SDMS DOCID # 1150096

Ninyo & Moore
Geotechnical and Environmental Sciences Consultants

FIRST FIVE-YEAR REVIEW AND EVALUATION OF THE PCB CAPPED AREA FORMER WALKER PROPERTY CURRENT BLOOMFIELD BUSINESS CENTER 11020 BLOOMFIELD AVENUE SANTA FE SPRINGS, CALIFORNIA

PREPARED FOR:
Bloomfield Partners, LLC
18802 Bardeen Avenue
Irvine, California 92612

PREPARED BY:
Ninyo & Moore Geotechnical and Environmental Sciences Consultants
475 Goddard, Suite 200
Irvine, California 92618

August 8, 2003
Project No. 203571009

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Mr. Peter Rooney
Bloomfield Partners, LLC
18802 Bardeen Avenue
Irvine, California 92612

Subject: First Five-Year Review and Evaluation
of the PCB Capped Area
Former Walker Property
Current Bloomfield Business Center
11020 Bloomfield Avenue
Santa Fe Springs, California

Dear Mr. Rooney:

Ninyo & Moore has performed a Five-Year Review and Evaluation of the PCB Capped Area at the above-referenced commercial property. The attached report presents our methodology, findings, and conclusions regarding the environmental conditions at the site.

We appreciate the opportunity to be of service to you on this project. If you have any questions regarding this report, please contact the undersigned at your convenience.

Sincerely,
NINYO & MOORE

Paul A. Roberts, R.G., R.E.A. I/II
Senior Environmental Geologist

PAR/mll

Distribution: (3) Addressee
(1) Mr. Richard Gebert, Department of Toxic Substances Control
(1) Pam Andes, Esq., Allen Matkins Leck Gamble & Mallory LLP
(1) Mr. Clark Neuhoff, Bloomfield Partners, LLC.
(1) Mr. Phil Fitzwater, Iris Environmental

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EXECUTIVE SUMMARY

Bloomfield Partners, LLC authorized Ninyo & Moore and Ms. Teri Copeland to perform the first Five-Year Review and Evaluation of the PCB Capped Area located on Parcel 1 of the Bloomfield Business Center property at 11020 Bloomfield Avenue, in the city of Santa Fe Springs, California (site). The site is part of a larger property that was formerly designated as the Walker Property based on the prior owner's name.

From approximately 1985 through 1995, a number of subsurface investigations were completed in an area of the site that was formerly used to store waste oil by an oil recycling company. Petroleum hydrocarbon, polychlorinated biphenyl (PCB), and metal impacted soil was discovered in a limited area formerly occupied by the oil recycling facility. In 1992, the Department of Toxic Substances Control (DTSC) issued an Imminent and Substantial Endangerment Order (I&SE Order) to investigate and remediate the impacted soil. From 1995 through 1997, a Remedial Investigation (RI) report, a Baseline Health Risk Assessment (BHRA), a Feasibility Study (FS), and a Remedial Action Plan (RAP) were provided to the DTSC for review. The FS and RAP outlined the proposed implementation of an asphalt cap to be placed over the impacted soil (referred to as the PCB Capped Area). Following authorization of a Remedial Design and Implementation Plan presented to the DTSC in January 1998, the asphalt cap was constructed. A deed restriction was recorded with the County of Los Angeles in August 1998 that restricts the land use of the PCB Capped Area for industrial or commercial use. In September 1998, the DTSC issued a certification indicating that no further action was needed. A review and reevaluation of the remedial action for the PCB Capped Area is to be conducted every five years after the certification.

This report outlines the results of the first Five-Year Review and Evaluation of the PCB Capped Area at the site. The site has been redeveloped with a large commercial building (referred to as Building 1). During redevelopment, the PCB Capped Area remained untouched. Building 1 has been constructed around the PCB Capped Area that is planned to be used as part of the parking lot. As part of the five year review, the PCB Capped Area was visually inspected. Based on the results of this inspection, no deficiencies were noted that would require maintenance or correction.

The BHRA completed for the site was reviewed to assess whether new exposure pathways or toxicity factors exist. The review and evaluation were conducted in accordance with USEPA guidelines. In summary, no new human health or ecological receptors were discovered. Although some toxicity criteria and exposure parameters have changed since the BHRA, exposure pathways were eliminated due to the installation of the PCB Capped Area called for by the RAP. Based on this information, human health and the environment are still being protected by the remedial action implemented at the PCB Capped Area, the cap remains effective, the land use controls remain in place and are being complied with, and the site continues to pose no significant health risk. Because the remedial action is protective, the site is protective of human health and the environment.

1. INTRODUCTION

Bloomfield Partners, LLC has authorized Ninyo & Moore and Ms. Teri Copeland to perform the first Five-Year Review and Evaluation of the PCB Capped Area located on Parcel 1 of the Bloomfield Business Center property at 11020 Bloomfield Avenue, in the city of Santa Fe Springs, California (site, Figure 1). The report generally follows the United States Environmental Protection Agency (USEPA) "Comprehensive Five-Year Review Guideline" document dated July 17, 2001, and the "Outline of the Proposed Report Format" prepared by Ninyo & Moore dated May 13, 2003. The Ninyo & Moore outline was reviewed and approved by Mr. Richard Gebert of the DTSC on May 29, 2003.

Parcel 1 of the Bloomfield Business Center comprises approximately 5-acres that were formerly part of a larger piece of land historically known as the Walker Property based on the prior owner's name. The Walker Property comprised approximately 21-acres and was used since the early-1900s to store crude oil and petroleum hydrocarbon products, and store off-site derived oil well drilling fluids and muds. From the 1960s to 1980s, the western portion of the former Walker Property was used by commercial facilities including an oil recycling business. In the 1980s, petroleum hydrocarbon, polychlorinated biphenyl (PCB), and metal-impacted soil was discovered in the area of the oil recycling business, the extent of the impacted area was defined, and the soil was mitigated by placing an asphaltic cap over the impacted area (referred to herein as the PCB Capped Area). The Walker Property was purchased in mid-2002 by Bloomfield Partners, LLC from Cenco Electric Company (Cenco) and has been redeveloped for commercial warehouses purposes (the Bloomfield Business Center). The Bloomfield Business Center, once completed, will consist of Parcel 1 (housing the PCB Capped Area), Parcel 2 (located immediately south of Parcel 1), and Parcel 3 (located in the southern portion of the Bloomfield Business Center property). Since the property has been subdivided into the three parcels, the "site," as described herein, will refer to Parcel 1 of the Bloomfield Business Center.

1.1. Purpose

The purpose of the work described herein was to assess the integrity of the PCB Capped Area, and to evaluate the implementation and performance of the remedy with respect to its ability to remain protective of human health and the environment.

1.2. Involved Parties

The involved parties include:

- Bloomfield Partners, LLC – developers and current owners of the former Walker Property, including the site;
- DTSC - lead regulatory agency overseeing the implementation of the remedy; and
- Ninyo & Moore and Ms. Copeland - consultants retained by Bloomfield Partners, LLC to complete the Five-Year Review and Evaluation of the PCB Capped Area.

2. PHYSICAL SETTING

The following sections include discussions of topographic, geologic and hydrogeologic conditions in the vicinity of the site, based upon our document review and our visual reconnaissance of the site and adjacent areas.

2.1. Topography

The site is generally flat. Based on the review of the USGS 7.5-Minute Series Whittier, California, Topographic Quadrangle Map, dated 1965 and photorevised in 1985, the site has an approximate elevation of 135 feet above mean sea level (MSL).

2.2. Geology

The project area is situated on the Santa Fe Springs Plain area of the Los Angeles Coastal Plain. Prominent area features include the Puente and Coyote Hills to the northeast, east, and southeast, and the San Gabriel River to the west. The Coastal Plain area generally consists of

alluvial materials deposited by the Los Angeles, San Gabriel, and Santa Ana Rivers during the late Pleistocene.

In the site vicinity, the Santa Fe Springs Plain consists of the late Pleistocene alluvium of the Lakewood Formation. The Lakewood Formation consists of interbedded clays, silts, silty sands, and sands representative of stream-type alluvial and flood-plain deposits.

2.3. Groundwater

As further discussed in Section 3.2, Powerine Oil Company (Powerine) operated the Powerine Refinery, located immediately northwest of the site on the northwest corner of the intersection of Bloomfield Avenue and Lakeland Road. Large aboveground storage tanks (ASTs) associated with the refinery were also located immediately north of the site and beyond Lakeland Road. The Powerine Refinery operated from at least 1958 through approximately 1984. In 1998, Cenco purchased Powerine. Cenco is currently dismantling the refinery.

Under the direction and oversight of the California Regional Water Quality Control Board, Los Angeles Region (RWQCB), Cenco conducts semi-annual groundwater monitoring on the former Powerine Refinery property and on properties in the immediate site vicinity. As part of the groundwater monitoring events, seven groundwater monitoring wells were formerly located on the Walker Property (Figure 2). Following acquisition of the property by Bloomfield Partners, LLC, three groundwater wells were abandoned due to their location beneath proposed building footprints. Prior to abandonment activities, authorization was obtained from the RWQCB. These wells are not planned to be replaced. Groundwater monitoring activities have been conducted since approximately 1989.

Two groundwater monitoring wells (designated EW-1 and W-1) are located on Parcel 1 (Figure 2). Based on review of historical groundwater data collected from monitoring well W-1 from 1996 through 2002, groundwater has been reported at depths ranging from approximately 90 to 97 feet below the ground surface (bgs). Groundwater gradient is reported in a southwesterly direction (Versar, 2001; TRC, 2002).

Groundwater monitoring well W-1 is located approximately 90 feet west of the PCB Capped Area (Figure 2). Based on a review of recent groundwater data (May 2002) from monitoring well W-1, laboratory results indicated low concentrations of gasoline (280 micrograms per liter [ug/l]), benzene (7.7 ug/l), methyl tertiary butyl ether (MTBE, 5.9 ug/l), tertiary butyl alcohol (TBA, 44 ug/l), cis-1,2-dichloroethene (3.1 ug/l), n-propylbenzene (2.4 ug/l), and vinyl chloride (6.4 ug/l) (TRC, 2002). These concentrations and constituents are consistent with those detected in monitoring well W-4 located approximately 390 feet southwest of and downgradient from the PCB Capped Area (Figure 2). These concentrations and constituents are also consistent with those detected in monitoring wells W-1 and W-4 during preparation of the RAP and PCB Capped Area installation. Based on the results of the groundwater monitoring activities, the source of the impacted groundwater beneath the site has been reported to be the off-site Powerine Refinery and possibly other off-site sources. In the DTSC Certification letter, it was concluded that the former Walker Property had not contributed to the groundwater contamination.

3. BACKGROUND AND CHRONOLOGY OF SITE ACTIVITIES

The following presents the site background and a chronology of site activities. A summary of these activities is also presented on Table 1.

3.1. Site Description

The site is referred to as Parcel 1 of the Bloomfield Business Center and comprises approximately 5-acres of land located at 11020 Bloomfield Avenue in the city of Santa Fe Springs, California (Figure 2). The site is located on the southeast corner of the intersection of Bloomfield Avenue and Lakeland Road and is bounded by Bloomfield Avenue to the west; Lakeland Road to the north; railroad tracks to the east; and Parcel 2 of the Bloomfield Business Center to the south (Figure 2). The site boundary information was obtained during a site reconnaissance by Ninyo & Moore and a site plan provided by Bloomfield Partners, LLC.

At the time of our site visit, three warehouse buildings were being completed as part of the Bloomfield Business Center. The Bloomfield Business Center has been divided into three parcels containing three buildings that are currently under construction. Parcel 1 will contain an approximately 85,000-square foot warehouse building referred to as Building 1; Parcel 2 is located immediately south of the site and will contain an approximately 240,000-square foot warehouse building referred to as Building 2; and Parcel 3 is located south of Parcel 2 and will contain an approximately 131,000-square foot warehouse building referred to as Building 3 (Figure 2).

3.2. Former Land Uses of the Site and Surrounding Areas

In approximately 1965 or earlier, the western portion of the site was leased to Lakewood Oil Service (Lakewood). Lakewood operations included picking up oil and storing used crank-case motor oils and other waste oil until the oils could be recycled. Lakewood also used vacuum trucks to pick up materials from off site washdown sumps and used oils from various industries. During the 1960s and the 1970s, Lakewood leased three aboveground storage tanks (ASTs) on the western portion of the site to Refining Associates for use as a waste-oil transfer facility. Several companies would transfer waste oil into a 12,000-gallon underground storage tank (UST) located adjacent to the ASTs. The waste oil was pumped from the UST, through various filters, and was stored in the ASTs for eventual resale. Lakewood filed for bankruptcy and vacated the property in 1983.

The eastern portion of the site and properties southeast of the site (Parcels 2 and 3) were a naturally occurring drainage area that was historically used to deposit drilling fluids and muds from the surrounding oil field activities. In 1967, the former drilling mud sumps were excavated, dried, and mixed with clean soil and recompacted.

Powerine operated the Powerine Refinery, located immediately northwest of the site and across the intersection of Lakeland Road and Bloomfield Avenue. The Powerine Refinery operated since at least 1958. In 1968, Powerine leased the land located in the southwestern portion of the former Walker Property (currently Parcel 3) to store jet fuel and gas oil in two

80,000-barrel ASTs. Pipelines traversing along Bloomfield Avenue delivered the petroleum hydrocarbon products to the ASTs from at least 1971 through 1983. During this time, the southeastern portion of the Walker Property (Parcels 2 and 3) was used to load and unload railcars of petroleum hydrocarbon products. In 1984, Powerine filed for bankruptcy and in 1998, Cenco purchased the assets and liabilities from Powerine. The property located immediately north of the site and beyond Lakeland Road has also been used by Powerine to store petroleum hydrocarbon products in large ASTs. Currently the refinery and ASTs are being dismantled and sold. Cenco also purchased the former Walker Property in 1998.

The remaining properties surrounding the site and the former Walker Property have been used mainly for commercial purposes. The property immediately west of the site and beyond Bloomfield Avenue is occupied by the Los Angeles Center for Alcohol and Drug Abuse, the Phoenix House, and The Family Foundation. Further southwest of the site and beyond Bloomfield Avenue is the Metropolitan State Hospital (a psychiatric hospital) which has been located on this property since the early-1900s. In general, the facilities in the site vicinity have not changed since the PCB Capped Area was implemented.

3.3. History of Investigations and Remedial Action

The following presents a summary of the environmental investigations, subsequent remedial actions, and recent redevelopment activities in the vicinity of the PCB Capped Area. A complete chronicle of the site activities is presented in Table 1.

3.3.1. Discovery of PCB-Impacted Soil and Subsequent Investigations

In July 1985, Dames & Moore completed a preliminary investigation in the vicinity of possible environmental concerns. As part of this investigation, four soil borings were drilled in the area of the 12,000-gallon UST and ASTs associated with the former oil recycling facility located on the western portion of the site (TRC Environmental Consultants, Inc. [TRC], 1990). Laboratory results indicated concentrations of volatile organic compounds (VOCs, namely 1,1-dichloroethane [1,1-DCA], 1,1,1-

trichloroethane [1,1,1-TCA], trichloroethene [TCE], and tetrachloroethylene [PCE] up to 32 milligrams per kilogram [mg/kg]), PCBs (94 mg/kg), and lead (1,450 mg/kg).

During removal of the 12,000-gallon waste oil UST by Dames & Moore in October 1986, stained soil was noted within the excavation and laboratory results of confirmation samples collected within the excavation indicated concentrations of PCBs (up to 248 mg/kg) and lead (up to 1,100 mg/kg) ([TRC], 1990).

In October and November 1986, Dames & Moore conducted an additional subsurface investigation throughout the area formerly occupied by Lakewood to further assess the lateral extent of the PCB and metal-impacted soil. This investigation included the excavation of 33 test pits in the vicinity of the UST and ASTs (TRC, 1990). Laboratory results indicated concentrations of PCBs (up to 200 mg/kg), lead (up to 2,470 mg/kg), and copper (up to 5,140 mg/kg). Based on these investigations, Dames & Moore defined the lateral extent of impacted soil as being limited to the area immediately adjacent to the UST and ASTs formerly used by Lakewood (TRC, 1990). The vertical extent was assessed to be less than 15 feet bgs.

In October 1989, an additional subsurface investigation was completed in the area of the former oil recycling facility by TRC to verify the findings of Dames & Moore. This investigation included drilling nineteen soil borings in the vicinity of the former UST and ASTs to depths of up to 50 feet bgs. Selected soil samples were analyzed for PCBs and laboratory results indicated concentrations up to 240 mg/kg at approximately 5 feet bgs (TRC, 1990). Deeper soil samples (greater than 15 feet bgs) indicated no detectable concentrations of PCBs. Based on this information, TRC concurred with Dames & Moore's conclusion that the lateral and vertical extent of impacted soil was limited to the area immediately adjacent to the former UST and ASTs.

In 1993, Harding Lawson Associates (HLA) was retained to conduct additional soil sampling in the vicinity of the former oil recycling facility and other areas throughout the former Walker Property. The results of this investigation were presented in a Reme-

dial Investigation (RI) report dated August 1995. Based on soil borings drilled in the vicinity of the former on-site UST and ASTs, elevated concentrations of heavy petroleum hydrocarbons (up to 13,000 mg/kg) were detected in shallow soils (i.e., less than 15 feet bgs).

3.3.2. Groundwater Investigations

During these early investigations, one groundwater monitoring well (designated W-1) was installed approximately 90 feet west of the former oil recycling facility (Figure 2). Groundwater has been measured from this well at depths ranging from 90 to 97 feet bgs. Groundwater gradient, as calculated from other wells in the vicinity of the site, has been reported in a southwesterly direction. Although low concentrations of petroleum hydrocarbons and VOCs have been detected in groundwater samples collected from W-1, the concentrations and constituents detected are similar to other samples collected from close by wells. Based on this information, and distance and crossgradient direction of well W-1 from the impacted soil, the low concentrations of petroleum hydrocarbons and VOCs are assumed to be the result of an off-site source (i.e., the Powerine Refinery located approximately 150 feet northwest of the site). This well is currently being monitored by Cenco (current owners of the Powerine Refinery) as part of a larger localized groundwater investigation associated with the Powerine Refinery.

3.3.3. Health and Environment Risk Evaluations

Based on regulatory guidelines, some of the constituents detected in shallow soil at the site would be considered elevated. Because PCBs, petroleum hydrocarbons, and lead migrate slowly in soil; VOCs dissipate quickly in shallow soil; the concentrations are well defined within the upper 15 feet; and depth to groundwater has been reported at approximately 100 feet bgs at the site, TRC prepared a Preliminary Endangerment Assessment (PEA) Report in 1990 that evaluated possible health and environmental risks associated with the impacted soil. The PEA was prepared and submitted to the DTSC and concluded that the constituents detected at the site did not pose an immediate potential threat to public health or the environment.

In 1995 and as part of a RI, HLA prepared a more detailed Baseline Health Risk Assessment (BHRA) which evaluated the possible health and environmental effects of the constituents detected based on possible exposure routes. Based on the results, it was concluded that health and environmental risk were minimal. As part of this Five-Year Review and as further discussed in Section 5.3, the BHRA was reevaluated by Ms. Copeland to assess changes in land use, receptors or pathways, new contamination sources, and toxicity factors.

3.3.4. Mitigation Measures and Site Certification

In 1996, Environmental Strategies Corporation prepared a Feasibility Study (FS) that evaluated and screened several remedial technologies based on constituents and concentrations detected, costs, geological and hydrogeological conditions, and other factors. The FS concluded that an asphalt cap/deed restriction was technically feasible as a viable mitigation measure (Environmental Strategies Corporation, 1996). Based on this information, Environmental Strategies Corporation prepared a Remedial Action Plan (RAP) in 1997 that outlined the proposed implementation of the asphalt cap.

The DTSC was presented with the RI and BHRA by HLA, and the FS and RAP by Environmental Strategies Corporation for review. In a letter dated June 13, 1997, the DTSC approved the asphalt cap and deed restriction mitigation measure. Santochi & Bravante LLC subsequently prepared and submitted a Remedial Design and Implementation Plan dated January 15, 1998 to DTSC which presented the design specifications for the proposed asphaltic cap. Based on its review, the Remedial Design and Implementation Plan was approved by DTSC and the asphalt cap was constructed (Figure 2). Following construction of the asphalt cap and recording of the deed restriction, the DTSC issued a certification dated September 8, 1998 indicating no further action was needed. A copy of the certification and deed restriction is provided in Appendix A.

