 4, 5, 6, 8, 9, 10, 11, 12A, 12B, 14, 15, 16, 17, 19, 20, and 21, and all UST sites, except 796-04, which will be addressed under IRP Site 20. IRP Site 7 does not require any additional investigation; however, the appropriate procedures will be followed to close the site. IRP Site 13 was removed during the CERCLA process during the SI stage. IRP Sites 18 and 22 require no further action per DTSC and RWQCB letters (DTSC 1996; RWQCB 1999) and the appropriate CERCLA procedures will be followed to complete site closure. Site 23 does not require an SI or RI; however, a request for closure letter report will be prepared. The investigations will include HHRAs and ERAs, where necessary, to include previously excluded site-specific groundwater data. To expedite the site activities and streamline the volume of reports required, seven separate RIs will be completed at CBC Port Hueneme. FSs, PPs, and DDs will follow the investigative reports, as necessary. The sites will be consolidated into the following ten groups for reporting and documentation purposes:

- IRP Sites 4 and 9: RI/FS/PP/DD
- IRP Sites 5, 6, 8, 10, 11, 12A, 12B, 15, 16, and 21: RI/FS/PP/DD
- IRP Site 7: PP/DD
- IRP Site 14: RI/FS/PP/DD
- IRP Site 17: RI/FS/PP/DD
- IRP Sites 18 and 22: PP/DD
- IRP Site 19: RI (by another contractor [Bechtel 2003])/FS/PP/DD
- IRP Site 20 (to include data from UST Site 796-04): RI/FS/PP/DD
- IRP Site 23: Request for Closure Letter Report/PP/DD
- UST Sites 42-01, 283-01, 305-01, 305-02, 813-01, 1146-02, 1317-01, 1317-02, and MAG-01: RI/FS/PP/DD

Based on the results of the additional evaluation completed for this SMP and existing documentation, further reporting and documentation is not necessary for IRP Site 13. The Navy has determined this site is closed. The following table provides a summary of the data gaps, recommendations, and reporting requirements for all IRP and UST sites discussed in this SMP.

24.2 FIELD WORK

The proposed field activities described in this SMP for the IRP and UST sites will require preparation of a health and safety plan (HSP) and a sampling and analysis plan (SAP). A HSP will be developed for all the sites requiring additional investigation to address health and safety issues related to field work described in Sections 2.0 through 23.0 of this SMP. The SAP will incorporate elements of a work plan, field sampling plan, and quality assurance project plan. The SAP will be developed specifically for this project to describe the elements of the project including: purpose; scope; data quality objectives; field investigation; IDW management; data analysis and evaluation; field sampling, analytical procedures and protocol; and quality assurance elements. The SAP will address all field investigation planned at each IRP and UST site. Planning documents for field work planned at IRP Site 19 are being prepared separately (Bechtel 2003).

Field work described in this SMP will entail collection of all data specified in Sections 2.0 through 23.0 of this SMP. Tasks to be completed include an initial site reconnaissance to address site access issues, a survey of the condition of existing monitoring wells, a habitat survey, two phases of field work to collect soil samples and install monitoring wells, and four quarterly sampling events for those sites where groundwater sampling is specified. Additional details on the field work at each site will be provided in the SAP.

Most samples will undergo full-suite analyses using methods that can achieve detection limits allowing comparison of results with EPA Region 9 PRGs for tap water and residential soil. EPA Region 9 PRGs for industrial soil, EPA and California-modified MCLs, and NAWQC may also be reviewed as required. Selected samples will be analyzed for geotechnical parameters to provide information useful for risk assessment purposes. The sampling schemes are included in Sections 2.0 through 23.0 of this SMP. No field work is proposed for IRP Sites 7, 13, 14, 17, 18, 21, 22, or 23. IRP Site 19 field work is described separately (Bechtel 2003).

24.3 HUMAN HEALTH RISK ASSESSMENT

HHRAs will be prepared for all IRP and UST sites except IRP Sites 7, 13, 18, 19, 22, and 23. Review of existing Navy documentation of site closure at these sites indicates no additional field work is required. For all other sites, existing HHRAs will be revised to address potential risk from exposure to groundwater. In addition, existing HHRAs will be revised as necessary to incorporate additional data and to ensure that the methodologies used to address risk from both soil and groundwater are consistent and incorporate EPA, DTSC, and Navy risk assessment guidance. If an HHRA has not been completed, an HHRA will be prepared to address potential risk from exposure to groundwater and/or soil, as necessary.

COPCs will be selected based on results of a screening-level risk HHRA using EPA Region 9 PRGs. Chemicals with a screening level risk that exceeds 1×10^{-6} or a noncancer HI that exceeds 1.0 will be identified as COPCs. This approach will address cumulative risk and focus the results of the HHRA only on those chemicals that exceed risk-based screening criteria of 1×10^{-6} and 1.0 for carcinogens and noncarcinogens, respectively. A background evaluation for inorganic chemicals in soil will be conducted as part of the COPC evaluation. Inorganic chemicals that do not exceed background levels (see Appendix B) will not be addressed further in the HHRA.

The HHRAs will evaluate risks from exposure to groundwater and/or soil for current and future industrial, future construction worker, and hypothetical future residential exposure scenarios. Soil exposure pathways will include: incidental soil ingestion, dermal contact with soil, inhalation of VOCs and particulates released from soil to outdoor air, and inhalation of VOCs released from soil to indoor air from subsurface vapor intrusion. Groundwater exposure pathways will include: groundwater ingestion, dermal contact with groundwater, inhalation of VOCs in groundwater released to indoor air during household use, and inhalation of VOCs released from groundwater to indoor air from subsurface vapor intrusion. EPA ProUCL software will be used to calculate exposure point concentrations for the identified COPCs.

Risk calculations will follow Navy 2003 dual tracking guidance (that is, risks will be calculated and characterized twice—once with EPA toxicity criteria and once with DTSC toxicity criteria). The risk calculations will be prepared using the EPAs Risk Assessment Guidance for Superfund D table format. The HHRAs will evaluate an RME scenario; a central tendency exposure scenario will not be evaluated.

24.4 ECOLOGICAL RISK ASSESSMENT

A habitat survey will be completed to determine if there is viable habitat for ecological receptors. Habitat surveys will be conducted at all IRP and UST sites except IRP Sites 7, 13, 14, 18, 22, and 23. If viable habitat does exist, a screening-level ERA, based on surface-soil data collected at the site, will be conducted. If there is evidence of burrowing animals at a given site, the ERA may also include an evaluation of the vapor exposure for these animals in their burrows. To establish whether a complete vapor exposure pathway exists for burrowing animals, the depth to the Semi-Perched Aquifer will also be considered in this analysis.

24.5 REPORTING AND DOCUMENTATION

Reporting and documentation will be organized as described in Section 24.1. The UST sites will be addressed as IRP sites. Reports will not be prepared for IRP Site 13, as the Navy has documentation indicating that this site is closed.

The RI reports will contain all information necessary to proceed with feasibility studies and DDs, as necessary. This information will include the findings of the field investigations and risk assessments and will incorporate existing information as needed.

The FSs will present and recommend remedial alternatives for each site based on the results of previous and proposed investigations. Existing information indicates that possible remedies at each site will include no further action, land use controls, and remedial action to achieve unrestricted land use. These alternatives will be evaluated in terms of implementability, cost, and mission goals for the base.

The purpose of the PP is to facilitate public involvement in the remedy selection process. The PP will present the Navy's recommendation concerning how best to address contamination at the sites, which alternatives were evaluated, and the reasons for recommending the preferred alternative. The Navy will solicit public comment on each PP and all the alternatives.

The DDs will document the final decisions regarding the selected remedies after the Navy has considered all comments from regulatory agencies and the public. The DD serves as:

- A legal document certifying that a remedy selection process was conducted in accordance with CERCLA and, to the extent practicable, in accordance with the NCP,
- A substantive summary of the technical rationale and background information contained in the administrative record file,
- A technical document that provides information necessary for determining engineering components, and which outlines the remedial action objectives and cleanup levels for the selected remedy, and
- A public document that explains the contamination problems t he remedy seeks to address and the rationale for its selection.

24.6 SCHEDULE

Appendix A shows the proposed schedule for implementation of all activities discussed in this SMP. The schedule is subject to change depending on unanticipated delays in document reviews, field work implementation, and funding. The following table provides a summary of the data gaps, recommendations, and reporting requirements for the IRP and UST sites discussed in this SMP.

Site	Data Gaps				Recommendations				Reporting
	Soil	Groundwater	HHRA	ERA	Soil	Groundwater	HHRA	ERA	
IRP Site 4	Yes	Yes	Yes	Yes	Collect 5 surface samples	Install 2 additional MWs and groundwater sampling from 3 total MWs	Conduct an HHRA	Conduct a habitat survey	RI/FS/PP/DD
IRP Site 5	Yes	Yes	Yes	Yes	Collect 5 surface and 1 subsurface samples	Install 3 additional MWs and groundwater sampling from 4 total MWs	Conduct an HHRA	Conduct a habitat survey	RI/FS/PP/DD
IRP Site 6	Yes	Yes	Yes	Yes	Collect 5 surface and 1 subsurface samples	Install 3 MWs and groundwater sampling	Conduct an HHRA	Conduct a habitat survey	RI/FS/PP/DD
IRP Site 7	No	No	No	No	None	None	None	None	PP/DD
IRP Site 8	No	Yes	Yes	Yes	None	Groundwater sampling from 3 existing MWs	Conduct an HHRA	Conduct a habitat survey	RI/FS/PP/DD
IRP Site 9	Yes	Yes	Yes	Yes	Collect confirmation samples following removal of Stockpile B	Install 4 additional MWs and groundwater sampling from 6 total MWs	Conduct an HHRA	Conduct a habitat survey	RI/FS/PP/DD
IRP Site 10	No	Yes	Yes	Yes	None	Install 2 additional MWs and groundwater sampling from 3 total MWs	Conduct an HHRA	Conduct a habitat survey	RI/FS/PP/DD
IRP Site 11	Yes	Yes	Yes	Yes	Collect 7 surface samples and 7 subsurface samples	Install 2 additional MWs and groundwater sampling from 3 total MWs	Conduct an HHRA	Conduct a habitat survey	RI/FS/PP/DD
IRP Site 12A	No	Yes	Yes	Yes	None	Install 3 MWs and groundwater sampling	Conduct an HHRA	Conduct a habitat survey	RI/FS/PP/DD

Site	Data Gaps				Recommendations				Reporting
	Soil	Groundwater	HHRA	ERA	Soil	Groundwater	HHRA	ERA	
IRP Site 12B	No	Yes	Yes	Yes	None	Install 3 MWs and groundwater sampling	Conduct an HHRA	Conduct a habitat survey	RI/FS/PP/DD
IRP Site 13	No	No	No	No	None	None	None	None	None
IRP Site 14	No	No	Yes	Yes	None	None	Conduct an HHRA	None	RI/FS/PP/DD
IRP Site 15	Yes	Yes	Yes	Yes	Collect 5 surface samples and 5 subsurface samples	Install 3 MWs and groundwater sampling	Conduct an HHRA	Conduct a habitat survey	RI/FS/PP/DD
IRP Site 16	No	Yes	Yes	No	None	Groundwater sampling from 1 existing MW	Conduct an HHRA	Conduct a habitat survey for burrowing receptors only	RI/FS/PP/DD
IRP Site 17	No	No	Yes	No	None	None	Conduct an HHRA	Conduct a habitat survey for burrowing receptors only	RI/FS/PP/DD
IRP Site 18	No	No	No	No	None	None	None	None	PP/DD
IRP Site 19	Yes (sediment)	Yes (groundwater and surface water)	No	Additional ERA ongoing	Additional sampling under another contract	Additional sampling under another contract	None	Additional ERA ongoing under another contract	RI (by another contractor)/ FS/PP/DD
IRP Site 20	Yes	Yes	Yes	Yes	Collect 10 surface samples and 7 subsurface samples	Install 3 additional MWs and groundwater sampling from 8 total MWs	Conduct an HHRA	Conduct a habitat survey	RI/FS/PP/DD
IRP Site 21	No	No	Yes	Yes	None	None	Conduct an HHRA	Conduct a habitat survey	RI/FS/PP/DD
IRP Site 22	No	No	No	No	None	None	None	None	PP/DD

Site	Data Gaps				Recommendations				Reporting
	Soil	Groundwater	HHRA	ERA	Soil	Groundwater	HHRA	ERA	
IRP Site 23	No	No	No	No	None	None	None	None	Request for closure letter/PP/DD
UST Site 42-01	Yes	Yes	Yes	Yes	Collect 10 surface samples and 4 subsurface samples	Install 3 MWs and groundwater sampling	Conduct an HHRA	Conduct a habitat survey	RI/FS/PP/DD
UST Site 283-01	Yes	Yes	Yes	Yes	Collect 10 surface samples and 5 subsurface samples	Install 3 MWs and groundwater sampling	Conduct an HHRA	Conduct a habitat survey	RI/FS/PP/DD
UST Site 305-01 and 305-02	Yes	Yes	Yes	Yes	Collect 19 surface samples and 10 subsurface samples	Install 4 MWs and groundwater sampling	Conduct an HHRA	Conduct a habitat survey	RI/FS/PP/DD
UST Site 796-04	Investigation being conducted as part of IRP Site 20.								
UST Site 813-01	Yes	Yes	Yes	Yes	Collect 10 surface samples and 5 subsurface samples	Install 3 MWs and groundwater sampling	Conduct an HHRA	Conduct a habitat survey	RI/FS/PP/DD
UST Site 1146-02	Yes	Yes	Yes	Yes	Collect 10 surface samples and 5 subsurface samples	Install 3 MWs and groundwater sampling	Conduct an HHRA	Conduct a habitat survey	RI/FS/PP/DD
UST Site 1317-01 and 1317-02	Yes	Yes	Yes	Yes	Collect 20 surface samples and 8 subsurface samples	Install 4 MWs and groundwater sampling	Conduct an HHRA	Conduct a habitat survey	RI/FS/PP/DD
UST MAG-01	Yes	Yes	Yes	Yes	Collect 10 surface samples and 4 subsurface samples	Install 1 MW and groundwater sampling from 3 total MWs	Conduct an HHRA	Conduct a habitat survey	RI/FS/PP/DD

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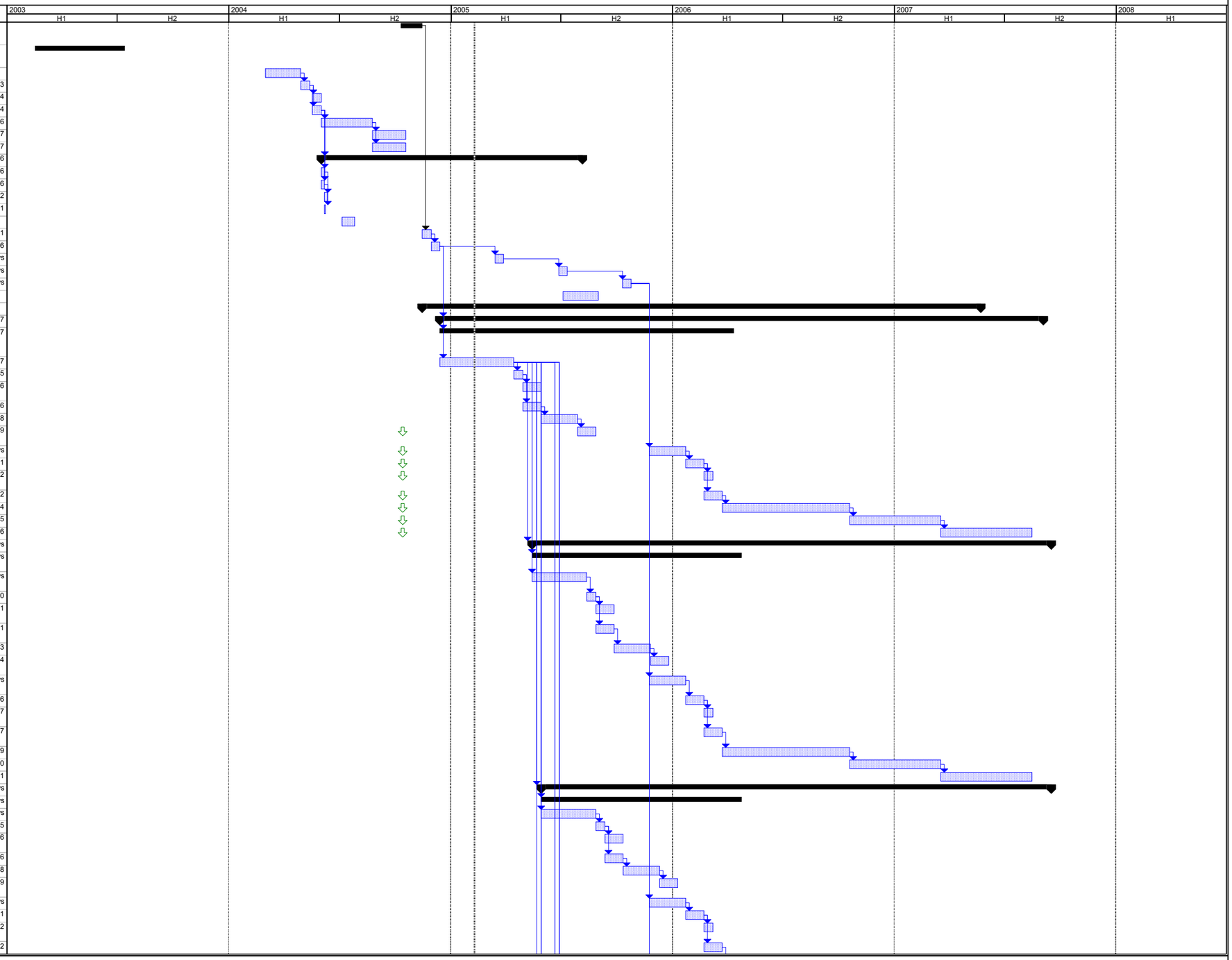
APPENDIX A
PROJECT SCHEDULE

SITE MANAGEMENT PLAN
IMPLEMENTATION SCHEDULE
NBVC, PORT HUENEME, CALIFORNIA
CONTRACT N68711-03-D-5104, CTO 008

ID	Task Name	Duration	Start	Finish	Predecessors
1	**IRP Site 9 Removal Action and UST 796-04 Corrective Action**	35 edays	Mon 10/11/04	Mon 11/15/04	
2	**Remedial Investigation (RI) Sampling and Analysis Plan (SAP) (IRP and UST Sites)**	**147 edays**	**Mon 2/17/03**	**Mon 7/14/03**	
3	Internal Draft SAP	58 edays	Mon 3/1/04	Wed 4/28/04	
4	Navy Review	15 edays	Wed 4/28/04	Thu 5/13/04	3
5	Response to Comments	15 edays	Mon 5/17/04	Tue 6/1/04	4
6	Draft SAP	15 edays	Mon 5/17/04	Tue 6/1/04	4
7	Agency Review	84 edays	Tue 6/1/04	Tue 8/24/04	6
8	Response to Comments	55 edays	Tue 8/24/04	Mon 10/18/04	7
9	Final SAP	55 edays	Tue 8/24/04	Mon 10/18/04	7
10	**RI Field Work (IRP and UST Sites)**	**430 edays**	**Tue 6/1/04**	**Fri 8/5/05**	6
11	Field Reconnaissance	5 edays	Tue 6/1/04	Sun 6/6/04	6
12	Procurement/Mobilization and Demobilization	5 edays	Tue 6/1/04	Sun 6/6/04	6
13	Habitat Survey	5 edays	Sun 6/6/04	Fri 6/11/04	12
14	Utility Clearance	2 edays	Sun 6/6/04	Tue 6/8/04	11
15	Soil Sampling and Well Installation (Mob 1)	21 edays	Tue 7/6/04	Tue 7/27/04	
16	Soil Sampling and Well Installation (Mob 2)	15 edays	Mon 11/15/04	Tue 11/30/04	1
17	First Quarter Monitoring	14 edays	Tue 11/30/04	Tue 12/14/04	16
18	Second Quarter Monitoring	14 edays	Tue 3/15/05	Tue 3/29/05	17FS+91 edays
19	Third Quarter Monitoring	14 edays	Tue 6/28/05	Tue 7/12/05	18FS+91 edays
20	Fourth Quarter Monitoring	14 edays	Tue 10/11/05	Tue 10/25/05	19FS+91 edays
21	IRP Site 19 RI	42 days	Tue 7/5/05	Wed 8/31/05	
22	**REPORTS**	**920 edays**	**Mon 11/15/04**	**Thu 5/24/07**	
23	***IRP SITES 4 AND 9***	**994 edays**	**Tue 12/14/04**	**Tue 9/4/07**	17
24	**Remedial Investigation(RI)/Feasibility Study (FS)/Proposed Plan (PP)/Decision Document (DD) (IRP Sites 4 and 9)**	**484 edays**	**Tue 12/14/04**	**Wed 4/12/06**	17
25	Internal Draft RI Report (IRP Sites 4 and 9)	122 edays	Tue 12/14/04	Fri 4/15/05	17
26	Navy Review	15 edays	Fri 4/15/05	Sat 4/30/05	25
27	Response to Comments - Internal Draft RI Report (IRP Sites 4 and 9)	30 edays	Sat 4/30/05	Mon 5/30/05	26
28	Draft RI Report (IRP Sites 4 and 9)	30 edays	Sat 4/30/05	Mon 5/30/05	26
29	Navy and Agency Review	60 edays	Mon 5/30/05	Fri 7/29/05	28
30	Response to Comments - Draft RI Report (IRP Sites 4 and 9)	30 edays	Fri 7/29/05	Sun 8/28/05	29
31	Draft Final RI Report (IRP Sites 4 and 9)	60 edays	Thu 11/24/05	Mon 1/23/06	20FS+30 edays
32	Navy and Agency Review	30 edays	Mon 1/23/06	Wed 2/22/06	31
33	Response to Comments - Draft Final RI Report (IRP Sites 4 and 9)	15 edays	Wed 2/22/06	Thu 3/9/06	32
34	Final RI Report (IRP Sites 4 and 9)	30 edays	Wed 2/22/06	Fri 3/24/06	32
35	**FS (IRP Sites 4 and 9)**	210 edays	Fri 3/24/06	Fri 10/20/06	34
36	**PP (IRP Sites 4 and 9)**	150 edays	Fri 10/20/06	Mon 3/19/07	35
37	**DD (IRP Sites 4 and 9)**	150 edays	Mon 3/19/07	Thu 8/16/07	36
38	***IRP SITES 5,6,8,10,11,12A,12B,15,16, and 21***	**855 edays**	**Sun 5/15/05**	**Mon 9/17/07**	25FS+30 edays
39	**RI Report (IRP Sites 5,6,8,10,11,12A,12B,15,16, and 21)**	**345 edays**	**Sun 5/15/05**	**Tue 4/25/06**	25FS+30 edays
40	Internal Draft RI Report (IRP Sites 5,6,8,10,11,12A,12B,15,16, and 21)	90 edays	Sun 5/15/05	Sat 8/13/05	25FS+30 edays
41	Navy Review	15 edays	Sat 8/13/05	Sun 8/28/05	40
42	Response to Comments - Internal Draft RI Report (IRP Sites 5,6,8,10,11,12A,12B,15,16, and 21)	30 edays	Sun 8/28/05	Tue 9/27/05	41
43	Draft RI Report (IRP Sites 5,6,8,10,11,12A,12B,15,16, and 21)	30 edays	Sun 8/28/05	Tue 9/27/05	41
44	Navy and Agency Review	60 edays	Tue 9/27/05	Sat 11/26/05	43
45	Response to Comments - Draft RI Report (IRP Sites 5,6,8,10,11,12A,12B,15,16, and 21)	30 edays	Sat 11/26/05	Mon 12/26/05	44
46	Draft Final RI Report (IRP Sites 5,6,8,10,11,12A,12B,15,16, and 21)	60 edays	Thu 11/24/05	Mon 1/23/06	20FS+30 edays
47	Navy and Agency Review	30 edays	Mon 1/23/06	Wed 2/22/06	46
48	Response to Comments - Draft Final RI Report (IRP Sites 5,6,8,10,11,12A,12B,15,16, and 21)	15 edays	Wed 2/22/06	Thu 3/9/06	47
49	Final RI Report (IRP Sites 5,6,8,10,11,12A,12B,15,16, and 21)	30 edays	Wed 2/22/06	Fri 3/24/06	47
50	**FS (IRP Sites 5,6,8,10,11,12A,12B,15,16, and 21)**	210 edays	Fri 3/24/06	Fri 10/20/06	49
51	**PP (IRP Sites 5,6,8,10,11,12A,12B,15,16, and 21)**	150 edays	Fri 10/20/06	Mon 3/19/07	50
52	**DD (IRP Sites 5,6,8,10,11,12A,12B,15,16, and 21)**	150 edays	Mon 3/19/07	Thu 8/16/07	51
53	***IRP SITE 17***	**840 edays**	**Mon 5/30/05**	**Mon 9/17/07**	25FS+45 edays
54	**RI Report (IRP Sites 17)**	**330 edays**	**Mon 5/30/05**	**Tue 4/25/06**	25FS+45 edays
55	Internal Draft RI Report (IRP Sites 17)	90 edays	Mon 5/30/05	Sun 8/28/05	25FS+45 edays
56	Navy Review	15 edays	Sun 8/28/05	Mon 9/12/05	55
57	Response to Comments - Internal Draft RI Report (IRP Sites 17)	30 edays	Mon 9/12/05	Wed 10/12/05	56
58	Draft RI Report (IRP Sites 17)	30 edays	Mon 9/12/05	Wed 10/12/05	56
59	Navy and Agency Review	60 edays	Wed 10/12/05	Sun 12/11/05	58
60	Response to Comments - Draft RI Report (IRP Sites 17)	30 edays	Sun 12/11/05	Tue 1/10/06	59
61	Draft Final RI Report (IRP Sites 17)	60 edays	Thu 11/24/05	Mon 1/23/06	20FS+30 edays
62	Navy and Agency Review	30 edays	Mon 1/23/06	Wed 2/22/06	61
63	Response to Comments - Draft Final RI Report (IRP Sites 17)	15 edays	Wed 2/22/06	Thu 3/9/06	62
64	Final RI Report (IRP Sites 17)	30 edays	Wed 2/22/06	Fri 3/24/06	62

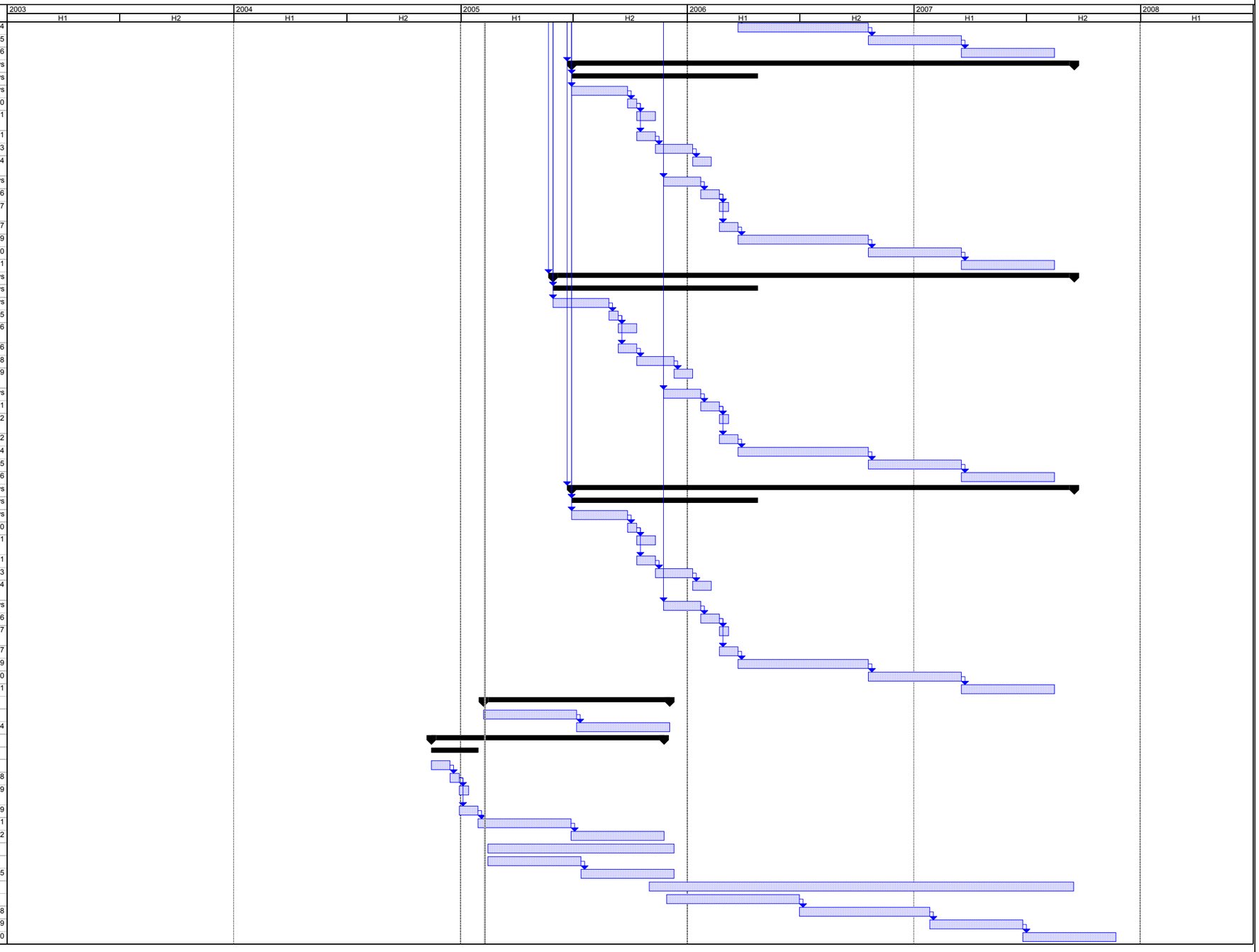


SulTech JV
Project: X035 CBC Port Hueneme
Date: January 28, 2005

Task | Progress | Summary | Rolled Up Split | Rolled Up Progress | Project Summary | Deadline
Split | Milestone | Rolled Up Task | Rolled Up Milestone | External Tasks | External Milestone

