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Low-Threat Closure Policy Summary

Port of Oakland's Harbor Facility Complex 651 Maritime Street Oakland, California Alameda County Fuel Leak Case No. RO0000010

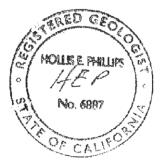
"I declare, under penalty of perjury, that the information and/or recommendations contained in the attached report prepared by ARCADIS, U.S., Inc., are true and correct to the best of my knowledge. Please note that the report is stamped by a Registered Professional Geologist in the State of California."

Submitted by:

ARCADIS U.S., Inc

HETRillips

Hollis E. Phillips, PG Project Manager



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ENVIRONMENT

Date: October 7, 2013

Contact: Hollis E. Phillips

Phone: 415 432.6903

Email: Hollis.phillips@arcadisus.com

Our ref: 04656020.HFC1

Imagine the result



Mr. Keith Nowell Hazardous Materials Specialist Alameda County Health Care Services Agency 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577

#### Subject:

Low-Threat Closure Policy Summary Port of Oakland's Harbor Facility Complex 651 Maritime Street Oakland, California Alameda County Fuel Leak Case No. RO0000010

Dear Mr. Nowell:

ARCADIS U.S., Inc. (ARCADIS) prepared this Low-Threat Closure Policy Summary letter for the Port of Oakland's (the Port's) Harbor Facility Complex located at 651 Maritime Street in Oakland, California (Site; Figures 1 and 2). This letter evaluates site conditions relevant to the State Water Resources Control Board (SWRCB) Low-Threat Underground Storage Tank Case Closure Policy (Low-Threat Closure Policy), adopted by the SWRCB on May 1, 2012 (SWRCB 2012) and effective on August 17, 2012. This letter provides the documentation required for the Alameda County Department of Environmental Health (ACEH) to approve closure of the Site as a low-risk site according to the SWRCB Low-Threat Closure Policy criteria. Previous investigation information and site history are summarized in Attachment A. Details regarding the low-threat closure evaluation are presented below.

Groundwater monitoring is currently conducted semiannually, per an ACEH directive dated July 22, 2009 (ACEH 2009).

### 1. State Water Board Low-Threat Closure Policy Evaluation

Based on the available data, the Site is a candidate for closure as a low-threat petroleum underground storage tank (UST) site, as described in the Low-Threat Closure Policy. There are eight General Criteria to assess whether a low-threat petroleum UST site is a candidate for closure (SWRCB 2012). Additionally, three

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Media-Specific Criteria are evaluated to determine if releases from USTs can impact human health and the environment through contact with impacted site media.

An evaluation of the data presented in this letter indicates that the Site meets the low-threat closure criteria and therefore, should be closed. The Site conditions and evaluation against the corresponding criteria that support this conclusion are summarized below.

### 1.1.1. General Criteria

The following General Criteria must be satisfied by all candidate low-threat petroleum UST sites to be considered for closure:

a. The unauthorized release is located within the service area of a public water system

**Yes**. The Site is located in a service area where the local water supply is provided by the East Bay Municipal Utilities District (ARCADIS 2011). Shallow groundwater beneath the Site is not a potential drinking-water source, based on the total dissolved solids (TDS) concentrations in shallow groundwater (which have been detected as high as 3,180 micrograms per liter [µg/L]) and the California Regional Water Quality Control Board's (RWQCB's) recommendation that the Oakland Shoreline/Alameda Point Brackish Shallow Groundwater Zone be removed from designation as municipal supply beneficial use (RWQCB 2011). Therefore, new shallow water supply wells are unlikely to be installed at or near the Site. Furthermore, a proposed deed restriction for the Site would prohibit installation of water supply wells on site (Attachment B).

b. The unauthorized release consists only of petroleum

**Yes**. The unauthorized release from the on Site USTs consisted of petroleum products, including total petroleum hydrocarbons (TPH) as gasoline (TPHg) and total petroleum hydrocarbons as diesel (TPHd).

The Low-Threat Closure Policy checklist uploaded to GeoTracker by the ACEH indicates that the unauthorized release also contains arsenic, lead, and zinc. In 2002, IRIS Environmental (IRIS) collected 112 soil samples across the Site and analyzed them for metals. The RWQCB's screening levels for the commercial/industrial direct exposure and construction worker direct exposure for lead are both 320 milligrams

per kilogram (mg/kg). Of the 112 soil samples collected and analyzed for lead in 2002, only four soil samples exceeded the screening levels. The commercial/industrial direct exposure screening level and construction worker direct exposure screening level for zinc are 310,000 and 93,000 mg/kg, respectively. Of the 112 soil samples collected, none of the samples exceeded either of these screening levels.

The commercial/industrial worker direct exposure screening level and construction worker direct exposure screening level for arsenic are 0.96 and 10 mg/kg, respectively. The majority of the 112 soil samples collected exceeded the screening levels for arsenic, with concentrations ranging from 1 to 880 mg/kg. The elevated arsenic may be the result of imported fill, however it cannot be confirmed because there is no record of the origin of the fill or any analytical data associated with it. Arsenic was included in the 2003 human health risk assessment (HHRA) conducted by IRIS. The HHRA determined that the Site is safe and appropriate for commercial/industrial use with appropriate engineering controls and implementation of the safety measures presented in the Site Health and Safety and Risk Management Plan (BASELINE Environmental Consulting 2009) for future Site workers. Engineering controls such as the asphalt cap were installed during the new construction of the Harbor Facility Complex building.

### c. The unauthorized ("primary") release from the UST system has been stopped

**Yes**. The USTs and associated piping were removed in the early 1990s; therefore, the primary release from the UST systems has been stopped.

### d. Free product has been removed to the maximum extent practicable

Yes. Between 1996 and 2002, passive and active product skimmers were used in monitoring wells MW-1, MW-2, and MW-3 at the 2277 Seventh Street portion of the Site. The product recovery system was shut down in 2003. In 2004, a new system was installed with nine recovery wells outfitted with pneumatically operated product skimmers. Free product removed from the skimmers was pumped to an aboveground collection tank. In 2006, the ACEH approved the use of socks containing Oxygen Release Compound<sup>™</sup> in well MW-4 to increase the dissolved oxygen concentration in groundwater and stimulate aerobic biodegradation of the petroleum hydrocarbons reported in groundwater at that location. In 2007, the product recovery system was enhanced by adding a low vacuum to the recovery well heads to increase product recovery rates. Air drawn from the recovery wells was

treated with granular activated carbon and discharged to the atmosphere under a permit from the Bay Area Air Quality Management District.

The Port recovered approximately 178 gallons of free product from the new recovery system during the 32 months of operation from 2004 to 2007. Following the installation of the low-vacuum enhancement, the recovery system removed approximately 1,112 gallons in 41 months. The treatment system was shut down in June 2011, as referenced in the Port's May 16, 2011 letter to the ACEH, which has allowed the Port to evaluate free product migration potential without influence from an active product recovery system. As of the most recent groundwater monitoring event in June 2013, measurable free product is present on Site (Table 1) however it is localized and not migrating.

e. A conceptual site model that assesses the nature, extent, and mobility of the release has been developed

**Yes**. A Site conceptual model was submitted to the ACEH as part of the Revised Feasibility Study/Corrective Action Plan (FS/CAP; ARCADIS 2011) submitted on December 30, 2011.

f. Secondary source has been removed to the extent practicable

**Yes**. The Low-Threat Closure Policy defines a "secondary source" as petroleumimpacted soil or groundwater located at or immediately beneath the point of release from the primary source. The original unauthorized release was stopped and the causative UST was removed from the Site. USTs were removed in the early 1990s and the tank pits were over-excavated to remove source soils.

As discussed in Criteria D detailing free product was removed with passive and active product skimmers between 1996 and 2002. Additionally skimmers were installed in nine recovery wells in 2004 and the use of low vacuum was added to the recovery well heads in 2007.

g. Soil or groundwater has been tested for MTBE and results reported in accordance with Health and Safety Code section 25296.15

**Yes**. Methyl tert-butyl ether (MTBE) has been analyzed in groundwater samples collected from Site monitoring wells since 1998 through the present and in soil

samples collected from Site soil borings in 2002. MTBE was detected below clean up standards for both soil and groundwater.

- Nuisance as defined by Water Code section 13050 does not exist at the Site.
   \*Water Code section 13050 defines "nuisance" as anything which meets all of the following requirements:
  - 1. Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property.
  - 2. Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.
  - 3. Occurs during, or as a result of, the treatment or disposal of wastes. For the purpose of the Low-Threat Policy, waste means a petroleum release.

**Yes**. No nuisance exists at the Site, as defined by Water Code section 13050. Site conditions and the treatment and disposal of Site wastes are not injurious to health, are not indecent or offensive to the senses, and do not obstruct free use of property or interfere with the comfortable enjoyment of life or property. Site conditions and the treatment and disposal of Site wastes do not affect an entire community or neighborhood, or any considerable number of persons. Site impacts are restricted to the subsurface, and are present in a limited area that does not adversely affect the community at large.

### 1.1.2. Media-Specific Criteria

According to the Low-Threat Closure Policy, releases from USTs can impact human health and the environment through contact with impacted media such as groundwater, surface water, soil, and soil vapor. These media have been evaluated and the most common exposure scenarios have been combined into three Media-Specific Criteria:

- 1. Groundwater
- 2. Vapor Migration to Indoor Air
- 3. Direct Contact and Outdoor Air Exposure

Low-Threat Closure Policy candidate sites must satisfy all three of these Media-Specific Criteria to be eligible for closure as a low-threat petroleum UST site.



### (a) Media-Specific Criteria – Groundwater

Site conditions were assessed and categorized as one of the five types described in the Groundwater Criteria presented in the Low-Threat Closure Policy. Based on evaluation the Site qualifies as a candidate as a low-threat petroleum UST site under the Groundwater Criteria Number 3. An evaluation of the Low-Threat Closure Policy Groundwater Criteria is provided below. Historical groundwater results are shown in Table 2.

Groundwater Criteria No. 3								
<b>A.</b> The contaminant plume that exceeds water quality objectives is less than 250 feet in length.		Yes		No				
The contaminant plume that exceeds the water quality objectives is less than 250 feet in length. As shown on Figure 3, the dissolved contaminant plume exceeding the remedial goal is significantly less than 250 feet in length and appears to be located close to the free product plume boundary.								
<b>B.</b> Free product has been removed to the maximum extent practicable and may still be present below the Site where the release originated, but does not extend off-Site.		Yes		No				
Available groundwater monitoring data indicate that measureable free product was historically observed in wells MW-3 and RW-3 through RW-9 from November 1998 through the most current groundwater monitoring event in June 2013. Passive and active product skimmers were used between 1996 and 2002, a free product recovery system that included nine recovery wells was installed in 2004, socks containing Oxygen Release Compound <sup>™</sup> were installed in well MW-4, and in 2007 the product recovery system was enhanced with a low vacuum to the recovery well heads to increase product recovery rates.								
The Port recovered approximately 1,290 gallons of free produce 2011. The treatment system was shut down in June 2011, as Port's May 16, 2011 letter to the ACEH, which has allowed the free product migration potential without influence from an activity system.	refer e Por	enced ii t to eva	n the luate	the				

C. The plume has been stable or decreasing for a minimum	$\boxtimes$	Yes	No
of five years.			

The plume has been stable or decreasing for a minimum of five years. The 2013 First Semi-Annual Groundwater Monitoring Report (ARCADIS 2013) presented the decreasing concentration trend graphs and showed that the plume has been decreasing since 2000. MW-10 indicated an increasing trend following installation in 2008, however, it has been stable since 2010.

**D.** The nearest existing water supply well or surface water body is greater than 1,000 feet from the defined plume boundary.

The nearest existing water-supply well and/or surface-water body is greater than 1,000 feet from the defined plume boundary. There are no water-supply wells in the Port area within 1,000 feet of the Site and the Oakland Outer Harbor is more than 2,000 feet from the Site.

**E.** The property owner is willing to accept a land use restriction, if the regulatory agency requires a land use restriction as a condition of closure

The Port has previously prepared a draft deed restriction for ACEH review and approval (Attachment B).

(b) Media-Specific Criteria – Petroleum Vapor Intrusion to Indoor Air

The Low-Threat Closure Policy requires candidate sites to be evaluated for potential petroleum vapor migration to indoor air that may pose unacceptable human health risks. Site conditions are assessed with respect to the four scenarios described in the Low-Threat Closure Policy.

Site data and the Low-Threat Closure Policy Petroleum Vapor Intrusion to Indoor Air Criteria are evaluated in the table below.

Petroleum Intrusion to Indoor Air		
<b>A.</b> The Site is an active, commercial petroleum fueling facility and it is reasonably believed there are no unacceptable health	Yes	🖾 No

risks resulting exposure to indoor air.

The Site is not an active, commercial petroleum fueling facility. It is a redeveloped Site that consists of the Harbor Facilities Complex, comprising shops, warehouses, and administrative support; a vehicle washing and fueling facility with an aboveground storage tank; and a portion of the Maritime Support Center, which is a container storage yard. Vapor barriers and passive soil venting systems are present beneath the newly constructed buildings and the remainder of the Site is covered with a paved parking area (Port of Oakland, 2005).

B. A Site-specific risk assessment for the vapor migration	$\boxtimes$	Yes	No	
pathway has been conducted and the conclusion demonstrated				
that human health is protected to the satisfaction of the				
regulatory agency.				

A HHRA was prepared to focus on potential health risks to construction workers and future users of the Site (IRIS 2003). The HHRA evaluated potential exposure to residual chemicals in the soil and groundwater to on-Site construction workers during development of the Harbor Facility Complex, on-Site commercial workers, and future on-Site maintenance and construction workers. Protective measures were incorporated into the design of the Harbor Facility Complex to limit the exposure for commercial users of the Harbor Facility Complex, including a passive soil venting system for Building C-510 and as asphalt cap that covers the entire Site.

The HHRA identified 27 volatile organic compounds, 11 semivolatile organic compounds, TPH, five metals, and methane as chemicals of potential concern (COPCs). The complete exposure pathways for future maintenance and construction workers of the Site were identified as: ingestion of COPCs in soil; dermal contact with COPCs in soil; inhalation of vapors from volatilization and dispersion of COPCs in soil, soil gas, and groundwater; and inhalation of airborne particulates resulting from dust emissions and dispersion of COPCs in soil.

The HHRA assumed that the future maintenance and construction workers would be on-Site 2 days a year for 25 years. Exposure pathways included dermal contact, ingestion, and inhalation of dust and vapors. The inhalation of vapors was modeled by assuming the workers would work in an excavation 1 meter deep (3.3 feet). The HHRA concluded that the excess cancer risk due to COPCs to on-Site future maintenance and construction workers involved in subsurface excavations was  $3.83 \times 10^{-6}$ . This is within U.S. Environmental Protection Agency's (USEPA's) acceptable incremental cancer risk range of  $1 \times 10^{-4}$  and  $1 \times 10^{-6}$ . The excess non-cancer health index (HI) was estimated to be 0.03, well below the target HI of 1.0.

The HHRA also identified methane gas as a potential explosive hazard. The lower explosive limit

and upper explosive limit of methane are 5 and 15 percent, respectively. Soil gas samples collected during Site assessment activities by IRIS (2003) indicated that methane gas was present at concentrations above 5 percent in the soil gas over the product plume area. The evidence of methane production likely results from subsurface microorganisms using hydrocarbons as a food substrate. As the microorganisms consume the hydrocarbons as food, methane is released as a byproduct. However, the Site is paved with an asphalt cap, and the construction of the Harbor Facility Complex buildings included the installation of vapor barriers and sub-slab ventilation systems (Port of Oakland, 2005). These engineering controls render the potential exposure pathways incomplete. For future construction workers at the Site, a Risk Management Plan (RMP) was developed that includes appropriate health and safety procedures and protocols, which construction workers will be required to follow (ARCADIS 2011). With the implementation of the RMP, the potential exposure pathways are incomplete.

(c) Media-Specific Criteria – Direct Contact and Outdoor Air Exposure

The Low-Threat Closure Policy requires candidate sites to be evaluated for potential direct contact with impacted soil and inhalation of constituents volatized to outdoor air that may pose unacceptable human health risks.

Site conditions are assessed with respect to criteria in the Low-Threat Closure Policy and determined if any one of the following conditions can be met:

- 1. Maximum concentrations in soil are less than or equal to values in Table 1 of the Low-Threat Closure Policy;
- 2. Maximum concentrations in soil are less than levels that a Site-specific risk assessment demonstrates no significant risk; or
- 3. Risks can be managed adequately by controlling exposure via mitigation measures or the use of institutional or engineering controls.

Site data were evaluated to the Commercial/Industrial screening levels presented in *Table 1 - Concentrations of Petroleum Constituents in Soil That Will Have No Significant Risk of Adversely Affecting Human Health* of the Low-Threat Closure Policy. Utility Worker screening levels were used as necessary when the evaluation was required for hypothetical receptors.

Based on an evaluation of Site soil data, the Site qualifies as a candidate as a lowthreat petroleum UST site under the Direct Contact and Outdoor Air Exposure Criteria as it fulfills the requirements in the Soil: 0 to 5 feet bgs scenario and 5 to 10 feet bgs scenario, Volatilization to Outdoor Air scenario. Evaluation for the LowThreat Closure Policy Direct Contact and Outdoor Air Exposure Criteria is provided below.

Direct Contact and Outdoor Air Exposure - Soil: 0 to 5 feet bgs								
<b>A.</b> Benzene concentration in soil is less than or equal to 8.2 mg/kg.		Yes	🗌 No					
Historic benzene concentrations have not exceeded the direct-contact screening level of 8.2 mg/kg, as shown in Attachment C. Of the 18 soil samples collected in February 2002 and 112 soil samples collected in March 2002, benzene was detected in only two soil samples above its respective laboratory reporting limit (LRL), and both samples were below the screening level of 8.2 mg/kg.								
<b>B.</b> Ethylbenzene concentration in soil is less than or equal to 89 mg/kg.		Yes	🗌 No					
Historic ethylbenzene concentrations have not exceeded the direct-contact screening level of 89 mg/kg in the 18 soil samples collected in February 2002 or the 112 soil samples collected in March 2002, as shown in Attachment C. There was one detection above the LRL for samples analyzed for ethylbenzene, and it did not exceed 89 mg/kg.								
<b>C.</b> Naphthalene concentration in soil is less than or equal to 45 mg/kg.		Yes	🗌 No					
Historic naphthalene concentrations have not exceeded the direct-contact screening level of 45 mg/kg in the 112 soil samples collected in March 2002, as shown in Attachment C. There were only three detections above the LRL and none exceeded the screening level of 45 mg/kg.								
<b>D.</b> For waste oil and/or Bunker C impacts ONLY: polycyclic aromatic hydrocarbon (PAH) concentration in soil is less than or equal to 0.68 mg/kg.		Yes	□ No					
The benzo(a)pyrene toxicity equivalent (TEQ) was calculated as 0.403 mg/kg and is therefore less than 0.68 mg/kg. Of the 45 samples collected and analyzed for the seven carcinogenic PAHs, seven samples had laboratory detection limits above 0.68 mg/kg (two of the samples had a laboratory detection limit of 1.3 mg/kg and five had a laboratory detection limit of 1.7 mg/kg). However, of the 45 samples collected and analyzed for the seven carcinogenic PAHs, there were only two detections above the laboratory detection limit observed. Because the benzo(a)pyrene TEQ is less than 0.68								

mg/kg, PAHs are not a concern.

Direct Contact and Outdoor Air Exposure - Volatilization to Outdoor (soil: 5 to 10 feet bgs)	Air						
<b>A.</b> Benzene concentration in soil is less than or equal to 12 mg/kg.	🛛 Yes	🗌 No					
Benzene concentrations do not exceed 12 mg/kg in any soil samples col	lected from the	Site					
between 5 to 10 feet bgs, as shown in Attachment C.							
<b>B.</b> Ethylbenzene concentration in soil is less than or equal to 134	🛛 Yes	🗌 No					
mg/kg.							
Ethylbenzene concentrations do not exceed 134 mg/kg in any soil sampl	es collected fro	m the Site					
between 5 to 10 feet bgs, as shown in Attachment C.							
<b>C.</b> Naphthalene concentration in soil is less than or equal to 45 mg/kg.	🛛 Yes	🗌 No					
Naphthalene concentrations do not need 45 mg/kg in any soil samples c	ollected from th	e Site					
between 5 to 10 feet bgs, as shown in Attachment C.							
Naphthalene concentrations do not need 45 mg/kg in any soil samples c							

Direct Contact and Outdoor Air Exposure – Utility Worker (soil: 0 to 10 feet bgs)			-	
<b>A.</b> Benzene concentration in soil is less than or equal to 14 mg/kg.	$\boxtimes$	Yes		No
Historic benzene concentrations have not exceeded the direct-contact so the 18 soil samples collected in February 2002, as shown in Attachment detections above the LRL for any samples analyzed for benzene.		•		ng/kg in

<b>B.</b> Ethylbenzene concentration in soil is less than or equal to 314 mg/kg.	$\boxtimes$	Yes		No	
Ethylbenzene concentrations do not exceed 314 mg/kg in any soil sample between 5 to 10 feet bgs, as shown in Attachment C.	es co	ollected fro	om the	Site	
<b>C.</b> Naphthalene concentration in soil is less than or equal to 219 mg/kg.		Yes		No	
Naphthalene concentrations do not exceed 219 mg/kg in any soil samples collected from the Site between 0 to 10 feet bgs, as shown in Attachment C.					
<b>D.</b> For waste oil and/or Bunker C impacts ONLY: PAH concentration in soil is less than or equal to 4.5 mg/kg.		Yes		No	
Benzo(a)pyrene concentrations were not detected above LRLs and there mg/kg in any soil samples collected from the Site between 0 to 10 feet by C.					

### 2. Additional Questions Raised by ACEH in their July 30, 2013 Evaluation

TPH in the Bioattenuation Zone: ≥ 100 mg/kg

 An assessment of the historic soil analytical data indicates that of the 135 soil samples collected in March 2002 and analyzed for TPHg, there were only six detections above the laboratory reporting limit. Of these detections, there was only one detection greater than 100 mg/kg. The pathways for human health exposure are incomplete, and with the implementation of engineering controls, the RMP, and the proposed deed restriction, there are no significant risks to human health associated with Site soil.

Bioattenuation Zone Thickness: ≥ 5 feet and < 10 feet

• The Site has been paved, the new Harbor Facility Complex buildings included the installation of vapor barriers and negative-pressure sub-slab ventilation systems (Port of Oakland, 2005), and the development of an RMP (ARCADIS 2011), which includes health and safety procedures and protocols for future construction workers.

 $O_2$  data in Bioattenuation Zone:  $O_2 \ge 4\%$ 

There is no field evidence indicating that a concentration of oxygen in the range of 1 to 4% may act to inhibit future biodegradation. A threshold of 1% oxygen concentration for biodegradation is applied in several peer reviewed publications that discuss biodegradation of petroleum hydrocarbon (USEPA 2012; Abreu and Johnson 2005, 2006; Abreu et al. 2007, 2009a, 2009b; Davis et al. 2009). This 1% threshold concentration is driven by the difficulty to accurately measure very low oxygen concentrations in the field and not by any field indication that biodegradation does not occur below the threshold of 1% volume/volume (v/v) oxygen concentration. Field data reported in Roggemans, et al. (2001) show decreasing oxygen concentration with depth until reaching a constant value of 2% v/v. Additionally, Bordon and Bedient (1986) report that aerobic biodegradation is observed when the oxygen concentration in groundwater is above 0.1 milligram per liter of water (vapor equilibrium oxygen concentration of 0.24 % v/v).

Soil gas benzene:  $\geq$  85,000 and < 280,000 micrograms per cubic meter (µg/m<sup>3</sup>) Soil gas ethylbenzene:  $\geq$  3,600 and < 1,100,000 µg/m<sup>3</sup>

 Benzene and ethylbenzene in soil gas was included as part of the risk assessment evaluation (IRIS 2003). Historic soil gas data are presented in Attachment D. Detected concentrations were observed in 2002 and are likely not representative of present conditions. Further, the risk assessment determined that with the asphalt cap, sub-slab ventilation system, and implementation of the RMP by future construction workers, the Site is considered safe and appropriate for the intended commercial/industrial use.

Soil gas naphthalene: Unknown

 Naphthalene has not been detected in historic soil gas samples, as shown in Appendix D.

### 3. Conclusions

Available data from the Site suggest that the Site is adequately characterized and there are no data gaps. Additionally, the Site appears to be a candidate for closure as a low-risk fuel Site as described in the Low-Threat Closure Policy (SWRCB 2012). An evaluation of the Site data indicates that both the General and applicable Media-

Specific Criteria are satisfied according to the measures within the SWRCB Low-Threat Closure Policy and therefore, the leaking UST case is considered to present a low risk to human health, safety, and the environment based on:

- Petroleum hydrocarbon sources, including free product and other potential secondary sources, have been removed to the extent practical.
- Current groundwater concentrations are: TPHg ranging from below detection (<50 µg/L) to 1,600 µg/L, TPHd ranging from below detection (<50 µg/L) to 3,100 µg/L, benzene ranging from below detection (<0.5 µg/L) to 61 µg/L, toluene ranging from below detection (<0.5 µg/L) to 2.2 µg/L, ethylbenzene ranging from below detection (<0.5 µg/L) to 2.2 µg/L, ethylbenzene ranging from below detection (<0.5 µg/L) to 4.4 µg/L, total xylenes ranging from below detection (<0.5 µg/L) to 1.8 µg/L, and MTBE ranging from below detection (<0.5 µg/L) to 4.5 µg/L) to 1.8 µg/L, and MTBE ranging from below detection (<0.5 µg/L) to 4.5 µg/L. Total petroleum hydrocarbons as motor oil (TPHmo) concentrations are currently below detection limits. Based on the groundwater data collected across the Site, only MW-1 exceeds the environmental screening level (ESL) for TPHg and only MW-10 exceeds the ESL for benzene. At all other locations, COPCs are below their respective ESLs.</li>
- The Site presents no current or potential risk to human health or the . environment. Free product has been observed in wells MW-3 and RW-3 through RW-9. MW-1 has had decreasing product measurements and has not had product in it since June 2009, except for a product measurement of 0.01 foot thickness in September 2012. Though free product remains on-Site, the plume has been stable for several years and is not migrating. As defined by the Interstate Technology and Regulatory Council (ITRC 2009), LNAPL is mobile where there is continuity between LNAPL-filled soil pores that allows for lateral LNAPL movement. LNAPL is mobile at the pore-scale and capable of moving vertically or laterally within the formation, but may not be migrating on a plumescale. In order for the LNAPL plume to migrate into pristine soils, sufficient LNAPL volume would need to be present in the subsurface at the fringe of the plume to create enough head pressure to displace air and groundwater from the soil pores. Because LNAPL accumulation has not been observed in wells other than MW-3 and RW-3 through RW-9, it strongly suggests that LNAPL at the Site is not migrating at the plume-scale and is also of very limited extent.
- The Site has been adequately characterized.



Mr. Keith Nowell October 7, 2013

- The dissolved TPHg, TPHd, TPHmo, benzene, and MTBE plume exhibits relatively low concentrations, is centralized on-Site, and is attenuating.
- No sensitive receptors are likely to be impacted, including surface-water bodies, municipal wells and drinking water sources based on the limited historical extent of the dissolved TPHg, TPHd, TPHmo, benzene, and MTBE plumes and plume stability.
- All of the on-Site buildings were constructed with a vapor barrier and passive venting system and the remainder of the Site is paved with asphalt.
- The property owner is willing to accept a deed restriction and a RMP is in place.

ARCADIS recommends that a status of no further action be received, and the Site be granted regulatory closure. Suspension of groundwater monitoring and reporting is also recommended during the case closure evaluation process. A work plan for monitoring well destruction and decommissioning will be prepared following the case closure evaluation process and upon Site closure approval from the ACEH.

If you have any questions or comments regarding the content of this report, please contact Hollis Phillips by e-mail at <u>hollis.phillips@arcadis-us.com</u> or by phone at (415) 432.6903.

Sincerely,

ARCADIS U.S., Inc.

Hollis E. Phillips Principal Geologist/Project Manager

Attachments:

Table 1	Free Product Recovery System Groundwater Elevation
Table 2	Groundwater Analytical Results Summary
Figure 1	Site Location Map
Figure 2	Site Plan

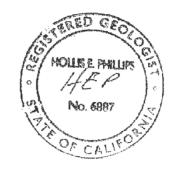


Figure 3 Shallow Groundwater Sample Results – June 2013

Attachment A	Site History
Attachment B	Draft Deed Restriction
Attachment C	Historic Soil Analytical Data
Attachment D	Historic Soil Gas Analytical Data

Enclosure: noted

CC (w encl.): Jeff Rubin – Port of Oakland

### References

- Abreu, L.D.V. and Johnson, P.C. 2005. Effect of Vapor Source-Building Separation and Building Construction on Soil Vapor Intrusion as Studied with a Three-Dimensional Numerical Model. *Environmental Science and Technology*. 39(12):4550-4561.
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Tables

Recovery Well	Date Measured	Elevation <sup>1</sup> Top of Casing (feet)	Depth to Product (feet btoc)	Depth to Water (feet btoc)	Product Thickness (feet)	Groundwater Elevation <sup>1</sup> (feet
RW-1		Well inaccessible; p	roduct and water	levels not measure	ed.	
RW-2	06/07/11	15.56	NP	7.19	0.00	8.37
	06/21/11	15.56	NP	9.02	0.00	6.54
	12/05/11	15.56	NP	9.44	0.00	6.12
	02/06/12	15.56	NP	9.22	0.00	6.34
	06/20/12	15.56	NP	9.80	0.00	5.76
	09/19/12	15.56	NP	10.35	0.00	5.21
	12/04/12	15.56	NP	6.89	0.00	8.67
	06/19/13	15.56	NP	10.13	0.00	5.43
RW-3	01/12/11	15.56	9.87	11.04	1.17	5.34
	01/26/11	15.56	10.28	10.43	0.15	5.24
	02/10/11	15.56	10.45	10.90	0.45	4.98
	02/24/11	15.56	9.42	12.13	2.71	5.33
	03/09/11	15.56	9.45	13.04	3.60	5.04
	03/23/11	15.56	8.63	12.18	3.55	5.87
	04/06/11	15.56	9.10	11.49	2.39	5.74
	04/20/11	15.56	9.70	10.88	1.18	5.51
	05/04/11	15.56	10.05	10.47	0.42	5.38
	05/18/11	15.56	9.95	10.17	0.22	5.54
	06/07/11	15.56	9.73	13.52	3.79	4.69
	06/21/11	15.56	10.10	11.20	1.10	5.13
	09/26/11	15.56	10.63	12.66	2.03	4.32
	10/05/11	15.56	10.48	10.98	0.50	4.93
	10/19/11	15.56	10.64	11.91	1.27	4.54
	12/05/11	15.56	10.75	12.67	1.92	4.23
	02/06/12	15.56	10.32	12.54	2.22	4.57
	06/20/12	15.56	10.38	12.56	2.18	4.53
	09/19/12	15.56	10.87	13.07	2.20	4.03
	12/04/12	15.56	9.35	13.54	4.19	4.95
	06/19/13	15.56	10.75	13.62	2.87	3.95
RW-4	01/12/11	14.92	9.12	9.20	0.08	5.78
	01/26/11	14.92	9.39	9.89	0.50	5.38
	02/10/11	14.92	9.52	10.54	1.02	5.09
	02/24/11	14.92	8.80	9.10	0.30	6.03
	03/09/11	14.92	8.93	8.96	0.03	5.98
	03/23/11	14.92	8.39	8.43	0.04	6.52
	04/06/11	14.92	8.46	8.50	0.04	6.45
	04/14/11	14.92	8.88	8.91	0.04	6.03
	05/04/11	14.92	9.13	9.17	0.03	5.78
	05/18/11	14.92	9.13	9.17	0.04	5.73
	06/07/11	14.92	9.18 NP	9.20 8.95	0.02	5.73

Recovery Well	Date Measured	Elevation <sup>1</sup> Top of Casing (feet)	Depth to Product (feet btoc)	Depth to Water (feet btoc)	Product Thickness (feet)	Groundwater Elevation <sup>1</sup> (feet)
RW-4 (cont.)	06/21/11	14.92	9.33 <sup>2</sup>	9.33	0.00	5.59
()	09/26/11	14.92	9.82	10.41	0.59	4.92
	10/05/11	14.92	9.68	10.17	0.49	5.09
	10/19/11	14.92	9.60	10.26	0.66	5.12
	12/05/11	14.92	9.70	10.00	0.30	5.13
	02/06/12	14.92	9.10	10.66	1.56	5.35
	06/20/12	14.92	9.20	9.27	0.07	5.70
	09/19/12	14.92	9.62	14.21	4.59	3.92
	12/04/12	14.92	8.37	11.69	3.32	5.55
	06/19/13	14.92	9.94	14.27	4.33	3.68
RW-5	04/14/11	14.79	6.74	9.72	2.98	7.16
	05/18/11	14.79	6.78 <sup>2</sup>	6.78	0.00	8.01
	06/07/11	14.79	7.38	7.47	0.09	7.38
	09/26/11	14.79	8.95	9.75	0.80	5.60
	10/05/11	14.79	8.66	9.09	0.43	6.00
	02/06/12	14.79	8.47	12.01	3.54	5.26
	06/20/12			ell not accessible.		
	09/19/12			ell not accessible.		
	12/04/12			ell not accessible.		
	06/19/13			ell not accessible.		
RW-6	01/12/11	15.75	8.51	9.68	1.17	6.89
	01/26/11	15.75	8.65	9.55	0.90	6.83
	02/10/11	15.75	8.44	9.74	1.30	6.92
	02/24/11	15.75	8.15	9.82	1.67	7.10
	03/09/11	15.75	8.25	9.37	1.12	7.16
	03/23/11	15.75	8.18	8.96	0.78	7.34
	04/06/11	15.75	8.19	8.95	0.76	7.33
	04/20/11	15.75	8.43	8.54	0.11	7.29
	05/04/11	15.75	8.51	8.62	0.11	7.21
	05/18/11	15.75	8.53	8.70	0.17	7.17
	06/07/11	15.75	8.82	9.05	0.23	6.86
	06/21/11	15.75	8.89	9.20	0.31	6.77
	09/26/11	15.75	8.86	10.20	1.34	6.49
	10/05/11	15.75	9.05	9.72	0.67	6.50
	10/19/11	15.75	8.99	10.16	1.17	6.41
	12/05/12	15.75	9.05	10.62	1.57	6.23
	02/06/12	15.75	8.95	10.82	1.87	6.24
	06/20/12	15.75	8.92	9.99	1.07	6.51
	09/19/12	15.75	9.10	10.83	1.73	6.13
	12/04/12	15.75	8.83	10.79	1.96	6.33
	06/19/13	15.75	8.86	10.35	1.49	6.44

Recovery Well	Date Measured	Elevation <sup>1</sup> Top of Casing (feet)	Depth to Product (feet btoc)	Depth to Water (feet btoc)	Product Thickness (feet)	Groundwater Elevation <sup>1</sup> (feet)
RW-7	01/12/11	15.02	7.86	7.91	0.05	7.15
	01/26/11	15.02	7.55	7.64	0.09	7.44
	02/10/11	15.02	7.50	7.68	0.18	7.47
	02/24/11	15.02	7.82	8.92	1.10	6.87
	03/09/11	15.02	7.42	7.53	0.11	7.57
	03/23/11	15.02	NP	7.24	0.00	7.78
	04/06/11	15.02	7.73	7.73	0.00	7.29
	04/20/11	15.02	7.54	7.56	0.02	7.47
	05/04/11	15.02	7.68	7.74	0.06	7.32
	05/18/11	15.02	7.35 <sup>2</sup>	7.35	0.00	7.67
	06/07/11	15.02	7.98 <sup>2</sup>	7.98	0.00	7.04
	06/21/11	15.02	8.07	8.09	0.00	6.93
	09/26/11	15.02	8.29	8.90	0.61	6.55
	10/05/11	15.02	8.19	8.45	0.26	6.75
	10/19/11	15.02	8.24	8.90	0.66	6.58
	12/05/11	15.02	8.26	9.77	1.51	6.31
	02/06/12	15.02	8.18	9.86	1.68	6.34
	06/20/12	15.02	8.35	8.41	0.06	6.65
	09/19/12	15.02	8.45	11.44	2.99	5.67
	12/04/12	15.02	8.25	8.33	0.08	6.75
	06/19/13	15.02	8.25	13.75	5.50	5.12
RW-8	01/12/11	15.91	9.07	9.21	0.14	6.80
_	01/26/11	15.91	9.23	9.31	0.08	6.66
	02/10/11	15.91	9.13	9.33	0.20	6.72
	02/24/11	15.91	8.86	9.23	0.37	6.94
	03/09/11	15.91	8.78	9.01	0.23	7.06
	03/23/11	15.91	8.42	8.70	0.28	7.41
	04/06/11	15.91	8.55	8.80	0.25	7.29
	04/20/11	15.91	8.92	9.14	0.22	6.92
	05/04/11	15.91	9.04	9.20	0.16	6.82
	05/18/11	15.91	8.85	9.10	0.25	6.99
	06/07/11	15.91	10.23	10.34	0.11	5.65
	06/21/11	15.91	9.27	9.41	0.14	6.60
	09/26/11	15.91	9.23	9.62	0.39	6.56
	10/05/11	15.91	9.28	9.40	0.12	6.59
	10/19/11	15.91	9.54	9.77	0.23	6.30
	12/05/11	15.91	9.62	10.19	0.57	6.12
	02/06/12	15.91	9.21	10.10	1.01	6.40
	06/20/12	15.91	9.36	10.22	0.92	6.27
	09/19/12	15.91	10.55	11.45	0.90	5.09
	12/04/12	15.91	9.29	11.32	2.03	6.01
	06/19/13	15.91	9.42	11.11	1.69	5.98

Recovery Well	Date Measured	Elevation <sup>1</sup> Top of Casing (feet)	Depth to Product (feet btoc)	Depth to Water (feet btoc)	Product Thickness (feet)	Groundwater Elevation <sup>1</sup> (feet)
RW-9	01/12/11	16.57	9.26	9.45	0.19	7.25
	01/26/11	16.57	9.32	9.53	0.21	7.19
	02/10/11	16.57	9.42	9.63	0.21	7.09
	02/24/11	16.57	9.24	9.43	0.19	7.27
	03/09/11	16.57	9.16	9.35	0.19	7.35
	03/23/11	16.57	9.07	9.23	0.16	7.45
	04/06/11	16.57	9.00	9.16	0.16	7.52
	04/20/11	16.57	9.10	9.29	0.19	7.41
	05/04/11	16.57	9.19	9.40	0.21	7.32
	05/18/11	16.57	9.26	9.46	0.20	7.25
	06/07/11	16.57	9.35	9.56	0.21	7.16
	06/21/11	16.57	9.30	9.50	0.20	7.21
	09/26/11	16.57	9.67	9.85	0.18	6.85
	10/05/11	16.57	9.70	9.81	0.11	6.84
	10/19/11	16.57	9.67	9.78	0.11	6.87
	12/05/11	16.57	9.75	10.14	0.39	6.70
	02/06/12	16.57	9.88	10.37	0.49	6.54
	06/20/12	16.57	9.49	10.40	0.91	6.81
	09/19/12	16.57	9.81	11.04	1.23	6.39
	12/04/12	16.57	9.50	11.06	1.56	6.60
	06/19/13	16.57	9.68	10.76	1.08	6.57
MW-3	01/05/11	15.66	9.58	9.67	0.09	6.05
	01/12/11	15.66	9.85	10.39	0.54	5.65
	01/21/11	15.66	10.03	10.97	0.94	5.35
	01/26/11	15.66	9.32	9.53	0.21	6.28
	02/02/11	15.66	10.28	11.43	1.15	5.04
	02/10/11	15.66	10.35	11.50	1.15	4.97
	02/24/11	15.66	9.53	10.74	1.21	5.77
	03/09/11	15.66	9.63	10.79	1.16	5.68
	03/16/11	15.66	9.26	10.43	1.17	6.05
	03/23/11	15.66	8.71	9.07	0.36	6.84
	03/30/11	15.66	8.87	9.54	0.67	6.59
	04/06/11	15.66	9.16	10.42	1.26	6.12
	04/14/11	15.66	9.65	10.53	0.88	5.75
	04/20/11	15.66	9.69	10.61	0.92	5.69
	04/27/11	15.66	9.88	11.07	1.19	5.42
	05/04/11	15.66	9.95	11.14	1.19	5.35
	05/13/11	15.66	10.16	11.45	1.29	5.11
	05/18/11	15.66	9.78	11.60	1.82	5.33
	06/07/11	15.66	9.91	10.95	1.04	5.44
	06/21/11	15.66	10.74	11.20	0.46	4.78
	09/26/11	15.66	10.71	12.55	1.84	4.40

### Port of Oakland's Harbor Facilities Complex Site 555 - 651 Maritime Street Oakland, California

Recovery Well	Date Measured	Elevation <sup>1</sup> Top of Casing (feet)	Depth to Product (feet btoc)	Depth to Water (feet btoc)		Groundwater Elevation <sup>1</sup> (feet)
MW-3 (cont.)	10/05/11	15.66	10.21	11.73	1.52	4.99
	10/19/11	15.66	10.65	12.11	1.46	4.57
	12/05/11	15.66	10.83	12.20	1.37	4.42
	02/06/12	15.66	10.60	11.43	0.83	4.81
	06/19/12	15.66	10.52	12.04	1.52	4.68
	09/19/12	15.66	10.90	13.01	2.11	4.13
	12/04/12	15.66	9.64	10.65	1.01	5.72
	06/19/13	15.66	10.92	12.45	1.53	4.28

### Notes:

btoc = below top of the well casing

NA = not available

NP = no product detected with the interface probe

<sup>1</sup> Wells were resurveyed on January 24, 2009. Elevation data is relative to North American Vertical Datum of 1988.

Groundwater elevation for well MW-3, when calculated, assumes the density of the free product is 0.70.

 $^{2}\,$  Product not measureable, but visible evidence of product on interface probe.

					Concen	tration (µg	/L)		
Monitoring	Date						Ethyl-	Total	
Well	Sampled	TPHg	TPHd	TPHmo	Benzene	Toluene	benzene	Xylenes	MTBE
Maximum Detected Concentration	- All Data	3,600	41,000		740	5.5	4.5	3.0	98
Non-Drinking Water Screening Lev	/el <sup>a</sup>	500			27	130	43	100	1,800
Residential ESL for Evaluation of V	/apor				27	95,000	310	37,000	9,900
Intrusion Concerns <sup>b</sup>				-	21	35,000	510	57,000	9,900
Commercial ESL for Evaluation of	Vapor				270	NA	3,100	NA	100,000
Intrusion Concerns <sup>c</sup>					210		0,100		
MW-1	05/22/00	3,600	41,000	<3,000	100	13 <sup>8</sup>	2.9	2.05	3.2 <sup>8</sup>
	12/08/09	1,400	1,200 2	<300	120	2.9	1.8	3.0	<1.0
	06/22/11	1,100 <sup>2</sup>	890 <sup>24</sup>	<300 <sup>24</sup>	46	1.9	2.6	2.0	<0.5
	06/19/13	1,600 <sup>2</sup>	3,100	<300	18	2.2	4.4	1.8	<0.5
MW-2	05/27/94	87	470	NA	<0.5	<0.5	<0.5	<0.5	NA
	03/29/95	<50	110	1,400	<0.4	<0.3	<0.3	<0.4	NA
	09/06/95	<50	NA	NA	<0.4	<0.3	<0.3	<0.4	NA
	01/08/96	<50	<50	1200	<0.4	<0.3	<0.3	<0.4	NA
	04/04/96	<50	160	320	<0.5	<0.5	<0.5	<1.0	NA
	07/10/96	<50	120	1400	<0.4	<0.3	<0.3	<0.4	NA
	12/03/96	<50	230 <sup>1,2</sup>	<250	<0.5	<0.5	<0.5	<1.0	NA
	03/28/97	<50	714	<250	<0.5	<0.5	<0.5	<1.0	NA
	06/13/97	51	<50	<250	<0.5	<0.5	<0.5	<1.0	NA
	09/18/97	82	<50	<250	0.56	<0.5	<0.5	<1.0	NA
	12/31/97	<50	<47	<280	1.4	<0.5	<0.5	<1.0	NA
	04/13/98	<50	<50	<300	<0.5	<0.5	<0.5	<1.0	NA
	11/06/98	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<2.0
	03/19/99	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<2.0
	06/24/99	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<2.0
	09/28/99	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<2.0
	11/12/99	<50	120 <sup>2,6</sup>	<300	<0.5	<0.5	<0.5	<0.5	6.3 <sup>8,9</sup>
	02/11/00	<50	<50	<300	5.4	<0.5	<0.5	<0.5	<2
	05/22/00	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<2
	09/06/00	<50	<50	<300	0.76 8	<0.5	<0.5	<0.5	< 0.5 <sup>10</sup>
	12/19/00	200 <sup>3,11</sup>	<50	<300	39	1.8	<0.5	2.6	< 0.5 10,12
	02/21/01	<50	<50	<300	<0.5	< 0.5	< 0.5	< 0.5	<2.0
	07/10/01	<50	<50	<300	<0.5	< 0.5	< 0.5	< 0.5	<2.0
	12/05/01	<50	<50	<300	4.4	<0.5	< 0.5	<0.5	5.0 <sup>14</sup>
	03/08/02	<50 62 <sup>15</sup>	<50	<500	<0.5	< 0.5	<0.5	< 0.5	<5.0
	06/13/02	62 <sup>-6</sup>	<57	<570	< 0.5	< 0.5	< 0.5	< 0.5	<5.0
	09/26/02		<50	<500 <300	1.8	< 0.5	< 0.5	<0.5	<5.0 <2.0
	12/12/02 03/17/03	<50 <50	<50 <50	<300 <300	0.98 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<2.0
	06/18/03	<50 <50	<50 <50	<300	<0.5	< 0.5	<0.5	<0.5	<2.0
	09/03/03	<50	<50 <50	<300	3.2	< 0.5	< 0.5	<0.5	<2.0
	11/26/03	<50 <50	<50 <50	<300	3.2	< 0.5	<0.5	<0.5	<2.0
	03/05/04	<50 <50	<50 <50	<300	<0.5	< 0.5	<0.5	< 0.5	<2.0
	06/02/04	<50 <50	<50 <50	<300	<0.5	< 0.5	<0.5	< 0.5	<2.0
	09/03/04	<50 <50	<50 <50	<300	<0.5	< 0.5	<0.5	< 0.5	<2.0
	12/16/04	<50 <50	96 <sup>6, 15</sup>	<300	<0.5	<0.5	< 0.5	< 0.5	<2.0
	03/29/05	<50 <50	-50 <50	<300	<0.5	< 0.5	<0.5	< 0.5	<2.0

		Concentration (µg/L)										
Monitoring	Date						Éthyl-	Total				
Well	Sampled	TPHg	TPHd	TPHmo	Benzene	Toluene	benzene	Xylenes	MTBE			
Maximum Detected Concentration -	- All Data	3,600	41,000		740	5.5	4.5	3.0	98			
Non-Drinking Water Screening Leve	el <sup>a</sup>	500			27	130	43	100	1,800			
Residential ESL for Evaluation of V	/apor				27	95,000	310	27.000	9,900			
Intrusion Concerns <sup>b</sup>					21	95,000	310	37,000	9,900			
Commercial ESL for Evaluation of V	Vapor				070		0.400	NIA	400.000			
Intrusion Concerns <sup>c</sup>					270	NA	3,100	NA	100,000			
MW-2 (cont.)	08/10/05	<50	<50	<250	<0.5	<0.5	<0.5	<0.5	<0.5			
	09/29/05	<50	<50	<250	<0.5	<0.5	<0.5	<0.5	<0.5			
	12/21/05	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5			
	03/24/06	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5			
	07/28/06	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5			
	11/29/06	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5			
	06/01/07	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5			
	11/14/07	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5			
	06/05/08	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5			
	12/18/08	390 <sup>2</sup>	840	<300	1.1	<0.5	0.9	<0.5	<0.5			
	03/04/09	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5			
	04/01/09	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5			
	06/17/09	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5			
	12/09/09	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5			
	06/17/10	<50	220 <sup>2</sup>	<300	<0.5	<0.5	<0.5	<0.5	<0.5			
	12/15/10	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5			
	06/22/11	<50	<50	<300 <sup>2,3</sup>	<0.5	<0.5	<0.5	<0.5	<0.5			
	09/26/11	<50	<50 <sup>24</sup>	<300 <sup>24</sup>	<0.5	<0.5	<0.5	<0.5	<0.5			
	06/19/12	<50	<53	<320	<0.5	<0.5	<0.5	<0.5	<0.5			
	12/04/12	<50	<53	<320	<0.5	<0.5	<0.5	<0.5	<0.5			
	06/19/13	<50	<51	<310	<0.5	<0.5	<0.5	<0.5	<0.5			
MW-3			1		the presence	1						
MW-4	09/11/95	150	<200	500	23	<0.3	<0.3	<0.4	NA			
	01/08/96	790	90	400	170	1.2	0.6	0.6	NA			
	04/04/96	1,100	180	300	320	1.6	1.1	1.2	NA			
	07/10/96	1,200	120	300	470	1.5	0.8	0.8	NA			
	12/03/96	990	220 <sup>1,2</sup>	<250	350	3.3	1.3	1.3	NA			
	03/28/97	440 <sup>2</sup>	<50 92 <sup>5</sup>	<250	190	1.2	0.64	<1.0	NA			
	06/13/97	1,300		<250	500	5.5	3.4	2.8	NA			
	09/18/97	1,300 73 <sup>1,2,3</sup>	150	<250	550	4.9	2.1	2.00	NA			
	12/31/97	150 <sup>2,3</sup>	<47	<280	110 <sup>1</sup>	1.0 <sup>1</sup>	< 0.5	<1.0	NA			
	04/13/98 11/06/98		<50 <50	<300 <300	520	2.9	<2.5 <1.0	<5.0 <1.0	NA <4			
	03/19/99	<50 81	<50 <50	<300	250 250	1.7 <1	<1.0 1.2	<1.0	<4 <4			
Dup	03/19/99 06/24/99	190	<50 <50	<300	250 360	1.4	2.2	1.0	24			
Dup.	09/28/99	750 <sup>3,5</sup>	63 <sup>3,5</sup>	<300	280	1.4	<1.0	<1.0	<4			
	11/12/99	330 <sup>3</sup>	840 <sup>2</sup>	<300	740	<2.5	<1.0	<2.5	42 <sup>9</sup>			
	02/11/00	200 <sup>2</sup>	<50	<300	58	0.73	<0.5	<0.5	4.4 8			
	02/11/00	200	<50 <50	<300	500	<2.5	<0.5 <2.5	<0.5	17			
	09/06/00	530 <sup>2,3</sup>	<50 <50	<300	190	0.93	< <u>2.5</u> 0.6	0.57	<0.5 <sup>10</sup>			
	12/19/00	960 <sup>3,11</sup>	<50 70 <sup>5</sup>	<300	420	<2.5	<2.5	<2.5	<0.5 <sup>10,12</sup>			

					Concen	tration (µg	/L)		
Monitoring	Date						Ethyl-	Total	
Well	Sampled	TPHg	TPHd	TPHmo	Benzene	Toluene	benzene	Xylenes	MTBE
Maximum Detected Concentration	- All Data	3,600	41,000		740	5.5	4.5	3.0	98
Non-Drinking Water Screening Lev	el <sup>a</sup>	500			27	130	43	100	1,800
Residential ESL for Evaluation of V	/apor				27	95,000	310	37,000	9,900
Intrusion Concerns <sup>b</sup>					21	93,000	510	57,000	9,900
Commercial ESL for Evaluation of	Vapor				270	NA	3,100	NA	100,000
Intrusion Concerns <sup>c</sup>					210	INA.	5,100		
MW-4 (cont.)	12/19/00	1,200 <sup>3,11</sup>	<50	<300	440	<2.5	<2.5	<2.5	< 0.5 <sup>10,12</sup>
	02/21/01	450 <sup>13</sup>	<50	<300	120	<0.5	<0.5	<0.5	< 0.5 <sup>10</sup>
	07/10/01	<250	110 <sup>2,13</sup>	<300	620	2.6	2.9	<2.5	< 0.5 8,10
	12/05/01	180	<50	<300	61	<0.5	<0.5	<0.5	3.8 <sup>14</sup>
	03/08/02	490 <sup>2</sup>	54 <sup>2</sup>	<500	180	<2.5	<2.5	<2.5	<25
	06/13/02	830 <sup>2</sup>	<50	<500	250	<5.0	<5.0	<5.0	<50
Dup.	06/13/02	820 <sup>2</sup>	<56	<560	240	<5.0	<5.0	<5.0	<50
	09/26/02	390 <sup>2</sup>	57	<500	150	2.1	<1.0	<1.0	<10
Dup.	09/26/02	500 <sup>2</sup>	<50 <sup>16</sup>	<500 <sup>16</sup>	200	1.5	<1.0	<1.0	<10
	12/12/02	580	<50	<300	240	1.4	0.56	<0.5	<2.0
Dup.	12/12/02	2,400	<50	<300	680	5.0	2.3	1.4	<2.0
_	03/17/03	130 <sup>15</sup>	<50	<300	320 <sup>17</sup>	< 0.5	<0.5	<0.5	< 0.5 <sup>10</sup>
Dup.	03/17/03	82 <sup>15</sup>	<50	<300	190	0.64 <sup>17</sup>	0.56	0.53	< 0.5 <sup>10</sup>
_	06/18/03	360 11, 15	<50	<300	150	<0.5	< 0.5	< 0.5	<2.0
Dup.	06/18/03	330 11, 15	<50	<300	140	<0.5	<0.5	<0.5	<2.0
_	09/03/03	140 <sup>11, 15</sup>	<50	<300	240	1.3	< 0.5	< 0.5	<2.0
Dup.	09/03/03	83 11, 15	<50	<300	130	0.58 <sup>17</sup>	< 0.5	< 0.5	<2.0
	11/26/03	160 <sup>15</sup>	68 <sup>15</sup>	<300	320	0.91 <sup>17</sup>	< 0.5	0.53	<2.0
Dup.	11/26/03	120 <sup>15</sup> 90 <sup>11</sup>	<50	<300	210	0.66 <sup>17</sup>	< 0.5	<0.5 0.50 <sup>17</sup>	<2.0 23 <sup>14,17</sup> , <0.5 <sup>10</sup>
Dur	03/05/04	90 84 <sup>11</sup>	<50	<300	190	1.1	0.55		23 , <0.5 21 <sup>14,17</sup> , <0.5 <sup>10</sup>
Dup.	03/05/04	620 <sup>13</sup>	<50 <50	<300	180	0.81 0.55 <sup>17</sup>	< 0.5	<0.5 <0.5	
Dup	06/02/04 06/02/04	400 <sup>13</sup>	<50 <50	<300 <300	210 130	<0.55	<0.5 <0.5	< 0.5	<2.0 <2.0
Dup.	09/03/04	780 <sup>13, 15</sup>	<50 <50	<300	<0.5	1.0 <sup>17</sup>	< 0.5	0.57	<2.0
Dup.	09/03/04	370 <sup>13, 15</sup>	<50	<300	<0.5	<0.5	<0.5	< 0.5	<2.0
Dup.	12/16/04	840	<50 <50	<300	290	1.3 <sup>17</sup>	0.69	0.75	<2.0
Dup.	12/16/04	670	<50	<300	230	1.3 <sup>17</sup>	< 0.5	<0.5	<2.0
Eap.	03/29/05	440 <sup>13</sup>	<50	<300	140	0.57	<0.5	< 0.5	<2.0
Dup.	03/29/05	540 <sup>13</sup>	<50	<300	170	0.72	< 0.5	< 0.5	<2.0
- ab.	08/10/05	500 <sup>18</sup>	<50	<250	180	<2.5	<2.5	<2.5	<2.5
	09/29/05	360 <sup>18</sup>	59 <sup>20</sup>	<250	160	<5.0	<5.0	<5.0	<5.0
Dup.	09/29/05	420 <sup>18</sup>	<50	<250	150	<5.0	<5.0	<5.0	<5.0
F	12/21/05	110	<50	<300	76	<0.5	< 0.5	<0.5	<0.5
Dup.	12/21/05	160	<50	<300	76	<0.5	< 0.5	<0.5	< 0.5
	03/24/06	420	51	<300	120	0.8	<0.7	<0.7	<0.7
Dup.	03/24/06	440	<50	<300	130	<0.7	<0.7	<0.7	<0.7
	08/04/06	560	92 <sup>2</sup>	<300	160	<1.3	4.3	<1.3	<1.3
Dup.	08/04/06	590	100 <sup>2</sup>	<300	150	<1.3	4.5	<1.3	<1.3
	11/29/06	300	<50	<300	42	<0.7	1.0	<0.7	<0.7
Dup.	11/29/06	300	<50	<300	60	<0.7	<0.7	<0.7	<0.7
	06/01/07	100 <sup>13, 15</sup>	<50	<300	10	<0.5	<0.5	<0.5	<0.5
Dup.	06/01/07	100 <sup>13, 15</sup>	<50	<300	11	<0.5	<0.5	<0.5	<0.5