The deed restriction was recorded with the County of Los Angeles on August 27, 1998 and restricts land use of the PCB Capped Area to industrial or commercial use. The DTSC certification requires annual inspection of the cap and a Five-Year Review and

Evaluation of the remedy. Ninyo & Moore completed an annual inspection of the cap in March 2002 and concluded that the PCB cap was in good condition and required no maintenance or correction at that time (Ninyo & Moore, 2002).

3.3.5. Remedial Actions Completed

As discussed in Section 3.3.4, the asphaltic cap was constructed in June 1998 in general accordance with the Remedial Design and Implementation Plan prepared by Santochi & Bravante LLC.

3.3.6. Legal and Regulatory Documentations

On July 10, 1998, a Consent Order was issued by the DTSC to Texaco and BC Santa Fe Springs, LLC to comply with the RAP dated June 13, 1997. The Consent Order included a scope of work to implement the remedy, a summary of future work (i.e., the completion of yearly inspections and five-year reviews), and a covenant not to sue. The Consent Order was subject to a public comment period of 30 days, at which time no comments were received.

Following implementation of the asphaltic cap, a deed restriction was recorded with the County of Los Angeles on August 27, 1998 restricting land use of the PCB Capped Area for industrial or commercial purposes. The DTSC subsequently issued a certificate indicating that no further action was needed on September 8, 1998.

3.3.7. Recent Site Redevelopment

Prior to redevelopment of the former Walker Property, Ninyo & Moore prepared a Pipeline Removal Plan and Soil Management Plan that outlined the procedures for managing petroleum hydrocarbon impacted soil that might be encountered during grading and pipeline removal activities. The pipeline removal and grading activities were conducted under the oversight of the Santa Fe Springs Fire Department (SFSFD).

A trench was excavated in July 2002 around the PCB Capped Area to assess the location of unknown underground pipelines. Discovered pipelines were cut and capped at

the perimeter of the PCB Capped Area. The pipelines were cut so grading equipment would not pull on the pipelines and possibly damage the asphalt cap. Pipelines were also removed from the perimeter of the former Walker Property.

Grading activities commenced in October 2002 and continued through November 2002. During this time, Ninyo & Moore conducted South Coast Air Quality Management District (SCAQMD) air monitoring and visual inspections. During grading activities, a chain-link fence was placed around the PCB Capped Area that prevented parking and storage on the asphalt cap. Due to the close proximity of proposed Building 1 to the PCB Capped Area, Ninyo & Moore was also present during excavation of the footings associated with proposed Building 1. Following completion of the pipeline removal and grading activities, Ninyo & Moore prepared a Pipeline Closure Report and a Grading Report that were submitted to the SFSFD. The SFSFD issued a no further action letter dated July 9, 2003.

Building 1 is currently being constructed. The PCB Capped Area has remained whole; all utilities were diverted around the cap.

4. REMEDIAL ACTIONS

The following presents the remedial objectives, remedy description, remedy implementation, and regulatory status.

4.1. Objectives

The objective of the remedy is to limit human exposure to concentrations of chemicals detected in the shallow soil and to slow the migration of these contaminants through the underlying media.

4.2. Remedy Description

The PCB Capped Area measures approximately 100 feet in an east-west direction, and approximately 160 feet in a north-south direction (Figure 2). The cap covering the

contaminated soil consists of approximately eight inches of compacted fill, six inches of crushed rock base, and five inches of asphaltic concrete (Geobase, Inc. [Geobase], 1998). Once complete, the asphaltic cap was approximately 3 feet above the surrounding grade (Geobase, 1998).

4.3. Remedy Implementation

The PCB Capped Area was constructed in June 1998 by Geobase in general accordance with the planned design outlined in the Remedial Design and Implementation Plan prepared by Santochi & Bravante LLC, dated January 1998.

According to Geobase, the area where the cap was to be placed was first scarified and compacted. Fill soils were placed in a single eight-inch lift, brought to optimum moisture, and compacted to a minimum of 90 percent maximum density. Aggregate base was then placed in a six-inch lift, brought to optimum moisture, and compacted to a minimum of 95 percent relative compaction. A five-inch layer of asphaltic concrete was then placed above the aggregate and compacted to a minimum of 95 percent maximum density (Geobase, 1998).

4.4. Regulatory Actions

Following completion of the remedy, the DTSC issued a certification indicating no further action was needed. The Consent Order indicates that yearly inspections and five-year reviews of the PCB Capped Area will be completed.

4.5. Review of Yearly Inspections

In 1999, the DTSC issued a letter to Cenco informing Cenco that an annual inspection of the PCB Capped Area was overdue (DTSC, 1999). According to Mr. Gebert, no annual inspection was completed in 1999. In March 2000, Cenco completed the first annual inspection. Based on the results of the inspection, Cenco concluded that no signs of raveling, alligator cracks, upheaval, pot holes, grade depressions, or other unusual conditions were noted (Cenco, 2000). In November 2001, Cenco completed another yearly inspection with conclu-

sions similar to the 2000 inspection (Cenco, 2001). The 2001 inspection letter indicated that herbicides were to be used along the edge of the cap to control small areas of grasses.

Following acquisition of the property by Bloomfield Partners, LLC in 2002 from Cenco, Ninyo & Moore completed a yearly inspection of the PCB Capped Area. The work was completed in March 2002 and included conducting a visual inspection of the cap. Ninyo & Moore divided the capped area into nine equally spaced divisions and slowly walked the length of the cap along each division (Ninyo & Moore, 2002). Based on our observation, some minor "alligator cracks" were observed in the southeastern corner of the cap (Ninyo & Moore, 2002). Overall, the cap appeared to be in good condition as defined in Section 2.6 of the Remedial Design and Implementation Plan and no major deficiencies were noted that would require maintenance or correction (Ninyo & Moore, 2002). As stated in Section 5.2, the PCB Capped Area has since been asphalt slurried as part of the current site redevelopment activities.

5. FIVE-YEAR REVIEW

The following presents the results of the five-year review and evaluation of the PCB Capped Area.

5.1. Administrative Components

The Administrative Components of the Five-Year Review and Evaluation included the notification of interested parties, identification of the five-year review team members, and an outline for future yearly inspections and five-year reviews.

5.1.1. Notification of Interested Parties of Review Process

Ninyo & Moore verbally notified the site owner and developer (Bloomfield Partners, LLC) and the general contractors (Oltmans Construction Company) of the site inspection and review process. Because the cap has not been modified since implementation, the surrounding property uses have not changed, and due to the fact that no public feed

back was obtained during the initial public notification conducted prior to implementation of the cap, no public notification was deemed necessary by the DTSC and Ninyo & Moore for this Five-Year Review and Evaluation.

5.1.2. Identification of Five-Year Review Team Members

Mr. Richard Stevenson of Ninyo & Moore conducted the inspection of the PCB Capped Area. Mr. Paul Roberts of Ninyo & Moore performed the background research and conducted project oversight and quality review. Ms. Copeland conducted the evaluation of current receptors, exposure pathways, and toxicity criteria as compared with those employed in the BHRA.

5.1.3. Outline Future Yearly Inspections

Table 2 presents a schedule for future yearly inspections and five-year reviews. The yearly inspections will be completed in March of each year and the scope of work will be similar to the previous yearly inspection completed by Ninyo & Moore in 2002. The five-year reviews will include updating the information provided in this report, and evaluating the regulatory standards and exposure pathways.

The then current property owner will be responsible for maintaining the PCB Capped Area (i.e., conducting periodic resurfacing), repairing damaged areas to the cap, and conducting annual inspections and five-year reviews.

5.2. Site Inspections

On May 15, 2003, Ninyo & Moore completed a site visit to inspect the integrity of the PCB Capped Area and to assess site conditions. At the time of our site visit, a partially constructed, tilt-up style building (Building 1) was noted along the northern and eastern portions of the cap (Figure 2). The areas west and south of the cap, and the area including the cap, are planned as a parking lot. The areas west and south of the cap had not yet been paved. Concrete curbing associated with future planters had been constructed in the parking lot area. The new site grade was modified around the PCB Capped Area. The elevation surrounding

the PCB Capped Area was elevated approximately 3 feet to meet the original grade of the PCB Capped Area. Color photographs of the site and the PCB Capped Area are presented in Appendix B.

On the day of the inspection, the weather was clear and sunny with a temperature of approximately 75 degrees Fahrenheit. The cap was divided into approximately nine equally spaced divisions (designated A through I) that were approximately 10 feet apart (Figure 3). To observe the integrity of the cap, Ninyo & Moore personnel slowly walked the length cap along the divisions as shown on Figure 3. Based on our observations, some minor "alligator cracks" were observed in the southeastern corner of the cap. Overall, the cap appeared to be in good condition as defined in Section 2.6 of the Santochi & Bravante LLC's 1998 Remedial Design and Implementation Plan. Based on the results of this inspection, no deficiencies were noted that would require maintenance or correction.

On August 1, 2003, Ninyo & Moore and Mr. Gebert of the DTSC conducted a site visit. At the time of the site visit, the asphalt parking lot associated with Building 1 had been completed to the west and south of the PCB Capped Area. The PCB Capped Area had been asphalt slurried to match the surrounding parking lot. The "alligator cracks" previously observed in the southeastern corner of the cap during the previous site inspections by Ninyo & Moore had been repaired during the slurry activities and were no longer visible.

5.3. Data Review and Evaluation

A data review and evaluation was conducted to assess changes in standards and assumptions used during the time the remedy was selected. This evaluation was conducted to assess:

- Changes in land use or the anticipated land use on or near the site;
- New human health or ecological receptors or exposure pathways;
- New contaminants or contaminant sources; and
- Changes in exposure parameters or toxicity factors.

5.3.1. Changes in Land Use On or Near the Site

As discussed herein, no significant changes in the surrounding land use have taken place since the installation of the PCB Capped Area called for by the RAP. Although the site has been redeveloped for commercial use, the PCB Capped Area has remained untouched and is planned to be used as a larger parking lot for Building 1. The PCB Capped Area was designed for possible future use as a parking lot.

5.3.2. New Human Health or Ecological Receptors or Exposure Pathways

The PCB Capped Area was constructed following issuance of the BHRA and therefore eliminated the complete exposure pathways (inhalation, dermal contact, and ingestion) associated with non-volatile contaminants. Following construction of the PCB Capped Area, no new human health exposure pathways or receptors were identified. Because the site and surrounding area were developed and did not support wildlife habitat, ecological receptors were not evaluated during the BHRA. The site and surrounding area continue to be developed properties.

5.3.3. New Contaminants or Contaminant Sources

Because the PCB Capped Area has not been modified since implementation, no new contaminants or contaminant sources have been discovered. All utilities for Building 1 were diverted around the capped area, and no cutting of the cap or excavation of soils beneath the cap have been conducted or are planned.

5.3.4. Changes in Exposure Parameters or Toxicity Factors

Ms. Copeland reviewed and evaluated the BHRA and current risk assessment guidance to assess whether new exposure factors, exposure models, and toxicity criteria exist. A copy of the BHRA is provided in Appendix C. Based on our review, the following changes have occurred since the issuance of the BHRA and the installation of the PCB Capped Area.

5.3.4.1. Exposure Parameter Values

Since the completion of the BHRA, there have been regulatory updates for some of the exposure parameters. Two key guidance documents, issued after completion of the BHRA, contain most of the updated values. These documents include:

- USEPA, 1997, Exposure Factors Handbook, Vol. I, General Factors. Office of Research and Development, August.
- USEPA, 2001, Risk Assessment Guidance for Superfund (RAGS), Volume 1 – Human Health Evaluation Manual (Part E, Supplemental Guidance for Dermal Risk Assessment), Interim, Office of Emergency and Remedial Response, September.

Although there have been changes in some exposure parameter values for inhalation, dermal contact, and soil ingestion pathways since the issuance of the BHRA, the changes do not affect the characterization of potential risk due to the fact that these exposure pathways have been eliminated by the installation of the PCB Capped Area.

5.3.4.2. Exposure Models

Fate-transport and toxicokinetic models for the inhalation of particulates, inhalation of vapors, and lead exposure have been updated since the BHRA. Since the PCB Capped Area remains capped and undisturbed, inhalation models are not applicable to the PCB Capped Area. In addition, since all lead concentrations exceeding 750 mg/kg are covered by the PCB Capped Area, reassessment of lead exposure is not warranted.

5.3.4.3. Toxicity Criteria

The CalEPA/Office of Environmental Health Hazard Assessment toxicity criteria database (CalEPA/OEHHA, 2003) was reviewed to identify changes in CalEPA toxicity criteria used in the BHRA. For chemicals of potential concern that do not

have CalEPA noncancer toxicity criteria, the USEPA Integrated Risk Information System (IRIS) (USEPA, 2003) was consulted.

Based on our review, more stringent or similar oral or inhalation toxicity criteria have been implemented for PCBs, benzo[a]pyrene, carcinogenic PAHs, and barium since the issuance of the BHRA. Because oral, dermal, and inhalation exposure routes have been eliminated by the installation of the PCB Capped Area, the changes in the toxicity criteria do not affect the protectiveness of the cap.

6. TECHNICAL ASSESSMENT

The following questions are outlined in the USEPA Comprehensive Five-Year Review Guidance document. The answers to the questions are based on the results of this Five-Year Review and Evaluation. The complete Five-Year Review Summary Form is presented in Appendix D.

- Question A: Is the remedy functioning as intended by the decision document?
  - Answer to Question A: Yes. The remedy has not been modified or changed.
- Question B: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) used at the time of the remedy selection still valid?
  - Answer to Question B: Yes. Although some toxicity criteria and exposure parameters have changed since the BHRA, exposure pathways were eliminated due to the installation of the PCB Capped Area called for by the RAP. In conclusion, human health and the environment are still being protected by the remedial action implemented at the PCB Capped Area, the cap remains effective, the land use controls remain in place and are being complied with, and the site continues to pose no significant health risk.
- Question C: Has any other information come to light that could call into question the protectiveness of the remedy?
  - Answer to Question C: No.

7. ISSUES

No issues were identified during the technical assessment and other five-year review activities.

8. RECOMMENDATIONS AND FOLLOW-UP ACTIONS

Based on the information provided in this evaluation, current regulatory guidelines and our professional judgment, the following recommendations and follow-up actions are presented:

- The then current owner of the site should continue to conduct annual inspections and five-year reviews of the PCB Capped Area in accordance with the schedule presented in this report. These reports should be submitted to the DTSC for review.
- The then current owner of the site should maintain the integrity of the PCB Capped Area by conducting periodic maintenance of the parking lot and capped area.

9. PROTECTIVENESS STATEMENT

Based on the information obtained during this review and evaluation, the following Protectiveness Statement, as outlined in the EPA Comprehensive Five-Year Review Guidance document, is provided:

- Because the remedial action at the PCB Capped Area is protective, the site is protective of human health and the environment.

10. NEXT REVIEW

As presented in Table 2, the next scheduled five-year review will be completed in September 2008.

11. SELECTED REFERENCES

CalEPA/OEHHA, 2003, Toxicity Database, Office of Environmental Health Hazard Assessment (website: www.oehha.ca.gov/risk/chemicalDB/).

Cenco Refining Company, 2000, Inspection of the Asphalt Cap at the Former Walker Property: Letter to the Department of Toxic Substances Control, Glendale, California, dated March 10.

Cenco Electric Company, 2001, Inspection of the Asphalt Cap at the Former Walker Property: Letter to the Department of Toxic Substances Control, Glendale, California, dated November 14.

Department of Toxic Substances Control (DTSC), 1998a, Walker Property Site: Work Party Consent Order (Order): Approval letter for the Consent Order to Allen, Matkins, Leck, Gamble & Mallory, LLP, Irvine, California, dated July 10.

Department of Toxic Substances Control (DTSC), 1998b, Walker Property Site (Site): Certification: Certification letter to BC Santa Fe Springs, LLC, Newport Beach, California and Texaco, Inc., Universal City, California, dated September 8.

Department of Toxic Substances Control (DTSC), 1999, Former Walker Property Site, Corner of Lakeland Avenue and Bloomfield Avenue, Santa Fe Springs, California: Annual Cap Inspection: Letter to Cenco Refining Company, Santa Fe Springs, California, dated November 24.

Environmental Strategies Corporation, 1996, Feasibility Study, Walker Property Site, dated April 1.

Environmental Strategies Corporation, 1997, Draft Remedial Action Plan, Walker Property Site, dated March 28.

Gebert, Richard, 2003, Case Handler Department of Toxic Substances Control (DTSC): Oral communications.

Geobase, Inc., 1998, Compaction Report – Pad Construction, Southeast Corner of Lakeland Road and Bloomfield Road, Santa Fe Springs, California: Letter report prepared for Harding Lawson Associates, Irvine, California, dated June 30.

Harding Lawson & Associates, 1995, Remedial Investigation Walker Property Site, Santa Fe Springs, California Volumes I, II, IV, dated August 25.

Ninyo & Moore, 2002, Asphaltic Concrete Cap Inspection, Walker Property, Santa Fe Springs, California: Letter report prepared for SARES-REGIS Group, Irvine, California, dated March 25.

Santochi & Bravante LLC, 1998, Remedial Design and Implementation Plan (Plan), Performed at Walker Property Site Located on the Southeast Corner of Bloomfield Avenue and Lakeland Road, Santa Fe Springs, California: Report prepared for BC Santa Fe Springs LLC, Newport Beach, California, dated January 15.

TRC Environmental Consultants, Inc. (TRC), 1990, Environmental Investigations of Walker-Turner Property, Bloomfield Avenue and Lakeland Road, Santa Fe Springs, California, dated January 19.

TRC Environmental Consultants, Inc. (TRC), 2002, Semi-Annual Groundwater Monitoring Report, May 2002 Monitoring Event, Cenco Refining Company (Formerly Powerine Oil Company), Santa Fe Springs, California, dated September 16.

Versar, Inc., 2001, Draft Semi-Annual Groundwater Monitoring Report, February 2001 Monitoring Event, Cenco Refining Company (Former Powerine Oil Company), Santa Fe Springs, dated May 4.

United States Environmental Protection Agency (USEPA), 2001, Comprehensive Five-Year Review Guidance, dated July 17.

United States Environmental Protection Agency (USEPA), 2003, Integrated Risk Information System (IRIS) (website: www.epa.gov/iris/).

Table 1 – Chronology of Site Activities

Date	Site Activity
Approximately 1965 through 1983	The northwestern portion of the Walker Property was occupied by Lakewood Oil Services (Lakewood). Lakewood operated an oil transfer station or oil recycling facility that used a 12,000-gallon underground storage tank (UST) and at least three aboveground storage tanks (ASTs). Several companies would transfer waste oil into the 12,000-gallon UST. The waste oil would then be pumped from the UST, through various filters, and was stored in the ASTs prior to eventual resale.
Approximately 1983 through 1985	Lakewood filed for bankruptcy in 1983 or 1984; bankruptcy proceedings concluded in 1985.
July 1985	Dames & Moore completed a preliminary investigation throughout the Walker Property to assess possible environmental concerns. Four soil borings were drilled in the area of the 12,000-gallon UST and ASTs formerly used by Lakewood. Laboratory results indicated concentrations of volatile organic compounds (VOCs), polychlorinated biphenyls (PCBs, up to 94 milligrams per kilogram [mg/kg]) and lead (1,450 mg/kg).
September 18, 1986	Dames & Moore removed the 12,000-gallon UST under direction of the Los Angeles County Department of Public Works (LADPW). Laboratory results of confirmation samples indicated PCBs up to 248 mg/kg and lead up to 1,100 mg/kg.
October and November 1986	Dames & Moore conducted an extensive investigation throughout the area formerly occupied by Lakewood. This investigation included excavating 33 test pits. Laboratory results indicated concentrations of PCBs up to 200 mg/kg, lead up to 2,470 mg/kg, and copper up to 5,140 mg/kg. The lateral extent of impacted soil was defined as the area immediately in the vicinity of the former UST and AST, and the vertical extent was limited to approximately 15 feet below the ground surface (bgs).
January 1989	EMCON Associates installed two groundwater monitoring wells (designated EW-1 and EW-2) on the Walker Property. Well EW-1 is located in the northeastern corner of the site and EW-2 is located in the south-central portion of the former Walker Property (on Parcel 3).
October 1989	TRC completed an additional investigation to verify Dames & Moore's results. Nineteen soil borings were drilled in the vicinity of the former oil recycling facility to depths of up to 50 feet bgs. Based on the results of chemical analyses, TRC concurred with Dames & Moore's findings. TRC also installed three groundwater monitoring wells (designated W-1 through W-3) on the former Walker Property. Well W-1 is located on-site approximately 90 feet west of the PCB-impacted soil.