SITE MANAGEMENT PLAN
IMPLEMENTATION SCHEDULE
NBVC, PORT HUENEME, CALIFORNIA
CONTRACT N68711-03-D-5104, CTO 008

ID	Task Name	Duration	Start	Finish	Predecessors
65	**FS (IRP Site 17)**	210 edays	Fri 3/24/06	Fri 10/20/06	64
66	**PP (IRP Site 17)**	150 edays	Fri 10/20/06	Mon 3/19/07	65
67	**DD (IRP Site 17)**	150 edays	Mon 3/19/07	Thu 8/16/07	66
68	***WASTE OIL SITES***	**810 edays**	**Wed 6/29/05**	**Mon 9/17/07**	25FS+75 edays
69	**RI Report (Waste Oil sites)**	**300 edays**	**Wed 6/29/05**	**Tue 4/25/06**	25FS+75 edays
70	Internal Draft RI Report (Waste Oil sites)	90 edays	Wed 6/29/05	Tue 9/27/05	25FS+75 edays
71	Navy Review	15 edays	Tue 9/27/05	Wed 10/12/05	70
72	Response to Comments - Internal Draft RI Report (Waste Oil sites)	30 edays	Wed 10/12/05	Fri 11/11/05	71
73	Draft RI Report (Waste Oil sites)	30 edays	Wed 10/12/05	Fri 11/11/05	71
74	Navy and Agency Review	60 edays	Fri 11/11/05	Tue 1/10/06	73
75	Response to Comments - Draft RI Report (Waste Oil sites)	30 edays	Tue 1/10/06	Thu 2/9/06	74
76	Draft Final RI Report (Waste Oil sites)	60 edays	Thu 11/24/05	Mon 1/23/06	20FS+30 edays
77	Navy and Agency Review	30 edays	Mon 1/23/06	Wed 2/22/06	76
78	Response to Comments - Draft Final RI Report (Waste Oil sites)	15 edays	Wed 2/22/06	Thu 3/9/06	77
79	Final RI Report (Waste Oil sites)	30 edays	Wed 2/22/06	Fri 3/24/06	77
80	**FS (Waste Oil Sites)**	210 edays	Fri 3/24/06	Fri 10/20/06	79
81	**PP (Waste Oil Sites)**	150 edays	Fri 10/20/06	Mon 3/19/07	80
82	**DD (Waste Oil Sites)**	150 edays	Mon 3/19/07	Thu 8/16/07	81
83	***IRP SITE 14***	**840 edays**	**Mon 5/30/05**	**Mon 9/17/07**	25FS+45 edays
84	**RI Report (IRP Site 14)**	**330 edays**	**Mon 5/30/05**	**Tue 4/25/06**	25FS+45 edays
85	Internal Draft RI Report (IRP Site 14)	90 edays	Mon 5/30/05	Sun 8/28/05	25FS+45 edays
86	Navy Review	15 edays	Sun 8/28/05	Mon 9/12/05	85
87	Response to Comments - Internal Draft RI Report (IRP Site 14)	30 edays	Mon 9/12/05	Wed 10/12/05	86
88	Draft RI Report (IRP Site 14)	30 edays	Mon 9/12/05	Wed 10/12/05	86
89	Navy and Agency Review	60 edays	Wed 10/12/05	Sun 12/11/05	88
90	Response to Comments - Draft RI Report (IRP Site 14)	30 edays	Sun 12/11/05	Tue 1/10/06	89
91	Draft Final RI Report (IRP Site 14)	60 edays	Thu 11/24/05	Mon 1/23/06	20FS+30 edays
92	Navy and Agency Review	30 edays	Mon 1/23/06	Wed 2/22/06	91
93	Response to Comments - Draft Final RI Report (IRP Site 14)	15 edays	Wed 2/22/06	Thu 3/9/06	92
94	Final RI Report (IRP Site 14)	30 edays	Wed 2/22/06	Fri 3/24/06	92
95	**FS (IRP Site 14)**	210 edays	Fri 3/24/06	Fri 10/20/06	94
96	**PP (IRP Site 14)**	150 edays	Fri 10/20/06	Mon 3/19/07	95
97	**DD (IRP Site 14)**	150 edays	Mon 3/19/07	Thu 8/16/07	96
98	***IRP SITE 20***	**810 edays**	**Wed 6/29/05**	**Mon 9/17/07**	25FS+75 edays
99	**RI Report (IRP Site 20)**	**300 edays**	**Wed 6/29/05**	**Tue 4/25/06**	25FS+75 edays
100	Internal Draft RI Report (IRP Site 20)	90 edays	Wed 6/29/05	Tue 9/27/05	25FS+75 edays
101	Navy Review	15 edays	Tue 9/27/05	Wed 10/12/05	100
102	Response to Comments - Internal Draft RI Report (IRP Site 20)	30 edays	Wed 10/12/05	Fri 11/11/05	101
103	Draft RI Report (IRP Site 20)	30 edays	Wed 10/12/05	Fri 11/11/05	101
104	Navy and Agency Review	60 edays	Fri 11/11/05	Tue 1/10/06	103
105	Response to Comments - Draft RI Report (IRP Site 20)	30 edays	Tue 1/10/06	Thu 2/9/06	104
106	Draft Final RI Report (IRP Site 20)	60 edays	Thu 11/24/05	Mon 1/23/06	20FS+30 edays
107	Navy and Agency Review	30 edays	Mon 1/23/06	Wed 2/22/06	106
108	Response to Comments - Draft Final RI Report (IRP Site 20)	15 edays	Wed 2/22/06	Thu 3/9/06	107
109	Final RI Report (IRP Site 20)	30 edays	Wed 2/22/06	Fri 3/24/06	107
110	**FS (IRP Site 20)**	210 edays	Fri 3/24/06	Fri 10/20/06	109
111	**PP (IRP Site 20)**	150 edays	Fri 10/20/06	Mon 3/19/07	110
112	**DD (IRP Site 20)**	150 edays	Mon 3/19/07	Thu 8/16/07	111
113	***IRP SITE 7***	**300 edays**	**Mon 2/7/05**	**Sun 12/4/05**	
114	**PP (IRP Site 7)**	150 edays	Mon 2/7/05	Thu 7/7/05	
115	**DD (IRP Site 7)**	150 edays	Thu 7/7/05	Sun 12/4/05	114
116	***IRP SITE 23***	**375 edays**	**Mon 11/15/04**	**Fri 11/25/05**	
117	**Request for Closure Letter Report (IRP Site 23)**	**75 edays**	**Mon 11/15/04**	**Sat 1/29/05**	
118	Draft Request for Closure Letter Report (IRP Site 23)	30 edays	Mon 11/15/04	Wed 12/15/04	
119	Navy Review	15 edays	Wed 12/15/04	Thu 12/30/04	118
120	Response to Comments - Draft Request for Closure Letter Report (IRP Site 23)	15 edays	Thu 12/30/04	Fri 1/14/05	119
121	Final Request for Closure Letter Report (IRP Site 23)	30 edays	Thu 12/30/04	Sat 1/29/05	119
122	**PP (IRP Site 23)**	150 edays	Sat 1/29/05	Tue 6/28/05	121
123	**DD (IRP Site 23)**	150 edays	Tue 6/28/05	Fri 11/25/05	122
124	***IRP SITES 18 and 22***	**300 edays**	**Mon 2/14/05**	**Sun 12/11/05**	
125	**PP (IRP Sites 18 and22)**	150 edays	Mon 2/14/05	Thu 7/14/05	
126	**DD (IRP Sites 18 and 22)**	150 edays	Thu 7/14/05	Sun 12/11/05	125
127	**IRP SITE 19**	**684 edays**	**Tue 11/1/05**	**Sun 9/16/07**	
128	**RI Report (IRP Site 19)**	214 edays	Mon 11/28/05	Fri 6/30/06	
129	**FS (IRP Site 19)**	210 edays	Fri 6/30/06	Fri 1/26/07	128
130	**PP (IRP Site 19)**	150 edays	Fri 1/26/07	Mon 6/25/07	129
131	**DD (IRP Site 19)**	150 edays	Mon 6/25/07	Thu 11/22/07	130



SulTech JV
Project: X035 CBC Port Hueneme
Date: January 28, 2005

Task | Split | Progress | Milestone | Summary | Rolled Up Task | Rolled Up Split | Rolled Up Milestone | Rolled Up Progress | External Tasks | Project Summary | External Milestone | Deadline

APPENDIX B
PORT HUENEME BACKGROUND CONCENTRATIONS FOR METALS

NCBC PORT HUENEME
STATISTICAL SUMMARY OF BACKGROUND DATA

Analyte	Detected Samples/ Analyzed Samples	Type of Distri-bution	Concentration								
			Maximum Detected	Minimum Detected	Average Detected	Maximum SQL	Minimum SQL	Average with ½ SQL or 50th Percentile	Standard Deviation	UCL 95 or Equivalent Percentile	Lesser of UCL 95/ Equi. Percentile or Maximum Detected Value
ALUMINUM	50/50	Normal	24000.00	2090.00	10121.80	NL	NL	10121.80	4757.23	11250.81	11250.81
ANTIMONY	4/35	Non Para.	0.68	0.44	0.53	14.60	0.38	3.40	NA	3.52	0.68
ARSENIC	48/50	Lognormal	22.70	0.86	3.61	1.70	1.50	3.38	0.72	4.18	4.18
BARIUM	50/50	Non Para.	656.00	3.90	101.94	NL	NL	85.80	NA	97.49	97.49
BERYLLIUM	33/50	Lognormal	1.40	0.26	0.62	0.51	0.21	0.48	0.68	0.59	0.59
CADMIUM	18/50	Non Para.	2.80	0.79	1.26	1.20	0.72	0.47	NA	0.53	0.53
CALCIUM	50/50	Lognormal	107000.00	3840.00	16894.60	NL	NL	16314.72	0.71	20076.78	20076.78
CHROMIUM	50/50	Normal	38.30	3.40	17.73	NL	NL	17.73	8.36	19.71	19.71
COBALT	50/50	Normal	22.90	1.30	8.41	NL	NL	8.41	4.23	9.41	9.41
COPPER	41/50	Normal	49.90	3.30	20.74	17.60	3.70	17.89	10.92	20.48	20.48
IRON	50/50	Normal	43600.00	4930.00	19034.40	NL	NL	19034.40	8118.35	20961.10	20961.10
LEAD	49/50	Lognormal	136.00	1.60	13.24	1.30	1.30	11.73	1.02	16.48	16.48
MAGNESIUM	50/50	Normal	16400.00	1250.00	6435.80	NL	NL	6435.80	3061.70	7162.42	7162.42
MANGANESE	50/50	Non Para.	897.00	63.90	314.72	NL	NL	318.50	NA	344.35	344.35
MOLYBDENUM	3/22	Not Tested	7.00	3.60	4.77	3.40	2.80	1.96	NA	NA	7.00
NICKEL	49/50	Normal	29.40	3.60	16.21	3.30	3.30	15.92	6.61	17.49	17.49

NOTES:
SQL = Sample quantitation limit, UCL 95 = 95 percent upper confidence limit, NL = Not listed, analyte detected in all samples, NA = Not Applicable
mg/kg = milligrams per kilogram, Non Para. = Non parametric
Average with ½ SQL, 50th percentile, standard deviation, UCL 95, and equivalent percentile include half of the SQL values for undetected analytes.
Maximum and minimum SQLs refer only to undetected analytes. SQLs for undetected analytes can be found in data summary tables in RI report.

12/12/94

NCBC PORT HUENEME
STATISTICAL SUMMARY OF BACKGROUND DATA

Analyte	Detected Samples/ Analyzed Samples	Type of Distri-bution	Concentration								
			Maximum Detected	Minimum Detected	Average Detected	Maximum SQL	Minimum SQL	Average with ½ SQL or 50th Percentile	Standard Deviation	UCL 95 or Equivalent Percentile	Lesser of UCL 95/ Equi. Percentile or Maximum Detected Value
POTASSIUM	50/50	Normal	5760.00	492.00	2082.18	NL	NL	2082.18	1102.69	2343.88	2343.88
SELENIUM	9/50	Lognormal	0.59	0.22	0.33	1.50	0.22	0.24	0.53	0.27	0.27
SILVER	4/50	Lognormal	1.10	0.56	0.71	2.30	0.42	0.48	0.42	0.54	0.54
SODIUM	40/50	Lognormal	6560.00	150.00	1008.53	511.00	116.00	898.61	1.03	1266.93	1266.93
VANADIUM	47/50	Normal	67.80	9.50	35.31	8.30	6.50	33.41	14.33	36.81	36.81
ZINC	49/50	Non Para.	203.00	12.40	59.62	13.40	13.40	50.55	NA	54.08	54.08

NOTES:
SQL = Sample quantitation limit, UCL 95 = 95 percent upper confidence limit, NL = Not listed, analyte detected in all samples, NA = Not Applicable
mg/kg = milligrams per kilogram, Non Para. = Non parametric
Average with ½ SQL, 50th percentile, standard deviation, UCL 95, and equivalent percentile include half of the SQL values for undetected analytes.
Maximum and minimum SQLs refer only to undetected analytes. SQLs for undetected analytes can be found in data summary tables in RI report.

12/12/94

APPENDIX C
BERM AND STOCKPILE SAMPLE RESULTS FOR IRP SITE 9

WEST COAST
ENVIRONMENTAL
AND ENGINEERING

RESULTS OF FIELD SAMPLING

Parcel 15, IR Site 9
Naval Base Ventura County
Port Hueneme, California

July 2003

Prepared For:	Long Term Maintenance Program LTM# P7, Project 1
Administered By:	Global Auto Processing Service, Inc. Under Navy Contract: N6871102RP02P13
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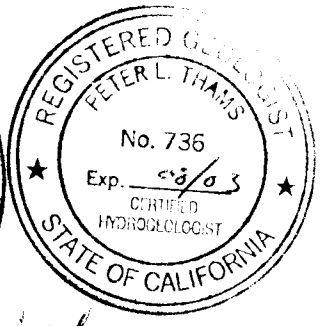
RESULTS OF FIELD SAMPLING

PARCEL 15, IR SITE 9

LTM #P7, PROJECT 1

Naval Base Ventura County
Port Hueneme, California

JULY 7, 2003



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RESULTS OF FIELD SAMPLING

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1.0 INTRODUCTION

1.1 Facility Location

Naval Base Ventura County (NBVC) Port Hueneme is located in Port Hueneme, Ventura County, California approximately 60 miles northwest of Los Angeles. NBVC Port Hueneme is bordered by the Pacific Ocean to the west and by residential neighborhoods of Oxnard, Port Hueneme and Ventura County to the north, south and east, respectively. Figure 1 shows the location of NBVC Port Hueneme. The plot plan for the project site, Parcel 15, IR Site 9 is detailed in Figure 2.

1.2 Base History

The NBVC was originally established in 1942 to train, stage and supply the then newly created Seabees. Port Hueneme was officially established in May of 1942 as the Advanced Base Depot. In 1945, the Advance Base Depot was renamed the Naval Construction Battalion Center. In 1950 during the Korean War, almost all of the Navy construction equipment and supplies for the war were routed through the base. In October 2000, as part of the reorganization of Ventura County's naval bases, Port Hueneme Naval Construction Battalion Center and Naval Air Weapons Station Point Mugu were consolidated under the name Naval Base Ventura County.

Port Hueneme is a deep-water port and one of the few military ports on the west coast. For more than 59 years, Point Hueneme has provided integral supplies, equipment, camps and roads to support not only the Seabees but also the Army, Air Force and Marines.

1.3 Site Description

Parcel 15, IR Site 9 is located in the western portion of the NBVC Port Hueneme (Figure 2). The site is not developed and currently not in use. The site is bound by Lehman Road to the south and Pennsylvania Road to the east. A drainage ditch runs along the northern perimeter at the base of the northern berm. North of the drainage ditch is a vacant parcel. To the west, a vacant lot is located adjacent to the site.

Parcel 15, IR Site 9 includes a surrounding earthen berm approximately twelve feet high, with a single access break along Lehman Road. Located within the berm are two stockpiles, A and B, of earth material of irregular sizes and shapes. The earthen berm and the stockpiles are the focus of this investigation.

1.4 Site Operation History

According to the Health Risk Assessment provided by Greg Hoffman of the United State Navy, Parcel 15, IR Site 9 has been used to process waste generated on the Navy base. From the 1950s to the late 1960s, wastes and trash including small amounts of hazardous wastes were incinerated at the site. Metal scrap and burning residues were reportedly buried at the site during this time period. From 1970 to 1994, the subject site was used as a solid waste transfer station. During this time period, wood pallets, scrap metal and paper were removed periodically

by a waste contractor, paper trash was buried onsite. Domestic trash and hazardous waste materials were not accepted on site. For a short time from 1985 to 1987, the northeast corner ofthe site subject site was used as a fire fighting training area. Diesel, gasoline and other petroleum products were used as combustibles. Wastewater generated by these activities was contained in an unlined earthen pit that was drained by a disposal contractor and removed from the site. From 1994 to the present, the site has been idle.

1.5 Environmental Setting

1.5.1 Topography

The subject site is located in a relatively flat lying region, with little surrounding topographic relief. According to the USGS 7.5 Minute Topographic map of the Oxnard Quadrangle, the subject site is located at an elevation of 13 feet above mean sea level.

1.5.2 Geology

The subject site is located in the southwestern portion of the Ventura Basin on the Oxnard Plain. The Ventura Basin is located in the Transverse Ranges Geomorphic Province. The Transverse Ranges are a complex series of mountain ranges and valleys distinguished by an anomalous east-west trend, contrasting to the northwest-southeast direction of the Coast Ranges and Peninsular Ranges. The western limit of the province is the island group of San Miguel, Santa Rosa, and Santa Cruz. The eastern limit, within the Mojave Desert, includes the San Bernardino Mountains on the east side of the San Andreas Fault (California Division of Mines and Geology-Note 36). Active thrust belts throughout the region border the basins, causing rapid uplift of the adjacent mountains and down dropping of the basins. The basins have subsequently been filled with substantial amounts of Tertiary and Quaternary sediments that were deposited in both marine and terrestrial settings. The basins of the Oxnard plain are filled with sediments deposited on a wide delta complex that formed at the terminus of the Santa Clara River. The Oxnard Basin extends across the offshore marine shelf to the shelf/slope break (edge of the shelf).

1.5.3 Hydrology/Hydrogeology

Hydrogeology: The Oxnard Plain overlies one of ten groundwater sub-basins within the coastal valleys and plains of the Santa Clara River Valley Groundwater Basin in Ventura County, California. The subject site is located within the Oxnard Subbasin. The Oxnard Subbasin is bound on the north by the Oak Ridge fault, to the south by the contact of permeable alluvium with the semi-permeable rocks of the Santa Monica Mountains. The eastern edge of the basin lies against the Pleasant Valley and Las Posas Valley Basins. The Oxnard Subbasin is comprised of a main recharge area termed the Oxnard forebay and a confined aquifer system that extends throughout the main part of the Subbasin. The subject site is located in the western part of the main part of the Subbasin.

The Oxnard Subbasin is comprised of a complex aquifer system containing sediments over 1,400 feet thick that is the primary source of water supplies for Western Ventura County (U.S. Geological Survey Open-File Report 94-532). The aquifers of the Oxnard Subbasin contain gravel and sand deposited along the ancestral Santa Clara River and in a coastal plain/delta complex at the terminus of the Santa Clara River. The basin consists of an upper and lower aquifer system.

The Lower Aquifer System consists of the Grimes Canyon, Fox Canyon and the Hueneme aquifers. The Fox Canyon aquifer is the prime water-bearing unit of the Lower Aquifer System. The Upper Aquifer System rests uncomformably on the Lower Aquifer System.

The Upper Aquifer System consists of a relatively flat-lying, 400 feet thick section of Late Pleistocene and Holocene alluvial deposits. The Upper Aquifer System is comprised of the Magu and Oxnard aquifers, which have been developed for local water supply. The Oxnard aquifer, approximately 180 feet below ground surface, is the primary water-yielding zone. The Oxnard aquifer is underlain by the Magu aquifer.

On the Oxnard Plain, the upper most silt and clay deposits of the Oxnard Aquifer are overlain by sand layers of the "semi-perched: zone. This zone extends from the surface to no more than 100 ft in depth. The confining clay of the upper Oxnard aquifer generally protects the underlying aquifers from contamination from surface land uses. Deep percolation of rainfall and irrigation return flows are the major components of recharges to the semi-perched zone.

Groundwater Depth: Based on WCE experience of the NBVC - Port Hueneme, depth to groundwater is expected to be encountered less than ten (10) feet below ground surface in the semi-perched aquifer zone.

Groundwater Gradient: Based on review of the topographic map, groundwater at the site is expected to migrate generally southerly in the vicinity of Parcel 15, IR Site 9.

Regional Impairments to Groundwater: Shallow perched groundwater (semi-perched aquifer zone less than 50 feet below ground surface) in the Oxnard area is sometimes impacted by human activities and activities associated with the historical agricultural cultivation. According to the United Water Conservation District, *Surface and Ground Water Conditions Report*, 1999, on the Oxnard Plain, the "semi-perched" zone generally contains water of poor quality and is not used for water supply on the Oxnard Plain.

The permeable deposits of the Oxnard and Fox Canyon Aquifers extend westward offshore and may crop out on the ocean floor in direct contact with seawater. Intrusion of saline water has been observed in the Port Hueneme and Point Magu areas.

In spite of these potential impacts, the Water Quality Control Board for the Los Angeles Region does specify existing municipal, industrial and agricultural beneficial uses for the shallow perched aquifers.

1.6 Previous Investigations

The following environmental investigations have been performed on the subject site:

- Initial Assessment Study – SCS and Landau Associates, 1985
- Site Inspection – ERTEC, 1991
- Hazardous Materials Survey and Site Assessment – Fugro-McClelland, 1991
- Risk Assessment – see Appendix 10

All of these previous assessments have detected VOCs, pesticides, petroleum hydrocarbons, semi-VOCs, metals and PCBs. However, all of the compounds detected were recorded with

concentrations below hazardous waste regulatory levels found in Title 22, California Code of Regulations (CCR) and screening levels found in United Stated Environmental Protection Agency (USEPA) Region 9 Preliminary Remediation Goals (PRGs) and the Los Angeles Regional Water Quality Control Board (LARWQCB); Interim Site Assessment and Cleanup Guidebook, May 1996 (LARWQCB – May 1996).

2.0 RATIONALE

This section presents the rationale for the soil sampling on Parcel 15, IR Site 9. It discusses the Data Quality Objectives (DQOs) and soil sampling methods used to meet the objectives of the Field Sampling Plan.

2.1 Data Quality Objectives

The seven-step U.S. EPA Data Quality Objective (DQO) process was used as the rationale for the field investigation (U.S. EPA 2000). The data collected during the field investigation will be used to assess whether earthen material on the subject site may be used as clean fill as outlined in the advisory document published by the DTSC-2001. The DQOs developed for the field investigation consist of qualitative and quantitative statements describing the required reporting limit, degree of certainty and laboratory QC level for each specified use. Table 1-1 in Appendix 5 outlines the DQOs for the project.

A detailed discussion of the DQOs is provided in Section 1.6 of the Quality Assurance Project Plan. The basic elements of the Data Quality Objectives Parcel 15, IR Site 9 are as follows:

1. State the Problem:
   - Navy has need for clean earth fill materials, due to prior use can the earth materials be used as clean fill?
   - Previous sampling indicates elevated concentrations of a variety of chemical compounds.
     - Chemicals of Potential Concern include VOCs, metals, semi-VOCs, pesticides and PCBs; Table 3-4 lists analyses for these chemicals
   - Some areas of the site may not be truly characterized.

2. Identify the decision
   - Can the berms and stockpile areas be used as clean fill?
     - Are concentrations of analytes at levels that are acceptable for the earthen material to be certified as clean fill according to DTSC-2001 guidelines

3. Identify the decision inputs
   - Validate soil sampling results compared to regulatory criteria: US EPA Preliminary Remediation Goals for residential soils, California Code of Regulations, Title 22, Chapter 11 for metals and other compounds were applicable, and Los Angeles Regional Water Quality Control Board guidance levels for BTEX and TPH compounds.
     - Analytical methods, detection limits and applicable regulatory criteria for the chemicals listed in Table 1-2 in Appendix 3.

4. Define the study boundaries
   - Area of interest limited to the upper 10 feet of the berm and Stockpile Areas A and B. Area of interest is shown on Figure 3 located in Appendix 1.

2.1 DQOs Continued

5. Develop decision rules
   - If all samples results are below regulatory criteria, earth material may be used as clean fill.
   - For areas where sample results are below regulatory criteria, the Navy can evaluate redrawing the IR Site 9 boundary to exclude those same areas
   - If sample results are below the industrial PRGs but above the residential PRGs, the soil from those same areas may be used for fill upon approval from the Navy and DTSC.
   - If no debris is encountered during sampling procedures, then no further action needed and earthen materials may be certified as clean fill.
   - If debris is found buried in the berms or stockpiles, the soil from those same areas may be used as fill provided that adequate screening methods are employed during excavation
   - If some analyte sample results are above the residential PRGs and some are below, statistical analysis will be conducted to calculate the true mean. If the true mean is below the residential PRG level, the soil may be used for fill upon approval from the Navy and DTSC.

6. Specify tolerable limits on decision errors
   - Measurement errors will be limited by adherence to proper procedures
   - Matrix spikes in laboratory report reviewed to make sure that the matrix spikes fall within the surrogate recovery range.

7. Optimize the sampling design
   - Sampling plan as outlined in Section 3.2
     - Proposed sampling location shown Figure 3 located in Appendix 1
     - Number of sampling by location as listed in Table 3-3

3.0 SCOPE OF WORK

3.1 Project Preparation

A site specific Health and Safety Plan was developed for the project and kept on site at all times during sampling procedures. A bound Field Sampling Book was prepared and included figures of proposed boring locations, blank boring logs, blank photo logs, blank logs for detailing sampling progress and/or problems.

This assessment was conducted in general accordance with the Field Sampling Plan, April 2003. Variances from the proposed sampling plan are described below. The site was cleared by underground service alert prior to the commencement of work.

3.2 Field Work

Fieldwork for this assessment consisted of taking 42 soil samples from the berms and the Stockpile Areas A and B of Parcel 15, IR Site 9 of NBVC, Port Hueneme, California. Fieldwork also included observation of boring and decontamination procedures, soil sampling and classifications and photographing the area and boring locations. No variance was made from the proposed scope of work. All proposed samples were taken and were tested in accordance with the laboratory testing schedule outlined in the Work Plan.

3.3 Soil Sampling

Soil samples were obtained from borings advanced by direct push technology. Forty-two (42) borings were advanced and one soil sample from each boring was taken and analyzed. Approximate boring placement is shown on Figure 3 found in Appendix 1.

Soil sampling was done following a staggered sampling pattern (M1@1', M2@3', M3@5', etc.). Soil samples were obtained at 1', 3', 5', 7' and 9' depths below ground surface (bgs), determined by soil depth in the sampling area. In the berm areas, where the elevation is in excess of 12' above ground surface, sampling was done to depths of 9'. In Stockpile Areas A and B, where the elevation is erratic, soil samples were obtained at depths determined by elevation of the boring location.

Stockpile A: Ten (10) borings were advanced in Stockpile A and a soil sample was obtained from each boring. All borings were located as close to the original proposed boring location as possible with little deviation with the following exceptions: Boring A1 was moved from the original proposed location to 10 feet east of original mark due to inaccessibility of the original proposed boring locations. A stand of dense bushes was blocking access to the original proposed boring location for A1. Three attempts to sample were made in the original boring location for A10; all boring attempts were refused at approximately 1 foot depth. Boring A10 was relocated 12 feet north of the original proposed boring location. The field team observed debris at the southwest corner of Stockpile A.

Physical descriptions of the soil consisted of dark yellow-brown sandy silt and gray brown sand with some clay and intermittent traces of gravel.

Photo ionization readings taken from samples in Stockpile A ranged from 8.4 ppmv in sample A2 to 540 ppmv in sample A4. Photo ionization detection readings from each sample are detailed on the corresponding boring log found in Appendix 7.

Stockpile B: Seven (7) borings were advance in Stockpile B and a soil sample was obtained from each boring. All borings were located as close to the original proposed boring location as possible with little deviation. Physical descriptions of the soil ranged from dark yellow-brown sand to very dark brown-sand with traces of silt with some deviations as follows: the sample from B1 was black discolored sand; the sample from B6 contained debris of wood and plastic.

Photo ionization detection readings from the samples in Stockpile B ranged from 0.7 ppmv in sample B5 to 10.1 ppmv in sample B2.

Berms: Twenty-five (25) borings were advanced in the berms and a soil sample was obtained from each borings. All borings were located as close to the original proposed boring location as

possible with little deviation. Physical descriptions of the soil ranged from dark brown sand, to dark yellow-brown fine sands, and dark grayish brown silty and clayey sand.

Photo ionization detection readings from the samples in the berms ranged from 0.0 ppmv in sample M10 to 24.5 ppmv in sample M7.

3.3.1 Sampling Rationale

Sampling locations were chosen using a two-pronged approach. First, a judgmental approach, based on historical information and previous assessment, was used to determine what areas in Parcel 15, IR Site 9 could be considered fill source areas. Only the berm areas and Stockpile Areas A and B had been identified as a possible source for clean fill and were the only areas tested. Second, sampling locations within the berm and stockpile areas where determined using a random grid sampling approach. Exact sample locations were finalized in the field because of uneven terrain and presence of debris or other obstructions. Table 3-3 summarizes the number of samples taken by location.

Sampling analysis methods and the number of samples needed to characterize the site were determined using the guidelines detailed in the DTSC-2001 fact sheet for determining fill based on fill source area. Samples were analyzed for Total Petroleum Hydrocarbons, VOCs, Semi-VOCs, Pesticides, PCBs and Metals. Target analytes were established using the suggested guidelines for residential/commercial and agricultural land. Table 3-4 summarizes the laboratory-testing schedule.

Table 3-1 summarizes the DTSC borrow site sampling requirements for the number of samples needed to adequately characterize the fill material. The DTSC sampling requirements are based on either acreage or volume of material from the borrow site. Table 3-2 summarizes the number of samples required for this project as calculated using the DTSC-2001 requirements.

Table 3-1 DTSC Borrow site sampling requirements

Area/Volume	Sampling Requirements
2 acres or less	Minimum of 4 samples
2-4 acres	Every ½ acre
4-10 acres	Minimum 8 samples
Greater than 10 acres	Minimum 8 locations with 4 subsamples per location
Up to 1000 cubic yards	1 sample per 250 cubic yards
1,000-5,000 cubic yards	4 samples for first 1,000 cubic yards + 1 sample per each additional 500 cubic yards
Greater than 5,000 cubic yards	12 samples for first 5,000 cubic yards + 1 sample per each additional 1,000 cubic yards

Source: DTSC-2001

For this investigation, the sampling requirements were determined based on a conservative estimate of the volume of soil contained in the berms and stockpiles. The volume of soil was calculated from an estimated weight of the soil provided to WCE by the project civil engineer. He estimated the total weight of soil in the berms and stockpile areas to be approximately 50 tons. WCE used the standard conversion that 1 cubic yard of soil is roughly equivalent to 1.5 tons of soil to determine the total volume of soil.

Estimated weight of soil = 50 tons /1.5 cubic yards = 35,000 cubic yards
The DTSC-2001 sampling requirements for volumes greater than 5,000 cubic yards were used to determine the number of samples to be taken for this project. Table 3-1 outlines the DTSC-2001 sampling requirements.

Table 3-2 Sampling requirements calculated for the borrow site

Volume	Number of Samples
First 5,000 cubic yard	12 samples
Remaining 30,000 cubic yards (1 sample for every remaining 1000 cubic yards)	30 samples
Total number of samples	42

Table 3-3 Number of Samples by Location

Sample Type	Number of Routine Samples					
	VOCs	TPH	Metals	PCBs	Pesticides	Semi-VOCs
Stockpile A	10	10	10	10	10	10
Stockpile B	7	7	7	7	7	7
North Berm Area	7	7	7	7	7	7
South Berm Area	7	7	7	7	7	7
East Berm Area	6	6	6	6	6	6
West Berm Area	5	5	5	5	5	5
Soil Samples Total	42	42	42	42	42	42

Table 3-4 Laboratory Testing Schedule

Soil Analysis Parameter	Test Method	Total Routine Analysis	Total QC[a] Analysis	Total Analyses
Volatile Organic Compounds	US EPA 8260b	42	2	44
Total Petroleum Hydrocarbons	US EPA 8015m	42	2	44
Metals	22CCR Metals by US EPA series 6000 and 7000	42	2	44
PCBs	US EPA Method 8082	42	4	46
Pesticides	US EPA 8081	42	4	46
Semi-volatiles	US EPA Method 8270c	42	2	44

Notes: a - QC samples include field duplicates and over run samples

4.0 FIELD METHODS AND PROCEDURES

4.1 Standard Operating Procedures

All fieldwork conducted on the site followed the WCE Standard Sampling Procedures (SSPs). SSP-8 outlines the sampling procedures to be used for this project (Geoprobe Rig Boring and Soil Sampling). Copies of the SSPs are attached in Appendix 8.