					Concen	tration (µg	/L)		
Monitoring	Date						Ethyl-	Total	
Well	Sampled	TPHg	TPHd	TPHmo	Benzene	Toluene	benzene	Xylenes	MTBE
Maximum Detected Concentration	- All Data	3,600	41,000		740	5.5	4.5	3.0	98
Non-Drinking Water Screening Lev	el <sup>a</sup>	500			27	130	43	100	1,800
Residential ESL for Evaluation of V	/apor				27	95,000	310	37,000	9,900
Intrusion Concerns <sup>b</sup>						00,000	010	01,000	0,000
Commercial ESL for Evaluation of	Vapor				270	NA	3,100	NA	100,000
Intrusion Concerns <sup>c</sup>		45							•
MW-4 (cont.)	11/14/07	54 <sup>15</sup>	<50	<300	2.1	<0.5	<0.5	<0.5	<0.5
Dup.	11/14/07	51 <sup>15</sup>	<50	<300	2.1	<0.5	<0.5	<0.5	<0.5
_	06/05/08	67 <sup>15</sup>	<50	<300	14	<0.5	<0.5	<0.5	<0.5
Dup.	06/05/08	91 <sup>15</sup>	<50	<300	15	< 0.5	< 0.5	< 0.5	<0.5
-	12/18/08	99 <sup>2</sup>	520	<300	0.5	< 0.5	<0.5	<0.5	<0.5
Dup.	12/18/08	88 <sup>2</sup>	850	<300	0.7	< 0.5	0.6	< 0.5	< 0.5
	03/04/09	60 <sup>2</sup>	<50	<300	3.8	< 0.5	< 0.5	< 0.5	<0.5
Dup.	03/04/09	<50	<50	<300	4.4	< 0.5	< 0.5	< 0.5	<0.5
D	04/01/09	<50	<50	<300	7.5	< 0.5	< 0.5	< 0.5	< 0.5
Dup.	04/01/09	<50 69 <sup>-2</sup>	<50	<300	7.8	< 0.5	< 0.5	< 0.5	<0.5
	06/19/09		<50	<300	15	< 0.5	< 0.5	< 0.5	<0.5
Dur	12/08/09	<50	<50	<300	3.3	< 0.5	<0.5	<0.5	<0.5
Dup.	12/08/09	<50	<50	<300	3.5	< 0.5	< 0.5	< 0.5	< 0.5
Dup	06/16/10 06/16/10	<50 <50	<50 <50	<300 <300	15 18	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5
Dup.	12/14/10	<50 <50	<50 <50	<300	2.2	< 0.5	< 0.5	< 0.5	<0.5
Dup.	12/14/10	<50	<50	<300	2.7	<0.5	<0.5	< 0.5	<0.5
Dup.	06/21/11	160 <sup>2</sup>	<56	<330	30	< 0.5	< 0.5	< 0.5	<0.5
Dup.	06/21/11	84 <sup>2</sup>	<53	<320	28	< 0.5	<0.5	<0.5	<0.5
Dup.	09/27/11	130 <sup>2</sup>	< <u>53</u> 72	<320		< 0.5	<0.5	<0.5	<0.5
		130 <sup>2</sup>	57 <sup>24</sup>	<300 <sup>24</sup>	13				
Dup.	09/27/11				12	<0.5	<0.5	<0.5	<0.5
	06/19/12	120 <sup>2</sup>	<51	<310	19	<0.5	<0.5	<0.5	<0.5
Dup.	06/19/12	120 <sup>2</sup>	<52	<310	20	<0.5	<0.5	<0.5	<0.5
	12/04/12	76 <sup>2</sup>	<53	<320	1.7	<0.5	<0.5	<0.5	<0.5
Dup.	12/04/12	60 <sup>2</sup>	56 <sup>2</sup>	<310	1.3	<0.5	<0.5	<0.5	<0.5
	06/19/13	150 <sup>2</sup>	<56	<330	19	<0.5	<0.5	<0.5	<0.5
Dup.	06/19/13	150 <sup>2</sup>	<50	<300	19	<0.5	<0.5	<0.5	<0.5
MW-5	09/11/95	90	<300	2,500	3.3	<0.3	<0.3	<0.4	NA
	04/04/96	<50	180	520	<0.5	<0.5	<0.5	<1.0	NA
	07/10/96	<50	120	1,500	<0.4	<0.3	<0.3	<0.4	NA
	12/03/96	<50	200 <sup>1,2</sup>	<250	<0.5	<0.5	<0.5	<1.0	NA
	03/28/97	<50	<50	<250	<0.5	<0.5	<0.5	<1.0	NA
	06/13/97	<50	<50	<250	<0.5	<0.5	<0.5	<1.0	NA
	09/18/97	<50	<50	<250	<0.5	<0.5	<0.5	<1.0	NA
	12/31/97	<50	<47	<280	<0.5	<0.5	<0.5	<1.0	NA
	04/13/98	<50	<47	<280	<0.5	<0.5	<0.5	<1.0	NA
	11/06/98	<50	<50	<300	<0.5	< 0.5	< 0.5	< 0.5	<2.0
-	03/19/99	<50	<50	<300	< 0.5	< 0.5	< 0.5	< 0.5	<2.0
	06/24/99	<50	<50	<300	< 0.5	< 0.5	< 0.5	< 0.5	3.1
	09/28/99	<50	<50 110 <sup>2,6</sup>	<300	< 0.5	< 0.5	< 0.5	< 0.5	<2.0
	11/12/99	<50		<300	< 0.5	< 0.5	< 0.5	<0.5	5.5 9
	02/11/00	<50	<50	<300	<0.5	< 0.5	< 0.5	< 0.5	<2.0
	05/22/00	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<2.0

					Concen	tration (µg	/L)		
Monitoring	Date						Éthyl-	Total	
Well	Sampled	TPHg	TPHd	TPHmo	Benzene	Toluene	benzene	Xylenes	MTBE
Maximum Detected Concentration	- All Data	3,600	41,000		740	5.5	4.5	3.0	98
Non-Drinking Water Screening Lev	el <sup>a</sup>	500			27	130	43	100	1,800
Residential ESL for Evaluation of V					07		0.1.0		
Intrusion Concerns <sup>b</sup>	•				27	95,000	310	37,000	9,900
Commercial ESL for Evaluation of	Vapor				070		0.400		400.000
Intrusion Concerns <sup>c</sup>	•				270	NA	3,100	NA	100,000
MW-5 (cont.)	09/06/00	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<2.0
	12/19/00	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<2.0
	02/21/01	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<2.0
	07/10/01	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<2.0
	12/05/01	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<2.0
	03/08/02	<50	<50	<500	<0.5	<0.5	<0.5	<0.5	<5.0
	06/13/02	<50	<50	<500	<0.5	<0.5	<0.5	<0.5	<5.0
	09/26/02	<50	<50	<500	<0.5	<0.5	<0.5	<0.5	<5.0
	12/12/02	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<2.0
	03/17/03	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5 <sup>10</sup>
	06/18/03	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<2.0
	09/03/03	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<2.0
	11/26/03	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	4.1 <sup>14</sup> , <0.5 <sup>10</sup>
	03/05/04	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<2.0
	06/02/04	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<2.0
	09/03/04	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<2.0
	12/16/04	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	2.2 <sup>14</sup> , <0.5 <sup>10</sup>
	03/29/05	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<2.0
	08/10/05	<50	<50	<250	<0.5	<0.5	<0.5	<0.5	<0.5
Dup.	08/10/05	<50 <sup>19</sup>	<50 <sup>19</sup>	<250	<0.5	<0.5	<0.5	<0.5	<0.5
	09/29/05	<50	<50	<250	<0.5	<0.5	<0.5	<0.5	<0.5
	12/21/05	<50	180 <sup>15,22</sup>	<300	<0.5	<0.5	<0.5	<0.5	<0.5
	07/28/06	<50	180	<300	<0.5	<0.5	<0.5	<0.5	<0.5
	11/29/06	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5
	06/01/07	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5
	11/14/07	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5
	06/05/08	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5
	12/18/08	3,100 <sup>2</sup>	3,600	<300	0.5	<0.5	<0.5	<0.5	1.8
	03/04/09	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5
	04/01/09	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5
	04/01/09	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5
	06/19/09	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5
	12/08/09	<50	<50	<300	< 0.5	<0.5	< 0.5	< 0.5	< 0.5
	06/16/10	<50	<50	<300	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	12/14/10	<50	<50	<300	<0.5	< 0.5	< 0.5	< 0.5	< 0.5
	06/22/11	<50	<50	<300	<0.5	<0.5	< 0.5	<0.5	<0.5
	09/27/11	<50	<50 <sup>24</sup>	<300 <sup>24</sup>	< 0.5	<0.5	< 0.5	< 0.5	<0.5
	06/19/12	<50	<51	<310	< 0.5	<0.5	< 0.5	< 0.5	<0.5
	12/04/12	<50	<54	<330	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
	06/19/13	<50	<53	<320	<0.5	<0.5	<0.5	<0.5	<0.5

					Concen	tration (µg	/L)		
Monitoring	Date						Éthyl-	Total	
Well	Sampled	TPHg	TPHd	TPHmo	Benzene	Toluene	benzene	Xylenes	MTBE
Maximum Detected Concentration	- All Data	3,600	41,000		740	5.5	4.5	3.0	98
Non-Drinking Water Screening Lev	el <sup>a</sup>	500			27	130	43	100	1,800
Residential ESL for Evaluation of V							0.1.0		0.000
Intrusion Concerns <sup>b</sup>	•				27	95,000	310	37,000	9,900
Commercial ESL for Evaluation of	Vapor								
Intrusion Concerns <sup>c</sup>					270	NA	3,100	NA	100,000
MW-6	11/06/98	120	12,000	1,200	19	0.65	1.8	<0.5	<2
	03/19/99	170	3,800	580	21	0.86	1.5	2.9	<2
	06/24/99	120	1,700 <sup>7</sup>	<300 <sup>7</sup>	18	<0.5	1.0	< 0.5	54
	09/28/99	130 <sup>3,5</sup>	820	<300	20	0.51	2.2	< 0.5	<2
	11/12/99	150	11,000 <sup>2,6</sup>	3,000 <sup>3,6</sup>	27	<0.5	2.2	<0.5	13 <sup>9</sup>
	02/11/00	270 <sup>2</sup>	2,300	<300	23	0.51	2.7	<0.5	5.8
	05/22/00	350	3,000	<300	18	0.51	<0.5	<0.5	7.7
	09/06/00	190	610	<300	26	<0.5	1.7	<0.5	<0.5 <sup>10</sup>
	12/19/00	130 <sup>3,11</sup>	620	<300	24	<0.5	1.6	<0.5	<2
	02/21/01	120 <sup>13</sup>	440	<300	21	<0.5	0.96	<0.5	<2
	07/10/01	120	560	<300	29	<0.5	0.99	<0.5	<2
	12/12/01	53	550	<300	27	<0.5	1.3	<0.5	<2.0
	03/08/02	160 <sup>2</sup>	640 <sup>2</sup>	<500	30	<0.5	<0.5	<0.5	5.0 <sup>14</sup>
	06/13/02	160 <sup>2</sup>	670 <sup>2</sup>	<500	34	<0.5	<0.5	<0.5	<5.0
	09/26/02	230 <sup>2</sup>	1400 <sup>2</sup>	<500	40	0.64	0.8	<0.5	<5.0
	12/12/02	53	110	<300	43	<0.5	<0.5	<0.5	<2.0
	12/18/02		-		Monitoring w	ell was des	troyed.		
MW-7	09/06/95	<50	<300	800	<0.4	<0.3	<0.3	<0.4	NA
	01/08/96	<50	410	110	<0.4	<0.3	<0.3	<0.4	NA
	04/04/96	<50	530	340	<0.5	<0.5	<0.5	<1.0	NA
	07/10/96	80	840	1,700	<0.4	<0.3	<0.3	<0.4	NA
	12/03/96	<50	280 <sup>1,2</sup>	<250	<0.5	<0.5	<0.5	<1.0	NA
	03/28/97	65 <sup>6</sup>	94 <sup>2</sup>	<250	<0.5	<0.5	<0.5	<1.0	NA
	06/13/97	<50	100	<250	<0.5	<0.5	<0.5	<1.0	NA
	09/18/97	<50	240	<250	<0.5	<0.5	< 0.5	<1.0	NA
	12/31/97	<50	53 <sup>2,3</sup>	<280	<0.5	<0.5	<0.5	<1.0	NA
	04/13/98	<50	<48	<290	< 0.5	< 0.5	<0.5	<1.0	NA
	11/06/98	<50	<50	<300	< 0.5	< 0.5	< 0.5	< 0.5	<2
	03/19/99	<50	<50	<300	<0.5	< 0.5	<0.5	< 0.5	5.3
	06/24/99	73	<50	<300	< 0.5	<0.5	< 0.5	< 0.5	12 14
	09/28/99 11/12/99	<50 <50	<50 600 <sup>2,6</sup>	<300 420 <sup>3</sup>	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	14 15 <sup>9</sup>
	02/11/00	<50 <50	<50	420 <300	<0.5 <0.5	<0.5	<0.5 <0.5	<0.5 <0.5	51
	02/11/00	<50 110	<50 53 <sup>2</sup>	<300	<0.5	< 0.5	<0.5 <0.5	< 0.5	75
	09/06/00	50 <sup>6</sup>	53 <50	<300	<0.5	< 0.5	<0.5 <0.5	< 0.5	40 <sup>10</sup>
	12/19/00	50 54 <sup>11</sup>	<50 51 <sup>5</sup>	<300	<0.5	< 0.5	< 0.5	< 0.5	40 47 <sup>10,12</sup>
	02/21/01	54 <50	<50	<300	<0.5	< 0.5	<0.5	<0.5	66 <sup>10</sup>
Dup.	02/21/01	<50 <50	<50 <50	<300	<0.5	< 0.5	<0.5	<0.5	60 <sup>10</sup>
Dup.	02/21/01	<50 <50	<50 51 <sup>2</sup>	<300	<0.5	< 0.5	<0.5	<0.5	76 <sup>10</sup>
Dup									70 75 <sup>10</sup>
Dup.	07/10/01	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	10

					Concen	tration (µg	/L)		
Monitoring	Date						Ethyl-	Total	
Well	Sampled	TPHg	TPHd	TPHmo	Benzene	Toluene	benzene	Xylenes	MTBE
Maximum Detected Concentration	- All Data	3,600	41,000		740	5.5	4.5	3.0	98
Non-Drinking Water Screening Lev	el <sup>a</sup>	500			27	130	43	100	1,800
Residential ESL for Evaluation of V	/apor				27	95,000	310	37,000	9,900
Intrusion Concerns <sup>b</sup>					21	95,000	310	37,000	9,900
Commercial ESL for Evaluation of	Vapor				270	NA	3,100	NA	100.000
Intrusion Concerns <sup>c</sup>					270	INA	3,100	NA	,
MW-7 (cont.)	12/12/01	51	<50	<300	<0.5	<0.5	<0.5	<0.5	98 <sup>14</sup>
Dup.	12/12/01	64	52 <sup>13, 15</sup>	<300	<0.5	<0.5	<0.5	<0.5	96 <sup>14</sup>
	03/08/02	52 <sup>2</sup>	<50	<500	<0.5	<0.5	<0.5	<0.5	24 <sup>14</sup>
	06/13/02	87 <sup>2</sup>	54 <sup>2</sup>	<500	<0.5	<0.5	<0.5	<0.5	51
	09/26/02	83 <sup>2</sup>	84 <sup>2</sup>	<500	<0.5	<0.5	<0.5	<0.5	75 <sup>10</sup>
	12/12/02	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	58 <sup>14</sup>
	12/18/02				Monitoring w	ell was des	troyed.		
MW-8			Not sam	pled due to	the presence	e of free-ph	ase produc	t.	
MW-8A	12/12/01	68	720 <sup>11,15</sup>	<300	<0.5	<0.5	<0.5	<0.5	<2.0
	03/08/02	<50	760 <sup>2</sup>	<570	<0.5	<0.5	<0.5	<0.5	<5.0
Dup.	03/08/02	<50	350 <sup>2</sup>	<580	<0.5	<0.5	<0.5	<0.5	<5.0
-	06/13/02	<50	570 <sup>2</sup>	<570	<0.5	<0.5	<0.5	<0.5	<5.0
	09/26/02	<50	410 <sup>2</sup>	<500	<0.5	<0.5	<0.5	<0.5	<5.0
	12/12/02	<50	160 <sup>15</sup>	<300	<0.5	<0.5	<0.5	<0.5	<2.0
	03/17/03	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5 <sup>10</sup>
	06/18/03	<50	74 <sup>15</sup>	<300	<0.5	<0.5	<0.5	<0.5	<2.0
	09/03/03	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	3.0 <sup>14</sup> /<0.5 <sup>10</sup>
	11/26/03	<50	94 <sup>15</sup>	<300	<0.5	<0.5	<0.5	<0.5	<2.0
	03/05/04	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<2.0
	06/02/04	<50	67 <sup>15</sup>	<300	<0.5	<0.5	<0.5	<0.5	<2.0
	09/03/04	<50	86 <sup>15</sup>	<300	<0.5	<0.5	<0.5	<0.5	<2.0
	12/16/04	<50	160 <sup>6, 15</sup>	<300	<0.5	<0.5	<0.5	<0.5	<2.0
	03/29/05	<50	53	<300	<0.5	<0.5	<0.5	<0.5	<2.0
	08/10/05	<50 <sup>19</sup>	150 <sup>15, 19</sup>	<250	<0.5	<0.5	<0.5	<0.5	<0.5
	09/29/05	<50	66 21	<250	<0.5	<0.5	<0.5	<0.5	<0.5
	12/21/05	<50	63 <sup>15,22</sup>	<300	<0.5	<0.5	<0.5	<0.5	<0.5
	03/24/06	<50	71	<300	<0.5	<0.5	<0.5	<0.5	<0.5
	07/28/06	<50	70 <sup>15</sup>	<300	<0.5	<0.5	<0.5	<0.5	<0.5
	11/29/06	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5
	06/01/07	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5
	11/14/07	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5
	06/05/08	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5
	12/18/08	350 <sup>2</sup>	7,800	2,200 <sup>2</sup>	<0.5	<0.5	<0.5	<0.5	1.3
	03/04/09	<50	51 <sup>2</sup>	<300	<0.5	<0.5	<0.5	<0.5	<0.5
	04/01/09	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5
	06/17/09	<50	<50	<300	< 0.5	< 0.5	< 0.5	< 0.5	<0.5
	12/08/09	<50	<50	<300	< 0.5	< 0.5	< 0.5	< 0.5	<0.5
	06/16/10	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5

					Concen	tration (µg	/L)		
Monitoring	Date						Ethyl-	Total	
Well	Sampled	TPHg	TPHd	TPHmo	Benzene		benzene	Xylenes	MTBE
Maximum Detected Concentration	- All Data	3,600	41,000		740	5.5	4.5	3.0	98
Non-Drinking Water Screening Lev		500			27	130	43	100	1,800
Residential ESL for Evaluation of V Intrusion Concerns <sup>b</sup>	/apor				27	95,000	310	37,000	9,900
Commercial ESL for Evaluation of	Vapor				270	NIA	2 100	NA	100.000
Intrusion Concerns <sup>c</sup>					270	NA	3,100	INA	100,000
MW-8A (cont.)	12/14/10	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5
	06/23/11	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5
	09/26/11	<50	<50 <sup>24</sup>	<300 <sup>24</sup>	<0.5	<0.5	<0.5	<0.5	<0.5
	06/19/12	<50	<51	<310	< 0.5	< 0.5	< 0.5	< 0.5	<0.5
	12/04/12	<50	<53	<320	<0.5	<0.5	< 0.5	< 0.5	<0.5
	06/19/13	<50 52 <sup>2</sup>	<52	<310	<0.5	<0.5	<0.5	< 0.5	<0.5
MW-9	12/18/08	290 <sup>2</sup>	72 310 <sup>2</sup>	<300	<0.5	<0.5	< 0.5	< 0.5	<0.5
	03/04/09			<300	44	<0.5	0.6	0.6	<0.5
	04/01/09	210 <sup>2</sup>	210 <sup>2</sup>	<300	36	< 0.5	<0.5	< 0.5	<0.5
	06/19/09	240 <sup>2</sup>	240 <sup>2</sup>	<300	43	< 0.5	<0.5	<0.5	<0.5
	12/08/09	210 <sup>2</sup>	210 <sup>2</sup>	<300	48	<0.5	<0.5	< 0.5	<0.5
	06/16/10	160 <sup>2</sup>	160 <sup>2</sup>	<300	49	<0.5	1.0	0.6	<0.5
	12/14/10	170 <sup>2</sup>	130 <sup>2</sup>	<300	34	<0.5	<0.5	0.6	<0.5
	06/22/11	200 <sup>2</sup>	160 <sup>2</sup>	<300	25	<0.5	<0.5	<0.5	<0.5
	09/27/11	190 <sup>2</sup>	180 24	<300 <sup>24</sup>	21	<0.5	<0.5	<0.5	<0.5
	06/19/12	150 <sup>2</sup>	96 <sup>2</sup>	<320	11	<0.5	<0.5	<0.5	<0.5
	12/04/12	140 <sup>2</sup>	200 <sup>2</sup>	<320	14	<0.5	1.8	1.5	<0.5
	06/19/13	130	100 <sup>2</sup>	<320	14	<0.5	1.1	<0.5	<0.5
MW-10	12/18/08	140 <sup>2</sup>	8,000	430 <sup>2</sup>	<0.5	<0.5	<0.5	<0.5	1.0
	03/04/09	96 <sup>2</sup>	110 <sup>2</sup>	<300	11	<0.5	0.5	<0.5	<0.5
	04/01/09	87 <sup>2</sup>	100 <sup>2</sup>	<300	14	<0.5	0.5	<0.5	<0.5
	06/17/09	90 <sup>2</sup>	220 <sup>2</sup>	<300	10	<0.5	1.0	<0.5	<0.5
	12/08/09	120 <sup>2</sup>	240 <sup>2</sup>	<300	26	<0.5	0.8	<0.5	<0.5
	06/16/10	140 <sup>2</sup>	200	<300	46	<0.5	<0.5	<0.5	<0.5
	12/14/10	150 <sup>2</sup>	140 <sup>2</sup>	<300	47	<0.5	<0.5	<0.5	<0.5
	06/22/11	320 <sup>2</sup>	630	<300	54	<0.5	2.2	<0.5	<0.5
	09/26/11	260 <sup>2</sup>	780 <sup>24</sup>	<300 <sup>24</sup>	61	1	2.4	<0.5	<0.5
	06/19/12	330 <sup>2</sup>	430 <sup>2</sup>	<310	58	<0.5	2.9	<0.5	<0.5
	12/04/12	250 <sup>2</sup>	1,100	<320	59	<0.5	0.9	<0.5	<0.5
	06/19/13	320 <sup>2</sup>	280 <sup>2</sup>	<310	61	<0.5	1.2	<0.5	<0.5
MW-11	12/18/08	1,900 <sup>2</sup>	15,000	800 <sup>2</sup>	<0.5	<0.5	<0.5	<0.5	5.0
	03/04/09	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5
	04/01/09	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5
	06/19/09	<50	<50	<300	< 0.5	< 0.5	< 0.5	< 0.5	<0.5
	12/09/09	<50	<50	<300	<0.5	< 0.5	<0.5	< 0.5	<0.5
	06/16/10	<50	<50	<300	<0.5	<0.5	< 0.5	< 0.5	<0.5
	12/14/10	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5
	06/21/11	<50	<50	<300	<0.5	<0.5	<0.5	<0.5	<0.5
	09/26/11	<50	<50 <sup>24</sup>	<300 <sup>24</sup>	<0.5	<0.5	<0.5	<0.5	<0.5
	06/19/12	<50	<53	<320	<0.5	<0.5	<0.5	<0.5	<0.5
	12/04/12	<50	<53	<320	<0.5	<0.5	<0.5	<0.5	<0.5
	06/19/13	<50	<50	<300	<1.0	<1.0	<1.0	<1.0	<1.0

#### Table 2 Groundwater Analytical Results Summary

#### Port of Oakland's Harbor Facilities Complex Site 555 - 651 Maritime Street Oakland, California

					Concen	tration (µg	/L)		
Monitoring	Date						Ethyl-	Total	
Well	Sampled	TPHg	TPHd	TPHmo	Benzene	Toluene	benzene	Xylenes	MTBE
Maximum Detected Concentration	- All Data	3,600	41,000		740	5.5	4.5	3.0	98
Non-Drinking Water Screening Level <sup>a</sup>		500			27	130	43	100	1,800
Residential ESL for Evaluation of Vapor Intrusion Concerns <sup>b</sup>					27	95,000	310	37,000	9,900
Commercial ESL for Evaluation of <sup>v</sup> Intrusion Concerns <sup>c</sup>	Vapor				270	NA	3,100	NA	100,000
MW-12	12/18/08	25,000 <sup>2</sup>	19,000	980 <sup>2</sup>	<0.5	<0.5	<0.5	<0.5	5.1
	03/04/09	150 <sup>2</sup>	550 <sup>2</sup>	<300	<0.5	<0.5	<0.5	<0.5	4.8
	04/01/09	71 <sup>2</sup>	420 <sup>2</sup>	<300	<0.5	<0.5	<0.5	<0.5	5.8
	06/17/09	64 <sup>2</sup>	310 <sup>2</sup>	<300	<0.5	<0.5	<0.5	<0.5	5.7
Dup.	06/17/09	67 <sup>2</sup>	310 <sup>2</sup>	<300	<0.5	<0.5	<0.5	<0.5	5.4
	12/08/09	90 <sup>2</sup>	320 <sup>2</sup>	<300	<0.5	<0.5	<0.5	<0.5	4.7
	06/16/10	94 <sup>2</sup>	300	<300	<0.5	<0.5	<0.5	<0.5	4.8
	12/14/10	100 <sup>2</sup>	510	<300	<0.5	<0.5	<0.5	<0.5	4.0
	06/23/11	100 <sup>2</sup>	270 <sup>2</sup>	<300	<0.5	<0.5	<0.5	<0.5	3.2
	09/26/11	62 <sup>2</sup>	500 <sup>24</sup>	<300 <sup>24</sup>	<0.5	<0.5	<0.5	<0.5	4.2
	06/19/12	88	370 <sup>2</sup>	<310	<0.5	<0.5	<0.5	<0.5	2.4
	12/04/12	95 <sup>2</sup>	390 <sup>2</sup>	<320	<0.5	<0.5	<0.5	<0.5	3.9
	06/19/13	66 <sup>2</sup>	220 <sup>2</sup>	<300	<0.5	<0.5	<0.5	<0.5	4.5

#### Notes:

Data prior to December 2005 from 3rd Quarterly Groundwater Monitoring, and Product Recovery Report dated

November 8, 2005, by Innovative Technical Solutions, Inc.

µg/L = micrograms per liter

Dup. = duplicate sample

MTBE = methyl tert-butyl ether

NA = not analyzed

TPHg = total petroleum hydrocarbons in gasoline range

TPHd = total petroleum hydrocarbons in diesel range

TPHmo = total petroleum hydrocarbons in motor oil range

-- = Screening level has not been established.

< = Analyte was not detected above the specified method reporting limit</p>

<sup>a</sup> Groundwater Screening Levels; groundwater is not a current or potential drinking water resource, Table F-1b, SFRWQCB (2013).

<sup>b</sup> Residential direct exposure soil screening level, Table K-1, SFRWQCB (2013).

<sup>c</sup> Commercial direct exposure soil screening level, Table K-2, SFRWQCB (2013).

<sup>1</sup> Analyte found in the associated blank as well as in the sample.

<sup>2</sup> Hydrocarbons present do not match profile of laboratory standard.

<sup>3</sup> Low boiling point/lighter hydrocarbons are present in the sample.

<sup>4</sup> Chromatographic pattern matches known laboratory contaminant.

<sup>o</sup> Hydrocarbons are present in the requested fuel quantification range, but do not resemble pattern of available fuel standard.

<sup>b</sup> High boiling point/heavier hydrocarbons are present in sample.

'Sample did not pass laboratory quality assurance/quality control and may be biased low.

<sup>8</sup> Presence of this compound confirmed by second column; however, the confirmation concentration differed from the

reported result by more than a factor of two.

<sup>9</sup> Trip blank contained MTBE at a concentration of 4.2 mg/L.

<sup>10</sup> MTBE detections confirmed by United States Environmental Protection Agency Test Method (USEPA) 8260; 8260 results displayed.

<sup>11</sup> Sample exhibits unknown single peak or peaks.

<sup>12 US</sup>EPA Method 8260 confirmation analyzed past holding time.

<sup>13</sup>Lighter hydrocarbons contributed to the quantitation.

<sup>14</sup> MTBE results from USEPA Test Method 8021B.

<sup>15</sup> Sample exhibits fuel pattern that does not resemble standard.

<sup>16</sup> Sample extracted out of hold time.

<sup>17</sup> Presence confirmed, but Relative Percent Difference (RPD) between columns exceeds 40%.

<sup>18</sup> Unmodified or weakly modified gasoline is significant.

<sup>19</sup> Liquid sample contains greater than approximately 1 vol. % sediment.

<sup>20</sup> Gasoline compounds are significant.

<sup>21</sup> Diesel range compounds are significant; no recognizable pattern.

<sup>22</sup> Heavier hydrocarbons contributed to the quantitation.

### Port of Oakland's Harbor Facilities Complex Site 555 - 651 Maritime Street Oakland, California

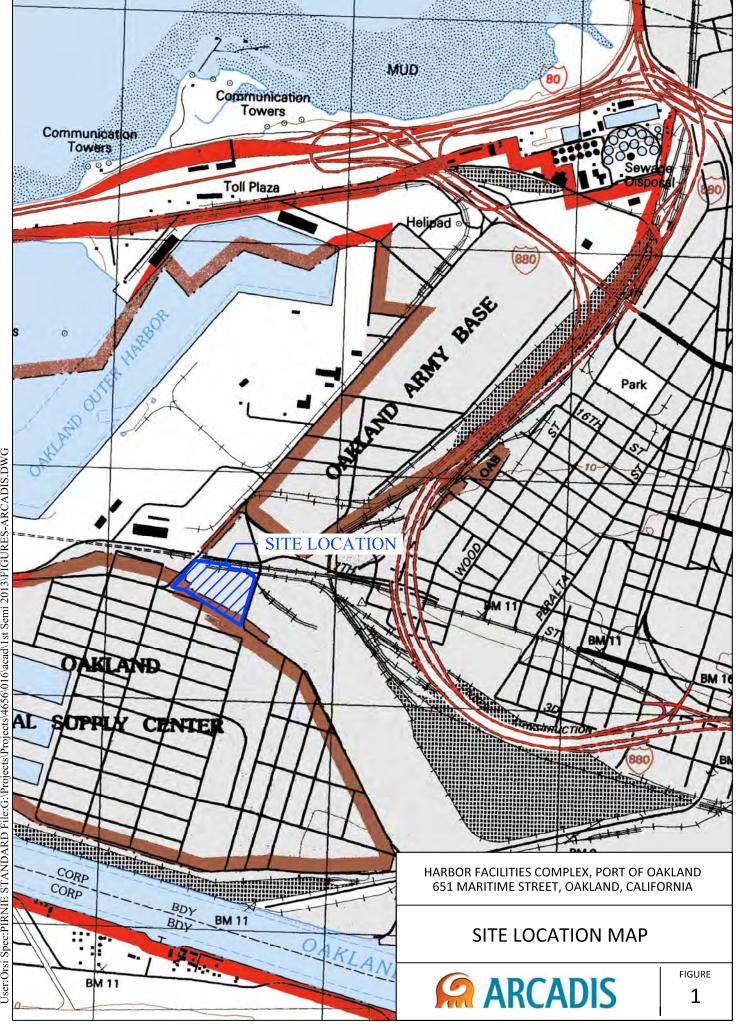
		Concentration (µg/L)							
Monitoring Well	Date Sampled	TPHq	TPHd	TPHmo	Benzene	Toluene	Ethyl- benzene	Total Xylenes	МТВЕ
Maximum Detected Concentration - All Data		3,600	41,000		740	5.5	4.5	3.0	98
Non-Drinking Water Screening Level <sup>a</sup>		500			27	130	43	100	1,800
Residential ESL for Evaluation of Vapor Intrusion Concerns <sup>b</sup>					27	95,000	310	37,000	9,900
Commercial ESL for Evaluation of Vapor Intrusion Concerns <sup>c</sup>					270	NA	3,100	NA	100,000

<sup>23</sup> Analyzed outside of hold time after confirmation of laboratory contamination by (2-ethylhexyl)phthalate.

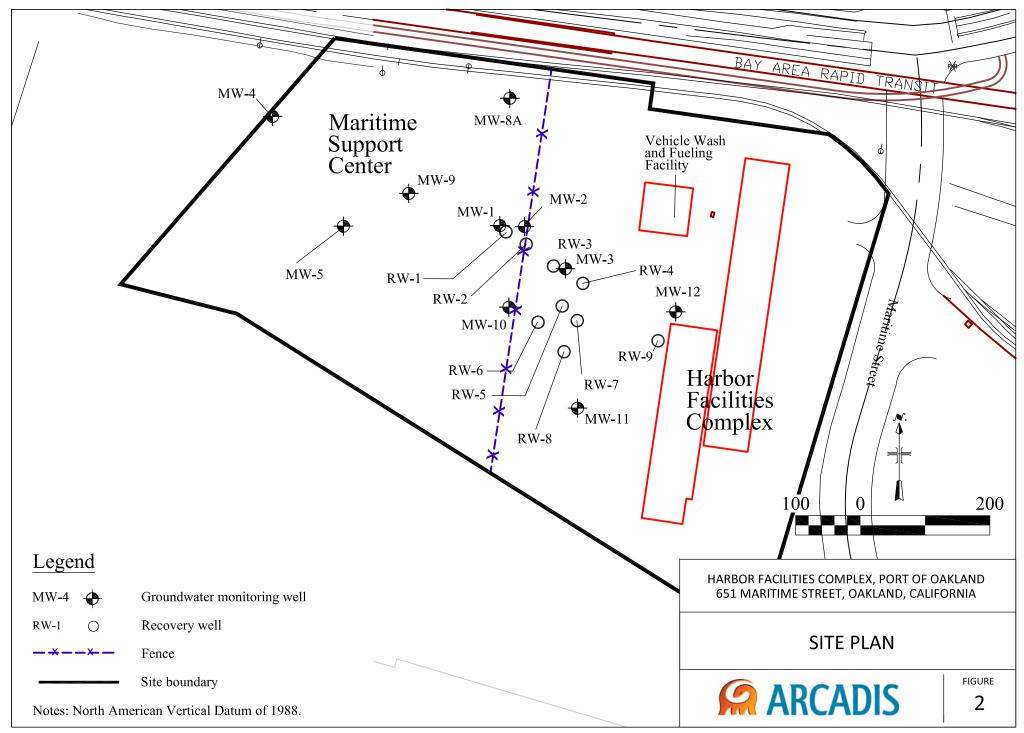
<sup>24</sup> Analyzed both pre- and post-silica gel cleanup. Post-silica gel cleanup results are reported herein. Pre-silica gel cleanup results are included in Appendix B.



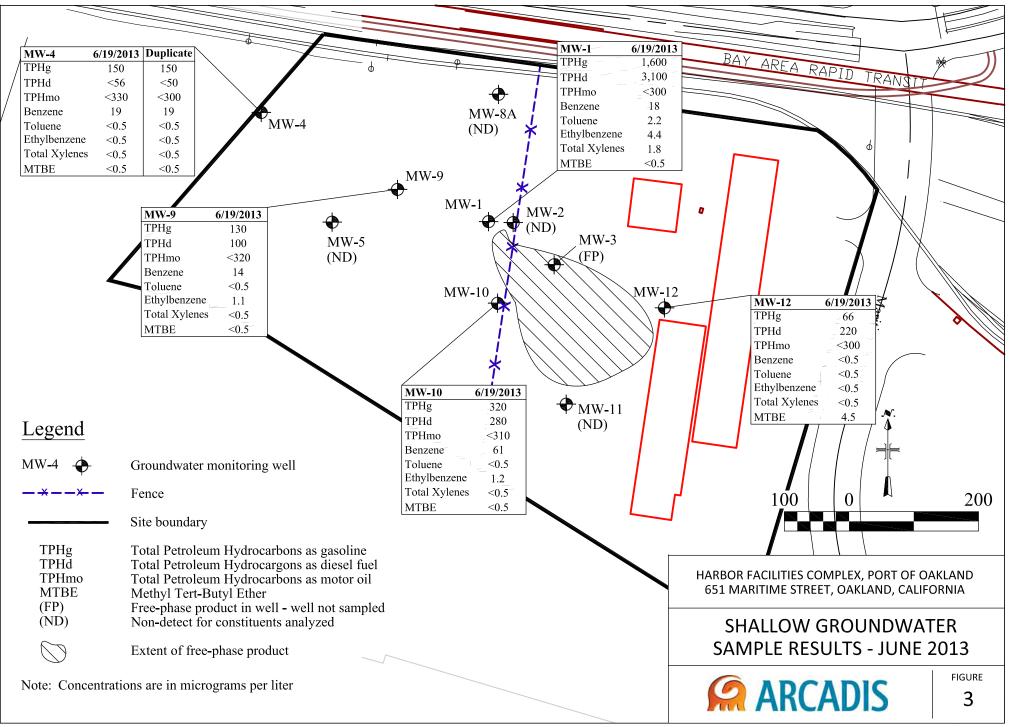
Figures



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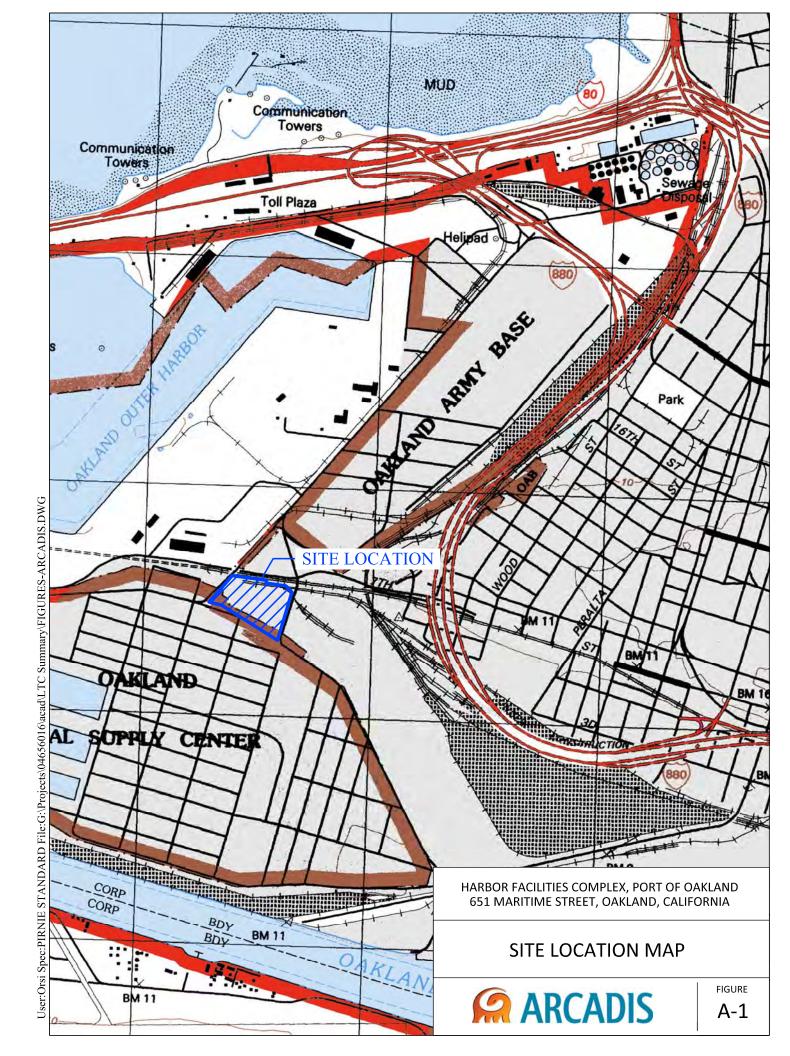
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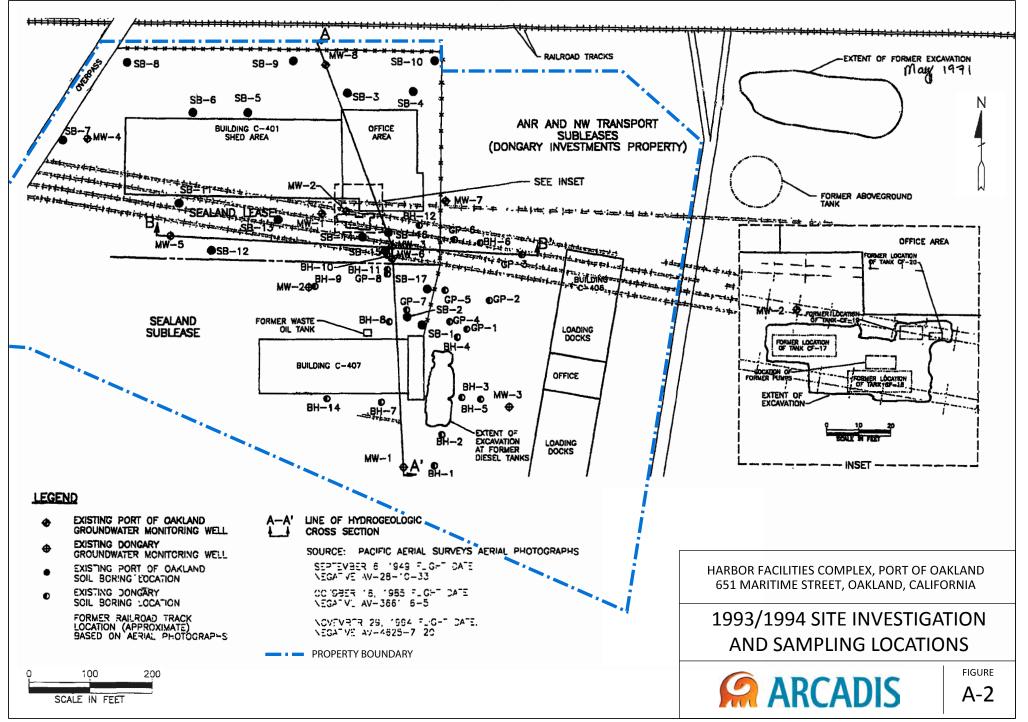


Attachments

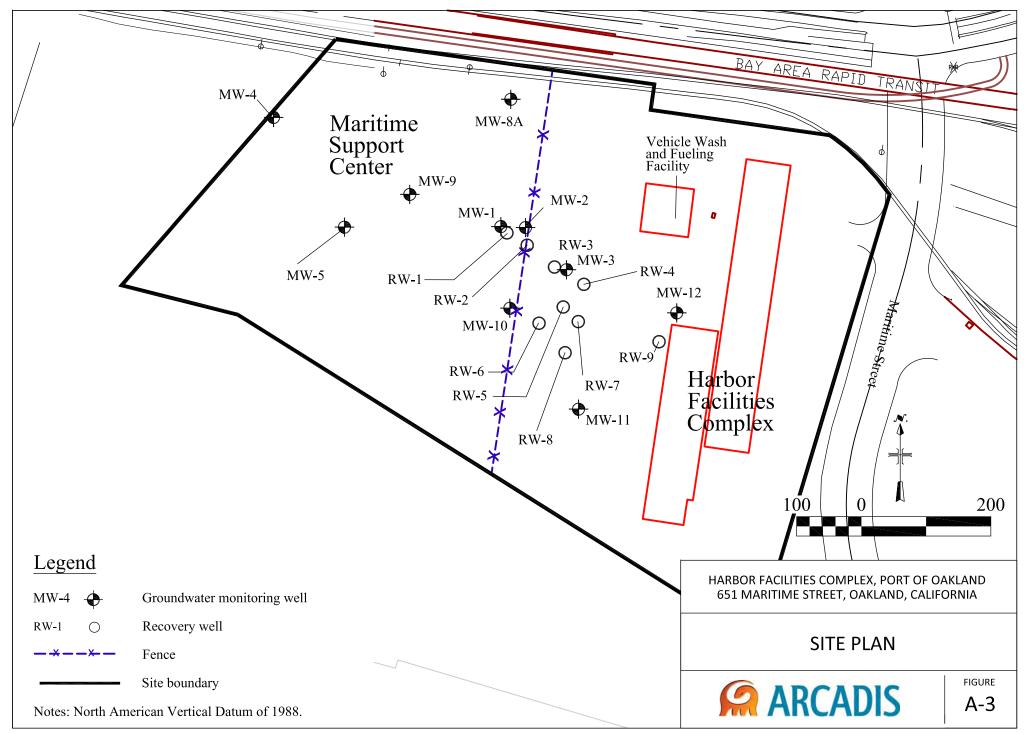


Attachment A



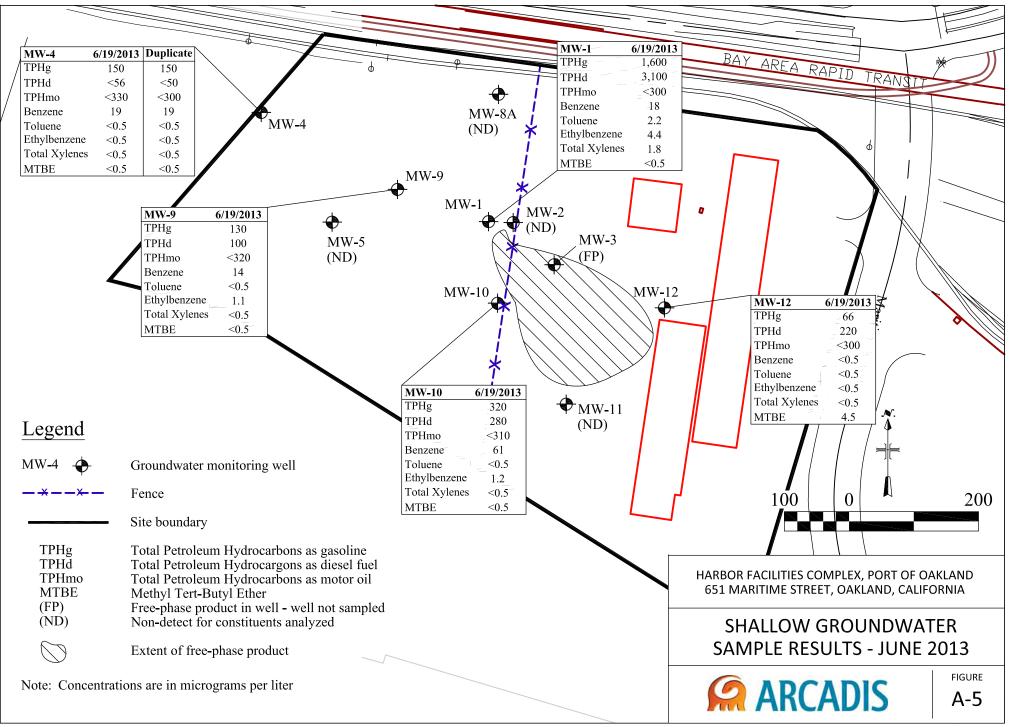


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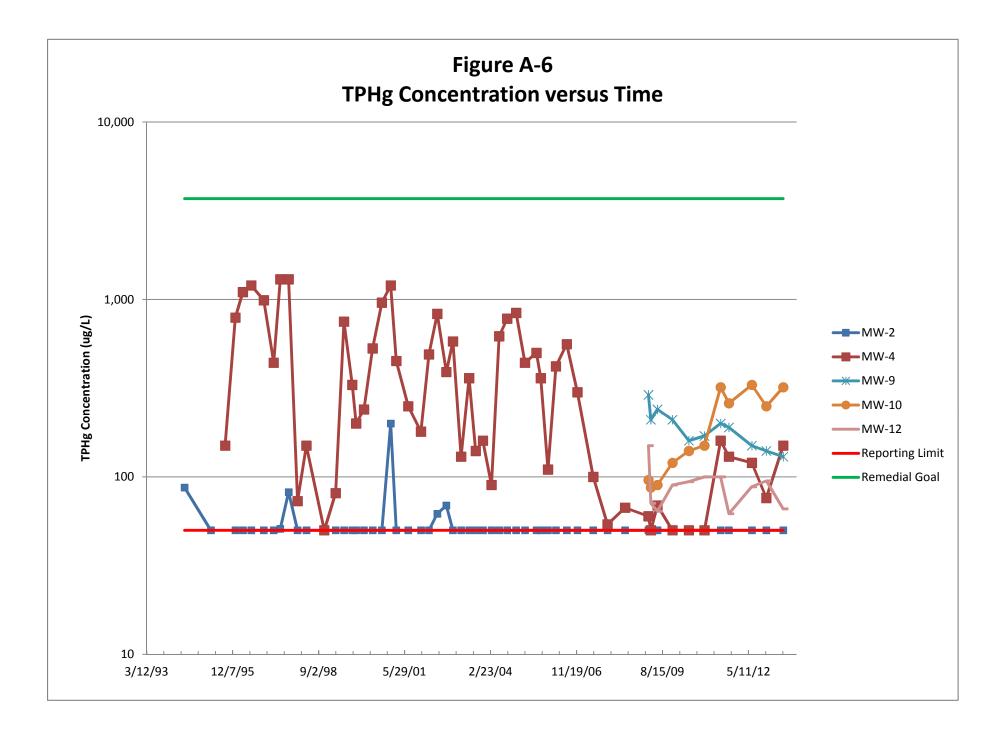


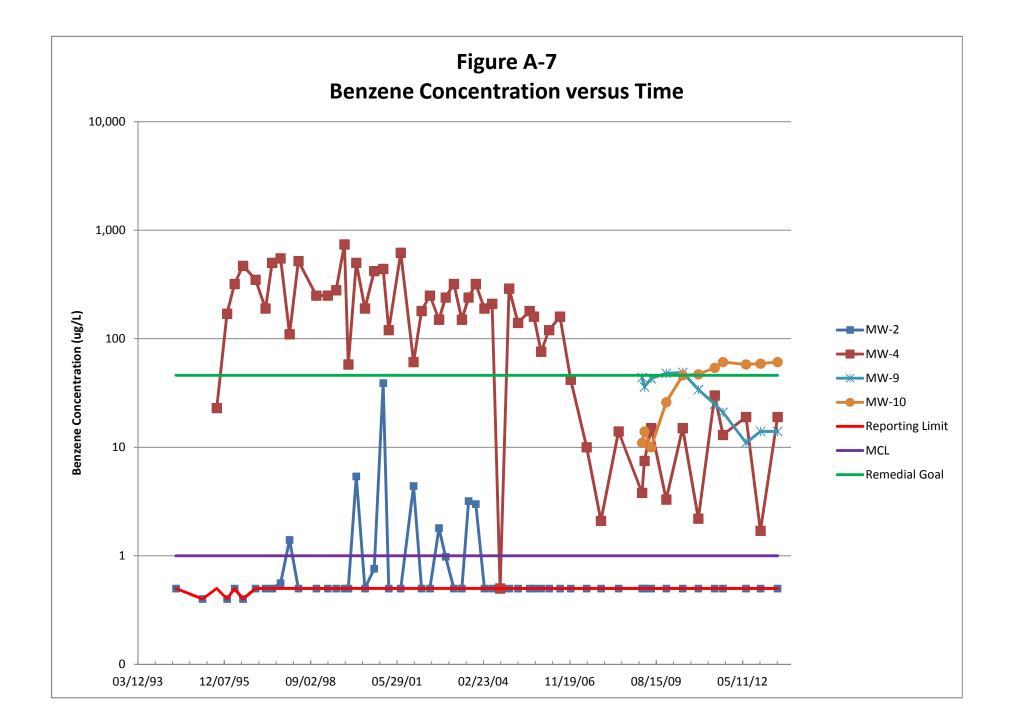
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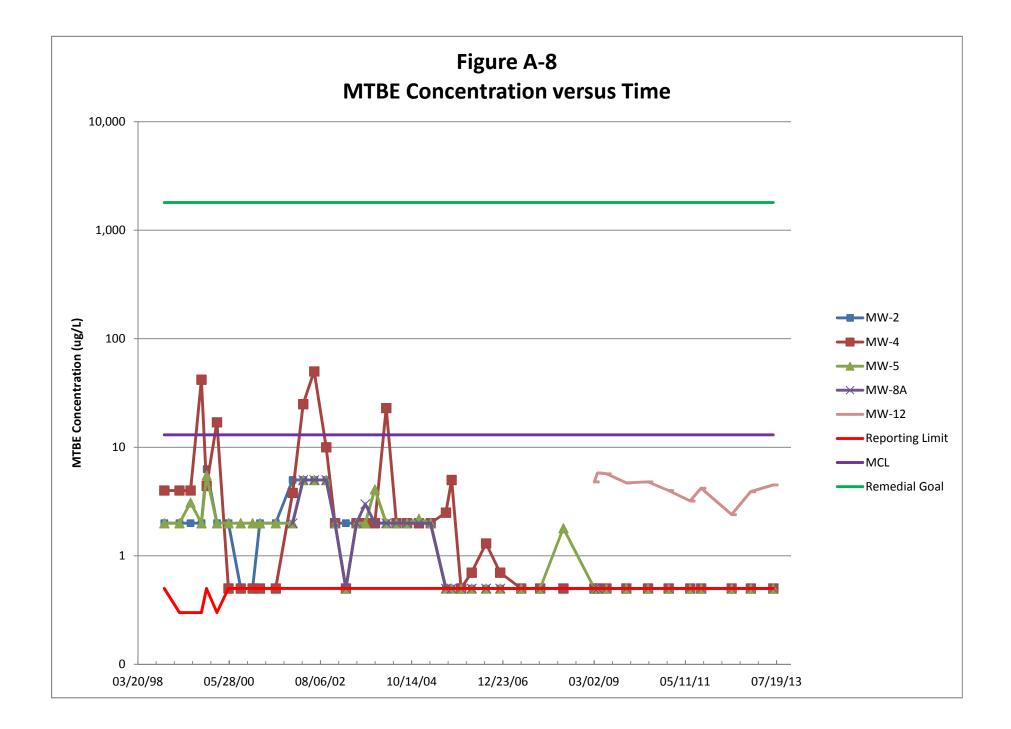


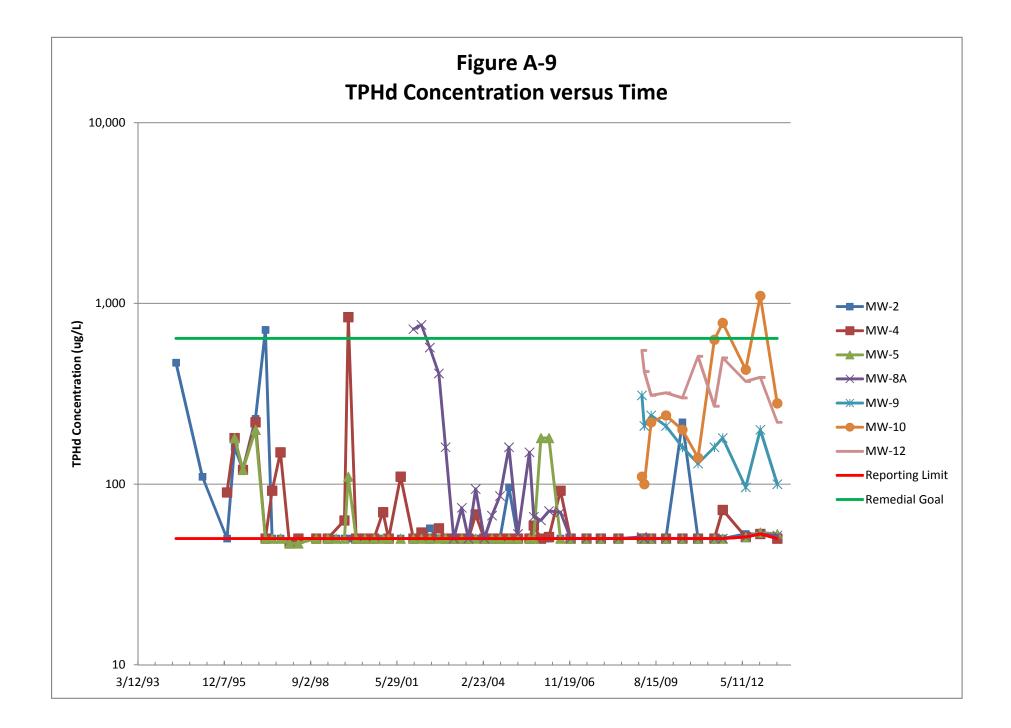


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Attachment B

## **Recording Requested By:**

[CURRENT OWNER]

When Recorded, Mail To: Mee Ling Tung, Director Alameda County Environmental Health Services 1131 Harbor Bay Parkway Alameda, California 94502

#### COVENANT AND ENVIRONMENTAL RESTRICTION ON PROPERTY

The former Shippers Imperial and Ringsby Terminal Sites formerly situated at 2277 7th Street and 2225 7th Street, Oakland, California.

This Covenant and Environmental Restriction on Property (this "Covenant"), dated as of \_\_\_\_\_\_\_, 2007, is entered into by the City of Oakland, a municipal corporation, acting by and through its Board of Port Commissioners (hereinafter "Covenantor" or "Port of Oakland") who is the owner of record of that certain property situated at a location formerly referred to as 2277 7th Street and 2225 7th Street, in the City of Oakland, County of Alameda, State of California, which is more particularly described in Exhibit A attached hereto and incorporated herein by this reference (hereinafter referred to as the "Burdened Property"), for the benefit of the Alameda County Environmental Health Services (the "County"), with reference to the following facts:

**A.** The Burdened Property and groundwater underlying the property contains hazardous materials.

**B.** Contamination of the Burdened Property. Soil at the Burdened Property was contaminated by a release, or releases, from underground storage tank(s) ("USTs"). These operations resulted in contamination of soil and groundwater with petroleum hydrocarbons containing volatile organic compounds and semi volatile organic compounds, which constitute hazardous materials as that term is defined in Health & Safety Code Section 25260. Free-phase product in the diesel hydrocarbon range is currently present at the surface of the shallow groundwater. In addition, the natural degradation of the petroleum hydrocarbons has resulted in methane vapors in the subsurface.

**C. Remediation of Contamination.** The USTs have been removed and impacted soil removed from the Burdened Property. Product recovery is being performed at the Burdened Property to remove the petroleum product from the subsurface. There are currently nine product recovery wells and product-only skimmers are being used to convey the product to an above ground storage tank ("Remedial Action"). The Remedial Action may be modified, subject to approval by the County. In addition, buildings constructed on the Burdened Property have vapor

barriers and passive venting systems below the foundations to mitigate vapor intrusion into the buildings. The surface of the Burdened Property is currently capped with asphalt.

**D. Exposure Pathways**. The contaminants addressed in this Covenant are present in soil, soil gas, and groundwater on the Burdened Property. Without the mitigation measures which have been performed on the Burdened Property, exposure to these contaminants could take place via in place contact or vapor migration, resulting in dermal contact, inhalation, or ingestion by humans. The risk of public exposure to the contaminants has been substantially lessened by the remediation and controls described herein.

**E.** Adjacent Land Uses and Population Potentially Affected. The Burdened Property is used for support of Port of Oakland maintenance activities and is adjacent to industrial, transportation-related land uses.

**F. Disclosure.** Full and voluntary disclosure to the County of the presence of hazardous materials on the Burdened Property has been made and extensive sampling of the Burdened Property has been conducted.

**G. Intent.** Covenantor desires and intends that in order to benefit the County, and to protect the present and future public health and safety, the Burdened Property shall be used in such a manner as to avoid potential harm to persons or property that may result from hazardous materials that may have been released or deposited on portions of the Burdened Property.

# ARTICLE I GENERAL PROVISIONS

**1.1 Provisions to Run with the Land**. This Covenant sets forth protective provisions, covenants, conditions and restrictions (collectively referred to as "Restrictions") upon and subject to which the Burdened Property and every portion thereof shall be improved, held, used, occupied, leased, sold, hypothecated, encumbered, and/or conveyed. The restrictions set forth in Article III are reasonably necessary to protect present and future human health and safety or the environment as a result of the presence on the land of hazardous materials. Each and all of the Restrictions shall run with the land, and pass with each and every portion of the Burdened Property, and shall apply to, inure to the benefit of, and bind all Owners and Occupants (as defined in Article II) and successive Owners and Occupants of the Burdened Property, hereof, for the benefit of the County and all Owners and Occupants. Each and all of the Restrictions are imposed upon the entire Burdened Property unless expressly stated as applicable to a specific portion of the Burdened Property. Each and all of the Restrictions run with the land pursuant to section 1471 of the Civil Code. Each and all of the Restrictions are enforceable by the County.