Table 1 – Chronology of Site Activities

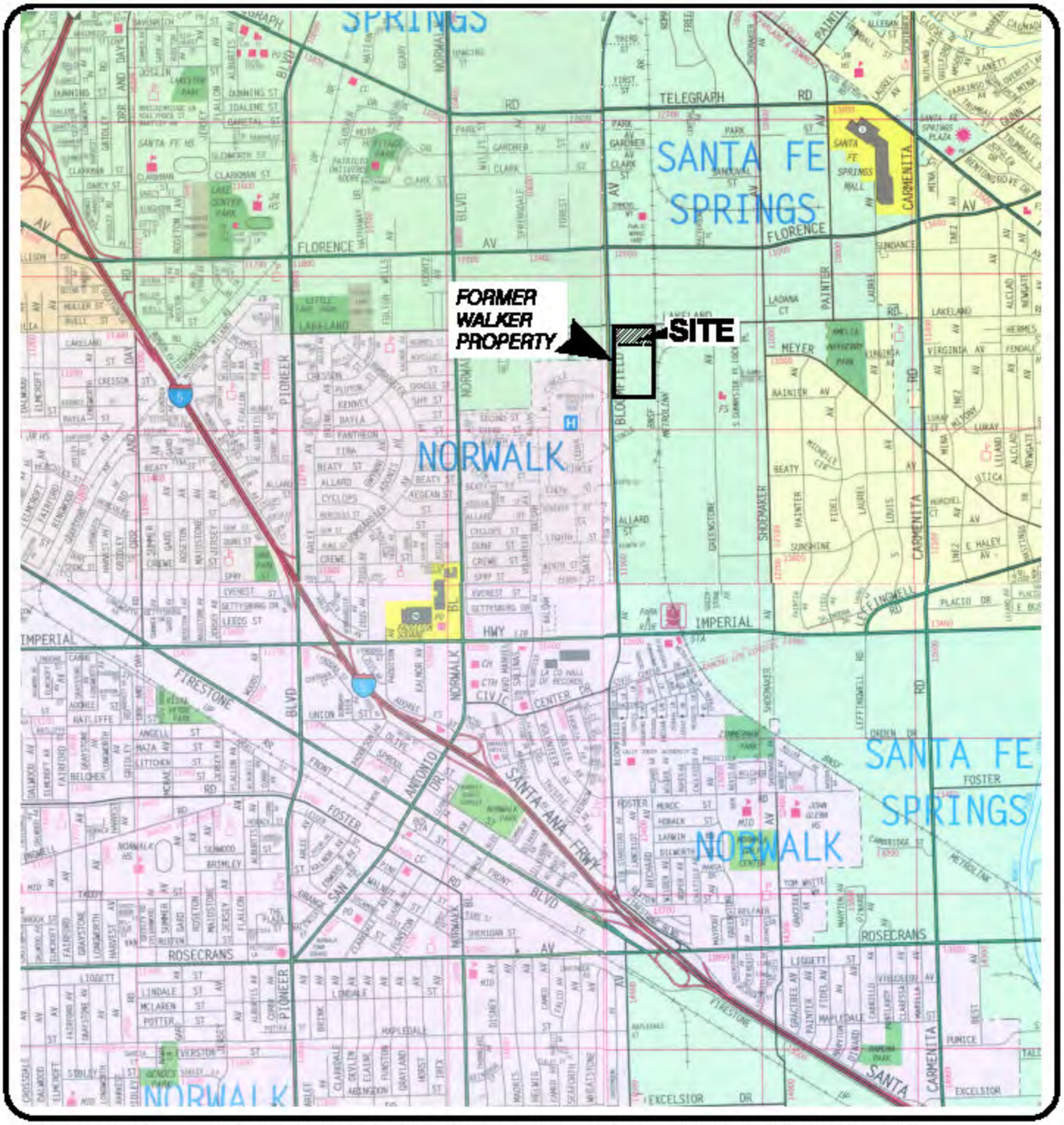
Date	Site Activity
July 1990	TRC completed a Preliminary Endangerment Assessment (PEA) Report for submittal to the Department of Toxic Substances Control (DTSC). The PEA concluded that the constituents detected at the site do not pose an immediate potential threat to public health or the environment.
October 26, 1992	DTSC issued a First Amended Imminent and Substantial Endangerment Order (I&SE Order) to Walker, Texaco, Four-Star Oil and Gas Company, and Lakewood. The I&SE Order identified two areas of the site for investigation and remediation: the area formerly occupied by Lakewood, and the eastern portion of the site that was formerly occupied by railroad spurs used to load and unload rail cars. Texaco and Four-Star Oil and Gas Company are the only named Potential Responsible Parties (PRPs).
1993	Harding Lawson Associates (HLA) conducted a limited soil sampling investigation in the vicinity of the PCB-impacted soil. Laboratory results indicated elevated concentrations of petroleum hydrocarbon (up to 13,000 mg/kg) in shallow soil (less than 15 feet bgs). The results of this investigation were presented in the Remedial Investigation (RI) report dated August 1995.
October 13, 1993	HLA prepared the Lakewood Section Tank Waste Removal and Decommissioning Plan that was subsequently approved by DTSC on November 1, 1993.
December 1993 through January 1994	HLA decommissioned four ASTs formerly used by Lakewood. The materials were removed, transported and disposed, and the tanks were demolished. Work was conducted under the oversight of DTSC.
August 25, 1995	In response to the DTSC I&SE Order dated October 1992, HLA prepares a Remedial Investigation (RI) report and a Baseline Health Risk Assessment (BHRA). The RI and BHRA target the two areas of concern outlined by DTSC. Based on the results, the BHRA concludes that health and environmental risk were minimal.
April 1, 1996	Environmental Strategies Corporation prepares a Feasibility Study (FS) that concludes that an asphalt cap/deed restriction was technically feasible as a viable mitigation measure.
March 28, 1997	Environmental Strategies Corporation prepares a Remedial Action Plan (RAP) that outlines the proposed implementation of an asphalt cap.
June 13, 1997	DTSC reviews the RI, RA, FS, and RAP, and subsequently approves an asphalt cap and deed restriction.
January 15, 1998	Santochi & Bravante LLC prepare a Remedial Design and Implementation Plan that outlines the proposed design and construction of the asphalt cap.
June 1998	Geobase, Inc. constructs the PCB Capped Area.

Table 1 – Chronology of Site Activities

Date	Site Activity
July 10, 1998	DTSC issues Consent Order, which contains DTSC's Covenant Not to Sue.
August 27, 1998	The deed restriction was recorded with the County of Los Angeles that restricts land use of the PCB Capped Area for industrial or commercial purposes.
September 8, 1998	DTSC issues a certification indicating no further action is needed. The certification requires that annual inspections and five year reviews of the PCB Capped Area be completed.
1998	Cenco Refining Company purchased the Powerine Refinery and the former Walker Property.
November 24, 1999	DTSC issues a letter informing Cenco that an annual inspection of the PCB Capped Area is over due. No annual inspection was completed in 1999.
March 10, 2000	Cenco completes the first annual inspection of the PCB Capped Area. No major deficiencies are noted that would require maintenance or correction.
November 14, 2001	Cenco completes the second annual inspection of the PCB Capped Area. No major deficiencies are noted that would require maintenance or correction.
March, 2002	Ninyo & Moore completes an annual inspection of the PCB Capped Area. No major deficiencies are noted that would require maintenance or correction.
Mid-2002	Bloomfield Partners, LLC purchases the site and starts redevelopment.
April-November 2002	Ninyo & Moore prepares a Soil Management Plan (dated April 4, 2002) and a Pipeline Abandonment Plan (dated May 30, 2002) for submittal and approval by the Santa Fe Springs Fire Department. Pipelines entering or exiting the former Walker Property and PCB Capped Area are cut and capped, and grading activities are completed under the oversight of Ninyo & Moore and the Santa Fe Springs Fire Department.
August 2003	The first Five-Year Review and Evaluation is completed by Ninyo & Moore.

Table 2 – Future Site Inspection/Evaluation

Date	Type of Inspection/Evaluation
March 2004	Annual Inspection
March 2005	Annual Inspection
March 2006	Annual Inspection
March 2007	Annual Inspection
September 2008	Five-Year Review and Evaluation
March 2009	Annual Inspection
March 2010	Annual Inspection
March 2011	Annual Inspection
March 2012	Annual Inspection
September 2013	Five-Year Review and Evaluation



203571-A1.DWG

REFERENCE: 2000 THOMAS GUIDE FOR LOS ANGELES AND ORANGE COUNTIES, STREET GUIDE AND DIRECTORY.

NORTH

0 2400 4800

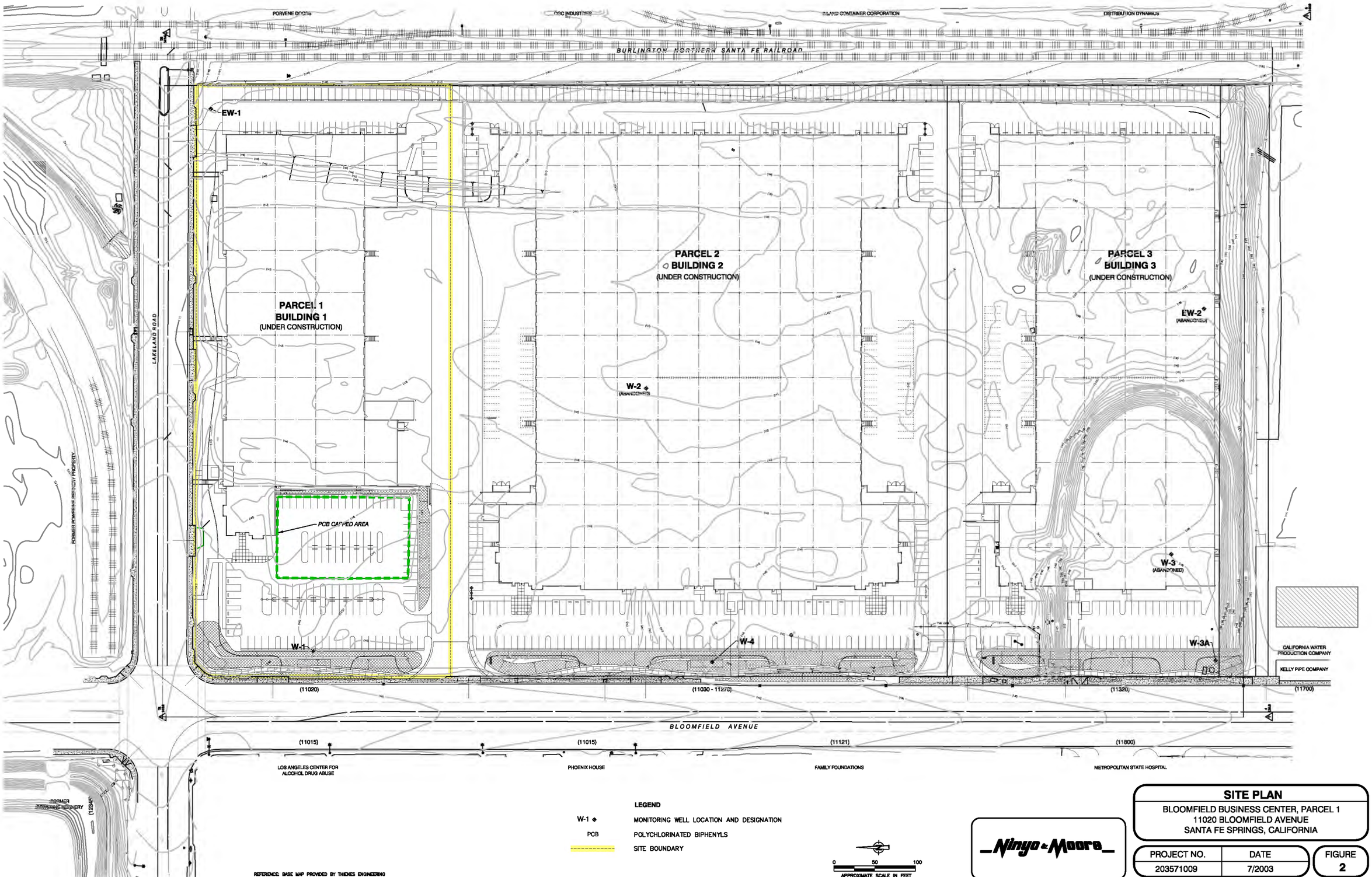
APPROXIMATE SCALE IN FEET

Ninyo & Moore

SITE LOCATION MAP

BLOOMFIELD BUSINESS CENTER - PARCEL 1
11020 BLOOMFIELD AVENUE
SANTA FE SPRINGS, CALIFORNIA

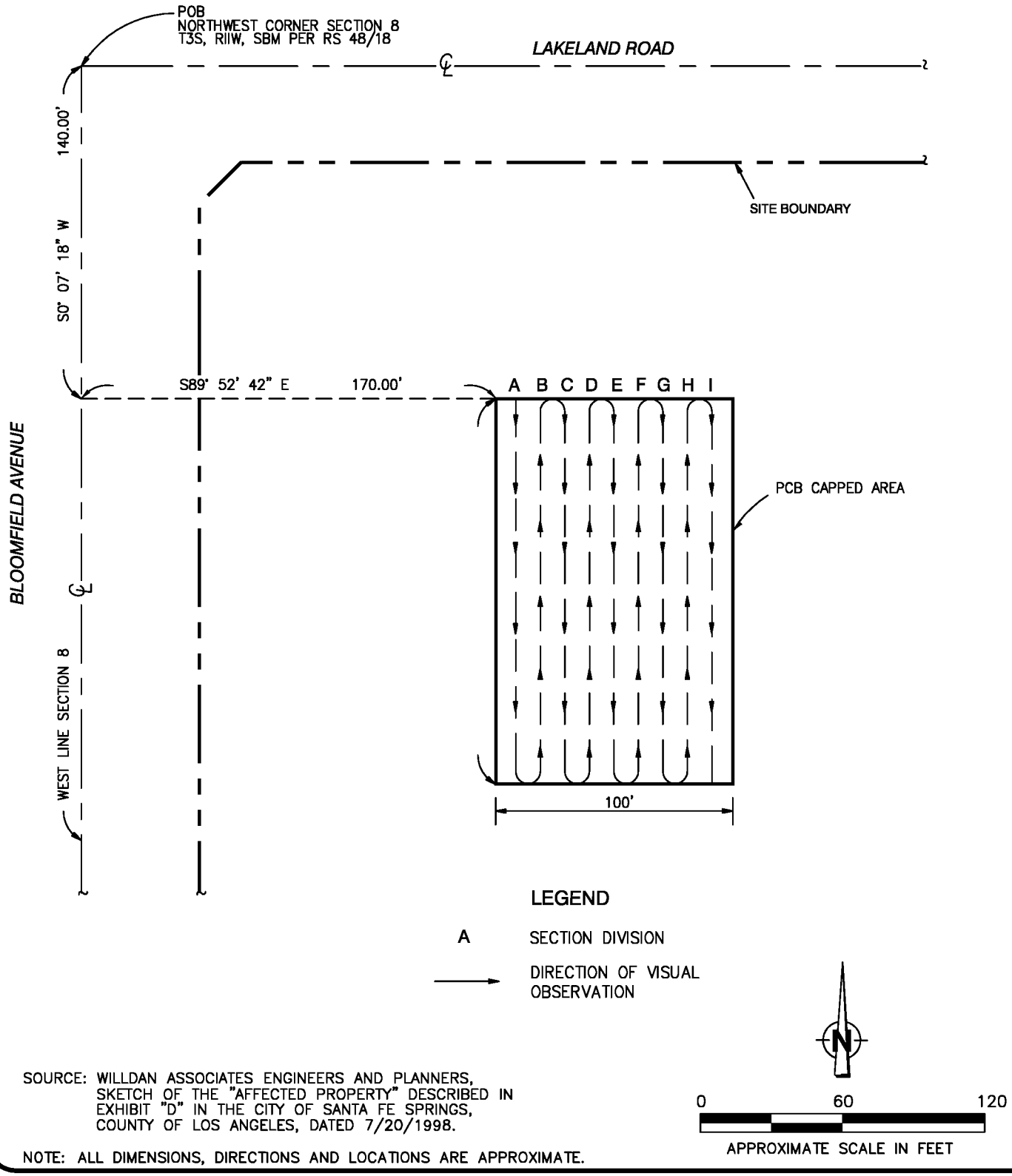
PROJECT NO.	DATE	FIGURE
203571009	7/2003	1



SITE PLAN

BLOOMFIELD BUSINESS CENTER, PARCEL 1
11020 BLOOMFIELD AVENUE
SANTA FE SPRINGS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
203571009	7/2003	2



SOURCE: WILLDAN ASSOCIATES ENGINEERS AND PLANNERS, SKETCH OF THE "AFFECTED PROPERTY" DESCRIBED IN EXHIBIT "D" IN THE CITY OF SANTA FE SPRINGS, COUNTY OF LOS ANGELES, DATED 7/20/1998.

NOTE: ALL DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

203571-A2.DWG

Ninyo & Moore

INSPECTION OF PCB CAPPED AREA

BLOOMFIELD BUSINESS CENTER, PARCEL 1
11020 BLOOMFIELD AVENUE
SANTA FE SPRINGS, CALIFORNIA

PROJECT NO.	DATE	FIGURE
203571009	7/2003	3

APPENDIX A

COPY OF THE DTSC CONSENT ORDER AND CERTIFICATION

Department of Toxic Substances Control

Jesse R. Huff, Director
1011 N. Grandview Avenue
Glendale, California 91201

Pete Wilson
Governor

July 10, 1998

Peter M. Rooney
Secretary for
Environmental
Protection

Ms. Pamela Andes
Allen, Matkins, Leck, Gamble & Mallory, LLP
18400 Von Karman
Irvine, California 92715

Dear Ms. Andes:

WALKER PROPERTY SITE: WORK PARTY CONSENT ORDER (ORDER)

The 30-day public comment period for the Order for the above referenced site closed July 6, 1998. The Department of Toxic Substances Control (DTSC) did not receive any comments. Pursuant to Section XVII (Public Comment) and Section XVIII (Effective Date) of the Order, DTSC hereby provides BC Santa Fe Springs with express notice that the Order is made final. The Effective Date of the Order begins on the date of this letter.

If you have any questions, please call Richard Gebert at (818) 551-2859 or me at (818) 551-2822.

Sincerely,

Sayareh Amir

Sayareh Amir
Unit Chief
Site Mitigation Cleanup Operations
Southern California Branch A

cc: Mr. Trevor Santochi
Avalon Environmental
20 Corporate Plaza
Newport Beach, California 92660

McCUTCHEN
McCUTCHEN, DOYLE, BROWN & ENERSEN, LLP

RECEIVED 7/2/98

ENCLOSURE MEMO

Date: July 1, 1998

Direct: (213) 680-6452
mgonzalez@mdbe.com

To: Pamela L. Andes, Esq.
Allen, Matkins, Leck, Gamble & Mallory
18400 Von Karman
Fourth Floor
Irvine, CA 92715

From: Maria L. Gonzalez
Secretary to Patricia L. Shanks

Re: **Walker Property Site, Santa Fe Springs, CA**

Enclosed: At the request of Ms. Shanks, is a copy of the signed Consent Order from Cal/EPA, DTSC and a copy of an article in the California Regulatory Notice Register 98, Volume No. 23-Z re Notice of Consent Order Walker Site.

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STATE OF CALIFORNIA
ENVIRONMENTAL PROTECTION AGENCY
DEPARTMENT OF TOXIC SUBSTANCES CONTROL

In the matter of: Walker Property Site Bloomfield Avenue and Lakeland Road Santa Fe Springs, California Texaco Inc., BC Santa Fe Springs, LLC, Respondents	Docket No. HSA 97/98-056 CONSENT ORDER

I. INTRODUCTION/JURISDICTION

1. This Consent Order is issued pursuant to the authority vested in the California Environmental Protection Agency, Department of Toxic Substances Control ("DTSC") by Health and Safety Code Sections 25358.3(a), 25355.5(a)(1)(C), 25360, 58009, and 58010. Section 25358.3(a) of the Health and Safety Code ("H&SC") authorizes DTSC to issue an Order when DTSC determines that there may be an imminent or substantial endangerment to the public health or welfare or to the environment because of a release or a threatened release of a hazardous substance. Section 25355.5(a)(1)(C) of the H&SC authorizes DTSC to enter into an enforceable agreement with a potentially responsible party for the Site which requires the party to take necessary corrective action to remove the threat of the release, or to determine the nature and extent of the release and adequately characterize the Site, prepare a remedial action plan, and complete the necessary removal or remedial actions. Sections 25360, 58009, and 58010 of the H&SC authorize DTSC to commence and maintain all proper and necessary actions and proceedings to protect and preserve the public health and to abate public nuisances related to matters within its jurisdiction. This Consent Order is being issued to reach a settlement in the action regarding the 21.32 acres of land located at the southeast corner of Bloomfield Avenue and Lakeland Road in the City of Santa Fe Springs, County of Los Angeles, State of California ("Site"). The Site is bounded by Lakeland Road on the north, an Atchison, Topeka, and Santa Fe Railroad right-of-way on the east, the southern line of the northern half of the northwestern quarter of

section eight, township three south, range 11 west, San Bernardino meridian on the south, and Bloomfield Avenue of the west. The legal description of the Site is attached as Exhibit 1. A map depicting the Site is attached as Exhibit 2. For purposes of this Order, the "Site" shall include the areal extent of any known or suspected release or threatened release of a hazardous substance, pollutant or contaminant originating at the Site, including, but not limited to, any such release that may have affected soil, groundwater or adjacent properties.