4.2 Sampling Methods

4.2.1 Direct-Push Sampling Method

The forty-two borings will be advanced utilizing Geoprobe™ direct push technology as described in WCE Standard Sampling Procedures (SSP-8). A Geoprobe™ rig is a small, truck mounted hydraulic and percussion drive-point sampling system capable of performing discrete soil, groundwater, and soil vapor sampling without generating soil cuttings. No soil or groundwater wastes were generated during this investigation.

4.2.2 Soil Sampling

Soil samples were collected from all boring locations. Samples were collected from 1', 5', 7' and 9' interval depths. The soil borings were logged in accordance with the Unified Soil Classification System by a geologist under the supervision of a California Registered Geologist. All observed field evidence of odors, staining and elevated total organic vapor readings were recorded on the boring logs (Appendix 3). Each soil sample was field screened for total volatile organic compounds (VOCs) with a photo-ionization detector (PID) and the results were recorded on the boring logs. Direct-push sampling did not generate soils or other investigation derived waste (IDW) requiring special disposal methods.

All soil samples were submitted to a California certified laboratory. Samples were analyzed as indicated in Section 3.2, Table 3-4.

4.3 Sampling Equipment Decontamination

Sampling equipment was cleaned and decontaminated according to WCE Standard Sampling Procedures SSP-8. All downhole sampling equipment, drill rods and augers, were decontaminated between borings using a non-phosphate detergent followed by rinsing with tap water and then deionized water.

4.4 Disposal of Contaminated Materials

Disposable sampling equipment (e.g., nitrile gloves, filters) were used once and then placed with used personal protective equipment for disposal. The direct push sampling method did not to generate soils waste requiring special disposal methods. All investigation derived wastes (decontamination liquids) are temporarily contained in DOT- approved drums and stored in a secure area. Drums were labeled with the site name, date and nature of materials. Following receipt of profile analytical results, disposal options for the wash water will be evaluated and include transport and disposal at an appropriate facility offsite.

4.5 Sample Containers

Sampling containers were selected in accordance with the U.S. EPA SW-846. Soil samples were cut from an acetate liner tube retrieved from the direct push sample tube. Each section selected for analysis was covered on both ends with tephlon and capped. Selection of sample containers is in accordance with WCE Standard Sampling Procedures SSP-8. Sample containers for soil were provided by the direct-push drilling contractors and were supplied new and unused.

4.6 Sample Preservation

Samples were preserved in accordance with U.S. EPA Contract Laboratory Program (CLP) protocols (U.S. EPA 1994). Field samples and associated QC samples requiring cooling were maintained in a cooler with blue ice until shipment to the laboratory. Samples were transported to the laboratory on the same day as sampling. Detailed sample preservation methods are outlined in WCE Standard Soil Sampling Procedures SSP-8 found in Appendix 8.

4.7 Sample Packaging and Shipping

The WCE field investigation crew prepared all samples for shipment to the laboratory on the day the samples are obtained. Samples were packaged properly and dispatched to the designated laboratory for analysis. The field team packaged the samples for shipment as follows:

- Labeled all sample containers with the date, boring number and depth and project number.
- Packed cooler with blue ice.
- Placed the completed chain-of-custody forms in a plastic zip-lock bag and tape to the inside of the cooler lid.
- Secured the cooler with custody seals.
- At the end of the day, the field crew transported the cooler to the laboratory via project vehicle.

4.8 Sample Documentation

4.8.3 Field Logs

Field records were maintained for each soil sample taken. Boring logs were kept for all direct-push borings advanced in the project area. Soil conditions at each boring location were logged by the field geologist. Boring logs detailed the depth, soil characteristics and PID readings for all samples taken. All entries were made as soon as field screening of sample was complete. The boring logs were kept as a permanent record of sampling activities. See Appendix 3 for formatted boring logs. A copy of the field log book is located in Appendix 12.

4.8.4 Documents and Chain of Custody

Official custody of samples were maintained and documented from the time of sample collection until the validation of analytical results. The chain of custody record is the document that records the transfer of sample custody.

Once samples were received at the laboratory, laboratory personnel were responsible for

acknowledging receipt of samples, recording temperature within the shipping cooler, and verifying that the containers have not been opened or damaged. Laboratory personnel were also responsible for maintaining custody and sample tracking records throughout sample preparation and analysis. A copy of the chain of custody record was sent with the testing results at the completion of the analytical work.

4.9 Quality Control Samples

A field program conforming to quality control procedures outlined in the DTSC Preliminary Endangerment Assessment, Guidance Manual, 1999 was implemented to help maintain the required level of confidence in the field data and to provide cross checking on the laboratory contracted to perform the analyses. The following types of field QC samples were submitted for analysis:

Field duplicates: Randomly selected routine field sample were split to determine the precision of the sampling process. Field duplicates were prepared randomly for all soil sampling events. Duplicate samples were submitted along with all other samples. Two duplicate samples were collected from the berm areas and submitted to the laboratory for analysis.

Over run samples: Randomly selected routine field samples were run two times for laboratory QC sampling and analysis. Over-run samples were randomly selected from the routine field sample set and submitted to the laboratory. Over-run samples consisted of two aliquots from the same segment of the sediment core. To over-run samples were selected from the berm areas and submitted for PCB and Pesticide analysis. Table 3-4 lists quantities of expected QC samples.

5.0 RESULTS OF ASSESSMENT

5.1 Soil Sampling

The soil samples collected from the berms and Stockpile Areas A and B for this assessment were analyzed for Total Petroleum Hydrocarbons (TPH) by EPA Method 8015m, Semi-Volatile Organic Compounds (Semi-VOCs) by EPA Method 8270b, Volatile Organic Compounds (VOCs) by EPA Method 8260b, Poly-chlorinated Bi-phenyls (PCBs) by EPA Method 8082, Pesticides by EPA Method 8081 and Metals by EPA Series 6000/7000 Methods.

5.2 Stockpile A

Nine borings were taken at various depths from Stockpile A at random depths. Boring locations are shown on Figure 2 located in Appendix 1. One soil sample was taken from each boring location and tested for Semi-VOCs, VOC, Pesticides, PCBs, TPH and Metals. Complete results tables for Stockpile A are found in Appendix 4. The results from the testing are summarized below according to analytical method and display only those samples where the result was above the detection limit:

Table 5-5 Results of Analysis for Semi-VOCs in Stockpile A

Sample ID	Phenol
A1	**0.63**
A2	**0.16**
A3	**0.65**
Detection Limit	0.10
PRGres	37000
All results in mg/Kg Semi-VOCs – Semi-Volatile Compounds by US EPA Method 8270 PRGres- US EPA Preliminary Remediation Goals for residential soils	

Phenol was detected in samples A1, A2 and A3 at less than one mg/Kg. No other Semi-VOCs were detected in Stockpile A.

According to Dan A. Farah, Director of Analytical Operations at Capco Analytical, the laboratory that performed all sample testing, the presence of phenol in sample results may be due to the use of acetate liners for collecting and storing samples and not indicative of phenol in the soil. A written summary of Mr. Farah's opinion can be referenced in Appendix 4 with the laboratory analytical reports.

Table 5-6 Results of Analysis for VOCs in Stockpile A

Sample ID	Benzene	Chloromethane
A6-3	**0.01**	<0.005
A7-3	<0.005	**0.0062**
Detection Limit	0.005	0.005
PRGres	0.6	1.2
LARWQCB Guidance	0.011	NL
CCR22 – TCLP mg/L	0.5	NL
All results in mg/Kg unless otherwise specified VOCs - Volatile Organic Compounds by US EPA Method 8260b PRGres – US EPA Preliminary Remediation Goals for Residential Soils LARWQCB Guidance: *Interim Site Assessment and Cleanup Guidebook*, Los Angeles Regional Water Quality Control Board, 1996. CCR22 – TCLP – California Code of Regulations Toxicity Characteristic Leaching Procedure (20 X dilution factor)		

Benzene was detected in sample A7-3 and Chloromethane was detected in sample A6-3. However, the detected results for Benzene and Chloromethane are below the US EPA PRGs for residential soils. In addition, the results for Benzene are also below the LARWQCB guidance for level for protection to groundwater and 22CCR TCLP limits.

Table 5-7 Results of Analysis for Pesticides in Stockpile A

Sample ID	4,4 - DDD	4,4 - DDE	4,4 - DDT
A1-5	<0.003	<0.003	**0.037**
A5-1	<0.003	<0.003	**0.0074**
A7-3	<0.003	**0.004**	**0.00676**
A9-7	**0.037**	**0.072**	**0.17**
Detection Limit	0.003	0.003	0.003
PRGres	2.4	1.7	1.7
CCR22 TTLC	1.0	1.0	1.0
CCR22 STLC	0.1 mg/L	0.1 mg/L	0.1 mg/L

All results in mg/Kg unless otherwise noted
Pesticides – by US EPA Method 8081
PRGres – US EPA Preliminary Remediation Goals for Residential Soils
CCR22 TTLC – California Code of Regulations Total Threshold Concentration Limit
CCR22 STLC – California Code of Regulations Soluble Threshold Limit Concentrations (Dilution factor 10X)

DDD was detected in sample A9. DDE was detected in samples A9 and A7. DDT was detected in samples A1, A5, A7 and A9. However, the detected results for DDD, DDE and DDT are below the US EPA PRGs for residential soils and the CCR22 TTLC limits. No other pesticides were detected in the borings for Stockpile A.

Table 5-8 Results of Analysis for PCBs in Stockpile A

No PCBs were detected in any of sample results for Stockpile A.

Table 5-9 Results of Analysis for TPH in Stockpile A

Sample ID	C4-C12 Gasoline Range Organics	C13-C22 Diesel Range Organics	C23+ Heavy Oil Range Organics
A1-5	<0.5	**64**	**75**
A3-1	<0.5	**20**	**280**
A4-5	<0.5	**22**	**77**
A5-1	<0.5	**68**	**320**
Detection Limit	0.5	0.10	0.10
LARWQCB Guidance	100	100	1000
PRGs	Presently, there are not US EPA PRGs for TPH compounds.		

All results in mg/Kg.
TPH - Total Petroleum Hydrocarbons by US EPA Method 8015m
PRGres – US EPA Preliminary Remediation Goals for residential soils
LARWQCB Guidance: *Interim Site Assessment and Cleanup Guidebook*, Los Angeles Regional Water Quality Control Board, 1996

Varying levels of TPH as diesel and heavy oil were detected in samples A1, A3, A4 and A5.

However, all results are below the guidelines outlined by the Los Angeles Regional Water Quality Control Board for Maximum Soil Screening Levels (mg/Kg) for TPH. Presently, there are no PRGs for TPH. Individual petroleum hydrocarbon compounds do have PRGs (BTEX and PAHs) which were covered under VOC and Semi-VOC analyses.

Table 5-10 Results of Analysis for Metals in Stockpile A

Sample ID	As	Ba	Cd	Cr	Co	Cu	Pb	Hg	Ni	Ag	Va	Zn
A1-5	**1.2**	**40**	**3.9**	**22**	**7.7**	**24**	**57**	<1	**11**	<2	**19**	**65**
A2-7	**2.2**	**56**	<3	**8.5**	**4**	**11**	**10**	<1	**9.6**	<2	**14**	**29**
A3-1	**1.1**	**32**	**2.9**	**10**	**6.2**	**16**	**13**	<1	**11**	<2	**14**	**52**
A4-5	**1**	**27**	**3.5**	**13**	**7.3**	**18**	**22**	**0.13**	**13**	<2	**18**	**42**
A5-1	**0.9**	**27**	**6.5**	**15**	**14**	**24**	**36**	<1	**18**	<2	**31**	**49**
A6-3	**0.77**	**24**	<3	**3.3**	**2.2**	**6.2**	**5.3**	<1	**4**	<2	**5.9**	**8.9**
A7-3	**0.95**	**39**	<3	**4.4**	**2.9**	**7.3**	**7.9**	<1	**5.3**	**2.6**	**7.5**	**16**
A8-9	**1.4**	**37**	<3	**5.6**	**2.7**	**6**	**6.3**	<1	**6.3**	<2	**8.9**	**17**
A9-7	**3.1**	**41**	**10**	**14**	**5.7**	**63**	**30**	<1	**29**	<2	**13**	**54**
A10-9	**1.2**	**26**	<3	**3.2**	**1.7**	**4.5**	**3**	<1	**3.3**	<2	**3.9**	**5.5**
MDL	0.2	1	3	3	1	3	3	1	1	2	0.2	1
PRGres	0.39	5300	37	30	900	31000	150	23	1600	390	550	2300
PRGind	1.6	67000	450	64	1900	41000	750	310	20000	5100	7200	10000
TTLC	500	10000	100	2500	8000	2500	1000	20	2000	500	2400	5000
STLC mg/L	5.0	100	1.0	5.0	80	25	5.0	0.2	20	5	24	250
TCLP mg/L	5.0	100.0	1.0	5.0	NL	NL	5.0	0.2	NL	5.0	NL	NL
Port Hueneme Threshold Value mg/Kg	22.7	656	2.8	38	18	43	79	ND	29.4	NL	67	203

All results in mg/Kg unless otherwise specified
Metals by US EPA Series 6000/7000
As= Arsenic, Ba- Barium, Be= Beryllium, Cd= Cadmium, Cr= Chromium, Co= Cobalt, Cu= Copper, Pb= Lead, Hg= Mercury, Ni= Nickel, Ag= Silver, Va= Vanadium, Zn= Zinc
MDL – Method Detection Limit, NL – Not Listed
PRGres – USEPA Preliminary Remediation Goals for residential soils
PRGind – US EPA Preliminary Remediation Goals for industrial soils
CCR22 TTLC – California Code of Regulations Total Threshold Concentration Limit
CCR22 STLC – California Code of Regulations Soluble Threshold Limit Concentrations (Dilution factor 10X)
CCR22 – TCLP – California Code of Regulations Toxicity Characteristic Leaching Procedure (20 X dilution factor)
Port Hueneme Background Threshold Value – supplied by the NVBC as background comparison levels
NL – Not Listed

Table 5-11 Wet Analysis for Metals in Stockpile A

Analyte	Sample ID	TTLC mg/Kg	TTLC PQL mg/Kg	STLC mg/L	STLC PQL mg/L	22CCR	
						TTLC mg/kg	STLC mg/L
Lead	A1-5	**57**	3	BQL	0.9	1000	5
Cadmium	A9-7	**10**	3	BQL	0.5	100	1

TTLC – Total threshold limit concentration from California Code of Regulations Title 22, Chapter 11
STLC – Soluble threshold limit concentration from California Code of Regulations Title 22, Chapter 11
PQL – Practical Quantitation Limit
BQL – Below Practical Quantitation Limit
22CCR - California Code of Regulations Title 22, Chapter 11, listed on lab analytical reports as CAM Limits

Metal concentrations are consistent with those expected for background levels found in soils, except for those concentrations of lead detected at 57 parts per million (ppm) and cadmium detected at 10 ppm from boring samples A1 and A9 respectively.

The levels of lead and cadmium detected in the samples are below the USEPA Preliminary Remediation Goals (PRG) for residential soil and the Total Threshold Concentration Limit (TTLC) threshold guidelines defined by the California Code of Regulations (CCR) Title 22, Chapter 11, for determining hazardous waste. However under the same CCR Title 22, Chapter 11 guidelines, the potential does exist for the concentration to exceed the Soluble Threshold Concentration Limit (STLC), based on the laboratory method dilution factor of 10 (TTLC = 57 mg/l; STLC of 5.7 mg/l is possible). Therefore, a Waste Extraction Test (WET) was run to determine the level of solubility and compare the results with those of the STLC.

The results of the WET analysis are displayed above in Table 5-11. The STLC results were below the quantitation limit for both samples and thus below their respective 22CCR STLC limits for lead and so is not considered a constituent of concern.

Levels of arsenic detected exceeded the PRGs for residential soils in each sample and in some cases the PRGs for industrial soils, however the levels are well within the expected range for background levels for Port Hueneme (22.7 mg/Kg) and are not considered elevated due to human activities. Statistical analysis (Wilcoxon Rank Sum Test) was performed on the sample results to provide an extra level of confidence that the levels of arsenic detected in Stockpile A is consistent with ambient arsenic levels in soils and not a constituent of concern at this site. The results of the test showed that the null hypothesis could be rejected, hence the conclusion can be drawn that the levels of arsenic in Stockpile A are consistent with ambient arsenic levels in soils. See Section 6.1.2 for a discussion of the Wilcoxon Rank Sum Test and Appendix 11 for the statistical results. (Arsenic background information source: Draft Technical Memorandum – Harbor Dredging Project, IR Site 19, NCBC Port Hueneme, 2001. See Appendix 11 for reference).

5.3 Stockpile B

Seven borings were taken at various depths from Stockpile B at random depths. Boring locations are shown on Figure 2 located in Appendix 1. One soil sample was taken from each boring location and tested for Semi-VOCs, VOC, Pesticides, PCBs, TPH and Metals. Complete results tables for Stockpile B are found in Appendix 4. The results from the testing are

summarized below according to analytical method and display only those samples where the result was above the detection limit:

Table 5-12 Results of Analysis for Semi-VOCs in Stockpile B

Sample ID	Butyl benzyl phthalate	Phenol
B1-7	<0.10	**0.35**
B3-9	<0.10	**0.27**
B4-7	<0.10	**0.57**
B5-3	**0.44**	**0.7**
B6-3	<0.10	**1.1**
Detection Limit	0.10	0.10
PRGres	12000	37000
All results in mg/Kg Semi-VOCs – Semi-Volatile Compounds by US EPA Method 8270		

Phenol was detected in samples B1, B3, B4, B5 and B6. Butyl benzyl phthalate was found in samples B5 at less than 1 mg/Kg. Both analytes are below the US EPA PRGs for residential soils. As discussed above in Section 4, the detection of phenol in samples is considered the result of the collection of the sample in acetate containers.

Table 5-13 Results of Analysis for VOCs in Stockpile B

Sample ID	Benzene	Toluene
B1-7	**0.0071**	<0.005
B7-1	**0.01**	**0.0055**
Detection Limit	0.005	0.005
PRGres	0.6	520
PRGind	1.3	520
LARWQCB Guidance	0.011	0.3
CCR22 TCLP mg/L	0.5	NL

All results in mg/Kg unless otherwise specified
VOCs - Volatile Organic Compounds by US EPA Method 8260b
PRGres – US EPA Preliminary Remediation Goals for Residential Soils
PRGind – US EPA Preliminary Remediation Goals for Industrial Soils
LARWQCB Guidance: *Interim Site Assessment and Cleanup Guidebook*, Los Angeles Regional Water Quality Control Board, 1996.
CCR22 TCLP – California Code of Regulations Toxicity Characteristic Leaching Procedure (20 X dilution factor)

Benzene was detected in samples B1 and B7. Toluene was detected in sample B7. However, detected results for Benzene and Toluene are below the US EPA PRGs for residential soils and the below the guidance level provided by the LARWQCB for the protection of groundwater.

Table 5-14 Results of Analysis for Pesticides in Stockpile B

Sample ID	4,4 - DDD	4,4 - DDE	4,4 - DDT	Chlordane
B1-7	**0.02**	**0.013**	**0.1**	**0.1**
B2-5	**0.012**	**0.009**	**0.025**	**0.1**
B3-9	**0.0036**	**0.043**	**0.0061**	<0.010
B4-7	**0.0055**	**0.02**	**0.038**	<0.010
B5-3	<0.003	<0.003	**0.0047**	<0.010
B6-3	**0.024**	**0.016**	**0.036**	**0.35**
B7-1	**0.0091**	**0.012**	**0.024**	**0.22**
Detection Limit	0.003	0.003	0.003	0.010
PRG Res	2.4	1.7	1.7	1.6
CCR22 TTLC	1.0	1.0	1.0	2.5
CCR22 STLC mg/L	0.1	0.1	0.1	0.25

All results in mg/Kg unless otherwise specified
Pesticides – by US EPA Method 8081
PRGres – US EPA Preliminary Remediation Goals for Residential Soils
CCR22 TTLC – California Code of Regulations Total Threshold Concentration Limit
CCR22 STLC – California Code of Regulations Soluble Threshold Limit Concentrations (Dilution factor 10X)

DDD and DDE were detected in samples B1, B2, B3, B4, B6 and B7. DDT was detected in all samples from Stockpile B. Chlordane was detected in samples B1, B2, B6 and B7. However, sample results for DDD, DDE, DDT and Chlordane were below the US EPA PRGs for residential soils and the CCR 22 TTLCs for pesticides.

Table 5-15 Results of Analysis for PCBs in Stockpile B

Sample ID	Aroclor 1260
B1-7	**0.24**
B2-5	**2.1**
B3-9	**0.07**
B4-7	**0.13**
B5-3	**0.1**
B6-3	**0.46**
Detection Limit	0.04
PRGres	0.22
PRGind	0.74
CCR22 TTLC	50
CCR22 STLC mg/L	5.0

All results in mg/Kg unless otherwise specified
Shaded cells indicate results are above PRGres remediation goals
PRGres – US EPA Preliminary Remediation Goals for Residential Soils
PRGind – US EPA Preliminary Remediation Goals for Industrial Soils
CCR22 TTLC – California Code of Regulations Total Threshold Concentration Limit
CCR22 STLC – California Code of Regulations Soluble Threshold Limit Concentrations (Dilution factor 10X)

PCBs were found in all samples from Stockpile B except for sample B7. Results from all Stockpile B samples were below the CCR 22 TTLC limits. Results from samples B2 and B6 were found to be above the US EPA PRGs for residential soils. A statistical analysis was performed using the one sample t-test to determine whether the calculated mean for the sample set could be help as valid for decision making purposes.

Mean	0.449
Standard Deviation	0.742079
Number of Aliquots -n	7
Square root of n	2.645751
T-Test Calculation Result	0.351847

t0.95 = comparison value based on the critical value of the distribution with 6 degrees of freedom
t0.95=1.943 > 0.35 t-test calc

If the t-test calculation value is less than the t0.95 critical value, the test fails, the null hypothesis can not be rejected and calculated mean can not be validated as the true mean and used in decision making. See section 6.1 for a discussion on the methodology and rationale.

Table 5-16 Results of Analysis for TPH in Stockpile B

Sample ID	C4-C12 Gasoline Range Organics	C13-C22 Diesel Range Organics	C23+ Heavy Oil Range Organics
B1-7	<0.5	**53**	**320**
B2-5	<0.5	**210**	**230**
B6-3	<0.5	**220**	**530**
B7-1	<0.5	**25**	**83**
Detection Limit	0.5	0.10	0.10
LARWQCB Guidance	100	100	1000
PRGres	PRGs have not been established for TPH as a constituent of concern.		

All results in mg/Kg.
Shaded cells indicate results are above LARWQCB guidance levels
TPH - Total Petroleum Hydrocarbons by US EPA Method 8015m
PRGres – US EPA Preliminary Remediation Goals for residential soils
LARWQCB Guidance: *Interim Site Assessment and Cleanup Guidebook*, Los Angeles RWQCB, 1996

As shown in Table 5-15, TPH in the diesel and heavy oil range was detected. The concentrations of heavy oil detected are well below the guidance level provided by the LARWQCB for the protection of groundwater. However, concentrations of diesel range organics from samples B2 and B6 were exceed the LARWQCB guidance levels for the protection of groundwater.

Table 5-17 Results of Analysis for Metals in Stockpile B

Sample ID	As	Ba	Cd	Cr	Co	Cu	Pb	Ni	Va	Zn
B1-7	**2.3**	**89**	**5.2**	**12**	**6.6**	**19**	**51**	**11**	**19**	**94**
B2-5	**3.1**	**66**	**3.6**	**12**	**5.1**	**92**	**45**	**9.5**	**19**	**130**
B3-9	**0.82**	**26**	<3	**3.8**	**2.2**	**7.8**	**5.8**	**4.3**	**7**	**19**
B4-7	**1.4**	**41**	<3	**3.9**	**3.9**	**9.1**	**12**	**6.6**	**11**	**30**
B5-3	**1.9**	**45**	<3	**3.7**	**3.7**	**9.3**	**7.2**	**8.2**	**14**	**31**
B6-3	**2.5**	**79**	**4.2**	**6**	**6**	**32**	**78**	**12**	**19**	**150**
B7-1	**8.8**	**100**	**18**	**11**	**11**	**200**	***540***	**49**	**21**	***19600***
Detection Limit	0.2	1	3	3	1	3	3	1	1	2
PRG res	0.39	5300	37	30	900	31000	150	1600	550	2300
PRGind	1.6	67000	450	64	1900	41000	750	20000	7200	10000
TTLC	500	10000	100	500	8000	2500	1000	20	2400	5000
STLC	5.0	100	1.0	5	80	25	5.0	20	24	250
TCLP	5.0	100	1.0	5.0	NL	NL	5.0	0.2	NL	NL
Port Hueneme Threshold Value mg/Kg	22.7	656	2.8	38	18	43	79	29.4	67	203

All measurements in mg/Kg - Positive results in **Bold** – Results above PRGs in ***Bold Italic***
Shaded cells indicate results are above PRGres remediation goals
As Arsenic, Ba- Barium, Cd= Cadmium, Cr= Chromium, Co= Cobalt, Cu= Copper, Pb= Lead, Ni= Nickel, Se= Selenium, Va= Vanadium, Zn= Zinc
PRGres – USEPA Preliminary Remediation Goals for Residential soils
CCR22 TTLC – California Code of Regulations Total Threshold Concentration Limit
CCR22 STLC – California Code of Regulations Soluble Threshold Limit Concentrations (Dilution factor 10X)
CCR22 – TCLP – California Code of Regulations Toxicity Characteristic Leaching Procedure (20X dilution factor)
Port Hueneme Background Threshold Value – supplied by the NVBC as background comparison levels
NL – Not Listed

Table 5-18 WET Analyses

Sample ID	Analyte	TTLC mg/Kg	TTLC PQL mg/Kg	STLC mg/L	STLC PQL mg/L	22CCR	
						TTLC mg/kg	STLC mg/L
B1-7	Lead	**51**	3	**1.9**	0.9	1000	5
B6-3	Lead	**78**	3	BQL	0.9	1000	5
B7-1	Lead	**540**	3	**11**	0.9	1000	5
B7-1	Cadmium	**18**	3	BQL	0.5	100	1
B7-1	Zinc	**19600**	3	**210**	0.6	5000	250

TTLC – Total threshold limit concentration from California Code of Regulations Title 22, Chapter 11
STLC – Soluble threshold limit concentration from California Code of Regulations Title 22, Chapter 11
PQL – Practical Quantitation Limit
BQL – Below Practical Quantitation Limit
22CCR - California Code of Regulations Title 22, Chapter 11, listed on lab analytical reports as CAM Limits

Metal concentrations are consistent with those expected for background levels found in soils, except for those concentrations of lead detected at 45, 58, 71 and 540 ppm from samples B1, B2, B6 and B7 respectively and a significant concentration of zinc detected at 19,600 ppm in sample B7.

The levels of lead detected in samples B1, B2 and B6 were below the PRGs for residential soil and the TTLC threshold guidelines defined by the CCR22 for determining hazardous waste. However under CCR22, the potential does exist for the concentration to exceed the Soluble Threshold Concentration Limit (STLC), based on the laboratory method dilution factor of 10 (TTLC = 58 mg/l; STLC of 5.8 mg/l is possible). The level of lead detected in sample B7 was above the PRG for residential soil although below the PRG for industrial soil and less than the TTLC threshold.

The results of the WET analysis are displayed below in Table 5-18. The STLC results were 1.9 mg/L for sample B1 and below the quantitation limit for sample B6, both samples were below the STLC limit for lead. The STLC result for sample B7 was 11 mg/L, above the 22CCR STLC limit for lead. Consequently, under the STLC guidelines defined by the California Code of Regulations (CCR) Title 22, Chapter 11, for determining hazardous waste, the level of lead detected in sample B7 is classified by California State standards as a hazardous waste.

The level of zinc detected in sample B7 was above the US EPA PRGs for both residential and industrial soils and the 22CCR TTLC threshold. A WET analysis was performed to determine the level of solubility of zinc and to compare the result with the 22CCR STLC limits. The STLC result was 210 mg/L and below the 22CCR STLC limit.

Although the level of cadmium detected in sample B7 was below the PRGs for residential soil and the 22CCR TTLC, a WET test was performed. The STLC result was below the quantitation limit, thus below the 22CCR STLC limit.

Levels of arsenic detected exceeded the PRGs for residential soils in each sample and in some cases the PRGs for industrial soils, however the levels are well within the expected range for background levels for Port Hueneme (22.7 mg/Kg) and are not considered elevated due to human activities. See above Section 5, Table 5-10 for a discussion on arsenic levels.

Statistical analysis was not performed to calculate the mean levels of lead in the soils, since the results WET analysis confirmed that the level of lead detected in sample B7 was above the guidelines defined by the California Code of Regulations, Title 22, Chapter 11 and thus was classified by California state standards as hazardous waste.

5.4 Berms

Twenty-five borings were taken at various depths from the Berms at random depths. Boring locations are shown on Figure 2 located in Appendix 1. One soil sample was taken from each boring location and tested for Semi-VOCs, VOCs, Pesticides, PCBs, TPH and Metals. Complete results tables for Berm are found in Appendix 4. The results from the testing are summarized below according to compound group and display only those samples where the result was above the detection limit:

Table 5-19 Results of Analysis for Semi-VOCs in the Berms

Sample ID	Phenol
M1-7	**1.7**
M2-9	**0.58**
M3-1	**41**
M4-3	**0.8**
M7-dup	**0.71**
M8-1	**0.46**
M9-3	**0.21**
M10-5	**0.44**
M11-7	**0.18**
M12-9	**0.24**
M13-1	**0.36**
M20-5	**0.3**
Detection Limit	0.10
PRGres	37000
All results in mg/Kg unless otherwise specified Semi- VOCs - Semi-Volatile Organic Compounds by US EPA Method 8270b PRGres – US EPA Preliminary Remediation Goals for Residential Soils	

Phenol was detected in twelve borings from the berm areas, all at levels below the PRGs for residential soils. No other compounds were detected in the berm samples. As discussed above in Section 4, the detection of phenol in samples is considered the result of the collection of the sample in acetate containers. See Appendix 4 for a discussion about phenol detection in samples from acetate sampling tubes.

Table 5-20 Results of Analysis for VOCs in the Berms

Sample ID	Chloro-methane	Ethyl-benzine	Napthalene	N-Propylbenzene	Toluene	1,2,4-Trimethyl-benzine	1,3,5-Trimethyl-benzine	Total Xylenes
M16-7	<0.005	**0.021**	<0.005	**0.0092**	<0.005	**0.037**	<0.005	**0.014**
M18-1	<0.005	<0.005	<0.005	<0.005	<0.005	**0.019**	**0.0058**	**0.021**
M19-3	<0.005	**0.018**	**0.0052**	**0.0072**	**0.011**	**0.049**	**0.015**	**0.073**
M20-5	**0.0066**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.010
M21-7	<0.005	<0.005	**0.0075**	<0.005	<0.005	<0.005	<0.005	<0.010
M24-1	<0.005	<0.005	0.011	<0.005	<0.005	<0.005	<0.005	<0.010
Detection Limit	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.010
PRGres	1.2	8.9	NL	240	520	52	21	270
LARWQCB Guidance	NL	0.7	NL	NL	0.3	NL	NL	1.75

All results in mg/Kg unless otherwise specified, NL – Not Listed
VOCs - Volatile Organic Compounds by US EPA Method 8260b
PRGres – US EPA Preliminary Remediation Goals for Residential Soils
LARWQCB Guidance: *Interim Site Assessment and Cleanup Guidebook*, Los Angeles RWQCB, 1996.