**1.2 Incorporation into Deeds and Leases**. Covenantor desires and covenants that the Restrictions set out herein shall be incorporated in and attached to each and all future deeds and leases of any portion of the Burdened Property. Recordation of this Covenant shall be deemed binding on all Owners and Occupants, regardless of whether a copy of this Covenant is attached to or incorporated into any future deed or lease concerning the Burdened Property.

**1.3 Purpose**. It is the purpose of this instrument to convey to the County real property rights, which will run with the land, to facilitate the remediation of past environmental

contamination and to protect human health and the environment by reducing the risk of exposure to residual hazardous materials.

# ARTICLE II DEFINITIONS

**2.1 County**. "County" shall mean the Alameda County Environmental Health Services and shall include its successor agencies, if any.

**2.2 Improvements**. "Improvements" shall mean all buildings, roads, driveways, regradings, and paved parking areas, constructed or placed upon any portion of the Burdened Property.

**2.3** Occupants. "Occupants" shall mean Owners and those persons entitled by ownership, leasehold, or other legal relationship to the exclusive right to use and/or occupy all or any portion of the Burdened Property.

**2.4 Owner or Owners**. "Owner" or "Owners" shall mean the Covenantor and/or its successors in interest, who hold title to all or any portion of the Burdened Property.

**2.5** Cap. "Cap" means the continuous asphalt or concrete pavement covering the same boundaries as the Burdened Property

**2.6 Risk Management Plan.** "Risk Management Plan" means a plan to identify measures for managing risks associated with residual contaminants at the Burdened Property.

# ARTICLE III DEVELOPMENT, USE AND CONVEYANCE OF THE BURDENED PROPERTY

**3.1 Restrictions on Development and Use**. Covenantor promises to restrict the use of the Burdened Property as follows:

(a) No residence for human habitation shall be permitted on the Burdened Property;

(b) No hospitals for humans shall be permitted on the Burdened Property;

(c) No schools for persons under 21 years of age shall be permitted on the Burdened Property; and

(d) No day care centers for children or day care centers for Senior Citizens shall be permitted on the Burdened Property;

# **3.2 Prohibitive Activities:**

(a) Except as otherwise provided by subsections (b) through (h) below, no Owners or Occupants of the Burdened Property, or any portion thereof, shall conduct any excavation work on the Burdened Property in such a way that will disturb contaminated soil or interfere with the integrity of the existing Cap if it will expose contaminated soil. Clean soil, clean fill, base rock the aggregate base, asphalt and concrete that is placed on top of the contaminated soil may be disturbed if the contaminated soil is not disturbed or exposed;

(b) The Burdened Property shall be used and developed in a way that preserves the integrity of the Cap installed on the Burdened Property. Contaminated soil shall not be disturbed without a Risk Management Plan submitted to the County for review and approval;

(c) The Owner shall provide the County written notice at least thirty (30) days prior to any activities which will disturb the Cap and expose the underlying contaminated soils;

(d) Emergency Response Action/Notification: Subsection (c) of this Section 3.2 shall not apply in the event of any emergency or time-sensitive action or occurrence (such as a fire, earthquake, explosion, equipment or utility failure or malfunction) which requires breaching the Cap (hereinafter referred to as "Emergency Event"). However, the Owner shall immediately take all appropriate action to prevent, abate, or minimize any release associated with such Emergency Event and shall immediately notify the County of the Emergency Event. The Owner shall take such appropriate action in accordance with all applicable provisions of this Covenant. Within seven (7) days of the onset of such Emergency Event, Owner shall furnish a report to the County, signed by the Owner, describing the Emergency Event and the measures taken in response thereto. Nothing in this section shall be deemed to limit any other notification requirement to which the Owner may be subject under the Covenant;

(e) The Owner shall inspect and maintain improvements constructed on the Burdened Property as provided in the Risk Management Plan;

(f) The Owner shall notify the County of each of the following: (i) the type, cause, location and date of any damage to the Cap; and (ii) the type and date of repair of such damage. Notification to the County shall be made as provided below within ten (10) working days of both the discovery of any such disturbance and the completion of any repairs;

(g) The Owner shall not extract the groundwater for purposes other than site remediation or construction dewatering;

(h) Owner agrees that the County, and/or any persons acting pursuant to County cleanup orders, shall have reasonable access to the Burdened Property for the purposes of inspection, surveillance, maintenance, or monitoring, as provided for in Division 7 of the Water Code; and

(i) No Owner or Occupant of the Burdened Property shall act in any manner that will aggravate or contribute to the existing environmental conditions of the Burdened Property.

**3.3 Enforcement**. Failure of an Owner or Occupant to comply with any of the restrictions, as set forth in paragraph 3.2, shall be grounds for the County, by reason of this Covenant, to have the authority to require that the Owner modify or remove any Improvements constructed in violation of that paragraph. Violation of the Covenant shall be grounds for the County to file civil actions against the Owner as provided by law.

**3.4** Notice in Agreements. After the date of recordation hereof, all Owners and Occupants shall execute a written instrument which shall accompany all future purchase agreements or leases relating to the Burdened Property. Any such instrument shall contain the following statement:

The land described herein contains hazardous materials in soils and in the ground water under the property, and is subject to a deed restriction dated as of \_\_\_\_\_\_, 2007, and recorded on \_\_\_\_\_\_, 2007, in the Official Records of \_\_\_\_\_\_ County, California, as Document No. \_\_\_\_\_, which Covenant and Restriction imposes certain covenants, conditions, and restrictions on usage of the property described herein. This statement is not a declaration that a hazard exists.

# ARTICLE IV VARIANCE AND TERMINATION

**4.1 Variance**. Any Owner or, with the Owner's consent, any Occupant of the Burdened Property or any portion thereof may apply to the County for a written variance from the provisions of this Covenant.

**4.2** Termination. Any Owner or, with the Owner's consent, any Occupant of the Burdened Property or a portion thereof may apply to the County for a termination of the Restrictions as they apply to all or any portion of the Burdened Property.

**4.3** Term. Unless terminated in accordance with paragraph 4.2 above, by law or otherwise, this Covenant shall continue in effect until the County approves a termination of the Restrictions.

# ARTICLE V MISCELLANEOUS

**5.1** No Dedication Intended. Nothing set forth herein shall be construed to be a gift or dedication, or offer of a gift or dedication, of the Burdened Property or any portion thereof to the general public.

**5.2** Notices. Whenever any person gives or serves any notice, demand, or other communication with respect to this Covenant, each such notice, demand, or other

communication shall be in writing and shall be deemed effective (1) when delivered, if personally delivered to the person being served or official of a government agency being served, or (2) three (3) business days after deposit in the mail if mailed by United States mail, postage paid certified, return receipt requested:

If To: "Covenantor"

Director on Engineering Port of Oakland 530 Water Street Oakland, CA 94804

With copies to:

Michele Heffes Deputy Port Attorney Port of Oakland 530 Water Street Oakland, CA 94804

And

Christine K. Noma Wendel Rosen Black & Dean, LLP 1111 Broadway, 24th Floor Oakland, CA 94607

If To: "County" Alameda County Environmental Health Services Attention: Director 1131 Harbor Bay Parkway Alameda, California 94502

**5.3 Partial Invalidity**. If any portion of the Restrictions or terms set forth herein is determined to be invalid for any reason, the remaining portion shall remain in full force and effect as if such portion had not been included herein.

**5.4** Article Headings. Headings at the beginning of each numbered article of this Covenant are solely for the convenience of the parties and are not a part of the Covenant.

**5.5 Recordation**. This instrument shall be executed by the Covenantor and by the Director of Environmental Health Services. This instrument shall be recorded by the Covenantor in the County of Alameda within ten (10) days of the date of execution.

**5.6 References**. All references to Code sections include successor provisions.

**5.7 Construction**. Any general rule of construction to the contrary notwithstanding, this instrument shall be liberally construed in favor of the Covenant to effect the purpose of this instrument and the policy and purpose of the Water Code. If any provision of this instrument is found to be ambiguous, an interpretation consistent with the purpose of this instrument that would render the provision valid shall be favored over any interpretation that would render it invalid.

IN WITNESS WHEREOF, the parties execute this Covenant as of the date set forth above.

Covenantor:

CITY OF OAKLAND, A municipal corporation, Acting by and through its Board of Port Commissioners\_\_\_\_\_

By Omar Benjamin Title: Executive Director\_\_\_\_\_ Date: \_\_\_\_\_

THIS AGREEMENT SHALL NOT BE VALID OR EFFECTIVE FOR ANY PURPOSE UNLESS AND UNTIL IT IS SIGNED BY THE PORT ATTORNEY

Approved as to form and legality this \_\_\_\_\_ day of \_\_\_\_\_, 2007

Port Attorney

Port Resolution No. \_\_\_\_\_ PA#\_\_\_\_

Agency: Alameda County Environmental Health Services

 STATE OF CALIFORNIA )
)
COUNTY OF \_\_\_\_\_)

On \_\_\_\_\_\_, 20\_\_\_ before me, the undersigned a Notary Public in and for said state, personally appeared [Covenantor], personally known to me or proved to me on the basis of satisfactory evidence to be the person who executed the within instrument.

WITNESS my hand and official seal.

Notary Public in and for said County and State

STATE OF CALIFORNIA )
)
COUNTY OF \_\_\_\_\_)

On \_\_\_\_\_\_, 20\_\_\_ before me, the undersigned a Notary Public in and for said state, personally appeared [DIRECTOR], personally known to me or proved to me on the basis of satisfactory evidence to be the person who executed the within instrument.

WITNESS my hand and official seal.

Notary Public in and for said County and State

# EXHIBIT A

LEGAL DESCRIPTION OF PROPERTY

Ringsby Lease 12/1/2006 Page 1 of 2

# **Exhibit "B"** Original Combined Ringsby/Railway Leases

All that real property in the City of Oakland, County of Alameda, State of California, being that parcel described in that lease between the City of Oakland and Railway Express Agency, Incorporated, recorded on March 26, 1962 in Reel 544, Image 811 (hereafter referred to as the Railway Lease), together with that parcel described in that lease between the City of Oakland and Ringsby Pacific Ltd., a corporation, recorded January 3, 1968 in Reel 2103, Image 117 (hereafter referred to as the Ringsby Lease), Official Records of said County, described as follows:

COMMENCING at Monument No. 8, a standard City of Oakland frame and casting monument on the monument line of 7<sup>th</sup> Street, west of West Maritime Street, in the Port of Oakland, as said monument is shown on Record of Survey No. 1602, filed in Book 23 of Record of Survey Maps, Page 69, Office of the Recorder of said County; thence, along said monument line, South 81°57'10" East 1311.08 feet to its intersection with the "Agreed Low Tide Line of May 4, 1852" as said tide line is described in Section 3 of Ordinance No. 3197 of the City of Oakland, California, approved November 23, 1910; thence, along said tide line, South 41°00'50" West 65.55 feet to an angle point in said tide line, said angle point being on the southerly line of 7<sup>th</sup> Street, being also the northern boundary line of that certain expired franchise granted to the Southern Pacific Company by the City of Oakland by Council Ordinance No. 3197; thence, along the southerly line of 7th Street, North 81°57'10" West 19.61 feet to the southeastern line of that 10 foot wide strip of land described in the Grant of Easement from the City of Oakland to the United States of America dated December 5, 1955 and recorded March 28, 1956 in Book 7981 of Official Records of Alameda County, at page 401; thence, along said southeastern line, South 41°00'56" West 60.78 feet to the northwesterly corner of said Railway Lease, said corner being the **POINT OF BEGINNING** for this description; thence, continuing along said southeastern line, and along the westerly line of said Railway Lease, South 41°00'56" West 381.36 feet to the southwesterly corner of said Railway Lease, said corner also being the northwesterly corner of said Ringsby Lease; thence, along the southwesterly line of said Ringsby Lease, South 41°00'56" West 122.62 feet to the southwesterly corner of said Ringsby Lease; thence, along the southwesterly, easterly, and northerly lines of said Ringsby Lease, the following five courses: 1) along the property line common to the Port and the U.S. Navy Supply Center, South 75°50'44" East 184.94 feet; 2) continuing along said common line, South 57°51'32" East 945.86 feet to the southeasterly corner of said Ringsby Lease, said corner being

Ringsby Lease 12/1/2006 Page 2 of 2

a point on said tide line; 3) along said tide line, and along the common line between the Port and Southern Pacific Company, North 16°40'16" East 718.80 feet to the northeasterly corner of said Ringsby Lease, said corner being a point that bears South 16°40'16" West 170.79 feet from an angle point in said tide line, said corner also being a point on a non-tangent curve, concave southwesterly, having a radius of 372.21 feet and a central angle of 20°05'13" from which the radius point bears South 54°56'49" West; 4) along said curve to the left, an arc distance of 130.49 feet to the intersection of a line that is parallel with, and 91 feet perpendicularly distant, from said southerly line of 7<sup>th</sup> Street; 5) along said parallel line, North 81°56'44" West 279.85 feet to an angle point in the northerly line of said Ringsby Lease, said angle point being a point on the easterly line of said Railway Lease; thence, along said easterly line, North 8°03'16" East 40.00 feet to the northeasterly corner of said Railway Lease; thence, along the northerly line of said Railway Lease, North 81°56'44" West 497.15 feet to the **POINT OF BEGINNING**. Contains approximately 602,440 square feet (13.83± acres).

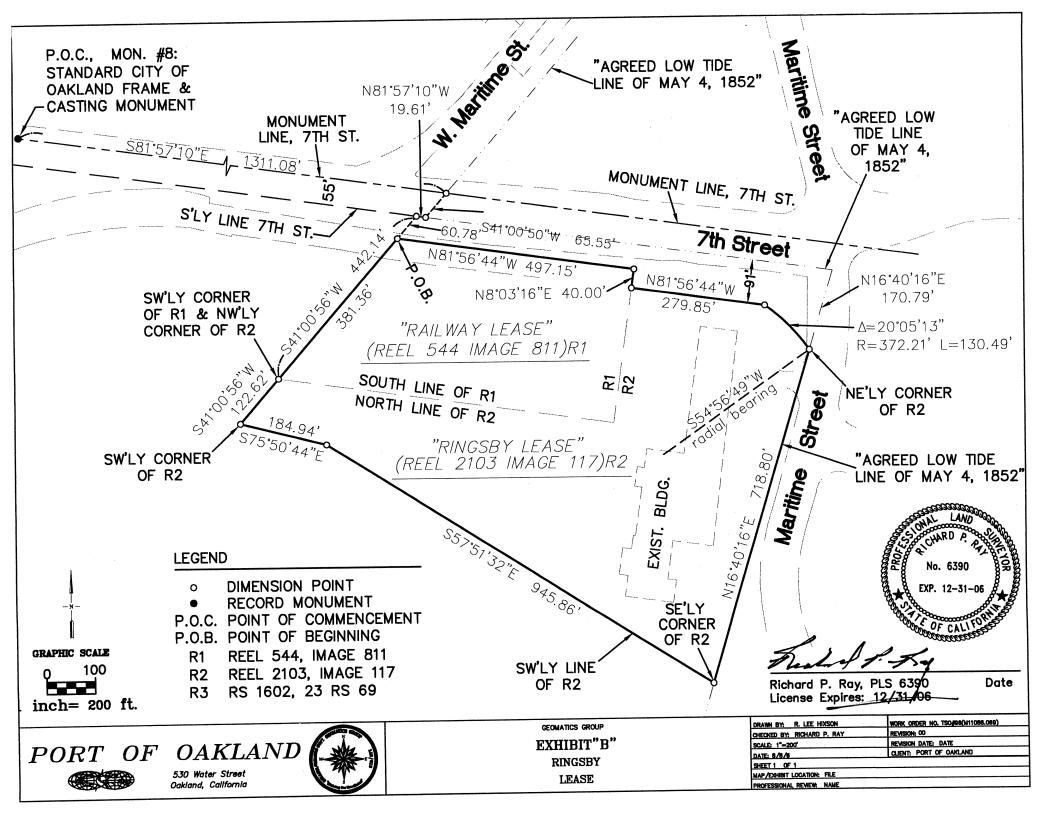
Basis of Bearings. The bearings and distances in this description are based on the California Coordinate System of 1983, Zone 3. Multiple the grid distances contained herein by 1.0000703 to obtain ground distances. See the attached drawing, "Exhibit B", which is hereby made a part of this description.

#### **End of Description**

Surveyor's Statement

This description was prepared pursuant to Section 8726 of the Business and Professions Code of the State of California by, or under the supervision of:

Richard P. Ray, PLS 6390 License Expires: 12/31/2006





Attachment C

# Table 1Analytical Results for Soil Samples2225 and 2277 Seventh Street, Oakland, California

Sample ID		Units	Gasoline *	* Diesel**	Motor Oil **	Benzene	Toluene	Ethylbenzene	Xylene(s)	мтве
	Date									
PZ-A 1.0-1.5'	2/11/02	mg/kg	< 1.0	4.9	< 50	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
PZ-A 3.0-3.5'	2/11/02	mg/kg	< 1.0	2.2	< 50	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
PZ-A 5.0-5.5'	2/11/02	mg/kg	< 1.0	< 1.0	< 50	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
PZ-B 1.0-1.5'	2/12/02	mg/kg	< 1.0	120	360	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
PZ-B 3.0-3.5'	2/12/02	mg/kg	< 1.0	2.2	< 50	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
PZ-B 7.0-7.5'	2/12/02	mg/kg	< 1.0	< 1.0	< 50	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
PZ-C 1.0-1.5'	2/12/02	mg/kg	< 1.0	4.7	< 50	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
PZ-C 3.0-3.5'	2/12/02	mg/kg	< 1.0	3.1	< 50	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
PZ-C 5.5-6.0'	2/11/02	mg/kg	74	2300	< 2500	< 0.62	< 0.62	< 0.62	1.3	< 0.62
PZ-D 1.0-1.5'	2/12/02	mg/kg	< 1.0	3.2	< 50	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
PZ-D 3.0-3.5'	2/12/02	mg/kg	< 1.0	22	62	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
PZ-D 5.0-5.5'	2/11/02	mg/kg	140	7700	< 5000	< 0.62	< 0.62	< 0.62	< 0.62	< 0.62
PZ-E 1.0-1.5'	2/13/02	mg/kg	< 1.0	19	< 50	< 0.0051	< 0.0051	< 0.0051	< 0.0051	< 0.0051
PZ-E 3.0-3.5'	2/13/02	mg/kg	< 1.0	17	< 50	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
PZ-E 5.5-6.0'	2/13/02	mg/kg	280	20000	< 5000	< 0.62	< 0.62	< 0.62	< 0.62	< 0.62
PZ-F 1.0-1.5'	2/12/02	mg/kg	4.8	41	< 250	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
PZ-F 3.0-3.5'	2/12/02	mg/kg	< 1.0	2.4	< 50	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
PZ-F 5.0-5.5'	2/11/02	mg/kg	1.0	83	170	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050

#### Notes and Abbreviations:

PZ = peizometer

MTBE = methyl t-butyl ether

mg/kg = milligrams per kilogram

\* Gasoline was analyzed using EPA Method 8015B (purgeables)

\*\* Diesel and motor oil were analyzed using EPA Method 8015B with silica gel cleanup

### TABLE 5: SOIL CHEMICAL TEST RESULTS - Volatile Organic Compounds

Phase II Environmental Site Assessment

Future Port Field Support Services Complex

Port of Oakland

Oakland, California

LOCATION MATRIX	MFC-01 Soil	MFC-01 Soil	MFC-01 Soil	MFC-02 Soil	MFC-02 Soil
COLLECTION DATE	3/27/02	3/27/02	3/27/02	3/27/02	3/27/02
DEPTH <sup>(1)</sup>	1.0	2.0	4.0	1.5	4.5
UNITS	μg/kg	µg/kg	µg/kg	µg/kg	µg/kg
1,1,1,2-Tetrachloroethane	-	< 5.0	< 5.0	-	< 5.0
1,1,1-Trichloroethane	-	< 5.0	< 5.0	-	< 5.0
1,1,2,2-Tetrachloroethane	-	< 5.0	< 5.0		< 5.0
1,1,2-Trichloroethane		< 5.0	< 5.0	-	< 5.0
1,1-Dichloroethane	4 <del>4</del> 7	< 5.0	< 5.0	-	< 5.0
1,1-Dichloroethene		8.1	< 5.0		< 5.0
1,1-Dichloropropene	(14)	< 5.0	< 5.0		< 5.0
1,2,3-Trichlorobenzene		< 5.0	< 5.0	-	< 5.0
1,2,4-Trichlorobenzene		< 5.0	< 5.0		< 5.0
1,2,4-Trimethylbenzene	-11-11-11-11-11-11-11-11-11-11-11-11-11	< 5.0	< 5.0	- C.	< 5.0
1,2-Dibromo-3-chloropropane		< 50	< 50		< 50
1,2-Dibromoethane		< 10	< 10	· · · ·	< 10
1,2-Dichlorobenzene		< 5.0	< 5.0	Sec. 1	< 5.0
1,2-Dichloroethane		< 5.0	< 5.0	6)	< 5.0
1,2-Dichloropropane	÷	< 5.0	< 5.0		< 5.0
1,3,5-Trimethylbenzene		< 5.0	< 5.0		< 5.0
1,3-Dichlorobenzene	+-	< 5.0	< 5.0		< 5.0
1,3-Dichloropropane		< 5.0	< 5.0		< 5.0
1,4-Dichlorobenzene		< 5.0	< 5.0	-	< 5.0
2,2-Dichloropropane	( ( <del></del> )	< 5.0	< 5.0		< 5.0
2-Butanone(MEK)		< 50	< 50		< 50
2-Chloroethylvinyl ether	142	< 50	< 50		< 50
2-Chlorotoluene		< 5.0	< 5.0		< 5.0
2-Hexanone		< 50	< 50	1	< 50
I-Chlorotoluene	<del>24</del> 0	< 5.0	< 5.0	cé a	< 5.0
-Methyl-2-pentanone (MIBK)	÷.	< 50	< 50		< 50
Acetone	-	< 50	210		< 50
Benzene	< 0.0050	7.6	< 5.0	< 0.0050	< 5.0
Bromobenzene	1.4	< 5.0	< 5.0		< 5.0
Bromochloromethane	,	< 20	< 20		< 20
Bromodichloromethane		< 5.0	< 5.0		< 5.0
Bromoform		< 5.0	< 5.0		< 5.0
Bromomethane	- <del>2</del> 5	< 10	< 10		< 10
Carbon disulfide		< 5.0	< 5.0		< 5.0
Carbon tetrachloride		< 5.0	< 5.0		< 5.0
Chlorobenzene		7.8	< 5.0	1	< 5.0
Chloroethane		< 10	< 10	-	< 10
Chloroform		< 5.0	< 5.0		< 5.0
Chloromethane		< 10	< 10	1.1	< 10
is-1,2-Dichloroethene	0.000	< 5.0	< 5.0	122	< 5.0
is-1,3-Dichloropropene		< 5.0	< 5.0	0400	< 5.0
Dibromochloromethane	÷+.	< 5.0	< 5.0		< 5.0
Dibromomethane	1.2.2	< 10	< 10	1	< 10
Dichlorodifluoromethane		< 10	< 10		< 10
i-Isopropyl Ether (DIPE)		- 22			
Sthanol				÷	· · · · · ·
thyl tert-Butyl Ether (ETBE)		÷			-
Sthylbenzene	< 0.0050	< 5.0	< 5.0	< 0.0050	< 5.0
Iexachlorobutadiene		< 5.0	< 5.0		< 5.0
sopropylbenzene	<u> </u>	< 5.0	< 5.0		< 5.0
Aethylene chloride	1	< 5.0	< 5.0		< 5.0
ATBE		< 5.0	< 5.0	-	< 5.0

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**IRIS ENVIRONMENTAL** 

#### TABLE 5: SOIL CHEMICAL TEST RESULTS - Volatile Organic Compounds

Phase II Environmental Site Assessment

**Future Port Field Support Services Complex** 

Port of Oakland

Oakland, California

LOCATION	MFC-01	MFC-01	MFC-01	MFC-02	MFC-02
MATRIX	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/27/02	3/27/02	3/27/02	3/27/02	3/27/02
DEPTH <sup>(1)</sup>	1.0	2.0	4.0	1.5	4.5
UNITS	µg/kg	µg/kg	μg/kg	µg/kg	µg/kg
(Continued)					
Naphthalene		< 10	< 10		< 10
n-Butylbenzene	- 44	< 5.0	< 5.0		< 5.0
n-Propylbenzene		< 5.0	< 5.0	0.000	< 5.0
p-Isopropyltoluene	÷÷/	< 5.0	< 5.0	0.44	< 5.0
sec-Butylbenzene		< 5.0	< 5.0		< 5.0
Styrene		< 5.0	< 5.0		< 5.0
tert-Amyl Ethyl Ether (TAME)				-	
tert-Butylbenzene	(++)	< 5.0	< 5.0		< 5.0
Tertiary Butanol (TBA)				-	
Tetrachloroethene	a de la compañía de l	< 5.0	< 5.0	14 million (1997)	< 5.0
Toluene	< 0.0050	8.2	< 5.0	< 0.0050	< 5.0
trans-1,2-Dichloroethene		< 5.0	< 5.0	÷	< 5.0
trans-1,3-Dichloropropene	-	< 5.0	< 5.0		< 5.0
Trichloroethene		7.9	< 5.0	÷.	< 5.0
Trichlorofluoromethane	1.22	< 5.0	< 5.0		< 5.0
Trichlorotrifluoroethane		< 5.0	< 5.0		< 5.0
Vinyl acetate	÷÷	< 50	< 50	÷÷.	< 50
Vinyl chloride		< 5.0	< 5.0		< 5.0
Xylenes (Total)	< 0.0050	< 5.0	< 5.0	< 0.0050	< 5.0

#### Notes:

(1) Soil samples collected in sixinch tubes beginning with the depth indicated in feet below ground surface (bgs)

Samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260 (B).

-- = Not Analyzed

µg/kg = micrograms per kilogram

# TABLE 5: SOIL CHEMICAL TEST RESULTS - Volatile Organic Compounds Phase II Environmental Site Assessment

Future Port Field Support Services Complex

Port of Oakland

Oakland, California

LOCATION	MFC-02	MFC-03	MFC-03	MFC-03	MFC-04
MATRIX	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/27/02	3/27/02	3/27/02	3/27/02	3/27/02
DEPTH <sup>(1)</sup>	5.5	1.5	4.5	7.5	5.0
UNITS	µg/kg	µg/kg	μg/kg	µg/kg	μg/kg
1,1,1,2-Tetrachloroethane	< 5.0	<u></u>	< 5.0	< 5.0	< 5.0
1,1,1-Trichloroethane	< 5.0		< 5.0	< 5.0	< 5.0
1,1,2,2-Tetrachloroethane	< 5.0		< 5.0	< 5.0	< 5.0
1,1,2-Trichloroethane	< 5.0	2-14	< 5.0	< 5.0	< 5.0
1,1-Dichloroethane	< 5.0	<del>to</del> a	< 5.0	< 5.0	< 5.0
1,1-Dichloroethene	< 5.0	÷.	< 5.0	< 5.0	< 5.0
1,1-Dichloropropene	< 5.0		< 5.0	< 5.0	< 5.0
1,2,3-Trichlorobenzene	< 5.0	<del></del>	< 5.0	< 5.0	< 5.0
1,2,4-Trichlorobenzene	< 5.0	440	< 5.0	< 5.0	< 5.0
1,2,4-Trimethylbenzene	< 5.0		< 5.0	< 5.0	19
1,2-Dibromo-3-chloropropane	< 50	<del></del> )	< 50	< 50	< 50
1,2-Dibromoethane	< 10		< 10	< 10	< 10
1,2-Dichlorobenzene	< 5.0		< 5.0	< 5.0	< 5.0
1,2-Dichloroethane	< 5.0	-112 ·	< 5.0	< 5.0	< 5.0
1,2-Dichloropropane	< 5.0		< 5.0	< 5.0	< 5.0
1,3,5-Trimethylbenzene	< 5.0	22).	< 5.0	< 5.0	5.7
1,3-Dichlorobenzene	< 5.0		< 5.0	< 5.0	< 5.0
1,3-Dichloropropane	< 5.0		< 5.0	< 5.0	< 5.0
1,4-Dichlorobenzene	< 5.0		< 5.0	< 5.0	< 5.0
2,2-Dichloropropane	< 5.0	-	< 5.0	< 5.0	< 5.0
2-Butanone(MEK)	< 50	2.0	< 50	< 50	< 50
2-Chloroethylvinyl ether	< 50	÷-1	< 50	< 50	< 50
2-Chlorotoluene	< 5.0		< 5.0	< 5.0	< 5.0
2-Hexanone	< 50		< 50	< 50	< 50
4-Chlorotoluene	< 5.0		< 5.0	< 5.0	< 5.0
4-Methyl-2-pentanone (MIBK)	< 50	÷	< 50	< 50	< 50
Acetone	< 50		< 50	< 50	< 50
Benzene	< 5.0	< 0.0050	< 5.0	< 5.0	< 5.0
Bromobenzene	< 5.0	-	< 5.0	< 5.0	< 5.0
Bromochloromethane	< 20		< 20	< 20	< 20
Bromodichloromethane	< 5.0		< 5.0	< 5.0	< 5.0
Bromoform	< 5.0		< 5.0	< 5.0	< 5.0
Bromomethane	< 10		< 10	< 10	< 10
Carbon disulfide	< 5.0	22	< 5.0	< 5.0	< 5.0
Carbon tetrachloride	< 5.0		< 5.0	< 5.0	< 5.0
Chlorobenzene	< 5.0	÷	< 5.0	< 5.0	< 5.0
Chloroethane	< 10		< 10	< 10	< 10
Chloroform	< 5.0		< 5.0	< 5.0	< 5.0
Chloromethane	< 10		< 10	< 10	< 10
cis-1,2-Dichloroethene	< 5.0		< 5.0	< 5.0	< 5.0
cis-1,3-Dichloropropene	< 5.0	- A.	< 5.0	< 5.0	< 5.0
Dibromochloromethane	< 5.0		< 5.0	< 5.0	< 5.0
Dibromomethane	< 10		< 10	< 10	< 10
Dichlorodifluoromethane	< 10		< 10	< 10	< 10
li-Isopropyl Ether (DIPE)					
Ethanol		4			
Ethyl tert-Butyl Ether (ETBE)				-	
Ethylbenzene	< 5.0	< 0.0050	< 5.0	< 5.0	< 5.0
Hexachlorobutadiene	< 5.0	- 0.0050	< 5.0	< 5.0	< 5.0
sopropylbenzene	< 5.0		< 5.0	< 5.0	< 5.0
Methylene chloride	< 5.0		< 5.0	< 5.0	< 5.0
MTBE	< 5.0		< 5.0	< 5.0	< 5.0

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IRIS ENVIRONMENTAL

#### TABLE 5: SOIL CHEMICAL TEST RESULTS - Volatile Organic Compounds

Phase II Environmental Site Assessment

**Future Port Field Support Services Complex** 

Port of Oakland

Oakland, California

LOCATION	MFC-02	MFC-03	MFC-03	MFC-03	MFC-04
MATRIX	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/27/02	3/27/02	3/27/02	3/27/02	3/27/02
DEPTH <sup>(1)</sup>	5.5	1.5	4.5	7.5	5.0
UNITS	μg/kg	µg/kg	µg/kg	µg/kg	µg/kg
(Continued)					
Naphthalene	< 10		< 10	< 10	3,500
n-Butylbenzene	< 5.0	÷	< 5.0	< 5.0	< 5.0
n-Propylbenzene	< 5.0	÷	< 5.0	< 5.0	< 5.0
p-Isopropyltoluene	< 5.0	÷	< 5.0	< 5.0	< 5.0
sec-Butylbenzene	< 5.0	÷-1	< 5.0	< 5.0	< 5.0
Styrene	< 5.0	<u>44</u>	< 5.0	< 5.0	< 5.0
tert-Amyl Ethyl Ether (TAME)	-			3-4-C	
tert-Butylbenzene	< 5.0		< 5.0	< 5.0	< 5.0
Tertiary Butanol (TBA)	Q.C.		44	3 <del>14</del> 5	
Tetrachloroethene	< 5.0		< 5.0	< 5.0	11
Toluene	< 5.0	< 0.0050	< 5.0	< 5.0	< 5.0
trans-1,2-Dichloroethene	< 5.0		< 5.0	< 5.0	< 5.0
trans-1,3-Dichloropropene	< 5.0		< 5.0	< 5.0	< 5.0
Trichloroethene	< 5.0		< 5.0	< 5.0	< 5.0
Trichlorofluoromethane	< 5.0	÷ .	< 5.0	< 5.0	< 5.0
Trichlorotrifluoroethane	< 5.0	-	< 5.0	< 5.0	< 5.0
Vinyl acetate	< 50		< 50	< 50	< 50
Vinyl chloride	< 5.0	÷	< 5.0	< 5.0	< 5.0
Xylenes (Total)	< 5.0	< 0.0050	< 5.0	< 5.0	9.8

#### Notes:

(1) Soil samples collected in sixinch tubes beginning with the depth indicated in feet below ground surface (bgs)

Samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260 (B).

-- = Not Analyzed

µg/kg = micrograms per kilogram

#### TABLE 5: SOIL CHEMICAL TEST RESULTS - Volatile Organic Compounds

Phase II Environmental Site Assessment

Future Port Field Support Services Complex

Port of Oakland

Oakland, California

LOCATION	MFC-04	MFC-04	MFC-05	MFC-05	MFC-05
MATRIX	Soil	Soil	Soil 3/26/02	Soil 3/26/02	Soil 3/26/02
COLLECTION DATE	3/27/02	3/27/02			
DEPTH <sup>(1)</sup>	8.5	11.0	5.0	8.0	11.0
UNITS	µg/kg	μg/kg	µg/kg	µg/kg	µg/kg
1,1,1,2-Tetrachloroethane	< 5.0	< 5.0	-	< 5.0	< 5.0
1,1,1-Trichloroethane	< 5.0	< 5.0		< 5.0	< 5.0
1,1,2,2-Tetrachloroethane	< 5.0	< 5.0	-	< 5.0	< 5.0
1,1,2-Trichloroethane	< 5.0	< 5.0		< 5.0	< 5.0
1,1-Dichloroethane	< 5.0	< 5.0	() <del>()</del> ()	< 5.0	< 5.0
1,1-Dichloroethene	< 5.0	< 5.0		< 5.0	< 5.0
1,1-Dichloropropene	< 5.0	< 5.0	-	< 5.0	< 5.0
1,2,3-Trichlorobenzene	< 5.0	< 5.0	÷	< 5.0	< 5.0
1,2,4-Trichlorobenzene	< 5.0	< 5.0		< 5.0	< 5.0
1,2,4-Trimethylbenzene	< 5.0	< 5.0		< 5.0	< 5.0
1,2-Dibromo-3-chloropropane	< 50	< 50	1440	< 50	< 50
1,2-Dibromoethane	< 10	< 10		< 10	< 10
1,2-Dichlorobenzene	< 5.0	< 5.0	1 <del></del>	< 5.0	< 5.0
1,2-Dichloroethane	< 5.0	< 5.0		< 5.0	< 5.0
1,2-Dichloropropane	< 5.0	< 5.0		< 5.0	< 5.0
1,3,5-Trimethylbenzene	< 5.0	< 5.0		< 5.0	< 5.0
1,3-Dichlorobenzene	< 5.0	< 5.0		< 5.0	< 5.0
1,3-Dichloropropane	< 5.0	< 5.0		< 5.0	< 5.0
1,4-Dichlorobenzene	< 5.0	< 5.0	-	< 5.0	< 5.0
2,2-Dichloropropane	< 5.0	< 5.0		< 5.0	< 5.0
2-Butanone(MEK)	< 50	< 50		< 50	< 50
2-Chloroethylvinyl ether	< 50	< 50		< 50	< 50
2-Chlorotoluene	< 5.0	< 5.0	÷.	< 5.0	< 5.0
2-Hexanone	< 50	< 50		< 50	< 50
4-Chlorotoluene	< 5.0	< 5.0		< 5.0	< 5.0
4-Methyl-2-pentanone (MIBK)	< 50	< 50		< 50	< 50
Acetone	< 50	< 50		< 50	< 50
Benzene	< 5.0	< 5.0	< 0.0050	< 5.0	< 5.0
Bromobenzene	< 5.0	< 5.0	1 <del>1 2</del> 2	< 5.0	< 5.0
Bromochloromethane	< 20	< 20		< 20	< 20
Bromodichloromethane	< 5.0	< 5.0		< 5.0	< 5.0
Bromoform	< 5.0	< 5.0		< 5.0	< 5.0
Bromomethane	< 10	< 10		< 10	< 10
Carbon disulfide	< 5.0	< 5.0		< 5.0	< 5.0
Carbon tetrachloride	< 5.0	< 5.0		< 5.0	< 5.0
Chlorobenzene	< 5.0	< 5.0		< 5.0	< 5.0
Chloroethane	< 10	< 10		< 10	< 10
Chloroform	< 5.0	< 5.0		< 5.0	< 5.0
Chloromethane	< 10	< 10	-	< 10	< 10
cis-1,2-Dichloroethene	< 5.0	< 5.0		< 5.0	< 5.0
cis-1,3-Dichloropropene	< 5.0	< 5.0	-	< 5.0	< 5.0
Dibromochloromethane	< 5.0	< 5.0	-	< 5.0	< 5.0
Dibromomethane	< 10	< 10		< 10	< 10
Dichlorodifluoromethane	< 10	< 10	- La	< 10	< 10
li-Isopropyl Ether (DIPE)	<u>1</u>				
Ethanol			-		
Ethyl tert-Butyl Ether (ETBE)					
Sthylbenzene	< 5.0	< 5.0	< 0.0050	< 5.0	< 5.0
Iexachlorobutadiene	< 5.0	< 5.0		< 5.0	< 5.0
sopropylbenzene	< 5.0	< 5.0	1 H 1	< 5.0	< 5.0
Methylene chloride	< 5.0	< 5.0	44	< 5.0	< 5.0
MTBE	< 5.0	< 5.0	يد.	< 5.0	< 5.0

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**IRIS ENVIRONMENTAL** 

# TABLE 5: SOIL CHEMICAL TEST RESULTS - Volatile Organic CompoundsPhase II Environmental Site AssessmentFuture Port Field Support Services Complex

Port of Oakland

Oakland, California

LOCATION	MFC-04	MFC-04	MFC-05	MFC-05	MFC-05
MATRIX	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/27/02	3/27/02	3/26/02	3/26/02	3/26/02
DEPTH <sup>(1)</sup>	8.5	11.0	5.0	8.0	11.0
UNITS	µg/kg	µg/kg	µg/kg	μg/kg	μg/kg
(Continued)					
Naphthalene	< 10	< 10	-	< 10	< 10
n-Butylbenzene	< 5.0	< 5.0	-	< 5.0	< 5.0
n-Propylbenzene	< 5.0	< 5.0		< 5.0	< 5.0
p-Isopropyltoluene	< 5.0	< 5.0		< 5.0	< 5.0
sec-Butylbenzene	< 5.0	< 5.0		< 5.0	< 5.0
Styrene	< 5.0	< 5.0		< 5.0	< 5.0
tert-Amyl Ethyl Ether (TAME)			144	144	
tert-Butylbenzene	< 5.0	< 5.0	1 <del></del>	< 5.0	< 5.0
Tertiary Butanol (TBA)	-	÷.			
Tetrachloroethene	< 5.0	< 5.0	·	< 5.0	< 5.0
Toluene	< 5.0	< 5.0	< 0.0050	< 5.0	< 5.0
trans-1,2-Dichloroethene	< 5.0	< 5.0	-	< 5.0	< 5.0
trans-1,3-Dichloropropene	< 5.0	< 5.0		< 5.0	< 5.0
Trichloroethene	< 5.0	< 5.0	-	< 5.0	< 5.0
Trichlorofluoromethane	< 5.0	< 5.0	-	< 5.0	< 5.0
Trichlorotrifluoroethane	< 5.0	< 5.0	- <del>1</del>	< 5.0	< 5.0
Vinyl acetate	< 50	< 50	-	< 50	< 50
Vinyl chloride	< 5.0	< 5.0		< 5.0	< 5.0
Xylenes (Total)	< 5.0	< 5.0	< 0.0050	< 5.0	< 5.0

#### Notes:

(1) Soil samples collected in sixinch tubes beginning with the depth indicated in feet below ground surface (bgs)

Samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260 (B).

-- = Not Analyzed

µg/kg = micrograms per kilogram

Phase II Environmental Site Assessment

Future Port Field Support Services Complex

Port of Oakland

Oakland, California

LOCATION MATRIX	MFC-06 Soil	MFC-06 Soil	MFC-06 Soil	MFC-07 Soil	MFC-07 Soil
COLLECTION DATE	3/26/02	3/26/02	3/26/02	3/26/02	3/26/02
DEPTH <sup>(1)</sup>	5.0	8.5	9.0	3.0	5.0
UNITS	µg/kg	µg/kg	µg/kg	µg/kg	μg/kg
1,1,1,2-Tetrachloroethane		< 5.0	-		< 5.0
1,1,1-Trichloroethane		< 5.0	< 1.0		< 5.0
1,1,2,2-Tetrachloroethane		< 5.0	< 1.0	÷-	< 5.0
1,1,2-Trichloroethane	-	< 5.0	< 1.0	-	< 5.0
1,1-Dichloroethane		< 5.0	< 1.0		< 5.0
1,1-Dichloroethene	<del></del>	< 5.0	< 1.0	<del>(1</del> 7)	< 5.0
1,1-Dichloropropene		< 5.0			< 5.0
1,2,3-Trichlorobenzene		< 5.0			< 5.0
1,2,4-Trichlorobenzene		< 5.0			< 5.0
1,2,4-Trimethylbenzene		< 5.0		~	< 5.0
1,2-Dibromo-3-chloropropane		< 50			< 50
1,2-Dibromoethane		< 10			< 10
1,2-Dichlorobenzene	÷.	< 5.0	1.77	( <del>4.4</del> )	< 5.0
1,2-Dichloroethane	÷	< 5.0	< 2.0	÷.	< 5.0
1,2-Dichloropropane		< 5.0	< 2.0		< 5.0
1,3,5-Trimethylbenzene	÷	< 5.0	- <del></del> -		< 5.0
1,3-Dichlorobenzene		< 5.0	· · · ·	0 <del>71</del>	< 5.0
1,3-Dichloropropane		< 5.0			< 5.0
1,4-Dichlorobenzene	ee l	< 5.0	( <del>**</del> )	<del>11</del>	< 5.0
2,2-Dichloropropane		< 5.0	10 T	1557	< 5.0
2-Butanone(MEK)		< 50	< 10.0		< 50
2-Chloroethylvinyl ether		< 50			< 50
2-Chlorotoluene		< 5.0	1.00		< 5.0
2-Hexanone	<del>44</del> )	< 50	< 2.0	19 <del>44</del>	< 50
4-Chlorotoluene		< 5.0			< 5.0
4-Methyl-2-pentanone (MIBK)		< 50	< 2.0		< 50
Acetone	- a tran	< 50	< 5.0	- 670 M	< 50
Benzene	< 0.0050	< 5.0	< 1.0	< 0.0050	< 5.0
Bromobenzene	-	< 5.0	-		< 5.0
Bromochloromethane		< 20			< 20
Bromodichloromethane		< 5.0	< 1.0	-	< 5.0
Bromoform		< 5.0	< 1.0		< 5.0
Bromomethane	1	< 10	< 2.0		< 10
Carbon disulfide		< 5.0	< 1.0		< 5.0
Carbon tetrachloride		< 5.0	< 1.0	-	< 5.0
Chlorobenzene		< 5.0	< 1.0		< 5.0
Chloroethane		< 10	< 2.0	-	< 10
Chloroform		< 5.0	< 2.0	-	< 5.0
Chloromethane		< 10	< 2.0		< 10
cis-1,2-Dichloroethene		< 5.0	< 1.0		< 5.0
cis-1,3-Dichloropropene	10 H	< 5.0	< 1.0	÷=	< 5.0
Dibromochloromethane		< 5.0	< 1.0		< 5.0
Dibromomethane		< 10			< 10
Dichlorodifluoromethane		< 10			< 10
di-Isopropyl Ether (DIPE)			< 2.0		
Ethanol			< 200.0		
Ethyl tert-Butyl Ether (ETBE)			< 2.0		
Bthylbenzene	< 0.0050	< 5.0	< 1.0	< 0.0050	< 5.0
Hexachlorobutadiene		< 5.0			< 5.0
lsopropylbenzene		< 5.0		-	< 5.0
Methylene chloride		< 5.0			< 5.0
MTBE		< 5.0	< 1.0		< 5.0

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Port of Oakland

Oakland, California

LOCATION	MFC-06	MFC-06	MFC-06	MFC-07	MFC-07
MATRIX	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/26/02	3/26/02	3/26/02	3/26/02	3/26/02
DEPTH <sup>(1)</sup>	5.0	8.5	9.0	3.0	5.0
UNITS	μg/kg	µg/kg	µg/kg	µg/kg	μg/kg
(Continued)					
Naphthalene	-	< 10		-	< 10
n-Butylbenzene		< 5.0		+*	< 5.0
n-Propylbenzene		< 5.0	< 2.0	-	< 5.0
p-Isopropyltoluene		< 5.0	1		< 5.0
sec-Butylbenzene		< 5.0			< 5.0
Styrene		< 5.0	< 1.0	-	< 5.0
tert-Amyl Ethyl Ether (TAME)			< 2.0	Children (	
tert-Butylbenzene	1. <del>1. 1</del> . 1	< 5.0			< 5.0
Tertiary Butanol (TBA)			< 50.0		
Tetrachloroethene		< 5.0	< 1.0	1	< 5.0
Toluene	< 0.0050	< 5.0	< 1.0	< 0.0050	< 5.0
trans-1,2-Dichloroethene		< 5.0	< 1.0		< 5.0
trans-1,3-Dichloropropene		< 5.0	< 1.0	-e,	< 5.0
Trichloroethene	10 c <del>a 2</del> mil	< 5.0	< 1.0		< 5.0
Trichlorofluoromethane		< 5.0			< 5.0
Trichlorotrifluoroethane		< 5.0	- <del></del> -	-	< 5.0
Vinyl acetate	-	< 50	< 5.0		< 50
Vinyl chloride	0.40	< 5.0	< 3.0		< 5.0
Xylenes (Total)	< 0.0050	< 5.0	< 2.0	< 0.0050	< 5.0

#### Notes:

(1) Soil samples collected in sixinch tubes beginning with the depth indicated in feet below ground surface (bgs)

Samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260 (B).

-- = Not Analyzed

µg/kg = micrograms per kilogram

Phase II Environmental Site Assessment

Future Port Field Support Services Complex

Port of Oakland

Oakland, California

LOCATION	MFC-07	MFC-07	MFC-07	MFC-08	MFC-08
MATRIX	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/26/02	3/26/02	3/26/02	3/26/02	3/26/02
DEPTH <sup>(1)</sup>	5.5	8.5	9.0	2.0	5.0
UNITS	µg/kg	µg/kg	μg/kg	µg/kg	µg/kg
1,1,1,2-Tetrachloroethane		< 5.0		4	< 5.0
1,1,1-Trichloroethane	< 1.0	< 5.0	< 1.0		< 5.0
1,1,2,2-Tetrachloroethane	< 1.0	< 5.0	< 1.0		< 5.0
1,1,2-Trichloroethane	< 1.0	< 5.0	< 1.0		< 5.0
1,1-Dichloroethane	< 1.0	< 5.0	< 1.0		< 5.0
1,1-Dichloroethene	< 1.0	< 5.0	< 1.0		< 5.0
1,1-Dichloropropene		< 5.0			< 5.0
1,2,3-Trichlorobenzene	-	< 5.0			< 5.0
1,2,4-Trichlorobenzene	164	< 5.0	1.44	-	< 5.0
1,2,4-Trimethylbenzene		< 5.0		-	< 5.0
1,2-Dibromo-3-chloropropane		< 50	1		< 50
1,2-Dibromoethane		< 10		-	< 10
1,2-Dichlorobenzene	-	< 5.0			< 5.0
1,2-Dichloroethane	< 2.0	< 5.0	< 2.0		< 5.0
1,2-Dichloropropane	< 2.0	< 5.0	< 2.0	-	< 5.0
1,3,5-Trimethylbenzene	- <del>(</del>	< 5.0		( <u>11</u> )	< 5.0
1,3-Dichlorobenzene		< 5.0	1 (A)		< 5.0
1,3-Dichloropropane		< 5.0		÷+-?	< 5.0
1,4-Dichlorobenzene	040	< 5.0	- <del>13</del> 0	÷	< 5.0
2,2-Dichloropropane		< 5.0			< 5.0
2-Butanone(MEK)	< 10.0	< 50	< 10.0	÷-	< 50
2-Chloroethylvinyl ether	-	< 50			< 50
2-Chlorotoluene		< 5.0			< 5.0
2-Hexanone	< 2.0	< 50	< 2.0		< 50
4-Chlorotoluene		< 5.0		<del></del>	< 5.0
4-Methyl-2-pentanone (MIBK)	< 2.0	< 50	< 2.0		< 50
Acetone	< 5.0	< 50	< 5.0	-	< 50
Benzene	< 1.0	< 5.0	< 1.0	< 0.0050	< 5.0
Bromobenzene		< 5.0		-	< 5.0
Bromochloromethane		< 20		1	< 20
Bromodichloromethane	< 1.0	< 5.0	< 1.0	12	< 5.0
Bromoform	< 1.0	< 5.0	< 1.0	1	< 5.0
Bromomethane	< 2.0	< 10	< 2.0	÷-	< 10
Carbon disulfide	< 1.0	< 5.0	< 1.0	C2+01	< 5.0
Carbon tetrachloride	< 1.0	< 5.0	< 1.0		< 5.0
Chlorobenzene	< 1.0	< 5.0	< 1.0	-	< 5.0
Chloroethane	< 2.0	< 10	< 2.0		< 10
Chloroform	< 2.0	< 5.0	< 2.0		< 5.0
Chloromethane	< 2.0	< 10	< 2.0		< 10
cis-1,2-Dichloroethene	< 1.0	< 5.0	< 1.0	-	< 5.0
cis-1,3-Dichloropropene	< 1.0	< 5.0	< 1.0		< 5.0
Dibromochloromethane	< 1.0	< 5.0	< 1.0		< 5.0
Dibromomethane		< 10		- 442	< 10
Dichlorodifluoromethane		< 10		3 <del>-6</del> 3	< 10
di-Isopropyl Ether (DIPE)	< 2,0		< 2.0	-	
Ethanol	< 200.0	÷-	< 200.0		
Ethyl tert-Butyl Ether (ETBE)	< 2.0		< 2.0		
Ethylbenzene	< 1.0	< 5.0	< 1.0	< 0.0050	< 5.0
Hexachlorobutadiene	- <del></del>	< 5.0	(44)	-	< 5.0
Isopropylbenzene		< 5.0	44		< 5.0
Methylene chloride		< 5.0		C++	< 5.0
MTBE	< 1.0	< 5.0	< 1.0		< 5.0

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Phase II Environmental Site Assessment

Future Port Field Support Services Complex

Port of Oakland

Oakland, California

LOCATION	MFC-07	MFC-07	MFC-07	MFC-08	MFC-08
MATRIX	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/26/02	3/26/02	3/26/02	3/26/02	3/26/02
DEPTH <sup>(1)</sup>	5.5	8.5	9.0	2.0	5.0
UNITS	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
(Continued)					1
Naphthalene		< 10	÷	44).	< 10
n-Butylbenzene		< 5.0	the second se	-	< 5.0
n-Propylbenzene	< 2.0	< 5.0	< 2.0	- 14 C	< 5.0
p-Isopropyltoluene		< 5.0			< 5.0
sec-Butylbenzene		< 5.0			< 5.0
Styrene	< 1.0	< 5.0	< 1.0		< 5.0
tert-Amyl Ethyl Ether (TAME)	< 2.0		< 2.0	-	
tert-Butylbenzene		< 5.0			< 5.0
Tertiary Butanol (TBA)	< 50.0		< 50.0		
Tetrachloroethene	< 1.0	< 5.0	< 1.0		< 5.0
Toluene	1.2	< 5.0	< 1.0	< 0.0050	< 5.0
trans-1,2-Dichloroethene	< 1.0	< 5.0	< 1.0	44.0	< 5.0
trans-1,3-Dichloropropene	< 1.0	< 5.0	< 1.0		< 5.0
Trichloroethene	< 1.0	< 5.0	< 1.0		< 5.0
Trichlorofluoromethane		< 5.0	1.1		< 5.0
Trichlorotrifluoroethane	( <del></del> ')	< 5.0			< 5.0
Vinyl acetate	< 5.0	< 50	< 5.0		< 50
Vinyl chloride	< 3.0	< 5.0	< 3.0		< 5.0
Xylenes (Total)	< 2.0	< 5.0	< 2.0	< 0.0050	< 5.0

#### Notes:

(1) Soil samples collected in sixinch tubes beginning with the depth indicated in feet below ground surface (bgs)

Samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260 (B).

-- = Not Analyzed

µg/kg = micrograms per kilogram

Phase II Environmental Site Assessment

Future Port Field Support Services Complex

Port of Oakland

Oakland, California

LOCATION	MFC-08	MFC-08	MFC-09	MFC-09	MFC-09
MATRIX	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/26/02	3/26/02	3/26/02	3/26/02	3/26/02
DEPTH <sup>(1)</sup>	5.5	8.0	2.0	5.0	5.5
UNITS	μg/kg	µg/kg	µg/kg	µg/kg	μg/kg
1,1,1,2-Tetrachloroethane	<b>14</b>	-	1	< 5.0	22
1,1,1-Trichloroethane	< 1.0	< 1.0		< 5.0	< 1.0
1,1,2,2-Tetrachloroethane	< 1.0	< 1.0		< 5.0	< 1.0
1,1,2-Trichloroethane	< 1.0	< 1.0	1 - <del>1 -</del> 1	< 5.0	< 1.0
1,1-Dichloroethane	< 1.0	< 1.0		< 5.0	< 1.0
1,1-Dichloroethene	< 1.0	< 1.0		< 5.0	< 1.0
1,1-Dichloropropene			-	< 5.0	
1,2,3-Trichlorobenzene				< 5.0	
1,2,4-Trichlorobenzene	( <del>14</del> )			< 5.0	
1,2,4-Trimethylbenzene				< 5.0	
1,2-Dibromo-3-chloropropane	<del>, ti</del>	<del>22</del> -11	i <del>tit</del> i	< 50	0 <del>23</del> 0
1,2-Dibromoethane			- <del></del>	< 10	
1,2-Dichlorobenzene			1 - <del></del> - 1	< 5.0	
1,2-Dichloroethane	< 2.0	< 2.0		< 5.0	< 2.0
1,2-Dichloropropane	< 2.0	< 2.0		< 5.0	< 2.0
1,3,5-Trimethylbenzene	( <del>11</del> )		- <del>19</del> 0	< 5.0	
1,3-Dichlorobenzene		<u> </u>	<del></del>	< 5.0	c <del>i y</del> n l
1,3-Dichloropropane	الشيفار		- <del>12</del> 0	< 5.0	Cee 1
1,4-Dichlorobenzene	- <del>11</del>	<del>11</del> -10	0.0 <del>13</del> 0	< 5.0	Cereo III.
2,2-Dichloropropane	10 A		- 20	< 5.0	10 miles
2-Butanone(MEK)	< 10.0	< 10.0		< 50	< 10.0
2-Chloroethylvinyl ether				< 50	
2-Chlorotoluene				< 5.0	
2-Hexanone	< 2.0	< 2.0		< 50	< 2.0
4-Chlorotoluene				< 5.0	<del></del>
4-Methyl-2-pentanone (MIBK)	< 2.0	< 2.0		< 50	< 2.0
Acetone	< 5.0	< 5.0		< 50	< 5.0
Benzene	< 1.0	< 1.0	< 0.0050	< 5.0	< 1.0
Bromobenzene				< 5.0	
Bromochloromethane				< 20	
Bromodichloromethane	< 1.0	< 1.0		< 5.0	< 1.0
Bromoform	< 1.0	< 1.0		< 5.0	< 1.0
Bromomethane	< 2.0	< 2.0		< 10	< 2.0
Carbon disulfide	< 1.0	< 1.0		< 5.0	< 1.0
Carbon tetrachloride	< 1.0	< 1.0		< 5.0	< 1.0
Chlorobenzene	< 1.0	< 1.0		< 5.0	< 1.0
Chloroethane	< 2.0	< 2.0	÷	< 10	< 2.0
Chloroform	< 2.0	< 2.0		< 5.0	< 2.0
Chloromethane	< 2.0	< 2.0	-	< 10	< 2.0
cis-1,2-Dichloroethene	< 1.0	< 1.0	÷.	< 5.0	< 1.0
cis-1,3-Dichloropropene	< 1.0	< 1.0	· · · ·	< 5.0	< 1.0
Dibromochloromethane	< 1.0	< 1.0		< 5.0	< 1.0
Dibromomethane				< 10	
Dichlorodifluoromethane				< 10	
di-Isopropyl Ether (DIPE)	< 2.0	< 2.0	77		< 2.0
Ethanol	< 200.0	< 200.0			< 200.0
Ethyl tert-Butyl Ether (ETBE)	< 2.0	< 2.0			< 2.0
Ethylbenzene	< 1.0	< 1.0	< 0.0050	< 5.0	< 1.0
Hexachlorobutadiene				< 5.0	- 42
Isopropylbenzene				< 5.0	( <del>12</del> )
Methylene chloride		-5		< 5.0	- <del>1</del>
MTBE	< 1.0	< 1.0		< 5.0	< 1.0

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Phase II Environmental Site Assessment

**Future Port Field Support Services Complex** 

Port of Oakland

Oakland, California

LOCATION	MFC-08	MFC-08	MFC-09	MFC-09	MFC-09
MATRIX	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/26/02	3/26/02	3/26/02	3/26/02	3/26/02
DEPTH <sup>(1)</sup>	5.5	8.0	2.0	5.0	5.5
UNITS	μg/kg	µg/kg	µg/kg	μg/kg	μg/kg
(Continued)					
Naphthalene				<10	
n-Butylbenzene		-	1 10 - <del>2 2</del>	< 5.0	
n-Propylbenzene	< 2.0	< 2.0		< 5.0	< 2.0
p-Isopropyltoluene			t.	< 5.0	
sec-Butylbenzene			1947) 1947	< 5.0	
Styrene	< 1.0	< 1.0	See.	< 5.0	< 1.0
tert-Amyl Ethyl Ether (TAME)	< 2.0	< 2.0	( <del></del>		< 2.0
tert-Butylbenzene	<del></del>		(and 1)	< 5.0	
Tertiary Butanol (TBA)	< 50.0	< 50.0		22	< 50.0
Tetrachloroethene	< 1.0	< 1.0		< 5.0	< 1.0
Toluene	< 1.0	< 1.0	< 0.0050	< 5.0	< 1.0
trans-1,2-Dichloroethene	< 1.0	< 1.0		< 5.0	< 1.0
trans-1,3-Dichloropropene	< 1.0	< 1.0		< 5.0	< 1.0
Trichloroethene	< 1.0	< 1.0		< 5.0	< 1.0
Trichlorofluoromethane				< 5.0	
Trichlorotrifluoroethane	÷.			< 5.0	-
Vinyl acetate	< 5.0	< 5.0	Leo I	< 50	< 5.0
Vinyl chloride	< 3.0	< 3.0		< 5.0	< 3.0
Xylenes (Total)	< 2.0	< 2.0	< 0.0050	< 5.0	< 2.0

#### Notes:

(1) Soil samples collected in sixinch tubes beginning with the depth indicated in feet below ground surface (bgs)

Samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260 (B).