2. This Consent Order is issued to Texaco Inc., a Delaware corporation, and BC Santa Fe Springs, LLC, a Delaware limited liability company (collectively "Respondents"). Each Respondent agrees to undertake the actions required of that Respondent by this Consent Order. Respondents are jointly and severally responsible for carrying out all activities required by this Consent Order, except for those activities expressly required only of one Respondent. With respect to requirements imposed on a single Respondent (the primarily responsible Respondent), the other Respondent shall be responsible for carrying out all requirements of this Consent Order in the event that DTSC makes a final determination that the primarily responsible Respondent has failed to or refused to comply with the requirements of this Consent Order. Each Respondent further consents to and will not contest DTSC's jurisdiction to issue this Consent Order or to implement or enforce its terms.

3. DTSC and Respondents agree that the actions undertaken by Respondents in accordance with this Consent Order do not constitute an admission of any liability by any Respondent.

Respondents do not admit, and retain the right to controvert in any subsequent proceedings other than proceedings to implement or enforce this Consent Order, the validity of the Statement of Facts or Determinations contained in Sections IV and V, respectively, of this Consent Order.

II. STATEMENT OF PURPOSE

4. The purpose of this Order is to implement the Remedial Action Plan (RAP), approved by DTSC on June 13, 1997. The purpose of this Order is also to obtain reimbursement from certain Respondents for response costs incurred by DTSC, including oversight costs.

5. By entering into this Consent Order, the mutual objectives of the Parties are: to settle and resolve, subject to reservations and limitations contained in Section X, DTSC's Covenant Not to Sue, and Section XI, DTSC'S Reservation of Rights, the liability of Respondents for the Existing Contamination at the Site.

III. DEFINITIONS

6. Unless otherwise expressly provided herein, terms used in this Consent Order that are defined in the H&SC or in regulations promulgated therein shall have the meaning assigned to them in the statute or regulations. Whenever the terms listed below are used in this Consent Order, the following definitions shall apply:

a. "CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. § 9601, et seq.

b. "Consent Order" or "Order" shall mean this

Consent Order and all appendices and exhibits attached hereto. In the event of conflict between this Consent Order and any appendix or exhibit, the Consent Order shall control.

c. "Day" shall mean a calendar day. In computing any period of time under this Consent Order, where the last day would fall on a Saturday, Sunday, or state or federal holiday, this period shall run until the close of business on the next working day.

d. "DTSC" shall mean the California Environmental Protection Agency, Department of Toxic Substances Control, and any successor departments, agencies, or instrumentalities.

e. "Existing Contamination" means any release or threatened release of a "hazardous substance," pollutant or "contaminant", as such terms are defined in CERCLA, or the H&SC or any other applicable environmental law or regulation, including petroleum hydrocarbons, existing on, at, or under the Site, or which has migrated from the Site, as of the effective date of this Consent Order, including any and all groundwater contamination beneath the Site.

f. "Interest" shall mean interest at the current rate specified for interest on investments in the Surplus Money Investment Fund pursuant to Section 16475 of the Government Code.

g. "Land Use Controls" shall mean recorded instruments restricting the present and future uses of the Site, including but not limited to, recorded easements, covenants, restrictions or servitudes, or any combination thereof, as appropriate. Land use controls shall run with the land from the date of recordation, pursuant to Health and Safety Code section

25355.5, shall bind all of the owners of the land, and their heirs, successors, and assignees, and the agents, employees, and lessees of the owners, heirs, successors, and assignees, and shall be enforceable by DTSC pursuant to Health and Safety Code, sections 25355.5 and 25356.1.

h. "Notice" shall refer to that notice, in the form of Exhibit 3 hereto, to be executed by each Successor in Interest or transferee of Respondent BC pursuant to Section XV, Parties Bound/Notice to Successors in Title, hereof.

i. "Paragraph" shall mean a portion of this Consent Order identified by an Arabic numeral.

j. "Parties" shall mean DTSC and Respondents.

k. "RCRA" shall mean the Resource Conservation and Recovery Act, 42 U.S.C. § 6901 et seq.

l. A "release" shall mean release or threatened release as defined by H&SC Section 25320.

m. "Remedial Action Plan" or "RAP" means that certain Remedial Action Plan approved and adopted by DTSC on June 13, 1997.

n. "Respondents" shall mean Texaco Inc., a Delaware Corporation and BC Santa Fe Springs LLC, a Delaware limited liability company.

o. "Response costs" shall mean all costs of "response," as that term is defined by Section 101(25) of CERCLA, 42 U.S.C. § 9601(25) incurred or to be incurred with respect to the Site.

p. "Section" shall mean a portion of this Consent Order identified by a Roman numeral.

q. "Site" shall mean the Walker Property Hazardous Substance Site, encompassing approximately 21.32 acres located at the southeast corner of Bloomfield Avenue and Lakeland Road in the City of Santa Fe Springs, County of Los Angeles, State of California, bounded by Lakeland Road on the north, an Atchison, Topeka, and Santa Fe Railroad right-of-way on the east, the southern line of the northern half of the northwestern quarter of section eight, township three south, range 11 west, San Bernardino meridian on the south, and Bloomfield Avenue on the west, depicted more clearly on the map attached as Exhibit 2. For purposes of this Order, the "Site" shall include the areal extent of any known or suspected release or threatened release of a hazardous substance, pollutant, or contaminant originating at the site,including, but not limited to, any such release that may have affected soil, groundwater or adjacent properties.

r. "Successor in Interest" shall mean any persons or entity which acquires an ownership or security interest in all or a portion of the 21.32 acres of land included in the Site.

s. "Walker" shall mean George and Mary Beth Walker, the prior owners of the Site.

IV. STATEMENT OF FACTS

7. Respondent BC Santa Fe Springs, LLC ("BC") is the current owner and operator at the Site. BC acquired the Site from Walker. Respondent Texaco Inc. ("Texaco") is the successor to Getty Oil Company ("Getty"), which was an owner and operator of the Site at the time of disposal of hazardous substances at the Site.

8. Getty, a predecessor of Texaco, purchased the Site in

1934 and used it from approximately 1934 until 1964 for petroleum storage, equipment storage, and oil well drilling, fluids storage and disposal. From 1965 to 1979, Getty leased the northwestern portion of the Site to Lakewood Oil Services ("Lakewood"). Lakewood operated within the area enclosed when one starts at the northwestern corner of the Site, and proceeds 350 feet to the east, then proceeds 870 feet to the south, 350 feet to the west, and 870 feet to the north, to the point of beginning. This area is shown on Exhibit 2. From approximately 1968 to 1979, Getty leased the southwestern portion of the Site to Powerine Oil Company ("Powerine"). Concurrent with the sale of the Site to Walker in 1979, Getty assigned the Powerine and Lakewood leases to Walker. Walker leased to Lakewood until approximately 1984. Walker leased to Powerine until approximately 1985.

9. From approximately 1968 until its bankruptcy in the mid-1980's, Powerine utilized two (2) above ground storage tanks and associated piping and equipment on the southwestern portion of the Site. Discharges of petroleum hydrocarbons from these tanks, which have been removed, are subject to regulation by the California Regional Water Quality Control Board, Los Angeles Region ("Board").

10. From approximately 1965 to 1984 Lakewood engaged in the recycling of used motor oil on the Site. During this time, Lakewood constructed office structures, unloading facilities, and at least three (3) above ground storage tanks. The area where these tanks were located has incurred the greatest impact from used oil, polychlorinated biphenyls (PCBs), metals and lubricating fluids which were released on or into the soil. In

1984, Lakewood declared bankruptcy. Bankruptcy proceedings were concluded in 1985.

11. DTSC issued a First Amended Imminent and Substantial Endangerment Order ("I&SE Order") effective October 26, 1992 to the following parties: (1) Walker, (2) Texaco, (3) Four Star Oil and Gas Co., and (4) Lakewood. The I&SE Order identified two distinct areas of the Site for investigation and remediation; the Lakewood Section on the west side and the Railroad Section on the east side. The Lakewood Section includes that portion of the Site used by Lakewood. Other portions of the Site (including the Powerine above ground storage tank portion) were not included in the I&SE Order.

12. Texaco and Four-Star Oil and Gas Co. are the only named Potentially Responsible Parties ("PRP") which complied with the I&SE Order. Pursuant to the I&SE Order, Texaco completed a Remedial Investigation, Baseline Health Risk Assessment and Feasibility Study. The decision by DTSC on the remedial action to be implemented at the Site is embodied in the Remedial Action Plan approved by DTSC on June 13, 1997.

13. Texaco and DTSC have both incurred response costs at the Site. These include costs for site investigation, removal, remedy selection, and DTSC oversight. Texaco has also paid $253,481.15 of DTSC's response and oversight costs to date.

14. The sampling and analyses performed to date at the Site indicate that the area designated as the Lakewood Section has been impacted by contaminants associated with used oil and lubricating fluids including PCBs and heavy metals; structures along the railroad spur in the area designated as the Railroad

Section were constructed with asbestos containing materials; and the area surrounding the former Powerine above-ground storage tanks has been impacted by hydrocarbon contamination associated with fuel storage. Remediation or abatement of the discharges of petroleum hydrocarbons from the Powerine tanks and the associated piping and equipment (the "Powerine Conditions") is regulated by the Board. Areas of the Site that have been impacted are described in the document entitled "Remedial Investigation Report for the Walker Property Site", dated August 25, 1995. DTSC has reviewed and concurred with the findings of this document.

15. Hazardous substances as defined in Section 101(14) of CERCLA and § 25316 of the H&SC, have been or are threatened to be released at or from the Site. PCBs, lead, barium, copper and asbestos have been detected in soil at the Site.

16. PCBs are listed as an Organic Persistent and Bioaccumulative Toxic Substances in Title 22, California Code of Regulations, Section 66261.24. The maximum concentration of PCBs in soil samples collected at the Site is 248 parts per million. PCBs are listed as a "Chemical Known to the State to Cause Cancer" in the Safe Drinking Water and Toxic Enforcement Act of 1986, Health and Safety Code section 25249.5 et seq. PCBs were commonly used due to their dielectric qualities. PCBs have impacted an estimated 5,000 cubic yards of soil at the Site. These soils are located within the Lakewood Section in the area where three (3) above ground storage tanks were located.

17. Lead is listed as an Inorganic Persistent and Bioaccumulative Toxic Substance in Title 22, of the California Code of Regulations, section 66261.24. The maximum concentration

of lead in soil samples collected at the Site is 2,470 milligrams per kilogram. Lead is listed as a "Chemical Known to the State to Cause Cancer and to Cause Developmental, Female and Male Reproductive Toxicity" in the Safe Drinking Water and Toxic Enforcement Act of 1986, H&SC Section 25249.5 et seq. Lead is commonly found in refined products, as an anti-knock additive, and in used oils as a result of use. Lead has been found in the soils in the Lakewood Section in the area where three (3) above ground storage tanks were located.

18. Copper is listed as an Inorganic Persistent and Bioaccumulative Toxic Substance in Title 22, California Code of Regulations, Section 66261.24. The maximum concentration of copper in soil samples collected at the Site is 5,140 milligram per kilogram. Copper has been found in the soils located in the Lakewood Section in the area where three (3) above ground storage tanks were located.

V. DETERMINATIONS

19. Based on the foregoing Statement of Facts set forth above and on the administrative record for this Site, DTSC has determined that:

a. The Walker Property Site is a "facility" as that term is defined in Section 101(9) of CERCLA, 42 U.S.C. § 9601(9).

b. Each Respondent is a "person" as that term is defined in Section 101(21) of CERCLA, 42 U.S.C. § 9601(21).

c. Each Respondent is a "responsible party" or liable person within the meaning of H&SC Sections 25319, 25323.5, and 25385.1(g).

d. There has been an actual or threatened "release"

of a "hazardous substance" from the Site as those terms are defined in H&SC Section 25320.

e. The actual or threatened "release" of hazardous substances at the Site may present an imminent or substantial endangerment to the public health and welfare or to the environment.

f. The removal or remedial actions required by this Order are necessary to protect the public health, welfare and the environment.

g. Prompt settlement with each Respondent is appropriate and in the public interest.

VI. PERFORMANCE OF WORK

Based upon the administrative record for the Site and the Statement of Facts and Determinations set forth above, and in consideration of the promises and covenants set forth herein, the following is hereby AGREED TO AND ORDERED:

20. Performance of Work. Respondent BC shall conduct the activities specified in Appendix A, Scope of Work, attached hereto. Respondent BC shall conduct the activities in the manner specified herein and in accordance with the schedules specified in Appendix A or otherwise approved by DTSC. All work shall be performed consistent with H&SC Section 25300 et seq., as amended; the National Contingency Plan (40 Code of Federal Regulations (CFR) Part 300), as amended; and U.S. EPA and DTSC Superfund guidance documents regarding site investigation and remediation. Performance of such work by BC shall be deemed to constitute full satisfaction of Walker's payment and/or performance obligations with respect to the Site.

VII. FAILURE TO MAKE PAYMENT

21. If any Respondent fails to make full payment within the time required by Paragraph 29, that Respondent shall pay Interest on the unpaid balance. In addition, if any Respondent fails to make full payment within the period provided by Paragraph 29, DTSC may, in addition to any other available remedies or sanctions, bring an action against that Respondent seeking injunctive relief to compel payment and/or seeking civil penalties under H&SC Section 25367, cost recovery under H&SC Section 25360, and treble damages pursuant to H&SC Section 25359 for failure to make timely payment.

VIII. CERTIFICATION OF RESPONDENTS

22. By signing this Consent Order, each Respondent certifies, individually, that to the best of its knowledge and belief, it has:

a. conducted a thorough, comprehensive, good faith search for documents, and has fully and accurately disclosed to DTSC, all information currently in its possession, or in possession of its officers, directors, employees, contractors, or agents, which relates in any way to the ownership, operation, or control of the Site, or to the ownership, possession, generation, treatment, transportation, storage, or disposal of a hazardous substance, pollutant, or contaminant, at or in connection with this Site;

b. not altered, mutilated, discarded, destroyed, or otherwise disposed of any records, documents, or other information relating to its potential liability regarding the Site after notification of potential liability or the filing of a

suit against it regarding the Site;

c. fully complied with any and all DTSC requests for information regarding the Site pursuant to H&SC Sections 25185.6, 25189.2, and 25358.1.

IX. GENERAL PROVISIONS

23. Due Care/Cooperation. Respondent BC shall exercise due care at the Site with respect to the Existing Contamination and shall comply with all applicable local, State and federal laws and regulations. BC shall also comply with all obligations set forth in the RAP, including the land use controls set forth in the Covenant and Agreement to Restrict Use of Property and Environmental Restriction executed contemporaneously herewith (Land Use Covenant). Respondent BC recognizes that the implementation of the RAP at the Site may interfere with BC's use of the area impacted by the PCB Cap required to be constructed on the Site as determined in the RAP. BC agrees to cooperate fully with DTSC in the implementation of the RAP at the Site. DTSC agrees, consistent with its responsibilities under applicable law, to use reasonable efforts to minimize any interference with BC's operations by such entry and response. In the event that BC becomes aware of any action or occurrence which causes or threatens a release of hazardous substances, pollutants or contaminants at, or from the Site that constitutes an emergency situation or may present an immediate threat to public health or welfare or the environment, BC shall immediately take all appropriate action to prevent, abate, or minimize such release or threat of release, and shall, in addition to complying with any applicable notification requirements under the HS&C, or any other

law, immediately notify DTSC of such release or threatened release.

24. Site Access. Commencing upon the Effective Date, and thereafter, Respondent BC agrees to provide access to the Site and laboratories used for analyses of samples under this Order at all reasonable times to employees, contractors, and consultants of DTSC. Nothing in this section is intended or shall be construed to limit in any way the right of entry or inspection that DTSC or any other agency may otherwise have by operation of any law. DTSC and its authorized representatives shall have the authority to enter and move freely about all property at the Site at all reasonable times for purposes including, but not limited to: inspecting records, operating logs, sampling and analytic data, and contracts relating to this Order; reviewing the progress of BC in carrying out the terms of this Order; conducting such tests as DTSC may deem necessary; and verifying the data submitted to DTSC by BC.

25. Site Access for Respondents Conducting Response Activities. Respondent BC shall grant access to any other persons implementing the RAP pursuant to this Order to complete required response activities. BC shall ensure that a copy of this Order is provided to any current lessee or sublessee on the property as of the Effective Date of this Order, and shall ensure that any subsequent leases or subleases in the Site are consistent with this Section, Section XV, Parties Bound/Notice to Successors in Title, and Section VI, Performance of Work, of this Order.

26. Cost Recovery. Subject to Section X, DTSC's Covenant

Not to Sue and subject to the provisions of Sections 27 and 28 below, Respondents are liable for all of DTSC's costs incurred in responding to the Existing Contamination at the Site, including costs of overseeing response work performed by Respondents for matters addressed by this Order, costs incurred by DTSC in association with preparation of this Order, and costs to be incurred in the future. Cost recovery may be pursued by DTSC under CERCLA, H&SC section 25360, or any other applicable State or federal statute or common law. The State of California reserves the right to bring an action against Respondents under CERCLA, H&SC section 25360, or any other applicable State or federal statute or common law, for recovery of all response and oversight costs incurred by the State of California related to this Order and not reimbursed by Respondents, pursuant to paragraphs 27 and 28.

27. Past Costs. Within thirty (30) days of the Effective Date of this Order, Respondent Texaco shall pay to DTSC, $33,520.38, to reimburse DTSC for its costs incurred through January 31, 1997, related to response actions and oversight of response actions at the Site. Within thirty (30) days of the Effective Date of this Order, Respondent BC shall pay to DTSC, $32,526.09, to reimburse DTSC for its costs incurred from February 1, 1997 through June 30, 1997, related to response actions and oversight of response actions at the Site.

28. Future Costs. Respondent BC shall pay all oversight and response costs incurred by DTSC and related to the Site on and after June 30, 1997, including DTSC's review of activities by BC or BC's agents under this Order and/or related to this Order,

as such costs are incurred. Costs of DTSC's review of BC's activities include all direct and indirect costs. Under all circumstances, Respondent BC shall remain liable for all costs incurred by DTSC for matters addressed by this Order as specified by H&SC Section 25360, including interest thereon as provided by law. DTSC shall bill BC on a quarterly basis for response and oversight costs incurred during the previous quarter. DTSC shall provide BC with a summary description of DTSC's oversight activities for which it seeks oversight costs. BC shall maintain the right to review and make copies of documentation supporting the costs claimed by DTSC. BC shall remit payment as specified in the billing within sixty (60) days of the date it is sent by DTSC.

29. Payment. All payments made by Respondents pursuant to this Order shall be by a cashier's or certified check made payable to the "Department of Toxic Substances Control", and bearing on its face the project code for the Site (Site # 300165) and the docket number of this Order. Payments shall be sent to:

Department of Toxic Substances Control
Accounting/Cashier
400 P Street, 4th Floor
P.O. Box 806
Sacramento, California 95812-0806

A photocopy of the check shall be sent concurrently to DTSC's Project Manager/Regional Branch Chief.

If any bill is not paid by a Respondent within sixty (60) days after it is sent by DTSC, the Respondent may be deemed to be in material default of this Order.

30. Project Coordinator. The work performed pursuant to

this Order shall be under the direction and supervision of a qualified project coordinator, with expertise in hazardous substance site cleanup. Respondent BC shall submit: a) the name and address of the Project Coordinator; and b) in order to demonstrate expertise in hazardous substance site cleanup, the resume of the Coordinator. BC shall promptly notify DTSC of any change in the identity of the Project Coordinator. All engineering and geological work shall be conducted in conformance with applicable State law, including but not limited to, Business and Professions Code sections 6735 and 7835.