A variety of VOCs were detected in 6 of the twenty-five samples taken from the berms. However, the levels of VOCs detected are all below the US EPA PRGs for residential soils and the below the guidance level provided by the LARWQCB for the protection of groundwater.

Table 5-21 Results of Analysis for Pesticides in the Berms

Sample ID	4,4 - DDD	4,4 - DDE	4,4 - DDT
M8-1	<0.003	<0.003	0.0049
M10-5	**0.0091**	<0.003	<0.003
M11-7	**0.0036**	<0.003	**0.0035**
M16-7	**0.01**	<0.003	<0.003
M17-9	<0.003	<0.003	**0.0054**
M18-1	<0.003	<0.003	**0.011**
M19-3	<0.003	<0.003	**0.01**
M20-5	<0.003	<0.003	**0.017**
M21-7	**0.0065**	**0.0084**	**0.022**
Detection Limit	0.003	0.003	0.003
PRG Res	2.4	1.7	1.7
CCR22 TTLC	1.0	1.0	1.0

CCR22 STLC mg/L	0.1	0.1	0.1

All results in mg/Kg unless otherwise specified
Pesticides – by US EPA Method 8081
PRGres – US EPA Preliminary Remediation Goals for Residential Soils
CCR22 TTLC – California Code of Regulations Total Threshold Concentration Limit
CCR22 STLC – California Code of Regulations Soluble Threshold Limit Concentrations (Dilution factor 10X)

PCBs were detected in nine of the twenty-five borings taken from the berms. None of the levels detected were above the US EPA PRGs for residential soils or the CCR22 TTLC limits.

Table 5-22 Results of Analysis for PCBs in the Berms

Sample ID	Aroclor 1260
M12-7	**0.05**
M20-5	**0.25**
Detection Limit	0.04
PRG Res	0.22
PRGind	0.74
CCR22 TTLC	50
CCR22 STLC mg/L	5.0

All results in mg/Kg unless otherwise specified
CCR22 TTLC – California Code of Regulations Total Threshold Concentration Limit
CCR22 STLC – California Code of Regulations Soluble Threshold Limit Concentrations (Dilution factor 10X)

PCBs were found in two borings from the berms. The result from sample M20 was found to be above the US EPA PRGs for residential soils but below the US EPA PRGs for industrial soils.

The mean for the sample set was calculated at 0.030 mg/Kg. The mean was calculated using a value of 0.02, one-half the detection limit as recommended in US EPA Guidance for Quality Assessment, Practical Methods for Data Analysis, 2000, for those samples that tested below the detection limit of 0.04 mg/Kg.

Table 5-23 Results of Analysis for TPH in the Berms

Sample ID	C4-C12 Gasoline Range Organics	C13-C22 Diesel Range Organics	C23+ Heavy Oil Range Organics
M20-5	<0.5	**34**	**280**
M21-7	<0.5	**36**	**62**
Detection Limit	0.5	0.10	0.10
Guideline Levels	100	100	1000
PRG Res	Presently, there are not US EPA PRGs for TPH compounds.		

All results in mg/Kg.
TPH - Total Petroleum Hydrocarbons by US EPA Method 8015m
PRGres – US EPA Preliminary Remediation Goals for residential soils
LARWQCB Guidance: *Interim Site Assessment and Cleanup Guidebook*, Los Angeles RWQCB, 1996

As shown in Table 5-23, TPH in the diesel and heavy oil range was detected. The concentrations detected are well below the guidance level provided by the LARWQCB for the protection of groundwater. A Preliminary Remediation Goals (PRG) has not been established for TPH as a constituent of concern (COC).

Table 5-24 Results of Analysis for Metals in the Berms

Sample ID	Ar	Ba	Cd	Cr	Co	Cu	Pb	Ni	Ag	Va	Zn
M1-7	<0.2	17	<3	<3	2.1	5	3	3.1	<1	5.3	11
M2-9	1.3	41	<3	6.8	3.4	16	5.3	6.2	<1	12	24
M3-1	1.1	51	3.9	9.2	6.8	12	43	11	<1	17	35
M4-3	1.4	37	<3	5.3	2.9	13	9.7	6	<1	9.2	26
M5-5	1.1	46	<3	6.6	3.2	11	5.6	7	<1	11	29
M6-7	0.73	24	<3	3.6	2.1	8.6	5.2	3.8	<1	6.1	22
M7-9	1.2	42	<3	8.4	3.8	11	7.3	8.7	<1	13	34
M7-dup	0.65	30	<3	3.9	2.2	5.6	4.5	6.2	12	6.9	19
M8-1	1.2	46	<3	9.2	7.5	19	7.5	11	<1	18	35
M9-3	1.7	40	<3	5.5	3.3	12	6.2	6.4	<1	8.7	22
M10-5	2	79	3.6	12	5.7	12	11	12	<1	22	44
M11-7	1.5	48	<3	7.3	3.6	5.8	5.8	7.5	8.2	12	26
M12-9	1.3	44	<3	8.1	3.7	7.4	8	7.2	<1	13	28
M13-1	0.93	34	<3	5.7	3.5	11	4.8	6.6	<1	11	21
M14-3	1.4	61	<3	7.6	3.8	16	7.9	8	<1	14	30
M15-5	1.4	44	<3	9.1	5.1	12	6.9	8.5	<1	16	29
M16-7	1	35	<3	6.7	3.6	5.8	6.3	6.3	<1	12	26
M17-9	<0.2	30	<3	20	3	13	3.8	11	<1	21	26
M18-1	1.2	41	3.7	7.9	7.2	15	7.3	9.5	<1	18	32
M19-3	1.6	46	3.2	11	6.2	13	7.3	11	<1	19	33
M20-5	3.3	72	4.3	18	7.2	76	110	14	<1	23	150
M21-7	1.2	32	<3	7	4.9	19	12	7.6	<1	13	31
M22-9	0.88	29	<3	4.9	2.6	7.8	3.4	4.8	<1	8.6	25
M22-dup	2.2	54	<3	7.3	3.9	8.8	5.1	7	<1	13	28
M23-1	0.95	26	<3	3.7	1.3	10	3.8	3.4	<1	6	14
M24-3	0.59	28	<3	3.7	2.6	8.2	4.8	4.3	6.8	7.1	17
M25-5	1.4	35	<3	5.1	3.3	7.6	5.1	6.2	<1	12	22
Detection Limit	0.2	1	3	3	1	3	3	1	1	2	0.2
PRGres	0.39	5300	37	30	900	31000	150	1600	390	550	2300
PRGind	1.6	6700	450	64	1900	41000	750	20000	5100	7200	10000
TTLC	500	10000	100	2500	8000	2500	1000	2000	500	2400	5000
STLC mg/L	5.0	100	1.0	5	25	25	5	20	5	24	250

TCLP mg/L	5.0	100	1.0	NL	NL	NL	5.0	NL	5.0	NL	NL
Port Hueneme Threshold Value mg/Kg	22.7	656	2.8	38	18	43	79	29.4	NL	67	203

All measurements in mg/Kg - Positive results in Bold
As Arsenic, Ba- Barium, Cd= Cadmium, Cr= Chromium, Co= Cobalt, Cu= Copper, Pb= Lead, Ni= Nickel, Se= Selenium, Va= Vanadium, Zn= Zinc
PRGres – USEPA Preliminary Remediation Goals for Residential soils
PRGind – USEPA Preliminary Remediation Goals for Industrial Soils
CCR22 TTLC – California Code of Regulations Total Threshold Concentration Limit
CCR22 STLC – California Code of Regulations Soluble Threshold Limit Concentrations (Dilution factor 10X)
CCR22 – TCLP – California Code of Regulations Toxicity Characteristic Leaching Procedure (20X dilution factor)
Port Hueneme Background Threshold Value – supplied by the NVBC as background comparison levels
NL – Not Listed

Table 5-25 WET Analysis

Sample ID	TTLC	TTLC PQL	STLC	STLC PQL	22CCR Limits		PRGres
					TTLC	STLC	
M20-5 Lead	110 mg/Kg	3 mg/Kg	BQL	0.9 mg/L	1000 mg/kg	5 mg/L	150 mg/Kg

TTLC – Total threshold limit concentration from California Code of Regulations Title 22, Chapter 11
STLC – Soluble threshold limit concentration from California Code of Regulations Title 22, Chapter 11
PQL – Practical Quantitation Limit
BQL – Below Practical Quantitation Limit
CAM Limits – California Assessment Manual = California Code of Regulations Title 22, Chapter 11

Metal concentrations are consistent with those expected for background levels found in soils. Lead was detected at a slightly elevated concentration of 110 ppm in boring M20-5.

The level of lead detected was below the PRGs for residential soil and the 22CCR TTLC threshold guidelines. However the potential does exist for the concentration to exceed the 22CCR STLC based on the laboratory method dilution factor of 10 (TTLC = 110 mg/l; STLC of 10.0 mg/l is possible). A WET was run on the sample and the results of the WET analysis are displayed above in Table 5-25. The STLC result was below the quantitation limit and thus below the 22CCR STLC limit for lead and is not considered hazardous.

Levels of arsenic detected exceeded the PRGs for residential soils in each sample and in some cases the PRGs for industrial soils, however the levels are well within the expected range for background levels for Port Hueneme (22.7 mg/Kg) and are not considered elevated due to human activities. See above Section 5, Table 5-10 for a discussion on arsenic levels.

5.5 Quality Control Samples

The following types of field QC samples were submitted for analysis:

Field duplicates: Randomly selected routine field sample were split to determine the precision of the sampling process. Field duplicates were prepared randomly for all soil sampling events. Duplicate samples were submitted along with all other samples.

Over run samples: Randomly selected routine field samples were run two times for laboratory QC sampling and analysis

5.6 Field Duplicates

Two field duplicates were submitted for analysis from the berm area. The duplicates were selected from samples M7 and M22. The results are summarized below:

Table 5-26 Results of Analysis for Semi-VOC in Field Duplicate

Sample ID	Phenol
M7	<0.10
M7-dup	**0.71**
M22	<0.10
M22-dup	<0.10
Detection Limit	0.10
PRGres	37000
All results in mg/Kg unless otherwise specified Semi- VOCs - Semi-Volatile Organic Compounds by US EPA Method 8270b PRGres – US EPA Preliminary Remediation Goals for Residential Soils	

Phenol was not detected in the original sample for M7 but was detected in the field duplicate for M7 at a concentration of 0.71 mg/Kg. The level of phenol detected in field duplicated M7 is below the US EPA PRG for residential soils. No Semi-VOCs were detected in the field duplicated for M22. See Section 4 for a discussion of Phenol.

VOCs: No VOCs were detected in the field duplicates for samples M7 and M22.

PCBS: No PCBs were detected in the originals or field duplicates for samples M7 and M22.

TPH: No TPH was detected in the originals or field duplicates for samples M7 and M22.

Pesticides: No Pesticides were detected in the originals or field duplicates for samples M7 and M22.

Metals: The results of metals found in the field duplicates are summarized below in Table 5-26. The original sample results are included for comparison.

Table 5-27 Results of Analysis for Metals in the Field Duplicates

Sample ID	Ar	Ba	Cd	Cr	Co	Cu	Pb	Ni	Ag	Va	Zn
M7	**1.2**	**42**	<3	**8.4**	**3.8**	**11**	**7.3**	**8.7**	<1	**13**	**34**
M7-duplicate	**0.65**	**30**	<3	**3.9**	**2.2**	**5.6**	**4.5**	**6.2**	**12**	**6.9**	**19**
M22	**2.2**	**54**	<3	**7.3**	**3.9**	**8.8**	**5.1**	**7**	<1	**13**	**28**
M22-duplicate	**0.95**	**26**	<3	**3.7**	**1.3**	**10**	**3.8**	**3.4**	<1	**6**	**14**
PRGres	0.39	5300	37	30	900	31000	150	1600	390	550	2300
PRGind	1.6	67000	450	64	1900	41000	750	20000	5100	7200	100000
22CCR TTLC	500	10000	100	2500	8000	2500	1000	2000	500	2400	5000
22CCR STLC mg/L	5.0	100	1.0	5	25	25	5	20	5	24	250
22CCR TCLP mg/L	5.0	100	1.0	NL	NL	NL	5.0	NL	5.0	NL	NL

All measurements in mg/Kg, NL – Not Listed
As =Arsenic, Ba- Barium, Cd= Cadmium, Cr= Chromium, Co= Cobalt, Cu= Copper, Pb= Lead, Ni= Nickel, Ag= Silver, Va= Vanadium, Zn= Zinc
PRGres – US EPA Preliminary Remediation Goals for Residential soils
PRGind – US EPA Preliminary Remediation Goals for Residential soils
CCR22 TTLC – California Code of Regulations Total Threshold Concentration Limit
CCR22 STLC – California Code of Regulations Soluble Threshold Limit Concentrations (Dilution factor 10X)
CCR22 – TCLP – California Code of Regulations Toxicity Characteristic Leaching Procedure (20X dilution factor)

Although duplicate samples are taken from the same boring, the two samples may return different results because they are not identical samples. For example, one sample may be taken from the upper end of the boring while the second sample is taken from the lower end. The original and duplicate results from this project are not significantly different and fall within the detection levels of metals for ambient soils. All original and duplicate samples with the exception of arsenic fall below the PRGs for residential soils and 22CCR TTLC limits. Arsenic levels detected are within expected ambient levels found in soils as discussed in Section 5, additional references may be found in Appendix 11.

5.7 Over-run Samples

Two samples were selected at random to be run again, these include samples M5 and M13. Pesticides and PCBs were found from the initial lab reports to be the most prevalent constituents of concern, so over-run samples were tested for Pesticides and PCBs.

Table 5-28 Results of Analysis for Pesticides in Over-run Samples

Sample ID	4,4 - DDD	4,4 - DDE	4,4 - DDT
M5	<0.003	<0.003	<0.003
M5 – double run	<0.003	<0.003	<0.003
M13	<0.003	<0.003	<0.003
M13 – double run	**0.0033**	<0.003	**0.0035**
Detection Limit	0.003	0.003	0.003
PRG Res	2.4	1.7	1.7
CCR22 TTLC	1.0	1.0	1.0
CCR22 STLC	0.1 mg/L	0.1 mg/L	0.1 mg/L

All results in mg/Kg unless otherwise noted
Pesticides – by US EPA Method 8081
PRGres – US EPA Preliminary Remediation Goals for Residential Soils
CCR22 TTLC – California Code of Regulations Total Threshold Concentration Limit
CCR22 STLC – California Code of Regulations Soluble Threshold Limit Concentrations (Dilution factor 10X)

The pesticide results of the tests for over run samples are summarized above. The original sample results are included for comparison

PCBs: No detectable levels of PCBs were found in over run samples M5 and M13.

6.0 DATA REVIEW, VERIFICATION AND VALIDATION

A complete data review was done to determine the integrity of the data. The data was reviewed to ensure that the analytical requirements for the data have been reviewed, transmitted and processed in accordance with the objectives specified in the DQOs. The following elements were examined and confirmed to be true:

- Completeness
  - All field data sheets are complete
  - All requested analytes are accounted for
  - All the target action levels were met
  - The results of the data correlate with the historic data
- Holding times are within limits
- Chain of Custody records are complete and accurate
- Method and reporting limits are within the scope of the DQOs
- Dilution/concentration units are reported correctly
- Preparation and analysis methods are identified on the report if appropriate

6.1 Statistical Analysis

6.1.1 Statistical Analysis Guidelines for Analytes Detected Over PRGs

One-sample t-test for Random Sampling was the method employed for analysis when one or more but not all sample results for a sample set, e.g. Stockpile A, Stockpile B or the Berms, were above the US EPA PRGs for residential soils. Given a random sample size n, the one-sample t-test can be used to test hypotheses involving the mean of the population from which the sample was selected.

Given that each sample location was evaluated on an individual basis for use as fill, a test involving the mean of the sample population might seem unwarranted. However, if the guidelines outlined below are followed, statistical analysis may prove meaningful in deciding whether the material from the berm site can be used as clean fill.

- The null hypothesis for this project was the assumption that berm soils are "clean" and can be used for fill. The null hypothesis is the baseline condition assumed to be true in absence of strong evidence to the contrary.

- There was a 5% tolerable decision error limit with respect to the residential PRG concentration value.

- If all results for an analyte are below residential PRGs, no statistical analysis will be done.

- If all results for an analyte are above the residential PRGs, no statistical analysis will be done.

- If the result for an analyte is above the residential PRGs, but below the industrial PRGs, statistical analysis will be conducted.

- Statistical analysis was only conducted for those analytes that have results over the residential PRGs. Statistical analysis was done if there are results for the 4 compounds where the PRGs are below the detection limits. The compounds are as follows:

Compound	PRG	MDL
Benzidine	0.0021 mg/L	0.1 mg/L
NDMA	0.0095 mg/L	0.08 mg/L
Benzo (k) Fluoranthene	0.38 mg/L	0.4 mg/L
Nito-di-n-propylamine	0.069 mg/L	0.2 mg/L

Note: None of the these compounds were detected in any of the sample results.

If the detection level of an analytes is above the residential PRGs, a one-sample t-test was run for each analyte with 5 or more sample results. If the true mean supports the null hypothesis, that is, if as a result of statistical calculation, the null hypothesis is not rejected, then the soil may be regarded as "clean" and used for fill upon approval of the Navy and the DTSC. The rational for making such a claim is that the soil will be mixed in the course of excavation,

transport and use of the material as fill. So if the true mean is below the threshold limits, i.e. US EPA PRGs for residential soils, the null hypothesis is valid and can be accepted. The mixing of material will theoretically even out the analyte concentrations to a point where the concentrations are equivalent to or less than the mean. Random mixing of material alone may not achieve this result, some planning and additional manipulation of the soil may need to be done to ensure the soil is adequately mixed and the analyte concentrations are at a conformable level for the decision makers to justify the use as clean fill.

Statistical calculations for instances where statistical analysis was necessary for the evaluation of the sample set for a particular analyte can be found in Section 5.0 Results of Assessment, in the section corresponding with the analyte result.

One Sample t-Test

Given a random sample size of n, the one sample t-test can used to test hypothesis involving the mean of the population from which the sample was selected. The directions for the one sample t-test were taken from the US EPA Guidance for Data Quality Assessment, *Practical Methods for Data Analysis*, EPA QA/G-9, 2000. A copy of the directions can be found in Appendix 5.

6.1.2 Statistical Analysis for Arsenic Levels

The guidance for performing this analysis was found in DTSC, *Selecting Inorganic Constituents as Chemical of Potential Concern at Risk Assessments at Hazardous Waste Sites and Permitted Facilities*, 1997 (See Appendix 11 for the a full copy of the reference.) The purpose of performing the Wilcoxon Rank Sum Test was to provide a framework in which this assessment may identify if inorganic constituents, specifically arsenic, detected in soils at the project site are present in concentrations which represent contamination due to site related activities or are just normal background conditions. The statistical analysis was performed on Stockpile A and the berms, and compared to background levels typically found in southern Californian soils referenced from Rice, K.C., 1999, Trace-element concentrations in streambed sediment across the conterminous United States: Environmental Science and Technology, vol. 33 no. 15, p. 2499-2504. See Appendix 11 for the full reference.

While the levels of arsenic detected are consistent with background levels found in normal, unimpacted soils, the Wilcoxon Rank Sum Test provides an additional level of confidence in asserting that the level of arsenic detected is consistent with ambient conditions. Ambient conditions are concentrations of metals in soils in the vicinity of a site but which are unaffected by site-related activities.

Wilcoxon Signed Rank Sum Test

The Wilcoxon Rank Sum Test examines whether measurements from one population tend to be consistently larger or smaller than those from another population. Performing the Wilcoxon Rank Sum Test involves comparing two sets of concentrations, one from ambient conditions and one from the project site. The analysis tests the hypothesis of whether the samples from the project site are consistently lower than those of the ambient samples.

6.2 Measurement Performance Criteria

The measurement performance criteria are the determinants of the quality of data needed and describe how the DQOs will be satisfied.

The analytical data generated for this project was evaluated based on the standard U.S. EPA SW-846 testing methods for the following analytes: VOCs, Semi-VOCs, TPH, Pesticides, PCBs and Metals. The quantitative measurement criteria are summarized in the table found in Appendix 7.

No data was qualified as "rejected" and thus no data was omitted from the data analyses. All data was considered by the data validation process to be useable for both quantitative and qualitative purposes.

PARCC – Definitions and Equations
Data quality and quantity are measured by comparison of resulting data with established acceptable limits for data precision, accuracy, representativeness, comparability and completeness (PARCC)

Precision is the measurement of agreement among repeated measurements of the same property under identical or substantially similar conditions. Precision for this project is calculated using field duplicates and expressed in terms of relative percent difference (RPD).

Four field duplicate samples were taken as part of the QA/QC process. The RPD is calculated as follows:

$$RPD = \frac{|C1 - C2|}{(C1+C2)/2} \times 100$$

where: C1 = concentration of the sample
C2 = concentration of the duplicate

The RPD calculations for each field sample and duplicate can be found in Appendix 5.

Accuracy: Accuracy was determined for the analytes in the soil with a performance evaluation sample, analyzed to determine any possible bias.

Representativeness was assured using a significant number of samples. All sample units identified in the work plan were collected and provide representativeness over the decision units in the project.

Comparability: Common and accepted sampling and analytical techniques were used in the field sampling and analysis of all samples taken. All data was reported in standard units allowing for useful comparison with other past or present data sets.

Completeness: One hundred percent of the samples outlined in the work plan were collected and analyzed, providing a data set that will fit with the final test design criteria.

6.3 Data Quality Assessment - Reconciliation of the DQOs

The Data Quality Assessment (DQA) is a process to determine whether the type, quantity, and quality of data needed to support remediation decisions have been achieved. Essentially, the DQA is the process to determine whether the assumptions of the DQOs area valid and the

confidence in the data is enough to support the decision.

The seven-step U.S. EPA Data Quality Objective (DQO) process was used as the rationale for the field investigation (U.S. EPA 2000). The data collected during the field investigation was used to assess whether earthen material on the subject site may be used as clean fill as outlined in the advisory document published by the DTSC-2001. The DQOs developed for the field investigation consist of qualitative and quantitative statements describing the required reporting limit, degree of certainty and laboratory QC level for each specified use. Table 1-1 in Appendix 6 outlines the DQOs for the project.

The following steps were performed in the DQA process:

- The DQOs and the sampling design were reviewed to be sure that there was no deviation from the model. The original inputs to the DQOs remained true with no changes or variations to the sampling design.
- A preliminary data review was conducted to ensure the integrity of the data. The analytical requirements for the data were reviewed, transmitted and processed in accordance with the objectives specified in the DQOs.
- The data was compared to the decision rules of the DQOs. In the case where the detection level of some analytes in a sample group was above the US EPA PRGs for residential soils, statistical analysis was performed to determine the true mean. The decision rules for statistical analysis are outlined in Section 6.1.
- The assumptions for decision rules and for those instances where statistical analysis was used were verified.
- Conclusions were drawn from the data to satisfy the decisions proposed in Step 2 of the DQOs.

In determining whether the DQOs have been satisfied, a review of the qualitative and quantitative requirements which form the basis for the DQOS was performed. These are the data collection, verification and design elements of the DQOs on which the decision (Step 2) and the decision rules (Step 5) are based. Table 6-29 summarizes the

Table 6-29 Summary of the DQOs

	Changes to the Original Assumptions : yes/no
Step 1 – State the Problem	
Navy has a need for clean fill materials elsewhere on the base and would like to use berm and stockpile materials from Parcel 15, IR Site 9	No
Previous sampling results indicate elevated concentrations of a variety of chemical constituents in the dues past use of the site	No
Some areas of the site have not been truly characterized so as to be able to certify soil as clean fill in accordance to DTSC guidelines	No
Step 2 – Identify the Decision	
Can the berms and stockpile areas be used as clean fill?	No
Does the earth material meet with the guidelines outlined by the	No

DTSC for clean fill?	
Has the site been adequately characterized so that it can be stated that some areas are free from contamination?	No
Step 3 – Identify the Decision Inputs	
Validated soil sampling results in accordance with EPA SW8466	No
Compare soil sampling results to regulatory criteria including the Title 22 CCR for metals, EPA PRGs for residential soils for all other analytes and LARWQCB guidance where applicable but specifically for TPH compounds.	No
Step 4 – Define the Study Boundaries	
Area of interest is limited to surrounding berm and stockpile areas	No
The vertical boundary for soil sampling will be from the upper 10 feet of the sampling area	No
Step 5 – Develop the Decision Rules	
If all samples taken are below EPA PRG residential soil levels, Title 22 CCR levels and LARWQCB, then no further action and earth materials may be certified as clean fill	No
If some samples results are above PRG residential soil levels, further assessment may be required to segregate out clean earth materials	No
For areas where sample results were above PRG residential soil levels, the Navy can evaluate redrawing the IR Site 9 boundary to exclude those same areas.	No
If sample results are below the industrial PRGs but above the residential PRGs, the soil from those same areas may be used for fill upon approval from the Navy and DTSC.	No
If some analyte sample results are above the residential PRGs and some are below, statistical analysis will be done to calculate the true mean. If the true mean is below the residential PRG level, the soil may be used for fill upon approval from the Navy and DTSC.	No
If no debris is encountered during sampling procedures, then no further action needed and earthen materials may be certified as clean fill.	No
If debris is found buried in the berms or stockpiles, the soil from those same areas may still be used as clean fill provided that adequate screening methods are employed during excavation	No
Step 6 – Specify Tolerable Limits on Decision Errors	
Soil sampling for analysis will be based on a random sampling design that utilizes previous information available for the site.	No
Measurement errors will be limited by adherence to proper procedures as outlined in the QAPP and standard operating procedures referenced in the FSP and QAPP	No
Soil sampling analysis will be compared to the PRGs for residential soils, 22CCR for metals and LARWQCB guidance limits where applicable but specifically for TPH compounds.	No
Step 7 – Optimize the Sampling Design	
Soil samples will be collected randomly at regular intervals and	No

randomly at regular depths.	
All soil samples will be analyzed for VOCs, Metals, TPH, PCBs, Pesticides, and Semi-VOCs	No
Soil samples for analysis will be collected from the areas targeted for use as clean fill – the north, south, east and west berms and Stockpiles A and B.	No
Discreet samples will be collected and analyzed. No composite samples will be collected or analyzed.	No

A review of the data confirms that the data meets the assumptions under which the DQOs and the data collection design were developed. An inspection of the data indicated that there was no reason to believe that the data were not normally distributed or that there correlation between data points.

7.0 CONCLUSIONS AND RECOMMENDATIONS

WCE has the following comments based on the findings of this assessment.

7.1 General Conclusions

- No variances from the original sampling plan – 42 borings were advanced in the approximate planned locations and 42 soil samples were obtained for analysis.

- Matrix spikes in laboratory reports were reviewed and accepted. None of the surrogate recovery levels fell outside the laboratory specified limits.

- No data was qualified as "rejected" and thus no data was omitted from the data analyses. All data was considered by the data validation process to be useable for both quantitative and qualitative purposes.

- All field procedures were followed with respect to sampling collection and documentation, equipment decontamination, sample preservation, transport and receipt at the laboratory.

7.2 Stockpile A

According to the analytical results, various concentrations of analytes were detected in samples from Stockpile A. There was no discernable pattern either in the concentrations or the locations of analytes found. In addition, all sample results were below the US EPA PRGs for residential soils and LARWQCB guidance limits and the 22CCR were applicable, thus satisfying the decision rule of the DQOs. Some debris was noted by the field team in the southwest corner of Stockpile A. But as stated in the DQOs' decision rules, "if debris is found buried in the berms or stockpiles, the soil from those same areas may still be used as clean fill provided that adequate screening methods area employed during excavations. Consequently, in accordance with the DQO decision rules, the earth materials may be certified as clean fill.

7.3 Stockpile B

In Stockpile B, a variety of analytes were detected in the boring. PCBs were found in six of the seven samples. Three of the samples exceeded the PRGs for residential soils and the sample from B2 exceeded the PRGs for industrial soils. None of the levels of PCBs detected were above the CCR22 TTLC limits. Samples from B2 and B6 were found to have elevated levels of TPH in the diesel range organics and did exceed the LARWQCB Guidance levels for the protection of groundwater.

In Boring B7, the levels of lead detected were above the PRGs for residential use but were below the PRGs for industrial soils. Further WET testing of the sample to calculate solubility, found that the level of lead was above the California Hazardous Waste level for the presence of lead in soil. In the same boring, B7, elevated levels of zinc exceeding residential PRGs but not the industrial PRGs were found. In the subsequent WET analysis, the zinc was not found to be above the California Hazard Waste level for zinc in the soil. However, additional sample results from Stockpile B did display elevated levels of lead, although none of these samples exceeded the residential PRGs or the CCR22 STLCs. In accordance with the rules of the DQOs, since the levels of lead were below the PRGs for industrial soils, the Navy could decide to use Stockpile B for fill. However, although the levels of lead detected may be accepted in accordance with the rules of the DQO, the PCB Aroclor 1260 was detected in sample B2 at a level above both the PRGs for residential and industrial soils. In accordance with the rules of the DQOs, this eliminates Stockpile B for consideration as a source for clean fill.

7.4 Berms

According to the analytical results, various concentrations of analytes were detected in samples from the berms. There was no discernable pattern either in the concentrations or the locations of analytes found. However, all sample results were below the US EPA PRGs for residential soils with the exception of one soil sample M20 with a slightly elevated level of PCBs. Aroclor 1260 was detected at a level of 0.25 mg/Kg in sample M20 and the US EPA PRG for residential soil is 0.24 mg/Kg. A statistical analysis was done for the sample set in accordance with the decision rules outlined in the DQOs. The true mean for the sample set was confirmed to be below the US EPA PRGs for residential soil, so according to the DQOs the soil may be used for clean fill upon approval of the Navy and the DTSC. Consequently, in accordance with the DQO decision rules, no further action is needed and the earth materials may be certified as clean fill.

7.5 Arsenic

Levels of arsenic detected exceeded the PRGs for residential soils in each sample and in some cases the PRGs for industrial soils, however the levels are well within the expected range for background levels for Port Hueneme (22.7 mg/Kg) and are not considered elevated due to human activities.

A Wilcoxon Rank Sum Test was performed on Stockpile A and the berm samples in an effort to provide further confidence that the levels of arsenic detected are consistent with background levels found in ambient soils. The levels of arsenic detected in soils from Stockpile A and the berms were compared to ambient levels of arsenic found in southern California. A separate analytical test was run for each area, Stockpile A and the berms. Since the level of lead detected in Stockpile B led to the rejection of Stockpile B as a viable source of clean fill in

accordance with the rules outlined in the DQOs, further statistical analysis was not warranted.

The results of the test supported the hypothesis that the levels of arsenic detected in Stockpile A and the berms are consistent with the mean results found in ambient soil conditions. Consequently, arsenic is not present at the site at elevated concentrations with respect to ambient conditions, so it is eliminated as a COPC.