-- = Not Analyzed

µg/kg = micrograms per kilogram

Phase II Environmental Site Assessment

Future Port Field Support Services Complex

Port of Oakland

Oakland, California

LOCATION MATRIX	MFC-10 Soil	MFC-10 Soil	MFC-11 Soil	MFC-11 Soil	MFC-12 Soil
COLLECTION DATE	3/27/02	3/27/02	3/27/02	3/27/02	3/27/02
DEPTH <sup>(1)</sup>					
	1.5 µg/kg	5.0	1.5	4.0	1.5
UNITS	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
1,1,1,2-Tetrachloroethane	-	< 5.0		< 5.0	
1,1,1-Trichloroethane		< 5.0	-	< 5.0	
1,1,2,2-Tetrachloroethane		< 5.0	1	< 5.0	
1,1,2-Trichloroethane		< 5.0		< 5.0	
1,1-Dichloroethane		< 5.0		< 5.0	
1,1-Dichloroethene		< 5.0		< 5.0	
1,1-Dichloropropene	-	< 5.0		< 5.0	
1,2,3-Trichlorobenzene	(ed.)	< 5.0	7	< 5.0	
1,2,4-Trichlorobenzene		< 5.0		< 5.0	
1,2,4-Trimethylbenzene		< 5.0		< 5.0	-
1,2-Dibromo-3-chloropropane		< 50		< 50	
1,2-Dibromoethane		< 10		< 10	<del>64</del>
1,2-Dichlorobenzene	-	< 5.0		< 5.0	
1,2-Dichloroethane	27.1	< 5.0	100	< 5.0	
1,2-Dichloropropane		< 5.0	677 N	< 5.0	
1,3,5-Trimethylbenzene		< 5.0		< 5.0	
1,3-Dichlorobenzene		< 5.0		< 5.0	
1,3-Dichloropropane		< 5.0	177	< 5.0	
1,4-Dichlorobenzene		< 5.0		< 5.0	
2,2-Dichloropropane		< 5.0		< 5.0	
2-Butanone(MEK)	u <del>ne</del> (	< 50		< 50	10 <del>20</del> 01
2-Chloroethylvinyl ether	<del></del>	< 50		< 50	
2-Chlorotoluene	77	< 5.0	1	< 5.0	
2-Hexanone	1.1	< 50		< 50	÷.
4-Chlorotoluene		< 5.0		< 5.0	
4-Methyl-2-pentanone (MIBK)		< 50		< 50	7
Acetone		< 50	**	< 50	
Benzene	< 0.0050	< 5.0	< 0.0050	< 5.0	< 0.0050
Bromobenzene	-	< 5.0		< 5.0	
Bromochloromethane	-	< 20	-	< 20	
Bromodichloromethane	-	< 5.0	-	< 5.0	100
Bromoform		< 5.0		< 5.0	(T)
Bromomethane		< 10		< 10	
Carbon disulfide		< 5.0		< 5.0	
Carbon tetrachloride	-	< 5.0		< 5.0	
Chlorobenzene	10 <del>24</del>	< 5.0	-	< 5.0	**
Chloroethane	1.00	< 10		< 10	1 1 <del>1 1</del> 1
Chloroform		< 5.0		< 5.0	
Chloromethane	÷ .	< 10		< 10	
cis-1,2-Dichloroethene		< 5.0	-	< 5.0	
cis-1,3-Dichloropropene	1 H H	< 5.0		< 5.0	( <del></del> )
Dibromochloromethane		< 5.0		< 5.0	
Dibromomethane		< 10		< 10	3 <del>44</del> 1
Dichlorodifluoromethane		< 10		< 10	
di-Isopropyl Ether (DIPE)	3 <del>40</del> 0		<del></del>		
Ethanol			77		÷.
Ethyl tert-Butyl Ether (ETBE)	a de Taxa de la			. 77	
Ethylbenzene	< 0.0050	< 5.0	< 0.0050	< 5.0	< 0.0050
Hexachlorobutadiene		< 5.0		< 5.0	
Isopropylbenzene		< 5.0		< 5.0	÷.
Methylene chloride		< 5.0	1.000	< 5.0	- <del>12</del>
MTBE		< 5.0		< 5.0	44

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### TABLE 5: SOIL CHEMICAL TEST RESULTS - Volatile Organic Compounds Phase II Environmental Site Assessment

Flase II Environmental Site Assessment

Future Port Field Support Services Complex

Port of Oakland

Oakland, California

LOCATION	MFC-10	MFC-10	MFC-11	MFC-11	MFC-12
MATRIX	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/27/02	3/27/02	3/27/02	3/27/02	3/27/02
DEPTH <sup>(1)</sup>	1.5	5.0	1.5	4.0	1.5
UNITS	μg/kg	µg/kg	μg/kg	μg/kg	µg/kg
(Continued)					
Naphthalene	÷.	< 10		< 10	
n-Butylbenzene		< 5.0		< 5.0	
n-Propylbenzene		< 5.0		< 5.0	
p-Isopropyltoluene	14 C	< 5.0		< 5.0	
sec-Butylbenzene		< 5.0	(##)	< 5.0	
Styrene		< 5.0		< 5.0	-
tert-Amyl Ethyl Ether (TAME)	1.000		10 <u>11 1</u>	N	
tert-Butylbenzene		< 5.0	- <del></del>	< 5.0	
Tertiary Butanol (TBA)	1.000	+			
Tetrachloroethene		< 5.0		< 5.0	
Toluene	< 0.0050	< 5.0	< 0.0050	< 5.0	< 0.0050
trans-1,2-Dichloroethene		< 5.0		< 5.0	-
trans-1,3-Dichloropropene		< 5.0	÷.	< 5.0	
Trichloroethene		< 5.0	1,24	< 5.0	
Trichlorofluoromethane		< 5.0	-	< 5.0	
Trichlorotrifluoroethane		< 5.0		< 5.0	- <del>1</del>
Vinyl acetate		< 50		< 50	
Vinyl chloride		< 5.0	-	< 5.0	-
Xylenes (Total)	< 0.0050	< 5.0	< 0.0050	< 5.0	< 0.0050

#### Notes:

(1) Soil samples collected in sixinch tubes beginning with the depth indicated in feet below ground surface (bgs)

Samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260 (B).

-- = Not Analyzed

 $\mu g/kg = micrograms per kilogram$ 

### TABLE 5: SOIL CHEMICAL TEST RESULTS - Volatile Organic Compounds Phase II Environmental Site Assessment

Future Port Field Support Services Complex

Port of Oakland

Oakland, California

LOCATION	MFC-12	MFC-13	MFC-13	MFC-14	MFC-14
MATRIX	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/27/02	3/27/02	3/27/02	3/25/02	3/25/02
DEPTH <sup>(1)</sup>	4.0	1.5	3.0	1.5	3.0
UNITS	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
1,1,1,2-Tetrachloroethane	< 5.0	<del></del>	< 5.0		< 5.0
1,1,1-Trichloroethane	< 5.0		< 5.0		< 5.0
1,1,2,2-Tetrachloroethane	< 5.0		< 5.0	0.40	< 5.0
1,1,2-Trichloroethane	< 5.0		< 5.0		< 5.0
1,1-Dichloroethane	< 5.0		< 5.0		< 5.0
1,1-Dichloroethene	< 5.0		< 5.0	-	< 5.0
1,1-Dichloropropene	< 5.0		< 5.0	- <del>1</del>	< 5.0
1,2,3-Trichlorobenzene	< 5.0	النب	< 5.0	-	< 5.0
1,2,4-Trichlorobenzene	< 5.0	<del>19</del> 1	< 5.0	÷.	< 5.0
1,2,4-Trimethylbenzene	< 5.0		< 5.0	( <del></del> )	< 5.0
1,2-Dibromo-3-chloropropane	< 50	-	< 50	÷.	< 50
1,2-Dibromoethane	< 10	<b>H</b>	< 10	<del></del>	< 10
1,2-Dichlorobenzene	< 5.0		< 5.0	-	< 5.0
1,2-Dichloroethane	< 5.0	<del></del>	< 5.0		< 5.0
1,2-Dichloropropane	< 5.0	<del>1</del> 21	< 5.0	10 <del>8</del> 0	< 5.0
1,3,5-Trimethylbenzene	< 5.0		< 5.0	- <del>11</del>	< 5.0
1,3-Dichlorobenzene	< 5.0	<del></del>	< 5.0	10 <del>11</del> (0	< 5.0
1,3-Dichloropropane	< 5.0	÷.,	< 5.0	÷÷:	< 5.0
1,4-Dichlorobenzene	< 5.0	<del></del> .	< 5.0		< 5.0
2,2-Dichloropropane	< 5.0	÷.	< 5.0	÷	< 5.0
2-Butanone(MEK)	< 50	÷	< 50		< 50
2-Chloroethylvinyl ether	< 50		< 50		< 50
2-Chlorotoluene	< 5.0		< 5.0	÷.	< 5.0
2-Hexanone	< 50		< 50		< 50
4-Chlorotoluene	< 5.0	<u></u> 3	< 5.0		< 5.0
4-Methyl-2-pentanone (MIBK)	< 50	<del></del>	< 50		< 50
Acetone	< 50	÷.	< 50		< 50
Benzene	< 5.0	< 0.0050	< 5.0	< 0.0050	< 5.0
Bromobenzene	< 5.0		< 5.0	- <u> </u>	< 5.0
Bromochloromethane	< 20		< 20		< 20
Bromodichloromethane	< 5.0	+++,1	< 5.0		< 5.0
Bromoform	< 5.0	<u>22-</u>	< 5.0	94 - E	< 5.0
Bromomethane	< 10	<del>19</del> 0	< 10	C++> 1	< 10
Carbon disulfide	< 5.0		< 5.0	0.200	< 5.0
Carbon tetrachloride	< 5.0		< 5.0		< 5.0
Chlorobenzene	< 5.0		< 5.0		< 5.0
Chloroethane	< 10		< 10		< 10
Chloroform	< 5.0		< 5.0	5	< 5.0
Chloromethane	< 10		< 10	-	< 10
cis-1,2-Dichloroethene	< 5.0		< 5.0	÷.	< 5.0
cis-1,3-Dichloropropene	< 5.0		< 5.0	a <del>bi</del> na	< 5.0
Dibromochloromethane	< 5.0		< 5.0		< 5.0
Dibromomethane	< 10	77	< 10		< 10
Dichlorodifluoromethane	< 10		< 10		< 10
di-Isopropyl Ether (DIPE)			-	-	
Ethanol			( <del> )</del>	-	
Ethyl tert-Butyl Ether (ETBE)					
Ethylbenzene	< 5.0	< 0.0050	< 5.0	< 0.0050	< 5.0
Hexachlorobutadiene	< 5.0		< 5.0		< 5.0
lsopropylbenzene	< 5.0		< 5.0	C <del>22</del> -11	< 5.0
Methylene chloride	< 5.0	<b>7</b> 7	< 5.0	0	< 5.0
MTBE	< 5.0	**	< 5.0	÷	< 5.0

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### TABLE 5: SOIL CHEMICAL TEST RESULTS - Volatile Organic CompoundsPhase II Environmental Site AssessmentFuture Port Field Support Services Complex

Port of Oakland

Oakland, California

LOCATION	MFC-12	MFC-13	MFC-13	MFC-14	MFC-14
MATRIX	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/27/02	3/27/02	3/27/02	3/25/02	3/25/02
DEPTH <sup>(1)</sup>	4.0	1.5	3.0	1.5	3.0
UNITS	µg/kg	µg/kg	μg/kg	µg/kg	µg/kg
(Continued)					
Naphthalene	15	÷.	< 10		< 5.0
n-Butylbenzene	< 5.0	40	< 5.0	80	< 5.0
n-Propylbenzene	< 5.0		< 5.0	÷.	< 10
p-Isopropyltoluene	< 5.0	÷++ (1)	< 5.0		< 5.0
sec-Butylbenzene	< 5.0		< 5.0		< 5.0
Styrene	< 5.0		< 5.0		< 5.0
tert-Amyl Ethyl Ether (TAME)					
tert-Butylbenzene	< 5.0		< 5.0		< 5.0
Tertiary Butanol (TBA)		-	( <del>-),</del>		
Tetrachloroethene	< 5.0		< 5.0		< 5.0
Toluene	< 5.0	< 0.0050	< 5.0	< 0.0050	< 5.0
trans-1,2-Dichloroethene	< 5.0		< 5.0		< 5.0
trans-1,3-Dichloropropene	< 5.0		< 5.0		< 5.0
Trichloroethene	< 5.0		< 5.0	i er l	< 5.0
Trichlorofluoromethane	< 5.0		< 5.0	(444)	< 5.0
Trichlorotrifluoroethane	< 5.0	-	< 5.0	÷	< 5.0
Vinyl acetate	< 50	<del>et</del> o	< 50		< 50
Vinyl chloride	< 5.0		< 5.0		< 5.0
Xylenes (Total)	< 5.0	< 0.0050	< 5.0	< 0.0050	< 5.0

#### Notes:

(1) Soil samples collected in sixinch tubes beginning with the depth indicated in feet below ground surface (bgs)

Samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260 (B).

-- = Not Analyzed

 $\mu g/kg = micrograms per kilogram$ 

Oakland, California

LOCATION MATRIX	MFC-14 Soil	MFC-15 Soil	MFC-15 Soil	MFC-15 Soil	MFC-15-DUP Soil
COLLECTION DATE	3/25/02	3/25/02	3/25/02	3/25/02	3/25/02
DEPTH <sup>(1)</sup>					
	4.0	1.5	3.0	4.5	4.5
UNITS	µg/kg	µg/kg	μg/kg	µg/kg	μg/kg
1,1,1,2-Tetrachloroethane	< 5.0		< 5.0	< 5.0	< 5.0
1,1,1-Trichloroethane	< 5.0	-	< 5.0	< 5.0	< 5.0
1,1,2,2-Tetrachloroethane	< 5.0	<del></del>	< 5.0	< 5.0	< 5.0
1,1,2-Trichloroethane	< 5.0		< 5.0	< 5.0	< 5.0
1,1-Dichloroethane	< 5.0	<del>20</del> 0	< 5.0	< 5.0	< 5.0
1,1-Dichloroethene	< 5.0	<del></del>	< 5.0	< 5.0	< 5.0
1,1-Dichloropropene	< 5.0		< 5.0	< 5.0	< 5.0
1,2,3-Trichlorobenzene	< 5.0		< 5.0	< 5.0	< 5.0
1,2,4-Trichlorobenzene	< 5.0		< 5.0	< 5.0	< 5.0
1,2,4-Trimethylbenzene	< 5.0	<del>4.0</del>	< 5.0	< 5.0	< 5.0
1,2-Dibromo-3-chloropropane	< 50	<del>12</del> 1	< 50	< 50	< 50
1,2-Dibromoethane	< 10		< 10	< 10	< 10
1,2-Dichlorobenzene	< 5.0		< 5.0	< 5.0	< 5.0
1,2-Dichloroethane	< 5.0		< 5.0	< 5.0	< 5.0
1,2-Dichloropropane	< 5.0	20	< 5.0	< 5.0	< 5.0
1,3,5-Trimethylbenzene	< 5.0	<del>77</del>	< 5.0	< 5.0	< 5.0
1,3-Dichlorobenzene	< 5.0	-7	< 5.0	< 5.0	< 5.0
1,3-Dichloropropane	< 5.0	<del>, 11</del> , 1	< 5.0	< 5.0	< 5.0
1,4-Dichlorobenzene	< 5.0	<del></del>	< 5.0	< 5.0	< 5.0
2,2-Dichloropropane	< 5.0		< 5.0	< 5.0	< 5.0
2-Butanone(MEK)	< 50		< 50	< 50	< 50
2-Chloroethylvinyl ether	< 50		< 50	< 50	< 50
2-Chlorotoluene	< 5.0		< 5.0	< 5.0	< 5.0
2-Hexanone	< 50	<del></del>	< 50	< 50	< 50
4-Chlorotoluene	< 5.0	),	< 5.0	< 5.0	< 5.0
-Methyl-2-pentanone (MIBK)	< 50		< 50	< 50	< 50
Acetone	< 50		< 50	< 50	< 50
Benzene	< 5.0	< 0.0050	< 5.0	< 5.0	< 5.0
Bromobenzene	< 5.0		< 5.0	< 5.0	< 5.0
Bromochloromethane	< 20	<del>11</del>	< 20	< 20	< 20
Bromodichloromethane	< 5.0		< 5.0	< 5.0	< 5.0
Bromoform	< 5.0	<del>.</del>	< 5.0	< 5.0	< 5.0
Bromomethane	< 10		< 10	< 10	< 10
Carbon disulfide	< 5.0		< 5.0	< 5.0	< 5.0
Carbon tetrachloride	< 5.0	+	< 5.0	< 5.0	< 5.0
Chlorobenzene	< 5.0		< 5.0	< 5.0	< 5.0
Chloroethane	< 10	-	< 10	< 10	< 10
Chloroform	< 5.0		< 5.0	< 5.0	< 5.0
Chloromethane	< 10		< 10	< 10	< 10
cis-1,2-Dichloroethene	< 5.0		< 5.0	< 5.0	< 5.0
is-1,3-Dichloropropene	< 5.0		< 5.0	< 5.0	< 5.0
Dibromochloromethane	< 5.0	-	< 5.0	< 5.0	< 5.0
Dibromomethane	< 10	÷-	< 10	< 10	< 10
Dichlorodifluoromethane	< 10		< 10	< 10	< 10
i-Isopropyl Ether (DIPE)					1.1
Sthanol	100	<del></del>			<u> 11</u>
Cthyl tert-Butyl Ether (ETBE)				-	
thylbenzene	< 5.0	< 0.0050	< 5.0	< 5.0	< 5.0
Iexachlorobutadiene	< 5.0	-	< 5.0	< 5.0	< 5.0
sopropylbenzene	< 5.0		< 5.0	< 5.0	< 5.0
Aethylene chloride	< 5.0		< 5.0	< 5.0	< 5.0
MTBE	< 5.0	**	< 5.0	< 5.0	< 5.0

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Oakland, California

LOCATION	MFC-14	MFC-15	MFC-15	MFC-15	MFC-15-DUP
MATRIX	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/25/02	3/25/02	3/25/02	3/25/02	3/25/02
DEPTH <sup>(1)</sup>	4.0	1.5	3.0	4.5	4.5
UNITS	µg/kg	µg/kg	µg/kg	µg/kg	μg/kg
(Continued)			100		1010
Naphthalene	< 10	÷.	< 10	< 10	< 10
n-Butylbenzene	< 5.0		< 5.0	< 5.0	< 5.0
n-Propylbenzene	< 5.0		< 5.0	< 5.0	< 5.0
p-Isopropyltoluene	< 5.0		< 5.0	< 5.0	< 5.0
sec-Butylbenzene	< 5.0		< 5.0	< 5.0	< 5.0
Styrene	< 5.0	÷.	< 5.0	< 5.0	< 5.0
tert-Amyl Ethyl Ether (TAME)		<u></u> 0			1 <del></del>
tert-Butylbenzene	< 5.0		< 5.0	< 5.0	< 5.0
Tertiary Butanol (TBA)				÷++	C #
Tetrachloroethene	< 5.0		< 5.0	< 5.0	< 5.0
Toluene	< 5.0	< 0.0050	< 5.0	< 5.0	< 5.0
trans-1,2-Dichloroethene	< 5.0		< 5.0	< 5.0	< 5.0
trans-1,3-Dichloropropene	< 5.0		< 5.0	< 5.0	< 5.0
Trichloroethene	< 5.0	- 12 C	< 5.0	< 5.0	< 5.0
Trichlorofluoromethane	< 5.0		< 5.0	< 5.0	< 5.0
Trichlorotrifluoroethane	< 5.0	÷.	< 5.0	< 5.0	< 5.0
Vinyl acetate	< 50		< 50	< 50	< 50
Vinyl chloride	< 5.0		< 5.0	< 5.0	< 5.0
Xylenes (Total)	< 5.0	< 0.0050	< 5.0	< 5.0	< 5.0

#### Notes:

(1) Soil samples collected in sixinch tubes beginning with the depth indicated in feet below ground surface (bgs)

Samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260 (B).

-- = Not Analyzed

µg/kg = micrograms per kilogram

# TABLE 5: SOIL CHEMICAL TEST RESULTS - Volatile Organic CompoundsPhase II Environmental Site AssessmentFuture Port Field Support Services ComplexPort of Oakland

Oakland, California

LOCATION MATRIX	MFC-16 Soil	MFC-16 Soil	MFC-17 Soil	MFC-17 Soil	MFC-18 Soil
COLLECTION DATE	3/25/02	3/25/02	3/26/02	3/26/02	3/25/02
DEPTH <sup>(1)</sup>	1.5	4.0	1.5	4.5	3.0
UNITS	µg/kg	µg/kg	µg/kg	μg/kg	μg/kg
1,1,1,2-Tetrachloroethane		< 5.0		< 5.0	< 5.0
1,1,1-Trichloroethane	<u></u>	< 5.0		< 5.0	< 5.0
1,1,2,2-Tetrachloroethane	4.5	< 5.0		< 5.0	< 5.0
1,1,2-Trichloroethane		< 5.0		< 5.0	< 5.0
1,1-Dichloroethane		< 5.0	12	< 5.0	< 5.0
1,1-Dichloroethene	0.20	< 5.0		< 5.0	< 5.0
1,1-Dichloropropene		< 5.0		< 5.0	< 5.0
1,2,3-Trichlorobenzene		< 5.0	-	< 5.0	< 5.0
1,2,4-Trichlorobenzene		< 5.0		< 5.0	< 5.0
1,2,4-Trimethylbenzene		< 5.0		< 5.0	< 5.0
1,2-Dibromo-3-chloropropane	-	< 50		< 50	< 50
1,2-Dibromoethane		< 10		< 10	< 10
1,2-Dichlorobenzene		< 5.0		< 5.0	< 5.0
1,2-Dichloroethane		< 5.0	1	< 5.0	< 5.0
1,2-Dichloropropane		< 5.0		< 5.0	< 5.0
1,3,5-Trimethylbenzene		< 5.0		< 5.0	< 5.0
1,3-Dichlorobenzene		< 5.0		< 5.0	< 5.0
1,3-Dichloropropane		< 5.0		< 5.0	< 5.0
1,4-Dichlorobenzene		< 5.0		< 5.0	< 5.0
2,2-Dichloropropane		< 5.0		< 5.0	< 5.0
2-Butanone(MEK)		< 50		< 50	< 50
2-Chloroethylvinyl ether		< 50		< 50	< 50
2-Chlorotoluene		< 5.0		< 5.0	< 5.0
2-Hexanone		< 50		< 50	< 50
4-Chlorotoluene	-	< 5.0		< 5.0	< 5.0
4-Methyl-2-pentanone (MIBK)	-	< 50	200	< 50	< 50
Acetone		< 50		< 50	< 50
Benzene	< 0.0050	10	< 0.0050	< 5.0	< 5.0
Bromobenzene	< 0.0000	< 5.0		< 5.0	< 5.0
Bromochloromethane		< 20		< 20	< 20
Bromodichloromethane		< 5.0	1	< 5.0	< 5.0
Bromoform		< 5.0		< 5.0	< 5.0
Bromomethane		< 10		< 10	< 10
Carbon disulfide		< 5.0	-	< 5.0	< 5.0
Carbon tetrachloride		< 5.0	-	< 5.0	< 5.0
Chlorobenzene	2	< 5.0		< 5.0	< 5.0
Chloroethane	-	< 10	-	< 10	< 10
Chloroform		< 5.0	-	< 5.0	
Chloromethane	<del>1</del>	< 10		< 10	< 5.0
cis-1,2-Dichloroethene		< 5.0			< 10
				< 5.0	< 5.0
cis-1,3-Dichloropropene	- <del></del>	< 5.0		< 5.0	< 5.0
Dibromochloromethane		< 5.0		< 5.0	< 5.0
Dibromomethane		< 10		< 10	< 10
Dichlorodifluoromethane	-	< 10		< 10	< 10
di-Isopropyl Ether (DIPE) Etherol		77			
Ethanol					
Ethyl tert-Butyl Ether (ETBE)					
Ethylbenzene	< 0.0050	< 5.0	< 0.0050	< 5.0	< 5.0
Hexachlorobutadiene	-	< 5.0		< 5.0	< 5.0
Isopropylbenzene		< 5.0	· • •	< 5.0	< 5.0
Methylene chloride	- <del>1</del>	< 5.0	- <del></del>	< 5.0	< 5.0
MTBE		< 5.0	-	< 5.0	< 5.0

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Oakland, California

LOCATION	MFC-16	MFC-16	MFC-17	MFC-17	MFC-18
MATRIX	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/25/02	3/25/02	3/26/02	3/26/02	3/25/02
DEPTH <sup>(1)</sup>	1.5	4.0	1.5	4.5	3.0
UNITS	μg/kg	μg/kg	µg/kg	µg/kg	µg/kg
(Continued)					
Naphthalene	1 <del>4 1</del> 1	< 10		< 10	< 10
n-Butylbenzene	() <del></del> )	< 5.0		< 5.0	< 5.0
n-Propylbenzene	÷	< 5.0		< 5.0	< 5.0
p-Isopropyltoluene		< 5.0	- <del>11</del>	< 5.0	< 5.0
sec-Butylbenzene	1.44	< 5.0		< 5.0	< 5.0
Styrene		< 5.0		< 5.0	< 5.0
tert-Amyl Ethyl Ether (TAME)					
tert-Butylbenzene		< 5.0		< 5.0	< 5.0
Tertiary Butanol (TBA)	0 <del></del>		- <del>24</del> /	<u>.</u>	
Tetrachloroethene	-	< 5.0		< 5.0	< 5.0
Toluene	< 0.0050	< 5.0	< 0.0050	< 5.0	< 5.0
trans-1,2-Dichloroethene		< 5.0	-	< 5.0	< 5.0
trans-1,3-Dichloropropene		< 5.0	/	< 5.0	< 5.0
Trichloroethene		< 5.0		< 5.0	< 5.0
Trichlorofluoromethane		< 5.0		< 5.0	< 5.0
Trichlorotrifluoroethane		< 5.0	1.44	< 5.0	< 5.0
Vinyl acetate	النف	< 50	-	< 50	< 50
Vinyl chloride	-	< 5.0		< 5.0	< 5.0
Xylenes (Total)	< 0.0050	< 5.0	< 0.0050	< 5.0	< 5.0

#### Notes:

(1) Soil samples collected in sixinch tubes beginning with the depth indicated in feet below ground surface (bgs)

Samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260 (B).

-- = Not Analyzed

 $\mu$ g/kg = micrograms per kilogram

### TABLE 5: SOIL CHEMICAL TEST RESULTS - Volatile Organic Compounds Phase II Environmental Site Assessment

Future Port Field Support Services Complex

Port of Oakland

Oakland, California

LOCATION	MFC-18	MFC-19	MFC-19	MFC-19	MFC-20
MATRIX	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/25/02	3/25/02	3/25/02	3/25/02	3/27/02
DEPTH <sup>(1)</sup>	4.5	1.0	2.0	4.0	4.0
UNITS	µg/kg	μg/kg	μg/kg	μg/kg	µg/kg
1,1,1,2-Tetrachloroethane	< 5.0	- + - T	< 5.0	< 5.0	< 5.0
1,1,1-Trichloroethane	< 5.0	<del>24</del>	< 5.0	< 5.0	< 5.0
1,1,2,2-Tetrachloroethane	< 5.0	÷+	< 5.0	< 5.0	< 5.0
1,1,2-Trichloroethane	< 5.0	<del>20</del> 0	< 5.0	< 5.0	< 5.0
1,1-Dichloroethane	< 5.0		< 5.0	< 5.0	< 5.0
1,1-Dichloroethene	< 5.0		< 5.0	< 5.0	< 5.0
1,1-Dichloropropene	< 5.0		< 5.0	< 5.0	< 5.0
1,2,3-Trichlorobenzene	< 5.0		< 5.0	< 5.0	< 5.0
1,2,4-Trichlorobenzene	< 5.0		< 5.0	< 5.0	< 5.0
1,2,4-Trimethylbenzene	< 5.0		< 5.0	< 5.0	< 5.0
1,2-Dibromo-3-chloropropane	< 50	÷.	< 50	< 50	< 50
1,2-Dibromoethane	< 10		< 10	< 10	< 10
1,2-Dichlorobenzene	< 5.0		< 5.0	< 5.0	< 5.0
1,2-Dichloroethane	< 5.0		< 5.0	< 5.0	< 5.0
1,2-Dichloropropane	< 5.0		< 5.0	< 5.0	< 5.0
1,3,5-Trimethylbenzene	< 5.0		< 5.0	< 5.0	< 5.0
1,3-Dichlorobenzene	< 5.0	÷	< 5.0	< 5.0	< 5.0
1,3-Dichloropropane	< 5.0		< 5.0	< 5.0	< 5.0
1,4-Dichlorobenzene	< 5.0		< 5.0	< 5.0	< 5.0
2,2-Dichloropropane	< 5.0		< 5.0	< 5.0	< 5.0
2-Butanone(MEK)	< 50	<u></u>	< 50	< 50	< 50
2-Chloroethylvinyl ether	< 50	in the second se	< 50	< 50	< 50
2-Chlorotoluene	< 5.0	-2	< 5.0	< 5.0	< 5.0
2-Hexanone	< 50		< 50	< 50	< 50
4-Chlorotoluene	< 5.0		< 5.0	< 5.0	< 5.0
4-Methyl-2-pentanone (MIBK)	< 50		< 50	< 50	< 50
Acetone	< 50		< 50	< 50	< 50
Benzene	< 5.0	< 0.0050	< 5.0	< 5.0	< 5.0
Bromobenzene	< 5.0		< 5.0	< 5.0	< 5.0
Bromochloromethane	< 20		< 20	< 20	< 20
Bromodichloromethane	< 5.0		< 5.0	< 5.0	< 5.0
Bromoform	< 5.0	)	< 5.0	< 5.0	< 5.0
Bromomethane	< 10		< 10	< 10	< 10
Carbon disulfide	< 5.0	44	< 5.0	< 5.0	< 5.0
Carbon tetrachloride	< 5.0	- <del></del>	< 5.0	< 5.0	< 5.0
Chlorobenzene	< 5.0	+++	< 5.0	< 5.0	< 5.0
Chloroethane	< 10		< 10	< 10	< 10
Chloroform	< 5.0	÷-1	< 5.0	< 5.0	< 5.0
Chloromethane	< 10		< 10	< 10	< 10
cis-1,2-Dichloroethene	< 5.0		< 5.0	< 5.0	< 5.0
cis-1,3-Dichloropropene	< 5.0		< 5.0	< 5.0	< 5.0
Dibromochloromethane	< 5.0		< 5.0	< 5.0	< 5.0
Dibromomethane	< 10		< 10	< 10	< 10
Dichlorodifluoromethane	< 10		< 10	< 10	< 10
di-Isopropyl Ether (DIPE)		44			0.++.
Ethanol					
Ethyl tert-Butyl Ether (ETBE)		-			
Ethylbenzene	< 5.0	< 0.0050	< 5.0	< 5.0	< 5.0
Hexachlorobutadiene	< 5.0		< 5.0	< 5.0	< 5.0
Isopropylbenzene	< 5.0		< 5.0	< 5.0	< 5.0
Methylene chloride	< 5.0	-	< 5.0	< 5.0	< 5.0
MTBE	< 5.0	<u>.</u>	< 5.0	< 5.0	< 5.0

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#### **TABLE 5: SOIL CHEMICAL TEST RESULTS - Volatile Organic Compounds** Phase II Environmental Site Assessment

Future Port Field Support Services Complex

Port of Oakland 0

Dakland,	California	

LOCATION	MFC-18	MFC-19	MFC-19	MFC-19	MFC-20
MATRIX	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/25/02	3/25/02	3/25/02	3/25/02	3/27/02
DEPTH <sup>(1)</sup>	4.5	1.0	2.0	4.0	4.0
UNITS	μg/kg	µg/kg	µg/kg	μg/kg	μg/kg
(Continued)					
Naphthalene	< 10	- <del>50</del>	< 10	< 10	< 10
n-Butylbenzene	< 5.0	-	< 5.0	< 5.0	< 5.0
n-Propylbenzene	< 5.0	<del></del>	< 5.0	< 5.0	< 5.0
p-Isopropyltoluene	< 5.0	79	< 5.0	< 5.0	< 5.0
sec-Butylbenzene	< 5.0	÷.	< 5.0	< 5.0	< 5.0
Styrene	< 5.0		< 5.0	< 5.0	< 5.0
tert-Amyl Ethyl Ether (TAME)			.96		
tert-Butylbenzene	< 5.0		< 5.0	< 5.0	< 5.0
Tertiary Butanol (TBA)		<del></del>			
Tetrachloroethene	< 5.0		< 5.0	< 5.0	< 5.0
Toluene	< 5.0	< 0.0050	< 5.0	< 5.0	< 5.0
trans-1,2-Dichloroethene	< 5.0	÷-	< 5.0	< 5.0	< 5.0
trans-1,3-Dichloropropene	< 5.0		< 5.0	< 5.0	< 5.0
Trichloroethene	< 5.0		< 5.0	< 5.0	< 5.0
Trichlorofluoromethane	< 5.0	57 I	< 5.0	< 5.0	< 5.0
Trichlorotrifluoroethane	< 5.0		< 5.0	< 5.0	< 5.0
Vinyl acetate	< 50		< 50	< 50	< 50
Vinyl chloride	< 5.0		< 5.0	< 5.0	< 5.0
Xylenes (Total)	< 5.0	< 0.0050	< 5.0	< 5.0	< 5.0

#### Notes:

(1) Soil samples collected in sixinch tubes beginning with the depth indicated in feet below ground surface (bgs)

Samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260 (B).

-- = Not Analyzed

µg/kg = micrograms per kilogram

#### TABLE 5: SOIL CHEMICAL TEST RESULTS - Volatile Organic Compounds Phase II Environmental Site Accessment

Phase II Environmental Site Assessment

Future Port Field Support Services Complex

Port of Oakland

Oakland, California

LOCATION	MFC-20	MFC-20	MFC-21	MFC-21	MFC-22
MATRIX	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/27/02	3/27/02	3/28/02	3/28/02	3/28/02
DEPTH <sup>(1)</sup>	7.0	13.0	4.5	8.0	4.5
UNITS	μg/kg	μg/kg	µg/kg	μg/kg	μg/kg
1,1,1,2-Tetrachloroethane	< 5.0	-	< 5.0	< 5.0	< 5.0
1,1,1-Trichloroethane	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
1,1,2,2-Tetrachloroethane	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
1,1,2-Trichloroethane	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
1,1-Dichloroethane	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
1,1-Dichloroethene	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
1,1-Dichloropropene	< 5.0		< 5.0	< 5.0	< 5.0
1,2,3-Trichlorobenzene	< 5.0		< 5.0	< 5.0	< 5.0
1,2,4-Trichlorobenzene	< 5.0		< 5.0	< 5.0	< 5.0
1,2,4-Trimethylbenzene	< 5.0	2	< 5.0	< 5.0	< 5.0
1,2-Dibromo-3-chloropropane	< 50	<b>A</b> -1	< 50	< 50	< 50
1,2-Dibromoethane	< 10	<u> </u>	< 10	< 10	< 10
1,2-Dichlorobenzene	< 5.0		< 5.0	< 5.0	< 5.0
1,2-Dichloroethane	< 5.0	< 2.0	< 5.0	< 5.0	< 5.0
1,2-Dichloropropane	< 5.0	< 2.0	< 5.0	< 5.0	< 5.0
1,3,5-Trimethylbenzene	< 5.0		< 5.0	< 5.0	< 5.0
1,3-Dichlorobenzene	< 5.0		< 5.0	< 5.0	< 5.0
1,3-Dichloropropane	< 5.0	-	< 5.0	< 5.0	< 5.0
1,4-Dichlorobenzene	< 5.0		< 5.0	< 5.0	< 5.0
2,2-Dichloropropane	< 5.0		< 5.0	< 5.0	< 5.0
2-Butanone(MEK)	< 50	< 10.0	< 50	< 50	< 50
2-Chloroethylvinyl ether	< 50		< 50	< 50	< 50
2-Chlorotoluene	< 5.0		< 5.0	< 5.0	< 5.0
2-Hexanone	< 50	< 2.0	< 50	< 50	< 50
4-Chlorotoluene	< 5.0	- 2.0	< 5.0	< 5.0	< 5.0
4-Methyl-2-pentanone (MIBK)	< 50	< 2.0	< 50	< 50	< 50
Acetone	< 50	< 5.0	< 50	< 50	
Benzene	< 5.0	< 1.0	< 5.0	< 5.0	< 50
Bromobenzene	< 5.0	~ 1.0	< 5.0		< 5.0
Bromochloromethane	< 20		< 20	< 5.0 < 20	< 5.0
Bromodichloromethane	< 5.0	< 1.0	< 5.0		< 20
Bromoform	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
Bromomethane	< 10	< 2.0	< 10	< 5.0	< 5.0
Carbon disulfide	< 5.0			< 10	< 10
Carbon tetrachloride		< 1.0	< 5.0	< 5.0	< 5.0
Chlorobenzene	< 5.0 < 5.0	< 1.0 < 1.0	< 5.0 < 5.0	< 5.0	< 5.0
Chloroethane	< 10	< 2.0	< 10	< 5.0	< 5.0
Chloroform	< 5.0	< 2.0	< 5.0	< 10 < 5.0	< 10
Chloromethane	< 10	< 2.0	< 10	< 10	< 5.0
cis-1,2-Dichloroethene	< 5.0	< 1.0	< 5.0	< 5.0	< 10
cis-1,3-Dichloropropene	< 5.0	< 1.0	< 5.0		< 5.0
Dibromochloromethane	< 5.0			< 5.0	< 5.0
Dibromomethane	< 10	< 1.0	< 5.0	< 5.0	< 5.0
Dichlorodifluoromethane			< 10	< 10	< 10
	< 10		< 10	< 10	< 10
li-Isopropyl Ether (DIPE)		< 2.0			
Ethanol Ethyl tart Bubyl Ether (ETBE)		< 200.0			
Ethyl tert-Butyl Ether (ETBE)	- 5 0	< 2.0			
Ethylbenzene	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
Hexachlorobutadiene	< 5.0		< 5.0	< 5.0	< 5.0
sopropylbenzene	< 5.0		< 5.0	< 5.0	< 5.0
Methylene chloride	< 5.0		< 5.0	< 5.0	< 5.0
MTBE	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0

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#### **TABLE 5: SOIL CHEMICAL TEST RESULTS - Volatile Organic Compounds** Phase II Environmental Site Assessment **Future Port Field Support Services Complex**

Port of Oakland Oakland, California

LOCATION	MFC-20	MFC-20	MFC-21	MFC-21	MFC-22
MATRIX	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/27/02	3/27/02	3/28/02	3/28/02	3/28/02
DEPTH <sup>(1)</sup>	7.0	13.0	4.5	8.0	4.5
UNITS	μg/kg	μg/kg	μg/kg	µg/kg	µg/kg
(Continued)					
Naphthalene	< 10	44	< 10	< 10	< 10
n-Butylbenzene	< 5.0		< 5.0	< 5.0	< 5.0
n-Propylbenzene	< 5.0	< 2.0	< 5.0	< 5.0	< 5.0
p-Isopropyltoluene	< 5.0	-	< 5.0	< 5.0	< 5.0
sec-Butylbenzene	< 5.0		< 5.0	< 5.0	< 5.0
Styrene	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
tert-Amyl Ethyl Ether (TAME)		< 2.0	<u></u>	Diff. (J	
tert-Butylbenzene	< 5.0	-	< 5.0	< 5.0	< 5.0
Tertiary Butanol (TBA)		< 50.0	1994 - C	1 mm	ستبر ا
Tetrachloroethene	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
Toluene	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
trans-1,2-Dichloroethene	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
trans-1,3-Dichloropropene	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
Trichloroethene	< 5.0	< 1.0	< 5.0	< 5.0	< 5.0
Trichlorofluoromethane	< 5.0		< 5.0	< 5.0	< 5.0
Trichlorotrifluoroethane	< 5.0		< 5.0	< 5.0	< 5.0
Vinyl acetate	< 50	< 5.0	< 50	< 50	< 50
Vinyl chloride	< 5.0	< 3.0	< 5.0	< 5.0	< 5.0
Xylenes (Total)	< 5.0	< 2.0	< 5.0	< 5.0	< 5.0

#### Notes:

(1) Soil samples collected in sixinch tubes beginning with the depth indicated in feet below ground surface (bgs)

Samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260 (B).

-- = Not Analyzed

 $\mu g/kg = micrograms per kilogram$ 

Oakland, California

LOCATION	MFC-22	MFC-23	MFC-23	MFC-24	MFC-24
MATRIX	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/28/02	3/28/02	3/28/02	3/27/02	3/27/02
DEPTH <sup>(1)</sup>	7.5	5.5	8.0	1.5	4.0
UNITS	μg/kg	μg/kg	a.0 μg/kg	μg/kg	4.0 μg/kg
CALC SY DUCTION				μg/kg	
1,1,1,2-Tetrachloroethane	< 5.0	< 5.0	< 5.0		< 5.0
1,1,1-Trichloroethane	< 5.0	< 5.0	< 5.0	-	< 5.0
1,1,2,2-Tetrachloroethane	< 5.0	< 5.0	< 5.0		< 5.0
1,1,2-Trichloroethane	< 5.0	< 5.0	< 5.0		< 5.0
1,1-Dichloroethane	< 5.0	< 5.0	< 5.0	ee'	< 5.0
1,1-Dichloroethene	< 5.0	< 5.0	< 5.0		< 5.0
1,1-Dichloropropene	< 5.0	< 5.0	< 5.0		< 5.0
1,2,3-Trichlorobenzene	< 5.0	< 5.0	< 5.0		< 5.0
1,2,4-Trichlorobenzene	< 5.0	< 5.0	< 5.0		< 5.0
1,2,4-Trimethylbenzene	< 5.0	< 5.0	< 5.0	÷.	< 5.0
1,2-Dibromo-3-chloropropane	< 50	< 50	< 50	10 tec	< 50
1,2-Dibromoethane	< 10	< 10	< 10	-	< 10
1,2-Dichlorobenzene	< 5.0	< 5.0	< 5.0		< 5.0
1,2-Dichloroethane	< 5.0	< 5.0	< 5.0		< 5.0
1,2-Dichloropropane	< 5.0	< 5.0	< 5.0		< 5.0
1,3,5-Trimethylbenzene	< 5.0	< 5.0	< 5.0	ين في ال	< 5.0
1,3-Dichlorobenzene	< 5.0	< 5.0	< 5.0		< 5.0
1,3-Dichloropropane	< 5.0	< 5.0	< 5.0		< 5.0
1,4-Dichlorobenzene	< 5.0	< 5.0	< 5.0		< 5.0
2,2-Dichloropropane	< 5.0	< 5.0	< 5.0		< 5.0
2-Butanone(MEK)	< 50	< 50	< 50		< 50
2-Chloroethylvinyl ether	< 50	< 50	< 50	- <u>-</u>	< 50
2-Chlorotoluene	< 5.0	< 5.0	< 5.0		< 5.0
2-Hexanone	< 50	< 50	< 50	-	< 50
4-Chlorotoluene	< 5.0	< 5.0	< 5.0	÷	< 5.0
4-Methyl-2-pentanone (MIBK)	< 50	< 50	< 50		< 50
Acetone	< 50	< 50	< 50	-	< 50
Benzene	< 5.0	< 5.0	< 5.0	< 0.0050	< 5.0
Bromobenzene	< 5.0	< 5.0	< 5.0		< 5.0
Bromochloromethane	< 20	< 20	< 20		< 20
Bromodichloromethane	< 5.0	< 5.0	< 5.0		< 5.0
Bromoform	< 5.0	< 5.0	< 5.0		< 5.0
Bromomethane	< 10	< 10	< 10		< 10
Carbon disulfide	< 5.0	< 5.0	< 5.0		< 5.0
Carbon tetrachloride	< 5.0	< 5.0	< 5.0		< 5.0
Chlorobenzene	< 5.0	< 5.0	< 5.0	<u> </u>	< 5.0
Chloroethane	< 10	< 10	< 10	0	< 10
Chloroform	< 5.0	< 5.0	< 5.0		< 5.0
Chloromethane	< 10	< 10	< 10		< 10
cis-1,2-Dichloroethene	< 5.0	< 5.0	< 5.0		< 5.0
cis-1,3-Dichloropropene	< 5.0	< 5.0	< 5.0	44	< 5.0
Dibromochloromethane	< 5.0	< 5.0	< 5.0		< 5.0
Dibromomethane	< 10	< 10	< 10		< 10
Dichlorodifluoromethane	< 10	< 10	< 10		< 10
di-Isopropyl Ether (DIPE)	~ 10	- 10	- 10		- 10
Ethanol		-		2	
Ethyl tert-Butyl Ether (ETBE)					
Ethylbenzene	< 5.0	< 5.0	< 5.0	< 0.0050	< 5.0
Hexachlorobutadiene	< 5.0	< 5.0	< 5.0	- 0.0050	< 5.0
			< 5.0		
Isopropylbenzene Methylene ableride	< 5.0	< 5.0			< 5.0
Methylene chloride	< 5.0	< 5.0	< 5.0		< 5.0
MTBE	< 5.0	< 5.0	< 5.0	17	< 5.0

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Oakland, California

LOCATION	MFC-22	MFC-23	MFC-23	MFC-24	MFC-24
MATRIX	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/28/02	3/28/02	3/28/02	3/27/02	3/27/02
DEPTH <sup>(1)</sup>	7.5	5.5	8.0	1.5	4.0
UNITS	μg/kg	µg/kg	µg/kg	µg/kg	µg/kg
(Continued)	100 Au				
Naphthalene	< 10	< 10	< 10		< 10
n-Butylbenzene	< 5.0	< 5.0	< 5.0		< 5.0
n-Propylbenzene	< 5.0	< 5.0	< 5.0	-	< 5.0
p-Isopropyltoluene	< 5.0	< 5.0	< 5.0	÷.	< 5.0
sec-Butylbenzene	< 5.0	< 5.0	< 5.0		< 5.0
Styrene	< 5.0	< 5.0	< 5.0	- 44	< 5.0
tert-Amyl Ethyl Ether (TAME)		-		i o <del>g</del> elli	1
tert-Butylbenzene	< 5.0	< 5.0	< 5.0		< 5.0
Tertiary Butanol (TBA)				1.4	
Tetrachloroethene	< 5.0	< 5.0	< 5.0		< 5.0
Toluene	< 5.0	< 5.0	< 5.0	< 0.0050	< 5.0
trans-1,2-Dichloroethene	< 5.0	< 5.0	< 5.0	1440	< 5.0
trans-1,3-Dichloropropene	< 5.0	< 5.0	< 5.0		< 5.0
Trichloroethene	< 5.0	< 5.0	< 5.0	(* <del>**</del> )	< 5.0
Trichlorofluoromethane	< 5.0	< 5.0	< 5.0		< 5.0
Trichlorotrifluoroethane	< 5.0	< 5.0	< 5.0	0.400	< 5.0
Vinyl acetate	< 50	< 50	< 50	÷.	< 50
Vinyl chloride	< 5.0	< 5.0	< 5.0	70	< 5.0
Xylenes (Total)	< 5.0	< 5.0	< 5.0	< 0.0050	5.0

#### Notes:

(1) Soil samples collected in sixinch tubes beginning with the depth indicated in feet below ground surface (bgs)

Samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260 (B).

-- = Not Analyzed

 $\mu g/kg = micrograms per kilogram$ 

### TABLE 5: SOIL CHEMICAL TEST RESULTS - Volatile Organic CompoundsPhase II Environmental Site AssessmentFuture Port Field Support Services Complex

Port of Oakland

Oakland, California

LOCATION	MFC-24	MFC-25	MFC-25	MFC-25	MFC-26
MATRIX	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/27/02	3/28/02	3/28/02	3/28/02	3/27/02
DEPTH <sup>(1)</sup>	4.5	1.0	4.5	7.5	1.5
UNITS	μg/kg	μg/kg	μg/kg	μg/kg	μg/kg
1,1,1,2-Tetrachloroethane	100		< 5.0		
1,1,1,1-Trichloroethane	< 1.0	< 1.0	< 5.0	< 1.0	-
	< 1.0	< 1.0	< 5.0	< 1.0	
1,1,2,2-Tetrachloroethane	< 1.0	< 1.0	< 5.0	< 1.0	
1,1,2-Trichloroethane	< 1.0	< 1.0	< 5.0	< 1.0	
1,1-Dichloroethane	< 1.0	< 1.0	< 5.0	< 1.0	<u> </u>
1,1-Dichloroethene	< 1.0				
1,1-Dichloropropene			< 5.0		
1,2,3-Trichlorobenzene	C <del></del>		< 5.0		
1,2,4-Trichlorobenzene	1. A.		< 5.0		
1,2,4-Trimethylbenzene			< 5.0		2
1,2-Dibromo-3-chloropropane		75	< 50		
1,2-Dibromoethane	100		< 10		
1,2-Dichlorobenzene		-	< 5.0		
1,2-Dichloroethane	< 2.0	< 2.0	< 5.0	< 2.0	÷=``
1,2-Dichloropropane	< 2.0	< 2.0	< 5.0	< 2.0	
1,3,5-Trimethylbenzene	- <del>2</del> 2	<u>.</u>	< 5.0	77	
1,3-Dichlorobenzene	C##N	÷	< 5.0		
1,3-Dichloropropane			< 5.0		
1,4-Dichlorobenzene			< 5.0		
2,2-Dichloropropane			< 5.0		
2-Butanone(MEK)	< 10.0	< 10.0	< 50	< 10.0	
2-Chloroethylvinyl ether			< 50		
2-Chlorotoluene	1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	<del></del>	< 5.0		
2-Hexanone	< 2.0	< 2.0	< 50	< 2.0	( <del>22</del> )
4-Chlorotoluene		-	< 5.0	(***)	1. <del>21</del>
4-Methyl-2-pentanone (MIBK)	< 2.0	< 2.0	< 50	< 2.0	~ <del>~</del>
Acetone	< 5.0	< 5.0	59	< 5.0	
Benzene	< 1.0	< 1.0	< 5.0	< 1.0	< 0.0050
Bromobenzene			< 5.0	-	
Bromochloromethane			< 20		
Bromodichloromethane	< 1.0	< 1.0	< 5.0	< 1.0	<del>22</del>
Bromoform	< 1.0	< 1.0	< 5.0	< 1.0	
Bromomethane	< 2.0	< 2.0	< 10	< 2.0	
Carbon disulfide	< 1.0	< 1.0	< 5.0	< 1.0	
Carbon tetrachloride	< 1.0	< 1.0	< 5.0	< 1.0	
Chlorobenzene	< 1.0	< 1.0	< 5.0	< 1.0	. <del></del> )
Chloroethane	< 2.0	< 2.0	< 10	< 2.0	
Chloroform	< 2.0	< 2.0	< 5.0	< 2.0	- <del></del>
Chloromethane	< 2.0	< 2.0	< 10	< 2.0	
cis-1,2-Dichloroethene	< 1.0	< 1.0	< 5.0	< 1.0	
cis-1,3-Dichloropropene	< 1.0	< 1.0	< 5.0	< 1.0	1. A . A . A . A . A . A . A . A . A . A
Dibromochloromethane	< 1.0	< 1.0	< 5.0	< 1.0	
Dibromomethane			< 10		
Dichlorodifluoromethane		÷.	< 10		
di-Isopropyl Ether (DIPE)	< 2.0	< 2.0	12	< 2.0	
Ethanol	< 200.0	< 200.0		< 200.0	
Ethyl tert-Butyl Ether (ETBE)	< 2.0	< 2.0	÷	< 2.0	
Ethylbenzene	< 1.0	< 1.0	< 5.0	< 1.0	< 0.0050
Hexachlorobutadiene			< 5.0		
Isopropylbenzene			< 5.0		
Methylene chloride			< 5.0		
MTBE	< 1.0	< 1.0	< 5.0	< 1.0	

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Oakland, California

LOCATION	MFC-24	MFC-25	MFC-25	MFC-25	MFC-26
MATRIX	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/27/02	3/28/02	3/28/02	3/28/02	3/27/02
DEPTH <sup>(1)</sup>	4.5	1.0	4.5	7.5	1.5
UNITS	µg/kg	μg/kg	µg/kg	µg/kg	µg/kg
(Continued)					
Naphthalene			< 10		
n-Butylbenzene		<del></del>	< 5.0		
n-Propylbenzene	< 2.0	< 2.0	< 5.0	< 2.0	
p-Isopropyltoluene			< 5.0		
sec-Butylbenzene			< 5.0	()	
Styrene	< 1.0	< 1.0	< 5.0	< 1.0	
tert-Amyl Ethyl Ether (TAME)	< 2.0	< 2.0	- <del>12</del>	< 2.0	
tert-Butylbenzene		( <del>11</del>	< 5.0	i n <del>i ti</del> ti	1 <b>1</b>
Tertiary Butanol (TBA)	< 50.0	< 50.0		< 50.0	000
Tetrachloroethene	< 1.0	< 1.0	< 5.0	< 1.0	
Toluene	1.1	< 1.0	< 5.0	< 1.0	< 0.0050
trans-1,2-Dichloroethene	< 1.0	< 1.0	< 5.0	< 1.0	
trans-1,3-Dichloropropene	< 1.0	< 1.0	< 5.0	< 1.0	
Trichloroethene	< 1.0	< 1.0	< 5.0	< 1.0	
Trichlorofluoromethane		<b>T</b>	< 5.0		-
Trichlorotrifluoroethane			< 5.0	144	
Vinyl acetate	< 5.0	< 5.0	< 50	< 5.0	
Vinyl chloride	< 3.0	< 3.0	< 5.0	< 3.0	CO HOLES
Xylenes (Total)	< 2.0	< 2.0	< 5.0	< 2.0	< 0.0050

#### Notes:

(1) Soil samples collected in sixinch tubes beginning with the depth indicated in feet below ground surface (bgs)

Samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260 (B).

-- = Not Analyzed

 $\mu$ g/kg = micrograms per kilogram

Oakland, California

LOCATION MATRIX	MFC-26 Soil	MFC-26 Soil	MFC-27	MFC-27 Soil	MFC-27
			Soil		Soil
COLLECTION DATE	3/27/02	3/27/02	3/27/02	3/27/02	3/27/02
DEPTH <sup>(1)</sup>	5.0	7.5	1.5	4.5	5.5
UNITS	μg/kg	µg/kg	µg/kg	µg/kg	μg/kg
1,1,1,2-Tetrachloroethane	< 5.0	< 5.0		< 5.0	
1,1,1-Trichloroethane	< 5.0	< 5.0	-	< 5.0	< 1.0
1,1,2,2-Tetrachloroethane	< 5.0	< 5.0	- <del></del>	< 5.0	< 1.0
1,1,2-Trichloroethane	< 5.0	< 5.0	- <del>11</del>	< 5.0	< 1.0
1,1-Dichloroethane	< 5.0	< 5.0	1 <del>11</del>	< 5.0	< 1.0
1,1-Dichloroethene	< 5.0	< 5.0	( <del>120</del> )	< 5.0	< 1.0
1,1-Dichloropropene	< 5.0	< 5.0		< 5.0	
1,2,3-Trichlorobenzene	< 5.0	< 5.0		< 5.0	
1,2,4-Trichlorobenzene	< 5.0	< 5.0		< 5.0	
1,2,4-Trimethylbenzene	< 5.0	< 5.0		< 5.0	
1,2-Dibromo-3-chloropropane	< 50	< 50		< 50	
1,2-Dibromoethane	< 10	< 10		< 10	
1,2-Dichlorobenzene	< 5.0	< 5.0	-	< 5.0	44 <sup>-</sup>
1,2-Dichloroethane	< 5.0	< 5.0		< 5.0	< 2.0
1,2-Dichloropropane	< 5.0	< 5.0		< 5.0	< 2.0
1,3,5-Trimethylbenzene	< 5.0	< 5.0		< 5.0	<del></del>
1,3-Dichlorobenzene	< 5.0	< 5.0	÷.	< 5.0	
1,3-Dichloropropane	< 5.0	< 5.0		< 5.0	
1,4-Dichlorobenzene	< 5.0	< 5.0		< 5.0	
2,2-Dichloropropane	< 5.0	< 5.0		< 5.0	
2-Butanone(MEK)	< 50	< 50		< 50	< 10.0
2-Chloroethylvinyl ether	< 50	< 50	neen	< 50	
2-Chlorotoluene	< 5.0	< 5.0	· •••	< 5.0	
2-Hexanone	< 50	< 50		< 50	< 2.0
4-Chlorotoluene	< 5.0	< 5.0		< 5.0	
4-Methyl-2-pentanone (MIBK)	< 50	< 50		< 50	< 2.0
Acetone	< 50	< 50		< 50	< 5.0
Benzene	< 5.0	< 5.0	< 0.0050	< 5.0	< 1.0
Bromobenzene	< 5.0	< 5.0		< 5.0	100
Bromochloromethane	< 20	< 20		< 20	-1.0
Bromodichloromethane	< 5.0	< 5.0		< 5.0	< 1.0
Bromoform	< 5.0	< 5.0		< 5.0	< 1.0
Bromomethane	< 10	< 10	77	< 10	< 2.0
Carbon disulfide Carbon tetrachloride	< 5.0 < 5.0	< 5.0	1	< 5.0	< 1.0
Chlorobenzene	< 5.0	< 5.0 < 5.0	-	< 5.0 < 5.0	< 1.0 < 1.0
Chloroethane	< 10	< 10	E.	< 10	< 2.0
Chloroform	< 5.0	< 5.0		< 5.0	< 2.0
Chloromethane	< 10	< 10		< 10	< 2.0
cis-1,2-Dichloroethene	< 5.0	< 5.0		< 5.0	< 1.0
cis-1,3-Dichloropropene	< 5.0	< 5.0	- E	< 5.0	< 1.0
Dibromochloromethane	< 5.0	< 5.0		< 5.0	< 1.0
Dibromomethane	< 10	< 10		< 10	
Dichlorodifluoromethane	< 10	< 10	2	< 10	
di-Isopropyl Ether (DIPE)		< 10			< 2.0
Ethanol					< 200.0
Ethyl tert-Butyl Ether (ETBE)	-				< 2.0
Ethylbenzene	< 5.0	< 5.0	5.5	< 5.0	< 1.0
Hexachlorobutadiene	< 5.0	< 5.0		< 5.0	< 1.0
Isopropylbenzene	< 5.0	< 5.0		< 5.0	
Methylene chloride	< 5.0	< 5.0		< 5.0	
MTBE	< 5.0	< 5.0		< 5.0	< 1.0
	~ 5.0	5 Page 29 of			S ENVIRONME

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**Phase II Environmental Site Assessment** 

**Future Port Field Support Services Complex** 

Port of Oakland

Oakland, California

LOCATION	MFC-26	MFC-26	MFC-27	MFC-27	MFC-27
MATRIX	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/27/02	3/27/02	3/27/02	3/27/02	3/27/02
DEPTH <sup>(1)</sup>	5.0	7.5	1.5	4.5	5.5
UNITS	µg/kg	μg/kg	µg/kg	Soil 3/27/02	μg/kg
(Continued)					
Naphthalene	< 10	< 10	-	< 10	
n-Butylbenzene	< 5.0	< 5.0		< 5.0	39
n-Propylbenzene	< 5.0	< 5.0	-	< 5.0	< 2.0
p-Isopropyltoluene	< 5.0	< 5.0		< 5.0	
sec-Butylbenzene	< 5.0	< 5.0		< 5.0	
Styrene	< 5.0	< 5.0		< 5.0	< 1.0
tert-Amyl Ethyl Ether (TAME)			s see a	÷	< 2.0
tert-Butylbenzene	< 5.0	< 5.0	1.0	< 5.0	
Tertiary Butanol (TBA)		÷	1. A A A A A A A A A A A A A A A A A A A		< 50.0
Tetrachloroethene	< 5.0	< 5.0		< 5.0	< 1.0
Toluene	< 5.0	< 5.0	18	< 5.0	< 1.0
trans-1,2-Dichloroethene	< 5.0	< 5.0		< 5.0	< 1.0
trans-1,3-Dichloropropene	< 5.0	< 5.0	- 14 C	< 5.0	< 1.0
Trichloroethene	< 5.0	< 5.0	÷++	< 5.0	< 1.0
Trichlorofluoromethane	< 5.0	< 5.0		< 5.0	
Trichlorotrifluoroethane	< 5.0	< 5.0	0 <del>44</del> 0	< 5.0	
Vinyl acetate	< 50	< 50		< 50	< 5.0
Vinyl chloride	< 5.0	< 5.0		< 5.0	< 3.0
Xylenes (Total)	< 5.0	< 5.0	26	< 5.0	< 2.0

#### Notes:

(1) Soil samples collected in sixinch tubes beginning with the depth indicated in feet below ground surface (bgs)

Samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260 (B).