31. Submittals. All notices, documents and communications required to be given under this Order, unless otherwise specified herein, shall be sent to the respective parties at the following addresses in a manner that produces a record of the sending of the notice, document or communication such as certified mail, overnight delivery service, facsimile transmission or courier:

Hamid Saebfar, Chief
Statewide Cleanup Operations
Southern California Branch A
Attention: Project Manager [two copies]
Department of Toxic Substances Control
1011 N. Grandview Avenue
Glendale, California 91201

Texaco Inc.
EHS Division
10 Universal City Plaza, Suite 707
Universal City, California 91608
Attn: Glenn R. Anderson

BC Santa Fe Springs, LLC
717 Lido Park Drive
Newport Beach, California 92663
Attention: George Bravante

Any party may change its notice address by providing written notice of such change to each of the other parties.

32. Communications. All approvals and decisions of DTSC made regarding submittals and notifications pursuant to this Order will be communicated to Respondents in writing by the Statewide Cleanup Operations Branch Chief, Department of Toxic Substances Control, or his/her designee. No informal advice, guidance, suggestions or comments by DTSC regarding reports, plans, specifications, schedules or any other writings by Respondents shall be construed to relieve Respondents of the obligation to obtain such formal approvals as may be required.

33. DTSC Review and Approval. (a) If DTSC determines that any report, plan, schedule or other document submitted for approval pursuant to this Order fails to comply with this Order or fails to protect public health or safety or the environment, DTSC may:

(1) Modify the document as deemed necessary and approve the document as modified; or

(2) Return comments to Respondents with recommended changes and a date by which Respondents must submit to DTSC a revised document incorporating the recommended changes.

(b) Any modifications, comments or other directive issued pursuant to (a) above, are incorporated into this Order. Any noncompliance with these modifications or directives may be deemed a failure or refusal to comply with this Order.

34. Dispute Resolution. Respondents may seek resolution to a dispute which arises from a decision made by the Department's project management team related to this Order, including any decision made under Paragraph 33, DTSC Review and Approval. The site mitigation project management team consists

of the Project Manager, first-line supervisor (Senior or Unit Chief), the Branch Chief, and the technical assistance staff. Respondents may seek dispute resolution in accordance with the following process:

a. Respondents may seek resolution from the Department's first-line supervisor (Unit Chief) who supervises the Project Manager, and then, if the issue is not resolved after review by the first-line supervisor, Respondents may seek resolution from the second-line manager, the Branch Chief, who is responsible for overseeing site cleanup investigations or remedial action. If the issue is not resolved at the Branch Chief level after review of the second-line manager, Respondents may then seek resolution from the next level of management, the Deputy Director for the Site Mitigation Program.

b. If the issue is not resolved at the Deputy Director level after review of the Deputy Director, then Respondent may seek resolution from the Office of the Director of the Department of Toxic Substances Control. The Director will review the issues and render the Department's final decision in this process.

35. Compliance with Applicable Laws. Respondents shall carry out this Order in compliance with all applicable state, local, and federal laws, regulations and requirements including, but not limited to, requirements to obtain permits and to assure worker safety.

36. Sampling, Data and Document Availability. Respondents shall permit DTSC and its authorized representatives to inspect

and copy all sampling, testing, monitoring or other data generated by Respondents or on Respondents' behalf in any way pertaining to work undertaken pursuant to this Order. Respondents shall submit all such data upon the request of DTSC. Copies shall be provided within seven (7) days of receipt of DTSC's written request. Respondents shall inform DTSC at least seven (7) days in advance of all field sampling under this Order, and shall allow DTSC and its authorized representatives to take duplicates of any samples collected by Respondents pursuant to this Order. Respondents shall maintain a central depository of the data, reports and other documents prepared pursuant to this Order.

37. Record Retention. All such data, reports and other documents pertaining to the Site shall be preserved by Respondents for a minimum of ten (10) years after the conclusion of all activities under this Order. If DTSC requests that some or all of these documents be preserved for a longer period of time, Respondents shall either comply with that request or deliver the documents to DTSC, or permit DTSC to copy the documents prior to destruction. Respondents shall notify DTSC in writing, at least six (6) months prior to destroying any documents prepared pursuant to this Order and shall provide DTSC with an opportunity to copy any documents at the expense of DTSC.

38. Government Liabilities. The State of California shall not be liable for any injuries or damages to persons or property resulting from acts or omissions by Respondents, or related parties specified in Section XV, Parties Bound/Notice to Successors in Title, in carrying out activities pursuant to this

Order, nor shall the State of California be held as party to any contract entered into by Respondents or their agents in carrying out activities pursuant to this Order.

39. Extension Requests. If any Respondent is unable to perform any activity or submit any document required of that Respondent within the time required under this Order, Respondent may, prior to expiration of the time, request an extension of the time in writing. The extension request shall include a justification for the delay. All such requests shall be in advance of the date on which the activity or document is due.

40. Extension Approvals. If DTSC determines that good cause exists for an extension, it will grant the request and specify a new schedule in writing. Respondents shall comply with the new schedule incorporated in this Order.

41. Severability. The requirements of this Order are severable, and Respondents shall comply with each and every provision hereof, notwithstanding the effectiveness of any other provision.

42. Incorporation of Plans, Schedules and Reports. All plans, schedules, reports, specifications and other documents that are submitted by Respondent BC pursuant to this Order are incorporated in this Order upon DTSC's approval or as modified pursuant to Paragraph 33, DTSC Review and Approval, and shall be implemented by Respondent BC. Any noncompliance with the documents incorporated in this Order shall be deemed a failure or refusal to comply with this Order.

43. Modifications. This Order may be amended in writing by mutual agreement of DTSC and Respondents. Any amendment to this

Order shall be effective upon the date the modification is signed by DTSC and shall be deemed incorporated in this Order.

44. Counterparts. This Order may be executed and delivered in any number of counterparts, each of which when executed and delivered shall be deemed to be an original, but such counterparts shall together constitute one and the same document.

45. Governing Law. This Order shall be construed and governed by the laws of the State of California.

X. DTSC'S COVENANT NOT TO SUE

46. Subject to Section XI, DTSC's Reservation of Rights, of this Order, DTSC covenants not to sue or take any civil, judicial, or administrative action, to pursue any claim, enter any order, or make any demand against Respondents or Walker for claims pursuant to Section 107 of CERCLA, 42 U.S.C. § 9607; Section 7003 of RCRA, 42 U.S.C. § 6973; or Chapters 6.5 (commencing with Section 25100) and 6.8 (commencing with Section 25301), Division 20 of the H&SC, or pursuant to any other applicable laws, regulations, or civil, judicial, or administrative authorities, solely with respect to the Existing Contamination at the Site or any portion thereof. This Covenant shall inure to the benefit of and pass with each and every portion of the Site and shall benefit any respective Successor in Interest thereof provided that the conditions of paragraph 65 are met.

47. With respect to each Respondent, or Successor in Interest, individually, this Covenant Not to Sue is conditioned upon the satisfactory performance by Respondent of all of its respective obligations under this Consent Order.

48. Except as provided in Paragraph 46 above, and Section XV below, this Covenant Not to Sue extends only to Respondents and Walker and does not extend to any other person. This Covenant Not to Sue is made on behalf of DTSC only, and does not in any way affect the right of the Board to require cleanup or abatement of the Powerine Conditions.

XI. DTSC'S RESERVATION OF RIGHTS

49. The Covenant Not to Sue by DTSC as set forth in Section X, does not pertain to any matters other than those expressly specified in Section X. DTSC reserves, and this Consent Order is without prejudice to, all rights against Respondents or Walker as a result of such party's:

a. failure to meet a requirement of such party under this Consent Order;

b. criminal liability;

c. injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments,

d. exacerbation of Existing Contamination, provided, that work conducted in accordance with the RAP, the Remedial Design and Implementation Plan (RDIP), or any Soil Management Plan approved by DTSC, and development activities at the Site permitted by the Land Use Controls to be recorded by BC, shall not be considered to be exacerbation of Existing Contamination.

e. release or threatened release of hazardous substances, pollutants or contaminants at the Site which does not fall within the definition of Existing Contamination.

f. future arrangement for disposal or treatment of a

hazardous substance, pollutant or contaminant at the Site after the effective date of this Consent Order provided that arrangement arising from implementation of the RAP, the RDIP and any on-site management of the Existing Contamination in accordance with the Land Use Controls shall not be considered "future arrangement" hereunder.

50. Notwithstanding any other provision of this Order, DTSC reserves, and this Order is without prejudice to, the right to institute proceedings, or to issue an administrative order seeking to compel Respondents (1) to perform further response actions relating to the Site or (2) to reimburse DTSC for additional costs of response if:

(a) conditions at the Site, previously unknown to DTSC, are discovered, or

(b) information, previously unknown to DTSC, is received, and these previously unknown conditions or information together with other relevant information indicate that a significant threat of actual harm to human health or the environment exists at the Site and the RAP, the RDIP, or any Soil Management Plan approved by DTSC is not protective of human health or the environment in light of such previously unknown conditions or previously unknown information. For purposes of this paragraph, the information and the conditions known to DTSC shall include only that information and those conditions known to DTSC as of the date of the RAP and set forth in the RAP, the administrative record supporting the RAP, or in any information received by DTSC pursuant to the requirements of this Order prior to certification of completion of the remedial action by DTSC or the approval of

any Soil Management Plan, whichever last occurs.

51. Except as otherwise expressly provided in this Order, DTSC retains all authority and reserves all rights to take any and all response actions authorized by law.

52. With respect to any claim or cause of action asserted by DTSC with respect to matters reserved in this Section XI, a Respondent and/or its successors and assignees shall bear the burden of proving that the claim or cause of action, or any part thereof, is attributable to Existing Contamination.

53. If a Respondent and/or any successor or assignee is determined, through adjudication or administrative or regulatory processes, to have committed an act or omission after the Effective Date for which DTSC has specifically reserved its rights in (a) through (f) above, the Respondent (if it was so determined to have committed the act or omission), or the particular successor or assignee that was determined to have committed the act or omission, shall be liable for all enforcement costs including, but not limited to, litigation costs, incurred by DTSC in conjunction with that act or omission.

54. Nothing in this Order is intended to limit the right of DTSC to seek to compel parties other than the Respondents, Walker, and/or any Successor in Interest to perform or pay for response actions at the Site which is not attributable to the Existing Contamination.

XII. RESPONDENTS' COVENANT NOT TO SUE

55. In consideration of Section X, DTSC's Covenant Not to Sue, of this Order, the Respondents hereby Covenant Not to Sue and agree not to assert any claims or causes of action against

the state of California, DTSC, or its authorized officers, employees, representatives, or contractors with respect to the site or this Consent Order, including, but not limited to:

a. Any direct or indirect claim for reimbursement from the Hazardous Waste Control Account, Hazardous Substance Account, Hazardous Substance Cleanup Fund, or any other State account, through Health and Safety Code section 25375, or any other provision of law, and

b. Any claims arising out of response activities at the Site, including but not limited to nuisance, trespass, takings, equitable indemnity and indemnity under California law, or strict liability under California law, based on DTSC's oversight activities or approval of plans for such activities. This Covenant is made and given, effective upon execution by Respondents of this Order, and with respect to a Successor in Interest, upon DTSC's receipt of the signed notice of Property Transfer and Covenant Not to Sue pursuant to paragraph 64, and does not extend to or bind any other persons.

56. Respondent's Covenant Not to Sue and agree not to assert any claims or causes of action against each other or, subject to paragraph 65, any Successor in Interest with regard to the Site pursuant to sections 107 and 113 of CERCLA, 42 U.S.C. §§ 9607 and 9613. Nothing contained in this Consent Order shall, however, modify, terminate or otherwise amend any other agreements between the Respondents and/or Walker, and the parties expressly reserve all of their rights under any such agreements.

XIII. RESPONDENTS' RESERVATION OF RIGHTS

57. Respondents reserve, and this Order is without

prejudice to, actions against DTSC based on the gross negligence or wilful misconduct of DTSC, not including oversight or approval of the Respondent's plans or activities, that are brought pursuant to the Hazardous Waste Control Account, Hazardous Substance Account, or Hazardous Substance Cleanup Fund through H&SC section 25375, CERCLA, or RCRA.

XIV. EFFECT OF SETTLEMENT/CONTRIBUTION PROTECTION

58. Nothing in this Consent Order shall be construed to create any rights in, or grant any cause of action to, any person not a Party to this Consent Order except for Walker or a Successor in Interest. DTSC and Respondents each reserve any and all rights (including, but not limited to, any right to contribution), defenses, claims, demands, and causes of action which each Party may have with respect to any matter, transaction, or occurrence relating in any way to the Site against any person not a Party hereto, other than Walker or a Successor in Interest.

59. In any subsequent administrative or judicial proceeding initiated by DTSC for injunctive relief, recovery of response costs, or other relief relating to the Site, Respondents shall not assert and may not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim-splitting, or other defenses based upon any contention that the claims raised in the subsequent proceeding were or should have been brought in the instant action; provided, however, that nothing in this Paragraph affects the enforceability of the Covenant Not to Sue included in Section X.

60. The parties agree that each Respondent, Walker and, subject to paragraph 65, each Successor in Interest is entitled, as of the effective date of this Consent Order, to protection from contribution actions or claims as provided by Sections 113(f)(2) and 112(g)(5) of CERCLA, 42 U.S.C. §§ 9613(f)(2) and 9622(g)(5), for "matters addressed" in this Consent Order. The "matters addressed" in this Consent Order are all response actions taken or deemed taken by DTSC, Texaco, or BC, or Walker and all response costs incurred and to be incurred by DTSC, Texaco, and BC, at or in connection with the Site including, not limited to, the RAP. This Consent Order shall provide protection to all the Respondents, Walker and Successors in Interest against all claims or actions for contribution with regard to the Site to the fullest extent provided by State and federal law; provided, however, that nothing in this Consent Order shall affect the right of the Board to require cleanup or abatement of the Powerine Conditions.

61. Each Respondent agrees that with respect to any suit or claim for contribution brought by it for matters related to this Order, it will notify DTSC in writing no later than sixty (60) days prior to the initiation of any such suit or claim. Respondent also agrees that with respect to any suit or claim for contribution brought against it for matters related to this Order, it will notify DTSC in writing within ten (10) days of service of the complaint on them.

62. The I&SE Order is herby rescinded as of the effective date of this Consent Order.

XV. PARTIES BOUND / NOTICE TO SUCCESSORS IN TITLE

63. This Consent Order shall apply to and be binding upon

DTSC and Respondents and Walker, and their heirs, successors, and assigns. Except as provided in Paragraph 64, Transfer, any change in ownership or corporate or other legal status of a Respondent, including, but not limited to, any transfer of assets or real or personal property, shall in no way alter such Respondent's responsibilities under this Consent Order. Each signatory to this Consent Order certifies that he or she is authorized to enter into the terms and conditions of this Consent Order and to execute and bind legally the party represented by him or her.

64. Transfer. Notwithstanding any other provisions of this Order, all of the rights and benefits conferred upon Respondent BC under this Order may be assigned or transferred to any Successor in Interest pursuant to Paragraph 65, Notices. In the event of such assignment or transfer of all or any portion of the Site by BC or any Successor in Interest, prior to the certification of completion of the remedial action by DTSC, Respondent BC shall be relieved and released from all of its remaining obligations under this Consent Order and relating to the Site, provided that such transferee or assignee shall have first assumed such Respondent BC obligations in writing and delivered evidence, satisfactory to DTSC, that the transferee or assignee has the financial ability to complete any unperformed work identified in Appendix A to this Order (the Work), or has established adequate financial security to assure performance of the Work.

In the event of a transfer or assignment of the Site by BC, or any Successor in Interest, after certification of completion

of the remedial action by DTSC, Respondent BC or the Successor in Interest, as the case may be, shall be relieved and released from all of its remaining obligations under this Consent Order and relating to the Site immediately upon such transfer; provided, that the transferee or assignee shall have first assumed any remaining obligations of such assigning party under this Order in writing. Notwithstanding such assignment or transfer, Respondent BC or the Successor in Interest shall, in such event, continue to have all of the benefits of this Consent Order.

65. Notices. Prior to or simultaneous with any assignment or transfer of an interest in all or any part of the Site, the assignee or transferee shall as a precondition to receiving the benefit of the DTSC Covenant Not to Sue, the Respondent's Covenant Not to Sue and contribution protection, execute a written instrument in the form attached hereto as Exhibit 3, which shall accompany each transfer of an interest in all or any part of the Site.

XVI. INTEGRATION/APPENDICES

66. This Consent Order and its appendices constitute the final, complete and exclusive agreement and understanding among the Parties with respect to the settlement embodied in this Consent Order. The parties acknowledge that there are no representations, agreements, or understandings relating to the settlement among the parties other than those expressly contained in this Consent Order. Nothing contained in this Consent Order shall, however, modify, terminate or otherwise amend any other agreements between the Respondents and/or Walker, and the parties expressly reserve all of their rights under any such agreements. The following appendices are attached to and incorporated into

this Consent Order:

"Exhibit 1" is the legal description of the Site.

"Exhibit 2" is the map of the Site.

"Exhibit 3" is the Notice of Property Transfer and Covenant Not to Sue.

"Appendix A" is the Scope of Work.

XVII. PUBLIC COMMENT

67. This Consent Order shall be subject to a public comment period of not less than thirty (30) days. DTSC may withdraw or withhold its consent to this Consent Order if comments received disclose facts or considerations which indicate that this Consent Order is inappropriate, improper, or inadequate. Respondent BC shall prepare the notice for the thirty-day comment period; the notice shall require that all comments be forwarded simultaneously to BC and DTSC.

XVIII. EFFECTIVE DATE

68. The effective date of this Consent Order shall be the date upon which DTSC issues written notice to Respondents that the public comment period pursuant to Paragraph 67 has closed and that comments received, if any, do not require modification of, or DTSC withdrawal from, this Consent Order.

DATED: 5-29-98 TEXACO INC.

BY: Roger K Hadley

Roger K Hadley

DATED: 5-20-98 BC SANTA FE SPRINGS, LLC

BY:

George R Brwante. Jr

DATED: 6/2/98

Hamid Saebfar, Chief
Site Mitigation Branch
Cleanup Operations
Southern California Branch A
Department of Toxic Substances Control

cc: Site Mitigation Program
Headquarters, Planning & Policy
Office of Legal Counsel

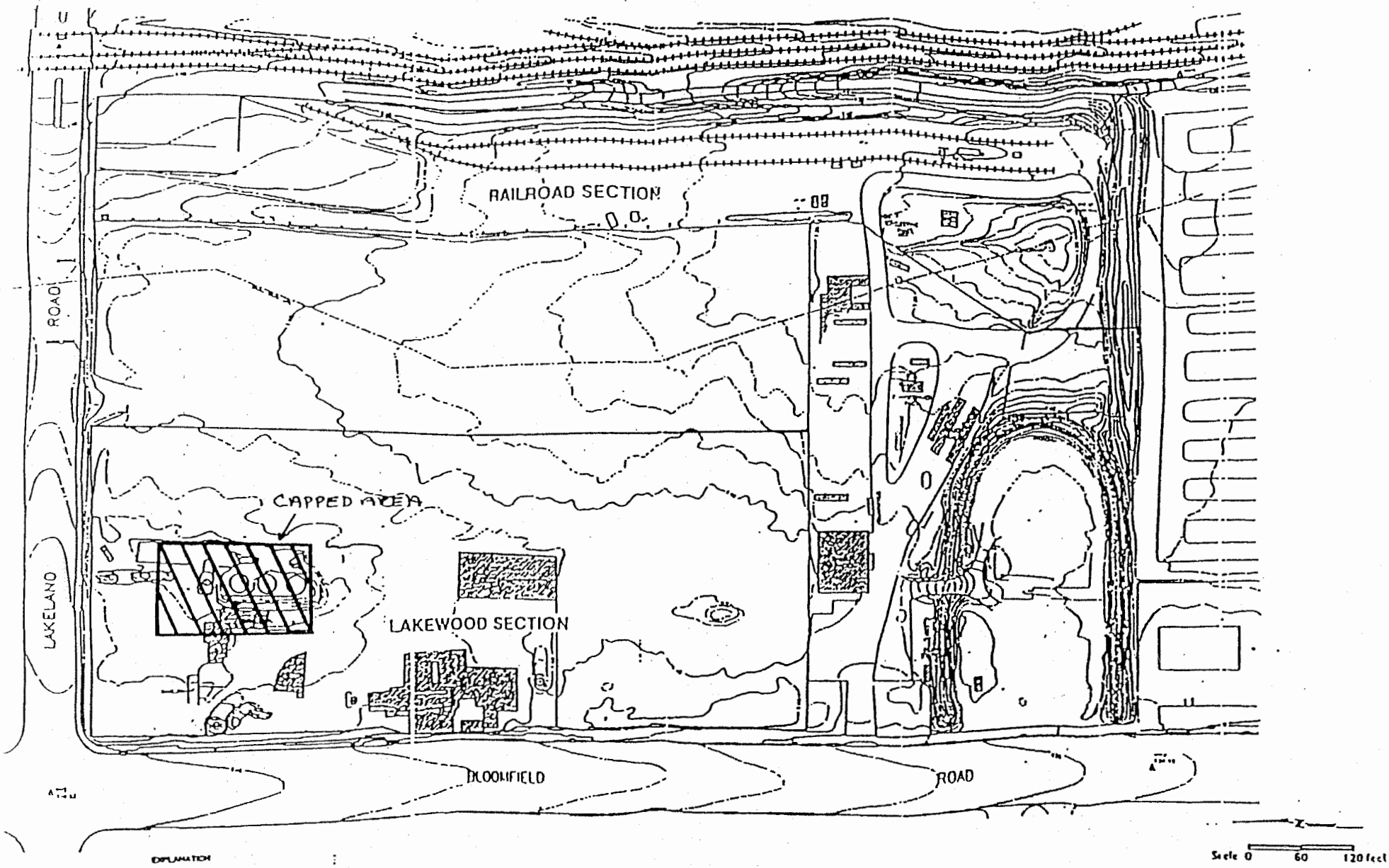
EXHIBIT 1

LEGAL DESCRIPTION

THE LAND REFERRED TO IN THIS GUARANTEE IS SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF LOS ANGELES, AND IS DESCRIBED AS FOLLOWS:

THAT PORTION OF THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 8, TOWNSHIP 3 SOUTH, RANGE 11 WEST, SAN BERNARDINO MERIDIAN, IN THE CITY OF SANTA FE SPRINGS, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, LYING WEST OF ATCHISON, TOPEKA AND SANTA FE RAILROAD RIGHT OF WAY.