8.0 QUALITY AND LIMITATIONS STATEMENT

This report has been prepared for the exclusive use of GAPS, Inc., DBS Engineering and the US Navy, as it pertains to Parcel 15, IR Site 9, USNBVC, Port Hueneme, California. Any use of this report and supporting data, by a party other than specifically named above, shall be solely at the risk of such third party.

All interpretations made by West Coast Environmental and Engineering are opinions based on evaluation of the research information collected and visual assessment of the location. These procedures have limitations, and as such, should not be construed that all possible site conditions were identified. It should be recognized that there is no guarantee this study has covered all possible environmental issues at the site. In performing our professional services, we have applied present professional and scientific judgment and used a level of effort consistent with standard practices measured on the date of this report and in the locale of the project site for similar type studies

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Long Term Maintenance LTM#P7, Project 2
Limited Soil Sampling Assessment

Stockpile B
Parcel 15, IR Site 9 - NBVC
Port Hueneme, California

WCE File ID# DBS120-007-03

September 23, 2003

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1.0 INTRODUCTION

1.1 Facility Location

Naval Base Ventura County (NBVC) Port Hueneme is located in Port Hueneme, Ventura County, California approximately 60 miles northwest of Los Angeles. NBVC Port Hueneme is bordered by the Pacific Ocean to the south and by residential neighborhoods of Oxnard, Port Hueneme and Ventura County to the north, east and west, respectively. Figure 1 shows the location of NBVC Port Hueneme. The plot plan for the project site, Parcel 15, IR Site 9 is detailed in Figure 2.

1.2 Base History

The NBVC was originally established in 1942 to train, stage and supply the then newly created Seabees. Port Hueneme was officially established in May of 1942 as the Advanced Base Depot. In 1945, the Advance Base Depot was renamed the Naval Construction Battalion Center. In 1950 during the Korean War, almost all of the Navy construction equipment and supplies for the war were routed through the base. In October 2000, as part of the reorganization of Ventura County's naval bases, Port Hueneme Naval Construction Battalion Center and Naval Air Weapons Station Point Mugu were consolidated under the name Naval Base Ventura County.

Port Hueneme is a deep-water port and one of the few military ports on the west coast. For more than 61 years, Point Hueneme has provided integral supplies, equipment, camps and roads to support not only the Seabees but also the Army, Air Force and Marines.

1.3 Previous Investigations

The following environmental investigations have been performed on the subject site:

- Initial Assessment Study – SCS and Landau Associates, 1985
- Site Inspection – ERTEC, 1991
- Hazardous Materials Survey and Site Assessment – Fugro-McClelland, 1991
- Risk Assessment – see Appendix 10 of the WCE, 2003 report
- Field Sampling of Berms and Stockpiles A and B – West Coast Environmental (WCE), 2003

All of these previous assessments have detected Volatile Organic Compounds (VOCs), Pesticides, Total Petroleum Hydrocarbons, Semi-Volatile Organic Compounds (Semi-VOCs), Metals and Polychlorinated Biphenyls (PCBs). Results from the Risk Assessment identified the PCB Arolcor 1260 and Polycyclic Aromatic Hydrocarbons (PAHs) at levels above US

Environmental Protection Agency Preliminary (EPA) Remediation Goals (PRGs) for industrial soils. WCE-2003 identified soils, specifically in Stockpile B that contained levels of Arolcor 1260 and zinc that exceeded US EPA PRGs for industrial soils, and levels of lead that exceeded hazardous waste regulatory levels found in Title 22, California Code of Regulations (CCR). Levels of Total Petroleum Hydrocarbons were also found in excess of the Los Angeles Regional Water Quality Control Board (LARWQCB); Interim Site Assessment and Cleanup Guidebook, May 1996 (LARWQCB – May 1996) soil screening levels for the protection of groundwater.

1.4 Site Description

Parcel 15, IR Site 9 is located in the western portion of the NBVC Port Hueneme (Figure 2). The site is not developed and currently not in use. The site is bound by Lehman Road to the south and Pennsylvania Road to the east. A drainage ditch runs along the northern perimeter at the base of the northern berm. North of the drainage ditch is a vacant parcel and railroad spur. To the west, a vacant lot is located adjacent to the site.

Parcel 15, IR Site 9 includes a surrounding earthen berm approximately twelve feet high, with a single access break along Lehman Road. Located within the berm are two large stockpiles, A and B, of earth material.

Stockpile B is located within the southeastern portion of the bermed area (Figure 3). The stockpile is an irregular tear shaped earthen area approximately 350 feet by 100 feet maximum with a maximum elevation of 12 feet where it abuts the southern berm of the site. Elevation of the stockpile tapers from the top of the berm downward to the north and ground surface.

1.5 Site Operation History

According to the Health Risk Assessment provided by Greg Hoffman of the United State Navy, Parcel 15, IR Site 9 has been used to process waste generated on the Navy base. From the 1950s to the late 1960s, wastes and trash including small amounts of hazardous wastes were incinerated at the site. Metal scrap and burning residues were reportedly buried at the site during this time period. From 1970 to 1994, the subject site was used as a solid waste transfer station. During this time period, wood pallets, scrap metal and paper were removed periodically by a waste contractor. Paper trash was buried onsite. Domestic trash and hazardous waste materials were not accepted on site. For a short time from 1985 to 1987, the northeast corner of the site subject site was used as a fire fighting training area. Diesel, gasoline and other petroleum products were used as combustibles. Wastewater generated by these activities was contained in an unlined earthen pit that was drained by a disposal contractor and removed from the site. From 1994 to the present, the site has been idle.

1.6 Environmental Setting

1.6.1 Topography

The subject site is located in a relatively flat lying region, with little surrounding topographic relief. According to the USGS 7.5 Minute Topographic map of the Oxnard Quadrangle, the subject site is located at an elevation of 13 feet above mean sea level.

1.6.2 Geology

The subject site is located in the southwestern portion of the Ventura Basin on the Oxnard Plain. The Ventura Basin is located in the Transverse Ranges Geomorphic Province. The Transverse Ranges are a complex series of mountain ranges and valleys distinguished by an anomalous east-west trend, contrasting to the northwest-southeast direction of the Coast Ranges and Peninsular Ranges. The western limit of the province is the island group of San Miguel, Santa Rosa, and Santa Cruz. The eastern limit, within the Mojave Desert, includes the San Bernardino Mountains on the east side of the San Andreas Fault (California Division of Mines and Geology-Note 36). Active thrust belts throughout the region border the basins, causing rapid uplift of the adjacent mountains and down dropping of the basins. The basins have subsequently been filled with substantial amounts of Tertiary and Quaternary sediments that were deposited in both marine and terrestrial settings. The basins of the Oxnard plain are filled with sediments deposited on a wide delta complex that formed at the terminus of the Santa Clara River. The Oxnard Basin extends across the offshore marine shelf to the shelf/slope break (edge of the shelf).

1.6.3 Hydrology/Hydrogeology

Hydrogeology: The Oxnard Plain overlies one of ten groundwater sub-basins within the coastal valleys and plains of the Santa Clara River Valley Groundwater Basin in Ventura County, California. The subject site is located within the Oxnard Subbasin. The Oxnard Subbasin is bound on the north by the Oak Ridge fault, to the south by the contact of permeable alluvium with the semi-permeable rocks of the Santa Monica Mountains. The eastern edge of the basin lies against the Pleasant Valley and Las Posas Valley Basins. The Oxnard Subbasin is comprised of a main recharge area termed the Oxnard Forebay and a confined aquifer system that extends throughout the main part of the Subbasin. The subject site is located in the western part of the main part of the Subbasin.

The Oxnard Subbasin is comprised of a complex aquifer system containing sediments over 1,400 feet thick that is the primary source of water supplies for Western Ventura County (U.S. Geological Survey Open-File Report 94-532). The aquifers of the Oxnard Subbasin contain gravel and sand deposited along the ancestral Santa Clara River and in a coastal plain/delta complex at the terminus of the Santa Clara River. The basin consists of an upper and lower aquifer system.

The Lower Aquifer System consists of the Grimes Canyon, Fox Canyon and the Hueneme aquifers. The Fox Canyon aquifer is the prime water-bearing unit of the Lower Aquifer System. The Upper Aquifer System rests uncomformably on the Lower Aquifer System.

The Upper Aquifer System consists of a relatively flat-lying, 400 feet thick section of Late Pleistocene and Holocene alluvial deposits. The Upper Aquifer System is comprised of the Mugu and Oxnard aquifers, which have been developed for local water supply. The Oxnard aquifer, approximately 180 feet below ground surface, is the primary water-yielding zone. The Oxnard aquifer is underlain by the Mugu aquifer.

On the Oxnard Plain, the upper most silt and clay deposits of the Oxnard Aquifer are overlain by sand layers of the "semi-perched: zone. This zone extends from the surface to no more than 100 ft in depth. The confining clay of the upper Oxnard aquifer generally protects the underlying aquifers from contamination from surface land uses. Deep percolation of rainfall and irrigation

return flows are the major components of recharges to the semi-perched zone.

Groundwater Depth: Based on WCE experience of the NBVC - Port Hueneme, depth to groundwater is expected to be encountered less than ten (10) feet below ground surface in the semi-perched aquifer zone.

Groundwater Gradient: Based on review of the topographic map, groundwater at the site is expected to migrate generally southerly in the vicinity of Parcel 15, IR Site 9.

Regional Impairments to Groundwater: Shallow perched groundwater (semi-perched aquifer zone less than 50 feet below ground surface) in the Oxnard area is sometimes impacted by human activities and activities associated with the historical agricultural cultivation. According to the United Water Conservation District, *Surface and Ground Water Conditions Report*, 1999, on the Oxnard Plain, the "semi-perched" zone generally contains water of poor quality and is not used for water supply on the Oxnard Plain.

The permeable deposits of the Oxnard and Fox Canyon Aquifers extend westward offshore and may crop out on the ocean floor in direct contact with seawater. Intrusion of saline water has been observed in the Port Hueneme and Point Mugu areas.

Beneficial Uses: In spite of these potential impacts, the Water Quality Control Board for the Los Angeles Region has designated existing, and potential municipal, industrial and agricultural beneficial uses for the shallow perched aquifers on the Oxnard Plain.

1.7 Purpose

The purpose of this assessment was to further characterize the soils in Stockpile B to determine whether any soils in Stockpile B can be segregated by field screening methods for any use outside Parcel 15, IR site 9.

2.0 SCOPE OF WORK

The scope of work performed was conducted in general accordance with the WCE proposal dated July 28, 2003.

2.1 Project Preparation

The Data Quality Objectives (DQOs) from the WCE- 2003 assessment of Parcel 15, IR Site 9 prepared in June 2003 were amended to include the goals for this project. The revised DQOs are attached in Appendix 4. A field sampling plan was developed based on the objectives outlined in the revised DQOs, taking into consideration results from the previous WCE assessment of Stockpile B

2.2 Fieldwork

Excavation and soil removal activities consisted of cutting three trenches (slot-cuts) from south to north in Stockpile B from the top of the berm down to ground surface elevation using a backhoe. Soils samples were taken from the side walls of the trenches. Excavated soils were stocked piled adjacent to the trench of origin and a composite sample was taken from each stockpile.

3.0 METHODOLOGY

3.1 Excavation

Buzza Backhoe Services of Agoura, California was contracted by WCE to provide equipment services. A backhoe was used to cut three trenches (slot-cuts) in Stockpile B. Depths of the cuts from the surface were variable due to the uneven terrain of the stockpile, but ranged from one to approximately eighteen feet deep. The cuts were made from south to north, starting at the top of the berm and continuing to the toe of the stockpile. Figure 3 shows the locations of the trenches. The excavated slot-cuts were observed for any changes in soil conditions, including color and/or textural changes. Individual trench logs were made of each slot-cut to scale including the length and depth of the slot-cut, location and description of any soil changes, notation of any observed debris and notation of sampling locations.

Excavated soils were stockpiled adjacent to the trench of origin to avoid cross-contamination between trench spoils and other soils on site.

3.2 Soil Sampling

Two planned samples were taken from the sidewalls of each slot-cut, one from the northern end of the cut and one from the southern end of the cut. One composite sample was taken from each slot-cut stockpile. Additional samples were taken in the slot-cuts based on observed changes in soils conditions. Samples were obtained by taking hand samples from the backhoe bucket. All fieldwork conducted on the site followed WCE Standard Sampling Procedures SSP-2 (Hand Soil Sampling). A copy of SSP-2 is located in Appendix 5

All samples were labeled and sealed, placed in a cooler with ice and transported to a State of California Certified Analytical Laboratory for analysis, following chain of custody procedures. All samples will be analyzed for Semi-VOCs by EPA Method 8270, PCBs by EPA Method 8082, TPH by EPA Method 8015m and Metals by Title 22 standards, US EPA Series 6000 and 7000.

3.3 Backfilling of Excavation

No backfilling or resurfacing of the slot-cuts was done.

4.0 RESULTS OF ASSESSMENT

4.1 Results of Excavation

Slot 1: Slot 1 was opened at the eastern end of Stockpile B, at the approximate location of where Stockpile B abutted the south berm of the site. Soils were excavated to a depth of just over twenty feet at the berm end to ground surface at the toe of Stockpile B (See Figure 3 in Appendix 1). Various amounts of fill and debris were encountered in the upper portion of the excavation, including pieces of concrete, metal and wood. The depth of the fill and debris ranged from approximately 15 feet toward the berm end of the cut to 5 feet at the toe of the stockpile. Underlying the fill and debris zone is a three foot layer of sand with some clay that runs the length of the trench. Underlying the sand and clay, at the bottom of the trench is an uneven layer of sand ranging in thickness from one to three feet, running the length of the trench. The sand at the berm end of the trench had a strong petroleum odor. A wood floor, 25 feet in length, buried parallel to the surface slope of the stockpile, was encountered approximately 20 feet from the head of the cut at a depth of approximately 3.5 feet. The

backhoe was unable to remove the floor or enough of the floor to continue excavating to ground surface in that portion of the cut.

Five samples were taken from Slot 1. See Figure 4 for sample locations. Sample S1-S1 was taken toward the head of the slot at a depth of 13 feet from material that was black and appeared burned. Sample S1-S2 was taken toward the toe of the stockpile at a depth of 2 feet from a lens of white material. Sample S1-EX1 was taken in toward the berm end of the slot at a depth of 17 feet from a dark black colored material. Sample S1-EX2 was taken at a depth of approximately 15 feet from the petroleum odored sand. Sample S1-EX3 was taken at a depth of 2.5 feet in the fill and debris zone above the wood floor from bluish-white crystalline material.

Slot 2: Slot 2 was opened approximately 50 feet to the west of Slot 1. The location of Slot 2 was chosen to correspond with boring locations from the previous WCE assessment, specifically Boring B7 that contained elevated levels of lead and PCBs. Slot 2 was opened from south to north, at the approximate location where Stockpile B abutted the south berm of the site. Soils were excavated to a maximum depth of 15 feet from the ground surface of Stockpile B. The upper portion of excavated material consisted of fill and debris including random location of wood, metal cables, plastic, metal pipes and bottles. Underlying the fill and debris zone is a thin layer of sand less than one foot thick in places, that runs the length of the cut. At the base of the cut, a layer of gray, petroleum odored sand was discovered that also ran the length of the cut.

Three samples were taken from Slot 2. Figure 5 for sample locations. Sample S2-S1 was taken from the south end of the cut at a depth of 10 feet from a black ash-like material. Sample S2-S2 was taken from the north end of the cut at a depth of 8 feet from wet gray and black colored gravel. Sample S2-EX1 was taken toward the south end of the cut at a depth of ten feet from a bluish-white crystalline material.

Slot 3: Slot 3 was opened approximately 40 feet west of Slot 2. Slot 3 was opened from south to north, at the approximate location where Stockpile B abutted the south berm of the site. Soils in Slot 3 were excavated to a maximum depth of approximately 13 feet from the ground surface of Stockpile B. Soils were excavated below ground surface elevation due to the discovery of a petroleum odored gray sand. The majority of material excavated from Slot 3 consisted of fills and debris including random metal pieces, cables, plastic, pipes, wood and a steel beam. Underlying the fill and debris zone is a layer of gray, petroleum odored sand with a maximum thickness of no more than 2 feet.

Four samples were taken from Slot 3. Figure 6 for sample locations. Sample S3-S1 was taken at the south end of the cut at a depth of 10 feet from a dark brown colored sand that contained a blue crystalline material. Sample S3-S2 was taken toward the north end of the cut at a depth of 8 feet from a reddish-brown colored sand. Sample S3-EX1 was taken from the south end of the cut at a depth of 5 feet from a bluish-white crystalline material. Sample EX3-S2 was taken from north end of the cut from a black, gravelly petroleum odored sand.

4.2 Results of Laboratory Analyses Sampling

A total of fifteen samples were taken and submitted for analysis for Total Petroleum Hydrocarbons (includes Gasoline Range, Diesel Range and Heavy Oil Range) by EPA Method 8015m, Semi – Volatile Organic Compounds (Semi-VOCs) by EPA Method 8270C, Metals by EPA Series 6000 and 7000 and Polychlorinated Biphenyls (PCBs) by EPA Method 8082.

Sample ID S1-Comp, S2-Comp and S3-Comp are composite samples. One composite sample was taken from the excavation stockpile of each slot. Laboratory analysis reports and chain-of-custody forms are found in Appendix 3.

4.3 Metals Analyses

Samples S1-EX3 from Slot 1 and S3-Ex3 from Slot 3 had chromium levels in excess of US Environmental Protection Agency Preliminary Remediation Goals (EPA PRGs) for industrial soils. These were the only sample results to exceed the PRGs for industrial soils. Although sample results for Copper did not exceed the PRGs for industrial soils, several sample results exceeded the California Code of Regulations (CCR), Title 22, Total Threshold Concentration (TTLC) limits for the characterization of hazardous waste. Under the same CCR Title 22 guidelines, sample results with elevated levels of Copper, Lead, Nickel and Cadmium that did not exceed EPA PRGs or TTLC limits still had the potential to exceed the Soluble Threshold Concentration Limits (STLCs) based on a laboratory method dilution factor of 10 (TTLC = 57 mg/L, STLC of 5.7 mg/L) is possible and thus were subject to Waste Extraction Testing (WET). These results are summarized in Table 4-2.

Table 4-1 Results of Metals Analyses

SAMPLE ID	Sn	Ar	Ba	Cd	Cr	Co	Cu	Pb	Ni	Ag	Va	Zn
S1- Comp	<4	1.8	50	<3	10	4.2	18	42	8.1	<2	9.1	180
S2- Comp	<4	3.2	43	3.4	9.3	4.8	84	47	11	<2	13	140
S3- Comp	<4	5.5	50	<3	9.0	4.1	110	52	8.9	<2	9.2	140
S1-S1	<4	1.2	130	3.5	<3	9.6	1810	500	31	4.7	<1	2700
S1-S2	<4	<0.5	11	<3	<3	1.6	5.9	21	5.2	<2	<1	80
S1-EX1	<4	9.9	120	6.9	15	7.4	1760	200	29	<2	14	1390
S1-EX2	<4	4.8	54	<3	8.0	4.1	8.6	4.3	8.4	<2	12	28
S1-EX3	7.8	3.2	9.3	14	280	5.1	8480	230	340	2.5	24	4120
S2-S1	<4	2.2	72	4.2	11	6.8	84	230	12	<2	12	660
S2-S2	4.9	15	110	11	20	8.4	450	210	49	55	12	2520
S2-EX1	<4	1.2	35	71	42	2.9	7090	60	15	<2	21	500
S3-S1	<4	4.0	51	3.7	14	4.9	800	78	9.9	<2	12	360
S3-S2	<4	3.6	63	5.1	14	4.8	95	75	14	<2	11	200
S3-EX1	<4	3.1	2.3	<3	97	<1	9970	<3	6.1	<2	15	380
S3-EX2	<4	5.0	46	10	28	7.0	480	740	26	<2	17	840
TTLC Limits	500	500	10000	100	2500	8000	2500	1000	2000	500	2400	5000
PRG res	31	0.39	5300	37	30	900	3100	150	1600	390	550	2300
PRG ind	410	1.6	6700	450	64	1900	41000	750	2000	5100	7200	10000

S1-Comp – Composite sample taken from slot-cut excavation stockpile
Sn= Antimony, Ar= Arsenic, Ba- Barium, Cd= Cadmium, Cr= Chromium, Co= Cobalt, Cu= Copper, Pb= Lead, Mo= Molybdenum, Ni= Nickel, Se= Selenium, Ag= Silver, Th= Thallium, Va= Vanadium, Zn= Zinc;
Beryllium and Mercury results are not listed in the table – no results for these analytes were detected.
Positive results in **Bold** All measurements in mg/Kg
TTLC – Title 22 Total Threshold Limit Concentrations
PRGs – US EPA Preliminary Remediation Goals for residential and industrial soils

	Sample results that exceeded TTLC limits and subject to STLC testing- Title 22 Total Threshold Concentration Limits
	Samples that were not above TTLC limits but subject to STLC testing – Title 22 Solubility Threshold Limit Concentration
	Sample results above PRGs for industrial soils

4.3.2 WET Analyses

A Waste Extraction Test (WET) was run on each elevated sample to determine the level of solubility and compare the results with those of the STLC limits. The results of the WET analyses are displayed in the table below. One sample exceeded the STLC limits for Cadmium, 4 samples exceeded the STLC limits for Cooper and 4 samples exceeded the STLC limits for Lead. Consequently, under the STLC guidelines outlined in CCR Title 22, these levels are classified by California State standards as hazardous waste. A Toxic Characteristic Leaching Procedure (TCLP) analysis was not run on these samples but given the laboratory method dilution factor of 20, the STLC results indicate levels may exist that exceed the TCLP limits and could be considered hazardous waste at the federal level.

Table 4-2 Results of WET Analyses

SAMPLE ID	Cd	Cu	Pb	Ni	Ag	Zn
S1- Comp	NT	NT	NT	NT	NT	NT
S2- Comp	NT	NT	NT	NT	NT	NT
S3- Comp	NT	NT	**1.6**	NT	NT	NT
S1-S1	NT	**61**	**23**	NT	NT	**89**
S1-S2	NT	NT	NT	NT	NT	NT
S1-EX1	NT	**5.0**	**5.4**	NT	NT	NT
S1-EX2	NT	NT	NT	NT	NT	NT
S1-EX3	<0.5	**110**	**7.5**	<1	NT	**64**
S2-S1	NT	NT	**3.0**	NT	NT	NT
S2-S2	<0.5	**2.2**	**4.5**	NT	<1	**83**
S2-EX1	**1.7**	**330**	<0.9	NT	NT	NT
S3-S1	NT	**50**	**3.7**	NT	NT	NT
S3-S2	NT	NT	**1.7**	NT	NT	NT
S3-EX1	NT	**200**	NT	NT	NT	NT
S3-EX2	**0.5**	**8.0**	**10**	NT	NT	NT
STLC limits	**1**	**25**	**5**	**20**	**5**	**250**

Sn= Antimony, Ar= Arsenic, Ba- Barium, Be= Beryllium, Cd= Cadmium, Cr= Chromium, Co= Cobalt, Cu= Copper, Pb= Lead, Hg= Mercury, Mo= Molybdenum, Ni= Nickel, Se= Selenium, Ag= Silver, Th= Thallium, Va= Vanadium, Zn= Zinc;
Positive results in **Bold**
Highlighted results exceed the STLC limits
All measurements in mg/Kg
STLC – Title 22 Solubility Threshold Concentration Limits

4.4 Sample Results for TPH

TPH was detected in composite samples S1- Comp and S3-Comp taken from the excavated material from the corresponding slot cuts. The composite sample taken from Slot 3 contained levels of TPH in the gas range, diesel range and heavy oil range. Only those levels in the heavy oil range were in excess of LA Regional Water Quality Control Board (LARWQCB) soils screening levels for the protection of groundwater. Samples S1-S1 and S1-S2 taken from Slot 1 contained TPH in the diesel and heavy oil range. These samples exceeded the LARWQCB screening levels for diesel and not for heavy oil.

Table 4-3 Results for TPH

SAMPLE ID	Gas Range C4-C12	Diesel Range C13-C22	Heavy Oil Range C23+
S1- Comp	<0.5	**18**	**12**
S2- Comp	<0.5	<10	<10
S3- Comp	**54.1**	**650**	**38**
S1-S1	<0.5	**289**	**570**
S1-S2	<0.5	**230**	**240**
S1-EX1	<0.5	<10	<10
S1-EX2	<0.5	<10	<10
S1-EX3	<0.5	<10	<10
S2-S1	<0.5	<10	<10
S2-S2	<0.5	<10	<10
S2-EX1	<0.5	<10	<10
S3-S1	<0.5	<10	<10
S3-S2	<0.5	<10	<10
S3-EX1	<0.5	<10	<10
S3-EX2	<0.5	<10	<10
LA RWQCB	100	100	1000
PRGs ind	NL	NL	NL

Positive results in **Bold**
All measurements in mg/Kg
NL – Not listed

LA RWQCB – Maximum soil screening levels for TPH by Los Angeles Regional Water Quality Control Board, 1994

PRGs ind – US EPA Preliminary Remediation Goals for industrial soils

4.5 Sample Results for PCBs

PCBs were detected in one sample from the composite sample taken from the stockpile of Slot 1. Aroclor 1260 was detected at 0.31 ug/Kg and is below the US EPA PRGs for industrial soils.

Table 4-4 Results for PCBs

SAMPLE ID	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260
S1- Comp	<0.16	<0.16	<0.16	<0.16	<0.16	<0.16	**0.31**
S2- Comp	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
S3- Comp	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6
S1-S1	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
S1-S2	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
S1-EX1	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
S1-EX2	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
S1-EX3	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
S2-S1	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
S2-S2	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
S2-EX1	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
S3-S1	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
S3-S2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
S3-EX1	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
S3-EX2	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6
EPA PRGs res	3.9	0.22	0.22	0.22	0.22	0.22	0.22
EPA PRGs Ind	21	0.74	0.74	0.74	0.74	0.74	0.74

Positive results in **Bold**
All measurements in mg/Kg

EPA PRGs – US EPA Preliminary Remediation Goals for residential and industrial soils

4.6 Sample Results for Semi-VOCs

Semi-VOCS were detected in the composite sample from the excavation stockpile from Slot 3 and from the side wall sample taken from Slot 1. Sample S1-S1 from Slot 1 contained low levels of 1,2,4-Trichlorobenzene at 2.2 ug/Kg well below the US EPA PRGs for industrial soils listed at 650 ug/Kg. The composite sample from Slot 3 contained 2-Methlynapthalene at 6.4 ug/Kg and Phenanthrene at 1.1 ug/Kg. Neither of these analytes have listings in the US EPA PRGs for industrial soils. Table 4.5 only lists those Semi-VOCs that were detected in sample results. Appendix 3 contains tabulated sample results for all analytes, laboratory analyses report and chain-of-custody forms.

Table 4-5 Results for Semi-VOCs

Sample ID	1,2,4-Trichlorobenzene	2-Methylnaphthalene	Phenanthrene
S1 Comp	<0.10	<0.10	<0.10
S2 Comp	<0.10	<0.10	<0.10
S3 Comp	<0.10	**6.4**	**1.1**
S1-S1	**2.2**	<0.10	<0.10
S1-S2	<0.10	<0.10	<0.10
S1-EX1	<0.10	<0.10	<0.10
S1-EX2	<0.10	<0.10	<0.10
S1-EX3	<0.10	<0.10	<0.10
S2-S1	<0.10	<0.10	<0.10
S2-S2	<0.10	<0.10	<0.10
S2-EX1	<0.10	<0.10	<0.10
S3-S1	<0.10	<0.10	<0.10
S3-S2	<0.10	<0.10	<0.10
S3-EX1	<0.10	<0.10	<0.10
S3-EX2	<0.10	<0.10	<0.10
EPA PRG ind	3000	NL	NL
EPA PRGs res	650	NL	NL
Positive results in **Bold** All measurements in mg/Kg			
EPA PRGs – US EPA Preliminary Remediation Goals for residential and industrial soils			

5.0 CONCLUSIONS AND RECOMMENDATIONS

The following is a summary of our observations and the results of the sampling:

- Gray petroleum odored sand was identified at the bottom of all three trenches.
- Sample results from the excavation stockpiles and samples taken from Trench 1 indicate levels of TPH in the diesel range (C13-C22) in excess of LA RWQCB maximum screening levels for the protection of groundwater. TPH in the heavy oil range (C24+) was also found in the same samples, although not in levels in excess of the LA RWQCB screening levels for the protection of groundwater.
- In all three trenches, elevated levels of Copper and Lead were detected. Three samples contained levels of Copper which exceeded the Title 22 TTLC limits for the characterization of hazardous waste.
- In WET analyses for samples with elevated levels of Copper and Lead, four samples exceeded the Title 22 STLC limits for Copper (Samples S1-S1, S1-EX3, S2-EX1 and S3-EX1). STLC limits for Lead were also exceeded in sample S1-S1, S1-EX1, S3-EX2. Based on the TTLC and STLC results, the soils are considered hazardous waste in California.
- In Slot 1 and Slot 2, levels of Chromium were detected that exceeded the US EPA PRGs for industrial soils.
- A large amount of debris was encountered throughout the trench excavations including wooden poles, steel beams, cables, plastic, miscellaneous metal parts, concrete and pipes.