-- = Not Analyzed

 $\mu$ g/kg = micrograms per kilogram

Phase II Environmental Site Assessment

Future Port Field Support Services Complex

Port of Oakland

Oakland, California

MATRIX COLLECTION DATE DEPTH <sup>(1)</sup> UNITS 1,1,2-Tetrachloroethane	Soil 3/27/02 1.0 µg/kg	Soil 3/27/02 5.0	Soil 3/26/02 1.0	Soil 3/26/02	Soil 3/26/02
DEPTH <sup>(1)</sup> UNITS	1.0	5.0			3/26/02
UNITS			1.0		
10 1 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	μg/kg		1.0	5.5	4.5
1 1 1 2-Tetrachloroethane		µg/kg	µg/kg	μg/kg	µg/kg
1,1,1,2-101140110100114110		< 5.0	+	14	< 5.0
1,1,1-Trichloroethane		< 5.0		< 1.0	< 5.0
1,1,2,2-Tetrachloroethane	0.430	< 5.0		< 1.0	< 5.0
1,1,2-Trichloroethane		< 5.0		< 1.0	< 5.0
1,1-Dichloroethane		< 5.0		< 1.0	< 5.0
1,1-Dichloroethene		< 5.0		< 1.0	< 5.0
1,1-Dichloropropene		< 5.0			< 5.0
1,2,3-Trichlorobenzene		< 5.0		( <del>44</del> )	< 5.0
1,2,4-Trichlorobenzene	-	< 5.0	· · · · ·	÷.	< 5.0
1,2,4-Trimethylbenzene		< 5.0	G-		< 5.0
1,2-Dibromo-3-chloropropane		< 50	1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 -	÷	< 50
1,2-Dibromoethane		< 10	- <del></del> -		< 10
1,2-Dichlorobenzene		< 5.0			< 5.0
1,2-Dichloroethane		< 5.0	-	< 2.0	< 5.0
1,2-Dichloropropane	-	< 5.0		< 2.0	< 5.0
1,3,5-Trimethylbenzene	÷	< 5.0			< 5.0
1,3-Dichlorobenzene		< 5.0	-	1.49	< 5.0
1,3-Dichloropropane		< 5.0	1240	144	< 5.0
1,4-Dichlorobenzene		< 5.0			< 5.0
2,2-Dichloropropane	-	< 5.0		-	< 5.0
2-Butanone(MEK)	-+-	< 50		< 10.0	< 50
2-Chloroethylvinyl ether		< 50		-	< 50
2-Chlorotoluene		< 5.0			< 5.0
2-Hexanone		< 50	4	< 2.0	< 50
4-Chlorotoluene		< 5.0			< 5.0
4-Methyl-2-pentanone (MIBK)		< 50		< 2.0	< 50
Acetone		< 50		< 5.0	< 50
Benzene	< 0.0050	< 5.0	< 0.0050	< 1.0	< 5.0
Bromobenzene		< 5.0			< 5.0
Bromochloromethane		< 20	-		< 20
Bromodichloromethane	2.	< 5.0		< 1.0	< 5.0
Bromoform		< 5.0	14	< 1.0	< 5.0
Bromomethane	-	< 10		< 2.0	< 10
Carbon disulfide	- <del>2</del>	< 5.0	-423	< 1.0	< 5.0
Carbon tetrachloride	-	< 5.0		< 1.0	< 5.0
Chlorobenzene		< 5.0		< 1.0	< 5.0
Chloroethane	<del>40</del>	< 10		< 2.0	< 10
Chloroform		< 5.0	949 C	< 2.0	< 5.0
Chloromethane		< 10		< 2.0	< 10
cis-1,2-Dichloroethene		< 5.0	- <del></del> -)	< 1.0	< 5.0
cis-1,3-Dichloropropene		< 5.0	144	< 1.0	< 5.0
Dibromochloromethane	- al.	< 5.0	44	< 1.0	< 5.0
Dibromomethane		< 10			< 10
Dichlorodifluoromethane		< 10			< 10
li-Isopropyl Ether (DIPE)	(m)	-		< 2.0	
Ethanol		<u></u>	-	< 200.0	
Ethyl tert-Butyl Ether (ETBE)		-		< 2.0	-
Ethylbenzene	< 0.0050	< 5.0	< 0.0050	< 1.0	< 5.0
Iexachlorobutadiene		< 5.0			< 5.0
sopropylbenzene		< 5.0	1040	12	< 5.0
Methylene chloride	44	< 5.0	10 H C	4	< 5.0
MTBE		< 5.0		< 1.0	< 5.0

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### TABLE 5: SOIL CHEMICAL TEST RESULTS - Volatile Organic CompoundsPhase II Environmental Site AssessmentFuture Port Field Support Services Complex

Port of Oakland

Oakland, California

LOCATION	MFC-28	MFC-28	MFC-29	MFC-29	MFC-29
MATRIX	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/27/02	3/27/02	3/26/02	3/26/02	3/26/02
DEPTH <sup>(1)</sup>	1.0	5.0	1.0	5.5	4.5
UNITS	µg/kg	µg/kg	μg/kg	µg/kg	μg/kg
(Continued)					
Naphthalene		< 10		(He)	< 10
n-Butylbenzene	- 22	< 5.0	447	-	< 5.0
n-Propylbenzene	c <del>ii</del> c	< 5.0	1	< 2.0	< 5.0
p-Isopropyltoluene		< 5.0	1.11	i i <del>g</del> en	< 5.0
sec-Butylbenzene		< 5.0	i de la compañía de la		< 5.0
Styrene		< 5.0		< 1.0	< 5.0
tert-Amyl Ethyl Ether (TAME)				< 2.0	
tert-Butylbenzene	-	< 5.0			< 5.0
Tertiary Butanol (TBA)				< 50.0	( <u></u> )
Tetrachloroethene		< 5.0	-	< 1.0	< 5.0
Toluene	6.2	< 5.0	< 0.0050	< 1.0	< 5.0
trans-1,2-Dichloroethene	0	< 5.0		< 1.0	< 5.0
trans-1,3-Dichloropropene	- <del>4</del>	< 5.0		< 1.0	< 5.0
Trichloroethene		< 5.0	- <del>1</del>	< 1.0	< 5.0
Trichlorofluoromethane	-	< 5.0	÷.		< 5.0
Trichlorotrifluoroethane		< 5.0		-	< 5.0
Vinyl acetate	(m)	< 50	1 <del>11</del>	< 5.0	< 50
Vinyl chloride		< 5.0		< 3.0	< 5.0
Xylenes (Total)	12	< 5.0	< 0.0050	< 2.0	< 5.0

#### Notes:

(1) Soil samples collected in sixinch tubes beginning with the depth indicated in feet below ground surface (bgs)

Samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260 (B).

-- = Not Analyzed

 $\mu$ g/kg = micrograms per kilogram

Phase II Environmental Site Assessment

Future Port Field Support Services Complex

Port of Oakland

Oakland, California

LOCATION	MFC-29-DUP	MFC-30	MFC-30	MFC-31	MFC-31
MATRIX	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/26/02	3/27/02	3/27/02	3/25/02	3/25/02
DEPTH <sup>(1)</sup>	4.5	1.5	4.5	1.0	3.0
UNITS	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
1,1,1,2-Tetrachloroethane	< 5.0		141		< 5.0
1,1,1-Trichloroethane	< 5.0		< 1.0		< 5.0
1,1,2,2-Tetrachloroethane	< 5.0	<del></del>	< 1.0	0 <del>-1</del> 101	< 5.0
1,1,2-Trichloroethane	< 5.0		< 1.0		< 5.0
1,1-Dichloroethane	< 5.0		< 1.0	1 - <del></del>	< 5.0
1,1-Dichloroethene	< 5.0		< 1.0	1 <del>/ 2</del> (1	< 5.0
1,1-Dichloropropene	< 5.0	÷.		-	< 5.0
1,2,3-Trichlorobenzene	< 5.0			-	< 5.0
1,2,4-Trichlorobenzene	< 5.0	-R.			< 5.0
1,2,4-Trimethylbenzene	< 5.0		1441		< 5.0
1,2-Dibromo-3-chloropropane	< 50		11/22/11	ci <del>si</del> (	< 50
1,2-Dibromoethane	< 10		1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 - 1990 -		< 10
1,2-Dichlorobenzene	< 5.0	<del></del>			< 5.0
1,2-Dichloroethane	< 5.0	<del>5.</del>	< 2.0	-	< 5.0
1,2-Dichloropropane	< 5.0		< 2.0	الجير ا	< 5.0
1,3,5-Trimethylbenzene	< 5.0	÷			< 5.0
1,3-Dichlorobenzene	< 5.0		- <u>1</u>		< 5.0
1,3-Dichloropropane	< 5.0	-	4		< 5.0
1,4-Dichlorobenzene	< 5.0	**	1 ÷ ÷ · · · · · ·	0.4400	< 5.0
2,2-Dichloropropane	< 5.0	100		0.00	< 5.0
2-Butanone(MEK)	< 50		< 10.0	i de ci	< 50
2-Chloroethylvinyl ether	< 50				< 50
2-Chlorotoluene	< 5.0	÷	1.4	- <del>2</del>	< 5.0
2-Hexanone	< 50		< 2.0		< 50
4-Chlorotoluene	< 5.0	<u>e</u> -1	·	÷.	< 5.0
4-Methyl-2-pentanone (MIBK)	< 50		< 2.0	÷	< 50
Acetone	< 50		< 5.0	-	< 50
Benzene	< 5.0	< 0.0050	< 1.0	< 0.0050	< 5.0
Bromobenzene	< 5.0				< 5.0
Bromochloromethane	< 20				< 20
Bromodichloromethane	< 5.0		< 1.0		< 5.0
Bromoform	< 5.0		< 1.0		< 5.0
Bromomethane	< 10		< 2.0		< 10
Carbon disulfide	< 5.0	÷	< 1.0	44 C	< 5.0
Carbon tetrachloride	< 5.0		< 1.0		< 5.0
Chlorobenzene	< 5.0	<u></u>	< 1.0		< 5.0
Chloroethane	< 10	<u></u>	< 2.0	÷.	< 10
Chloroform	< 5.0		< 2.0	( <del>17</del> 1)	< 5.0
Chloromethane	< 10		< 2.0	( <del>***</del> )	< 10
cis-1,2-Dichloroethene	< 5.0		< 1.0		< 5.0
cis-1,3-Dichloropropene	< 5.0		< 1.0		< 5.0
Dibromochloromethane	< 5.0	-	< 1.0	-	< 5.0
Dibromomethane	< 10			122	< 10
Dichlorodifluoromethane	< 10	12	1 and 1 a		< 10
di-Isopropyl Ether (DIPE)		<u>.</u>	< 2.0		
Ethanol		a Asia	< 200.0		
Ethyl tert-Butyl Ether (ETBE)			< 2.0		
Ethylbenzene	< 5.0	< 0.0050	< 1.0	< 0.0050	< 5.0
Hexachlorobutadiene	< 5.0				< 5.0
Isopropylbenzene	< 5.0	4, 11			< 5.0
Methylene chloride	< 5.0	4.1	- 14	34-C	< 5.0
MTBE	< 5.0		< 1.0		< 5.0

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Phase II Environmental Site Assessment

**Future Port Field Support Services Complex** 

Port of Oakland

Oakland, California

LOCATION	MFC-29-DUP	MFC-30	MFC-30	MFC-31	MFC-31
MATRIX	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/26/02	3/27/02	3/27/02	3/25/02	3/25/02
DEPTH <sup>(1)</sup>	4.5	1.5	4.5	1.0	3.0
UNITS	μg/kg	µg/kg	µg/kg	µg/kg	μg/kg
(Continued)					
Naphthalene	< 10		- <del>12</del> -1		< 10
n-Butylbenzene	< 5.0		-		< 5.0
n-Propylbenzene	< 5.0		< 2.0	- A.	< 5.0
p-Isopropyltoluene	< 5.0		1 <del></del>		< 5.0
sec-Butylbenzene	< 5.0				< 5.0
Styrene	< 5.0		< 1.0		< 5.0
tert-Amyl Ethyl Ether (TAME)	4		< 2.0	-	
tert-Butylbenzene	< 5.0	÷		-	< 5.0
Tertiary Butanol (TBA)			< 50.0		
Tetrachloroethene	< 5.0	-	< 1.0		< 5.0
Toluene	< 5.0	< 0.0050	1.0	< 0.0050	< 5.0
trans-1,2-Dichloroethene	< 5.0		< 1.0		< 5.0
trans-1,3-Dichloropropene	< 5.0		< 1.0		< 5.0
Trichloroethene	< 5.0		< 1.0		< 5.0
Trichlorofluoromethane	< 5.0	<del></del>	-	÷.	< 5.0
Trichlorotrifluoroethane	< 5.0		- <del>1</del>	÷-	< 5.0
Vinyl acetate	< 50		< 5.0	· · ·	< 50
Vinyl chloride	< 5.0	-	< 3.0	14	< 5.0
Xylenes (Total)	< 5.0	< 0.0050	< 2.0	< 0.0050	< 5.0

#### Notes:

(1) Soil samples collected in sixinch tubes beginning with the depth indicated in feet below ground surface (bgs)

Samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260 (B).

--= Not Analyzed

 $\mu g/kg = micrograms per kilogram$ 

### TABLE 5: SOIL CHEMICAL TEST RESULTS - Volatile Organic Compounds Phase II Environmental Site Assessment

**Future Port Field Support Services Complex** 

Port of Oakland

Oakland, California

N S I THE YES	MFC-31	MFC-31	MFC-32	MFC-33	MFC-33
MATRIX	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/25/02	3/25/02	3/26/02	3/25/02	3/25/02
DEPTH <sup>(1)</sup>	4.5	5.0	1.5	1.5	3.0
UNITS	μg/kg	μg/kg	µg/kg	µg/kg	μg/kg
1,1,1,2-Tetrachloroethane	< 5.0			-	< 5.0
1,1,1-Trichloroethane	< 5.0	< 1.0			< 5.0
1,1,2,2-Tetrachloroethane	< 5.0	< 1.0	1 - <del>1 -</del> 1	-	< 5.0
1,1,2-Trichloroethane	< 5.0	< 1.0		-	< 5.0
1,1-Dichloroethane	< 5.0	< 1.0		÷	< 5.0
1,1-Dichloroethene	< 5.0	< 1.0	1.44		< 5.0
1,1-Dichloropropene	< 5.0				< 5.0
1,2,3-Trichlorobenzene	< 5.0		1 <del>2</del> 0		< 5.0
1,2,4-Trichlorobenzene	< 5.0	Ξ.			< 5.0
1,2,4-Trimethylbenzene	< 5.0				< 5.0
1,2-Dibromo-3-chloropropane	< 50	<u>.</u>		÷	< 50
1,2-Dibromoethane	< 10			-	< 10
1,2-Dichlorobenzene	< 5.0	44.5		÷	< 5.0
1,2-Dichloroethane	< 5.0	< 2.0	144		< 5.0
1,2-Dichloropropane	< 5.0	< 2.0	1.44	1.22	< 5.0
1,3,5-Trimethylbenzene	< 5.0				< 5.0
1,3-Dichlorobenzene	< 5.0			( <del></del>	< 5.0
1,3-Dichloropropane	< 5.0	22			< 5.0
1,4-Dichlorobenzene	< 5.0	<u></u>			< 5.0
2,2-Dichloropropane	< 5.0			()	< 5.0
2-Butanone(MEK)	< 50	< 10.0			< 50
2-Chloroethylvinyl ether	< 50				< 50
2-Chlorotoluene	< 5.0	<u>.</u>			< 5.0
2-Hexanone	< 50	< 2.0	1.00		< 50
4-Chlorotoluene	< 5.0	<u></u>			< 5.0
4-Methyl-2-pentanone (MIBK)	< 50	< 2.0			< 50
Acetone	< 50	< 5.0			< 50
Benzene	< 5.0	< 1.0	< 0.0050	< 0.0050	< 5.0
Bromobenzene	< 5.0				< 5.0
Bromochloromethane	< 20				< 20
Bromodichloromethane	< 5.0	< 1.0			< 5.0
Bromoform	< 5.0	< 1.0			< 5.0
Bromomethane	< 10	< 2.0		<u> </u>	< 10
Carbon disulfide	< 5.0	< 1.0			< 5.0
Carbon tetrachloride	< 5.0	< 1.0			< 5.0
Chlorobenzene	< 5.0	< 1.0			< 5.0
Chloroethane	< 10	< 2.0	(شيغر	2	< 10
Chloroform	< 5.0	< 2.0			< 5.0
Chloromethane	< 10	< 2.0			< 10
cis-1,2-Dichloroethene	< 5.0	< 1.0		I	< 5.0
cis-1,3-Dichloropropene	< 5.0	< 1.0			< 5.0
Dibromochloromethane	< 5.0	< 1.0	++		< 5.0
Dibromomethane	< 10		-		< 10
Dichlorodifluoromethane	< 10			2	< 10
di-Isopropyl Ether (DIPE)		< 2.0			
Ethanol		< 200.0	1445		
Ethyl tert-Butyl Ether (ETBE)		< 2.0	144	1.44	
Ethylbenzene	< 5.0	< 1.0	< 0.0050	< 0.0050	< 5.0
Hexachlorobutadiene	< 5.0				< 5.0
Isopropylbenzene	< 5.0				< 5.0
Methylene chloride	< 5.0		42	124	< 5.0
MTBE	< 5.0	< 1.0			< 5.0

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Phase II Environmental Site Assessment

**Future Port Field Support Services Complex** 

Port of Oakland

Oakland, California

LOCATION	MFC-31	MFC-31	MFC-32	MFC-33	MFC-33
MATRIX	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/25/02	3/25/02	3/26/02	3/25/02	3/25/02
DEPTH <sup>(1)</sup>	4.5	5.0	1.5	1.5	3.0
UNITS	μg/kg	µg/kg	µg/kg	µg/kg	µg/kg
(Continued)					
Naphthalene	< 10				< 10
n-Butylbenzene	< 5.0	-	1 h +	-	< 5.0
n-Propylbenzene	< 5.0	< 2.0	1.4		< 5.0
p-Isopropyltoluene	< 5.0		100		< 5.0
sec-Butylbenzene	< 5.0		(		< 5.0
Styrene	< 5.0	< 1.0		5 <del>1</del>	< 5.0
tert-Amyl Ethyl Ether (TAME)		< 2.0	( <del></del> -	÷÷-	
tert-Butylbenzene	< 5.0		a de la calencia de la ca encia de la calencia de l		< 5.0
Tertiary Butanol (TBA)		< 50.0		-	
Tetrachloroethene	< 5.0	< 1.0		-	< 5.0
Toluene	< 5.0	< 1.0	< 0.0050	< 0.0050	< 5.0
trans-1,2-Dichloroethene	< 5.0	< 1.0			< 5.0
trans-1,3-Dichloropropene	< 5.0	< 1.0			< 5.0
Trichloroethene	< 5.0	< 1.0	1.4 <del>47</del> .7	-	< 5.0
Trichlorofluoromethane	< 5.0		-	÷	< 5.0
Trichlorotrifluoroethane	< 5.0			يفقر	< 5.0
Vinyl acetate	< 50	< 5.0			< 50
Vinyl chloride	< 5.0	< 3.0			< 5.0
Xylenes (Total)	< 5.0	< 2.0	< 0.0050	< 0.0050	< 5.0

#### Notes:

(1) Soil samples collected in sixinch tubes beginning with the depth indicated in feet below ground surface (bgs)

Samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260 (B).

-- = Not Analyzed

 $\mu$ g/kg = micrograms per kilogram

Phase II Environmental Site Assessment

Future Port Field Support Services Complex

Port of Oakland

Oakland, California

LOCATION	MFC-33	MFC-33	MFC-34	MFC-34	MFC-34
MATRIX	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/25/02	3/25/02	3/26/02	3/26/02	3/26/02
DEPTH <sup>(1)</sup>	5.0	5.5	1,5	3.0	5.5
UNITS	μg/kg	μg/kg	μg/kg	µg/kg	μg/kg
1,1,1,2-Tetrachloroethane	< 5.0	<u></u>		< 5.0	< 5.0
1,1,1-Trichloroethane	< 5.0	< 1.0		< 5.0	< 5.0
1,1,2,2-Tetrachloroethane	< 5.0	< 1.0		< 5.0	< 5.0
1,1,2-Trichloroethane	< 5.0	< 1.0		< 5.0	< 5.0
1,1-Dichloroethane	< 5.0	< 1.0		< 5.0	< 5.0
1,1-Dichloroethene	< 5.0	< 1.0		< 5.0	< 5.0
1,1-Dichloropropene	< 5.0			< 5.0	< 5.0
1,2,3-Trichlorobenzene	< 5.0		1 <del>- 1</del>	< 5.0	< 5.0
1,2,4-Trichlorobenzene	< 5.0			< 5.0	< 5.0
1,2,4-Trimethylbenzene	< 5.0			< 5.0	< 5.0
1,2-Dibromo-3-chloropropane	< 50		-	< 50	< 50
1,2-Dibromoethane	< 10			< 10	< 10
1,2-Dichlorobenzene	< 5.0			< 5.0	< 5.0
1,2-Dichloroethane	< 5.0	< 2.0		< 5.0	< 5.0
1,2-Dichloropropane	< 5.0	< 2.0		< 5.0	< 5.0
1,3,5-Trimethylbenzene	< 5.0			< 5.0	< 5.0
1,3-Dichlorobenzene	< 5.0		i d <del>a c</del>	< 5.0	< 5.0
1,3-Dichloropropane	< 5.0			< 5.0	< 5.0
1,4-Dichlorobenzene	< 5.0		-	< 5.0	< 5.0
2,2-Dichloropropane	< 5.0			< 5.0	< 5.0
2-Butanone(MEK)	< 50	< 10.0		< 50	< 50
2-Chloroethylvinyl ether	< 50			< 50	< 50
2-Chlorotoluene	< 5.0			< 5.0	< 5.0
2-Hexanone	< 50	< 2.0		< 50	< 50
4-Chlorotoluene	< 5.0		440	< 5.0	< 5.0
4-Methyl-2-pentanone (MIBK)	< 50	< 2.0		< 50	< 50
Acetone	< 50	< 5.0		< 50	< 50
Benzene	< 5.0	< 1.0	< 0.0050	< 5.0	< 5.0
Bromobenzene	< 5.0			< 5.0	< 5.0
Bromochloromethane	< 20		-	< 20	< 20
Bromodichloromethane	< 5.0	< 1.0		< 5.0	< 5.0
Bromoform	< 5.0	< 1.0		< 5.0	< 5.0
Bromomethane	< 10	< 2.0	-	< 10	< 10
Carbon disulfide	< 5.0	< 1.0		< 5.0	< 5.0
Carbon tetrachloride	< 5.0	< 1.0	-	< 5.0	< 5.0
Chlorobenzene	< 5.0	< 1.0		< 5.0	< 5.0
Chloroethane	< 10	< 2.0		< 10	< 10
Chloroform	< 5.0	< 2.0	2	< 5.0	< 5.0
Chloromethane	< 10	< 2.0	10.225	< 10	< 10
cis-1,2-Dichloroethene	< 5.0	< 1.0		< 5.0	< 5.0
cis-1,3-Dichloropropene	< 5.0	< 1.0		< 5.0	< 5.0
Dibromochloromethane	< 5.0	< 1.0		< 5.0	< 5.0
Dibromomethane	< 10			< 10	< 10
Dichlorodifluoromethane	< 10	19 -	10.0	< 10	< 10
di-Isopropyl Ether (DIPE)		< 2.0		-10	- 10
Ethanol		< 200.0			
Ethyl tert-Butyl Ether (ETBE)		< 2.0			
Ethylbenzene	< 5.0	< 1.0	< 0.0050	< 5.0	< 5.0
Hexachlorobutadiene	< 5.0	~ 1.0		< 5.0	< 5.0
Isopropylbenzene	< 5.0			< 5.0	< 5.0
Methylene chloride	< 5.0		1.5	< 5.0	< 5.0
MTBE	< 5.0	< 1.0		< 5.0	< 5.0

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Phase II Environmental Site Assessment

**Future Port Field Support Services Complex** 

Port of Oakland

Oakland, California

LOCATION	MFC-33	MFC-33	MFC-34	MFC-34	MFC-34
MATRIX	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/25/02	3/25/02	3/26/02	3/26/02	3/26/02
DEPTH <sup>(1)</sup>	5.0	5.5	1.5	3.0	5.5
UNITS	µg/kg	µg/kg	µg/kg	µg/kg	μg/kg
(Continued)					
Naphthalene	< 10			< 10	< 10
n-Butylbenzene	< 5.0			< 5.0	< 5.0
n-Propylbenzene	< 5.0	< 2.0		< 5.0	< 5.0
p-Isopropyltoluene	< 5.0			< 5.0	< 5.0
sec-Butylbenzene	< 5.0			< 5.0	< 5.0
Styrene	< 5.0	< 1.0	- <del>10</del> 0	< 5.0	< 5.0
tert-Amyl Ethyl Ether (TAME)	-	< 2.0	- <del>20</del> 0		
tert-Butylbenzene	< 5.0	-		< 5.0	< 5.0
Tertiary Butanol (TBA)		< 50.0		-	
Tetrachloroethene	< 5.0	< 1.0		< 5.0	< 5.0
Toluene	< 5.0	< 1.0	< 0.0050	< 5.0	< 5.0
trans-1,2-Dichloroethene	< 5.0	< 1.0		< 5.0	< 5.0
trans-1,3-Dichloropropene	< 5.0	< 1.0		< 5.0	< 5.0
Trichloroethene	< 5.0	< 1.0	i i <del>či</del> o	< 5.0	< 5.0
Trichlorofluoromethane	< 5.0			< 5.0	< 5.0
Trichlorotrifluoroethane	< 5.0			< 5.0	< 5.0
Vinyl acetate	< 50	< 5.0		< 50	< 50
Vinyl chloride	< 5.0	< 3.0		< 5.0	< 5.0
Xylenes (Total)	< 5.0	< 2.0	< 0.0050	< 5.0	< 5.0

#### Notes:

(1) Soil samples collected in sixinch tubes beginning with the depth indicated in feet below ground surface (bgs)

Samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260 (B).

-- = Not Analyzed

 $\mu g/kg = micrograms per kilogram$ 

### TABLE 5: SOIL CHEMICAL TEST RESULTS - Volatile Organic CompoundsPhase II Environmental Site AssessmentFuture Port Field Support Services Complex

MFC-34

MFC-35

MFC-35

MFC-35

MFC-35

Port of Oakland Oakland, California

LOCATION

MATRIX Soil Soil Soil Soil Soil COLLECTION DATE 3/26/02 3/25/02 37340.0 3/25/02 3/25/02 DEPTH<sup>(1)</sup> 6.0 1.0 2.0 5.0 5.5 UNITS µg/kg µg/kg µg/kg µg/kg µg/kg 1,1,1,2-Tetrachloroethane ---< 5.0 < 5.0 ------1,1,1-Trichloroethane < 1.0 < 5.0 < 5.0 < 1.0 1,1,2,2-Tetrachloroethane < 1.0 < 5.0 < 5.0 < 1.0 ----1,1,2-Trichloroethane < 1.0 < 5.0 < 5.0 < 1.0 1,1-Dichloroethane < 1.0 < 5.0 < 5.0 < 1.0 1,1-Dichloroethene < 1.0 < 5.0 < 5.0 < 1.0 1,1-Dichloropropene < 5.0 < 5.0 ----1,2,3-Trichlorobenzene < 5.0 < 5.0 ----------1,2,4-Trichlorobenzene < 5.0 < 5.0 ---------1,2,4-Trimethylbenzene < 5.0 < 5.0 -------1,2-Dibromo-3-chloropropane < 50 < 50 ----1,2-Dibromoethane < 10 <10 ----1,2-Dichlorobenzene ----< 5.0 < 5.0 ---1,2-Dichloroethane < 2.0 < 5.0 < 5.0 < 2.0 1,2-Dichloropropane < 2.0 < 5.0 < 5.0 < 2.0 1,3,5-Trimethylbenzene < 5.0 < 5.0 -----1,3-Dichlorobenzene < 5.0 < 5.0 ---1,3-Dichloropropane < 5.0 < 5.0 -------1,4-Dichlorobenzene < 5.0 < 5.0 -------2,2-Dichloropropane < 5.0 < 5.0 ----44 2-Butanone(MEK) <10.0 < 50 < 50 < 10.0 2-Chloroethylvinyl ether --< 50 < 50 ---2-Chlorotoluene 14 4 < 5.0 < 5.0 ---2-Hexanone < 2.0 < 50 < 50 ----< 2.0 4-Chlorotoluene < 5.0 -----< 5.0 ---4-Methyl-2-pentanone (MIBK) < 2.0 ---< 50 < 50 < 2.0 Acetone < 5.0 < 50 ---< 50 < 5.0 Benzene < 1.0 < 0.0050 < 5.0 < 5.0 < 1.0 Bromobenzene < 5.0 ------< 5.0 --Bromochloromethane --------< 20 < 20 ----Bromodichloromethane < 1.04 < 5.0 < 5.0 < 1.0 Bromoform < 5.0 < 1.0 ---< 5.0< 1.0 < 2.0 Bromomethane < 2.0 ---< 10 < 10 Carbon disulfide < 1.0 < 5.0 < 5.0 < 1.0 --Carbon tetrachloride < 1.0 ..... < 5.0 < 5.0 < 1.0 Chlorobenzene < 1.0 < 5.0 .... < 5.0 < 1.0 Chloroethane < 2.0 < 10 < 10< 2.0 ---Chloroform < 2.0 < 5.0 < 5.0 < 2.0 -----Chloromethane < 2.0 < 10 < 10 < 2.0 cis-1,2-Dichloroethene < 1.0 < 5.0 < 5.0 < 1.0 ---cis-1,3-Dichloropropene < 1.0 < 5.0 < 5.0 < 1.0 ---Dibromochloromethane < 1.0 < 5.0 < 5.0 < 1.0 ---Dibromomethane < 10 < 10 --------Dichlorodifluoromethane ----< 10 < 10 -----di-Isopropyl Ether (DIPE) < 2.0 < 2.0 ---------Ethanol < 200.0 < 200.0 die. ------Ethyl tert-Butyl Ether (ETBE) < 2.0 < 2.0 ---------Ethylbenzene < 0.0050 < 1.0 < 5.0 < 5.0 < 1.0 Hexachlorobutadiene < 5.0 < 5.0 -----Isopropylbenzene 5.1 < 5.0 ---÷., ---Methylene chloride < 5.0 < 5.0 ------.... MTBE < 1.0 < 5.0 < 5.0 < 1.0

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Oakland, California

LOCATION	MFC-34	MFC-35	MFC-35	MFC-35	MFC-35
MATRIX	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/26/02	3/25/02	37340.0	3/25/02	3/25/02
DEPTH <sup>(1)</sup>	6.0	1.0	2.0	5.0	5.5
UNITS	μg/kg	μg/kg	μg/kg	μg/kg	µg/kg
(Continued)					
Naphthalene			< 10	< 10	اشفار
n-Butylbenzene	C <del>ar</del> i		< 5.0	< 5.0	
n-Propylbenzene	< 2.0		5.7	< 5.0	< 2.0
p-Isopropyltoluene			< 5.0	< 5.0	
sec-Butylbenzene			20	< 5.0	
Styrene	< 1.0	and the second s	< 5.0	< 5.0	< 1.0
tert-Amyl Ethyl Ether (TAME)	< 2.0				< 2.0
tert-Butylbenzene		÷	< 5.0	< 5.0	
Tertiary Butanol (TBA)	< 50.0	5-4 T	- <del>2</del>	12	< 50.0
Tetrachloroethene	< 1.0		< 5.0	< 5.0	< 1.0
Toluene	< 1.0	< 0.0050	< 5.0	< 5.0	< 1.1
trans-1,2-Dichloroethene	< 1.0	-	< 5.0	< 5.0	< 1.2
trans-1,3-Dichloropropene	< 1.0		< 5.0	< 5.0	< 1.3
Trichloroethene	< 1.0		< 5.0	< 5.0	< 1.4
Trichlorofluoromethane		9 <del>90</del> 0	< 5.0	< 5.0	
Trichlorotrifluoroethane			< 5.0	< 5.0	-
Vinyl acetate	< 5.0		< 50	< 50	< 5.0
Vinyl chloride	< 3.0		< 5.0	< 5.0	< 3.0
Xylenes (Total)	< 2.0	< 0.0050	< 5.0	< 5.0	< 2.0

#### Notes:

(1) Soil samples collected in sixinch tubes beginning with the depth indicated in feet below ground surface (bgs)

Samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260 (B).

-- = Not Analyzed

 $\mu g/kg = micrograms per kilogram$ 

### TABLE 5: SOIL CHEMICAL TEST RESULTS - Volatile Organic Compounds Phase II Environmental Site Assessment

Future Port Field Support Services Complex

Port of Oakland

Oakland, California

LOCATION	MFC-36	MFC-37	MFC-37	MFC-37	MFC-38
MATRIX	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/28/02	3/25/02	3/25/02	3/25/02	3/26/02
DEPTH <sup>(1)</sup>	4.5	1.5	4.5	5.0	1.0
UNITS	µg/kg	µg/kg	µg/kg	µg/kg	μg/kg
1,1,1,2-Tetrachloroethane	< 5.0		< 17	المتدر	·
1,1,1-Trichloroethane	< 5.0		<17	< 1.0	
1,1,2,2-Tetrachloroethane	< 5.0		<17	< 1.0	44
1,1,2-Trichloroethane	< 5.0	÷.	< 17	< 1.0	24
1,1-Dichloroethane	< 5.0	÷	< 17	< 1.0	
1,1-Dichloroethene	< 5.0		< 17	< 1.0	C 24
1,1-Dichloropropene	< 5.0		< 17		
1,2,3-Trichlorobenzene	< 5.0		< 17		
1,2,4-Trichlorobenzene	< 5.0		< 17	<u> </u>	
1,2,4-Trimethylbenzene	< 5.0		<17	÷	
1,2-Dibromo-3-chloropropane	< 50		< 170		5
1,2-Dibromoethane	< 10		< 34		i der
1,2-Dichlorobenzene	< 5.0		<17		144
1,2-Dichloroethane	< 5.0	1	< 17	< 2.0	
1,2-Dichloropropane	< 5.0	<u></u>	< 17	< 2.0	
1,3,5-Trimethylbenzene	< 5.0	2.	< 17		
1,3-Dichlorobenzene	< 5.0	<u>6</u>	< 17		
1,3-Dichloropropane	< 5.0		< 17		
1,4-Dichlorobenzene	< 5.0		<17		
2,2-Dichloropropane	< 5.0		< 17		
2-Butanone(MEK)	< 50	2.1	< 170	< 10.0	122
2-Chloroethylvinyl ether	< 50		< 170	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
2-Chlorotoluene	< 5.0	<u>0</u> ,	< 17	-	
2-Hexanone	< 50		< 170	< 2.0	
4-Chlorotoluene	< 5.0		< 17		
4-Methyl-2-pentanone (MIBK)	< 50		< 170	< 2.0	
Acetone	55		< 170	< 5.0	(22)
Benzene	< 5.0	< 0.0050	< 17	< 1.0	< 0.0050
Bromobenzene	< 5.0		< 17		
Bromochloromethane	< 20		< 69		
Bromodichloromethane	< 5.0		< 17	< 1.0	
Bromoform	< 5.0		< 17	< 1.0	
Bromomethane	< 10		< 34	< 2.0	
Carbon disulfide	< 5.0		< 17	< 1.0	
Carbon tetrachloride	< 5.0	5-0	< 17	< 1.0	
Chlorobenzene	< 5.0		< 17	< 1.0	
Chloroethane	< 10		< 34	< 2.0	-52
Chloroform	< 5.0	-	< 17	< 2.0	
Chloromethane	< 10		< 34	< 2.0	
cis-1,2-Dichloroethene	< 5.0		< 17	< 1.0	
cis-1,3-Dichloropropene	< 5.0	4	< 17	< 1.0	
Dibromochloromethane	< 5.0	4-	< 17	< 1.0	
Dibromomethane	< 10	<u>.</u>	< 34		
Dichlorodifluoromethane	< 10	1	< 34		121
di-Isopropyl Ether (DIPE)				< 2.0	
Ethanol			- 10 M	< 200.0	
Ethyl tert-Butyl Ether (ETBE)	1.0		-	< 2.0	-
Ethylbenzene	< 5.0	< 0.0050	< 17	< 1.0	< 0.0050
Hexachlorobutadiene	< 5.0		< 17		
Isopropylbenzene	< 5.0	<u>.</u>	98		20
Methylene chloride	< 5.0		< 17		
MTBE	23	12	< 17	< 1.0	

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Oakland, California

LOCATION	MFC-36	MFC-37	MFC-37	MFC-37	MFC-38
MATRIX	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/28/02	3/25/02	3/25/02	3/25/02	3/26/02
DEPTH <sup>(1)</sup>	4.5	1.5	4.5	5.0	1.0
UNITS	µg/kg	μg/kg	μg/kg	µg/kg	μg/kg
(Continued)					
Naphthalene	< 10	-	240		
n-Butylbenzene	< 5.0		170		
n-Propylbenzene	< 5.0		170	< 2.0	
p-Isopropyltoluene	< 5.0		< 17		
sec-Butylbenzene	< 5.0	-	120		, G.,
Styrene	< 5.0	-	< 17	< 1.0	
tert-Amyl Ethyl Ether (TAME)		÷**		< 2.0	
tert-Butylbenzene	< 5.0		< 17	1.461	- هند ا
Tertiary Butanol (TBA)		÷.		< 50.0	1000
Tetrachloroethene	< 5.0		< 17	< 1.0	
Toluene	< 5.0	< 0.0050	< 17	< 1.0	< 0.0050
trans-1,2-Dichloroethene	< 5.0		< 17	< 1.0	
trans-1,3-Dichloropropene	< 5.0		< 17	< 1.0	
Trichloroethene	< 5.0		< 17	< 1.0	
Trichlorofluoromethane	< 5.0	÷.	< 17		
Trichlorotrifluoroethane	< 5.0	÷	< 17	رشقان	
Vinyl acetate	< 50		< 170	< 5.0	
Vinyl chloride	< 5.0		< 17	< 3.0	2 <del>49</del> 2
Xylenes (Total)	< 5.0	< 0.0050	< 17	< 2.0	< 0.0050

#### Notes:

(1) Soil samples collected in sixinch tubes beginning with the depth indicated in feet below ground surface (bgs)

Samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260 (B).

-- = Not Analyzed

µg/kg = micrograms per kilogram

# TABLE 5: SOIL CHEMICAL TEST RESULTS - Volatile Organic Compounds Phase II Environmental Site Assessment Future Port Field Support Services Complex Port of Oakland

Oakland, California

LOCATION	MFC-38	MFC-38	MFC-38 Soil	MFC-39	MFC-40
MATRIX COLLECTION DATE	Soil	Soil		Soil	Soil
	3/26/02	3/26/02	3/26/02	3/26/02	3/26/02
DEPTH <sup>(1)</sup>	2.5	5.0	5.5	1.5	1.5
UNITS	µg/kg	μg/kg	µg/kg	µg/kg	μg/kg
1,1,1,2-Tetrachloroethane	< 5.0	< 5.0		÷	
1,1,1-Trichloroethane	< 5.0	< 5.0	< 1.0	<del>97</del> 6	9 <del>9</del> 0
1,1,2,2-Tetrachloroethane	< 5.0	< 5.0	< 1.0		
1,1,2-Trichloroethane	< 5.0	< 5.0	< 1.0		
1,1-Dichloroethane	< 5.0	< 5.0	< 1.0	<del>4</del> 5	
1,1-Dichloroethene	< 5.0	< 5.0	< 1.0		
1,1-Dichloropropene	< 5.0	< 5.0			
1,2,3-Trichlorobenzene	< 5.0	< 5.0	-	÷÷	
1,2,4-Trichlorobenzene	< 5.0	< 5.0			
1,2,4-Trimethylbenzene	< 5.0	< 5.0	-		
1,2-Dibromo-3-chloropropane	< 50	< 50			
1,2-Dibromoethane	< 10	< 10			
1,2-Dichlorobenzene	< 5.0	< 5.0		*	
1,2-Dichloroethane	< 5.0	< 5.0	< 2.0		
1,2-Dichloropropane	< 5.0	< 5.0	< 2.0	-	
1,3,5-Trimethylbenzene	< 5.0	< 5.0	-	100	
1,3-Dichlorobenzene	< 5.0	< 5.0			
1,3-Dichloropropane	< 5.0	< 5.0			
1,4-Dichlorobenzene	< 5.0	< 5.0			
2,2-Dichloropropane	< 5.0	< 5.0	- 10.0	-	
2-Butanone(MEK)	< 50	< 50	< 10.0		÷-
2-Chloroethylvinyl ether	< 50	< 50		-	
2-Chlorotoluene	< 5.0	< 5.0			
2-Hexanone	< 50	< 50	< 2.0	10	
4-Chlorotoluene	< 5.0	< 5.0			
4-Methyl-2-pentanone (MIBK)	< 50 < 50	< 50	< 2.0		
Acetone		< 50	< 5.0		
Benzene Bromobenzene	< 5.0 < 5.0	< 5.0 < 5.0	< 1.0	< 0.0050	< 0.0050
Bromochloromethane	< 20	< 20			
Bromodichloromethane	< 5.0	< 5.0	< 1.0		
Bromoform	< 5.0	< 5.0	< 1.0		
Bromomethane	< 10	< 10	< 2.0		
Carbon disulfide	< 5.0	< 5.0	< 1.0		
Carbon tetrachloride	< 5.0	< 5.0	< 1.0	5	
Chlorobenzene	< 5.0	< 5.0	< 1.0		
Chloroethane	< 10	< 10	< 2.0		
Chloroform	< 5.0	< 5.0	< 2.0	-	
Chloromethane	< 10	< 10	< 2.0		1.1
cis-1,2-Dichloroethene	< 5.0	< 5.0	< 1.0	21	
cis-1,3-Dichloropropene	< 5.0	< 5.0	< 1.0		2.
Dibromochloromethane	< 5.0	< 5.0	< 1.0		
Dibromomethane	< 10	< 10	- 1.0		
Dichlorodifluoromethane	< 10	< 10		10	
di-Isopropyl Ether (DIPE)			< 2.0		
Ethanol		2	< 200.0		
Ethyl tert-Butyl Ether (ETBE)			< 2.0	<u> </u>	
Ethylbenzene	< 5.0	< 5.0	< 1.0	< 0.0050	< 0.0050
Hexachlorobutadiene	< 5.0	< 5.0	- 1.0	- 0.0000	
Isopropylbenzene	< 5.0	< 5.0			
Methylene chloride	< 5.0	< 5.0	_		3-0
MTBE	< 5.0	< 5.0	< 1.0		

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# TABLE 5: SOIL CHEMICAL TEST RESULTS - Volatile Organic Compounds Phase II Environmental Site Assessment Future Port Field Support Services Complex Port of Oakland

Oakland, California

LOCATION	MFC-38	MFC-38	MFC-38	MFC-39	MFC-40
MATRIX	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/26/02	3/26/02	3/26/02	3/26/02	3/26/02
DEPTH <sup>(1)</sup>	2.5	5.0	5.5	1.5	1.5
UNITS	μg/kg	μg/kg	µg/kg	μg/kg	μg/kg
(Continued)					
Naphthalene	< 10	< 10			
n-Butylbenzene	< 5.0	< 5.0			
n-Propylbenzene	< 5.0	< 5.0	< 2.0		
p-Isopropyltoluene	< 5.0	< 5.0		- <del>2</del>	
sec-Butylbenzene	< 5.0	< 5.0	/==		1.5
Styrene	< 5.0	< 5.0	< 1.0	-	
tert-Amyl Ethyl Ether (TAME)	÷.	- <del>11</del>	< 2.0		44.
tert-Butylbenzene	< 5.0	< 5.0			100
Tertiary Butanol (TBA)			< 50.0		÷=
Tetrachloroethene	< 5.0	< 5.0	< 1.0	-	
Toluene	< 5.0	< 5.0	< 1.0	< 0.0050	< 0.0050
trans-1,2-Dichloroethene	< 5.0	< 5.0	< 1.0		
trans-1,3-Dichloropropene	< 5.0	< 5.0	< 1.0		
Trichloroethene	< 5.0	< 5.0	< 1.0	- <del>1</del>	
Trichlorofluoromethane	< 5.0	< 5.0			-
Trichlorotrifluoroethane	< 5.0	< 5.0	÷.		-
Vinyl acetate	< 50	< 50	< 5.0	-	
Vinyl chloride	< 5.0	< 5.0	< 3.0		
Xylenes (Total)	< 5.0	< 5.0	< 2.0	< 0.0050	< 0.0050

#### Notes:

(1) Soil samples collected in sixinch tubes beginning with the depth indicated in feet below ground surface (bgs)

Samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260 (B).

-- = Not Analyzed

 $\mu$ g/kg = micrograms per kilogram

## TABLE 5: SOIL CHEMICAL TEST RESULTS - Volatile Organic Compounds Phase II Environmental Site Assessment Future Port Field Support Services Complex

Port of Oakland Oakland, California

LOCATION	MFC-40	MFC-40	MFC-40	MFC-41	MFC-41
MATRIX	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/26/02	3/26/02	3/26/02	3/26/02	3/26/02
DEPTH <sup>(1)</sup>	5.0	3.0	4.5	1.5	2.5
UNITS	µg/kg	µg/kg	μg/kg	µg/kg	μg/kg
1,1,1,2-Tetrachloroethane		< 5.0	< 5.0		< 5.0
1,1,1-Trichloroethane	< 1.0	< 5.0	< 5.0	-	< 5.0
1,1,2,2-Tetrachloroethane	< 1.0	< 5.0	< 5.0		< 5.0
1,1,2-Trichloroethane	< 1.0	< 5.0	< 5.0	1990 C	< 5.0
1,1-Dichloroethane	< 1.0	< 5.0	< 5.0		< 5.0
1,1-Dichloroethene	< 1.0	< 5.0	< 5.0		< 5.0
1,1-Dichloropropene		< 5.0	< 5.0		< 5.0
1,2,3-Trichlorobenzene	÷-	< 5.0	< 5.0		< 5.0
1,2,4-Trichlorobenzene		< 5.0	< 5.0		< 5.0
1,2,4-Trimethylbenzene	5 <del>1 1</del> 1	< 5.0	< 5.0		< 5.0
1,2-Dibromo-3-chloropropane	977	< 50	< 50		< 50
1,2-Dibromoethane		< 10	< 10		< 10
1,2-Dichlorobenzene	-	< 5.0	< 5.0		< 5.0
1,2-Dichloroethane	< 2.0	< 5.0	< 5.0		< 5.0
1,2-Dichloropropane	< 2.0	< 5.0	< 5.0	-	< 5.0
1,3,5-Trimethylbenzene	- <del></del>	< 5.0	< 5.0	-	< 5.0
1,3-Dichlorobenzene		< 5.0	< 5.0		< 5.0
1,3-Dichloropropane	- <del></del>	< 5.0	< 5.0		< 5.0
1,4-Dichlorobenzene	-	< 5.0	< 5.0	<del></del>	< 5.0
2,2-Dichloropropane	1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -	< 5.0	< 5.0	a <del>ni</del> c	< 5.0
2-Butanone(MEK)	< 10.0	< 50	< 50		< 50
2-Chloroethylvinyl ether		< 50	< 50	÷.	< 50
2-Chlorotoluene	· · · ·	< 5.0	< 5.0		< 5.0
2-Hexanone	< 2.0	< 50	< 50		< 50
4-Chlorotoluene		< 5.0	< 5.0		< 5.0
4-Methyl-2-pentanone (MIBK)	< 2.0	< 50	< 50	-	< 50
Acetone	< 5.0	< 50	< 50		< 50
Benzene	< 1.0	< 5.0	< 5.0	< 0.0050	< 5.0
Bromobenzene	777	< 5.0	< 5.0		< 5.0
Bromochloromethane	-	< 20	< 20		< 20
Bromodichloromethane	< 1.0	< 5.0	< 5.0	-	< 5.0
Bromoform	< 1.0	< 5.0	< 5.0		< 5.0
Bromomethane	< 2.0	< 10	< 10	÷.	< 10
Carbon disulfide	< 1.0	< 5.0	< 5.0		< 5.0
Carbon tetrachloride	< 1.0	< 5.0	< 5.0		< 5.0
Chlorobenzene	< 1.0	< 5.0	< 5.0		< 5.0
Chloroethane	< 2.0	< 10	< 10		< 10
Chloroform	< 2.0	< 5.0	< 5.0		< 5.0
Chloromethane	< 2.0	< 10	< 10		< 10
is-1,2-Dichloroethene	< 1.0	< 5.0	< 5.0		< 5.0
is-1,3-Dichloropropene	< 1.0	< 5.0	< 5.0		< 5.0
Dibromochloromethane	< 1.0	< 5.0	< 5.0		< 5.0
Dibromomethane	-	< 10	< 10		< 10
Dichlorodifluoromethane	-	< 10	< 10		< 10
i-Isopropyl Ether (DIPE)	< 2.0				
Cthanol	< 200.0		÷-	-	-
thyl tert-Butyl Ether (ETBE)	< 2.0			-	
thylbenzene	< 1.0	< 5.0	< 5.0	< 0.0050	< 5.0
lexachlorobutadiene	<del>11</del>	< 5.0	< 5.0	-	< 5.0
sopropylbenzene		< 5.0	< 5.0		< 5.0
Acthylene chloride		< 5.0	< 5.0	-	< 5.0
ИТВЕ	< 1.0	< 5.0	< 5.0		< 5.0

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Phase II Environmental Site Assessment

**Future Port Field Support Services Complex** 

Port of Oakland

Oakland, California

LOCATION	MFC-40	MFC-40	MFC-40	MFC-41	MFC-41
MATRIX	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/26/02	3/26/02	3/26/02	3/26/02	3/26/02
DEPTH <sup>(1)</sup>	5.0	3.0	4.5	1.5	2.5
UNITS	µg/kg	μg/kg	µg/kg	µg/kg	µg/kg
(Continued)					
Naphthalene	÷+1	< 10	< 10	-	< 10
n-Butylbenzene		< 5.0	< 5.0	يتيني ا	< 5.0
n-Propylbenzene	< 2.0	< 5.0	< 5.0		< 5.0
p-Isopropyltoluene	(44)	< 5.0	< 5.0	(mm)	< 5.0
sec-Butylbenzene	44	< 5.0	< 5.0	÷.	< 5.0
Styrene	< 1.0	< 5.0	< 5.0		< 5.0
tert-Amyl Ethyl Ether (TAME)	< 2.0			144	
tert-Butylbenzene		< 5.0	< 5.0	1999 (B)	< 5.0
Tertiary Butanol (TBA)	< 50.0				
Tetrachloroethene	< 1.0	< 5.0	< 5.0	-	< 5.0
Toluene	< 1.0	< 5.0	< 5.0	< 0.0050	< 5.0
trans-1,2-Dichloroethene	< 1.0	< 5.0	< 5.0	-	< 5.0
trans-1,3-Dichloropropene	< 1.0	< 5.0	< 5.0		< 5.0
Trichloroethene	< 1.0	< 5.0	< 5.0		< 5.0
Trichlorofluoromethane	-	< 5.0	< 5.0	1.00	< 5.0
Trichlorotrifluoroethane	-	< 5.0	< 5.0	0.940	< 5.0
Vinyl acetate	< 5.0	< 50	< 50	1	< 50
Vinyl chloride	< 3.0	< 5.0	< 5.0		< 5.0
Xylenes (Total)	< 2.0	< 5.0	< 5.0	< 0.0050	< 5.0

#### Notes:

(1) Soil samples collected in sixinch tubes beginning with the depth indicated in feet below ground surface (bgs)

Samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260 (B).

-- = Not Analyzed

µg/kg = micrograms per kilogram

Phase II Environmental Site Assessment

Future Port Field Support Services Complex

Port of Oakland

Oakland, California

LOCATION MATRIX	MFC-41	MFC-41	MFC-43	MFC-44	MFC-44
	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/26/02	3/26/02	3/28/02	3/26/02	3/26/02
DEPTH <sup>(1)</sup>	4.0	4.5	4.5	1.5	4.5
UNITS	µg/kg	μg/kg	μg/kg	µg/kg	μg/kg
1,1,1,2-Tetrachloroethane	< 5.0		< 5.0	<u> </u>	< 5.0
1,1,1-Trichloroethane	< 5.0	< 1.0	< 5.0		< 5.0
1,1,2,2-Tetrachloroethane	< 5.0	< 1.0	< 5.0		< 5.0
1,1,2-Trichloroethane	< 5.0	< 1.0	< 5.0		< 5.0
1,1-Dichloroethane	< 5.0	< 1.0	< 5.0	10 <del>44</del> 10	< 5.0
1,1-Dichloroethene	< 5.0	< 1.0	< 5.0	0.40	< 5.0
1,1-Dichloropropene	< 5.0		< 5.0		< 5.0
1,2,3-Trichlorobenzene	< 5.0	÷	< 5.0		< 5.0
1,2,4-Trichlorobenzene	< 5.0		< 5.0		< 5.0
1,2,4-Trimethylbenzene	< 5.0		< 5.0		< 5.0
1,2-Dibromo-3-chloropropane	< 50	<del></del>	< 50	1.16	< 50
1,2-Dibromoethane	< 10		< 10		< 10
1,2-Dichlorobenzene	< 5.0		< 5.0		< 5.0
1,2-Dichloroethane	< 5.0	< 2.0	< 5.0	-	< 5.0
1,2-Dichloropropane	< 5.0	< 2.0	< 5.0	(	< 5.0
1,3,5-Trimethylbenzene	< 5.0		< 5.0	- 44 M	< 5.0
1,3-Dichlorobenzene	< 5.0		< 5.0		< 5.0
1,3-Dichloropropane	< 5.0	÷.	< 5.0	-	< 5.0
1,4-Dichlorobenzene	< 5.0	<del></del>	< 5.0	1440 - 114 -	< 5.0
2,2-Dichloropropane	< 5.0		< 5.0		< 5.0
2-Butanone(MEK)	< 50	< 10.0	< 50	144	< 50
2-Chloroethylvinyl ether	< 50		< 50		< 50
2-Chlorotoluene	< 5.0		< 5.0		< 5.0
2-Hexanone	< 50	< 2.0	< 50		< 50
4-Chlorotoluene	< 5.0		< 5.0		< 5.0
4-Methyl-2-pentanone (MIBK)	< 50	< 2.0	< 50	/	< 50
Acetone	< 50	< 5.0	< 50		< 50
Benzene	< 5.0	< 1.0	< 5.0	< 0.0050	< 5.0
Bromobenzene	< 5.0		< 5.0		< 5.0
Bromochloromethane	< 20		< 20		< 20
Bromodichloromethane	< 5.0	< 1.0	< 5.0		< 5.0
Bromoform	< 5.0	< 1.0	< 5.0	·	< 5.0
Bromomethane	< 10	< 2.0	< 10	-	< 10
Carbon disulfide	< 5.0	< 1.0	< 5.0		< 5.0
Carbon tetrachloride	< 5.0	< 1.0	< 5.0		< 5.0
Chlorobenzene	< 5.0	< 1.0	< 5.0		< 5.0
Chloroethane	< 10	< 2.0	< 10		< 10
Chloroform	< 5.0	< 2.0	< 5.0		< 5.0
Chloromethane	< 10	< 2.0	< 10	-	< 10
is-1,2-Dichloroethene	< 5.0	< 1.0	< 5.0		< 5.0
is-1,3-Dichloropropene	< 5.0	< 1.0	< 5.0		< 5.0
Dibromochloromethane	< 5.0	< 1.0	< 5.0		< 5.0
Dibromomethane	< 10		< 10		< 10
Dichlorodifluoromethane	< 10	<u> </u>	< 10	14	< 10
i-Isopropyl Ether (DIPE)		< 2.0		- A.	
Ethanol		< 200.0		144	12
Ethyl tert-Butyl Ether (ETBE)		< 2.0			
ithylbenzene	< 5.0	< 1.0	< 5.0	< 0.0050	< 5.0
Iexachlorobutadiene	< 5.0		< 5.0		< 5.0
sopropylbenzene	< 5.0		< 5.0		< 5.0
fethylene chloride	< 5.0		< 5.0		< 5.0

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Phase II Environmental Site Assessment

**Future Port Field Support Services Complex** 

Port of Oakland

Oakland, California

LOCATION	MFC-41	MFC-41	MFC-43	MFC-44	MFC-44
MATRIX	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/26/02	3/26/02	3/28/02	3/26/02	3/26/02
DEPTH <sup>(1)</sup>	4.0	4.5	4.5	1.5	4.5
UNITS	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
(Continued)					
Naphthalene	< 10	24	< 10		< 10
n-Butylbenzene	< 5.0		< 5.0	-	< 5.0
-Propylbenzene	< 5.0	< 2.0	< 5.0		< 5.0
-Isopropyltoluene	< 5.0		< 5.0		< 5.0
ec-Butylbenzene	< 5.0	-	< 5.0	- <del>(2</del> )	< 5.0
tyrene	< 5.0	< 1.0	< 5.0		< 5.0
ert-Amyl Ethyl Ether (TAME)	-	< 2.0			
ert-Butylbenzene	< 5.0		< 5.0	- <del></del>	< 5.0
Fertiary Butanol (TBA)	-	< 50.0	1. <del>1. 1</del> . 1		-4-)
Tetrachloroethene	< 5.0	< 1.0	< 5.0	-	< 5.0
Coluene	< 5.0	1.6	< 5.0	< 0.0050	< 5.0
rans-1,2-Dichloroethene	< 5.0	< 1.0	< 5.0		< 5.0
rans-1,3-Dichloropropene	< 5.0	< 1.0	< 5.0	· · ·	< 5.0
richloroethene	< 5.0	< 1.0	< 5.0		< 5.0
richlorofluoromethane	< 5.0		< 5.0		< 5.0
richlorotrifluoroethane	< 5.0	-	< 5.0		< 5.0
/inyl acetate	< 50	< 5.0	< 50	-	< 50
/inyl chloride	< 5.0	< 3.0	< 5.0	-	< 5.0
(ylenes (Total)	< 5.0	< 2.0	< 5.0	< 0.0050	< 5.0

#### Notes:

(1) Soil samples collected in sixinch tubes beginning with the depth indicated in feet below ground surface (bgs)

Samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260 (B).