EXCEPT THEREFROM ALL OIL, MINERALS AND MINERAL RIGHTS, ORES AND METALS AND OTHER USEFUL AND VALUABLE MINERAL DEPOSITS OF EVERY KIND, CHARACTER AND DESCRIPTION, INCLUDING IN PART ASPHALT, TAR, GAS, OIL, PETROLEUM AND OTHER HYDROCARBONS THAT MAY BE OR HEREAFTER BE FOUND, DEPOSITED, CONTAINED OR DEVELOPED, IN, UPON, FROM OR UNDER, OR THAT MAY BE MINED, EXTRACTED, PUMPED OR WITHDRAWN IN ANYWAY IN, UPON, FROM OR UNDER ALL OR ANY PART OF SAID LAND TOGETHER WITH THE RIGHT TO GO AND BE UPON THE NORTH 500 FEET OF SAID LAND (BUT NOT ANY OTHER PART THEREOF) FOR THE PURPOSE OF EXTRACTING AND REMOVING SAME AS EXCEPTED AND RESERVED BY JULIA M. BAKER, A WIDOW, IN THE DEED RECORDED FEBRUARY 21, 1935 IN BOOK 13278 PAGE 172, OFFICIAL RECORDS AND REGISTERED FEBRUARY 4, 1935 AS DOCUMENT NO. 1451-D.



Note:
LOCATIONS OF PREVIOUS TENANTS ARE APPROXIMATE. LEASEHOLD BOUNDARIES UNKNOWN.

SOURCE: Harding Lawson Associates (Plate 2, 9/94)

ESC ENVIRONMENTAL STRATEGIES CORPORATION

EXHIBIT 2
SITE PLAN
Walker Property Site
Sante Fe Springs, California

APRIL 199

EXHIBIT 3

NOTICE OF PROPERTY TRANSFER AND
COVENANT NOT TO SUE

_____ [Name of Owner] (the "Undersigned") became an Owner [Holder of a Property Interest] of _____ [Address], California (the "Site") on _____, 19__. Capitalized terms not defined herein shall have the meaning ascribed in the Order (hereinafter defined).

1. The Undersigned, by signing below, verifies that it has read the Consent Order (the "Order"), DTSC Docket No. _____.

2. The Undersigned understands and agrees that Section X of the Order contains a DTSC Covenant not to pursue enforcement actions against the Owner of the Site (the "DTSC Covenant") and Section XII contains Respondent's Covenant Not to Sue.

3. The Undersigned also understands and agrees that it may enjoy the benefits of the DTSC Covenant and the Respondent's Covenant only if the Undersigned covenants not to sue the DTSC and Respondents pursuant to the Respondent's Covenant set forth in Section XII of the Order.

4. The Undersigned further understands and agrees that its right to rely upon and benefit from the DTSC Covenant is expressly subject to and conditioned upon its own, and only its own, compliance with its obligations under the Order, including all exhibits, attachments, and appendices thereto.

5. Submittals to the Undersigned, pursuant to Paragraph 31 of the Order, shall be addressed as follows:

[Name of Company] _____
[Street Address] _____
[City, County, _____
State, Zip Code]
Attention: _____
Telephone: _____
Fax: _____

The Undersigned, by signing below, verifies that (i) it is aware that "Existing Contamination" as defined in Paragraph 6(e) of the Order has been found within the boundaries of the Site, and (ii) such condition renders its interest in the Site subject to the Order and to all applicable laws and regulations of the State of California, except as provided in the Order.

The Undersigned, by signing below, certifies that she or he is fully authorized to enter into the terms and conditions of this Notice and to execute and legally bind the Owner to this Notice.

Dated: _____ _____

[Typed Name of Person Authorized to Sign on Behalf of Owner]
Title: _____

To become effective, this Notice must be sent by United States mail, postage paid, certified, return receipt requested to:

Hamid Saebfar
Regional Branch Chief
Attention: Project Manager [two copies]
Statewide Cleanup Operations Division
Southern California Branch A
Department of Toxic Substances Control
1011 N. Grandview Avenue
Glendale, California 91201

This Notice shall be effective three business days after deposit in the mail if mailed by United States mail, postage paid, certified, return receipt requested.

APPENDIX A

SCOPE OF WORK

The following Tasks will be completed as part of this Order:

TASK 1. Remedial Design and Implementation Plan

Respondent BC will prepare and submit a Remedial Design and Implementation Plan (RDIP) in accordance with the agreed upon schedule contained in the approved RAP. The RDIP shall contain:

(a) technical and operational plans and engineering designs for implementation of the approved remedial or removal action alternative(s);
(b) a schedule for implementing the construction phase;
(c) a description of the construction equipment to be employed;
(d) a Site specific hazardous waste transportation plan (if necessary);
(e) the identity of any contractors, transporters and other persons conducting the removal and remedial activities for the Site;
(f) post-remedial monitoring procedures;
(g) operation and maintenance procedures and schedules; and
(h) a health and safety plan.

TASK 2. Implementation of Final RAP

Upon DTSC approval of the RDIP and schedule, Respondent BC shall implement the final RAP as approved in accordance with the approved RDIP and schedule.

TASK 3. Changes during Implementation of the Final RAP

During implementation of the final RAP and RDIP, DTSC may specify such additions, modifications and revisions to the RDIP as deemed necessary to protect human health and safety or the environment or to implement the RAP.

TASK 4. Public Participation

4.1. Respondent BC shall conduct appropriate public participation activities given the nature of the community surrounding the Site and the level of community interest. BC shall work cooperatively with DTSC to ensure that the affected and interested public and community are involved in DTSC's decision-making process. Any such public participation activities shall be conducted in accordance with Health and

Safety Code sections 25358.7 and 25356.1(e), the DTSC Public Participation Policy and Procedures Manual, and with DTSC's review and approval.

4.2. Respondent BC shall develop and submit fact sheets to DTSC for review and approval when specifically requested by DTSC. BC shall be responsible for printing and distribution of fact sheets upon DTSC approval using the approved community mailing list.

TASK 5. Land Use Controls

The parties agree that land use controls or deed restrictions are necessary to insure full protection of the environment and human health, as provided in the Final RAP. The Respondent BC agrees to sign and record the Land Use Controls approved by DTSC.

TASK 6. Operation and Maintenance (O&M)

Respondent BC shall comply with all operation and maintenance requirements in accordance with the final RAP and RDIP.

TASK 7. Discontinuation of Remedial Technology

Any remedial technology employed in implementation of the final RAP shall be left in place and operated by Respondent BC until and except to the extent that DTSC authorizes BC in writing to discontinue, move or modify some or all of the remedial technology because BC has met the criteria specified in the final RAP for its discontinuance, or because the modifications would better achieve the goals of the final RAP.

TASK 8. Five-Year Review

Respondent BC shall review and reevaluate the remedial action for the capped portion of the Site after a period of 5 years from the completion of construction, and every 5 years thereafter. The review and reevaluation shall be conducted to determine if human health and the environment are being protected by the remedial action being implemented for the capped portion of the Site. The review and reevaluation shall focus on whether the cap remains effective, and the land use controls required by the Final RAP remain in place. Within 30 calendar days before the end of each five year period, Respondent BC shall submit a remedial action review workplan to DTSC for review and approval. Within 60 calendar days after receipt of DTSC's approval of the workplan, Respondent BC shall implement such workplan and shall submit a comprehensive report of the results of the remedial action review performed pursuant to such workplan. The report shall describe the results of all sample analyses, tests and

other data generated or received by Respondent BC and evaluate the adequacy of the implemented remedy in protecting public health, safety and the environment.

TASK 9. Health and Safety Plan

Respondent BC will, upon request by DTSC, submit a revised Site Health and Safety Plan in accordance with California Code of Regulations, Title 8, section 5192 and DTSC guidance, which covers all measures, including contingency plans, which will be taken during field activities to protect the health and safety of the workers at the Site and the general public from exposure to hazardous waste, substances or materials. The Health and Safety Plan should describe the specific personnel, procedures and equipment to be utilized.

Department of Toxic Substances Control

Jesse R. Huff, Director
1011 N. Grandview Avenue
Glendale, California 91201

Pete Wilson
Governor

Peter M. Rooney
Secretary for
Environmental
Protection

September 8, 1998

Mr. George Bravante
BC Santa Fe Springs, LLC
717 Lido Park Drive, Suite B
Newport Beach, California 92663

Mr. Glenn Anderson
Environmental Associate
Texaco, Inc.
10 Universal City Plaza
Universal City, California 91608-7812

Dear Sir(s):

WALKER PROPERTY SITE (SITE): CERTIFICATION

The Department of Toxic Substances Control (DTSC) has completed its review of the document "Compaction Report-Pad Construction" for the Walker Property Site (Report). The Report adequately describes the remedial activities performed at the Site and is approved. The document "Covenant and Agreement to Restrict Use of Property and Environmental Restriction" was recorded on August 27, 1998. The recorded deed restricts the use of the asphalt cap area at the Site. DTSC therefore, certifies that the remedial action specified in the Remedial Action Plan of June 13, 1997, has been successfully implemented.

Please be advised that according to the Consent Order for the Site, you must comply with the Operation and Maintenance (O&M) requirements specified in the Remedial Design and Implementation Plan. These requirements include an annual inspection and report on the condition of the cap and a five-year review and evaluation of the remedial action.

Thank you for your efforts in remediating the Site. Should you have any questions, please contact Richard Gebert at (818) 551-2859 or me at (818) 551-2822.

Sincerely,

Sayareh Amir
Unit Chief
Site Mitigation Cleanup Operations
Southern California Branch A

cc: Ms. Pam Andes
Allen, Matkins, Leck, Gamble & Mallory, LLP
18400 Von Karman, Fourth Floor
Irvine, California 92612-1597

Mr. Trevor Santochi
Avalon Environmental Associates
20 Corporate Plaza
Newport Beach, California 92660

REMEDIAL ACTION CERTIFICATION FORM

---

1. Site Name and Location: (Street address, County, City and Assessor's parcel number)

   Walker Property (the Site)
   Southeast corner of Lakeland and Bloomfield Avenues
   Santa Fe Springs, California 90670
   Los Angeles County

   A. List any other names that have been used to identify the site: Rothschild Oil Site

   B. Assessor's Parcel Number:
   8026-001-042

2. Responsible Parties:

   Name: Mr. George Bravante
   Firm: BC Santa Fe Springs, LLC
   Address: 717 Lido Park Drive, Suite B
   City: Newport Beach, California 92663
   Phone: (949) 332-1812

   Relationship to Site:
   Current Landowner

   Name: Mr. Glenn Anderson
   Firm: Texaco, Inc.
   Address: 10 Universal City Plaza
   City: Universal City, California 91608-7812
   Phone: (818) 505-2680

   Relationship to Site:
   Former Landowner

3. Brief Description and History of the Site:

The Site is located at the southeastern corner of Lakeland and Bloomfield Avenues in the city of Santa Fe Springs in Los Angeles County. The 21-acre Site has been used since the 1930s for the storage of crude oil, refined petroleum products, waste oil, and disposal of off-Site oil well drilling fluids.

Removal actions conducted at the Site included:

- installation of a fence and posting of warning signs around the entire perimeter of the property
- removal of 100 ft.^{2} of friable asbestos
- removal of 200 drums containing 40 tons of waste oil, sludge, and soil impacted with polychlorinated biphenyls (PCBs)
- demolition and off-site disposal of above ground storage tanks containing 23,000 gallons of waste oil and sludge

A remedial investigation and feasibility study conducted in 1995 concluded that petroleum hydrocarbons remaining in the subsurface were residues of degraded crude oil and did not pose a threat to human health or the environment and did not require further action. However, soil contaminated with PCBs in the northwest portion of the Site was addressed in the feasibility study and capping was recommended as the remedial alternative.

In the Remedial Action Plan approved in 1997, an asphaltic cap covering the PCB impacted soil in the northwest part of the Site was chosen as the remedial action. The asphaltic concrete cap was installed in June, 1998. The area of the cap is approximately 100 feet by 160 feet. A deed restriction limiting the area underneath the cap to industrial usage was recorded on August 27, 1998.

4. Type of Site:

Included on Bond Expenditure Plan?
Yes X No ____

RCRA-Permitted Facility ____ Bond - funded ____

RCRA Facility Closure ____ R.P. - funded X

5. Size of Site: (Based on Expenditure Plan definition of size)

Small ____ Medium X Large ____ Extra Large ____

6. Dates of Remedial Action:

Installation of a permanent asphalt cap
a. Initiated 6/15/1998 b. Completed 6/26/1998

7. Response Actions Taken on Site:

X Initial Removal or Remedial Action (site inspection/sampling)

Fence and Post
a. Initiated 6/2/1992 b. Completed 6/29/1992

Removal of 200 drums of hazardous waste
a. Initiated 8/7/1993 b. Completed 12/9/1993

Above ground storage tank decommissioning and waste oil & sludge removal
a. Initiated 11/3/1993 b. Completed 1/7/1994

Asbestos removal
a. Initiated 3/7/1994 b. Completed 3/11/1994

__X__ Final Remedial Action

_____ RCRA Enforcement/Closure

_____ No Action, further investigation verified that no cleanup action at site was needed

A. Type of Remedial Action: (i.e. excavation and redisposal, on-site treatment)

The Remedial Action at the Site included the installation of a 160 x 100 foot asphalt cap.

B. Estimated quantity of waste associated with the site (i.e., tons/gallons/cubic yards) which was:

1. ___ treated Amount: _____

2. _X_ untreated (capped sites) Amount: 900 cubic yards of PCB impacted soil

3. _X_ removed Amount: 23,000 gallons of waste oil & sludge

Amount: 40 tons of soil impacted with PCBs, metals, waste oil & sludge

Amount: 100 sq. ft of friable Asbestos

8. Cleanup Levels/Standards

a. What were the cleanup standards established by the

Department of Toxic Substances Control (Department) pursuant to the final RAP or workplan (if cleanup occurred as the result of a removal action (RA) or interim remedial measures (IRM) prior to development of a RAP)?

An asphalt cap was placed over PCB impacted soil which was left in place.

Was the specified cleanup standard met? Yes __X__ No _____

9. Department of Toxic Substances Control Involvement in the Remedial Action

A. Did the Department order the Remedial Action?
Yes __X__ No _____ Date of Order __10/26/1992__

B. Did the Department review and approve (check appropriate action and indicate date of review/approval if done);

__X__ Sampling & Analysis Procedures Date __2/4/1998__

__X__ Health & Safety Protections Date __2/4/1998__

__X__ Removal/ Disposal Procedures Date __2/4/1998__

__X__ Remedial Action Plan Date __6/13/1998__

C. If site was abated by a responsible party, did the Department receive a signed statement from a licensed professional on all Remedial Action?

Yes __X__ No _____ Dates (from) 6/15/1998 (to) 6/26/1998

D. Did a registered engineer or geologist verify that acceptable engineering practices were implemented?

Yes __X__ No _____ Dates (from) 6/15/1998 (to) 6/26/1998

E. Did the Department confirm completion of all Remedial Action?

Yes _X_ No ____ Date of verification __9/8/1998__
(i.e. manifest, sampling, demonstrated installation and operation of treatment)

F. Did the Department (directly or through a contractor) actually perform the Remedial Action?

Yes _____ No _X_ Name of Contractor: _____

G. Was there a community relations plan in place?
Yes _X_ No _____

H. Was a remedial action plan developed for this site?
Yes _X_ No _____

I. Did the Department hold a public meeting regarding the draft RAP?
Yes _____X_____ No _____

J. Were public comments addressed?
Yes _X_ No ___

Date of the Department analysis and response: _____

K. Are all the facts cited above adequately documented in the Department files? Yes _X_ No _____
if no, identify areas where documentation is lacking
_____
_____

10. <u>EPA Involvement in the Remedial Action:</u>

A. Was the EPA involved in the site cleanup? Yes ____ No _X_

B. If yes, did the EPA concur with all remedial actions?
Yes ____ No ____

11. Other Regulatory Agency Involvement in the Cleanup Action:

Agency: Activity:

__X__ RWQCB Board has oversight of the "Powerine Section", a 2 acre portion of the Site in the southwestern part.Also,the Board was notified at important milestones.

_____ ARB _____

_____ CHP _____

_____ Caltrans _____

_____ Other _____

12. Post-Closure Activities:

A. Will there be post-closure activities at this site? (e.g. Operation and Maintenance) Yes __X__ No _____

B. Have post-closure plans been prepared and approved by the Department? Yes __X__ No _____

C. What is the estimated duration of post-closure (including operations and maintenance) activities? __30__ years

D. Are deed restrictions proposed or in place? Yes __X__ No __

If "yes" have deed restrictions been recorded with the County recorder? Yes __X__ No ___ Date __8/27/1998__

If "no", who is responsible for assuring that the deed restrictions are recorded? _____

Who is the Department contact? Richard Gebert (818) 551-2859
Name/Phone Number

E. Has cost recovery been initiated? Yes __X__ No _____

If yes, amount received $ 253,481.25 ; 77.5 % of DHS costs.

F. Were local planning agencies notified of the cleanup action?
Yes ___X___ No _____ If yes, the name and address of agency:

Mr. Andrew Lazaretto, Redevelopment Consultant
City of Santa Fe Springs
11710 Telegraph Road, Santa Fe Springs, CA 90670-3658

13. Expenditure of Funds and Source:

(Information to be supplied by Toxic Accounting Unit.)
Funding Source and amount expended:

_____ HWCA $ _____ HSA $ _____
_____ HSCF $ _____ RCRA $ _____
_____ R.P. $ 2,500,000.00
_____ Federal Cooperative Agreement $ _____
_____ Other (Site Remediation Account) $ _____

14. Certification Statement: Based upon the information which is currently and actually known to the Department,

_____ The Department has determined that all appropriate response actions have been completed, that all acceptable engineering practices were implemented and that no further removal/remedial action is necessary.

_____ The Department has determined, based upon a remedial investigation or site characterization that the site poses no significant threat to public health, welfare or the environment and therefore implementation of removal/remedial measures is not necessary.

___X___ The Department has determined that all appropriate Removal/remedial actions have been completed and that all acceptable engineering practices were implemented; however, the site requires ongoing operation and maintenance (O&M) and monitoring efforts. The Site will be deleted from the "active" site list following (1) a trial operation and maintenance period and (2) execution of a formal written settlement between the Department and

the responsible parties, if appropriate. However, the site will be placed on the Department's list of sites under going O & M to ensure proper monitoring of long-term cleanup efforts.

15. Additional Comments: _____

16. Certification of Remedial Action:

I hereby certify that the foregoing information is true and correct to the best of my knowledge.

1. Richard Gebert — 11/20/1998
Richard Gebert, Project Manager — Date
Southern California Cleanup Operations
Branch A

2. Sara Amir — 11/23/1998
Sayareh Amir, Unit Chief — Date
Southern California Cleanup Operations
Branch A

3. [signature] — 11/24/98
Hamid Saebfar, Branch Chief — Date
Southern California Cleanup Operations
Branch A

REQUESTED BY
AND WHEN RECORDED MAIL TO:

ALLEN, MATKINS, LECK, GAMBLE
& MALLORY LLP
18400 Von Karman, Fourth Floor
Irvine, California 92612-1597

Attention: R. Michael Joyce, Esq.