Based on the results of this report we recommend the following items:

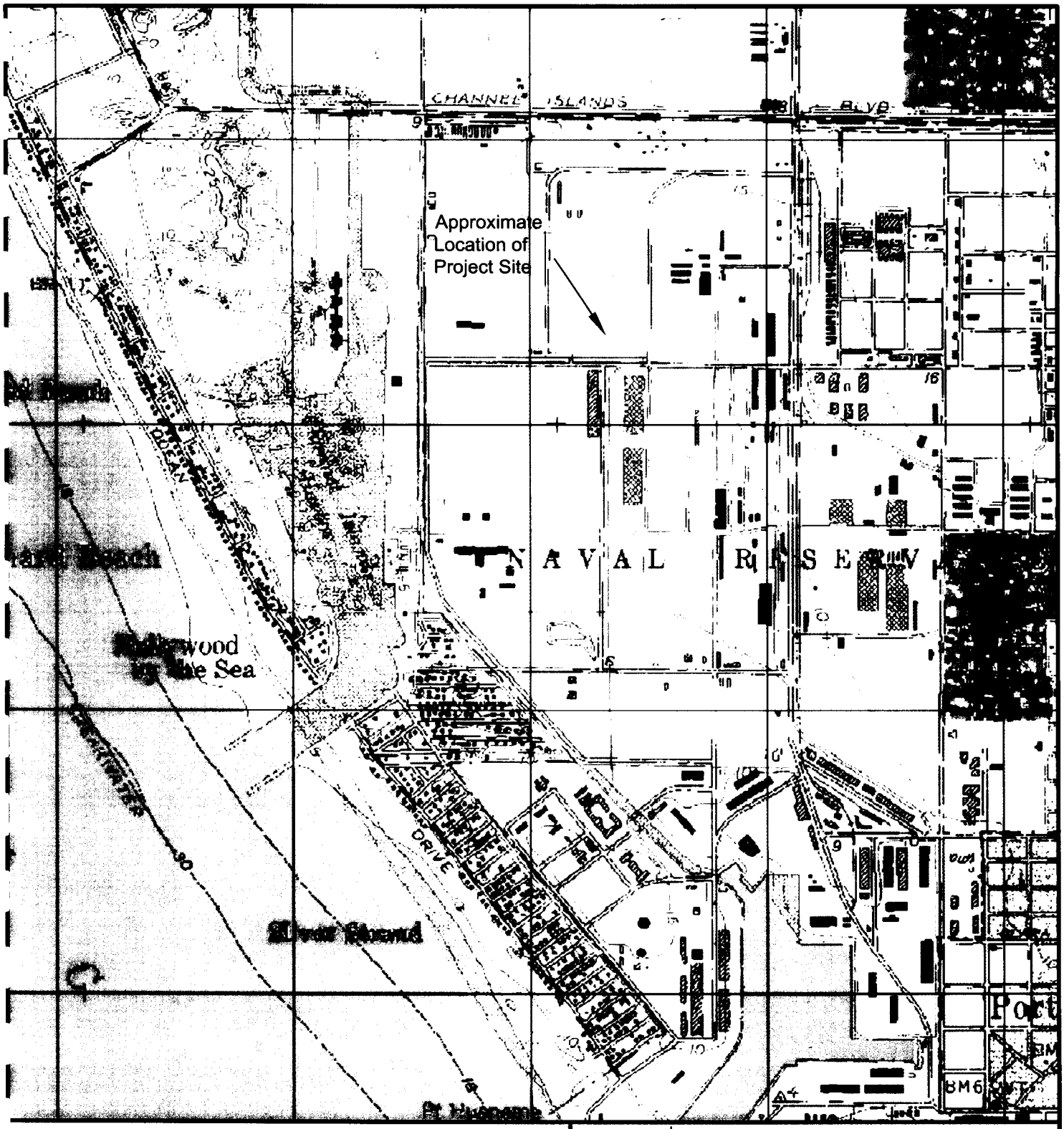
- Based on the hazardous waste levels of Lead and Copper, the soils of Stockpile B do not meet the criteria for clean fill. Further, the hazardous waste levels of Lead and Copper occur throughout Stockpile B in soils that cannot be segregated by field screening methods, and the entire stockpile should be treated as part of Parcel 15, IR Site 9.
- WCE understands that there is a desire to reuse Parcel 15, IR Site 9 as a parking lot. Creating a parking lot on the parcel will require handling materials in Stockpile B and other areas of the parcel that meet the criteria for hazardous waste. A Workplan should be developed that evaluates the end use of the parcel for consistency with federal requirements for the site, and incorporates procedures to protect the health and safety of workers on the site during grading operations.
- The Workplan will contain details regarding what is appropriate for the segregation and removal of deleterious materials identified in the investigation of Stockpile B, including but not limited to metal, wood and plastic debris.

6.0 QUALITY AND LIMITATIONS STATEMENT

This report has been prepared at the direction of use of DBS Engineering, Inc and for the exclusive use the US Navy, as it pertains to Stockpile B located on Parcel 15. IR Site 9, NBVC, Port Hueneme, California. Any use of this report and supporting data, by a party other than specifically named above, shall be solely at the risk of such third party.

All interpretations made by West Coast Environmental and Engineering are opinions based on evaluation of the research information collected and visual assessment of the location. These procedures have limitations, and as such, should not be construed that all possible site conditions were identified. It should be recognized that there is no guarantee this study has covered all possible environmental issues at the site. In performing our professional services, we have applied present professional and scientific judgment and used a level of effort consistent with standard practices measured on the date of this report and in the locale of the project site for similar type studies.

Appendix 1
Figures



Source: Oxnard CA Quadrangle
1949, Photorevised 1967
USGS Topographic

N

WEST COAST ENVIRONMENTAL AND ENGINEERING

Site Location Map
Parcel 15, IR Site 9
NBVC Port Hueneme
Oxnard, California

PROJECT: DBS120-005-003	DATE: 4/8/03	FIGURE 1
DRAWN BY: JLB		REVISION:
APPROVED BY: PLT	DATE: 4/8/03	PRINTED: 4/8/03
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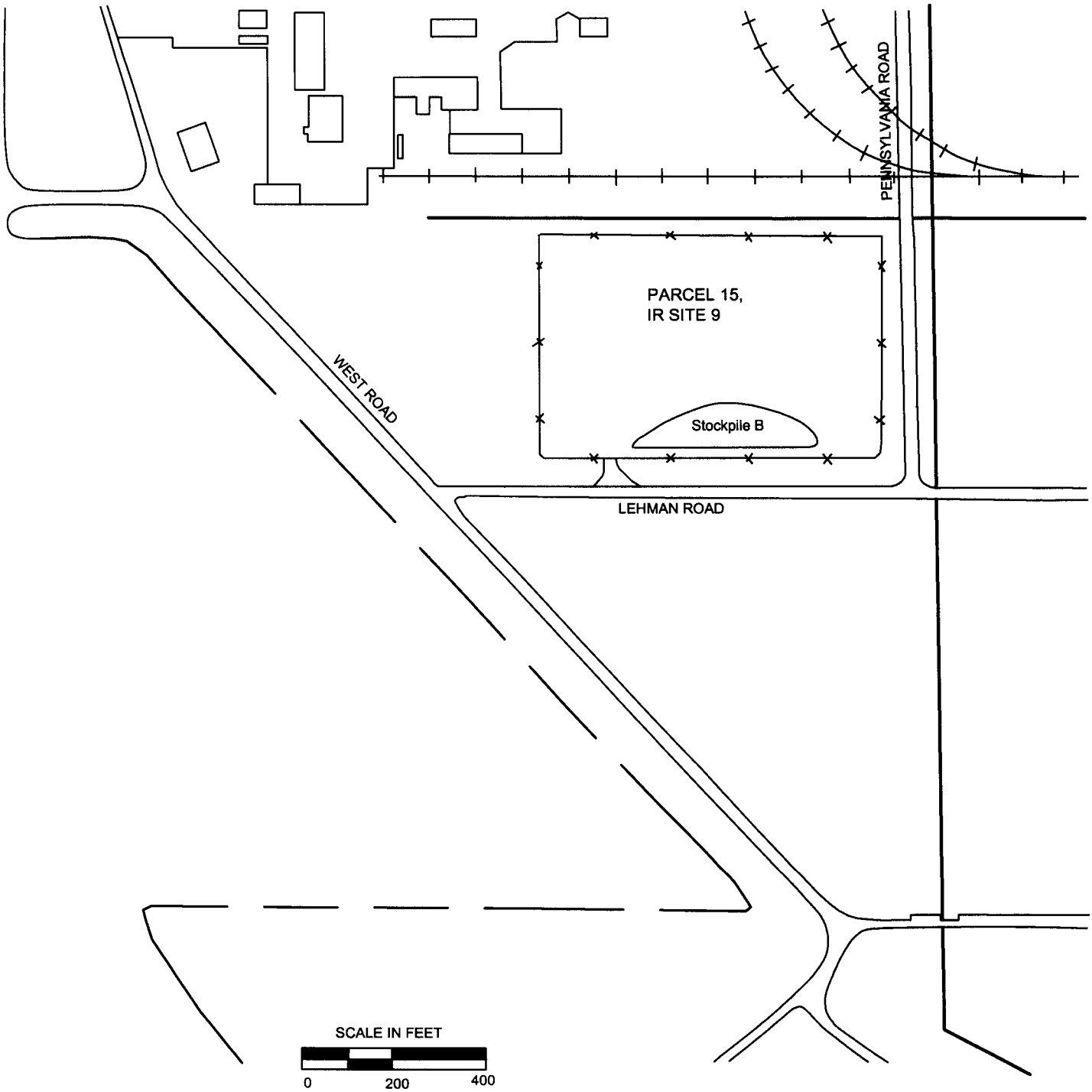


Explanation

- Fence
- Surface Water Ditch
- Installation Boundary

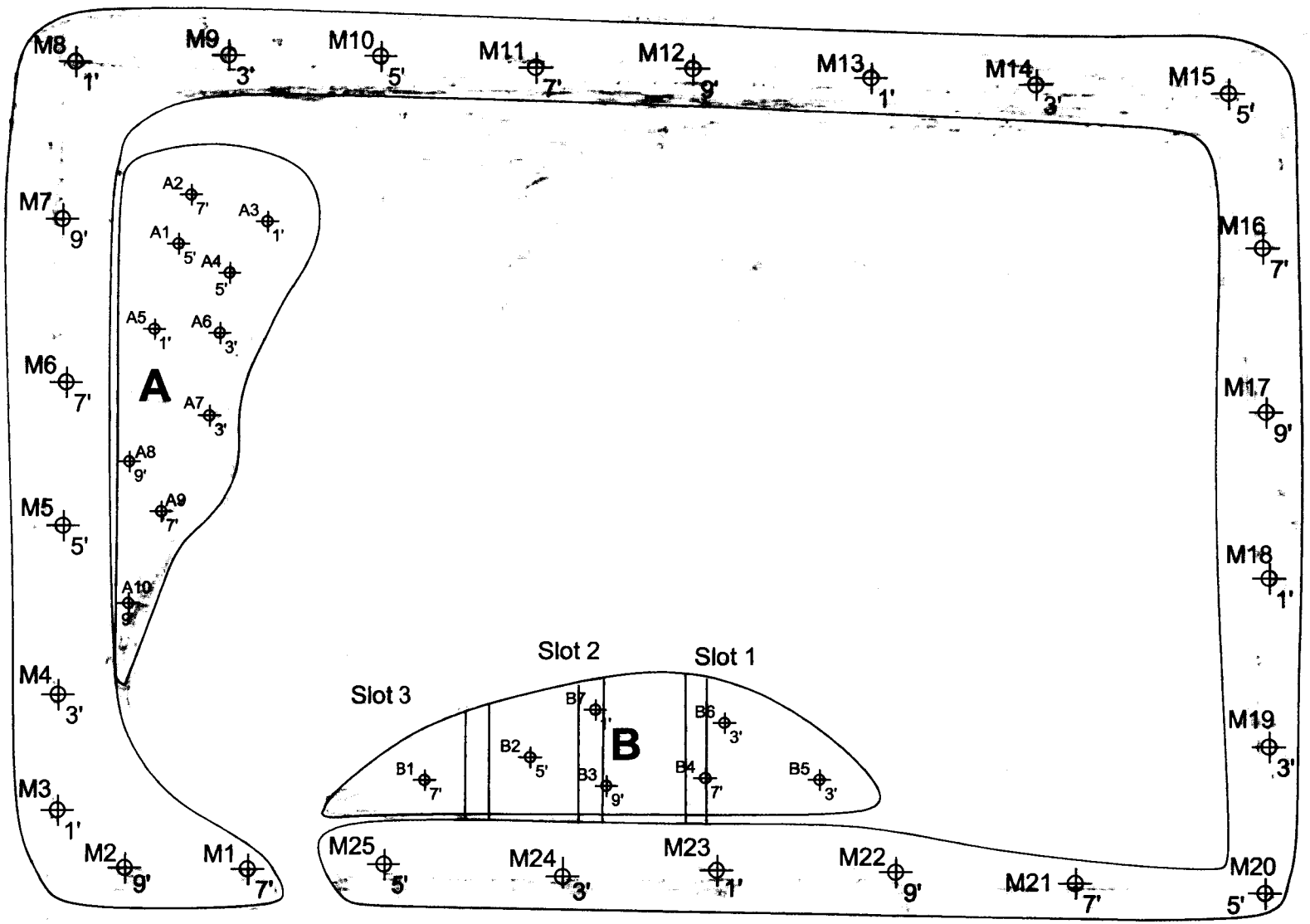
N

SOURCE: MODIFIED FROM SC AND LANDAU ASSOCIATES, 1985

WEST COAST ENVIRONMENTAL AND ENGINEERING

Stockpile B
Parcel 15, IR Site 9
NBVC - Port Hueneme
Port Hueneme, California

PROJECT: DBS120	DATE: 4/8/03	FIGURE 2
DRAWN BY: JLB		REVISION:
APPROVED BY: PLT	DATE: 4/8/03	PRINTED: 9/18/03
DRAWING: DBS120.007.003.Fig2.jlb.dwg		SCALE: NONE



Explanation

Sampling Locations from Previous Assessment

A1 1' Actual Sampling Location in Area A

B1 1' Actual Sampling Location in Area B

M1 1' Actual Sampling Location on Berm

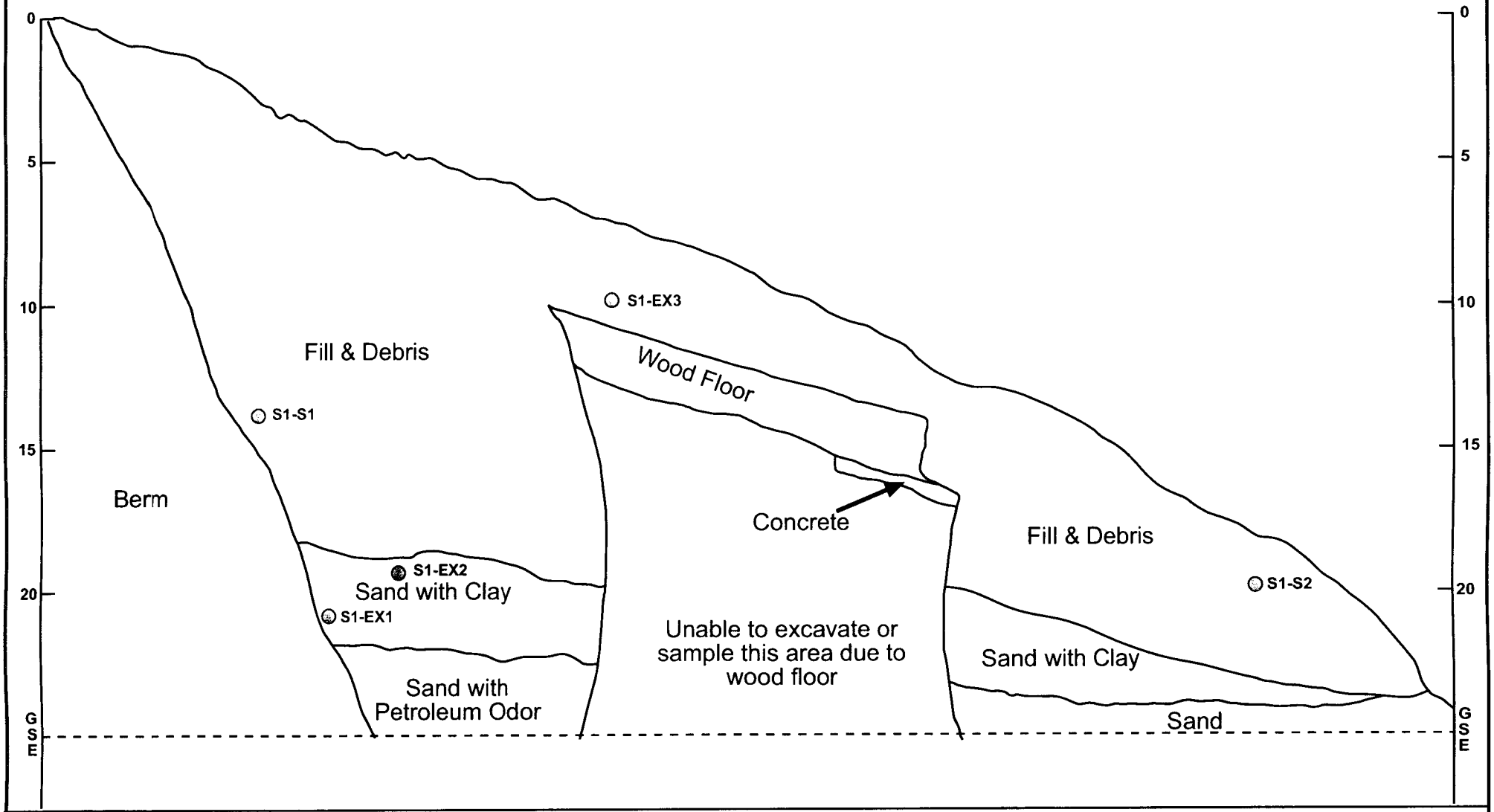
N

0 50' 100'

WEST COAST ENVIRONMENTAL AND ENGINEERING

T rench Locations
Parcel 15, IR Site 9
LTM P7, Project 1
Naval Base Ventura County, Port Hueneme
Oxnard, California

PROJECT: DBS120.007.03	DATE: 9/10/03	FIGURE 3
DRAWN BY: JLB		REVISION:
APPROVED BY: PLT	DATE: 9/10/03	PRINTED: 9/18/03
DRAWING: DB120.007.03.trench.locations.dwg		SCALE: NONE

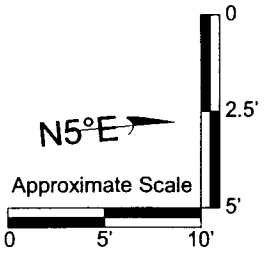


View of Trench looking West

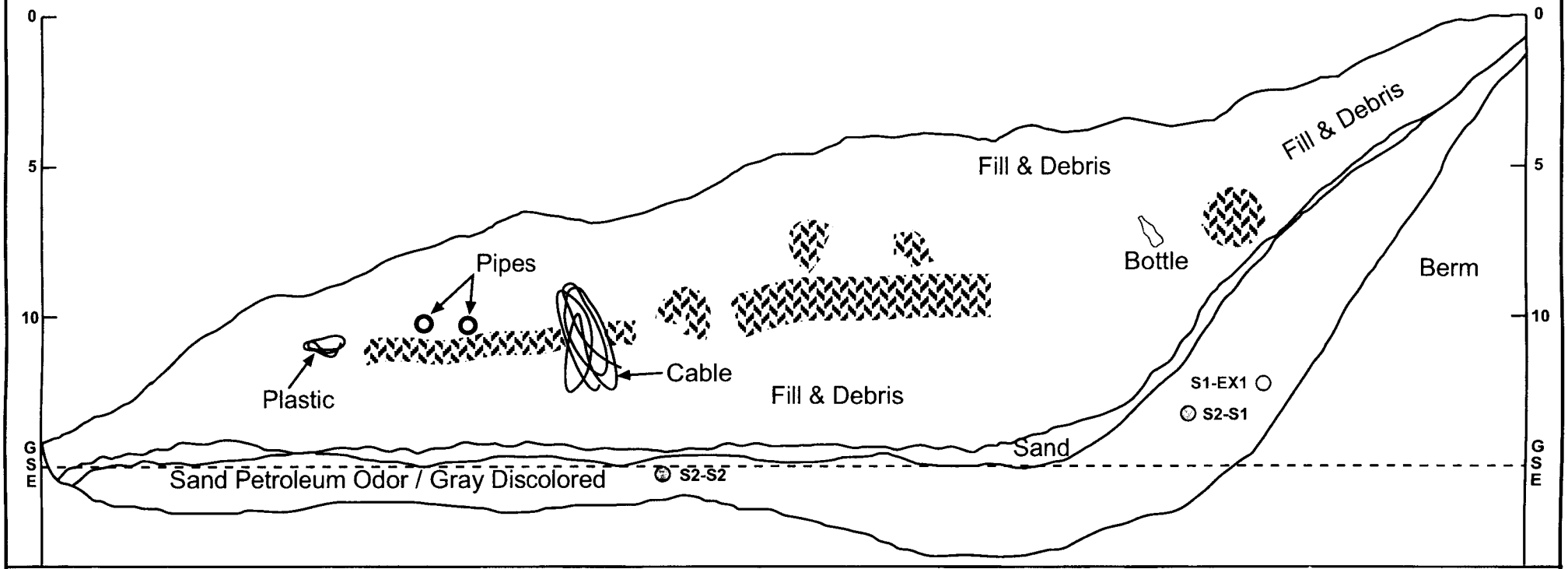
Explanation

● - Sample Location

GSE - Ground Surface Elevation



West Coast Environmental and Engineering	**TRENCH LOG SLOT #1** **STOCKPILE B** **Parcel 15, IR Site 9** **Port Hueneme, USNB**
PROJECT: DBS120-007	**FIGURE 4**
DRAWN BY: BAJ DATE: 9/10/03	REVISION:
APPROVED BY: DATE:	PRINTED:
DRAWING: DBS120-007_TrenchDetails-baj.fh10	SCALE: As Shown



View of Trench looking East

Explanation

- Sample Location
- GSE - Ground Surface Elevation
- Wood Debris

N

Approximate Scale

0 5' 10'

0 2.5' 5'

West Coast Environmental and Engineering

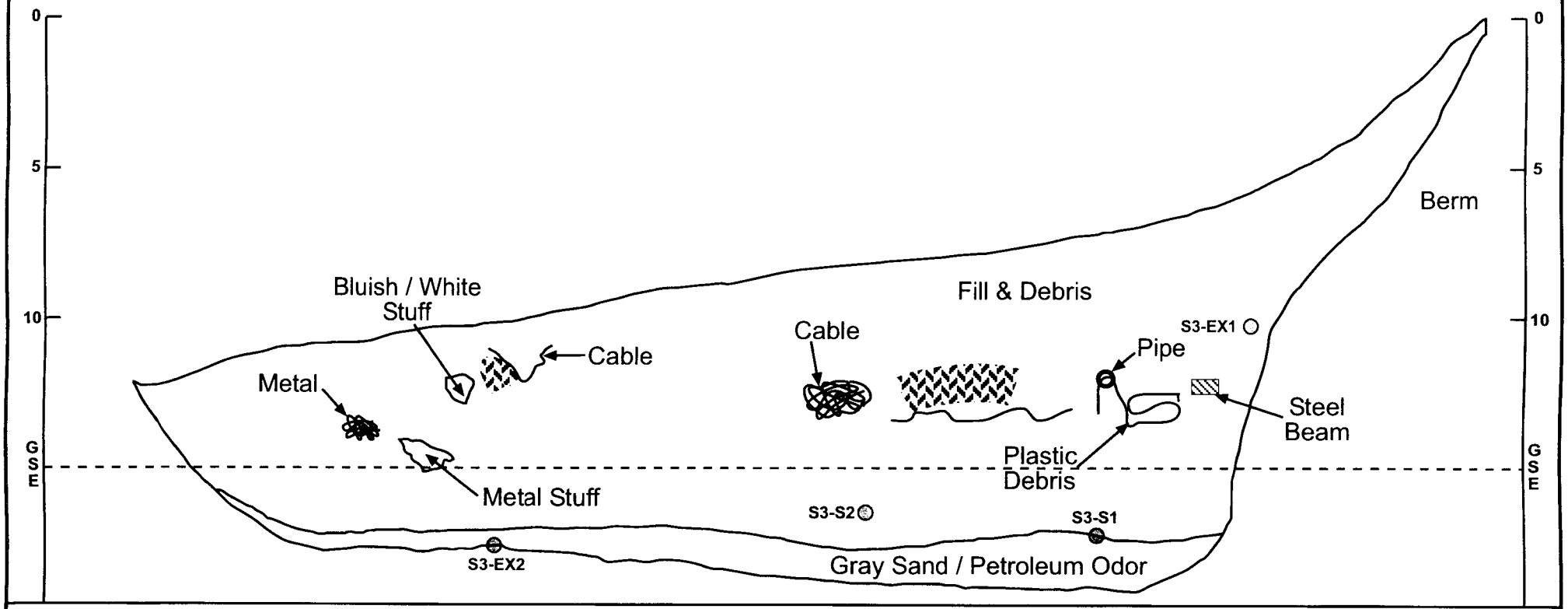
TRENCH LOG #2

STOCKPILE B

Parcel 15, IR Site 9

Port Hueneme, USNB

PROJECT: DBS120-007		**FIGURE 5**
DRAWN BY: BAJ	DATE: 9/10/03	REVISION:
APPROVED BY:	DATE:	PRINTED:
DRAWING: DBS120-007_TrenchDetails-baj fh10		SCALE: As Shown



View of Trench looking East

Explanation

- Sample Location
- GSE - Ground Surface Elevation
- Wood Debris

N

Approximate Scale

0 5' 10'

0 2.5' 5'

West Coast Environmental and Engineering

TRENCH LOG SLOT #3

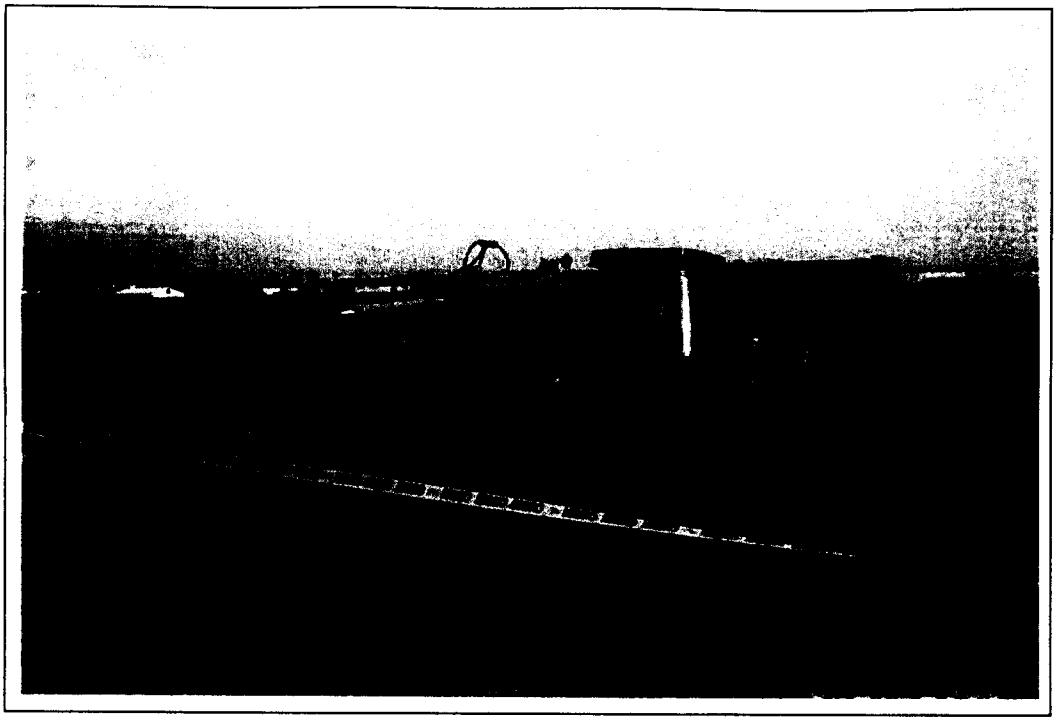
STOCKPILE B

Parcel 15, IR Site 9

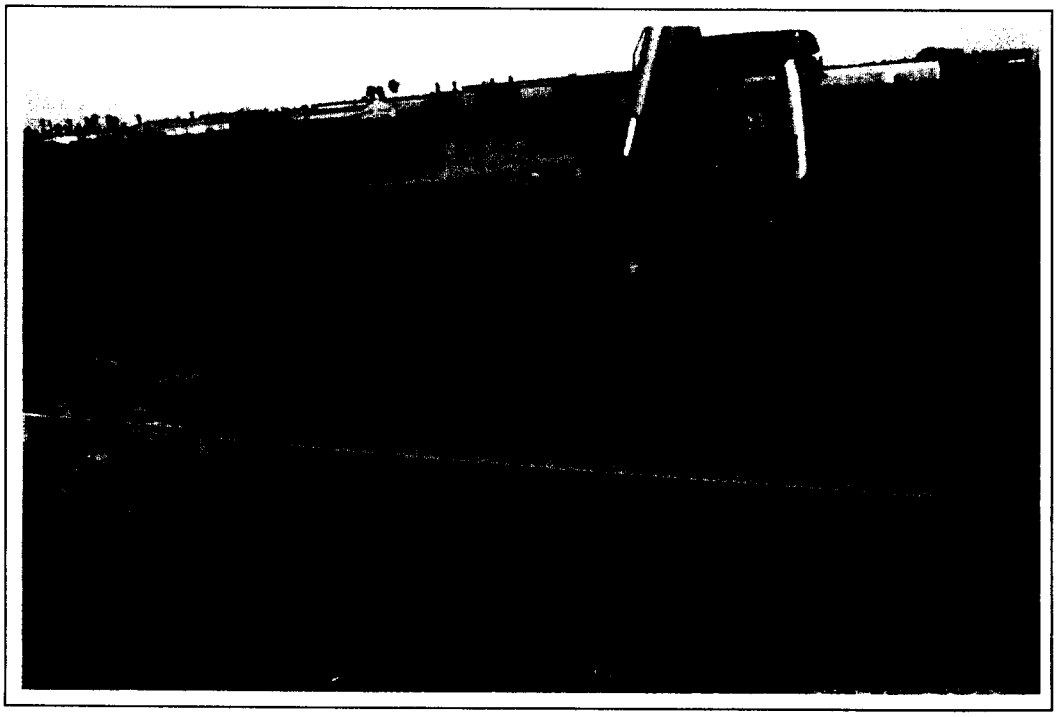
Port Hueneme, USNB

PROJECT: DBS120-007		**FIGURE 6**
DRAWN BY: BAJ	DATE: 9/10/03	REVISION:
APPROVED BY:	DATE:	PRINTED:
DRAWING: DBS120-007_TrenchDetails-baj.fh10		SCALE: As Shown