-- = Not Analyzed

µg/kg = micrograms per kilogram

Phase II Environmental Site Assessment

Future Port Field Support Services Complex

Port of Oakland

Oakland, California

			MFC-46	MFC-46
Soil	Soil	Soil	Soil	Soil
3/26/02	3/28/02	3/27/02	3/27/02	3/27/02
5.0	4.5	4.0	7.0	7.5
µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
	< 5.0	< 5.0	< 5.0	
< 1.0	< 5.0	< 5.0	< 5.0	< 1.0
< 1.0	< 5.0	< 5.0	< 5.0	< 1.0
< 1.0	< 5.0	< 5.0	< 5.0	< 1.0
< 1.0	< 5.0	< 5.0	< 5.0	< 1.0
< 1.0	< 5.0	< 5.0	< 5.0	< 1.0
	< 5.Q	< 5.0	< 5.0	-
0.00	< 5.0	< 5.0	< 5.0	
	< 5.0	< 5.0	< 5.0	
	< 5.0	< 5.0	< 5.0	
	< 50	< 50	< 50	
	< 10	< 10	< 10	
	< 5.0	< 5.0	< 5.0	
< 2.0	< 5.0	< 5.0	< 5.0	< 2.0
< 2.0	< 5.0	< 5.0	< 5.0	< 2.0
	< 5.0	< 5.0	< 5.0	-2
	< 5.0	< 5.0	< 5.0	
	< 5.0	< 5.0	< 5.0	
	< 5.0	< 5.0	< 5.0	
	< 5.0	< 5.0	< 5.0	
< 10.0	< 50			< 10.0
	< 50	< 50		
1	< 5.0	< 5.0		
< 2.0	< 50	< 50	< 50	< 2.0
	< 5.0	< 5.0	< 5.0	
< 2.0	< 50			< 2.0
< 5.0	< 50	< 50	< 50	< 5.0
< 1.0	< 5.0	< 5.0		< 1.0
	< 5.0	< 5.0	< 5.0	<u></u>
	< 20	< 20	< 20	1.4
< 1.0	< 5.0	< 5.0		< 1.0
< 1.0	< 5.0	< 5.0	< 5.0	< 1.0
< 2.0	< 10	< 10	< 10	< 2.0
< 1.0				< 1.0
< 1.0	< 5.0	< 5.0	< 5.0	< 1.0
< 1.0	< 5.0		< 5.0	< 1.0
< 2.0	< 10	< 10		< 2.0
< 2.0	< 5.0	< 5.0	< 5.0	< 2.0
< 2.0	< 10			< 2.0
< 1.0	< 5.0			< 1.0
< 1.0	< 5.0			< 1.0
				< 1.0
				<u> </u>
< 2.0				< 2.0
< 200.0				< 200.0
< 2.0				< 2.0
< 1.0	< 5.0	< 5.0		< 1.0
÷.,				
-				-
< 1.0	< 5.0	< 5.0	< 5.0	< 1.0
	3/26/02 5.0 µg/kg <1.0 <1.0 <1.0 <1.0 <1.0 <2.0 <2.0 <2.0 <2.0 <2.0 <5.0 <1.0 <1.0 <1.0 <1.0 <2.0 <1.0 <1.0 <2.0 <2.0 <2.0 <2.0 <1.0 <1.0 <1.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2.0 <2	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

Iris\Port of Oakland\TSO#19/PhaseIIReport\VOCs-soil - Table 5 Page 49 of 50

Phase II Environmental Site Assessment

Future Port Field Support Services Complex

Port of Oakland

Oakland, California

LOCATION	MFC-44	MFC-45	MFC-46	MFC-46	MFC-46
MATRIX	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/26/02	3/28/02	3/27/02	3/27/02	3/27/02
DEPTH <sup>(1)</sup>	5.0	4.5	4.0	7.0	7.5
UNITS	µg/kg	µg/kg	μg/kg	µg/kg	µg/kg
(Continued)			and the second second second	1000	
Naphthalene	÷	< 10	< 10	< 10	
n-Butylbenzene	( <del>44</del> )	< 5.0	< 5.0	< 5.0	
n-Propylbenzene	< 2.0	< 5.0	< 5.0	< 5.0	< 2.0
p-Isopropyltoluene	÷.	< 5.0	< 5.0	< 5.0	
sec-Butylbenzene		< 5.0	< 5.0	< 5.0	
Styrene	< 1.0	< 5.0	< 5.0	< 5.0	< 1.0
tert-Amyl Ethyl Ether (TAME)	< 2.0	+			< 2.0
tert-Butylbenzene	-	< 5.0	< 5.0	< 5.0	
Tertiary Butanol (TBA)	< 50.0		144	-	< 50.0
Tetrachloroethene	< 1.0	< 5.0	< 5.0	6.6	< 1.0
Toluene	< 1.0	< 5.0	< 5.0	< 5.0	< 1.0
trans-1,2-Dichloroethene	< 1.0	< 5.0	< 5.0	< 5.0	< 1.0
trans-1,3-Dichloropropene	< 1.0	< 5.0	< 5.0	< 5.0	< 1.0
Trichloroethene	< 1.0	< 5.0	< 5.0	< 5.0	< 1.0
Trichlorofluoromethane		< 5.0	< 5.0	< 5.0	
Trichlorotrifluoroethane		< 5.0	< 5.0	< 5.0	
Vinyl acetate	< 5.0	< 50	< 50	< 50	< 5.0
Vinyl chloride	< 3.0	< 5.0	< 5.0	< 5.0	< 3.0
Xylenes (Total)	< 2.0	< 5.0	< 5.0	< 5.0	< 2.0

#### Notes:

(1) Soil samples collected in sixinch tubes beginning with the depth indicated in feet below ground surface (bgs)

Samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260 (B).

--= Not Analyzed

µg/kg = micrograms per kilogram

#### TABLE 2: SOIL CHEMICAL TEST RESULTS - Total Petroleum Hydrocarbons Phase II Environmental Site Assessment Future Port Field Support Services Complex

Future Port Field Support Services Complex

Port of Oakland

Oakland, California

LOCATION	MFC-01	MFC-01	MFC-01	MFC-02	MFC-02	MFC-02	MFC-03	MFC-03
MATRIX	Soil							
COLLECTION DATE	3/27/02	3/27/02	3/27/02	3/27/02	3/27/02	3/27/02	3/27/02	3/27/02
ANALYTICAL METHOD	8015M							
DEPTH <sup>(1)</sup>	1.0	2.0	4.0	1.5	4.5	5.5	1.5	4.5
UNITS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ng/kg	mg/kg
Gasoline	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Jet Fuel - A	< 20	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Kerosene	< 20	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Diesel	110 ndp	31 ndp	< 1.0	5.8 ndp	< 1.0	< 1.0	19 ndp	4.5 ndp
Motor Oil	1300	130	< 50	< 50	< 50	< 50	310	< 50

Notes:

(1) Soil samples collected in six-inch tubes beginning with the depth indicated in feet below ground surface (bgs).

g = Hydrocarbon does not match the pattern of laboratory gasoline standard

ndp = Hydrocarbon does not match the pattern of laboratory diesel standard.

Samples were analyzed for Total Petroleum Hydrocarbons (TPHs) in the gasoline, jet fuel-A, kerosene, diesel, and motor oil by EPA Method 8015M.

mg/kg = milligrams per kilogram

## TABLE 2: SOIL CHEMICAL TEST RESULTS - Total Petroleum Hydrocarbons Phase II Environmental Site Assessment Future Port Field Support Services Complex

Port of Oakland

Oakland, California

LOCATION MATRIX COLLECTION DATE ANALYTICAL METHOD	MFC-03 Soil 3/27/02 8015M	MFC-04 Soil 3/26/02 8015M	MFC-04 Soil 3/26/02 8015M	MFC-04 Soil 3/26/02 8015M	MFC-05 Soil 3/26/02 8015M	MFC-05 Soil 3/26/02 8015M	MFC-05 Soil 3/26/02 8015M	MFC-06 Soil 3/26/02 8015M
DEPTH <sup>(1)</sup> UNITS	7.5 mg/kg	5.0 mg/kg	8.5 mg/kg	11.0 mg/kg	5.0 mg/kg	8.0 mg/kg	11.0 mg/kg	5.0 mg/kg
Gasoline	< 1.0	1.7 g	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Jet Fuel - A	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
Kerosene	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
Diesel	< 1.0	320 ndp	< 1.0	< 1.0	290 ndp	9.0 ndp	< 1.0	220 ndp
Motor Oil	< 50	210	< 50	< 50	840	< 50	< 50	470

#### Notes:

(1) Soil samples collected in six-inch tubes beginning with the depth indicated in feet below ground surface (bgs).

g = Hydrocarbon does not match the pattern of laboratory gasoline standard

ndp = Hydrocarbon does not match the pattern of laboratory diesel standard.

Samples were analyzed for Total Petroleum Hydrocarbons (TPHs) in the gasoline, jet fuel-A, kerosene, diesel, and motor oil by EPA Method 8015M.

mg/kg = milligrams per kilogram

Phase II Environmental Site Assessment

**Future Port Field Support Services Complex** 

Port of Oakland

Oakland, California

LOCATION MATRIX COLLECTION DATE ANALYTICAL METHOD	MFC-06 Soil 3/26/02 8015M	MFC-06 Soil 3/26/02 8015M	MFC-07 Soil 3/26/02 8015M	MFC-07 Soil 3/26/02 8015M	MFC-07 Soil 3/26/02 8015M	MFC-07 Soil 3/26/02 8015M	MFC-07 Soil 3/26/02 8015M	MFC-08 Soil 3/26/02 8015M
DEPTH <sup>(1)</sup> UNITS	8.5 mg/kg	9.0 mg/kg	3.0 mg/kg	5.0 mg/kg	5.5 mg/kg	8.5 mg/kg	9.0 mg/kg	2.0 mg/kg
Gasoline	< 1.0	< 200.0	< 1.0	< 1.0	< 200.0	< 1.0	< 200.0	< 1.0
Jet Fuel - A	< 1.0		< 1.0	< 5.0		< 1.0		< 5.0
Kerosene	< 1.0		< 1.0	< 5.0		< 1.0	24	< 5.0
Diesel	< 1.0	< 5.0	92 ndp	240 ndp	13	< 1.0	< 5.0	160 ndp
Motor Oil	< 50	÷.	390	510	-	< 50	9	490

#### Notes:

(1) Soil samples collected in six-inch tubes beginning with the depth indicated in feet below ground surface (bgs).

g = Hydrocarbon does not match the pattern of laboratory gasoline standard

ndp = Hydrocarbon does not match the pattern of laboratory diesel standard.

Samples were analyzed for Total Petroleum Hydrocarbons (TPHs) in the gasoline, jet fuel-A, kerosene, diesel, and motor oil by EPA Method 8015M.

mg/kg = milligrams per kilogram

Phase II Environmental Site Assessment

Future Port Field Support Services Complex

#### Port of Oakland

Oakland, California

LOCATION MATRIX COLLECTION DATE ANALYTICAL METHOD	MFC-08 Soil 3/26/02 8015M	MFC-08 Soil 3/26/02 8015M	MFC-08 Soil 3/26/02 3550M	MFC-09 Soil 3/26/02 8015M	MFC-09 Soil 3/26/02 8015M	MFC-09 Soil 3/26/02 3550M	MFC-10 Soil 3/27/02	MFC-10 Soil 3/27/02
DEPTH <sup>(1)</sup> UNITS	5.0 mg/kg	5.5 mg/kg	8.0 mg/kg	2.0 mg/kg	5.0 mg/kg	5.5 mg/kg	8015M 1.5 mg/kg	8015M 5.0 mg/kg
Gasoline	< 1.0	< 200.0	< 200.0	< 1.0	< 1.0	< 200.0	< 1.0	< 1.0
Jet Fuel - A	< 1.0			< 1.0	< 1.0		< 1.0	< 1.0
Kerosene	< 1.0		22	< 1.0	< 1.0		< 1.0	< 1.0
Diesel	14 ndp	< 5.0	< 5.0	15 ndp	< 1.0	< 5.0	5.4 ndp	< 1.0
Motor Oil	51	-	-	95	< 50	-	< 50	< 50

#### Notes:

(1) Soil samples collected in six-inch tubes beginning with the depth indicated in feet below ground surface (bgs).

g = Hydrocarbon does not match the pattern of laboratory gasoline standard

ndp = Hydrocarbon does not match the pattern of laboratory diesel standard.

Samples were analyzed for Total Petroleum Hydrocarbons (TPHs) in the gasoline, jet fuel-A, kerosene, diesel, and motor oil by EPA Method 8015M.

mg/kg = milligrams per kilogram

Phase II Environmental Site Assessment

Future Port Field Support Services Complex

Port of Oakland

Oakland, California

LOCATION MATRIX COLLECTION DATE ANALYTICAL METHOD DEPTH <sup>(1)</sup> UNITS	MFC-11 Soil 3/27/02 8015M 1.5 mg/kg	MFC-11 Soil 3/27/02 8015M 4.0 mg/kg	MFC-12 Soil 3/26/02 8015M 1.5 mg/kg	MFC-12 Soil 3/26/02 8015M 4.0 mg/kg	MFC-13 Soil 3/26/02 8015M 1.5 mg/kg	MFC-13 Soil 3/27/02 8015M 3.0	MFC-14 Soil 3/25/02 8015M 1.5	MFC-14 Soil 3/25/02 8015M 3.0
Gasoline Jet Fuel - A	< 1.0 < 1.0	< 1.0 < 1.0	<b>1.9 g</b> < 1.0	<1.0 <1.0	mg/kg < 1.0 < 5.0	mg/kg < 1.0 < 1.0	mg/kg < 1.0 < 1.0	mg/kg < 1.0
Kerosene Diesel Motor Oil	< 1.0 12 ndp 190	< 1.0 15 ndp 160	< 1.0 21 ndp 77	< 1.0 <b>1.0 ndp</b> < 50	< 5.0 110 ndp 500	< 1.0 < 1.0 < 1.0 < 50	< 1.0 < 1.0 13 ndp 71	< 1.0 < 1.0 < 1.0 < 50

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Notes:

(1) Soil samples collected in six-inch tubes beginning with the depth indicated in feet below ground surface (bgs).

g = Hydrocarbon does not match the pattern of laboratory gasoline standard

ndp = Hydrocarbon does not match the pattern of laboratory diesel standard.

Samples were analyzed for Total Petroleum Hydrocarbons (TPHs) in the gasoline, jet fuel-A, kerosene, diesel, and motor oil by EPA Method 8015M.

mg/kg = milligrams per kilogram

## TABLE 2: SOIL CHEMICAL TEST RESULTS - Total Petroleum Hydrocarbons Phase II Environmental Site Assessment Future Port Field Support Services Complex

Port of Oakland

Oakland, California

LOCATION MATRIX COLLECTION DATE ANALYTICAL METHOD DEPTH <sup>(1)</sup> UNITS	MFC-14 Soil 3/25/02 8015M 4.0 mg/kg	MFC-15 Soil 3/25/02 8015M 1.5	MFC-15 Soil 3/25/02 8015M 3.0	MFC-15 Soil 3/25/02 8015M 4.5	MFC-15-DUP Soil 3/25/02 8015M 4.5	MFC-16 Soil 3/25/02 8015M 1.5	MFC-16 Soil 3/25/02 8015M 4.0	MFC-17 Soil 3/26/02 8015M 1.5
	IIIg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Gasoline Jet Fuel - A	< 1.0	< 1.0	< 1.0	< 1.0	-	< 1.0	< 1.0	< 1.0
Kerosene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Diesel	< 1.0 < 1.0	< 1.0 6.9 ndp	< 1.0 6.1 ndp	< 1.0 < 1.0	< 1.0 <b>1.6 ndp</b>	< 1.0 <b>8.0 ndp</b>	< 1.0 <b>16 ndp</b>	< 1.0 55 ndp
Motor Oil	< 50	120	< 50	< 50	< 50	50	< 50	55 hup 170

#### Notes:

(1) Soil samples collected in six-inch tubes beginning with the depth indicated in feet below ground surface (bgs).

g = Hydrocarbon does not match the pattern of laboratory gasoline standard

ndp = Hydrocarbon does not match the pattern of laboratory diesel standard.

Samples were analyzed for Total Petroleum Hydrocarbons (TPHs) in the gasoline, jet fuel-A, kerosene, diesel, and motor oil by EPA Method 8015M.

mg/kg = milligrams per kilogram

#### **TABLE 2: SOIL CHEMICAL TEST RESULTS - Total Petroleum Hydrocarbons** Phase II Environmental Site Assessment

**Future Port Field Support Services Complex** 

Port of Oakland

Oakland, California

LOCATION	MFC-17	MFC-18	MFC-18	MFC-18	MFC-19	MFC-19	MFC-19	MFC-20
MATRIX	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/26/02	3/25/02	3/25/02	3/25/02	3/25/02	3/25/02	3/25/02	3/27/02
ANALYTICAL METHOD	8015M	8015M	8015M	8015M	8015M	8015M	8015M	8015M
DEPTH <sup>(1)</sup>	4.5	1.5	3.0	4.5	1.0	2.0	4.0	4.0
UNITS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Gasoline	< 1.0	< 1.0	4.6 g	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Jet Fuel - A	< 1.0	< 1.0	< 10	< 1.0	< 10	< 1.0	< 1.0	< 1.0
Kerosene	< 1.0	< 1.0	< 10	< 1.0	< 10	< 1.0	< 1.0	< 1.0
Diesel	<b>2.8 ndp</b>	11 ndp	310 ndp	<b>5.9 ndp</b>	<b>370 ndp</b>	<b>3.8 ndp</b>	<b>1.0 ndp</b>	21 ndp
Motor Oil	< 50	88	1100	< 50	1100	< 50	< 50	130

Notes:

(1) Soil samples collected in six-inch tubes beginning with the depth indicated in feet below ground surface (bgs).

g = Hydrocarbon does not match the pattern of laboratory gasoline standard

ndp = Hydrocarbon does not match the pattern of laboratory diesel standard.

Samples were analyzed for Total Petroleum Hydrocarbons (TPHs) in the gasoline, jet fuel-A, kerosene, diesel, and motor oil by EPA Method 8015M.

mg/kg = milligrams per kilogram

### TABLE 2: SOIL CHEMICAL TEST RESULTS - Total Petroleum Hydrocarbons Phase II Environmental Site Assessment

Future Port Field Support Services Complex

Port of Oakland

Oakland, California

LOCATION MATRIX COLLECTION DATE ANALYTICAL METHOD	MFC-20 Soil 3/27/02 8015M	MFC-20 Soil 3/27/02 3550M	MFC-21 Soil 3/28/02 8015M	MFC-21-DUP Soil 3/28/02 8015M	MFC-21 Soil 3/28/02 8015M	MFC-21 Soil 3/28/02 8015M	MFC-22 Soil 3/28/02 8015M	MFC-22 Soil 3/28/02 8015M
DEPTH <sup>(1)</sup> UNITS	7.0 mg/kg	13.0 mg/kg	1.5 mg/kg	1.5 mg/kg	4.5 mg/kg	8.0 mg/kg	1.5 mg/kg	4.5 mg/kg
Gasoline	< 1.0	< 2,000.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Jet Fuel - A	< 20		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Kerosene	< 20	1. <del>11</del>	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Diesel	230 ndp	1600	7.9 ndp	4.2 ndp	< 1.0	< 1.0	< 1.0	< 1.0
Motor Oil	1200		58	< 50	< 50	< 50	< 50	< 50

#### Notes:

(1) Soil samples collected in six-inch tubes beginning with the depth indicated in feet below ground surface (bgs).

g = Hydrocarbon does not match the pattern of laboratory gasoline standard

ndp = Hydrocarbon does not match the pattern of laboratory diesel standard.

Samples were analyzed for Total Petroleum Hydrocarbons (TPHs) in the gasoline, jet fuel-A, kerosene, diesel, and motor oil by EPA Method 8015M.

mg/kg = milligrams per kilogram

## TABLE 2: SOIL CHEMICAL TEST RESULTS - Total Petroleum Hydrocarbons Phase II Environmental Site Assessment

Future Port Field Support Services Complex

Port of Oakland

Oakland, California

LOCATION	MFC-22	MFC-23	MFC-23	MFC-23	MFC-24	MFC-24	MFC-24	MFC-25
MATRIX	Soil							
COLLECTION DATE	3/28/02	3/28/02	3/28/02	3/28/02	3/27/02	3/27/02	3/27/02	3/28/02
ANALYTICAL METHOD	8015M	8015M	8015M	8015M	8015M	8015M	3550M	3550M
DEPTH <sup>(1)</sup>	7.5	1.5	5.5	8.0	1.5	4.0	4.5	1.0
UNITS	mg/kg							
Gasoline	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 200.0	<200.0
Jet Fuel - A	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0		
Kerosene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 5.0		
Diesel	1.1 ndp	17 ndp	4.2 ndp	< 1.0	9.4 ndp	150 ndp	< 5.0	<5.0
Motor Oil	< 50	89	< 50	< 50	< 50	600	Gal.	

#### Notes:

(1) Soil samples collected in six-inch tubes beginning with the depth indicated in feet below ground surface (bgs).

g = Hydrocarbon does not match the pattern of laboratory gasoline standard

ndp = Hydrocarbon does not match the pattern of laboratory diesel standard.

Samples were analyzed for Total Petroleum Hydrocarbons (TPHs) in the gasoline, jet fuel-A, kerosene, diesel, and motor oil by EPA Method 8015M.

mg/kg = milligrams per kilogram

## TABLE 2: SOIL CHEMICAL TEST RESULTS - Total Petroleum Hydrocarbons Phase II Environmental Site Assessment Future Port Field Support Services Complex

Port of Oakland

Oakland, California

LOCATION	MFC-25-DUP	MFC-25	MFC-25	MFC-26	MFC-26	MFC-26	MFC-27	MFC-27
MATRIX	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/28/02	3/28/02	3/28/02	3/27/02	3/27/02	3/27/02	3/27/02	3/27/02
ANALYTICAL METHOD	8015M	8015M	3550M	8015M	8015M	8015M	8015M	8015M
DEPTH <sup>(1)</sup>	1.0	4.5	7.5	1.5	5.0	7.5	1.5	4.5
UNITS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Gasoline	< 1.0	< 1.0	< 200.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Jet Fuel - A	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 50	< 1.0
Kerosene	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 50	< 1.0
Diesel	69 ndp	9.9 ndp	1600	< 1.0	2.4 ndp	< 1.0	420 ndp	< 1.0
Motor Oil	290	59		< 50	< 50	< 50	2900	< 50

#### Notes:

(1) Soil samples collected in six-inch tubes beginning with the depth indicated in feet below ground surface (bgs).

g = Hydrocarbon does not match the pattern of laboratory gasoline standard

ndp = Hydrocarbon does not match the pattern of laboratory diesel standard.

Samples were analyzed for Total Petroleum Hydrocarbons (TPHs) in the gasoline, jet fuel-A, kerosene, diesel, and motor oil by EPA Method 8015M.

mg/kg = milligrams per kilogram

#### **TABLE 2: SOIL CHEMICAL TEST RESULTS - Total Petroleum Hydrocarbons** Phase II Environmental Site Assessment **Future Port Field Support Services Complex**

Port of Oakland

Oakland, California

LOCATION MATRIX COLLECTION DATE ANALYTICAL METHOD	MFC-27 Soil 3/27/02 3550M	MFC-28 Soil 3/27/02 8015M	MFC-28 Soil 3/27/02 8015M	MFC-29 Soil 3/26/02 8015M	MFC-29 Soil 3/26/02	MFC-29-DUP Soil 3/26/02	MFC-29 Soil 3/26/02	MFC-30 Soil 3/27/02
DEPTH <sup>(1)</sup> UNITS	5.5 mg/kg	1.0 mg/kg	5.0 mg/kg	1.0 mg/kg	8015M 4.5 mg/kg	8015M 4.5 mg/kg	3550M 5.5 mg/kg	8015M 1.5 mg/kg
Gasoline	< 200.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 200.0	< 1.0
Jet Fuel - A		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 5.0
Kerosene		< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 5.0
Diesel	< 5.0	18 ndp	< 1.0	7.4 ndp	< 1.0	< 1.0	< 5.0	45 ndp
Motor Oil		170	< 50	< 50	< 50	< 50	-	520

Notes:

(1) Soil samples collected in six-inch tubes beginning with the depth indicated in feet below ground surface (bgs).

g = Hydrocarbon does not match the pattern of laboratory gasoline standard

ndp = Hydrocarbon does not match the pattern of laboratory diesel standard.

Samples were analyzed for Total Petroleum Hydrocarbons (TPHs) in the gasoline, jet fuel-A, kerosene, diesel, and motor oil by EPA Method 8015M.

mg/kg = milligrams per kilogram

# TABLE 2: SOIL CHEMICAL TEST RESULTS - Total Petroleum HydrocarbonsPhase II Environmental Site AssessmentFuture Port Field Support Services ComplexPort of Oakland

Oakland, California

LOCATION	MFC-30	MFC-31	MFC-31	MFC-31	MFC-31	MFC-32	MFC-33	MFC-33
MATRIX	Soil							
COLLECTION DATE	3/27/02	3/25/02	3/25/02	3/25/02	3/25/02	3/26/02	3/25/02	3/25/02
ANALYTICAL METHOD	3550M	8015M	8015M	8015M	3550M	8015M	8015M	8015M
DEPTH <sup>(1)</sup> UNITS	4.5 mg/kg	1.5 mg/kg	3.0 mg/kg	4.5 mg/kg	5.0 mg/kg	1.5 mg/kg	1.5 mg/kg	3.0 mg/kg
Gasoline	< 200.0		100				10.5	
Jet Fuel - A	~ 200.0	< 1.0	5.4 g	< 1.0	< 200.0	< 1.0	< 1.0	< 1.0
		< 1.0	< 1.0	< 1.0		< 1.0	< 50	< 1.0
Kerosene	144/ J	< 1.0	< 1.0	< 1.0		< 1.0	< 50	< 1.0
Diesel	< 5.0	16 ndp	28 ndp	2.7 ndp	< 5.0	3.4 ndp	1,300 ndp	14 ndp
Motor Oil	<del></del>	81	75	< 50		< 50	3800	85

#### Notes:

(1) Soil samples collected in six-inch tubes beginning with the depth indicated in feet below ground surface (bgs).

g = Hydrocarbon does not match the pattern of laboratory gasoline standard

ndp = Hydrocarbon does not match the pattern of laboratory diesel standard.

Samples were analyzed for Total Petroleum Hydrocarbons (TPHs) in the gasoline, jet fuel-A, kerosene, diesel, and motor oil by EPA Method 8015M.

mg/kg = milligrams per kilogram

## TABLE 2: SOIL CHEMICAL TEST RESULTS - Total Petroleum Hydrocarbons Phase II Environmental Site Assessment Future Port Field Support Services Complex

Port of Oakland

Oakland, California

LOCATION MATRIX	MFC-33 Soil	MFC-33 Soil	MFC-34 Soil	MFC-34 Soil	MFC-34 Soil	MFC-34 Soil	MFC-35 Soil	MFC-35 Soil
COLLECTION DATE ANALYTICAL METHOD	3/25/02	3/25/02	3/26/02	3/26/02	3/26/02	3/26/02	3/25/02	3/25/02
	8015M	3550M	8015M	8015M	8015M	3550M	8015M	8015M
DEPTH <sup>(1)</sup> UNITS	5.0 mg/kg	5.5 mg/kg	1.5 mg/kg	3.0 mg/kg	5.5 mg/kg	6.0 mg/kg	1.0 mg/kg	2.0 mg/kg
Gasoline	< 1.0	< 200.0	< 1.0	< 1.0	< 1.0	< 200.0	< 1.0	2.0 g
Jet Fuel - A	< 1.0		< 1.0	< 1.0	< 1.0		< 1.0	< 10
Kerosene	< 1.0		< 1.0	< 1.0	< 1.0		< 1.0	< 10
Diesel	2.1 ndp	< 5.0	13 ndp	36 ndp	< 1.0	< 5.0	45 ndp	200 ndp
Motor Oil	< 50		150	85	< 50	-	420	1200

#### Notes:

(1) Soil samples collected in six-inch tubes beginning with the depth indicated in feet below ground surface (bgs).

g = Hydrocarbon does not match the pattern of laboratory gasoline standard

ndp = Hydrocarbon does not match the pattern of laboratory diesel standard.

Samples were analyzed for Total Petroleum Hydrocarbons (TPHs) in the gasoline, jet fuel-A, kerosene, diesel, and motor oil by EPA Method 8015M.

mg/kg = milligrams per kilogram

Phase II Environmental Site Assessment

Future Port Field Support Services Complex

Port of Oakland

Oakland, California

LOCATION	MFC-35	MFC-35	MFC-36	MFC-36- DUP	MFC-36	MFC-37	MFC-37	MFC-37
MATRIX	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/25/02	3/25/02	3/28/02	3/28/02	3/28/02	3/25/02	3/25/02	3/25/02
ANALYTICAL METHOD	8015M	3550M	8015M	8015M	8015M	8015M	8015M	3550M
DEPTH <sup>(1)</sup>	5.0	5.5	1.5	1.5	4.5	1.5	4.5	5.0
UNITS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Gasoline Jet Fuel - A	< 1.0 < 1.0	< 2,000.0	< 1.0 < 1.0	< 1.0 < 1.0	< 1.0 < 10	< 1.0 < 1.0	<b>310 g</b> < 50	< 2,000.0
Kerosene	< 1.0		< 1.0	< 1.0	< 10	< 1.0	< 50	3800
Diesel	<b>57 ndp</b>	1300	<b>7.6 ndp</b>	<b>1.6 ndp</b>	120 ndp	<b>5.6 ndp</b>	<b>5,700 ndp</b>	
Motor Oil	< 50		< 50	< 50	900	< 50	< 2,500	

Notes:

(1) Soil samples collected in six-inch tubes beginning with the depth indicated in feet below ground surface (bgs).

g = Hydrocarbon does not match the pattern of laboratory gasoline standard

ndp = Hydrocarbon does not match the pattern of laboratory diesel standard.

Samples were analyzed for Total Petroleum Hydrocarbons (TPHs) in the gasoline, jet fuel-A, kerosene, diesel, and motor oil by EPA Method 8015M.

mg/kg = milligrams per kilogram

## TABLE 2: SOIL CHEMICAL TEST RESULTS - Total Petroleum HydrocarbonsPhase II Environmental Site AssessmentFuture Port Field Support Services Complex

Port of Oakland

Oakland, California

LOCATION MATRIX COLLECTION DATE ANALYTICAL METHOD	MFC-38 Soil 3/26/02 8015M	MFC-38 Soil 3/26/02 8015M	MFC-38 Soil 3/26/02 8015M	MFC-38 Soil 3/26/02 3550M	MFC-39 Soil 3/26/02 8015M	MFC-40 Soil 3/26/02 8015M	MFC-40 Soil 3/26/02 8015M	MFC-40 Soil 3/26/02 8015M
DEPTH <sup>(1)</sup> UNITS	1.0 mg/kg	2.5 mg/kg	5.0 mg/kg	5.5 mg/kg	1.5 mg/kg	1.5 mg/kg	3.0 mg/kg	4.5 mg/kg
Gasoline	< 1.0	< 1.0	< 1.0	< 200.0	< 1.0	< 1.0	< 1.0	< 1.0
Jet Fuel - A	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0	< 1.0
Kerosene	< 1.0	< 1.0	< 1.0	-	< 1.0	< 1.0	< 1.0	< 1.0
Diesel	14 ndp	7.8 ndp	18 ndp	< 5.0	4.7 ndp	7.3 ndp	5.3 ndp	< 1.0
Motor Oil	150	72	< 50		87	71	< 50	< 50

#### Notes:

(1) Soil samples collected in six-inch tubes beginning with the depth indicated in feet below ground surface (bgs).

g = Hydrocarbon does not match the pattern of laboratory gasoline standard

ndp = Hydrocarbon does not match the pattern of laboratory diesel standard.

Samples were analyzed for Total Petroleum Hydrocarbons (TPHs) in the gasoline, jet fuel-A, kerosene, diesel, and motor oil by EPA Method 8015M.

mg/kg = milligrams per kilogram

#### **TABLE 2: SOIL CHEMICAL TEST RESULTS - Total Petroleum Hydrocarbons** Phase II Environmental Site Assessment

**Future Port Field Support Services Complex** 

### Port of Oakland

Oakland, California

LOCATION MATRIX COLLECTION DATE	MFC-40 Soil 3/26/02	MFC-41 Soil 3/26/02	MFC-41 Soil 3/26/02	MFC-41 Soil 3/26/02	MFC-41 Soil 3/26/02	MFC-43 Soil 3/28/02	MFC-43 Soil 3/28/02	MFC-44 Soil 3/26/02
ANALYTICAL METHOD	3550M	8015M	8015M	8015M	3550M	8015M	8015M	8015M
DEPTH <sup>(1)</sup> UNITS	5.0 mg/kg	1.5 mg/kg	2.5 mg/kg	4.0 mg/kg	4.5 mg/kg	1.5 mg/kg	4.5 mg/kg	1.5 mg/kg
Gasoline	< 200.0	< 1.0	< 1.0	< 1.0	< 200.0	< 1.0	< 1.0	< 1.0
Jet Fuel - A		< 1.0	< 1.0	< 1.0	1200	< 1.0	< 1.0	< 1.0
Kerosene		< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0
Diesel	< 5.0	18 ndp	< 1.0	1.9 ndp	12	110 ndp	< 1.0	2.0 ndp
Motor Oil		140	< 50	< 50	- <del>4</del>	320	< 50	< 50

#### Notes:

(1) Soil samples collected in six-inch tubes beginning with the depth indicated in feet below ground surface (bgs).

g = Hydrocarbon does not match the pattern of laboratory gasoline standard

ndp = Hydrocarbon does not match the pattern of laboratory diesel standard.

Samples were analyzed for Total Petroleum Hydrocarbons (TPHs) in the gasoline, jet fuel-A, kerosene, diesel, and motor oil by EPA Method 8015M.

mg/kg = milligrams per kilogram

Phase II Environmental Site Assessment

**Future Port Field Support Services Complex** 

Port of Oakland

Oakland, California

LOCATION	MFC-44	MFC-44	MFC-45	MFC-45	MFC-46	MFC-46	MFC-46
MATRIX	Soil	Soil	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/26/02	3/26/02	3/28/02	3/28/02	3/27/02	3/27/02	3/27/02
ANALYTICAL METHOD	8015M	3550M	8015M	8015M	8015M	8015M	3550M
DEPTH <sup>(1)</sup>	4.5	5.0	1.5	4.5	4.0	7.0	7.5
UNITS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Gasoline Jet Fuel - A Kerosene Diesel Motor Oil	< 1.0 < 10 < 10 <b>54 ndp</b> <b>650</b>	< 200.0 	< 1.0 < 1.0 < 1.0 <b>6.2 ndp</b> < 50	< 1.0 < 1.0 < 1.0 < 1.0 < 50	<1.0 <1.0 <1.0 46 ndp 170	<1.0 <1.0 <1.0 34 ndp 370	< 200.0  < 5.0 

#### Notes:

(1) Soil samples collected in six-inch tubes beginning with the depth indicated in feet below ground surface (bgs).

g = Hydrocarbon does not match the pattern of laboratory gasoline standard

ndp = Hydrocarbon does not match the pattern of laboratory diesel standard.

Samples were analyzed for Total Petroleum Hydrocarbons (TPHs) in the gasoline, jet fuel-A, kerosene, diesel, and motor oil by EPA Method 8015M.

mg/kg = milligrams per kilogram

Oakland, California

LOCATION	MFC-01	MFC-02	MFC-03	MFC-04
MATRIX	Soil	Soil	Soil	Soil
COLLECTION DATE	3/27/02	3/27/02	3/27/02	3/26/02
DEPTH <sup>(1)</sup>	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>
UNITS	mg/kg	mg/kg	mg/kg	mg/kg
1,2,4-Trichlorobenzene	< 1.7	< 0.067	< 0.13	< 1.3
1,2-Dichlorobenzene	< 1.7	< 0.067	< 0.13	< 1.3
1,3-Dichlorobenzene	< 1.7	< 0.067	< 0.13	< 1.3
1,4-Dichlorobenzene	< 1.7	< 0.067	< 0.13	< 1.3
2,4,5-Trichlorophenol	< 1.7	< 0.067	< 0.13	< 1.3
2,4,6-Trichlorophenol	< 1.7	< 0.067	< 0.13	< 1.3
2,4-Dichlorophenol	< 1.7	< 0.067	< 0.13	< 1.3
2,4-Dimethylphenol	< 1.7	< 0.067	< 0.13	< 1.3
2,4-Dinitrophenol	< 8.3	< 0.33	< 0.66	< 6.6
2,4-Dinitrotoluene	< 1.7	< 0.067	< 0.13	< 1.3
2,6-Dinitrotoluene	< 1.7	< 0.067	< 0.13	< 1.3
2-Chloronaphthalene	< 1.7	< 0.067	< 0.13	< 1.3
2-Chlorophenol	< 1.7	< 0.067	< 0.13	< 1.3
2-Methyl-4,6-dinitrophenol	< 8.3	< 0.33	< 0.66	< 6.6
2-Methylnaphthalene	< 1.7	< 0.067	< 0.13	18
2-Methylphenol	< 1.7	< 0.067	< 0.13	< 1.3
2-Nitroaniline	< 8.3	< 0.33	< 0.66	< 6.6
2-Nitrophenol	< 1.7	< 0.067	< 0.13	< 1.3
3,3-Dichlorobenzidine	< 4.3	< 0.17	< 0.34	< 3.4
3-Nitroaniline	< 1.7	< 0.067	< 0.13	< 1.3
4-Bromophenyl phenyl ether	< 4.3	< 0.17	< 0.34	< 3.4
4-Chloro-3-methylphenol	< 4.3	< 0.17	< 0.34	< 3.4
I-Chloroaniline	< 1.7	< 0.067	< 0.13	< 1.3
4-Chlorophenyl phenyl ether	< 4.3	< 0.17	< 0.34	< 3.4
-Methylphenol	< 1.7	< 0.067	< 0.13	< 1.3
-Nitroaniline	< 8.3	< 0.33	< 0.66	< 6.6
I-Nitrophenol	< 8.3	< 0.33	< 0.66	< 6.6
Acenaphthene	< 1.7	< 0.067	< 0.13	14
Acenaphthylene	< 1.7	< 0.067	< 0.13	< 1.3
Anthracene	< 1.7	< 0.067	< 0.13	12
Benzo(a)anthracene	< 1.7	< 0.067	< 0.13	4.0
Benzo(a)pyrene	< 1.7	< 0.067	< 0.13	< 1.3
Benzo(b)fluoranthene	< 1.7	< 0.067	< 0.13	< 1.3
Benzo(g,h,i)perylene	< 1.7	< 0.067	< 0.13	< 1.3
Benzo(k)fluoranthene	< 1.7	< 0.067	< 0.13	< 1.3
Benzoic acid	< 8.3	< 0.33	< 0.66	< 6.6
Benzyl alcohol	< 4.3	< 0.17	< 0.34	< 3.4
Bis(2-chloroethoxy) methane	< 4.3	< 0.17	< 0.34	< 3.4
Bis(2-chloroethyl)ether	< 1.7	< 0.067	< 0.13	< 1.3
is(2-chloroisopropyl) ether	< 1.7	< 0.067	< 0.13	< 1.3
is(2-Ethylhexyl) phthalate	< 8.3	< 0.33	< 0.66	< 6.6
utyl benzyl phthalate	< 4.3	< 0.17	< 0.34	< 3.4
hrysene	< 1.7	< 0.067	< 0.13	2.9
i-n-butyl phthalate	< 4.3	< 0.17	< 0.34	< 3.4
0i-n-octyl phthalate	< 4.3	< 0.17	< 0.34	< 3.4
Dibenzo(a,h)anthracene	< 1.7	< 0.067	< 0.13	< 1.3
Dibenzofuran	< 1.7	< 0.067	< 0.13	8.5
Diethyl phthalate	< 4.3	< 0.17	< 0.34	< 3.4
Dimethyl phthalate	< 4.3	< 0.17	< 0.34	< 3.4

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Oakland, California

LOCATION	MFC-01	MFC-02	MFC-03	MFC-04
MATRIX	Soil	Soil	Soil	Soil
COLLECTION DATE	3/27/02	3/27/02	3/27/02	3/26/02
DEPTH <sup>(1)</sup>	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>
UNITS	mg/kg	mg/kg	mg/kg	mg/kg
Fluoranthene	< 1.7	< 0.067	< 0.13	15
Fluorene	< 1.7	< 0.067	< 0.13	12
Hexachlorobenzene	< 1.7	< 0.067	< 0.13	< 1.3
Hexachlorobutadiene	< 1.7	< 0.067	< 0.13	< 1.3
Hexachlorocyclopentadiene	< 4.3	< 0.17	< 0.34	< 3.4
Hexachloroethane	< 1.7	< 0.067	< 0.13	< 1.3
Indeno(1,2,3-c,d)pyrene	< 1.7	< 0.067	< 0.13	< 1.3
Isophorone	< 1.7	< 0.067	< 0.13	< 1.3
N-Nitroso-di-n-propylamine	< 1.7	< 0.067	< 0.13	< 1.3
N-Nitrosodiphenylamine	< 1.7	< 0.067	< 0.13	< 1.3
Naphthalene	< 1.7	< 0.067	< 0.13	5.9
Nitrobenzene	< 1.7	< 0.067	< 0.13	< 1.3
Pentachlorophenol	< 8.3	< 0.33	< 0.66	< 6.6
Phenanthrene	< 1.7	< 0.067	< 0.13	36
Phenol	< 1.7	< 0.067	< 0.13	< 1.3
Pyrene	< 1.7	< 0.067	< 0.13	15

(1) Soil samples collected in six-inch tubes prior to compositing.

(2) COMP = Composite Samples; samples from this location were composited into one sample for this analysis.

mg/kg = milligrams per kilogram

Samples were analyzed for Semivoltile Organic Compounds (SVOCs) by EPA Method 8270.

Oakland, California

LOCATION	MFC-05	MFC-06	MFC-07	MFC-08
MATRIX	Soil	Soil	Soil	Soil
COLLECTION DATE	3/26/02	3/26/02	3/26/02	3/26/02
DEPTH <sup>(1)</sup>	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>
UNITS	mg/kg	mg/kg	mg/kg	mg/kg
1,2,4-Trichlorobenzene	< 0.67	< 0.67	< 0.67	< 1.3
1,2-Dichlorobenzene	< 0.67	< 0.67	< 0.67	< 1.3
1,3-Dichlorobenzene	< 0.67	< 0.67	< 0.67	< 1.3
1,4-Dichlorobenzene	< 0.67	< 0.67	< 0.67	< 1.3
2,4,5-Trichlorophenol	< 0.67	< 0.67	< 0.67	< 1.3
2,4,6-Trichlorophenol	< 0.67	< 0.67	< 0.67	< 1.3
2,4-Dichlorophenol	< 0.67	< 0.67	< 0.67	< 1.3
2,4-Dimethylphenol	< 0.67	< 0.67	< 0.67	< 1.3
2,4-Dinitrophenol	< 3.3	< 3.3	< 3.3	< 6.6
2,4-Dinitrotoluene	< 0.67	< 0.67	< 0.67	< 1.3
2,6-Dinitrotoluene	< 0.67	< 0.67	< 0.67	< 1.3
2-Chloronaphthalene	< 0.67	< 0.67	< 0.67	< 1.3
2-Chlorophenol	< 0.67	< 0.67	< 0.67	< 1.3
2-Methyl-4,6-dinitrophenol	< 3.3	< 3.3	< 3.3	< 6.6
2-Methylnaphthalene	< 0.67	< 0.67	< 0.67	< 1.3
2-Methylphenol	< 0.67	< 0.67	< 0.67	< 1.3
2-Nitroaniline	< 3.3	< 3.3	< 3.3	< 6.6
2-Nitrophenol	< 0.67	< 0.67	< 0.67	< 1.3
3,3-Dichlorobenzidine	< 1.7	< 1.7	< 1.7	< 3.4
3-Nitroaniline	< 0.67	< 0.67	< 0.67	< 1.3
4-Bromophenyl phenyl ether	< 1.7	< 1.7	< 1.7	< 3.4
4-Chloro-3-methylphenol	< 1.7	< 1.7	< 1.7	< 3.4
4-Chloroaniline	< 0.67	< 0.67	< 0.67	< 1.3
4-Chlorophenyl phenyl ether	< 1.7	< 1.7	< 1.7	< 3.4
4-Methylphenol	< 0.67	< 0.67	< 0.67	< 1.3
4-Nitroaniline	< 3.3	< 3.3	< 3.3	< 6.6
4-Nitrophenol	< 3.3	< 3.3	< 3.3	< 6.6
Acenaphthene	< 0.67	< 0.67	< 0.67	< 1.3
Acenaphthylene	< 0.67	< 0.67	< 0.67	< 1.3
Anthracene	< 0.67	< 0.67	< 0.67	< 1.3
Benzo(a)anthracene	< 0.67	< 0.67	< 0.67	< 1.3
Benzo(a)pyrene	< 0.67	< 0.67	< 0.67	< 1.3
Benzo(b)fluoranthene	< 0.67	< 0.67	< 0.67	< 1.3
Benzo(g,h,i)perylene	< 0.67	< 0.67	< 0.67	< 1.3
Benzo(k)fluoranthene	< 0.67	< 0.67	< 0.67	< 1.3
Benzoic acid	< 3.3	< 3.3	< 3.3	< 6.6
Benzyl alcohol	< 1.7	< 1.7	< 1.7	< 3.4
Bis(2-chloroethoxy) methane	< 1.7	< 1.7	< 1.7	< 3.4
Bis(2-chloroethyl)ether	< 0.67	< 0.67	< 0.67	< 1.3
Bis(2-chloroisopropyl) ether	< 0.67	< 0.67	< 0.67	< 1.3
is(2-Ethylhexyl) phthalate	< 3.3	< 3.3	< 3.3	< 6.6
Butyl benzyl phthalate	< 1.7	< 1.7	< 1.7	< 3.4
Chrysene	< 0.67	< 0.67	< 0.67	< 1.3
Di-n-butyl phthalate	< 1.7	< 1.7	< 1.7	< 3.4
Di-n-octyl phthalate	< 1.7	< 1.7	< 1.7	< 3.4
Dibenzo(a,h)anthracene	< 0.67	< 0.67	< 0.67	< 1.3
Dibenzofuran	< 0.67	< 0.67	< 0.67	< 1.3
Diethyl phthalate	< 1.7	< 1.7	< 1.7	< 3,4
Dimethyl phthalate	< 1.7	< 1.7	< 1.7	< 3.4

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# TABLE 8: SOIL CHEMICAL TEST RESULTS - Semivolatile Organic Compounds Phase II Environmental Site Assessment Future Port Field Support Services Complex Port of Oakland Oakland, California

LOCATION	MFC-05	MFC-06	MFC-07	MFC-08
MATRIX	Soil	Soil	Soil	Soil
COLLECTION DATE	3/26/02	3/26/02	3/26/02	3/26/02
DEPTH <sup>(1)</sup>	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>
UNITS	mg/kg	mg/kg	mg/kg	mg/kg
Fluoranthene	< 0.67	< 0.67	< 0.67	< 1.3
Fluorene	< 0.67	< 0.67	< 0.67	< 1.3
Hexachlorobenzene	< 0.67	< 0.67	< 0.67	< 1.3
Hexachlorobutadiene	< 0.67	< 0.67	< 0.67	< 1.3
Hexachlorocyclopentadiene	< 1.7	< 1.7	< 1.7	< 3.4
Hexachloroethane	< 0.67	< 0.67	< 0.67	< 1.3
Indeno(1,2,3-c,d)pyrene	< 0.67	< 0.67	< 0.67	< 1.3
Isophorone	< 0.67	< 0.67	< 0.67	< 1.3
N-Nitroso-di-n-propylamine	< 0.67	< 0.67	< 0.67	< 1.3
N-Nitrosodiphenylamine	< 0.67	< 0.67	< 0.67	< 1.3
Naphthalene	< 0.67	< 0.67	< 0.67	< 1.3
Nitrobenzene	< 0.67	< 0.67	< 0.67	< 1.3
Pentachlorophenol	< 3.3	< 3.3	< 3.3	< 6.6
Phenanthrene	< 0.67	< 0.67	< 0.67	< 1.3
Phenol	< 0.67	< 0.67	< 0.67	< 1.3
Pyrene	< 0.67	< 0.67	< 0.67	< 1.3

Notes:

(1) Soil samples collected in six-inch tubes prior to compositing.

(2) COMP = Composite Samples; samples from this location were composited into one sample for this analysis.

mg/kg = milligrams per kilogram

Samples were analyzed for Semivoltile Organic Compounds (SVOCs) by EPA Method 8270.

 TABLE 8: SOIL CHEMICAL TEST RESULTS - Semivolatile Organic Compounds

 Phase II Environmental Site Assessment

 Future Port Field Support Services Complex

 Port of Oakland

Oakland, California

LOCATION MATRIX	MFC-09	MFC-10	MFC-11	MFC-12
COLLECTION DATE	Soil	Soil	Soil	Soil
	3/26/02	3/27/02	3/27/02	3/26/02
DEPTH <sup>(1)</sup>	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>
UNITS	mg/kg	mg/kg	mg/kg	mg/kg
1,2,4-Trichlorobenzene	< 0.67	< 0.067	< 0.67	< 1.7
1,2-Dichlorobenzene	< 0.67	< 0.067	< 0.67	< 1.7
1,3-Dichlorobenzene	< 0.67	< 0.067	< 0.67	< 1.7
1,4-Dichlorobenzene	< 0.67	< 0.067	< 0.67	< 1.7
2,4,5-Trichlorophenol	< 0.67	< 0.067	< 0.67	< 1.7
2,4,6-Trichlorophenol	< 0.67	< 0.067	< 0.67	< 1.7
2,4-Dichlorophenol	< 0.67	< 0.067	< 0.67	< 1.7
2,4-Dimethylphenol	< 0.67	< 0.067	< 0.67	< 1.7
2,4-Dinitrophenol	< 3.3	< 0.33	< 3.3	< 8.3
2,4-Dinitrotoluene	< 0.67	< 0.067	< 0.67	< 1.7
2,6-Dinitrotoluene	< 0.67	< 0.067	< 0.67	< 1.7
2-Chloronaphthalene	< 0.67	< 0.067	< 0.67	< 1.7
2-Chlorophenol	< 0.67	< 0.067	< 0.67	< 1.7
2-Methyl-4,6-dinitrophenol	< 3.3	< 0.33	< 3.3	< 8.3
2-Methylnaphthalene	< 0.67	< 0.067	< 0.67	< 1.7
2-Methylphenol	< 0.67	< 0.067	< 0.67	< 1.7
2-Nitroaniline	< 3.3	< 0.33	< 3.3	< 8.3
2-Nitrophenol	< 0.67	< 0.067	< 0.67	< 1.7
3,3-Dichlorobenzidine	< 1.7	< 0.17	< 1.7	< 4.3
3-Nitroaniline	< 0.67	< 0.067	< 0.67	< 1.7
4-Bromophenyl phenyl ether	< 1.7	< 0.17	< 1.7	< 4.3
4-Chloro-3-methylphenol	< 1.7	< 0.17	< 1.7	< 4.3
4-Chloroaniline	< 0.67	< 0.067	< 0.67	< 1.7
4-Chlorophenyl phenyl ether	< 1.7	< 0.17	< 1.7	< 4.3
4-Methylphenol	< 0.67	< 0.067	< 0.67	< 1.7
4-Nitroaniline	< 3.3	< 0.33	< 3.3	< 8.3
4-Nitrophenol	< 3.3	< 0.33	< 3.3	< 8.3
Acenaphthene	< 0.67	< 0.067	< 0.67	< 1.7
Acenaphthylene	< 0.67	< 0.067	< 0.67	< 1.7
Anthracene	< 0.67	< 0.067	< 0.67	< 1.7
Benzo(a)anthracene	< 0.67	< 0.067	< 0.67	
Benzo(a)pyrene	< 0.67	< 0.067	< 0.67	< 1.7
Benzo(b)fluoranthene	< 0.67	< 0.067	< 0.67	< 1.7
Benzo(g,h,i)perylene	< 0.67	< 0.067		< 1.7
Benzo(k)fluoranthene	< 0.67	< 0.067	< 0.67	< 1.7
Benzoic acid	< 3.3	< 0.33	< 0.67	< 1.7
Benzyl alcohol	< 1.7		< 3.3	< 8.3
Bis(2-chloroethoxy) methane	< 1.7	< 0.17	< 1.7	< 4.3
Bis(2-chloroethyl)ether	< 0.67	< 0.17	< 1.7	< 4.3
Bis(2-chloroisopropyl) ether		< 0.067	< 0.67	< 1.7
bis(2-Ethylhexyl) phthalate	< 0.67	< 0.067	< 0.67	< 1.7
Butyl benzyl phthalate	< 3.3	< 0.33	< 3.3	< 8.3
Chrysene	< 1.7	< 0.17	< 1.7	< 4.3
	< 0.67	< 0.067	< 0.67	< 1.7
Di-n-butyl phthalate	< 1.7	< 0.17	< 1.7	< 4.3
Di-n-octyl phthalate	< 1.7	< 0.17	< 1.7	< 4.3
Dibenzo(a,h)anthracene	< 0.67	< 0.067	< 0.67	< 1.7
Dibenzofuran	< 0.67	< 0.067	< 0.67	< 1.7
Diethyl phthalate	< 1.7	< 0.17	< 1.7	< 4.3
Dimethyl phthalate	< 1.7	< 0.17	< 1.7	< 4.3

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LOCATION	MFC-09	MFC-10	MFC-11	MFC-12
MATRIX	Soil	Soil	Soil	Soil
COLLECTION DATE	3/26/02	3/27/02	3/27/02	3/26/02
DEPTH <sup>(1)</sup>	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>
UNITS	mg/kg	mg/kg	mg/kg	mg/kg
Fluoranthene	< 0.67	< 0.067	< 0.67	< 1.7
Fluorene	< 0.67	< 0.067	< 0.67	< 1.7
Hexachlorobenzene	< 0.67	< 0.067	< 0.67	< 1.7
Hexachlorobutadiene	< 0.67	< 0.067	< 0.67	< 1.7
Hexachlorocyclopentadiene	< 1.7	< 0.17	< 1.7	< 4.3
Hexachloroethane	< 0.67	< 0.067	< 0.67	< 1.7
Indeno(1,2,3-c,d)pyrene	< 0.67	< 0.067	< 0.67	< 1.7
Isophorone	< 0.67	< 0.067	< 0.67	< 1.7
N-Nitroso-di-n-propylamine	< 0.67	< 0.067	< 0.67	< 1.7
N-Nitrosodiphenylamine	< 0.67	< 0.067	< 0.67	< 1.7
Naphthalene	< 0.67	< 0.067	< 0.67	< 1.7
Nitrobenzene	< 0.67	< 0.067	< 0.67	< 1.7
Pentachlorophenol	< 3.3	< 0.33	< 3.3	< 8.3
Phenanthrene	< 0.67	< 0.067	< 0.67	< 1.7
Phenol	< 0.67	< 0.067	< 0.67	< 1.7
Pyrene	< 0.67	< 0.067	< 0.67	< 1.7

Notes:

(1) Soil samples collected in six-inch tubes prior to compositing.

(2) COMP = Composite Samples; samples from this location were composited into one sample for this analysis.

mg/kg = milligrams per kilogram

Samples were analyzed for Semivoltile Organic Compounds (SVOCs) by EPA Method 8270.