COPY of Document Recorded
98 1538906
AUG 27 1998
Has not been compared with original.
Original will be returned when
processing has been completed.
LOS ANGELES COUNTY REGISTRAR - RECORDER

(Space Above For Recorder's Use)

COVENANT AND AGREEMENT TO RESTRICT USE OF PROPERTY AND ENVIRONMENTAL RESTRICTION

This Covenant and Agreement To Restrict Use of Property and Environmental Restriction ("Covenant") is made as of the 11th day of August, 1998 by BC SANTA FE SPRINGS, LLC, a Delaware limited liability company ("Covenantor"), which is the owner of certain real property situated in the City of Santa Fe Springs, County of Los Angeles, State of California, as more fully described in Exhibit "A" attached hereto and incorporated herein by this reference (the "Property") for the benefit of the CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL, as defined in Paragraph 1.1 (the "Department"), with reference to the following facts:

RECITALS:

A. The Property is located in the City of Santa Fe Springs, Los Angeles County, California, as more specifically described in Exhibit "A". The Property is also more specifically described as Los Angeles County Assessor's Parcel No. 8026-001-042. The Property was formerly used as a waste oil storage and transfer facility. The Property was also used for the disposal of oil field drilling waste from the 1920's to 1985.

B. On March 31, 1992, the Department issued its Imminent Or Substantial Endangerment Order and Remedial Action Order HSA I &/SE91/92-009 as amended on October 26, 1992 ("Order").

C. Pursuant to the Order, a Remedial Investigation, including a Base Line Health Risk Assessment, was conducted, in order to define the nature and extent of contamination at the Property. Twenty-nine chemicals of concern were quantitatively evaluated in the risk assessment. The total non-cancer hazard index for all chemicals and all exposure pathways was

significantly less than 1.0 for the future occupational receptor under the reasonable maximum exposure ("RME") scenario. Therefore, there is not a concern for potential chronic adverse health effects at the Property for future occupational populations. The estimated cancer risk for the future occupational receptor was 9×10^{-6} (nine in one million) under the RME scenario and, using more typical exposure parameters for the future occupational receptor results, was only 4×10^{-7} (four in ten million). Under the RME scenario, exposure to polychlorinated biphenyls ("PCBs") contributed to approximately ninety-six (96%) of the cancer risk. A Feasibility Study was also prepared, which evaluated the possible remedial alternatives and recommended the most appropriate alternative for the Property. A Remedial Action Plan ("RAP") was submitted for public comment and Department approval. On June 13, 1997, the RAP was approved and adopted by the Department. The RAP required the construction of a cap on soils containing PCBs. The parking lot/cap so constructed is located on a small portion of the Property over the area containing the PCBs depicted on Exhibit "C" attached hereto and described on Exhibit "D" attached hereto, which area of the Property is hereinafter referred to as the "Affected Property".

D. The Department has since determined, based on information available to the Department, that the remedial measures required by the terms of the RAP have been undertaken to the satisfaction of the Department. The Department has further determined that, based on information available to the Department, the Property no longer presents any significant existing or potential hazard to present or future public health or safety, provided that the parking lot/cap constructed in accordance with the RAP is maintained over the Affected Property and certain precautions are taken in connection with any excavation or earth moving activity performed on the Affected Property, and further provided that certain land use restrictions are observed.

E. Pursuant to California Civil Code Section 1471(c), the Department has determined that this Covenant is reasonably necessary to protect present or future human health or safety or the environment as a result of the presence on the land of hazardous materials defined in California Health and Safety Code Section 25260. The Covenantor and the Department therefore intend that the parking lot/cap constructed pursuant to the RAP be maintained and the use of the Property be restricted as set forth in this Covenant. This Covenant shall also serve to provide public notice that the obligation to maintain and repair the parking lot/cap constructed pursuant to the RAP satisfies all requirements of the Order, and that no further remedial action will be required by the Department in connection with the conditions existing on the Property.

ARTICLE I
DEFINITIONS

1.1 Department. "Department" shall mean the California State Department of Toxic Substances Control and shall include its successor agencies, if any.

1.2 Improvements. "Improvements" shall mean all buildings, roads, driveways, regrading, landscaping and paved parking areas, constructed or placed upon any portion of the Property but shall not include any building interior improvements.

1.3 Occupant. "Occupant" shall mean any holder of a leasehold interest in the Property which entitles the leasehold interest holder to the right to occupy all or any portion of the Affected Property. "Occupant" shall not include a person that is a lender as defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. § 9601 et. seq., as it presently exists or may hereafter be amended from time to time.

1.4 Owner. "Owner" shall mean and refer to one or more persons or entities who are, alone or collectively, the record owner of the fee simple title to all or any portion of the Property.

1.5 Excavation. "Excavation" shall mean the drilling or boring of any holes through the parking lot/cap constructed pursuant to the RAP or excavation of earth from below the ground surface of the Affected Property.

1.6 Earth Movement. "Earth Movement" shall mean the movement of earth extracted from below the ground surface from any one location of the Affected Property to any other location of the Affected Property.

1.7 Contaminated Soil. "Contaminated Soil" shall mean soils containing PCBs in concentrations exceeding one milligram per kilogram (1 mg/kg).

1.8 Property. The Property consists of all of the land more particularly described on Exhibit "A" attached hereto and incorporated herein by this reference, and as depicted on Exhibit "B" attached hereto, but shall not include any buildings now existing or to be constructed on the land.

1.9 Order. "Order" shall have the meaning given such term in Paragraph B. of the Recitals set forth above.

1.10 PCBs. "PCBs" shall have the meaning given such term in Paragraph C. of the Recitals set forth above.

1.11 RAP. "RAP" shall have the meaning given to such term in Paragraph C. of the Recitals set forth above.

1.12 City. "City" shall mean the City of Santa Fe Springs, California.

1.13 Affected Property. "Affected Property" shall have the meaning given such term in Paragraph C. of the Recitals set forth above.

1.14 Restrictions. "Restrictions" shall have the meaning given such term in Section 2.1 hereof.

ARTICLE II
EFFECT OF COVENANT

2.1 Restrictions to Run with the Land. This Covenant sets forth, for the mutual benefit of the Property, the Owners and Occupants thereof, the People of the State of California, and the Department, protective provisions, covenants, restrictions, and conditions (collectively referred to as "Restrictions"), upon and subject to which the Property and every portion thereof shall be improved, held, used, occupied, leased, sold, hypothecated, encumbered, and/or conveyed. Each and all of the Restrictions shall run with the land, shall inure to the benefit of, and pass with each and every portion of the Property, and shall apply to and bind the respective successors in interest thereof for the benefit of the Department. Each and all of the Restrictions are imposed upon the entire Property unless expressly stated as applicable only to a specific portion of the Property. Each and all of the Restrictions are imposed pursuant to California Health and Safety Code sections 25222.1, 25355.5 and 25356.1. Each and all of the Restrictions shall run with the land pursuant to said Sections 25222.1, 25355.5 and 25356.1, and California Civil Code section 1471. Each and all of the Restrictions are for the benefit of the Department and shall be enforceable by the Department.

2.2 Concurrence of Owners Presumed. All Owners and Occupants of all or any portion of the Property shall be deemed by their purchase, lease or possession of such Property, to have knowledge of, and be in accord with, the foregoing and to agree for and among themselves, their heirs, successors, and assignees, and the agents and employees, of such Owners, Occupants, heirs, successors, and assignees, that the Restrictions as herein set forth must be adhered to for the benefit of the Department and of future Owners and Occupants and that their interest in the Property shall be subject to the Restrictions contained herein.

2.3 Incorporation Into Deeds and Leases. The Restrictions contained herein, including, but not limited to, the provisions regarding the Department's authority to enforce the Covenant, shall be incorporated by reference in each and every deed and lease of all or any portion of the Property, with the exception that this Paragraph 2.3 shall not be interpreted to require the Restrictions to be incorporated by reference in any lease in which the tenant, under the terms of the lease, would not be deemed an Occupant of the Property.

2.4 Effect of Recitals. The statements set forth in the Recitals are hereby declared to be true and correct.

ARTICLE III
DEVELOPMENT, USE AND CONVEYANCE OF THE PROPERTY

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

3.1.1 The Owner shall at all times maintain or cause to be maintained in good order, condition and repair, the parking lot/cap constructed pursuant to the RAP so as to cover any Contaminated Soil located on the Affected Property. The parking lot/cap will be monitored and maintained after construction is completed in accordance with the

operations and maintenance requirements set forth in the Remedial Design and Implementation Plan to be developed pursuant to the RAP to ensure that a sloped paved surface is maintained at all times at a minimum one percent (1%) grade to effectively facilitate surface water runoff and prevent ponding. Repairs to the paved surface will be made as necessary to assure that the minimum slope is maintained. The paved surface constructed will be periodically inspected for cracks, discontinuities, and ponding of surface water in accordance with the operations and maintenance requirements set forth in the Remedial Design and Implementation Plan to be developed pursuant to the RAP. The side slopes along the perimeter of the paved surface will be inspected for signs of erosion. Repairs to the pavement and the side slopes will be made as necessary to impede infiltration of surface water.

3.1.2 In the event that following the construction of the parking lot/cap any Earth Movement or Excavation is proposed to occur upon any portion of the Affected Property, the Owner or Occupant shall:

A. Notify the Department of such proposed Earth Movement or Excavation thirty (30) days prior to the beginning of such Earth Movement or Excavation;

B. Submit a Soil Management Plan and a Health and Safety Plan to the Department for review and approval prior to conducting any Earth Movement or Excavation. No Earth Movement or Excavation shall be permitted on the Affected Property except in accordance with the Soil Management Plan and the Health and Safety Plan approved by the Department.

C. Any Contaminated Soils brought to the surface by Earth Movement or Excavation shall be managed in accordance with all other applicable provisions of state and federal law.

3.1.3 Neither the Affected Property, nor any portion thereof, shall be used for residential purposes, hospitals for humans, schools for persons under 21 years of age, day-care centers for children, or any permanently occupied human habitation (including hotels or motels which are used as a permanent residence) without the prior written approval of the Department. The Affected Property, and any portion thereof, may be used for industrial or commercial purposes as authorized from time to time by the City, except as specifically prohibited in this Paragraph 3.1.3.

3.1.4 Covenantor agrees that all Owners and Occupants shall grant the Department reasonable right of entry and access to the Property for inspection, monitoring, and other activities consistent with the purposes of this Covenant.

3.2 Conveyance of Property. Within thirty (30) days after the closing of any sale, lease, or other conveyance of all or any portion of the Property, the former Owner (in the case of a sale) or Occupant (in the case of a lease) and the then current Owner or Occupant of the Property or part thereof conveyed shall provide written notice to the Department of the name and

address of all the then Owners and/or Occupants of the Property or part thereof, conveyed. The Department shall not, by reason of the Covenant, have authority to approve, disapprove or otherwise affect any sale, lease, or other conveyance of the Property except as otherwise provided by law. Upon the sale or transfer of the entire interest of the Owner in the Property (including Covenantor), such Owner (including Covenantor) shall be released and relieved of any further liability or obligation under this Covenant. Upon the termination of the leasehold interest of any Occupant in the Affected Property, such Occupant shall be released and relieved of any further liability or obligation under this Covenant.

3.3 Enforcement.

3.3.1 Failure of any Owner or Occupant to comply with any of the requirements set forth in Paragraph 3.1.3 above, shall be grounds for the Department, by reason of the Covenant, to require the Owner or Occupant to discontinue any use of the Property in violation of Paragraph 3.1.3. Failure to observe the Restrictions set forth in Paragraph 3.1 shall be grounds for the Department to pursue any remedy provided by law to enforce the provisions of Paragraph 3.1. Any costs reasonably and necessarily incurred by the Department to enforce the provisions of Paragraph 3.1 shall be recoverable from the Owner or the Occupant of the Property determined in the final disposition of the enforcement action to have failed to observe the Restrictions.

3.3.2 Covenantor shall have no obligation to enforce or to police the observance of the Restrictions set forth herein by other Owners or Occupants of the Property or any portion thereof. This Covenant shall not create any private right of action against Covenantor or any other Owner or Occupant of the Property or any portion thereof.

3.4 Rights of Mortgagees. No breach of any covenant, condition or restriction herein contained, or any enforcement thereof, shall defeat or render invalid the lien of any first mortgage or deed of trust made in good faith now or hereafter executed upon all or any portion of the Property, provided, however, that if any such property is sold under a foreclosure of any mortgage or under the provisions of any deed of trust, any purchaser at such sale and its successors and assigns shall hold any and all property so purchased subject to all of the covenants, conditions and restrictions contained in this Covenant.

ARTICLE IV
VARIANCE TERMINATION AND AMENDMENT

4.1 Variance. Any Owner, or with the Owner's written consent, which shall not be unreasonably withheld, any Occupant of the Property or any portion thereof, may apply to the Department for a written variance from the provisions of this Covenant. Such application shall be made in accordance with Section 25233 of the California Health and Safety Code.

4.2 Termination. Any Owner, or with the Owner's written consent, which shall not be unreasonably withheld, any Occupant of the Property or any portion thereof, may apply to the Department for a termination of the Covenant as it applies to all or any portion of the

Property owned or occupied by the applicant. Such application shall be made in accordance with Section 25234 of the California Health and Safety Code.

4.3 Amendment. This Covenant may be amended from time to time in a writing signed by the Director of the Department or his or her designee, and all of the then Owners of the Property, or any portion thereof, which remains subject to this Covenant. Any such amendment shall be effective only upon the date any such amendment is filed for recording in the official records of the County of Los Angeles, State of California.

4.4 Term. Unless terminated in accordance with Paragraph 4.2 above, by law or otherwise, this Covenant shall continue in effect in perpetuity.

ARTICLE V
EFFECT OF ISSUANCE OF RAP AND IMPLEMENTATION THEREOF

5.1 Effect of Approval of the RAP. By approving the RAP, the Department determined, based on information available to the Department, that the remedial measures required by the RAP would remediate any significant existing or potential hazard to present or future public health or safety from conditions existing on the Property.

5.2 No Further Action Based on Implementation of RAP. The Department subsequently determined, based on information available to the Department, that the remedial measures undertaken in accordance with the RAP have satisfied any significant existing or potential hazard to present or future public health or safety, and provided that the parking lot/cap is maintained and the precautions undertaken pursuant to the terms of this Covenant, there no longer exists any significant existing potential hazard to present or future public health or safety from conditions existing on the Property. Based on the foregoing, the Department has determined that no further action will be required in connection with the conditions existing on the Property.

ARTICLE VI
MISCELLANEOUS

6.1 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 Property or any portion thereof to the general public or for any purposes whatsoever.

6.2 Notices. Whenever any person shall desire to give or serve 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 (i) when delivered, if personally delivered to the person being served or to an officer of a corporate party being served or official of a government agency being served, or (ii) three (3) business days after deposit in the mail if mailed by United States mail, postage paid certified, return receipt requested. Any party may change its address by notice to the other party in the manner set forth above. The following addresses shall be effective as of the date of this Covenant.

Covenantor:	BC Santa Fe Springs, LLC c/o Bravante-Curci Investors, L.P. 717 Lido Park Drive Lido Peninsula Newport Beach, California 92663
Department:	California Department of Toxic Substances Control Statewide Cleanup Operations Division Southern California Branch A 1011 N. Grandview Avenue Glendale, California 91201 Attention: Hamid Saebfar, Chief

6.3 Partial Invalidity. If any portion of the Covenant 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.

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

6.5 Recordation. This instrument shall be executed by all Owners of the Property and by the Director, California Department of Toxic Substances Control, or his or her designee. This instrument shall be filed by the Covenantor for recording in the Official Records of the County of Los Angeles, State of California within ten (10) days after the Effective Date (defined in Section 6.6 below). Covenantor shall provide the Department a copy of the Covenant marked as received for recording by the County of Los Angeles. Upon receipt of the Covenant marked as recorded, Covenantor shall provide a copy of such document to the Department.

6.6 Effective Date. This Covenant shall be effective upon such date that the Covenant is fully executed by Covenantor and the Department.

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6.7 Counterparts. This Covenant may be executed in counterparts, each of which shall be deemed an original but all of which, when taken together, shall constitute but one and the same instrument.

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

BC SANTA FE SPRINGS, LLC,
a Delaware limited liability company

By: Biltmore Advisors, LLC, a
California limited liability company
Managing Partner

By: _____
Name: George Bravante
Its: Managing Member

CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL

By: _____
Hamid Saebfar, Chief
Statewide Cleanup Operations Division
Southern California Branch A

6.7 Counterparts. This Covenant may be executed in counterparts, each of which shall be deemed an original but all of which, when taken together, shall constitute but one and the same instrument.

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BC SANTA FE SPRINGS, LLC,
a Delaware limited liability company

By: Biltmore Advisors, LLC, a
California limited liability company
Managing Partner

By: _____
Name: _____
Its: _____

CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL

By: _____
Hamid Saebfar, Chief
Statewide Cleanup Operations Division
Southern California Branch A

STATE OF California)
) ss.
COUNTY OF Orange)

On August 11, 1998, before me, Susanne Bartlett, a Notary Public in and for said state, personally appeared George Bravante, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument, the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

Susanne Bartlett
Notary Public in and for said State

SUSANNE BARTLETT
Commission #1094325
Notary Public — California
Orange County
My Comm. Expires Apr 14,2000

STATE OF _____)
) ss.
COUNTY OF _____)

On _____, before me, _____, a Notary Public in and for said state, personally appeared _____, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument, the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

_____
Notary Public in and for said State

STATE OF _____)
) ss.
COUNTY OF _____)

On _____, before me, _____, a Notary Public in and for said state, personally appeared _____, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/she executed the same in his/her authorized capacity, and that by his/her signature on the instrument, the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

_____
Notary Public in and for said State

STATE OF CALIFORNIA)
) ss.
COUNTY OF ORANGE)

On August 18, 1998, before me, T Matthews, a Notary Public in and for said state, personally appeared HAMID Sachfar, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he/~~she~~ executed the same in his/~~her~~ authorized capacity, and that by his/~~her~~ signature on the instrument, the person, or the entity upon behalf of which the person acted, executed the instrument.

WITNESS my hand and official seal.