Appendix 2
Color Site Photos

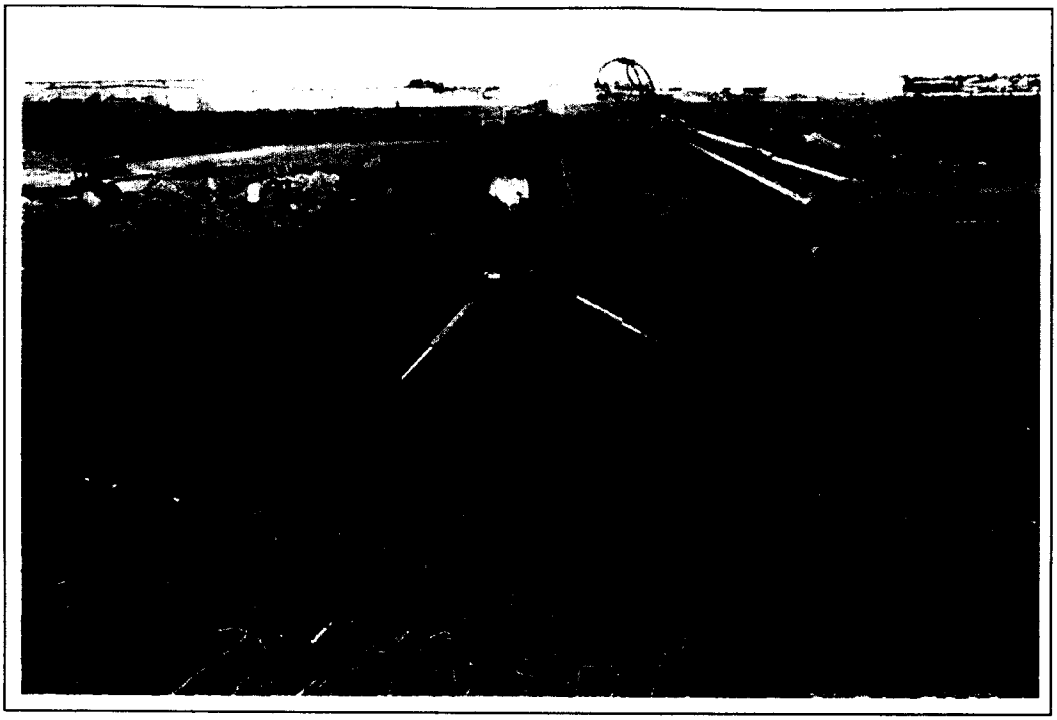


1. View of the project area looking northwest at the opening of slot 1, at the east end of stockpile B.



2. View of the project area slot 1 being opened.

WEST COAST
ENVIRONMENTAL
AND ENGINEERING

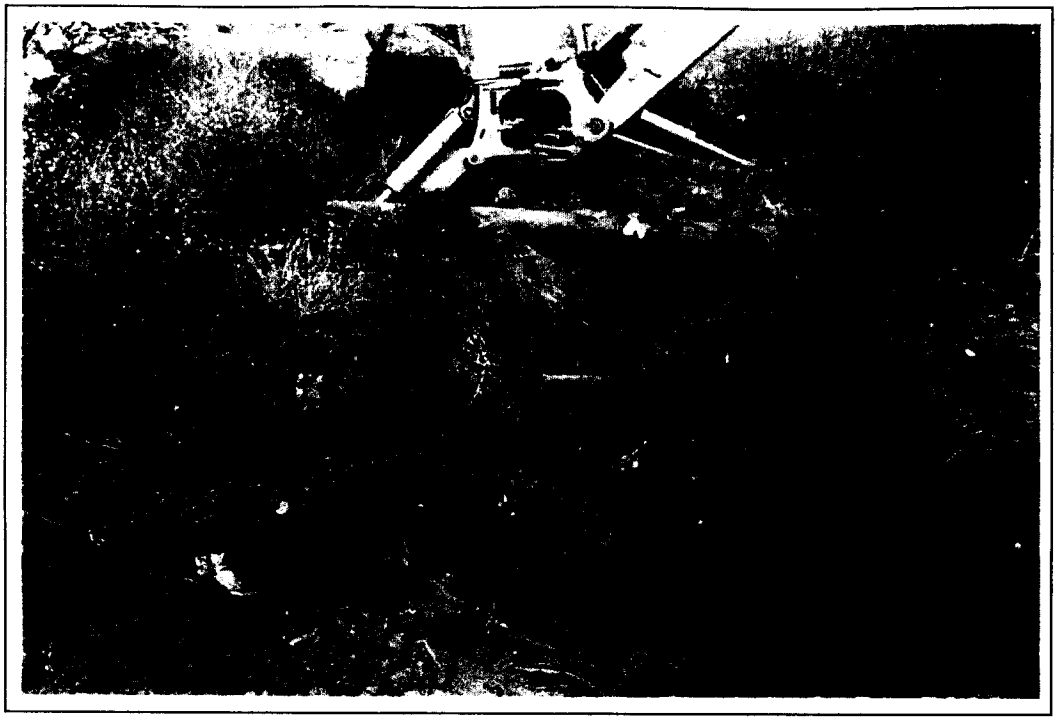


3. View of metal pipes and debris removed from slot 1.

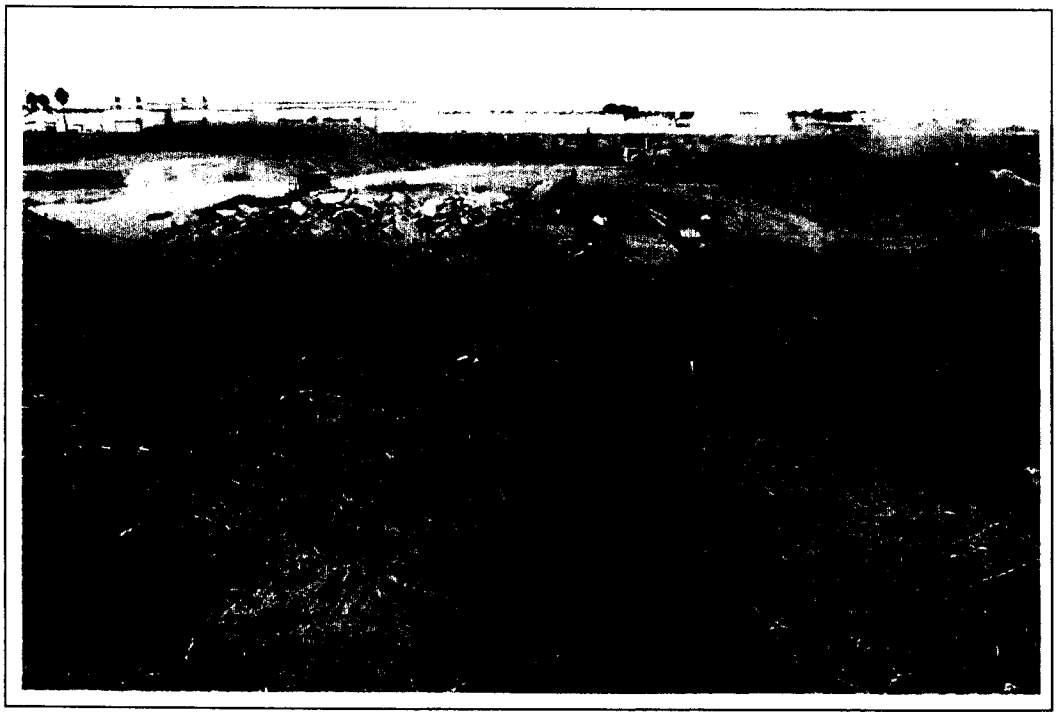
4. View of the debris in slot 1. Note the floor material with joists at center of photo. Just to the right of the floor material is a tree stump. A piece of utility pole is visible in the lower left corner.

5. View of a metal container and cable piece. This is an example of the common debris found in the stockpile.

6. View of the bluish white crystalline substance found in all slots in patches. Note the metal debris and plastic trash bag pieces.



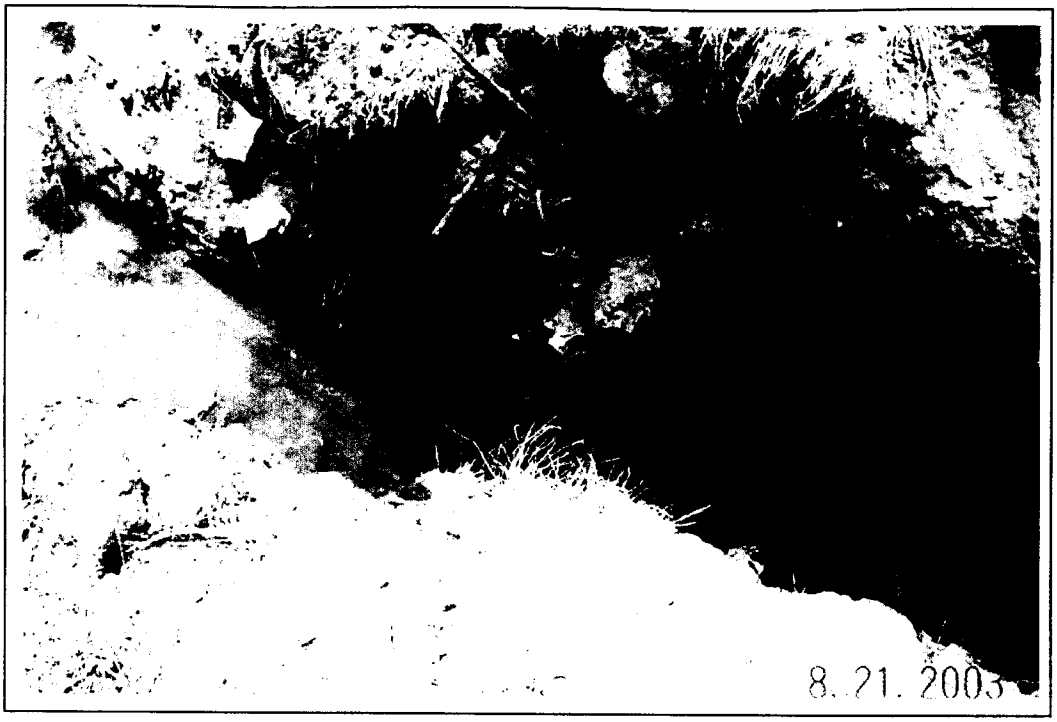
7. View of a large pipe and chain-link fence removed from slot #1.



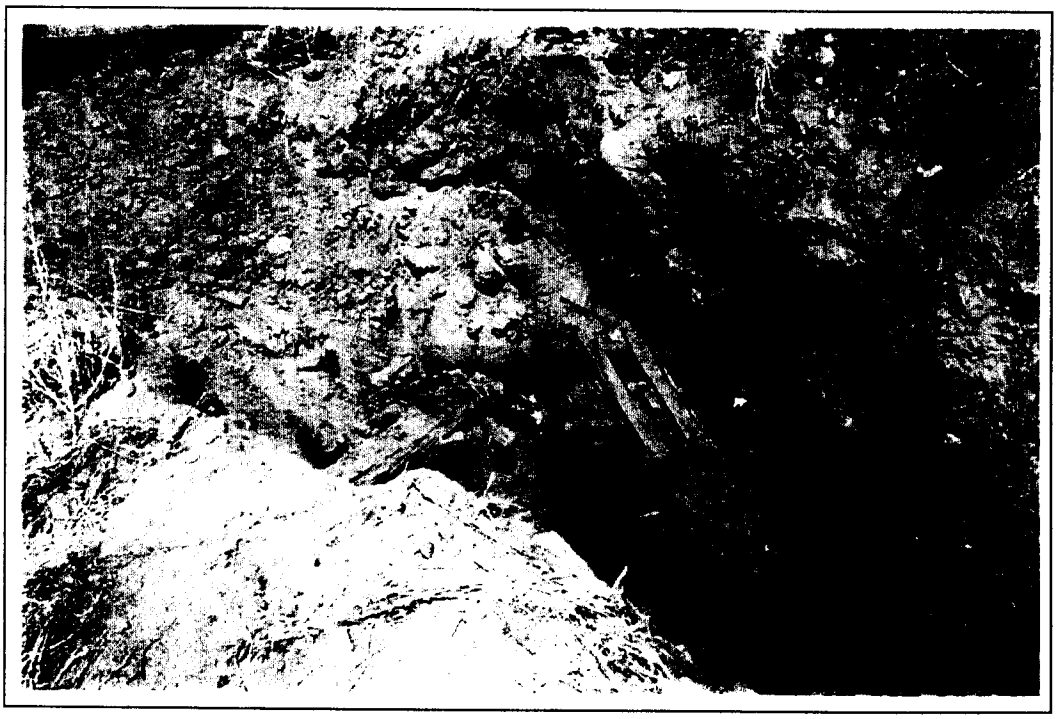
8. View of slot 1 from looking north from the top of the berm. Note the grayish soils atop the stockpile. These soils had petroleum odors.

9. View of metal debris underlying the northern end of the flooring in slot #1.

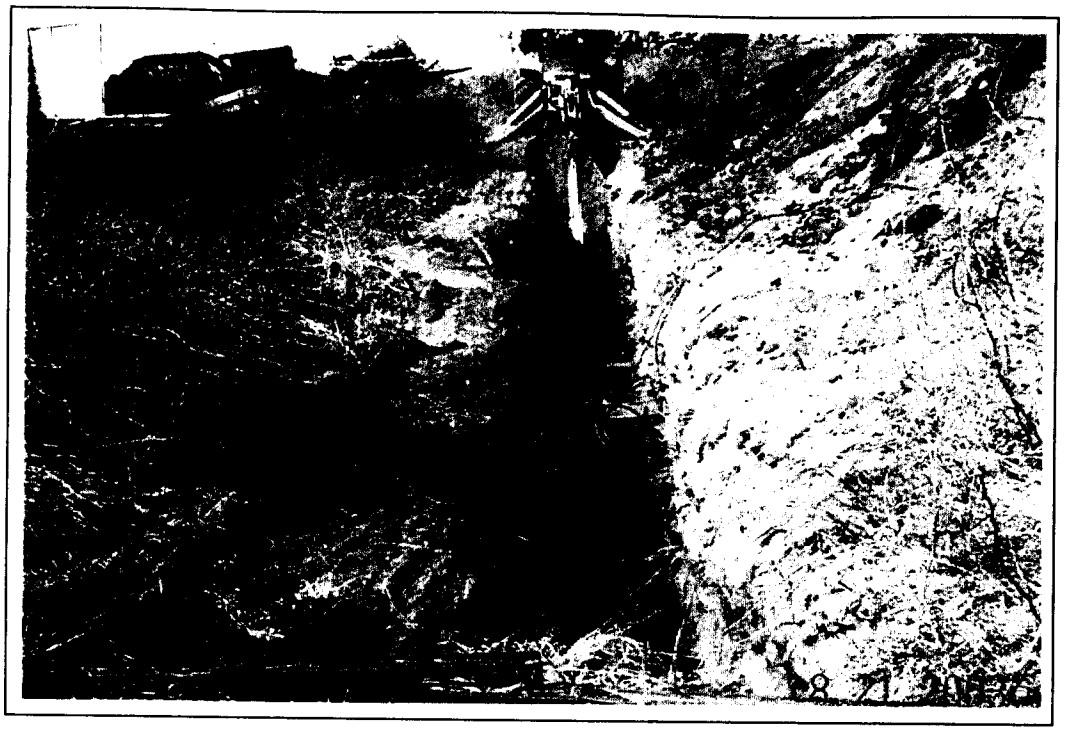
10. View of a paint can and tree branches removed from slot #2.



11. View of bluish white substance in the eastern slot wall (slot #2).



12. View of metal debris and wood pieces in slot #2.



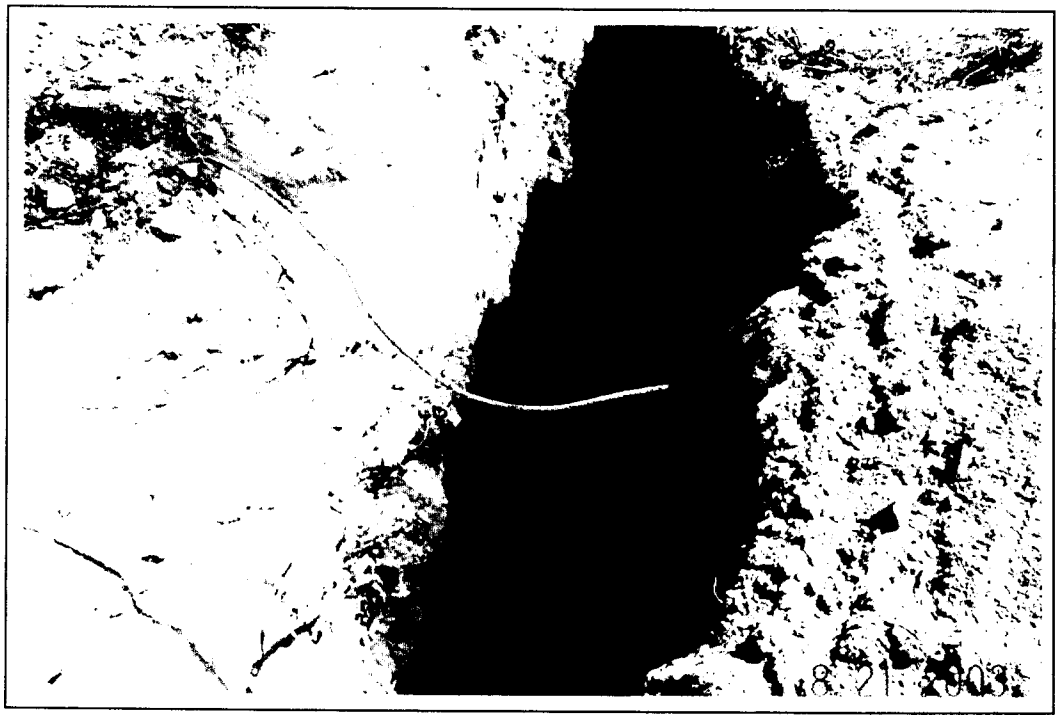
13. View of metal pipes and I beam across slot #2.

14. View of the tree trunks in slot #2.

15. View of debris in slot #3.

16. View of black discolored soils st the base of slot #3. Soils smelled of petroleum hydrocarbons.

17. View of the discolored soils atop the slot #3 stockpile.



18. View of the northern end of slot #3. Debris can be seen in both sidewalls of the slot.

APPENDIX D
CONFIRMATION SOIL SAMPLE RESULTS FOR IRP SITE 12B

TABLE 1
IRP SITE 12B - SUMMARY OF ANALYTICAL RESULTS FOR CONFIRMATION SOIL SAMPLES

Sample Identification Number	Sample Date	Sample Location	Sample Depth (feet)	Polychlorinted Biphenyls by EPA[a] Method 8082						
				Aroclor-1016 (PCB-1016)	Aroclor-1221 (PCB-1221)	Aroclor-1232 (PCB-1232)	Aroclor-1242 (PCB-1242)	Aroclor-1248 (PCB-1248)	Aroclor-1254 (PCB-1254)	Aroclor-1260 (PCB-1260)
Practical Quantitation Limit (µg/kg)[b]				33	66	33	33	33	33	33
4304250-12B-060	3/11/02	PS[c]	1.5	<740	< 1,500	< 740	< 740	< 740	< 740	3,100
4304250-12B-061	3/11/02	PS	1.5	< 730	< 1,500	< 730	< 730	< 730	< 730	3,900
4304250-12B-062	3/11/02	PS	1.5	< 730	< 1,500	< 730	< 730	< 730	< 730	4,100
4304250-12B-063	3/19/02	EB[d]	4	4 J[e]	< 71	< 36	< 36	< 36	< 36	120
4304250-12B-064	3/19/02	EB	4	< 37	< 73	< 37	< 37	< 37	< 37	38
4304250-12B-065	3/19/02	EB	4	< 36	< 72	< 36	< 36	< 36	< 36	61
4304250-12B-066	3/19/02	EB	4	< 35	< 71	< 35	< 35	< 35	< 35	29 J
4304250-12B-067	3/19/02	EB	4	< 36	< 73	< 36	< 36	< 36	< 36	5 J
4304250-12B-068	3/19/02	EB	4	< 35	< 71	< 35	< 35	< 35	< 35	3 J
4304250-12B-069	3/19/02	EB	4	< 36	< 73	< 36	< 36	< 36	< 36	150
4304250-12B-070	3/19/02	EB	4	< 37	< 73	< 37	< 37	< 37	< 37	130
4304250-12B-071	3/19/02	EB	4	< 37	< 75	< 37	< 37	< 37	< 37	120
4304250-12B-072	3/19/02	EB	4	< 36	< 73	< 36	< 36	< 36	< 36	< 36
4304250-12B-073	3/19/02	EB	4	< 38	< 75	< 38	< 38	< 38	< 38	3 J
4304250-12B-074	3/19/02	FD[f]	4	< 37	< 75	< 37	< 37	< 37	< 37	< 37
4304250-12B-075	3/19/02	EB	4	< 36	< 73	< 36	< 36	< 36	< 36	47
4304250-12B-076	3/19/02	EB	4	< 39	< 77	< 39	< 39	< 39	< 39	270
4304250-12B-077	3/19/02	EB	4	< 35	< 70	< 35	< 35	< 35	< 35	110 J[d]
4304250-12B-106	3/26/02	SW[g]	1.5	< 360	< 710	< 360	< 360	< 360	< 360	2,000
4304250-12B-107	3/26/02	SW	1.5	< 190	< 370	< 190	< 190	< 190	< 190	890
4304250-12B-108	3/26/02	SW	1.5	< 360	< 730	< 360	< 360	< 360	< 360	2,300
4304250-12B-109	3/26/02	SW	1.5	< 350	< 710	< 350	< 350	< 350	< 350	1,700
4304250-12B-110	3/26/02	SW	1.5	< 360	< 720	< 360	< 360	< 360	< 360	2,300
4304250-12B-111	3/26/02	SW	1.5	< 360	< 730	< 360	< 360	< 360	< 360	2,200
4304250-12B-112	3/26/02	SW	1.5	< 370	< 740	< 370	< 370	< 370	< 370	1,900
4304250-12B-113	3/26/02	SW	1.5	< 360	< 720	< 360	< 360	< 360	< 360	1,400
4304250-12B-114	3/26/02	SW	1.5	< 360	< 730	< 360	< 360	< 360	< 360	1,100
4304250-12B-115	3/26/02	SW	1.5	< 370	< 740	< 370	< 370	< 370	< 370	2,200
4304250-12B-116	3/27/02	SW	1.5	< 360	< 730	< 360	< 360	< 360	< 360	1,400
4304250-12B-117	3/27/02	SW	1.5	< 730	< 1500	< 730	< 730	< 730	< 730	6,300

TABLE 1
IRP SITE 12B - SUMMARY OF ANALYTICAL RESULTS FOR CONFIRMATION SOIL SAMPLES

Sample Identification Number	Sample Date	Sample Location	Sample Depth (feet)	Polychlorinted Biphenyls by EPA[a] Method 8082						
				Aroclor-1016 (PCB-1016)	Aroclor-1221 (PCB-1221)	Aroclor-1232 (PCB-1232)	Aroclor-1242 (PCB-1242)	Aroclor-1248 (PCB-1248)	Aroclor-1254 (PCB-1254)	Aroclor-1260 (PCB-1260)
Practical Quantitation Limit (µg/kg)[b]				33	66	33	33	33	33	33
4304250-12B-118	3/27/02	SW	1.5	< 740	< 1500	< 740	< 740	< 740	< 740	5,400
4304250-12B-119	3/27/02	SW	1.5	< 360	< 730	< 360	< 360	< 360	< 360	2,500
4304250-12B-120	3/27/02	SW	1.5	< 36	< 71	< 36	< 36	< 36	< 36	130
4304250-12B-121	3/27/02	SW	1.5	< 36	< 72	< 36	< 36	< 36	< 36	180
4304250-12B-122	3/27/02	EB	3	< 370	< 740	< 370	< 370	< 370	< 370	1,400
4304250-12B-123	3/27/02	EB	3	< 36	< 71	< 36	< 36	< 36	< 36	150
4304250-12B-124	3/27/02	EB	3	< 38	< 76	< 38	< 38	< 38	< 38	47
4304250-12B-125	3/27/02	EB	3	< 36	< 72	< 36	< 36	< 36	< 36	19 J
4304250-12B-126	3/27/02	EB	3	< 35	< 70	< 35	< 35	< 35	< 35	220
4304250-12B-127	3/27/02	EB	3	< 180	< 360	< 180	< 180	< 180	< 180	1,000
4304250-12B-128	3/27/02	EB	3	< 36	< 73	< 36	< 36	< 36	< 36	330
4304250-12B-129	3/27/02	EB	3	< 36	< 73	< 36	< 36	< 36	< 36	95
4304250-12B-130	3/27/02	EB	3	< 36	< 72	< 36	< 36	< 36	< 36	50
4304250-12B-131	3/27/02	EB	3	< 37	< 74	< 37	< 37	< 37	< 37	200
4304250-12B-132	3/27/02	FD	1.5	< 35	< 70	< 35	< 35	< 35	< 35	220
4304250-12B-133	3/27/02	FD	3	< 180	< 350	< 180	< 180	< 180	< 180	740
4304250-12B-134	3/27/02	FD	1.5	< 370	< 730	< 370	< 370	< 370	< 370	2,300

Notes:

[a] EPA: United States Enviromental Protection Agency

[b] µg/kg: micrograms per kilogram

[c] PS: progress sample

[d] EB: excavation bottom

[e] J: reported between practical quantitation limit and method detection limit

[f] FD: field duplicate

[g] SW: sidewall

TABLE 2
IRP SITE 12B - ANALYTICAL RESULTS OF CONFIRMATION SOIL SAMPLES
EXCEEDING ACTION LEVEL OF 1 mg/kg (1,000 µg/kg)

Sample Identification Number	Sample Date	Sample Location	Sample Depth (feet)	Polychlorinted Biphenyls by EPA[a] Method 8082						
				Aroclor-1016 (PCB-1016)	Aroclor-1221 (PCB-1221)	Aroclor-1232 (PCB-1232)	Aroclor-1242 (PCB-1242)	Aroclor-1248 (PCB-1248)	Aroclor-1254 (PCB-1254)	Aroclor-1260 (PCB-1260)
Practical Quantitation Limit (µg/kg)[b]				33	66	33	33	33	33	33
4304250-12B-106	3/26/02	SW[c]	1.5	< 360	< 710	< 360	< 360	< 360	< 360	2,000
4304250-12B-108	3/26/02	SW	1.5	< 360	< 730	< 360	< 360	< 360	< 360	2,300
4304250-12B-109	3/26/02	SW	1.5	< 350	< 710	< 350	< 350	< 350	< 350	1,700
4304250-12B-110	3/26/02	SW	1.5	< 360	< 720	< 360	< 360	< 360	< 360	2,300
4304250-12B-111	3/26/02	SW	1.5	< 360	< 730	< 360	< 360	< 360	< 360	2,200
4304250-12B-112	3/26/02	SW	1.5	< 370	< 740	< 370	< 370	< 370	< 370	1,900
4304250-12B-113	3/26/02	SW	1.5	< 360	< 720	< 360	< 360	< 360	< 360	1,400
4304250-12B-114	3/26/02	SW	1.5	< 360	< 730	< 360	< 360	< 360	< 360	1,100
4304250-12B-115	3/26/02	SW	1.5	< 370	< 740	< 370	< 370	< 370	< 370	2,200
4304250-12B-116	3/27/02	SW	1.5	< 360	< 730	< 360	< 360	< 360	< 360	1,400
4304250-12B-117	3/27/02	SW	1.5	< 730	< 1500	< 730	< 730	< 730	< 730	6,300
4304250-12B-118	3/27/02	SW	1.5	< 740	< 1500	< 740	< 740	< 740	< 740	5,400
4304250-12B-119	3/27/02	SW	1.5	< 360	< 730	< 360	< 360	< 360	< 360	2,500
4304250-12B-122	3/27/02	EB[d]	3	< 370	< 740	< 370	< 370	< 370	< 370	1,400
4304250-12B-134	3/27/02	FD[e]	1.5	< 370	< 730	< 370	< 370	< 370	< 370	2,300

Notes:

[a] EPA: United States Enviromental Protection Agency

[b] µg/kg: micrograms per kilogram

[c] SW: sidewall

[d] EB: excavation bottom

[e] FD: field duplicate

Table 1
Confirmation Soil Sampling Analytical Results
Non-Time-Critical Removal Action at Site 12B
Naval Base Ventura County, Port Hueneme, California

	Concentration of PCB Aroclor (ug/kg)						
Sample Number	**Aroclor-1016**	**Aroclor-122**	**Aroclor-1232**	**Aroclor-1242**	**Aroclor-124**	**Aroclor-1254**	**Aroclor-1260**
W01-A-03	ND	ND	ND	ND	ND	ND	ND
W02-A-03	ND	ND	ND	ND	ND	ND	780
W03-A-03	ND	ND	ND	ND	ND	ND	ND
W04-A-03	ND	ND	ND	ND	ND	ND	220
W05-A-03	ND	ND	ND	ND	ND	ND	610
W06-A-03	ND	ND	ND	ND	ND	ND	320
F07-A-04	ND	ND	ND	ND	ND	ND	ND
F08-A-04	ND	ND	ND	ND	ND	ND	21 J
F09-C-04	ND	ND	ND	ND	ND	ND	ND
W10-A-03	ND	ND	ND	ND	ND	ND	5.7 J
W11-A-03	ND	ND	ND	ND	ND	ND	ND
W12-A-03	ND	ND	ND	ND	ND	ND	ND
W13-A-03	ND	ND	ND	ND	ND	ND	ND
W14-A-03	ND	ND	ND	ND	ND	ND	ND
W15-A-03	ND	ND	ND	ND	ND	ND	ND
W16-A-03	ND	ND	ND	ND	ND	ND	9.4 J
W17-A-03	ND	ND	ND	ND	ND	ND	ND
W18-A-03	ND	ND	ND	ND	ND	ND	500
W19-A-03	ND	ND	ND	ND	ND	ND	160
W19-C-03	ND	ND	ND	ND	ND	ND	160
W20-A-03	ND	ND	ND	ND	ND	ND	2700
W21-A-03	ND	ND	ND	ND	ND	ND	ND
F22-A-04	ND	ND	ND	ND	ND	ND	7.9 J
F23-A-04	ND	ND	ND	ND	ND	ND	22 J
W24-A-03	ND	ND	ND	ND	ND	ND	2100
W25-C-03	ND	ND	ND	ND	ND	ND	6900
W26-A-03	ND	ND	ND	ND	ND	ND	3100
RA12B.BACKFILL	ND	ND	ND	ND	ND	ND	ND

Shaded areas indicate the concentration exceeds action limit of 1000 ug/kg or 1 milligram/kilogram (mg/kg).

ug/kg = micrograms/kilogram

J = estimated value. Concentration is between the reporting limit and method detection limit.

PCB = polychlorinated biphenyls analyzed by U.S. EPA Method 8082.

APPENDIX E
NAVY AND DTSC LETTERS

Feb-09-2004 01:11pm From-Tetra Tech EMI, SF

Post-it® Fax Note 7671	Date	# of pages ▶ 5
To Randy Laskowski	From Mortensen	
Co./Dept.	Co.	
Phone #	Phone #	
Fax #	Fax #	

STATE OF CALIFORNIA — ENVIRONMENTAL PROTECTION AGENCY
DEPARTMENT OF TOXIC SUBSTANCES CON
Region 4
245 West Broadway, Suite 425
Long Beach, CA 90802-4444
(310) 590-4856

APR 1996
APR 1996

DUPLICATE

April 3, 1996

044-0234
3.15

Mr. Michael J. Gonzales
Southwest Division
Naval Facilities Engineering Command
1220 Pacific Highway, 18
San Diego, California 92132-5181

NAVY'S RECOMMENDATION LETTER FOR THE INSTALLATION RESTORATION PROGRAM (IRP) SITES 4, 8, 10, 11, 16, 18, 22, AND 23 AT NAVAL CONSTRUCTION BATTALION CENTER (NCBC), PORT HUENEME

Dear Mr. Gonzales:

The Department of Toxic Substances Control (DTSC) has completed its review of your letter, dated March 4, 1996. The letter presents the Navy's recommendations for the IRP Sites 4, 8, 10, 11, 16, 18, 22, and 23 at NCBC, Port Hueneme.

DTSC concurs with the recommendation of no further action for Site 16 and deferral of clean-up under the petroleum program for Sites 18 and 22. The risk estimate for Site 16 is less than one in one-million (1.0 x 10E-6) and the contamination at Sites 18 and 22 are solely petroleum contaminants. Furthermore, we concur with the removal action recommendation for Site 23.

DTSC will delay a final decision on the status of Sites 4, 8, 10, and 11 for 90 days pending the resolution of risk management issues at all United States military bases in California.

If you have any additional questions or comments regarding this transmittal or other project matters, please call Mr. Omoruyi Patrick at (310) 590-4909.

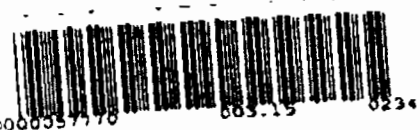
Sincerely,

John E. Scandura, Chief
Southern California Operations
Office of Military Facilities

Enclosure (2)

cc: See next page

D-5777Φ



866- 270-2016
ID 8477

Cal/EPA

Department of Toxic Substances Control

245 West Broadway, Suite 425
Long Beach, CA 90802-4444

September 23, 1997

OPTIONAL FORM 99 (7-90)
FAX TRANSMITTAL # of pages ▸ 2
To Charles Mortensen From Ronald Yee
Dept./Agency PRC-EMI Phone # (415) 244-2558
Fax # (208) 264-2013 Fax # (415) 244-2635
NSN 7540-01-317-7368 5099-101 GENERAL SERVICES ADMINISTRATION

Lt. Commander Harold Bouika
Department of the Navy
Naval Construction Battalion Center
1000 23rd Avenue
Port Hueneme, California 93043-4301

TECHNICAL MEMORANDUM REPORT FOR SITES 5, 6, 12B, AND 13 AT THE NAVAL CONSTRUCTION BATTALION CENTER (NCBC) PORT HUENEME, CALIFORNIA

Dear LCDR. Bouika:

The Department of Toxic Substances Control (DTSC) completed its review of the above-referenced document following the remedial project managers meeting of September 3, 1997. The following are DTSC's site-specific responses:

1. DTSC concurs with the removal action recommendation for Site 12B. The site investigation analytical results showed that the Polychlorinated Biphenyls (PCBs) detected in the soil exceeded both the residential and industrial land use preliminary remediation goals (PRGs) screening criteria.