Oakland, California

LOCATION MFC-13 MFC-14 MFC-15 **MFC-16** MATRIX Soil Soil Soil Soil COLLECTION DATE 3/27/02 3/25/02 3/25/02 3/25/02 DEPTH<sup>(1)</sup> COMP<sup>(2)</sup> COMP<sup>(2)</sup> COMP<sup>(2)</sup> COMP<sup>(2)</sup> UNITS mg/kg mg/kg mg/kg mg/kg 1,2,4-Trichlorobenzene < 0.34 < 0.067 < 0.34 < 0.067 1,2-Dichlorobenzene < 0.34 < 0.34 < 0.067 < 0.067 1,3-Dichlorobenzene < 0.34 < 0.067 < 0.34 < 0.067 1.4-Dichlorobenzene < 0.34 < 0.067 < 0.34 < 0.067 2,4,5-Trichlorophenol < 0.34< 0.067 < 0.34 < 0.067 2,4,6-Trichlorophenol < 0.34 < 0.067 < 0.34 < 0.067 2,4-Dichlorophenol < 0.34 < 0.067 < 0.34 < 0.067 2,4-Dimethylphenol < 0.34 < 0.067 < 0.34 < 0.0672,4-Dinitrophenol < 1.7 < 0.33 < 1.7 < 0.33 2,4-Dinitrotoluene < 0.34 < 0.067 < 0.34 < 0.067 2,6-Dinitrotoluene < 0.34 < 0.067 < 0.34 < 0.067 2-Chloronaphthalene < 0.34 < 0.067 < 0.34 < 0.067 2-Chlorophenol < 0.34 < 0.067 < 0.34 < 0.067 2-Methyl-4,6-dinitrophenol < 1.7 < 0.33 < 1.7< 0.33 2-Methylnaphthalene < 0.34 < 0.067 < 0.34 < 0.067 2-Methylphenol < 0.34 < 0.067 < 0.34 < 0.067 2-Nitroaniline < 1.7 < 0.33 < 1.7 < 0.33 2-Nitrophenol < 0.34 < 0.067 < 0.34 < 0.067 3,3-Dichlorobenzidine < 0.85 < 0.17 < 0.85 < 0.17 3-Nitroaniline < 0.34 < 0.067 < 0.34 < 0.067 4-Bromophenyl phenyl ether < 0.85 < 0.17 < 0.85 < 0.17 4-Chloro-3-methylphenol < 0.85 < 0.17 < 0.85 < 0.17 4-Chloroaniline < 0.34 < 0.067 < 0.34 < 0.067 4-Chlorophenyl phenyl ether < 0.85 < 0.17 < 0.85 < 0.17 4-Methylphenol < 0.34 < 0.067 < 0.34< 0.067 4-Nitroaniline < 1.7 < 0.33 < 1.7 < 0.334-Nitrophenol < 1.7 < 0.33 < 1.7 < 0.33Acenaphthene < 0.34 < 0.067 < 0.34< 0.067 Acenaphthylene < 0.34< 0.067 < 0.34 < 0.067 Anthracene < 0.34 < 0.067 < 0.34 < 0.067 Benzo(a)anthracene < 0.34 < 0.067 < 0.34 < 0.067 Benzo(a)pyrene < 0.34 < 0.067 < 0.34 < 0.067 Benzo(b)fluoranthene < 0.34 < 0.067 < 0.34 < 0.067 Benzo(g,h,i)perylene < 0.34 < 0.067 < 0.34 < 0.067 Benzo(k)fluoranthene < 0.34 < 0.067 < 0.34 < 0.067 Benzoic acid < 1.7 < 0.33 < 1.7 < 0.33 Benzyl alcohol < 0.85 < 0.17 < 0.85 < 0.17 Bis(2-chloroethoxy) methane < 0.85 < 0.17 < 0.85 < 0.17Bis(2-chloroethyl)ether < 0.34 < 0.067 < 0.34 < 0.067 Bis(2-chloroisopropyl) ether < 0.34 < 0.067 < 0.34 < 0.067bis(2-Ethylhexyl) phthalate < 1.7< 0.33<1.7 < 0.33 Butyl benzyl phthalate < 0.85 < 0.17 < 0.85 < 0.17 Chrysene < 0.34 < 0.067 < 0.34< 0.067 Di-n-butyl phthalate < 0.85 < 0.17 < 0.85 < 0.17 Di-n-octyl phthalate < 0.85 < 0.17 < 0.85 < 0.17Dibenzo(a,h)anthracene < 0.34 < 0.067 < 0.34 < 0.067 Dibenzofuran < 0.34 < 0.067 < 0.34 < 0.067 Diethyl phthalate < 0.85 < 0.17 < 0.85 < 0.17 Dimethyl phthalate < 0.85 < 0.17 < 0.85 < 0.17

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Oakland, California

LOCATION	MFC-13	MFC-14	MFC-15	MFC-16
MATRIX	Soil	Soil	Soil	Soil
COLLECTION DATE	3/27/02	3/25/02	3/25/02	3/25/02
DEPTH <sup>(1)</sup>	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>
UNITS	mg/kg	mg/kg	mg/kg	mg/kg
Fluoranthene	< 0.34	< 0.067	< 0.34	< 0.067
Fluorene	< 0.34	< 0.067	< 0.34	< 0.067
Hexachlorobenzene	< 0.34	< 0.067	< 0.34	< 0.067
Hexachlorobutadiene	< 0.34	< 0.067	< 0.34	< 0.067
Hexachlorocyclopentadiene	< 0.85	< 0.17	< 0.85	< 0.17
Hexachloroethane	< 0.34	< 0.067	< 0.34	< 0.067
Indeno(1,2,3-c,d)pyrene	< 0.34	< 0.067	< 0.34	< 0.067
Isophorone	< 0.34	< 0.067	< 0.34	< 0.067
N-Nitroso-di-n-propylamine	< 0.34	< 0.067	< 0.34	< 0.067
N-Nitrosodiphenylamine	< 0.34	< 0.067	< 0.34	< 0.067
Naphthalene	< 0.34	< 0.067	< 0.34	< 0.067
Nitrobenzene	< 0.34	< 0.067	< 0.34	< 0.067
Pentachlorophenol	< 1.7	< 0.33	< 1.7	< 0.33
Phenanthrene	< 0.34	< 0.067	< 0.34	< 0.067
Phenol	< 0.34	< 0.067	< 0.34	< 0.067
Pyrene	< 0.34	< 0.067	< 0.34	< 0.067

Notes:

(1) Soil samples collected in six-inch tubes prior to compositing.

(2) COMP = Composite Samples; samples from this location were composited into one sample for this analysis.

mg/kg = milligrams per kilogram

Samples were analyzed for Semivoltile Organic Compounds (SVOCs) by EPA Method 8270.

 TABLE 8: SOIL CHEMICAL TEST RESULTS - Semivolatile Organic Compounds

 Phase II Environmental Site Assessment

Future Port Field Support Services Complex

Port of Oakland

Oakland, California

LOCATION	MFC-17	MFC-18	MFC-19	MFC-20
MATRIX	Soil	Soil	Soil	Soil
COLLECTION DATE	3/26/02	3/25/02	3/25/02	3/27/02
DEPTH <sup>(1)</sup>	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>
UNITS	mg/kg	mg/kg	mg/kg	mg/kg
1,2,4-Trichlorobenzene	< 0.34	< 0.34	< 0.34	< 1.7
1,2-Dichlorobenzene	< 0.34	< 0.34	< 0.34	< 1.7
1,3-Dichlorobenzene	< 0.34	< 0.34	< 0.34	< 1.7
1,4-Dichlorobenzene	< 0.34	< 0.34	< 0.34	< 1.7
2,4,5-Trichlorophenol	< 0.34	< 0.34	< 0.34	< 1.7
2,4,6-Trichlorophenol	< 0.34	< 0.34	< 0.34	< 1.7
2,4-Dichlorophenol	< 0.34	< 0.34	< 0.34	< 1.7
2,4-Dimethylphenol	< 0.34	< 0.34	< 0.34	< 1.7
2,4-Dinitrophenol	< 1.7	< 1.7	< 1.7	< 8.3
2,4-Dinitrotoluene	< 0.34	< 0.34	< 0.34	< 1.7
2,6-Dinitrotoluene	< 0.34	< 0.34	< 0.34	< 1.7
2-Chloronaphthalene	< 0.34	< 0.34	< 0.34	< 1.7
2-Chlorophenol	< 0.34	< 0.34	< 0.34	< 1.7
2-Methyl-4,6-dinitrophenol	< 1.7	< 1.7	< 1.7	< 8.3
2-Methylnaphthalene	< 0.34	0.42	< 0.34	< 1.7
2-Methylphenol	< 0.34	< 0.34	< 0.34	< 1.7
2-Nitroaniline	< 1.7	< 1.7	< 1.7	< 8.3
2-Nitrophenol	< 0.34	< 0.34	< 0.34	< 1.7
3,3-Dichlorobenzidine	< 0.85	< 0.85	< 0.85	< 4.3
3-Nitroaniline	< 0.34	< 0.34	< 0.34	< 1.7
4-Bromophenyl phenyl ether	< 0.85	< 0.85	< 0.85	< 4.3
4-Chloro-3-methylphenol	< 0.85	< 0.85	< 0.85	< 4.3
4-Chloroaniline	< 0.34	< 0.34	< 0.34	< 1.7
-Chlorophenyl phenyl ether	< 0.85	< 0.85	< 0.85	< 4.3
-Methylphenol	< 0.34	< 0.34	< 0.34	< 1.7
4-Nitroaniline	< 1.7	< 1.7	< 1.7	< 8.3
4-Nitrophenol	< 1.7	< 1.7	< 1.7	< 8.3
Acenaphthene	< 0.34	< 0.34	< 0.34	< 1.7
Acenaphthylene	< 0.34	< 0.34	< 0.34	< 1.7
Anthracene	< 0.34	< 0.34	< 0.34	< 1.7
Benzo(a)anthracene	< 0.34	< 0.34	< 0.34	< 1.7
Benzo(a)pyrene	< 0.34	< 0.34	< 0.34	< 1.7
Benzo(b)fluoranthene	< 0.34	< 0.34	< 0.34	< 1.7
Benzo(g,h,i)perylene	< 0.34	< 0.34	< 0.34	< 1.7
Benzo(k)fluoranthene	< 0.34	< 0.34	< 0.34	< 1.7
Benzoic acid	< 1.7	< 1.7	< 1.7	< 8.3
Benzyl alcohol	< 0.85	< 0.85	< 0.85	< 4.3
Bis(2-chloroethoxy) methane	< 0.85	< 0.85	< 0.85	< 4.3
Bis(2-chloroethyl)ether	< 0.34	< 0.34	< 0.34	< 1.7
Bis(2-chloroisopropyl) ether	< 0.34	< 0.34	< 0.34	< 1.7
is(2-Ethylhexyl) phthalate	< 1.7	< 1.7	< 1.7	< 8.3
utyl benzyl phthalate	< 0.85	< 0.85	< 0.85	< 4.3
Thrysene	< 0.34	< 0.34	< 0.34	
i-n-butyl phthalate	< 0.85	< 0.85	< 0.34	< 1.7
Pi-n-octyl phthalate	< 0.85	< 0.85	< 0.85	< 4.3
vibenzo(a,h)anthracene	< 0.34			< 4.3
Dibenzofuran	< 0.34	< 0.34	< 0.34	< 1.7
Diethyl phthalate	< 0.34	< 0.34	< 0.34	< 1.7
A B A C A T A B T A B A C A C A C A C A C A C A C A C A C		< 0.85	< 0.85	< 4.3
Dimethyl phthalate	< 0.85	< 0.85	< 0.85	< 4.3

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LOCATION MFC-17 **MFC-18** MFC-20 MFC-19 MATRIX Soil Soil Soil Soil COLLECTION DATE 3/26/02 3/25/02 3/25/02 3/27/02 DEPTH<sup>(1)</sup> COMP<sup>(2)</sup> COMP<sup>(2)</sup> COMP<sup>(2)</sup> COMP<sup>(2)</sup> UNITS mg/kg mg/kg mg/kg mg/kg Fluoranthene < 0.34 < 0.34 < 0.34 < 1.7 Fluorene < 0.34 < 0.34 < 0.34 < 1.7 Hexachlorobenzene < 0.34 < 0.34 < 0.34 < 1.7 Hexachlorobutadiene < 0.34 < 0.34 < 0.34 < 1.7 Hexachlorocyclopentadiene < 0.85 < 0.85 < 0.85 < 4.3 Hexachloroethane < 0.34 < 0.34 < 0.34 < 1.7 Indeno(1,2,3-c,d)pyrene < 0.34 < 0.34 < 0.34 < 1.7 Isophorone < 0.34 < 0.34 < 0.34 < 1.7 N-Nitroso-di-n-propylamine < 0.34 < 0.34 < 0.34 < 1.7 N-Nitrosodiphenylamine < 0.34 < 0.34 < 0.34 <1.7 Naphthalene < 0.34 0.36 < 0.34 < 1.7 Nitrobenzene < 0.34 < 0.34 < 0.34 < 1.7 Pentachlorophenol < 1.7 < 1.7 < 1.7 < 8.3 Phenanthrene < 0.34 < 0.34 < 0.34 < 1.7 Phenol < 0.34 < 0.34 < 0.34 <1.7 Pyrene < 0.34 < 0.34 < 0.34 < 1.7

Notes:

(1) Soil samples collected in six-inch tubes prior to compositing.

(2) COMP = Composite Samples; samples from this location were composited into one sample for this analysis.

mg/kg = milligrams per kilogram

Samples were analyzed for Semivoltile Organic Compounds (SVOCs) by EPA. Method 8270.

Oakland, California

LOCATION	MFC-21	
MATRIX	Soil	
COLLECTION DATE	3/28/02 COMP <sup>(2)</sup>	
DEPTH <sup>(1)</sup>		
UNITS	mg/kg	
1,2,4-Trichlorobenzene	< 0.067	
1,2-Dichlorobenzene	< 0.067	
1,3-Dichlorobenzene	< 0.067	
1,4-Dichlorobenzene	< 0.067	
2,4,5-Trichlorophenol	< 0.067	
2,4,6-Trichlorophenol	< 0.067	
2,4-Dichlorophenol	< 0.067	
2,4-Dimethylphenol	< 0.067	
2,4-Dinitrophenol	< 0.33	
2,4-Dinitrotoluene	< 0.067	
2,6-Dinitrotoluene	< 0.067	
2-Chloronaphthalene	< 0.067	
2-Chlorophenol	< 0.067	
2-Methyl-4,6-dinitrophenol	< 0.33	
2-Methylnaphthalene	< 0.067	
2-Methylphenol	< 0.067	
2-Nitroaniline	< 0.33	
2-Nitrophenol	< 0.067	
3,3-Dichlorobenzidine	< 0.17	
3-Nitroaniline	< 0.067	
4-Bromophenyl phenyl ether	< 0.17	
4-Chloro-3-methylphenol	< 0.17	
4-Chloroaniline	< 0.067	
4-Chlorophenyl phenyl ether	< 0.17	
4-Methylphenol	< 0.067	
4-Nitroaniline	< 0.33	
4-Nitrophenol	< 0.33	
Acenaphthene	< 0.067	
Acenaphthylene	< 0.067	
Anthracene	< 0.067	
Benzo(a)anthracene	< 0.067	
Benzo(a)pyrene	< 0.067	
Benzo(b)fluoranthene	< 0.067	
Benzo(g,h,i)perylene	< 0.067	
Benzo(k)fluoranthene	< 0.067	
Benzoic acid	< 0.33	
Benzyl alcohol	< 0.17	
Bis(2-chloroethoxy) methane	< 0.17	
Bis(2-chloroethyl)ether	< 0.067	
Bis(2-chloroisopropyl) ether	< 0.067	
bis(2-Ethylhexyl) phthalate	< 0.33	
Butyl benzyl phthalate	< 0.17	
Chrysene	< 0.067	
Di-n-butyl phthalate		
Di-n-octyl phthalate	< 0.17	
	< 0.17	
Dibenzo(a,h)anthracene Dibenzofuran	< 0.067	
Diethyl phthalate	< 0.067	
a benefation of the second state of the	< 0.17	
Dimethyl phthalate	< 0.17	

### TABLE 8: SOIL CHEMICAL TEST RESULTS - Semivolatile Organic Compounds Phase II Environmental Site Assessment Future Port Field Support Services Complex Port of Oakland Oakland, California

LOCATION	MFC-21
MATRIX	Soil
COLLECTION DATE	3/28/02
DEPTH <sup>(1)</sup>	COMP <sup>(2)</sup>
UNITS	mg/kg
Fluoranthene	< 0.067
Fluorene	< 0.067
Hexachlorobenzene	< 0.067
Hexachlorobutadiene	< 0.067
Hexachlorocyclopentadiene	< 0.17
Hexachloroethane	< 0.067
Indeno(1,2,3-c,d)pyrene	< 0.067
Isophorone	< 0.067
N-Nitroso-di-n-propylamine	< 0.067
N-Nitrosodiphenylamine	< 0.067
Naphthalene	< 0.067
Nitrobenzene	< 0.067
Pentachlorophenol	< 0.33
Phenanthrene	< 0.067
Phenol	< 0.067
Pyrene	< 0.067

### Notes:

(1) Soil samples collected in six-inch tubes prior to compositing.

(2) COMP = Composite Samples; samples from this location were composited into one sample for this analysis.

mg/kg = milligrams per kilogram

Samples were analyzed for Semivoltile Organic Compounds (SVOCs) by EPA Method 8270.

TABLE 8: SOIL CHEMICAL TEST RESULTS - Semivolatile Organic Compounds Phase II Environmental Site Assessment Future Port Field Support Services Complex Port of Oakland

Oakland, California

LOCATION MATRIX COLLECTION DATE	MFC-21-DUP Soil 3/28/02	MFC-22 Soil 3/28/02	MFC-23 Soil
DEPTH <sup>(1)</sup>			3/28/02
UNITS	1.5	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>
1,2,4-Trichlorobenzene	mg/kg	mg/kg	mg/kg
1,2-Dichlorobenzene	< 0.34 < 0.34	< 0.067	< 0.067
1,3-Dichlorobenzene		< 0.067	< 0.067
1,4-Dichlorobenzene	< 0.34 < 0.34	< 0.067	< 0.067
2,4,5-Trichlorophenol	< 0.34	< 0.067	< 0.067
2,4,6-Trichlorophenol	< 0.34	< 0.067	< 0.067
2,4-Dichlorophenol	< 0.34	< 0.067	< 0.067
2,4-Dimethylphenol	< 0.34	< 0.067	< 0.067
2,4-Dinitrophenol	< 1.7	< 0.067 < 0.33	< 0.067
2,4-Dinitrotoluene	< 0.34		< 0.33
2,6-Dinitrotoluene	< 0.34	< 0.067	< 0.067
2-Chloronaphthalene	< 0.34	< 0.067	< 0.067
2-Chlorophenol	< 0.34	< 0.067 < 0.067	< 0.067
2-Methyl-4,6-dinitrophenol	< 1.7	< 0.33	< 0.067
2-Methylnaphthalene	< 0.34		< 0.33
2-Methylphenol	< 0.34	< 0.067	< 0.067
2-Nitroaniline	< 1.7	< 0.067	< 0.067
2-Nitrophenol		< 0.33	< 0.33
3,3-Dichlorobenzidine	< 0.34 < 0.85	< 0.067	< 0.067
3-Nitroaniline	< 0.83	< 0.17	< 0.17
4-Bromophenyl phenyl ether		< 0.067	< 0.067
4-Chloro-3-methylphenol	< 0.85 < 0.85	< 0.17	< 0.17
4-Chloroaniline		< 0.17	< 0.17
4-Chlorophenyl phenyl ether	< 0.34 < 0.85	< 0.067	< 0.067
4-Methylphenol	< 0.34	< 0.17	< 0.17
4-Nitroaniline	< 1.7	< 0.067	< 0.067
4-Nitrophenol	< 1.7	< 0.33	< 0.33
Acenaphthene	< 0.34	< 0.33	< 0.33
Acenaphthylene	< 0.34	< 0.067	< 0.067
Anthracene	< 0.34	< 0.067 < 0.067	< 0.067
Benzo(a)anthracene	< 0.34	< 0.067	< 0.067
Benzo(a)pyrene	< 0.34		< 0.067
Benzo(b)fluoranthene	< 0.34	< 0.067	< 0.067
Benzo(g,h,i)perylene	< 0.34	< 0.067 < 0.067	< 0.067
Benzo(k)fluoranthene	< 0.34		< 0.067
Benzoic acid	< 1.7	< 0.067 < 0.33	< 0.067
Benzyl alcohol	< 0.85		< 0.33
Bis(2-chloroethoxy) methane	< 0.85	< 0.17 < 0.17	< 0.17
Bis(2-chloroethyl)ether	< 0.34	< 0.067	< 0.17
Bis(2-chloroisopropyl) ether	< 0.34		< 0.067
is(2-Ethylhexyl) phthalate	< 1.7	< 0.067	< 0.067
Butyl benzyl phthalate		< 0.33	< 0.33
Chrysene	< 0.85 < 0.34	< 0.17	< 0.17
Di-n-butyl phthalate	< 0.34	< 0.067	< 0.067
Di-n-octyl phthalate	< 0.85	< 0.17	< 0.17
Dibenzo(a,h)anthracene	< 0.85	< 0.17	< 0.17
Dibenzofuran		< 0.067	< 0.067
Diethyl phthalate	< 0.34	< 0.067	< 0.067
Dimethyl phthalate	< 0.85	< 0.17	< 0.17
memyi philalate	< 0.85	< 0.17	< 0.17

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### TABLE 8: SOIL CHEMICAL TEST RESULTS - Semivolatile Organic Compounds Phase II Environmental Site Assessment Future Port Field Support Services Complex Port of Oakland Oakland, California

LOCATION	MFC-21-DUP	MFC-22	MFC-23
MATRIX	Soil	Soil	Soil
COLLECTION DATE	3/28/02	3/28/02	3/28/02
DEPTH <sup>(1)</sup>	1.5	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>
UNITS	mg/kg	mg/kg	mg/kg
Fluoranthene	< 0.34	< 0.067	< 0.067
Fluorene	< 0.34	< 0.067	< 0.067
Hexachlorobenzene	< 0.34	< 0.067	< 0.067
Hexachlorobutadiene	< 0.34	< 0.067	< 0.067
Hexachlorocyclopentadiene	< 0.85	< 0.17	< 0.17
Hexachloroethane	< 0.34	< 0.067	< 0.067
Indeno(1,2,3-c,d)pyrene	< 0.34	< 0.067	< 0.067
Isophorone	< 0.34	< 0.067	< 0.067
N-Nitroso-di-n-propylamine	< 0.34	< 0.067	< 0.067
N-Nitrosodiphenylamine	< 0.34	< 0.067	< 0.067
Naphthalene	< 0.34	< 0.067	< 0.067
Nitrobenzene	< 0.34	< 0.067	< 0.067
Pentachlorophenol	< 1.7	< 0.33	< 0.33
Phenanthrene	< 0.34	< 0.067	< 0.067
Phenol	< 0.34	< 0.067	< 0.067
Pyrene	< 0.34	< 0.067	< 0.067

Notes:

(1) Soil samples collected in six-inch tubes prior to compositing.

(2) COMP = Composite Samples; samples from this location were composited into one sample for this analysis.

mg/kg = milligrams per kilogram

Samples were analyzed for Semivoltile Organic Compounds (SVOCs) by EPA Method 8270.

TABLE 8: SOIL CHEMICAL TEST RESULTS - Semivolatile Organic Compounds Phase II Environmental Site Assessment Future Port Field Support Services Complex Port of Oakland

Oakland, California

LOCATION	MFC-24	MFC-25	MFC-25-DUP	MFC-26
MATRIX	Soil	Soil	Soil	Soil
COLLECTION DATE	3/27/02	3/28/02	3/28/02	3/27/02
DEPTH <sup>(1)</sup>	COMP <sup>(2)</sup>	4.5	1.0	COMP <sup>(2)</sup>
UNITS	mg/kg	mg/kg	mg/kg	mg/kg
1,2,4-Trichlorobenzene	< 1.7	< 0.34	< 0.67	< 0.067
1,2-Dichlorobenzene	< 1.7	< 0.34	< 0.67	< 0.067
1,3-Dichlorobenzene	< 1.7	< 0.34	< 0.67	< 0.067
1,4-Dichlorobenzene	< 1.7	< 0.34	< 0.67	< 0.067
2,4,5-Trichlorophenol	< 1.7	< 0.34	< 0.67	< 0.067
2,4,6-Trichlorophenol	< 1.7	< 0.34	< 0.67	< 0.067
2,4-Dichlorophenol	< 1.7	< 0.34	< 0.67	< 0.067
2,4-Dimethylphenol	< 1.7	< 0.34	< 0.67	< 0.067
2,4-Dinitrophenol	< 8.3	< 1.7	< 3.3	< 0.33
2,4-Dinitrotoluene	< 1.7	< 0.34	< 0.67	< 0.067
2,6-Dinitrotoluene	< 1.7	< 0.34	< 0.67	< 0.067
2-Chloronaphthalene	< 1.7	< 0.34	< 0.67	< 0.067
2-Chlorophenol	< 1.7	< 0.34	< 0.67	< 0.067
2-Methyl-4,6-dinitrophenol	< 8.3	< 1.7	< 3.3	< 0.33
2-Methylnaphthalene	< 1.7	< 0.34	< 0.67	< 0.067
2-Methylphenol	< 1.7	< 0.34	< 0.67	< 0.067
2-Nitroaniline	< 8.3	< 1.7	< 3.3	< 0.33
2-Nitrophenol	< 1.7	< 0.34	< 0.67	< 0.067
3,3-Dichlorobenzidine	< 4.3	< 0.85	< 1.7	< 0.17
3-Nitroaniline	< 1.7	< 0.34	< 0.67	< 0.067
4-Bromophenyl phenyl ether	< 4.3	< 0.85	< 1.7	< 0.17
4-Chloro-3-methylphenol	< 4.3	< 0.85	< 1.7	< 0.17
4-Chloroaniline	< 1.7	< 0.34	< 0.67	< 0.067
4-Chlorophenyl phenyl ether	< 4.3	< 0.85	< 1.7	< 0.17
4-Methylphenol	< 1.7	< 0.34	< 0.67	< 0.067
4-Nitroaniline	< 8.3	< 1.7	< 3.3	< 0.33
4-Nitrophenol	< 8.3	< 1.7	< 3.3	< 0.33
Acenaphthene	< 1.7	< 0.34	< 0.67	< 0.067
Acenaphthylene	< 1.7	< 0.34	< 0.67	< 0.067
Anthracene	< 1.7	< 0.34	< 0.67	< 0.067
Benzo(a)anthracene	< 1.7	< 0.34	< 0.67	< 0.067
Benzo(a)pyrene	< 1.7	< 0.34	< 0.67	< 0.067
Benzo(b)fluoranthene	< 1.7	< 0.34	< 0.67	< 0.067
Benzo(g,h,i)perylene	< 1.7	< 0.34	< 0.67	< 0.067
Benzo(k)fluoranthene	< 1.7	< 0.34	< 0.67	< 0.067
Benzoic acid	< 8.3	< 1.7	< 3.3	< 0.33
Benzyl alcohol	< 4.3	< 0.85	< 1.7	< 0.17
Bis(2-chloroethoxy) methane	< 4.3	< 0.85	< 1.7	< 0.17
Bis(2-chloroethyl)ether	< 1.7	< 0.34	< 0.67	< 0.067
Bis(2-chloroisopropyl) ether	< 1.7	< 0.34	< 0.67	< 0.067
bis(2-Ethylhexyl) phthalate	< 8.3	< 1.7	< 3.3	< 0.33
Butyl benzyl phthalate	< 4.3	< 0.85	< 1.7	< 0.17
Chrysene	< 1.7	< 0.34	< 0.67	< 0.067
Di-n-butyl phthalate	< 4.3	< 0.85	< 1.7	< 0.17
Di-n-octyl phthalate	< 4.3	< 0.85	< 1.7	< 0.17
Dibenzo(a,h)anthracene	< 1.7	< 0.34	< 0.67	< 0.067
Dibenzofuran	< 1.7	< 0.34	< 0.67	< 0.067
Diethyl phthalate	< 4.3	< 0.85	< 1.7	< 0.17
Dimethyl phthalate	< 4.3	< 0.85	< 1.7	< 0.17

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# TABLE 8: SOIL CHEMICAL TEST RESULTS - Semivolatile Organic Compounds Phase II Environmental Site Assessment Future Port Field Support Services Complex Port of Oakland

Oakland, California

LOCATION	MFC-24	MFC-25	MFC-25-DUP	MFC-26
MATRIX	Soil	Soil	Soil	Soil
COLLECTION DATE	3/27/02	3/28/02	3/28/02	3/27/02
DEPTH <sup>(1)</sup>	COMP <sup>(2)</sup>	4.5	1.0	COMP <sup>(2)</sup>
UNITS	mg/kg	mg/kg	mg/kg	mg/kg
Fluoranthene	< 1.7	< 0.34	< 0.67	< 0.067
Fluorene	< 1.7	< 0.34	< 0.67	< 0.067
Hexachlorobenzene	< 1.7	< 0.34	< 0.67	< 0.067
Hexachlorobutadiene	< 1.7	< 0.34	< 0.67	< 0.067
Hexachlorocyclopentadiene	< 4.3	< 0.85	< 1.7	< 0.17
Hexachloroethane	< 1.7	< 0.34	< 0.67	< 0.067
Indeno(1,2,3-c,d)pyrene	< 1.7	< 0.34	< 0.67	< 0.067
Isophorone	< 1.7	< 0.34	< 0.67	< 0.067
N-Nitroso-di-n-propylamine	< 1.7	< 0.34	< 0.67	< 0.067
N-Nitrosodiphenylamine	< 1.7	< 0.34	< 0.67	< 0.067
Naphthalene	< 1.7	< 0.34	< 0.67	< 0.067
Nitrobenzene	< 1.7	< 0.34	< 0.67	< 0.067
Pentachlorophenol	< 8.3	< 1.7	< 3.3	< 0.33
Phenanthrene	< 1.7	< 0.34	< 0.67	< 0.067
Phenol	< 1.7	< 0.34	< 0.67	< 0.067
Pyrene	< 1.7	< 0.34	< 0.67	< 0.067

Notes:

(1) Soil samples collected in six-inch tubes prior to compositing.

(2) COMP = Composite Samples; samples from this location were composited into one sample for this analysis.

mg/kg = milligrams per kilogram

Samples were analyzed for Semivoltile Organic Compounds (SVOCs) by EPA Method 8270. 

 TABLE 8: SOIL CHEMICAL TEST RESULTS - Semivolatile Organic Compounds

 Phase II Environmental Site Assessment

 Future Port Field Support Services Complex

 Port of Oakland

Oakland, California

LOCATION	MFC-27	MFC-28	MFC-29	MFC-30
MATRIX	Soil	Soil	Soil	Soil
COLLECTION DATE	3/27/02	3/27/02	3/26/02	3/27/02
DEPTH <sup>(1)</sup>	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>	1.5
UNITS	mg/kg	mg/kg	mg/kg	mg/kg
1,2,4-Trichlorobenzene	< 1.7	< 0.34	< 0.067	< 0.67
1,2-Dichlorobenzene	< 1.7	< 0.34	< 0.067	< 0.67
1,3-Dichlorobenzene	< 1.7	< 0.34	< 0.067	< 0.67
1,4-Dichlorobenzene	< 1.7	< 0.34	< 0.067	< 0.67
2,4,5-Trichlorophenol	< 1.7	< 0.34	< 0.067	< 0.67
2,4,6-Trichlorophenol	< 1.7	< 0.34	< 0.067	< 0.67
2,4-Dichlorophenol	< 1.7	< 0.34	< 0.067	< 0.67
2,4-Dimethylphenol	< 1.7	< 0.34	< 0.067	< 0.67
2,4-Dinitrophenol	< 8.3	< 1.7	< 0.33	< 3.3
2,4-Dinitrotoluene	< 1.7	< 0.34	< 0.067	< 0.67
2,6-Dinitrotoluene	< 1.7	< 0.34	< 0.067	< 0.67
2-Chloronaphthalene	< 1.7	< 0.34	< 0.067	< 0.67
2-Chlorophenol	< 1.7	< 0.34	< 0.067	< 0.67
2-Methyl-4,6-dinitrophenol	< 8.3	< 1.7	< 0.33	< 3.3
2-Methylnaphthalene	< 1.7	< 0.34	< 0.067	< 0.67
2-Methylphenol	< 1.7	< 0.34	< 0.067	< 0.67
2-Nitroaniline	< 8.3	< 1.7	< 0.33	< 3.3
2-Nitrophenol	< 1.7	< 0.34	< 0.067	< 0.67
3,3-Dichlorobenzidine	< 4.3	< 0.85	< 0.17	< 1.7
3-Nitroaniline	< 1.7	< 0.34	< 0.067	< 0.67
4-Bromophenyl phenyl ether	< 4.3	< 0.85	< 0.17	< 1.7
4-Chloro-3-methylphenol	< 4.3	< 0.85	< 0.17	< 1.7
4-Chloroaniline	< 1.7	< 0.34	< 0.067	< 0.67
4-Chlorophenyl phenyl ether	< 4.3	< 0.85	< 0.17	< 1.7
4-Methylphenol	< 1.7	< 0.34	< 0.067	< 0.67
4-Nitroaniline	< 8.3	< 1.7	< 0.33	< 3.3
4-Nitrophenol	< 8.3	< 1.7	< 0.33	< 3.3
Acenaphthene	< 1.7	< 0.34	< 0.067	< 0.67
Acenaphthylene	< 1.7	< 0.34	< 0.067	< 0.67
Anthracene	< 1.7	< 0.34	< 0.067	< 0.67
Benzo(a)anthracene	< 1.7	< 0.34	< 0.067	< 0.67
Benzo(a)pyrene	< 1.7	< 0.34	< 0.067	< 0.67
Benzo(b)fluoranthene	< 1.7	< 0.34	< 0.067	< 0.67
Benzo(g,h,i)perylene	< 1.7	< 0.34	< 0.067	< 0.67
Benzo(k)fluoranthene	< 1.7	< 0.34	< 0.067	< 0.67
Benzoic acid	< 8.3	< 1.7	< 0.33	< 3.3
Benzyl alcohol	< 4.3	< 0.85	< 0.17	< 1.7
Bis(2-chloroethoxy) methane	< 4.3	< 0.85	< 0.17	< 1.7
Bis(2-chloroethyl)ether	< 1.7	< 0.34	< 0.067	< 0.67
Bis(2-chloroisopropyl) ether	< 1.7	< 0.34	< 0.067	< 0.67
bis(2-Ethylhexyl) phthalate	< 8.3	< 1.7	< 0.33	< 3.3
Butyl benzyl phthalate	< 4.3	< 0.85	< 0.17	< 1.7
Chrysene	< 1.7	< 0.34	< 0.067	< 0.67
Di-n-butyl phthalate	< 4.3	< 0.85	< 0.17	< 1.7
Di-n-octyl phthalate	< 4.3	< 0.85	< 0.17	< 1.7
Dibenzo(a,h)anthracene	< 1.7	< 0.34	< 0.067	< 0.67
Dibenzofuran	< 1.7	< 0.34	< 0.067	< 0.67
Diethyl phthalate	< 4.3	< 0.85	< 0.17	< 0.67
Dimethyl phthalate	< 4.3	< 0.85	< 0.17	< 1.7

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# TABLE 8: SOIL CHEMICAL TEST RESULTS - Semivolatile Organic Compounds Phase II Environmental Site Assessment Future Port Field Support Services Complex Port of Oakland

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LOCATION	MFC-27	MFC-28	MFC-29	MFC-30
MATRIX	Soil	Soil	Soil	Soil
COLLECTION DATE	3/27/02	3/27/02	3/26/02	3/27/02
DEPTH <sup>(1)</sup>	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>	1.5
UNITS	mg/kg	mg/kg	mg/kg	mg/kg
Fluoranthene	< 1.7	< 0.34	< 0.067	< 0.67
Fluorene	< 1.7	< 0.34	< 0.067	< 0.67
Hexachlorobenzene	< 1.7	< 0.34	< 0.067	< 0.67
Hexachlorobutadiene	< 1.7	< 0.34	< 0.067	< 0.67
Hexachlorocyclopentadiene	< 4.3	< 0.85	< 0.17	< 1.7
Hexachloroethane	< 1.7	< 0.34	< 0.067	< 0.67
Indeno(1,2,3-c,d)pyrene	< 1.7	< 0.34	< 0.067	< 0.67
Isophorone	< 1.7	< 0.34	< 0.067	< 0.67
N-Nitroso-di-n-propylamine	< 1.7	< 0.34	< 0.067	< 0.67
N-Nitrosodiphenylamine	< 1.7	< 0.34	< 0.067	< 0.67
Naphthalene	< 1.7	< 0.34	< 0.067	< 0.67
Nitrobenzene	< 1.7	< 0.34	< 0.067	< 0.67
Pentachlorophenol	< 8.3	< 1.7	< 0.33	< 3.3
Phenanthrene	< 1.7	< 0.34	< 0.067	< 0.67
Phenol	< 1.7	< 0.34	< 0.067	< 0.67
Pyrene	< 1.7	< 0.34	< 0.067	< 0.67

(1) Soil samples collected in six-inch tubes prior to compositing.

(2) COMP = Composite Samples; samples from this location were composited into one sample for this analysis.

mg/kg = milligrams per kilogram

Samples were analyzed for Semivoltile Organic Compounds (SVOCs) by EPA Method 8270.

 TABLE 8: SOIL CHEMICAL TEST RESULTS - Semivolatile Organic Compounds

 Phase II Environmental Site Assessment

 Future Port Field Support Services Complex

 Port of Oakland

Oakland, California

LOCATION	MFC-31	MFC-32	MFC-33	MFC-34
MATRIX	Soil	Soil	Soil	Soil
COLLECTION DATE	3/25/02	3/26/02	3/25/02	3/26/02
DEPTH <sup>(1)</sup>	COMP <sup>(2)</sup>	1.5	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>
UNITS	mg/kg	mg/kg	mg/kg	mg/kg
1,2,4-Trichlorobenzene	< 0.067	< 0.067	< 0.34	< 0.67
1,2-Dichlorobenzene	< 0.067	< 0.067	< 0.34	< 0.67
1,3-Dichlorobenzene	< 0.067	< 0.067	< 0.34	< 0.67
1,4-Dichlorobenzene	< 0.067	< 0.067	< 0.34	< 0.67
2,4,5-Trichlorophenol	< 0.067	< 0.067	< 0.34	< 0.67
2,4,6-Trichlorophenol	< 0.067	< 0.067	< 0.34	< 0.67
2,4-Dichlorophenol	< 0.067	< 0.067	< 0.34	< 0.67
2,4-Dimethylphenol	< 0.067	< 0.067	< 0.34	< 0.67
2,4-Dinitrophenol	< 0.33	< 0.33	< 1.7	< 3.3
2,4-Dinitrotoluene	< 0.067	< 0.067	< 0.34	< 0.67
2,6-Dinitrotoluene	< 0.067	< 0.067	< 0.34	< 0.67
2-Chloronaphthalene	< 0.067	< 0.067	< 0.34	< 0.67
2-Chlorophenol	< 0.067	< 0.067	< 0.34	< 0.67
2-Methyl-4,6-dinitrophenol	< 0.33	< 0.33	< 1.7	< 3.3
2-Methylnaphthalene	< 0.067	< 0.067	< 0.34	< 0.67
2-Methylphenol	< 0.067	< 0.067	< 0.34	< 0.67
2-Nitroaniline	< 0.33	< 0.33	< 1.7	< 3.3
2-Nitrophenol	< 0.067	< 0.067	< 0.34	< 0.67
3,3-Dichlorobenzidine	< 0.17	< 0.17	< 0.85	< 1.7
3-Nitroaniline	< 0.067	< 0.067	< 0.34	< 0.67
4-Bromophenyl phenyl ether	< 0.17	< 0.17	< 0.85	< 1.7
4-Chloro-3-methylphenol	< 0.17	< 0.17	< 0.85	< 1.7
-Chloroaniline	< 0.067	< 0.067	< 0.34	< 0.67
4-Chlorophenyl phenyl ether	< 0.17	< 0.17	< 0.85	< 1.7
4-Methylphenol	< 0.067	< 0.067	< 0.34	< 0.67
-Nitroaniline	< 0.33	< 0.33	< 1.7	< 3.3
I-Nitrophenol	< 0.33	< 0.33	< 1.7	< 3.3
Acenaphthene	< 0.067	< 0.067	< 0.34	< 0.67
Acenaphthylene	< 0.067	< 0.067	< 0.34	< 0.67
Anthracene	< 0.067	< 0.067	< 0.34	< 0.67
Benzo(a)anthracene	< 0.067	< 0.067	< 0.34	< 0.67
Benzo(a)pyrene	< 0.067	< 0.067	< 0.34	< 0.67
Benzo(b)fluoranthene	< 0.067	< 0.067	< 0.34	< 0.67
Benzo(g,h,i)perylene	< 0.067	< 0.067	< 0.34	< 0.67
Benzo(k)fluoranthene	< 0.067	< 0.067	< 0.34	< 0.67
Benzoic acid	< 0.33	< 0.33	< 1.7	< 3.3
Benzyl alcohol	< 0.17	< 0.17	< 0.85	< 1.7
Bis(2-chloroethoxy) methane	< 0.17	< 0.17	< 0.85	< 1.7
3is(2-chloroethyl)ether	< 0.067	< 0.067	< 0.34	< 0.67
Bis(2-chloroisopropyl) ether	< 0.067	< 0.067	< 0.34	< 0.67
is(2-Ethylhexyl) phthalate	< 0.33	< 0.33	< 1.7	< 3.3
Butyl benzyl phthalate	< 0.17	< 0.17	< 0.85	< 1.7
hrysene	< 0.067	< 0.067	< 0.34	< 0.67
Di-n-butyl phthalate	< 0.17	< 0.17	< 0.85	< 1.7
Di-n-octyl phthalate	< 0.17	< 0.17	< 0.85	< 1.7
Dibenzo(a,h)anthracene	< 0.067	< 0.067	< 0.34	< 0.67
Dibenzofuran	0.069	< 0.067	< 0.34	< 0.67
liethyl phthalate	< 0.17	< 0.17	< 0.85	< 1.7
Dimethyl phthalate	< 0.17	< 0.17	< 0.85	< 1.7

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# TABLE 8: SOIL CHEMICAL TEST RESULTS - Semivolatile Organic Compounds Phase II Environmental Site Assessment Future Port Field Support Services Complex Port of Oakland Oakland, California

LOCATION	MFC-31	MFC-32	MFC-33	MFC-34
MATRIX	Soil	Soil	Soil	Soil
COLLECTION DATE	3/25/02	3/26/02	3/25/02	3/26/02
DEPTH <sup>(1)</sup>	COMP <sup>(2)</sup>	1.5	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>
UNITS	mg/kg	mg/kg	mg/kg	mg/kg
Fluoranthene	< 0.067	< 0.067	< 0.34	< 0.67
Fluorene	0.14	< 0.067	< 0.34	< 0.67
Hexachlorobenzene	< 0.067	< 0.067	< 0.34	< 0.67
Hexachlorobutadiene	< 0.067	< 0.067	< 0.34	< 0.67
Hexachlorocyclopentadiene	< 0.17	< 0.17	< 0.85	< 1.7
Hexachloroethane	< 0.067	< 0.067	< 0.34	< 0.67
Indeno(1,2,3-c,d)pyrene	< 0.067	< 0.067	< 0.34	< 0.67
Isophorone	< 0.067	< 0.067	< 0.34	< 0.67
N-Nitroso-di-n-propylamine	< 0.067	< 0.067	< 0.34	< 0.67
N-Nitrosodiphenylamine	< 0.067	< 0.067	< 0.34	< 0.67
Naphthalene	< 0.067	< 0.067	< 0.34	< 0.67
Nitrobenzene	< 0.067	< 0.067	< 0.34	< 0.67
Pentachlorophenol	< 0.33	< 0.33	< 1.7	< 3.3
Phenanthrene	0.32	< 0.067	< 0.34	0.73
Phenol	< 0.067	< 0.067	< 0.34	< 0.67
Pyrene	< 0.067	< 0.067	< 0.34	< 0.67

Notes:

(1) Soil samples collected in six-inch tubes prior to compositing.

(2) COMP = Composite Samples; samples from this location were composited into one sample for this analysis.

mg/kg = milligrams per kilogram

Samples were analyzed for Semivoltile Organic Compounds (SVOCs) by EPA Method 8270.

TABLE 8: SOIL CHEMICAL TEST RESULTS - Semivolatile Organic Compounds Phase II Environmental Site Assessment Future Port Field Support Services Complex Port of Oakland

Oakland, California

LOCATION	MFC-35	MFC-36	MFC-36- DUP	MFC-37
MATRIX COLLECTION DATE	Soil	Soil	Soil	Soil
COLLECTION DATE	3/25/02	3/28/02	3/28/02	3/25/02
DEPTH <sup>(1)</sup>	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>	1.5	COMP <sup>(2)</sup>
UNITS	mg/kg	mg/kg	mg/kg	mg/kg
1,2,4-Trichlorobenzene	< 0.34	< 3.4	< 0.34	< 0.067
1,2-Dichlorobenzene	< 0.34	< 3.4	< 0.34	< 0.067
1,3-Dichlorobenzene	< 0.34	< 3.4	< 0.34	< 0.067
1,4-Dichlorobenzene	< 0.34	< 3.4	< 0.34	< 0.067
2,4,5-Trichlorophenol	< 0.34	< 3.4	< 0.34	< 0.067
2,4,6-Trichlorophenol	< 0.34	< 3.4	< 0.34	< 0.067
2,4-Dichlorophenol	< 0.34	< 3.4	< 0.34	< 0.067
2,4-Dimethylphenol	< 0.34	< 3.4	< 0.34	< 0.067
2,4-Dinitrophenol	< 1.7	< 17	< 1.7	< 0.33
2,4-Dinitrotoluene	< 0.34	< 3.4	< 0.34	< 0.067
2,6-Dinitrotoluene	< 0.34	< 3.4	< 0.34	< 0.067
2-Chloronaphthalene	< 0.34	< 3.4	< 0.34	< 0.067
2-Chlorophenol	< 0.34	< 3.4	< 0.34	< 0.067
2-Methyl-4,6-dinitrophenol	< 1.7	< 17	< 1.7	< 0.33
2-Methylnaphthalene	< 0.34	< 3.4	< 0.34	2.4
2-Methylphenol	< 0.34	< 3.4	< 0.34	< 0.067
2-Nitroaniline	< 1.7	< 17	< 1.7	< 0.33
2-Nitrophenol	< 0.34	< 3.4	< 0.34	< 0.067
3,3-Dichlorobenzidine	< 0.85	< 8.5	< 0.85	< 0.17
3-Nitroaniline	< 0.34	< 3.4	< 0.34	< 0.067
4-Bromophenyl phenyl ether	< 0.85	< 8.5	< 0.85	< 0.17
4-Chloro-3-methylphenol	< 0.85	< 8.5	< 0.85	< 0.17
4-Chloroaniline	< 0.34	< 3.4	< 0.34	< 0.067
4-Chlorophenyl phenyl ether	< 0.85	< 8.5	< 0.85	< 0.17
4-Methylphenol	< 0.34	< 3.4	< 0.34	< 0.067
4-Nitroaniline	< 1.7	< 17	< 1.7	< 0.33
4-Nitrophenol	< 1.7	< 17	< 1.7	< 0.33
Acenaphthene	< 0.34	< 3.4	< 0.34	< 0.067
Acenaphthylene	< 0.34	< 3.4	< 0.34	< 0.067
Anthracene	< 0.34	< 3.4	< 0.34	0.074
Benzo(a)anthracene	< 0.34	< 3.4	< 0.34	< 0.067
Benzo(a)pyrene	< 0.34	< 3.4	< 0.34	< 0.067
Benzo(b)fluoranthene	< 0.34	< 3.4	< 0.34	< 0.067
Benzo(g,h,i)perylene	< 0.34	< 3.4	< 0.34	< 0.067
Benzo(k)fluoranthene	< 0.34	< 3.4	< 0.34	< 0.067
Benzoic acid	< 1.7	< 17	< 1.7	< 0.33
Benzyl alcohol	< 0.85	< 8.5	< 0.85	< 0.17
Bis(2-chloroethoxy) methane	< 0.85	< 8.5	< 0.85	< 0.17
Bis(2-chloroethyl)ether	< 0.34	< 3.4	< 0.34	< 0.067
Bis(2-chloroisopropyl) ether	< 0.34	< 3.4	< 0.34	< 0.067
is(2-Ethylhexyl) phthalate	< 1.7	< 17	< 1.7	< 0.33
Butyl benzyl phthalate	< 0.85	< 8.5	< 0.85	< 0.17
Chrysene	< 0.34	< 3.4	< 0.34	< 0.067
Di-n-butyl phthalate	< 0.85	< 8.5	< 0.85	< 0.17
Di-n-octyl phthalate	< 0.85	< 8.5	< 0.85	< 0.17
Dibenzo(a,h)anthracene	< 0.34	< 3.4	< 0.34	< 0.067
Dibenzofuran	< 0.34	< 3.4	< 0.34	< 0.067
Diethyl phthalate	< 0.85	< 8.5	< 0.85	< 0.17
Dimethyl phthalate	< 0.85	< 8.5	< 0.85	< 0.17

### TABLE 8: SOIL CHEMICAL TEST RESULTS - Semivolatile Organic Compounds Phase II Environmental Site Assessment Future Port Field Support Services Complex Port of Oakland Oakland, California

LOCATION	MFC-35	MFC-36	MFC-36- DUP
MATRIX	Soil	Soil	Soil
COLLECTION DATE	3/25/02	3/28/02	3/28/02
DEPTH <sup>(1)</sup>	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>	1.5
UNITS	mg/kg	mg/kg	mg/kg
Fluoranthene	< 0.34	< 3.4	< 0.34
Fluorene	< 0.34	< 3.4	< 0.34
Hexachlorobenzene	< 0.34	< 3.4	< 0.34
Hexachlorobutadiene	< 0.34	< 3.4	< 0.34
Hexachlorocyclopentadiene	< 0.85	< 8.5	< 0.85
Hexachloroethane	< 0.34	< 3.4	< 0.34
Indeno(1,2,3-c,d)pyrene	< 0.34	< 3.4	< 0.34
Isophorone	< 0.34	< 3.4	< 0.34
N-Nitroso-di-n-propylamine	< 0.34	< 3.4	< 0.34
N-Nitrosodiphenylamine	< 0.34	< 3.4	< 0.34
Naphthalene	< 0.34	< 3.4	< 0.34
Nitrobenzene	< 0.34	< 3.4	< 0.34
A 1991 CODE 200 COLORA AND			

< 1.7

< 0.34

< 0.34

< 0.34

< 17

< 3.4

< 3.4

< 3.4

< 1.7

< 0.34

< 0.34

< 0.34

(1) Soil samples collected in six-inch tubes prior to compositing.

Pentachlorophenol

Phenanthrene

Phenol

Pyrene

Notes:

(2) COMP = Composite Samples; samples from this location were composited into one sample for this analysis.

mg/kg = milligrams per kilogram

Samples were analyzed for Semivoltile Organic Compounds (SVOCs) by EPA Method 8270. MFC-37

Soil

3/25/02

COMP<sup>(2)</sup>

mg/kg

< 0.067

0.66

< 0.067

< 0.067

< 0.17

< 0.067

< 0.067

< 0.067

< 0.067

< 0.067

0.47

< 0.067

< 0.33

0.99

< 0.067

0.091

 TABLE 8: SOIL CHEMICAL TEST RESULTS - Semivolatile Organic Compounds

 Phase II Environmental Site Assessment

 Future Port Field Support Services Complex

 Port of Oakland

Oakland, California

LOCATION	MFC-38	MFC-39	MFC-40	MFC-41
MATRIX	Soil	Soil	Soil	Soil
COLLECTION DATE	3/26/02	3/26/02	3/26/02	3/26/02
DEPTH <sup>(1)</sup>	COMP <sup>(2)</sup>	1.5	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>
UNITS	mg/kg	mg/kg	mg/kg	mg/kg
1,2,4-Trichlorobenzene	< 0.067	< 0.067	< 0.067	< 0.067
1,2-Dichlorobenzene	< 0.067	< 0.067	< 0.067	< 0.067
1,3-Dichlorobenzene	< 0.067	< 0.067	< 0.067	< 0.067
1,4-Dichlorobenzene	< 0.067	< 0.067	< 0.067	< 0.067
2,4,5-Trichlorophenol	< 0.067	< 0.067	< 0.067	< 0.067
2,4,6-Trichlorophenol	< 0.067	< 0.067	< 0.067	< 0.067
2,4-Dichlorophenol	< 0.067	< 0.067	< 0.067	< 0.067
2,4-Dimethylphenol	< 0.067	< 0.067	< 0.067	< 0.067
2,4-Dinitrophenol	< 0.33	< 0.33	< 0.33	< 0.33
2,4-Dinitrotoluene	< 0.067	< 0.067	< 0.067	< 0.067
2,6-Dinitrotoluene	< 0.067	< 0.067	< 0.067	< 0.067
2-Chloronaphthalene	< 0.067	< 0.067	< 0.067	< 0.067
2-Chlorophenol	< 0.067	< 0.067	< 0.067	< 0.067
2-Methyl-4,6-dinitrophenol	< 0.33	< 0.33	< 0.33	< 0.33
2-Methylnaphthalene	< 0.067	< 0.067	< 0.067	< 0.067
2-Methylphenol	< 0.067	< 0.067	< 0.067	< 0.067
2-Nitroaniline	< 0.33	< 0.33	< 0.33	< 0.33
2-Nitrophenol	< 0.067	< 0.067	< 0.067	< 0.067
3,3-Dichlorobenzidine	< 0.17	< 0.17	< 0.17	< 0.17
3-Nitroaniline	< 0.067	< 0.067	< 0.067	< 0.067
4-Bromophenyl phenyl ether	< 0.17	< 0.17	< 0.17	< 0.17
4-Chloro-3-methylphenol	< 0.17	< 0.17	< 0.17	< 0.17
4-Chloroaniline	< 0.067	< 0.067	< 0.067	< 0.067
4-Chlorophenyl phenyl ether	< 0.17	< 0.17	< 0.17	< 0.17
4-Methylphenol	< 0.067	< 0.067	< 0.067	< 0.067
4-Nitroaniline	< 0.33	< 0.33	< 0.33	< 0.33
4-Nitrophenol	< 0.33	< 0.33	< 0.33	< 0.33
Acenaphthene	< 0.067	< 0.067	< 0.067	< 0.067
Acenaphthylene	< 0.067	< 0.067	< 0.067	< 0.067
Anthracene	< 0.067	< 0.067	< 0.067	< 0.067
Benzo(a)anthracene	< 0.067	< 0.067	< 0.067	< 0.067
Benzo(a)pyrene	< 0.067	< 0.067	< 0.067	< 0.067
Benzo(b)fluoranthene	< 0.067	< 0.067	< 0.067	< 0.067
Benzo(g,h,i)perylene	< 0.067	< 0.067	< 0.067	< 0.067
Benzo(k)fluoranthene	< 0.067	< 0.067	< 0.067	< 0.067
Benzoic acid	< 0.33	< 0.33	< 0.33	< 0.33
Benzyl alcohol	< 0.17	< 0.17	< 0.17	< 0.17
Bis(2-chloroethoxy) methane	< 0.17	< 0.17	< 0.17	< 0.17
Bis(2-chloroethyl)ether	< 0.067	< 0.067	< 0.067	< 0.067
Bis(2-chloroisopropyl) ether	< 0.067	< 0.067	< 0.067	< 0.067
is(2-Ethylhexyl) phthalate	< 0.33	< 0.33	< 0.33	< 0.33
Butyl benzyl phthalate	< 0.17	< 0.17	< 0.17	< 0.17
Chrysene	< 0.067	< 0.067	< 0.067	< 0.067
Di-n-butyl phthalate	< 0.17	< 0.17	< 0.17	< 0.17
Di-n-octyl phthalate	< 0.17	< 0.17	< 0.17	< 0.17
Dibenzo(a,h)anthracene	< 0.067	< 0.067	< 0.067	< 0.067
Dibenzofuran	< 0.067	< 0.067	< 0.067	< 0.067
Diethyl phthalate	< 0.17	< 0.17	< 0.17	< 0.17
Dimethyl phthalate	< 0.17	< 0.17	< 0.17	< 0.17

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## TABLE 8: SOIL CHEMICAL TEST RESULTS - Semivolatile Organic Compounds Phase II Environmental Site Assessment Future Port Field Support Services Complex Port of Oakland

Oakland, California

LOCATION	MFC-38	MFC-39	MFC-40	MFC-41
MATRIX	Soil	Soil	Soil	Soil
COLLECTION DATE	3/26/02	3/26/02	3/26/02	3/26/02
DEPTH <sup>(1)</sup>	COMP <sup>(2)</sup>	1.5	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>
UNITS	mg/kg	mg/kg	mg/kg	mg/kg
Fluoranthene	< 0.067	< 0.067	< 0.067	< 0.067
Fluorene	< 0.067	< 0.067	< 0.067	< 0.067
Hexachlorobenzene	< 0.067	< 0.067	< 0.067	< 0.067
Hexachlorobutadiene	< 0.067	< 0.067	< 0.067	< 0.067
Hexachlorocyclopentadiene	< 0.17	< 0.17	< 0.17	< 0.17
Hexachloroethane	< 0.067	< 0.067	< 0.067	< 0.067
Indeno(1,2,3-c,d)pyrene	< 0.067	< 0.067	< 0.067	< 0.067
Isophorone	< 0.067	< 0.067	< 0.067	< 0.067
N-Nitroso-di-n-propylamine	< 0.067	< 0.067	< 0.067	< 0.067
N-Nitrosodiphenylamine	< 0.067	< 0.067	< 0.067	< 0.067
Naphthalene	< 0.067	< 0.067	< 0.067	< 0.067
Nitrobenzene	< 0.067	< 0.067	< 0.067	< 0.067
Pentachlorophenol	< 0.33	< 0.33	< 0.33	< 0.33
Phenanthrene	< 0.067	< 0.067	< 0.067	< 0.067
Phenol	< 0.067	< 0.067	< 0.067	< 0.067
Pyrene	< 0.067	< 0.067	< 0.067	< 0.067

Notes:

(1) Soil samples collected in six-inch tubes prior to compositing.

(2) COMP = Composite Samples; samples from this location were composited into one sample for this analysis.

mg/kg = milligrams per kilogram

Samples were analyzed for Semivoltile Organic Compounds (SVOCs) by EPA Method 8270. 

 TABLE 8: SOIL CHEMICAL TEST RESULTS - Semivolatile Organic Compounds

 Phase II Environmental Site Assessment

 Future Port Field Support Services Complex

 Port of Oakland

Oakland, California

LOCATION MATRIX	MFC-43	MFC-44	MFC-45	MFC-46
	Soil	Soil	Soil	Soil
COLLECTION DATE	3/28/02	3/26/02	3/28/02	3/27/02
DEPTH <sup>(1)</sup>	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>
UNITS	mg/kg	mg/kg	mg/kg	mg/kg
1,2,4-Trichlorobenzene	< 0.34	< 0.67	< 0.067	< 0.34
1,2-Dichlorobenzene	< 0.34	< 0.67	< 0.067	< 0.34
1,3-Dichlorobenzene	< 0.34	< 0.67	< 0.067	< 0.34
1,4-Dichlorobenzene	< 0.34	< 0.67	< 0.067	< 0.34
2,4,5-Trichlorophenol	< 0.34	< 0.67	< 0.067	< 0.34
2,4,6-Trichlorophenol	< 0.34	< 0.67	< 0.067	< 0.34
2,4-Dichlorophenol	< 0.34	< 0.67	< 0.067	< 0.34
2,4-Dimethylphenol	< 0.34	< 0.67	< 0.067	< 0.34
2,4-Dinitrophenol	< 1.7	< 3.3	< 0.33	< 1.7
2,4-Dinitrotoluene	< 0.34	< 0.67	< 0.067	< 0.34
2,6-Dinitrotoluene	< 0.34	< 0.67	< 0.067	< 0.34
2-Chloronaphthalene	< 0.34	< 0.67	< 0.067	< 0.34
2-Chlorophenol	< 0.34	< 0.67	< 0.067	< 0.34
2-Methyl-4,6-dinitrophenol	< 1.7	< 3.3	< 0.33	< 1.7
2-Methylnaphthalene	< 0.34	< 0.67	< 0.067	< 0.34
2-Methylphenol	< 0.34	< 0.67	< 0.067	< 0.34
2-Nitroaniline	< 1.7	< 3.3	< 0.33	< 1.7
2-Nitrophenol	< 0.34	< 0.67	< 0.067	< 0.34
3,3-Dichlorobenzidine	< 0.85	< 1.7	< 0.17	< 0.85
3-Nitroaniline	< 0.34	< 0.67	< 0.067	< 0.34
4-Bromophenyl phenyl ether	< 0.85	< 1.7	< 0.17	< 0.85
4-Chloro-3-methylphenol	< 0.85	< 1.7	< 0.17	< 0.85
4-Chloroaniline	< 0.34	< 0.67	< 0.067	< 0.34
4-Chlorophenyl phenyl ether	< 0.85	< 1.7	< 0.17	< 0.85
4-Methylphenol	< 0.34	< 0.67	< 0.067	< 0.34
4-Nitroaniline	< 1.7	< 3.3	< 0.33	< 1.7
4-Nitrophenol	< 1.7	< 3.3	< 0.33	< 1.7
Acenaphthene	< 0.34	< 0.67	< 0.067	< 0.34
Acenaphthylene	< 0.34	< 0.67	< 0.067	< 0.34
Anthracene	< 0.34	< 0.67	< 0.067	< 0.34
Benzo(a)anthracene	< 0.34	< 0.67	< 0.067	< 0.34
Benzo(a)pyrene	< 0.34	< 0.67	< 0.067	< 0.34
Benzo(b)fluoranthene	< 0.34	< 0.67	< 0.067	< 0.34
Benzo(g,h,i)perylene	< 0.34	< 0.67	< 0.067	< 0.34
Benzo(k)fluoranthene	< 0.34	< 0.67	< 0.067	< 0.34
Benzoic acid	< 1.7	< 3.3	< 0.33	< 1.7
Benzyl alcohol	< 0.85	< 1.7	< 0.17	< 0.85
Bis(2-chloroethoxy) methane	< 0.85	< 1.7	< 0.17	< 0.85
Bis(2-chloroethyl)ether	< 0.34	< 0.67	< 0.067	< 0.85
Bis(2-chloroisopropyl) ether	< 0.34	< 0.67	< 0.067	< 0.34
bis(2-Ethylhexyl) phthalate	< 1.7	< 3.3	< 0.33	< 1.7
Butyl benzyl phthalate	< 0.85	< 1.7	< 0.17	< 0.85
Chrysene	< 0.34	< 0.67	< 0.067	< 0.34
Di-n-butyl phthalate	< 0.85	< 1.7	< 0.17	< 0.85
Di-n-octyl phthalate	< 0.85	< 1.7	< 0.17	< 0.85
Dibenzo(a,h)anthracene	< 0.34	< 0.67	< 0.067	< 0.85
Dibenzofuran	< 0.34	< 0.67	< 0.067	< 0.34
Diethyl phthalate	< 0.85	< 1.7	< 0.17	< 0.34
Dimethyl phthalate	< 0.85	<1.7	< 0.17	< 0.85

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# TABLE 8: SOIL CHEMICAL TEST RESULTS - Semivolatile Organic Compounds Phase II Environmental Site Assessment Future Port Field Support Services Complex Port of Oakland

Oakland, California

LOCATION	MFC-43	MFC-44	MFC-45	MFC-46
MATRIX	Soil	Soil	Soil	Soil
COLLECTION DATE	3/28/02	3/26/02	3/28/02	3/27/02
DEPTH <sup>(1)</sup>	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>	COMP <sup>(2)</sup>
UNITS	mg/kg	mg/kg	mg/kg	mg/kg
Fluoranthene	< 0.34	< 0.67	< 0.067	< 0.34
Fluorene	< 0.34	< 0.67	< 0.067	< 0.34
Hexachlorobenzene	< 0.34	< 0.67	< 0.067	< 0.34
Hexachlorobutadiene	< 0.34	< 0.67	< 0.067	< 0.34
Hexachlorocyclopentadiene	< 0.85	< 1.7	< 0.17	< 0.85
Hexachloroethane	< 0.34	< 0.67	< 0.067	< 0.34
Indeno(1,2,3-c,d)pyrene	< 0.34	< 0.67	< 0.067	< 0.34
Isophorone	< 0.34	< 0.67	< 0.067	< 0.34
N-Nitroso-di-n-propylamine	< 0.34	< 0.67	< 0.067	< 0.34
N-Nitrosodiphenylamine	< 0.34	< 0.67	< 0.067	< 0.34
Naphthalene	< 0.34	< 0.67	< 0.067	< 0.34
Nitrobenzene	< 0.34	< 0.67	< 0.067	< 0.34
Pentachlorophenol	< 1.7	< 3.3	< 0.33	< 1.7
Phenanthrene	< 0.34	< 0.67	< 0.067	< 0.34
Phenol	< 0.34	< 0.67	< 0.067	< 0.34
Pyrene	< 0.34	< 0.67	< 0.067	< 0.34

### Notes:

(1) Soil samples collected in six-inch tubes prior to compositing.

(2) COMP = Composite Samples; samples from this location were composited into one sample for this analysis.

mg/kg = milligrams per kilogram

Samples were analyzed for Semivoltile Organic Compounds (SVOCs) by EPA Method 8270.

# **TABLE 10: SOIL CHEMICAL TEST RESULTS - Metals** Phase II Environmental Site Assessment

Future Port Field Support Service Complex

Port of Oakland Oakland, California

LOCATION MATRIX COLLECTION DATE	MFC-01 Soil 3/27/02	MFC-01 Soil 3/27/02	MFC-01 Soil 3/27/02	MFC-02 Soil 3/27/02	MFC-02 Soil 3/27/02	MFC-02 Soil 3/27/02	MFC-03 Soil 3/27/02
BEGINNING DEPTH <sup>(1)</sup> UNITS	1.0 mg/kg	2.0 mg/kg	4.0 mg/kg	1.5 mg/kg	4.5 mg/kg	5.5 mg/kg	1.5 mg/kg
Antimony	4.1	2.8	< 2.0	3.9	< 2.0	< 2.0	< 2.0
Arsenic	140	5.8	3.4	97	3.5	2.9	2.9
Barium	58	53	78	69	92	42	120
Beryllium	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Cadmium	4.0	3.2	2.0	3.3	2.0	1.5	2.1
Chromium	21	36	31	25	34	35	11
Chromium (Hexavalent)	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Cobalt	6.7	7.8	6.1	14	7.1	5.1	5.3
Copper	110	33	15	60	13	5.6	15
Lead	200	65	21	61	6.1	2.4	7.9
Lead (Organic)			<u>12</u>	-			
Mercury	0.13	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	0.18
Molybdenum	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Nickel	41	52	37	39	44	33	16
Selenium	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Silver	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Thallium	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium	25	18	21	19	19	19	21
Zinc	81	39	27	49	44	16	28

Notes:

(1) Soil samples collected in six-inch tubes beginning with the depth indicated in feet below ground surface (bgs).

mg/kg = milligrams per kilogram -- = Not Analyzed

### TABLE 10: SOIL CHEMICAL TEST RESULTS - Metals Phase II Environmental Site Assessment Future Port Field Support Service Complex Port of Oakland

Oakland, California

LOCATION	MFC-03	MFC-03	MFC-04	MFC-04	MFC-04	MFC-05	MFC-05
MATRIX	Soil						
COLLECTION DATE	3/27/02	3/27/02	3/26/02	3/26/02	3/26/02	3/26/02	3/26/02
BEGINNING DEPTH <sup>(1)</sup>	4.5	7.5	5.0	8.5	11.0	5.0	8.0
UNITS	mg/kg						
Antimony	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	12	< 2.0
Arsenic	22	3.4	4.0	3.5	3.4	33	4.3
Barium	43	84	64	160	65	58	45
Beryllium	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Cadmium	1.9	1.9	2.3	1.8	1.7	3.2	1.6
Chromium	31	34	40	37	32	30	33
Chromium (Hexavalent)	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Cobalt	5.2	6.8	7.4	5.3	4.8	6.9	5.4
Copper	20	11	110	11	8.7	380	12
Lead	8.5	3.4	5.0	3.3	3.8	410	11
Lead (Organic)	-					10.5	22
Mercury	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	0.36	< 0.050
Molybdenum	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Nickel	30	52	39	56	32	38	34
Selenium	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Silver	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Thallium	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium	23	23	23	21	21	27	24
Zinc	42	23	30	21	22	180	25

#### Notes:

(1) Soil samples collected in six-inch tubes beginning with the depth indicated in feet below ground surface (bgs).

mg/kg = milligrams per kilogram -- = Not Analyzed

### TABLE 10: SOIL CHEMICAL TEST RESULTS - Metals Phase II Environmental Site Assessment Future Port Field Support Service Complex Port of Oakland

Oakland, California

LOCATION MATRIX COLLECTION DATE	MFC-05 Soil 3/26/02	MFC-06 Soil 3/26/02	MFC-06 Soil 3/26/02	MFC-07 Soil 3/26/02	MFC-07 Soil 3/26/02	MFC-07 Soil 3/26/02	MFC-08 Soil 3/26/02
BEGINNING DEPTH <sup>(1)</sup>	11.0	5.0	8.5	3.0	5.0	8.5	2.0
UNITS	mg/kg						
Antimony	< 2.0	3.3	< 2.0	5.1	4.7	< 2.0	11
Arsenic	4.4	68	2.6	140	34	2.1	34
Barium	92	60	44	60	80	36	68
Beryllium	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Cadmium	1.7	3.1	1.5	2.6	3.5	1.4	2.5
Chromium	33	39	36	24	32	31	32
Chromium (Hexavalent)	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Cobalt	5.0	7.7	5.5	6.0	8.3	5.3	6.5
Copper	9.5	71	7.4	79	120	6.6	270
Lead	3.5	120	3.3	150	200	2.6	680
Lead (Organic)			<0.50	-		<0.50	
Mercury	< 0.050	0.091	< 0.050	0.091	0.17	< 0.050	0.052
Molybdenum	< 1.0	1.1	< 1.0	< 1.0	2.0	< 1.0	< 1.0
Nickel	34	67	42	36	43	34	39
Selenium	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Silver	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Thallium	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium	24	30	22	22	30	20	27
Zinc	21	79	20	89	89	17	110

#### Notes:

(1) Soil samples collected in six-inch tubes beginning with the depth indicated in feet below ground surface (bgs).

mg/kg = milligrams per kilogram -- = Not Analyzed

# TABLE 10: SOIL CHEMICAL TEST RESULTS - Metals

Phase II Environmental Site Assessment

Future Port Field Support Service Complex

Port of Oakland

Oakland, California

LOCATION MATRIX COLLECTION DATE	MFC-08 Soil 3/26/02	MFC-09 Soil 3/26/02	MFC-09 Soil 3/26/02	MFC-10 Soil 3/27/02	MFC-10 Soil 3/27/02	MFC-11 Soil 3/27/02	MFC-11 Soil 3/27/02
BEGINNING DEPTH <sup>(1)</sup>	5.0	2.0	5.0	1.5	5.0	1.5	4.0
UNITS	mg/kg						
Antimony	3.0	7.9	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Arsenic	24	150	3.9	8.4	6.1	7.1	2.7
Barium	65	110	70	110	180	40	20
Beryllium	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Cadmium	2.3	3.7	1.8	1.8	2.0	4.6	1.2
Chromium	20	46	34	18	38	1.2	24
Chromium (Hexavalent)	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Cobalt	5.5	14	5.0	4.9	6.2	6.4	3.8
Copper	50	150	7.9	18	11	23	6.0
Lead	60	120	3.2	19	4.3	12	3.1
Lead (Organic)	< 0.50	-	< 0.50				
Mercury	< 0.050	0.50	0.073	0.23	< 0.050	0.10	< 0.050
Molybdenum	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Nickel	58	220	36	24	34	1.3	20
Selenium	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Silver	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Thallium	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium	41	26	22	17	35	16	16
Zinc	49	57	20	37	25	190	18

#### Notes:

(1) Soil samples collected in six-inch tubes beginning with the depth indicated in feet below ground surface (bgs).

mg/kg = milligrams per kilogram -- = Not Analyzed

### **TABLE 10: SOIL CHEMICAL TEST RESULTS - Metals** Phase II Environmental Site Assessment Future Port Field Support Service Complex

Port of Oakland Oakland, California

LOCATION MATRIX COLLECTION DATE	MFC-12 Soil 3/26/02	MFC-12 Soil 3/26/02	MFC-13 Soil 3/26/02	MFC-13 Soil 3/27/02	MFC-14 Soil 3/25/02	MFC-14 Soil 3/25/02	MFC-14 Soil 3/25/02
BEGINNING DEPTH <sup>(1)</sup>	1.5	4.0	1.5	3.0	1.5	3.0	4.0
UNITS	mg/kg						
Antimony	5.0	< 2.0	2.9	< 2.0	< 2.0	< 2.0	< 2.0
Arsenic	22	36	20	15	2.8	25	4.7
Barium	57	27	64	22	84	21	11
Beryllium	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Cadmium	2.0	1.3	2.2	0.91	0.96	0.63	0.55
Chromium	27	30	35	21	9.0	16	13
Chromium (Hexavalent)	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Cobalt	5.2	4.0	5.8	2.3	2.7	2.7	2.4
Copper	68	6.1	74	5.1	14	3.3	2.5
Lead	140	3.5	89	6.7	9.3	1.2	1.1
Lead (Organic)				<u></u>			< 0.50
Mercury	0.081	< 0.050	0.090	< 0.050	0.18	< 0.050	< 0.050
Molybdenum	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Nickel	30	26	31	16	10	18	14
Selenium	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Silver	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Thallium	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium	24	20	28	14	9.1	9.6	8.1
Zinc	71	18	66	18	21	11	10

### Notes:

(1) Soil samples collected in six-inch tubes beginning with the depth indicated in feet below ground surface (bgs).

mg/kg = milligrams per kilogram -= Not Analyzed

# TABLE 10: SOIL CHEMICAL TEST RESULTS - Metals Phase II Environmental Site Assessment Future Port Field Support Service Complex

Port of Oakland

Oakland, California

LOCATION MATRIX COLLECTION DATE	MFC-15 Soil 3/25/02	MFC-15 Soil 3/25/02	MFC-15 Soil 3/25/02	MFC-15-DUP Soil 3/25/02	MFC-16 Soil 3/25/02	MFC-16 Soil 3/25/02	MFC-17 Soil 3/26/02
BEGINNING DEPTH <sup>(1)</sup>	1.5	3.0	4.5	4.5	1.5	4.0	1.5
UNITS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Antimony	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	2.1
Arsenic	2.7	8.3	6.7	8.0	5.3	6.8	17
Barium	110	19	14	9.6	92	72	92
Beryllium	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Cadmium	1.3	0.74	0.61	0.65	1.2	2.0	3.5
Chromium	7.9	15	15	17	10	37	22
Chromium (Hexavalent)	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Cobalt	4.1	3.0	2.9	2.3	4.0	7.0	5.6
Copper	13	4.8	2.9	2.8	17	22	39
Lead	6.8	3.9	1.7	1.6	36	16	66
Lead (Organic)		1.1	< 0.50			<0.50	
Mercury	0.20	< 0.050	< 0.050	< 0.050	0.19	0.053	0.11
Molybdenum	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Nickel	12	20	14	16	14	40	22
Selenium	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Silver	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Thallium	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium	15	10	8.7	9.9	11	18	22
Zinc	25	14	10	10	33	120	46

#### Notes:

(1) Soil samples collected in six-inch tubes beginning with the depth indicated in feet below ground surface (bgs).

mg/kg = milligrams per kilogram -- = Not Analyzed

# TABLE 10: SOIL CHEMICAL TEST RESULTS - Metals Phase II Environmental Site Assessment Future Port Field Support Service Complex

Port of Oakland

Oakland, California

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LOCATION	MFC-17	MFC-18	MFC-18	MFC-18	MFC-19	MFC-19	MFC-19
MATRIX	Soil	Soil	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/26/02	3/25/02	3/25/02	3/25/02	3/25/02	3/25/02	3/25/02
BEGINNING DEPTH <sup>(1)</sup>	4.5	1.5	3.0	4.5	1.0	2.0	4.0
UNITS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Antimony	9.7	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Arsenic	510	3.8	9.2	7.1	6.4	15	1.0
Barium	67	36	48	30	52	23	27
Beryllium	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Cadmium	7.2	2.0	1.4	0.72	4.0	0.61	0.73
Chromium	37	9.8	15	17	8.3	14	16
Chromium (Hexavalent)	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Cobalt	5.8	6.7	4.2	2.9	9.6	2.7	2.5
Copper	180	23	41	3.8	42	4.3	5.3
Lead	50	4.7	150	1.6	3.3	3.2	1.2
Lead (Organic)		1. A. C.	-4	<0.50	<u></u>		<0.50
Mercury	< 0.050	0.13	0.23	< 0.050	0.22	< 0.050	< 0.050
Molybdenum	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Nickel	40	9.5	26	14	8.8	16	11
Selenium	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Silver	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Thallium	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium	19	31	17	9.9	63	9.5	12
Zinc	390	23	60	10	44	12	11

### Notes:

(1) Soil samples collected in six-inch tubes beginning with the depth indicated in feet below ground surface (bgs).

mg/kg = milligrams per kilogram -- = Not Analyzed

### TABLE 10: SOIL CHEMICAL TEST RESULTS - Metals Phase II Environmental Site Assessment Future Port Field Support Service Complex Port of Oakland

Oakland, California

LOCATION MATRIX	MFC-20	MFC-20	MFC-21	MFC-21-DUP	MFC-21	MFC-21	MFC-22
COLLECTION DATE	Soil 3/27/02	Soil 3/27/02	Soil 3/28/02	Soil	Soil	Soil	Soil
BEGINNING DEPTH <sup>(1)</sup>				3/28/02	3/28/02	3/28/02	3/28/02
UNITS	4.0	7.0	1.5	1.5	4.5	8.0	1.5
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Antimony	< 2.0	8.2	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Arsenic	2.6	880	7.3	3.4	9.0	2.8	3.0
Barium	37	110	38	42	53	64	2.0
Beryllium	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Cadmium	1.2	14	1.4	1.6	1.6	1.8	1.1
Chromium	24	25	23	26	32	32	7.6
Chromium (Hexavalent)	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Cobalt	4.6	9.2	4.3	5.1	5.3	6.7	9.3
Copper	13	220	15	9.7	6.5	8.0	46
Lead	11	150	19	14	2.8	3.0	1.4
Lead (Organic)				4			
Mercury	< 0.050	0.15	0.089	< 0.050	< 0.050	< 0.050	< 0.050
Molybdenum	< 1.0	1.3	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Nickel	23	37	24	27	34	35	10
Selenium	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Silver	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Thallium	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium	15	15	17	19	21	22	20
Zinc	28	600	33	33	20	23	7.8

Notes:

(1) Soil samples collected in six-inch tubes beginning with the depth indicated in feet below ground surface (bgs).

mg/kg = milligrams per kilogram --= Not Analyzed

# TABLE 10: SOIL CHEMICAL TEST RESULTS - Metals Phase II Environmental Site Assessment Future Port Field Support Service Complex

Port of Oakland

Oakland, California

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LOCATION MATRIX COLLECTION DATE	MFC-22 Soil 3/28/02	MFC-22 Soil 3/28/02	MFC-23 Soil 3/28/02	MFC-23 Soil 3/28/02	MFC-23 Soil 3/28/02	MFC-24 Soil 3/27/02	MFC-24 Soil 3/27/02
BEGINNING DEPTH <sup>(1)</sup> UNITS	4.5 mg/kg	7.5 mg/kg	1.5 mg/kg	5.5 mg/kg	8.0 mg/kg	1.5	4.0
Antimony	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	mg/kg < 2.0	mg/kg < 2.0
Arsenic	25	2.8	5.0	3.4	3.0	7.0	18
Barium	100	57	23	52	56	32	74
Beryllium	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Cadmium	2.3	1.6	2.0	1.5	1.2	1.9	2.6
Chromium	37	36	23	29	24	32	31
Chromium (Hexavalent)	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Cobalt	8.8	6.9	8.0	6.1	4.3	7.7	7.3
Copper	16	9.2	32	9.2	7.5	39	45
Lead	6.6	3.7	14	2.3	3.0	36	73
Lead (Organic)	- <u>-</u>						
Mercury	< 0.050	< 0.050	0.071	< 0.050	< 0.050	0.081	0.077
Molybdenum	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Nickel	53	46	20	43	29	33	44
Selenium	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Silver	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Thallium	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium	21	21	19	21	18	22	30
Zinc	39	21	46	19	15	35	67

#### Notes:

(1) Soil samples collected in six-inch tubes beginning with the depth indicated in feet below ground surface (bgs).

mg/kg = milligrams per kilogram -- = Not Analyzed

### TABLE 10: SOIL CHEMICAL TEST RESULTS - Metals Phase II Environmental Site Assessment Future Port Field Support Service Complex Port of Oakland

Oakland, California

LOCATION	MFC-25-DUP	MFC-25	MFC-26	MFC-26	MFC-26	MFC-27	MFC-27
MATRIX	Soil	Soil	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/28/02	3/28/02	3/27/02	3/27/02	3/27/02	3/27/02	3/27/02
BEGINNING DEPTH <sup>(1)</sup>	1.0	4.5	1.5	5.0	7.5	1.5	4.5
UNITS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Antimony	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	22	< 2.0
Arsenic	5.7	4.2	2.7	4.9	3.2	24	6.1
Barium	45	100	56	73	63	87	130
Beryllium	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Cadmium	1.6	2.3	1.8	2.8	1.7	9.7	2.4
Chromium	28	50	35	4.2	33	20	34
Chromium (Hexavalent)	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Cobalt	5.4	11	6.5	7.1	4.9	9.2	10
Copper	20	19	9.6	32	8.7	280	16
Lead	30	8.2	3.4	1.2	2.3	350	6.0
Lead (Organic)	. <del>4</del>	-	140			100	
Mercury	0.056	< 0.050	< 0.050	0.30	< 0.050	0.27	< 0.050
Molybdenum	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.5	< 1.0
Nickel	26	74	50	3.2	34	42	50
Selenium	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Silver	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Thallium	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium	18	26	20	60	20	26	45
Zinc	38	29	23	25	18	61	25

### Notes:

(1) Soil samples collected in six-inch tubes beginning with the depth indicated in feet below ground surface (bgs).

mg/kg = milligrams per kilogram -- = Not Analyzed

Samples were analyzed for Title 26 Metals by EPA Method 6010/6020/7471, Cr VI by EPA Method 7196A, and Organic Lead (OL) by CA LUFT Method.

# TABLE 10: SOIL CHEMICAL TEST RESULTS - MetalsPhase II Environmental Site AssessmentFuture Port Field Support Service Complex

Port of Oakland

Oakland, California

LOCATION	MFC-28	MFC-28	MFC-29	MFC-29	MFC-29-DUP	MFC-30	MFC-31
MATRIX	Soil	Soil	Soil	Soil	Soil	Soil	Soil
COLLECTION DATE	3/27/02	3/27/02	3/26/02	3/26/02	3/26/02	3/27/02	3/25/02
BEGINNING DEPTH <sup>(1)</sup>	1.0	5.0	1.0	4.5	4.5	1.5	1.5
UNITS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Antimony	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Arsenic	9.3	3.9	5.9	1.8	1.2	9.7	2.1
Barium	67	86	50	44	38	34	29
Beryllium	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Cadmium	4.6	1.9	3.4	1.2	1.3	1.6	0.68
Chromium	11	36	7.7	35	39	27	19
Chromium (Hexavalent)	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Cobalt	11	6.1	9.9	5.0	5.6	5.2	3.3
Copper	38	10	32	6.7	5.6	15	3.7
Lead	3.9	4.7	4.0	3.1	3.0	38	1.8
Lead (Organic)				12			
Mercury	0.25	< 0.050	0.48	< 0.050	< 0.050	0.070	0.097
Molybdenum	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Nickel	10	42	8.5	32	32	25	13
Selenium	< 2.0	< 2.0	2.5	< 2.0	< 2.0	< 2.0	< 2.0
Silver	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Thallium	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium	66	23	66	22	22	19	9.5
Zinc	41	24	45	21	22	38	9.9

### Notes:

(1) Soil samples collected in six-inch tubes beginning with the depth indicated in feet below ground surface (bgs).

mg/kg = milligrams per kilogram -- = Not Analyzed

# TABLE 10: SOIL CHEMICAL TEST RESULTS - Metals Phase II Environmental Site Assessment Future Port Field Support Service Complex

Port of Oakland

Oakland, California

LOCATION	MFC-31	MFC-31	MFC-32	MFC-33	MFC-33	MFC-33	MFC-34
MATRIX	Soil						
COLLECTION DATE	3/25/02	3/25/02	3/26/02	3/25/02	3/25/02	3/25/02	3/26/02
BEGINNING DEPTH <sup>(1)</sup>	3.0	4.5	1.5	1.5	3.0	5.0	1.5
UNITS	mg/kg						
Antimony	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Arsenic	4.7	3.1	2.0	7.2	2.5	1.3	5.8
Barium	43	20	18	110	41	66	61
Beryllium	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Cadmium	1.2	1.2	1.4	4.1	1.3	0.57	3.3
Chromium	19	20	24	11	19	16	8.9
Chromium (Hexavalent)	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Cobalt	4.5	8.6	9.6	11	4.9	2.5	9.7
Copper	21	30	35	42	11	2.8	41
Lead	43	7.0	4.3	4.2	13	1.3	4.3
Lead (Organic)		< 0.50					-
Mercury	0.053	< 0.050	0.053	0.38	0.062	< 0.050	0.30
Molybdenum	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Nickel	23	19	20	12	21	12	8.4
Selenium	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	2.0
Silver	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Thallium	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium	15	16	17	70	17	8.6	80
Zinc	44	16	14	45	31	8.2	42

Notes:

(1) Soil samples collected in six-inch tubes beginning with the depth indicated in feet below ground surface (bgs).

mg/kg = milligrams per kilogram -- = Not Analyzed

### TABLE 10: SOIL CHEMICAL TEST RESULTS - Metals Phase II Environmental Site Assessment Future Port Field Support Service Complex Port of Oakland

Oakland, California

LOCATION	MFC-34	MFC-34	MFC-35	MFC-35	MFC-35	MFC-36	MFC-36- DUP
MATRIX	Soil						
COLLECTION DATE	3/26/02	3/26/02	3/25/02	3/25/02	3/25/02	3/28/02	3/28/02
BEGINNING DEPTH <sup>(1)</sup>	3.0	5.5	1.0	2.0	5.0	1.5	1.5
UNITS	mg/kg						
Antimony	2.4	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Arsenic	19	1.5	7.3	3.2	10	9.6	6.5
Barium	65	34	73	74	25	51	61
Beryllium	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Cadmium	1.6	0.70	3.8	2.1	0.64	3.3	2.0
Chromium	22	22	9.0	5.2	18	10	35
Chromium (Hexavalent)	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Cobalt	4.6	2.6	10	5.1	2.3	4.6	6.5
Copper	170	3.6	40	26	3.5	18	11
Lead	480	1.8	4.2	40	1.6	28	7.4
Lead (Organic)				1.1	< 0.50		
Mercury	0.20	< 0.050	0.38	0.19	< 0.050	< 0.050	0.092
Molybdenum	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Nickel	38	14	10	7.1	12	11	32
Selenium	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Silver	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Thallium	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium	84	13	65	19	10	25	25
Zinc	79	11	42	55	8.6	62	28

Notes:

(1) Soil samples collected in six-inch tubes beginning with the depth indicated in feet below ground surface (bgs).

mg/kg = milligrams per kilogram - = Not Analyzed

## TABLE 10: SOIL CHEMICAL TEST RESULTS - Metals Phase II Environmental Site Assessment Future Port Field Support Service Complex

Port of Oakland

Oakland, California

LOCATION	MFC-36	MFC-37	MFC-37	MFC-38	MFC-38	MFC-38	MFC-39
MATRIX	Soil						
COLLECTION DATE	3/28/02	3/25/02	3/25/02	3/26/02	3/26/02	3/26/02	3/26/02
BEGINNING DEPTH <sup>(1)</sup>	4.5	1.5	4.5	1.0	2.5	5.0	1.5
UNITS	mg/kg						
Antimony	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Arsenic	22	8.3	2.5	5.0	2.0	5.0	< 1.0
Barium	79	69	32	49	22	30	3.3
Beryllium	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Cadmium	2.4	4.2	1.2	3.2	1.0	1.6	0.79
Chromium	24	9.3	21	9.1	22	28	18
Chromium (Hexavalent)	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Cobalt	6.5	11	4.6	8.8	3.2	5.7	8.5
Copper	37	46	7.6	30	6.5	10	37
Lead	37	3.5	5.3	4.6	12	3.7	1.8
Lead (Organic)			<0.50		2		
Mercury	0.076	0.42	0.055	0.58	< 0.050	< 0.050	0.10
Molybdenum	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Nickel	35	9.8	22	10	17	28	14
Selenium	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Silver	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Thallium	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.2
Vanadium	22	72	15	52	14	20	11
Zinc	36	45	320	36	25	21	7.1

### Notes:

(1) Soil samples collected in six-inch tubes beginning with the depth indicated in feet below ground surface (bgs).

mg/kg = milligrams per kilogram - = Not Analyzed

# TABLE 10: SOIL CHEMICAL TEST RESULTS - Metals Phase II Environmental Site Assessment Future Port Field Support Service Complex

Port of Oakland

Oakland, California

LOCATION MATRIX COLLECTION DATE	MFC-40 Soil 3/26/02	MFC-40 Soil 3/26/02	MFC-40 Soil 3/26/02	MFC-41 Soil 3/26/02	MFC-41 Soil 3/26/02	MFC-41 Soil 3/26/02	MFC-43 Soil 3/28/02
BEGINNING DEPTH <sup>(1)</sup>	1.5	3.0	4.5	1.5	2.5	4.0	1.5
UNITS	mg/kg						
Antimony	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Arsenic	6.1	4.1	1.3	4.7	4.7	4.0	6.0
Barium	40	26	39	52	25	27	37
Beryllium	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Cadmium	1.5	1.8	0.65	2.8	2.2	1.1	2.0
Chromium	26	33	21	6.5	2.2	23	25
Chromium (Hexavalent)	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Cobalt	5.3	5.8	2.3	8.7	5.2	4.5	6.7
Copper	32	12	3.8	36	8.5	11	34
Lead	51	11	2.0	3.5	17	6.8	36
Lead (Organic)							
Mercury	0.055	0.088	< 0.050	0.34	0.075	0.080	0.052
Molybdenum	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Nickel	27	31	14	6.4	1.9	20	23
Selenium	< 2.0	< 2.0	< 2.0	2.4	2.2	< 2.0	< 2.0
Silver	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Thallium	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium	20	23	14	68	25	17	20
Zinc	37	31	13	36	54	73	85

#### Notes:

(1) Soil samples collected in six-inch tubes beginning with the depth indicated in feet below ground surface (bgs).

mg/kg = milligrams per kilogram --= Not Analyzed

Samples were analyzed for Title 26 Metals by EPA Method 6010/6020/7471, Cr VI by EPA Method 7196A, and Organic Lead (OL) by CA LUFT Method.

### TABLE 10: SOIL CHEMICAL TEST RESULTS - Metals Phase II Environmental Site Assessment Future Port Field Support Service Complex Port of Oakland

Oakland, California

LOCATION	MFC-43	MFC-44	MFC-44	MFC-45	MFC-45	MFC-46	MFC-46
MATRIX	Soil						
COLLECTION DATE	3/28/02	3/26/02	3/26/02	3/28/02	3/28/02	3/27/02	3/27/02
BEGINNING DEPTH <sup>(1)</sup>	4.5	1.5	4.5	1.5	4.5	4.0	7.0
UNITS	mg/kg						
Antimony	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Arsenic	1.8	< 1.0	5.9	2.4	5.7	3.2	2.6
Barium	26	4.4	27	37	2.4	46	38
Beryllium	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Cadmium	0.84	1.0	3.0	1.4	1.9	2.0	1.5
Chromium	22	32	2.6	18	25	17	25
Chromium (Hexavalent)	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20
Cobalt	2.4	10	6.6	3.1	13	4.3	4.7
Copper	3.7	38	20	9.4	79	6.9	10
Lead	1.6	1.7	37	8.5	2.5	7.0	19
Lead (Organic)							
Mercury	< 0.050	0.068	0.090	< 0.050	0.075	0.17	0.052
Molybdenum	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Nickel	13	20	3.0	13	21	19	24
Selenium	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Silver	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Thallium	< 1.0	1.1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium	13	15	46	20	20	12	17
Zinc	9.1	9.2	110	210	10	40	40

### Notes:

(1) Soil samples collected in six-inch tubes beginning with the depth indicated in feet below ground surface (bgs).

mg/kg = milligrams per kilogram -- = Not Analyzed



Attachment D

Phase II Environmental Site Assessment

Future Port Field Support Services Complex

Port of Oakland

Oakland, California

LOCATION	MFC-01	MFC-03	MFC-05	MFC-07	MFC-10	MFC-13
MATRIX	Soil Gas					
COLLECTION DATE	3/27/02	3/27/02	3/27/02	3/27/02	3/27/02	3/27/02
SAMPLE DEPTH <sup>(1)</sup>	4.0	4.0	4.0	4.0	4.0	4.0
UNITS	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1,2-Tetrachloroethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1,1-Trichloroethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1,2,2-Tetrachloroethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1,2-Trichloroethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloroethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloroethene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloropropene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2,3-Trichlorobenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,4-Trichlorobenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,4-Trimethylbenzene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dibromo-3-chloropropane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
,2-Dibromoethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichlorobenzene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichloroethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichloropropane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,3,5-Trimethylbenzene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,3-Dichlorobenzene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,3-Dichloropropane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
,4-Dichlorobenzene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,2-Dichloropropane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Butanone(MEK)	< 50	< 50	< 50	< 50	< 50	< 50
2-Chloroethylvinyl ether	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
2-Chlorotoluene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Hexanone	< 50	< 50	< 50	< 50	< 50	< 50
-Chlorotoluene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
-Methyl-2-pentanone (MIBK)	< 50	< 50	< 50	< 50	< 50	< 50
Acetone	< 50	< 50	< 50	< 50	< 50	< 50
Benzene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromobenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromochloromethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromodichloromethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromoform	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromomethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Carbon disulfide	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Carbon tetrachloride	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chlorobenzene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chloroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloromethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
is-1,2-Dichloroethene	1.4	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
is-1,3-Dichloropropene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dibromochloromethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dibromomethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dichlorodifluoromethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
thylbenzene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Iexachlorobutadiene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Port of Oakland/TSO#19/Phase II Report/VOCs-air - Table 7

# TABLE 7: SOIL GAS CHEMICAL TEST RESULTS -Volatile Organic Compounds

Phase II Environmental Site Assessment

Future Port Field Support Services Complex

Port of Oakland

Oakland, California

LOCATION	MFC-01	MFC-03	MFC-05	MFC-07	MFC-10	MFC-13
MATRIX	Soil Gas					
COLLECTION DATE	3/27/02	3/27/02	3/27/02	3/27/02	3/27/02	3/27/02
SAMPLE DEPTH <sup>(1)</sup>	4.0	4.0	4.0	4.0	4.0	4.0
UNITS	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
(Continued)					-8	ug z
Isopropylbenzene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Methylene chloride	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
MTBE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
n-Butylbenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
n-Propylbenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p-Isopropyltoluene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
sec-Butylbenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Styrene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
tert-Butylbenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Toluene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
trans-1,2-Dichloroethene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
trans-1,3-Dichloropropene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Trichloroethene	1.6	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Trichlorofluoromethane	< 1.0	< 1.0	1.4	< 1.0	< 1.0	< 1.0
Trichlorotrifluoroethane	< 1.0	< 1.0	2.1	< 1.0	< 1.0	< 1.0
Vinyl acetate	< 25	< 25	< 25	<25	< 25	< 25
Vinyl chloride	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Xylenes (Total)	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50

### Notes:

(1) Soil Gas samples collected at an average depth of 4.0 feet below ground surface (bgs).

 $\mu g/L = micograms per liter$ 

Samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260 (B).

# TABLE 7: SOIL GAS CHEMICAL TEST RESULTS - Volatile Organic Compounds

Phase II Environmental Site Assessment

Future Port Field Support Services Complex Port of Oakland

Oakland, California

LOCATION MATRIX	MFC-14 Soil Gas	MFC-15 Soil Gas	MFC-16 Soil Gas	MFC-17 Soil Gas	MFC-18 Soil Gas	MFC-19 Soil Gas
COLLECTION DATE	3/27/02	3/26/02	3/26/02	3/26/02	3/26/02	3/26/02
SAMPLE DEPTH (1)	4.0	4.0	4.0	4.0	4.0	4.0
UNITS	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1,2-Tetrachloroethane	< 0.50	< 0.50	< 2.5	< 0.50	< 0.50	< 0.50
1,1,1-Trichloroethane	< 0.50	< 0.50	< 2.5	< 0.50	< 0.50	< 0.50
1,1,2,2-Tetrachloroethane	< 0.50	< 0.50	< 2.5	< 0.50	< 0.50	< 0.50
1,1,2-Trichloroethane	< 0.50	< 0.50	< 2.5	< 0.50	< 0.50	< 0.50
1,1-Dichloroethane	< 0.50	< 0.50	< 2.5	< 0.50	< 0.50	< 0.50
1,1-Dichloroethene	< 0.50	< 0.50	< 2.5	< 0.50	< 0.50	< 0.50
1,1-Dichloropropene	< 0.50	< 0.50	< 2.5	< 0.50	< 0.50	< 0.50
1,2,3-Trichlorobenzene	< 1.0	<1.0	< 5.0	< 1.0	< 1.0	< 1.0
1,2,4-Trichlorobenzene	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
1,2,4-Trimethylbenzene	< 0.50	< 0.50	< 2.5	0.56	< 0.50	0.57
1,2-Dibromo-3-chloropropane	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
1,2-Dibromoethane	< 0.50	< 0.50	< 2.5	< 0.50	< 0.50	< 0.50
1,2-Dichlorobenzene	< 0.50	< 0.50	< 2.5	< 0.50	< 0.50	< 0.50
1,2-Dichloroethane	< 0.50	< 0.50	< 2.5	< 0.50	< 0.50	< 0.50
1,2-Dichloropropane	< 0.50	< 0.50	< 2.5	< 0.50	< 0.50	< 0.50
1,3,5-Trimethylbenzene	< 0.50	< 0.50	< 2.5	< 0.50	< 0.50	< 0.50
1,3-Dichlorobenzene	< 0.50	< 0.50	< 2.5	< 0.50	< 0.50	< 0.50
1,3-Dichloropropane	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	< 0.50	< 0.50	< 2.5	< 0.50	< 0.50	< 0.50
2,2-Dichloropropane	< 0.50	< 0.50	< 2.5	< 0.50	< 0.50	
2-Butanone(MEK)	< 50	< 50	< 250	< 50	< 50	< 0.50
2-Chloroethylvinyl ether	< 5.0	< 5.0	< 25	< 5.0	< 5.0	< 50 < 5.0
2-Chlorotoluene	< 0.50	< 0.50	< 2.5	< 0.50	< 0.50	
2-Hexanone	< 50	< 50	< 2.5	< 50	< 50	< 0.50 < 50
I-Chlorotoluene	< 0.50	< 0.50	< 2.5	< 0.50	< 0.50	
4-Methyl-2-pentanone (MIBK)	< 50	< 50	< 2.5	< 50		< 0.50
Acetone	< 50	< 50	< 250	< 50 < 50	< 50 < 50	< 50
Benzene	< 0.50	0.88	170	< 0.50	1.7	< 50
Bromobenzene	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	12
Bromochloromethane	< 1.0	< 1.0	< 5.0			< 1.0
Bromodichloromethane	< 0.50	< 0.50	< 2.5	< 1.0	< 1.0	< 1.0
Bromoform	< 0.50	< 0.50	< 2.5	< 0.50 < 0.50	< 0.50	< 0.50
Bromomethane	< 1.0	< 1.0	< 5.0	< 1.0	< 0.50	< 0.50
Carbon disulfide	< 5.0	< 5.0	< 25	< 5.0	< 1.0	< 1.0
Carbon tetrachloride	< 0.50	< 0.50	< 2.5	< 0.50	< 5.0 < 0.50	< 5.0
Chlorobenzene	< 0.50	< 0.50	< 2.5	< 0.50	< 0.50	< 0.50
Chloroethane	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 0.50 < 1.0
Thloroform	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	
Chloromethane	< 1.0	< 1.0	< 5.0	< 1.0		< 1.0
is-1,2-Dichloroethene	< 0.50	< 0.50	< 2.5	< 0.50	<1.0 <0.50	< 1.0
is-1,2-Dichloropropene	< 0.50	< 0.50	< 2.5	< 0.50		< 0.50
Dibromochloromethane	< 0.50	< 0.50	< 2.5	< 0.50 < 0.50	< 0.50	< 0.50
Dibromomethane	< 0.50	< 0.50	< 2.5		< 0.50	< 0.50
Dichlorodifluoromethane	< 0.50	< 0.50	< 2.5	< 0.50	< 0.50	< 0.50
thylbenzene	< 0.50	< 0.50	< 2.5 7.1	< 0.50	< 0.50	< 0.50
Iexachlorobutadiene	< 1.0	< 1.0	< 5.0	< 0.50 < 1.0	< 0.50 < 1.0	<b>6.8</b> < 1.0

Port of Oakland/TSO#19/Phase II Report/VOCs-air - Table 7

# TABLE 7: SOIL GAS CHEMICAL TEST RESULTS -Volatile Organic Compounds

Phase II Environmental Site Assessment

Future Port Field Support Services Complex

Port of Oakland

Oakland, California

LOCATION	MFC-14	MFC-15	MFC-16	MFC-17	MFC-18	MFC-19
MATRIX	Soil Gas					
COLLECTION DATE	3/27/02	3/26/02	3/26/02	3/26/02	3/26/02	3/26/02
SAMPLE DEPTH <sup>(1)</sup>	4.0	4.0	4.0	4.0	4.0	4.0
UNITS	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
(Continued)					<u> </u>	0
Isopropylbenzene	< 0.50	< 0.50	< 2.5	< 0.50	< 0.50	2.2
Methylene chloride	< 5.0	< 5.0	< 25	< 5.0	< 5.0	< 5.0
MTBE	< 5.0	< 5.0	< 25	< 5.0	< 5.0	< 5.0
n-Butylbenzene	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
n-Propylbenzene	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	2.1
Naphthalene	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
p-Isopropyltoluene	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
sec-Butylbenzene	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	1.2
Styrene	< 0.50	< 0.50	< 2.5	< 0.50	< 0.50	< 0.50
tert-Butylbenzene	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	< 0.50	< 0.50	< 2.5	< 0.50	< 0.50	< 0.50
Toluene	< 0.50	< 0.50	< 2.5	0.54	< 0.50	< 0.50
trans-1,2-Dichloroethene	< 0.50	< 0.50	< 2.5	< 0.50	< 0.50	< 0.50
trans-1,3-Dichloropropene	< 0.50	< 0.50	< 2.5	< 0.50	< 0.50	< 0.50
Trichloroethene	< 0.50	< 0.50	< 2.5	< 0.50	< 0.50	< 0.50
Trichlorofluoromethane	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
Trichlorotrifluoroethane	< 1.0	< 1.0	< 5.0	< 1.0	< 1.0	< 1.0
Vinyl acetate	< 25	< 25	<130	< 25	< 25	< 25
Vinyl chloride	< 0.50	7.3	< 2.5	< 0.50	4.3	< 0.50
Xylenes (Total)	< 0.50	< 1.0	14	1.2	< 1.0	2.5

# Notes:

(1) Soil Gas samples collected at an average depth of 4.0 feet below ground surface (bgs).

 $\mu g/L = micograms per liter$ 

Samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260 (B). Phase II Environmental Site Assessment

Future Port Field Support Services Complex

Port of Oakland

Oakland, California

LOCATION MATRIX	MFC-23 Soil Gas	MFC-28 Soil Gas	MFC-29 Soil Gas	MFC-31 Soil Gas	MFC-33 Soil Gas	MFC-3: Soil Gas
COLLECTION DATE	3/28/02	3/28/02	3/28/02	3/25/02	3/25/02	3/25/02
SAMPLE DEPTH <sup>(1)</sup>						
UNITS	4.0 ug/L	4.0	4.0	4.0	4.0	4.0
1,1,1,2-Tetrachloroethane	ug/L < 0.50	ug/L < 0.50	ug/L	ug/L	ug/L	ug/L
1,1,1-Trichloroethane	< 0.50		< 0.50	< 0.50	< 0.50	< 0.50
1,1,2,2-Tetrachloroethane	< 0.50	< 0.50 < 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1,2-Trichloroethane	< 0.50	< 0.50	< 0.50 < 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloroethane	< 0.50	< 0.50		< 0.50	< 0.50	< 0.50
1,1-Dichloroethene	< 0.50	< 0.50	< 0.50 < 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloropropene	< 0.50	< 0.50	< 0.50	< 0.50 < 0.50	< 0.50 < 0.50	< 0.50
1,2,3-Trichlorobenzene	< 1.0	< 1.0	< 1.0			< 0.50
1,2,4-Trichlorobenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,4-Trimethylbenzene	< 0.50	< 0.50	< 0.50	< 1.0	< 1.0	< 1.0
1,2-Dibromo-3-chloropropane	< 1.0	< 1.0	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dibromoethane	< 0.50	< 0.50	< 0.50	<1.0 <0.50	<1.0 <0.50	< 1.0
1,2-Dichlorobenzene	< 0.50	< 0.50	< 0.50			< 0.50
1,2-Dichloroethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichloropropane	< 0.50	< 0.50	< 0.50	< 0.50 < 0.50	< 0.50	< 0.50
1,3,5-Trimethylbenzene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50 < 0.50	< 0.50
1,3-Dichlorobenzene	< 0.50	< 0.50	< 0.50	< 0.50		< 0.50
1,3-Dichloropropane	< 1.0	< 1.0	< 1.0	< 1.0	< 0.50	< 0.50
,,4-Dichlorobenzene	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0	< 1.0
2,2-Dichloropropane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Butanone(MEK)	< 50	< 50	< 50	< 50	< 0.50	< 0.50
2-Chloroethylvinyl ether	< 5.0	< 5.0	< 5.0	< 5.0	< 50 < 5.0	< 50
2-Chlorotoluene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5.0
2-Hexanone	< 50	< 50	< 50	< 50	< 50	< 0.50 < 50
4-Chlorotoluene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
4-Methyl-2-pentanone (MIBK)	< 50	< 50	< 50	< 50	< 50	< 0.50
Acetone	< 50	< 50	< 50	< 50	< 50	< 50
Benzene	< 0.50	< 0.50	< 0.50	1.0	< 0.50	< 50 <b>0.50</b>
Bromobenzene	< 1.0	< 1.0	< 1.0	<1.0	< 1.0	< 1.0
Bromochloromethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromodichloromethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromoform	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromomethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Carbon disulfide	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Carbon tetrachloride	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chlorobenzene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chloroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloromethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
is-1,2-Dichloroethene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
is-1,3-Dichloropropene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dibromochloromethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dibromomethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dichlorodifluoromethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Ithylbenzene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Iexachlorobutadiene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Port of Oakland/TSO#19/Phase II Report/VOCs-air - Table 7

# TABLE 7: SOIL GAS CHEMICAL TEST RESULTS -Volatile Organic Compounds

Phase II Environmental Site Assessment

Future Port Field Support Services Complex

Port of Oakland

Oakland, California

LOCATION	MFC-23	MFC-28	MFC-29	MFC-31	MFC-33	MFC-35
MATRIX	Soil Gas					
COLLECTION DATE	3/28/02	3/28/02	3/28/02	3/25/02	3/25/02	3/25/02
SAMPLE DEPTH <sup>(1)</sup>	4.0	4.0	4.0	4.0	4.0	4.0
UNITS	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
(Continued)				0	6-	
Isopropylbenzene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Methylene chloride	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
MTBE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
n-Butylbenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
n-Propylbenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p-Isopropyltoluene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
sec-Butylbenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Styrene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
tert-Butylbenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Toluene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
trans-1,2-Dichloroethene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
trans-1,3-Dichloropropene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Trichloroethene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Trichlorofluoromethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichlorotrifluoroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vinyl acetate	< 25	< 25	< 25	< 25	< 25	< 25
Vinyl chloride	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Xylenes (Total)	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

### Notes:

(1) Soil Gas samples collected at an average depth of 4.0 feet below ground surface (bgs).

 $\mu g/L = micograms per liter$ 

Samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260 (B).

# TABLE 7: SOIL GAS CHEMICAL TEST RESULTS -Volatile Organic Compounds

Phase II Environmental Site Assessment

Future Port Field Support Services Complex Port of Oakland

Oakland, California

LOCATION MATRIX	MFC-36 Soil Gas	MFC-37 Soil Gas	MFC-38 Soil Gas	MFC-41 Soil Gas	MFC-4: Soil Ga
COLLECTION DATE	3/28/02	37340	3/28/02	3/28/02	3/28/02
SAMPLE DEPTH <sup>(1)</sup>	4.0	4.0	4.0	4.0	4.0
UNITS	ug/L	ug/L	ug/L	ug/L	ug/L
1,1,1,2-Tetrachloroethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1,1-Trichloroethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1,2,2-Tetrachloroethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1,2-Trichloroethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloroethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloroethene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,1-Dichloropropene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2,3-Trichlorobenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,4-Trichlorobenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2,4-Trimethylbenzene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dibromo-3-chloropropane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dibromoethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichlorobenzene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichloroethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,2-Dichloropropane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,3,5-Trimethylbenzene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,3-Dichlorobenzene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
1,3-Dichloropropane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2,2-Dichloropropane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Butanone(MEK)	< 50	< 50	< 50	< 50	< 50
2-Chloroethylvinyl ether	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
2-Chlorotoluene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
2-Hexanone	< 50	< 50	< 50	< 50	< 50
4-Chlorotoluene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
4-Methyl-2-pentanone (MIBK)	< 50	< 50	< 50	< 50	< 50
Acetone	< 50	< 50	< 50	< 50	< 50
Benzene	< 0.50	0.53	< 0.50	< 0.50	< 0.50
Bromobenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromochloromethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromodichloromethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromoform	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromomethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Carbon disulfide	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Carbon tetrachloride	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chlorobenzene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chloroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloromethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
cis-1,3-Dichloropropene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dibromochloromethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dibromomethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Dichlorodifluoromethane	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Ethylbenzene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Hexachlorobutadiene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

Port of Oakland/TSO#19/Phase II Report/VOCs-air - Table 7

# TABLE 7: SOIL GAS CHEMICAL TEST RESULTS - Volatile Organic Compounds

Phase II Environmental Site Assessment

Future Port Field Support Services Complex Port of Oakland

Oakland, California

LOCATION	MFC-36	MFC-37	MFC-38	MFC-41	MFC-45
MATRIX	Soil Gas				
COLLECTION DATE	3/28/02	37340	3/28/02	3/28/02	3/28/02
SAMPLE DEPTH <sup>(1)</sup>	4.0	4.0	4.0	4.0	4.0
UNITS	ug/L	ug/L	ug/L	ug/L	ug/L
(Continued)					
Isopropylbenzene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Methylene chloride	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
MTBE	21	< 5.0	< 5.0	< 5.0	< 5.0
n-Butylbenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
n-Propylbenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Naphthalene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p-Isopropyltoluene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
sec-Butylbenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Styrene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
tert-Butylbenzene	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Toluene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
trans-1,2-Dichloroethene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
trans-1,3-Dichloropropene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Trichloroethene	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Trichlorofluoromethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichlorotrifluoroethane	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vinyl acetate	< 25	< 25	< 25	< 25	< 25
Vinyl chloride	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Xylenes (Total)	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0

# Notes:

(1) Soil Gas samples collected at an average depth of 4.0 feet below ground surface (bgs).

 $\mu g/L = micograms per liter$ 

Samples were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260 (B).

# TABLE 4: SOIL GAS CHEMICAL TEST RESULTS - Fixed Gases and Total Petroleum Hydrocarbons

Phase II Environmental Site Assessment

**Future Port Field Support Services Complex** 

# Port of Oakland

Oakland, California

Gasoline	ppmv	45	<2.2	<2.0	<1.9	<2.2	330	1,000	630
Carbon Monoxide	% v	< 0.0027	< 0.0022	< 0.0020	< 0.0019	< 0.0022	< 0.0024	< 0.0021	< 0.0017
Methane	% v	0.21	0.065	0.00070	0.00096	< 0.00044	6.1	24	22
Nitrogen	% v	92	89	82	83	88	85	65	63
Oxygen	% v	2.5	4.1	6.0	11	8.4	1.3	0.91	9.4
Carbon Dioxide	% v	8.2	8.4	11	7.3	6.4	10	10	6.0
DEFTH	UNITS	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
LOCATION MATRIX COLLECTION DATE DEPTH <sup>(1)</sup>		MFC-01 Soil Gas 3/27/02	MFC-03 Soil Gas 3/27/02	MFC-05 Soil Gas 3/27/02	MFC-07 Soil Gas 3/27/02	MFC-10 Soil Gas 3/27/02	MFC-13 Soil Gas 3/27/02	MFC-14 Soil Gas 3/27/02	MFC-15 Soil Gas 3/27/02

### Notes:

(1) Soil Gas samples collected at an average depth of 4.0 feet below ground surface (bgs).

Samples collected in Summa Canisters.

% v = percent by volume (1% = 10,000 ppmv)

ppmv = parts per million by volume

Samples were analyzed for Petroleum Hydrocarbons in the gasoline range by EPA Method 19 TO-3 and for carbon dioxide, oxygen, nitrogen, methane, and carbon monoxide by ASTM D1946.

# TABLE 4: SOIL GAS CHEMICAL TEST RESULTS - Fixed Gases and Total Petroleum Hydrocarbons

Phase II Environmental Site Assessment

Future Port Field Support Services Complex

# Port of Oakland

Oakland, California

Gasoline	ppmv	28,000	340	910	810	<2.7	13	<0.0029 78	<0.0043 <b>290</b>
Carbon Monoxide	% v	< 0.0030	< 0.0022	< 0.0020	< 0.0021	< 0.0027	< 0.0021	< 0.0029	
Methane	% v	37	76	64	68	0.0013	56	78	38
Nitrogen	% v	50	15	19	17	80	39	17	55
Oxygen	% v	6.5	0.89	0.35	2.1	22	3.0	3.3	12
Carbon Dioxide	% v	6.3	7.7	17	13	0.039	1.6	0.87	2.1
	UNITS	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
LOCATION MATRIX COLLECTION DATE DEPTH <sup>(1)</sup>		MFC-16 Soil Gas 3/26/02	MFC-17 Soil Gas 3/26/02	MFC-18 Soil Gas 3/26/02	MFC-19 Soil Gas 3/26/02	MFC-23 Soil Gas 3/28/02	MFC-28 Soil Gas 3/28/02	MFC-29 Soil Gas 3/28/02	MFC-31 Soil Gas 3/25/02

# Notes:

(1) Soil Gas samples collected at an average depth of 4.0 feet below ground surface (bgs).

Samples collected in Summa Canisters.

% v = percent by volume (1% = 10,000 ppmv)

ppmv = parts per million by volume

Samples were analyzed for Petroleum Hydrocarbons in the gasoline range by EPA Method 19 TO-3 and for carbon dioxide, oxygen, nitrogen, methane, and carbon monoxide by ASTM D1946.

# TABLE 4: SOIL GAS CHEMICAL TEST RESULTS - Fixed Gases and Total Petroleum Hydrocarbons

Phase II Environmental Site Assessment

**Future Port Field Support Services Complex** 

Port of Oakland

Oakland, California

LOCATION MATRIX COLLECTION DATE DEPTH <sup>(1)</sup>	UNITS	MFC-33 Soil Gas 3/25/02 4.0	MFC-35 Soil Gas 3/25/02 4.0	MFC-36 Soil Gas 3/28/02 4.0	MFC-37 Soil Gas 3/25/02 4.0	MFC-38 Soil Gas 3/28/02 4.0	MFC-41 Soil Gas 3/28/02 4.0	MFC-45 Soil Gas 3/28/02 4.0
Carbon Dioxide	% v	1.8	3.8	8.0	7.1	0.083	2.7	0.19
Oxygen	% v	18	16	1.5	10	22	19	20
Nitrogen	% v	69	65	91	70	80	81	84
Methane	% v	17	19	1.9	18	0.17	< 0.00042	0.077
Carbon Monoxide	% v	< 0.0025	< 0.0020	< 0.0019	< 0.0028	< 0.0018	< 0.00042	< 0.0034
Gasoline	ppmv	140	170	85	140	<1.8	<2.1	6.9

Notes:

(1) Soil Gas samples collected at an average depth of 4.0 feet below ground surface (bgs).

Samples collected in Summa Canisters.

% v = percent by volume (1% = 10,000 ppmv)

ppmv = parts per million by volume

Samples were analyzed for Petroleum Hydrocarbons in the gasoline range by EPA Method 19 TO-3 and for carbon dioxide, oxygen, nitrogen, methane, and carbon monoxide by ASTM D1946.