2. DTSC concurs with the no further action at Site 13. The soil analytical results showed that the detected concentrations for metals, volatile organic compounds, semi-volatile organic compounds, pesticides, and PCBs metals were below background and/or their respective preliminary remediation goals screening criteria.

3. DTSC was unable to fully concur with the recommendation for no further investigation at Site 5 and 6 as we feel that the recommendation really indicates further action. The site investigation identified two PCB "hot-spots" at Site 5 and one at Site 6 that exceeded the residential PRG of 0.060 mg/kg but below the industrial PRG of 0.260 mg/kg. Given the risk posed by the site, if the Navy intends to use land restriction as the final remedial alternative, a focused feasibility study (FS) needs to be submitted. The focused FS should evaluate the preferred alternative against other alternatives using the National Contingency Plan (NCP) nine evaluation criteria. A Remedial Action Plan (RAP) should be subsequently prepared and public noticed to document the remedy selection.

Site 5 – Arocl 12
Site 6 – Benzo(a)pyrene Res. 0.061

Alternatively, the further action at Sites 5 and 6 could be a targeted removal of localized areas of high contamination, also known as 'hot spots'. Such a removal could eliminate the need for land use restrictions and institutional controls. The sites could be delisted from the installation restoration program management database. The Navy has stated that it does not intend to spend any more funds on these sites, but has not presented a justification to show that the procedural and administrative costs of compliance with land use restrictions will be more cost effective than a removal of hot spots. The Navy should submit a comparative cost analysis to support its recommendation.

If you have any questions regarding this matter, please feel free to contact Mr. Omoruyi Patrick at (562)590-4909.

Sincerely,

Milasol C. Gaslan

Milasol C. Gaslan, P. E.,
Unit Chief
Federal Facilities Unit "A"
Office of Military Facilities
Southern California Operations

cc: Mr. Ronald Yee
Code 182 SW
Engineering Field Activity, West
900 Commodore Drive
San Bruno, California 94066-2402

Mr. Steve McCarel
Naval Construction Battalion Center
Environmental Office, Code 40
1000 23rd Street
Port Hueneme, California 93043

DEPARTMENT OF THE NAVY
[illegible] FIELD ACTIVITY, WEST
NAVAL FACILITIES ENGINEERING COMMAND
[illegible]
SAN BRUNO, CALIFORNIA 94066-5006

IN REPLY REFER TO:

5090
Ser 1032.5/8049
10 Dec 1997

California Department of Toxic Substances Control
Mr. Omoruyi Patrick
Waste Management Engineer
245 West Broadway, Suite 350
Long Beach, California 90802-4444

Subj: RESPONSE TO DTSC LETTER OF SEPTEMBER 23, 1997 CONCERNING TECHNICAL MEMORANDUM FOR IRP SITE NOS. 5, 6, 10B, AND 12A AT THE NAVAL CONSTRUCTION BATTALION CENTER, PORT HUENEME

Dear Mr. Patrick:

The Navy has received the subject correspondence and plan to conduct some further work for these sites.

The Navy will conduct an engineering evaluation/cost analysis (EE/CA) to define and support the appropriate removal action for Site 12B which will be completed by December 1998. The schedule for the removal action will be determined after completion of the EE/CA.

The technical memorandum dated August 27, 1997, and the DTSC letter of September 23, 1997 will serve as documentation that Site 10 has been removed from further consideration in the Navy's Installation Restoration Program.

The Navy plans to conduct a focused feasibility study (FS) for Sites 5 and 6. The FS would be followed by a remedial action plan (RAP), prepared in accordance with DTSC Policy No. EO 95-007-PP, dated December 6, 1995, and meeting the substantive requirements of a record of decision (ROD). The RAP would likely include limited-action decisions for Sites 5 and 6 and no further action decisions for Sites 4, 8, 10, 11, 12A, 15, and 21. The focused FS is scheduled to begin in October 1998.

The Navy notes the following clarification to DTSC's response No. 3. The nature of the "hot spot" identified at Site 6 is not PCB-related, as indicated in the response, but rather semivolatile organic compound (SVOC)-related. The SVOC, benzo(a) pyrene exceeded the U.S. Environmental Protection Agency Region IX residential preliminary remediation goal in one near-surface sample.

If you have any questions regarding this matter, please contact the undersigned at (650) 244-2118.

Sincerely,

RONALD YEE
Remedial Project Manager

Ser 1032.5/8049
10 Dec 1997

Subj: RESPONSE TO DTSC LETTER OF SEPTEMBER 23, 1997 CONCERNING TECHNICAL MEMORANDUM FOR IRP SITE NOS. 5, 6, 12B, AND 13 AT THE NAVAL CONSTRUCTION BATTALION CENTER, PORT HUENEME

Distribution:
Tetra Tech EM Inc. (Attn: Charles Mortensen)
Naval Construction Battalion Center (Attn: Stephan McCarel)
Naval Construction Battalion Center (Attn: William Venable)

California Regional Water Quality Control Board

Los Angeles Region

Winston H. Hickox
Secretary for Environmental Protection

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640
Internet Address: http://www.swrcb.ca.gov/~rwqcb4

Gray Davis
Governor

May 7, 1999

Steve McCarrel
Naval Construction Battalion Center
1000 23rd Avenue, Code PW 420
Port Hueneme, CA 93043

NO FURTHER ACTION – SITES 18 AND 22, NAVAL CONSTRUCTION BATALLION CENTER, PORT HUENEME, CALIFORNIA (FILE NO. 94-30)

Dear Mr. McCarrel:

The Department of Toxic Substances Control has determined that Sites 18 and 22 could be removed from the Installation Restoration Program (IRP) and that any further evaluation or cleanup at these sites would be under the jurisdiction of the Regional Board's petroleum program.

Board staff have reviewed soil and/or groundwater data for each of these sites and determined that no further action is required at either of these sites.

Please call me at (213) 576-6737 if you have any questions.

Sincerely,

JOHN GEROCH
Associate Engineering Geologist
Site Cleanup Unit

Cc: Omoruyi Patrick, Department of Toxic Substances Control

DEPARTMENT OF THE NAVY
NAVAL BASE VENTURA COUNTY
311 MAIN ROAD, SUITE 1
POINT MUGU, CA 93042-5001

IN REPLY REFER TO:

5090
Ser N45V/ 0294
April 10, 2002

Mr. Allan Plaza
California Environmental Protection Agency
Department of Toxic Substances Control
Southern California Permitting Branch
1011 N. Grandview Avenue
Glendale, California 91201

Dear Mr. Plaza:

We received your letter dated February 5, 2002 that provides your comments on Certification Reports for Building 5258, Building 1340, and Site 17 dated June 2001 for the Naval Base Ventura County, Port Hueneme site, EPA I. D. Number CA6170023323. Our response to your comments is enclosed.

Table 1 of enclosure (1) displays the chronology of events that the U. S. Navy and the California Environmental Protection Agency have taken thus far in the execution of this Resource Conservation and Recovery Act Permitting process. This process has been ongoing since 1989 for a total of 13 years. Very little if any contamination has ever been found at these three sites in all the work completed to date.

Based on the results of previous investigations for Building 5258, Site 17, and Building 1340, we conclude that the site characterizations have adequately characterized potential chemicals of concern and that the risk assessments have considered complete exposure pathways for such chemicals of concern. Based on site characterization results and the calculated risks presented in reports previously submitted to you, we conclude that all three sites qualify for no further action. We request that you review the comments presented in the enclosure, review the historic table of events that have transpired to date, and issue a certification of closure for the subject sites.

5090
Ser N45V/0294
April 10, 2002

If you have any questions or wish to discuss any issue further, please contact Mr. Steve McCarel at (805) 989-9258 or e-mail Mccarelsc@nbvc.navy.mil.

Sincerely,

RONALD J. Dow
Director, Environmental Division
By Direction of the Commanding Officer

Enclosure:
(1) Response to Department of Toxic Substances Control Comments of February 5, 2002 on Certification Reports for Building 5828, Building 1340, and Site 17, Port Hueneme, EPA I. D. Number CA6170023323

RESPONSE TO DEPARTMENT OF TOXIC SUBSTANCES CONTROL COMMENTS OF FEBRUARY 5, 2002 ON REVISED RCRA CLOSURE CERTIFICATION REPORTS FOR BUILDING 5828, BUILDING 1340, AND SITE 17, PORT HUENEME, EPA I.D. NUMBER CA6170023323

1. The review comments provided by the Human and Ecological Risk Division (HERD)of DTSC indicate that the revised RCRA closure certification reports for Building 5828, Building 1340, and Site 17 for Port Hueneme, EPA I.D. Number CA6170023323 were acceptable to HERD. The Navy acknowledges that for the three sites under study that no additional work is required to satisfy the human and ecological portion of our efforts.

2. Geological Services Unit's (GSU) comment #6, in the *"Building 5258 Report"*: section, states that reference to the "Survey Report" in Section 3.3 of the Appendix D is missing. We have attached the missing information(Attachment (A)). Please replace the "Table of Contents" section to your existing report and add the Appendix D tab along with the surveying data that follows.

3. The Navy acknowledges GSU's recommendation (comment #1 under Recommendations for Building 5258) that VOC and metals impacts at Building 5258 have been adequately characterized, and no further investigation for these contaminants is recommended for closure certification.

4. The Navy questions the need for complete characterization of the petroleum hydrocarbon contamination noted in the soil and groundwater at Building 5258 (comment #2 under Recommendations for Building 5258). We request DTSC to waive this comment based on the following information:

   - The detected values of TPH in soil at this location is consistent with the surrounding land use which is industrial and more specifically the area is in the midst of construction equipment maintenance and repair. TPH presence is due to the surrounding land use and not due to the use of Building 5258 as a potential RCRA Permit B storage area. The is low-level TPH, and under the UST program would typically be allowed to biodegrade in-place.

   - The detected values in the groundwater indicate a higher value perpendicular to the groundwater gradient (TW1: 145µg/l and TW3: 147µg/l) than that detected down gradient of Building 5258 (TW2: 94µg/l). This indicates that the source of the petroleum may not be associated with Building 5258 and the scope of the RCRA Closure. The Navy is currently conducting a groundwater Remedial Investigation (RI) as part of the Installation Restoration Program and will address all contaminant plumes of concern in the Feasibility Study.

   - Building 5258 was designed to store hazardous waste and not petroleum hydrocarbons. This can be viewed as additional reasoning for considering the detected TPH as being outside the scope of this study. This being the case the Navy will address the low-level petroleum plume under the ongoing Groundwater RI.

- The plume's existence will be noted in the ongoing remedial investigation that will be followed by a feasibility study to determine the best means of remediation. The most likely course of action the Navy will take in addressing this low level plume would be to apply the Risk Based Corrective Action (RBCA) procedures and let the plume naturally attenuate.

5. The Navy requests a waiver to comment #1 under Recommendation for Site 17 regarding the preservation of soil samples using EPA Method 5035 techniques. This issue has been going back and forth for several *Response to Comments* sessions. The following records show what has taken place:

   - The Navy's report *"RCRA Closure Investigation Reports for Site 17, Port Hueneme California, March 1998"* states the use of EPA Method 8260 for the handling of the soil samples for VOCs.

   - On January 15, 1999 (under DTSC transmittal letter dated March 1, 1999)GSU comments, "soil matrix samples not collected and preserved using the recently adapted EPA Method 5035 technique may lose substantial VOC content prior to analysis". And also states that "this factor should be taken into advisement when evaluating the conservativeness of the risk assessment."

   - The Navy evaluated the risk assessment process and determined that sufficient conservativeness was built into the process and, therefore, the Navy was satisfied with using EPA Method 8260 in the March 1998 report. This was reported to DTSC in a December 15,1999 correspondence.

   - On March 1, 2000 (under DTSC transmittal letter dated May 31, 2000)GSU responds that their January 15, 1999 comment (see second bullet above)was intended for the DTSC project manager.)

   - In July 2000, the Navy submits an *"Agency Response Plan"* to address all deficiencies detailed in the March 1, 2000 DTSC submittal. This document was intended to gain DTSC concurrence that the proposed fieldwork would ensure closure provided all laboratory analyses did not indicate otherwise. Based on the previous explanations, the Navy elected not to take additional samples at Site 17 using EPA Method 5035 and did not include the sampling as part of the effort.

   - DTSC responds to the Navy's Agency Response Plan on October 17, 2000 and concurs provided additional comments from GSU were included in the work. These additional GSU comments did not detail any additional sampling at Site 17 using the EPA Method 5035.

   - The field work proceeds as planned including any and all final discrepancies noted in the October 17, 2000 correspondence.

6. The Navy acknowledges GSU's recommendation (comment #2 under Recommendations for Site 17) that no additional groundwater monitoring wells are needed at Site #17.

7. The Navy requests a waiver to comment #1 under Recommendation for Building 1340 regarding the preservation of soil samples using EPA Method 5035 techniques. The same explanation presented in item #5 above is applicable for justifying the waiver request. The only difference is the substitution of "Building 1340" for "Site 17".

8. The Navy requests a waiver to comment #2 under Recommendation for Building 1340 regarding the evaluation of any potential groundwater contamination based on the following points:

- The Installation Restoration program has conducted a very thorough groundwater investigation for the complete base. Various plumes were determined based on a 75 monitoring well network and 4 quarters of sampling. The investigation was sufficiently sensitive to pick up several smaller heavy metal plumes at various locations on the base and one plume with VOC's located at the tank farm in the southern portion of the base. No plume was identified in the vicinity of Building 1340.

- Table 1 indicates the complete history of reports, comments & response to comments for the complete closure process starting with the application for a RCRA Permit B to store hazardous waste greater than 90 days. The table shows that the application was withdrawn in 1994. If a plume had been detected at Building 1340, the responsible program for addressing its clean up is under the Installation Restoration Program.

TABLE 1. CHRONOLOGY OF SUBMITTALS FOR RCRA CLOSURE PROJECT

DATE	ACTIVITY
1/13/89	DHS acknowledges receipt of Permit B application and indicates that CBC can operate iaw requirements of existing State hazardous facility permit and Federal interim status regs.
2/4/94	CBC withdraws RCRA Permit B application in favor of Tiered Permitting
4/25/94	CBC notified that a Closure Plan is required to close out sites listed on Permit B application.
12/1995	Draft Closure Plan (CP) submitted to DTSC (Mike Eshaghian).
6/27/96	DTSC completes a technical completeness review of the 12/1995 CP and issues revision comments for insertion to the CP to meet requirements. Navy acknowledged comments and revised CP accordingly.
8/1996	DTSC issues a fact sheet and conducts a public comment activity. Public comment to conclude in October 1996.
10/28/96	DTSC (Mr. Mike Eshaghian) issues a "*De Minimis Impact Finding for Closure of Three Hazardous Waste Management Units at the Naval Construction Battalion Center*"
10/28/96	DTSC approved the CP using Certified Mail.
4/15/98	Navy submits Closure Plan certification report for the three structures in the program
3/1/99	DTSC provide comments to the three reports.
12/15/99	Navy responds to DTSC comments.
7/31/2000	Navy issues an "Agency Response Plan" to layout tasks that would ensure closure.
10/17/2000	DTSC provides comments to the response plan and approval.
03/30/2001	Navy conducts field work as outline in agency response plan.
06/26/2001	Three certification reports sent to DTSC for concurrence.
2/5/2002	DTSC provides comments to the three certification reports (submitted on 6/26/2001)

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2-1 Building 5258 Layout and Previous Sample Locations

3-1 Sample Location Map for Building 5258

6-1 Conceptual Site Model for building 5258

LIST OF APPENDICES

A DTSC Comments and NBVCPH Response Letters

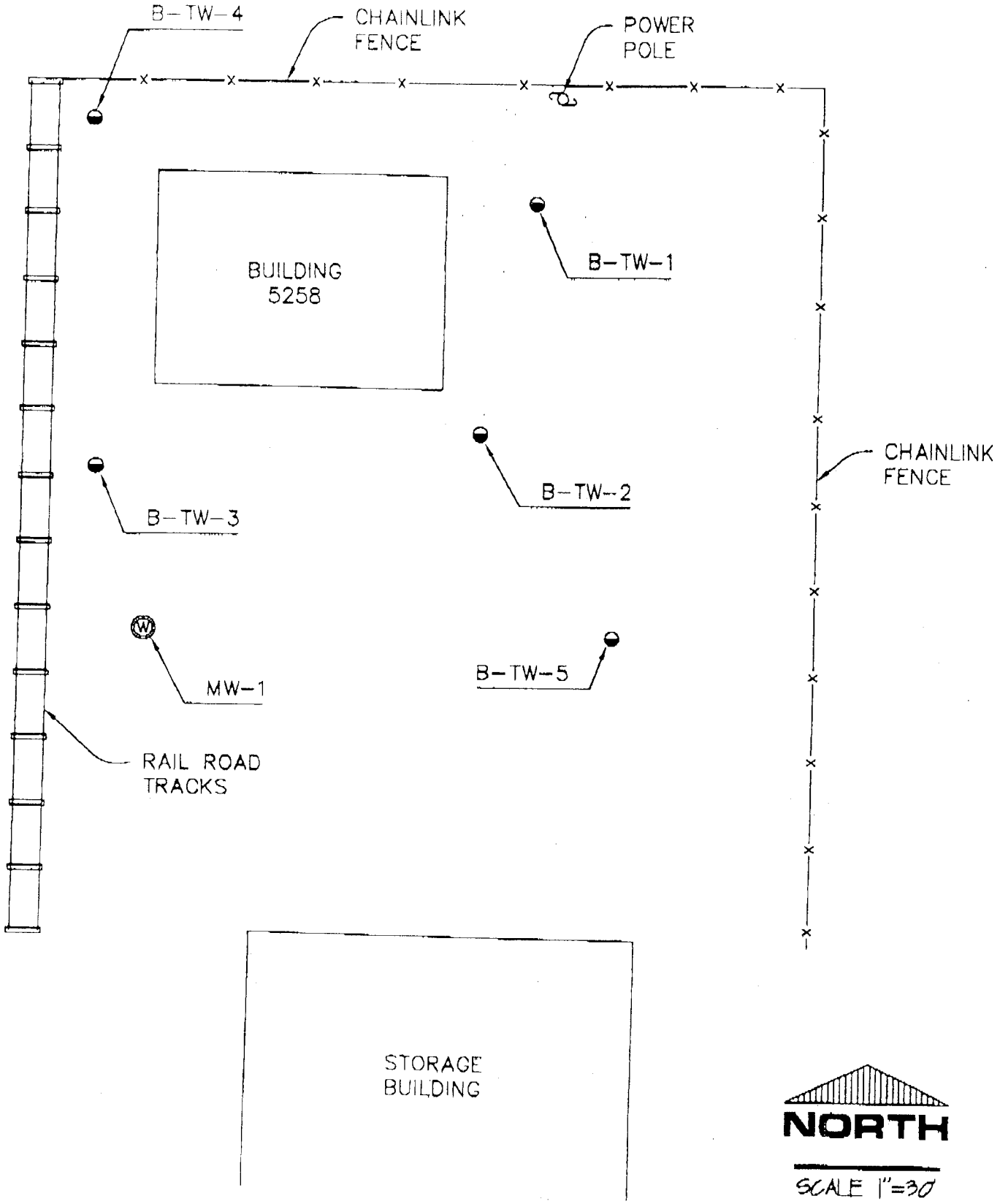
B Boring Logs and Well Data Sheets

C Laboratory Analytical Reports and Chains-of-Custody

D Well Survey Report

Appendix D
Well Survey Report

URS CORPORATION
PORT HUENEME NAVAL BASE



DATE OF SURVEY 30 JAN 01

DILLIN & POYNTON

URS CORPORATION
PORT HUENEME NAVAL BASE

WELL	ELEV	DESC	NORTH	EAST
B-TW-1	99.78	1" PVC (N)	10089.3	20108.1
B-TW-1	99.79	ASPHALT		
B-TW-2	99.69	1" PVC (N)	10041.1	20097.0
B-TW-2	99.58	ASPHALT		
B-TW-3	99.61	1" PVC (N)	10033.8	20017.4
B-TW-3	99.66	ASPHALT		
B-TW-4	100.34	1" PVC (N)	10107.0	20016.3
B-TW-4	100.35	ASPHALT		
B-TW-5	99.64	1" PVC (N)	9998.8	20124.8
B-TW-5	99.60	ASPHALT		
MW-1	98.81	2" PVC (N)	9999.9	20027.3
MW-1	99.61	RIM		
MW-1	99.59	ASPHALT		

NOTE:

THERE WAS NO BENCHMARK USED. THE POINTS ARE TIED TO A CONTROL POINT RELATIVE TO SITE.

Prepared by:

Internal copy to:
DATE/CEN (2)
N45V (2, w/encl)
N46V
N46VA(3, 1 w/encl)

Writer/Typist: S. McCarel,N45V, X9258
RCRA.doc

Department of Toxic Substances Control

Edwin F. Lowry, Director
1011 N. Grandview Avenue
Glendale, California 91201

Winston H. Hickox
Agency Secretary
California Environmental
Protection Agency

Gray Davis
Governor

May 21, 2002

CERTIFIED MAIL

Mr. Ronald J. Dow
Director, Environmental Division
Department of the Navy
Naval Base Ventura County
311 Main Road, Suite 1
Point Mugu, California 93042-5033

CLOSURE CERTIFICATION ACKNOWLEDGMENT - DEPARTMENT OF NAVY, NAVAL BASE VENTURA COUNTY (FORMERLY NAVAL CONSTRUCTION BATTALION CENTER), CLOSURE CERTIFICATION REPORTS FOR BUILDING 5258, BUILDING 1340, AND SITE 17, PORT HUENEME, EPA I.D. NUMBER CA6170023323

Dear Mr. Dow:

The Department of Toxic Substances Control (DTSC), received your certification and the professional engineer's certification, in your submittal dated June 26, 2001, which reported that the hazardous waste storage Building 5258, Building 1340 and Site 17 at Naval Base Ventura County (NBVC), formerly Naval Construction Battalion Center (NCBC), Port Hueneme, were closed in accordance with the approved closure plan dated October 28, 1996.

In addition, DTSC has received additional information for the closure certification dated April 10, 2002, which provided additional data for the revised Closure Certification Report dated June 2001 for the hazardous waste storage areas listed above.

This letter is to inform you that DTSC now considers the above referenced hazardous waste storage areas as being officially closed on April 10, 2002.

This acknowledgment is based on the assumption that the information submitted in the initial Closure Certification and revised Closure Certification, as well as any other information provided to DTSC, and used as a basis for this decision is true and accurate. Any inaccuracies found in such information may be grounds for subsequent nullification of this closure certification approval and potential enforcement action. The Owner/Operator must inform DTSC of any deviations from or changes in the information provided which would affect the closure certification for the above-referenced facility.

NBVC must continue the basewide groundwater Remedial Investigation (RI) as part of the Installation Restoration Program and address all groundwater contamination plumes that also may have impacted the above listed hazardous waste storage areas in the Feasibility Study. These corrective measures are currently conducted under the oversight of the DTSC, Office of Military Facilities. A copy of the final groundwater mitigation report must also be sent to this office, attention Jose Kou, Chief, Southern California Permitting Branch.

Please be advised that this acknowledgment of facility closure is not a certification that your facility does not pose any environmental or public health threat. This letter does not remove any liabilities associated with past hazardous waste management practices which occurred on the site. This closure certification does not limit or preclude any future investigations of any other on-site operations by any agency, nor in resulting corrective action deemed necessary for closure and remediation of any solid waste management units at the facility.

Should you have any questions, please contact Mike Eshaghian of this office at (818) 551-2926.

Sincerely,

Jose Kou, P.E., Chief
Southern California Permitting Branch
Hazardous Waste Management Program

Certified Mail
7001 2510 0008 9505 1181
Return Receipt Requested

cc: Mr. Steve McCarel
Code PW 420
Department of the Navy
Naval Base Ventura County
311 Main Road, Suite 1
Point Mugu, California 93042-5033

cc: See next page

cc: Mr. Kevin Wong
U.S. EPA, Region IX
75 Hawthorne Street
San Francisco, California 94105

Mr. Rick Moss, Chief
Permitting Division
Hazardous Waste Management Program
Department of Toxic Substances Control
P.O. Box 806
Sacramento, California 95812-0806

Ms. Florence Gharibian, Chief
Statewide Compliance Division
Hazardous Waste Management Program
Department of Toxic Substances Control
1011 N. Grandview Avenue
Glendale, California 91201

Mr. T.R. Hathaway
Staff Toxicologist
Human and Ecological Risk Division
Department of Toxic Substances Control
8810 Cal Center Drive, 2nd floor
Sacramento, California 95812-0806

Mr. Paul Carpenter
Hazardous Substances Engineering Geologist
Geological Services Unit
Department of Toxic Substances Control
8800 Cal Center Drive
Sacramento, California 95826-3200

Mr. John Scandura, Chief
Office of Military Facilities
Southern California Branch
Department of Toxic Substances Control
5796 Corporate Avenue
Cypress, California 90630

cc: Mr. Kuang Than
Office of Military Facilities
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5796 Corporate Avenue
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Mr. Allan Plaza
Southern California Permitting Branch
Hazardous Waste Management Program
Department of Toxic Substances Control
1011 N. Grandview Avenue
Glendale, California 91201

Mr. Mike Eshaghian
Southern California Permitting Branch
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Mr. Hossein Nassiri
Department of Toxic Substances Control
Hazardous Waste Management Program
P.O. Box 806
Sacramento, California 95812-0806

Ms. Joetta Nelson
Department of Toxic Substances Control
P.O. Box 806
Sacramento, California 95812-0806

APPENDIX F
CONFIRMATION SOIL SAMPLE RESULTS FOR IRP SITE 23

TABLE 3
IRP SITE 23 - SUMMARY OF ANALYTICAL RESULTS FOR CONFIRMATION SOIL SAMPLES

Sample Identification Number	Sample Date	Sample Location	Sample Depth (feet)	Polychlorinted Biphenyls (PCBs) by EPA[a] Method 8082						
				Aroclor-1016 (PCB-1016)	Aroclor-1221 (PCB-1221)	Aroclor-1232 (PCB-1232)	Aroclor-1242 (PCB-1242)	Aroclor-1248 (PCB-1248)	Aroclor-1254 (PCB-1254)	Aroclor-1260 (PCB-1260)
Practical Quantitation Limit (mg/kg)[b]				33	66	33	33	33	33	33
4304250-23-035	3/12/02	EB[c]	1.0	< 34	< 68	< 34	< 34	< 34	< 34	< 34
4304250-23-036	3/12/02	EB	1.0	< 35	< 69	< 35	< 35	< 35	< 35	16 J[d]
4304250-23-037	3/12/02	EB	1.0	< 34	< 68	< 34	< 34	< 34	< 34	< 34
4304250-23-038	3/12/02	EB	1.0	< 35	< 71	< 35	< 35	< 35	< 35	37
4304250-23-039	3/12/02	EB	1.0	< 35	< 70	< 35	< 35	< 35	< 35	31 J
4304250-23-040	3/12/02	EB	1.0	< 37	< 75	< 37	< 37	< 37	< 37	9 J
4304250-23-041	3/12/02	EB	1.0	< 34	< 69	< 34	< 34	< 34	< 34	5 J
4304250-23-042	3/12/02	EB	1.0	< 35	< 69	< 35	< 35	< 35	< 35	71
4304250-23-043	3/12/02	EB	1.0	< 35	< 70	< 35	< 35	< 35	< 35	22 J
4304250-23-044	3/12/02	PS[E]	1.0	< 35	< 70	< 35	< 35	< 35	< 35	330
4304250-23-045	3/12/02	EB	1.0	< 37	< 73	< 37	< 37	< 37	< 37	6 J
4304250-23-046	3/12/02	FD[f]	1.0	< 37	< 74	< 37	< 37	< 37	< 37	17 J
4304250-23-047	3/12/02	EB	1.0	< 34	< 68	< 34	< 34	< 34	< 34	10 J
4304250-23-048	3/12/02	EB	1.0	< 35	< 70	< 35	< 35	< 35	< 35	170
4304250-23-049	3/12/02	PS	1.0	< 180	< 350	< 180	< 180	< 180	< 180	600
4304250-23-050	3/12/02	EB	1.0	< 36	< 72	< 36	< 36	< 36	< 36	8 J
4304250-23-051	3/12/02	EB	1.0	< 41	< 83	< 41	< 41	< 41	< 41	13 J
4304250-23-052	3/12/02	PS	1.0	< 350	< 690	< 350	< 350	< 350	< 350	2,700
4304250-23-053	3/12/02	PS	1.0	< 700	< 1400	< 700	< 700	< 700	< 700	4,300
4304250-23-054	3/12/02	EB	1.0	< 36	< 72	< 36	< 36	< 36	< 36	12 J
4304250-23-055	3/12/02	EB	1.0	< 34	< 68	< 34	< 34	< 34	< 34	52
4304250-23-056	3/12/02	EB	1.0	< 34	< 68	< 34	< 34	< 34	< 34	3 J
4304250-23-057	3/12/02	EB	1.0	< 35	< 69	< 35	< 35	< 35	< 35	< 35
4304250-23-058	3/12/02	FD	1.0	< 35	< 69	< 35	< 35	< 35	< 35	< 35
4304250-23-059	3/12/02	EB	1.0	< 34	< 69	< 34	< 34	< 34	< 34	4 J
4304250-23-060	3/12/02	EB	1.0	< 38	< 75	< 38	< 38	< 38	< 38	170
4304250-23-061	4/2/02	EB	2.0	< 34	< 69	< 34	< 34	< 34	< 34	9 J

TABLE 3
IRP SITE 23 - SUMMARY OF ANALYTICAL RESULTS FOR CONFIRMATION SOIL SAMPLES

Sample Identification Number	Sample Date	Sample Location	Sample Depth (feet)	Polychlorinted Biphenyls (PCBs) by EPA[a] Method 8082						
				Aroclor-1016 (PCB-1016)	Aroclor-1221 (PCB-1221)	Aroclor-1232 (PCB-1232)	Aroclor-1242 (PCB-1242)	Aroclor-1248 (PCB-1248)	Aroclor-1254 (PCB-1254)	Aroclor-1260 (PCB-1260)
Practical Quantitation Limit (mg/kg)[b]				33	66	33	33	33	33	33
4304250-23-062	4/2/02	EB	2.0	< 35	< 35	< 35	< 35	< 35	< 35	130
4304250-23-063	4/2/02	EB	2.0	< 34	< 34	< 34	< 34	< 34	< 34	86
4304250-23-064	4/2/02	EB	2.0	< 34	< 69	< 34	< 34	< 34	< 34	17 J

Notes:

[a] EPA: United States Enviromental Protection Agency

[b] mg/kg: micrograms per kilogram

[c] EB: excavation bottom

[d] J: reported between practical quantitation limit and method detection limit

[e] PS: progress sample

[f] FD: field duplicate