T Matthews
Notary Public in and for said State

T MATTHEWS
Commission # 1119388
Notary Public — California
Orange County
My Comm. Expires Dec 7, 2000

OC972580.044/RMJ/B0996-002/08-10-98/cag

LEGAL DESCRIPTION OF PROPERTY

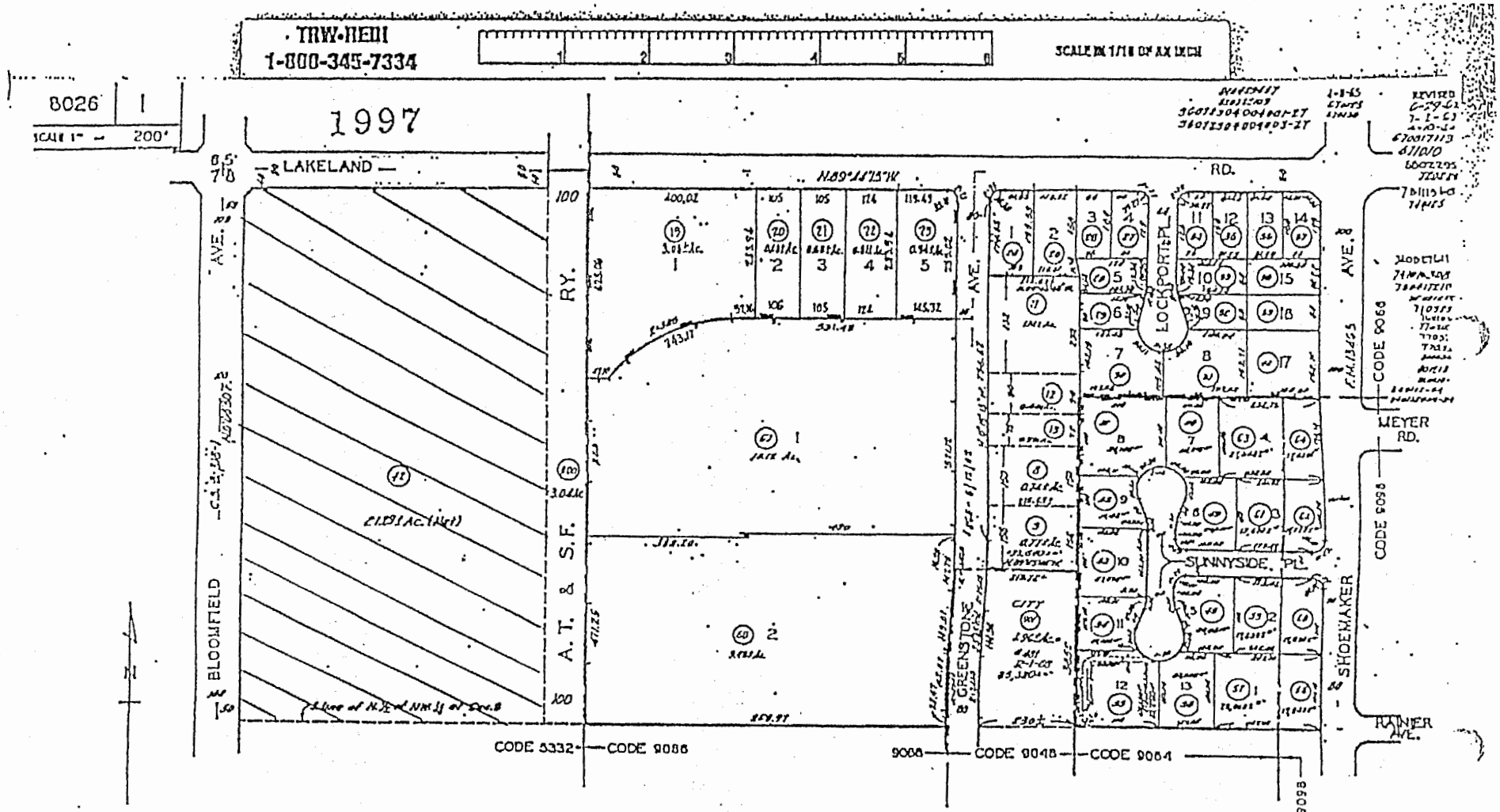
The land referred to herein is situated in the State of California, County of Los Angeles, and is described as follows:

THAT PORTION OF THE NORTH HALF OF THE NORTHWEST QUARTER OF SECTION 8, TOWNSHIP 3 SOUTH, RANGE 11 WEST, SAN BERNARDINO MERIDIAN, IN THE CITY OF SANTA FE SPRINGS, LYING WEST OF ATCHISON, TOPEKA AND SANTA FE RAILROAD RIGHT OF WAY.

EXCEPT THEREFROM ALL OIL, MINERALS AND MINERAL RIGHTS, ORES AND METALS AND OTHER USEFUL AND VALUABLE MINERAL DEPOSITS OF EVERY KIND, CHARACTER AND DESCRIPTION, INCLUDING IN PART ASPHALT, TAR, GAS, OIL, PETROLEUM AND OTHER HYDROCARBONS THAT MAY BE OR HEREAFTER BE FOUND, DEPOSITED, CONTAINED OR DEVELOPED, IN, UPON, FROM OR UNDER, OR THAT MAY BE MINED, EXTRACTED, PUMPED OR WITHDRAWN IN ANYWAY IN, UPON, FROM OR UNDER ALL OR ANY PART OF SAID LAND TOGETHER WITH THE RIGHT TO GO AND BE UPON THE NORTH 500 FEET OF SAID LAND (BUT NOT ANY OTHER PART THEREOF) FOR THE PURPOSE OF EXTRACTING AND REMOVING SAME AS EXCEPTED AND RESERVED BY JULIA M. BAKER, A WIDOW, IN THE DEED RECORDED FEBRUARY 21, 1935 IN BOOK 13278 PAGE 172, OFFICIAL RECORDS, AND REGISTERED FEBRUARY 4, 1935 AS DOCUMENT NO. 1451-D.

EXHIBIT "A"

EXHIBIT "B"



PARCEL MAP
P.M. 50-56

RANCHO SANTA GERTRUDES
SEC., TWP. & RGE. AS PER M.R. 32-18
M.R. 32-18

PARCEL MAP
P.M. 50-28

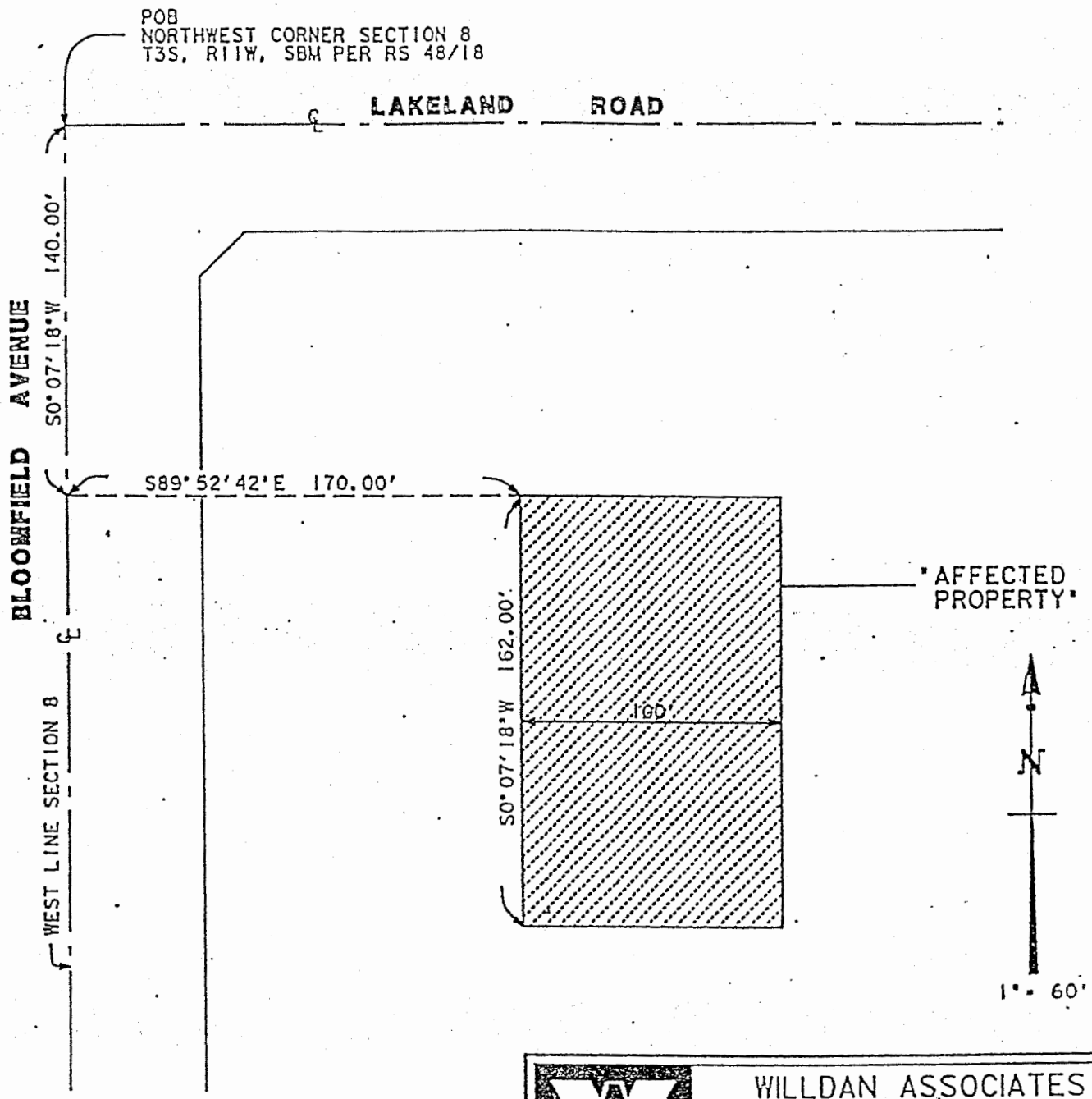
PARCEL MAP
P.M. 50-84

PARCEL MAP
P.M. 140-1-4

CODE
5332
9066
9064
9048
9098

FOR PREV. ASSMT. SEE:
8026 - 1

AUG 1 4 1996
ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.



WILLDAN ASSOCIATES
ENGINEERS • PLANNERS

SKETCH OF THE "AFFECTED PROPERTY" DESCRIBED IN EXHIBIT "D"
IN THE CITY OF SANTA FE SPRINGS
COUNTY OF LOS ANGELES
STATE OF CALIFORNIA

SCALE:	1" = 60'	DATE	7-20-98
DRAWN BY:	DB	JOB NO.:	08170-0633-6650
CHECKED BY:	DK	FIELD BK.:	

EXHIBIT "C"

LEGAL DESCRIPTION OF AFFECTED PROPERTY

The Affected Property referenced in the Covenant to which this is attached is situated in the State of California, County of Los Angeles, and is described as follows:

That portion of the North one-half of the Northwest one-quarter of Section 8, Township 3 South, Range 11 West, San Bernardino Meridian, in the City of Santa Fe Springs, County of Los Angeles, State of California lying within a strip of land 100.00 feet wide, the Westerly line of which is described as follows:

Beginning at the Northwest corner of said Section 8, said corner also being the centerline intersection of Bloomfield Avenue and Lakeland Road, as shown on a Record of Survey filed in Book 48, page 18 of Records of Survey, in the office of the County Recorder of said County; thence, along the West line of said section, South 0°07'18" West, 140.00 feet; thence, at right angles, South 89°52'42" East, 170.00 feet to the **True Point of Beginning**; thence, parallel with said West line, South 0°07'18" West, 162.00 feet to the **Point of Termination**.

EXHIBIT "D"

APPENDIX B

PHOTOGRAPHIC DOCUMENTATION

Photograph No. 1: **View of PCB Capped Area looking northeast. Building 1 of the Bloomfield Business Center is noted in background.**

Photograph No. 2: **View of PCB Capped Area looking east.**

Photograph No. 3: **View of PCB Capped Area looking southeast. Building 1 is noted to the left and Building 2 is noted to the right.**

Photograph No. 4: **View of PCB Capped Area looking south.**

Photograph No. 5: **Northern edge of the PCB Capped Area looking east. Building 1 is located immediately north and east of the PCB Capped Area.**

Photograph No. 6: **Eastern edge of the PCB Capped Area looking north.**

Photograph No. 7: **Southern edge of the PCB Capped Area looking east.**

Photograph No. 8: **PCB Capped Area looking southwest.**

APPENDIX C

COPY OF THE BASELINE HEALTH RISK ASSESSMENT

9/25 96

Volume IV
Remedial Investigation
Walker Property Site
Santa Fe Springs, California

Appendix I - Risk Assessment

Prepared for

Texaco Inc.
10 Universal City Plaza
Universal City, California 91608-1097

HLA Project No. 32538 4

August 25, 1995

Harding Lawson Associates
Engineering and Environmental Services
3 Hutton Centre Drive, Suite 300
Santa Ana, CA 92707 – (714) 556-7992

VOLUME IV
Baseline Health Risk Assessment
Walker Property Site
Santa Fe Springs, California

Prepared for

Texaco Inc.
10 Universal City Plaza
Universal City, California 91608-1097

HLA Project No. 32538 4

Richard Pesin, M.P.H.
Senior Toxicologist

Teri L. Copeland, M.S.
Principal Toxicologist

August 25, 1995

Harding Lawson Associates
Engineering and Environmental Services
3 Hutton Centre Drive, Suite 300
Santa Ana, CA 92707 – (714) 556-7992

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I LEADSPREAD MODEL RESULTS

DISTRIBUTION

EXECUTIVE SUMMARY

This section presents a summary of the results of the baseline health risk assessment that evaluates the area of the Site encompassing the Railroad Section, the Lakewood Section, and the intervening portion of the Site.

A baseline health risk assessment was conducted to evaluate the potential human health risks associated with exposure to site-related chemicals at the Site. The baseline health risk assessment was prepared in a manner consistent with EPA's *Risk Assessment Guidance for Superfund Volume I* (1989) and Cal-EPA's *Supplemental Guidance for Human Health Multimedia Risk Assessments of Hazardous Waste Sites and Permitted Facilities* (1992). The key elements of the baseline risk assessment are summarized below.

Soil Chemicals of Concern

Data collected during site investigations conducted from 1985 to 1994 were considered in the selection of semivolatile chemicals and metals of concern. Data from the more recent and extensive remedial investigation conducted by HLA were considered in the selection of VOCs.

TPH was detected in numerous soil samples but was not quantitatively evaluated in the risk assessment because EPA and Cal-EPA have not derived toxicity criteria for TPH. TPH consists primarily of middle- to long-chain paraffinic or naphthalenic compounds. In general, long-chain petroleum hydrocarbons are considered to be relatively nontoxic. The more toxic components of TPH were evaluated for inclusion in the risk assessment. These toxic components are BTEX and PNAs.

All chemicals detected in soil, regardless of detection frequency, were initially considered for evaluation in the risk assessment. Several chemicals were subsequently excluded from the evaluation because it was likely that they did not result from activities at the Site. These chemicals include benzene, toluene, and mixed xylenes. These chemicals were detected only in the northernmost portion of the Railroad Section, near Lakeland Road. The likely source of these constituents was pipelines located beneath Lakeland Road, which transported refined product. Ethylbenzene was included in the risk assessment, as it was detected in one sample in an area away from the likely offsite source of BTEX constituents.

If a chemical was known to be a common laboratory contaminant, a noncarcinogen, and was detected in soils in only one sample (from over 100 samples), the chemical was excluded from the assessment. The chemicals eliminated by this criteria were acetone, di-n-octylphthalate, dibutylphthalate, and methyl ethyl ketone.

Site investigations revealed that copper and lead were the only metals found at elevated concentrations relative to background. Onsite lead concentrations were greater than those reported for native soils. As copper was only detected at an elevated concentration in one soil sample, and EPA or Cal-EPA toxicity criteria (i.e., Reference Dose) do not exist for this element, this metal was not further evaluated. Although onsite barium concentrations were within the reported typical native soil concentrations, barium was retained as a chemical of concern based on the variability of detected concentrations in onsite soils, and the possibility that drilling muds containing barium were deposited at the site. Therefore, lead and barium were the two metals that were quantitatively evaluated in the risk assessment.

The selection criteria yielded 28 soil chemicals of concern that were quantitatively evaluated in this assessment. The chemicals of concern in soil are summarized in Table 1. Only chemicals detected in surficial soils were evaluated for exposure via direct contact pathways (i.e., soil ingestion and dermal contact). Chemicals detected in both surficial and subsurface soils were evaluated for potential impact to groundwater.

Groundwater Chemicals of Concern

As described in detail in the RI report, the compounds detected in the samples of groundwater collected onsite appear to be part of a regional groundwater contamination problem. Based on the RI investigation, no evidence exist for Site-related sources. Therefore, no Site-related chemicals of concern were identified for the groundwater.

Potentially Exposed Populations and Exposure Pathways

Based on consideration of the current site conditions, potential future users of the Site, and known fate and transport characteristics of the chemicals of concern, the following exposure pathways were assessed for a future onsite occupational exposure scenario: soil ingestion, dermal contact with soil, vapor inhalation, and resuspended soil particulate inhalation. The only individuals currently present at the Site are associated with the Balboa/Pacific Corporation, which is located on a small parcel of land approximately 300 feet south of the former Lakewood facilities. The workers at this facility are assumed to be restricted to this area of the Site.

Site data were used to establish representative soil concentrations for assessing exposure via direct soil contact (soil ingestion and dermal contact) and as input to vapor emission and particulate resuspension models. Suggested regulatory default values for exposure parameters for a worker were used to assess

chemical uptake for a "reasonable maximum exposure" (RME) scenario. Additionally, scientifically defensible average exposure parameters values were used to evaluate a "most likely" (i.e., average) worker exposure scenario. Evaluation of both reasonable maximum exposure and average exposure provides a measure of the range of potential exposure.

Although offsite populations could be exposed to site-related compounds via vapor and particulate inhalation, offsite populations were not quantitatively evaluated in this assessment because the estimated cancer risk and noncancer hazard associated with inhalation of vapors and particulates for onsite receptors were below levels of concern.

Health Risk Estimates

The total noncancer hazard index (ratio of site-related exposure to acceptable exposure) for all chemicals and all exposure pathways was significantly less than 1.0 for the future occupational receptor under the reasonable maximum exposure (RME) scenario. According to the EPA (1989), because the Hazard Index for evaluation of all chemicals and all toxicological endpoints is less than unity (1.0), there is not a concern for potential chronic adverse health effects at the Site for future occupational populations. As the current onsite occupational receptors are only exposed to site-related soil chemicals via inhalation exposure, the Hazard Index associated with their potential exposures is significantly lower than that of the future occupational receptor.

The estimated increased cancer risk is 9×10^{-6} (nine in one million) for the future occupational receptor under the RME scenario. Using more typical exposure parameters for the future occupational receptor results in an estimated cancer risk of 4×10^{-7} (four in ten-million). For the RME scenario, exposure to PCBs contributed to approximately 96 percent of the cancer risk. In the average exposure scenario, exposure to PCBs contributed approximately 64 percent of the cancer risk.

The estimated cancer risk associated with the current onsite worker, based on inhalation of particulates and vapors, is 3×10^{-7} using RME assumptions. Because the estimated cancer risks are within the range of increased cancer risks that have typically been considered "insignificant" for worker populations at both the State and Federal level, it may be concluded that future occupational use of the Site does not pose a significant increased cancer risk under the set of conditions described in this assessment.

Potential health impacts from exposure to lead were evaluated using the "LEAD SPREAD" model of the California Department of Toxic Substances Control (DTSC, 1992). This model provides a method for estimating distribution of blood-lead levels in a population exposed to lead from impacted soils and other

sources (e.g.,diet). DTSC guidance suggests that the blood lead concentration of concern is 10 micrograms per deciliter (10 μg/dL) of whole blood, and the point of departure for risk management is a 1 percent risk of exceeding this value. The results of the model for adult exposure at the Site indicate that the predicted blood-lead level was significantly below the level of concern of 10 μg/dL at the one-percent risk level. Therefore, the presence of lead in soil at the Site does not pose a health risk for future occupational receptors.

Potential Groundwater Impact of Soil Contaminants

As a conservative screening evaluation, the maximum soil concentration, for all selected chemicals of concern, was evaluated for future impact to groundwater using the VLEACH model, a vadose zone flow and transport model. The mass output of the VLEACH model was input into a Groundwater Mixing model to estimate the maximum groundwater chemical concentrations (in the uppermost aquifer) that could potentially occur overtime as a result of current levels of chemicals in site soils. The evaluation indicated that PCBs and PNAs would not reach groundwater. Maximum soil concentrations of VOCs were predicted to reach groundwater within several years in low part-per-trillion concentrations. Using average soil concentrations for the Site, the resultant groundwater concentrations would be significantly lower. Therefore, soil contaminants at the Site are not expected to impact (i.e., degrade) groundwater underlying the Site.

1.0 INTRODUCTION

This baseline health risk assessment has been prepared by Harding Lawson Associates (HLA) on behalf of Texaco. The assessment fulfills the requirements for a baseline risk assessment of the Walker property site (the Site), for which Texaco is a "potentially responsible party" (PRP). Site data used in the assessment was obtained in accordance with the workplan entitled *Remedial Investigation Feasibility Study Workplan, Walker Property Site, Santa Fe Springs, California.* This workplan was submitted to DTSC in April 1993 and approved on June 28, 1993. The assessment has been prepared in a manner consistent with EPA's *Risk Assessment Guidance for Superfund*, Volume 1 (1989) and *Cal-EPA's Supplemental Guidance for Human Health Multimedia Risk Assessments of Hazardous Waste Sites and Permitted Facilities* (1992).

The purpose of this baseline risk assessment was to assess the nature and extent of potential human health risks associated with current conditions and future uses of the Site in Santa Fe Springs, California. Specifically evaluated in the risk assessment was the area of the Site encompassing the Railroad Section, the Lakewood Section, and the intervening portion of the Site.

The Site has been used for, among other things, storage of crude oil, refined product, waste-oil, and storage/disposal of oil-well drilling fluids. The only current occupant of the property is Balboa/Pacific Corporation (Balboa) at 11240 Bloomfield Avenue, which designs and constructs industrial wastewater treatment systems on a small parcel of the Site.

The assessment quantitatively evaluated the potential health impacts associated with human exposure to Site-related chemicals. Soil data collected during site investigations from 1985 to 1994 were used to establish representative concentrations of metals and semivolatiles; for volatile organic compounds (VOCs); representative soil concentrations were based on data collected during 1993-1994. Where appropriate, environmental fate and transport models were used to estimate ambient air concentrations of chemicals and the potential of site-related chemicals to migrate from soils to groundwater.

The remainder of this document is organized into the following sections:

Section 2.0 <u>Site characterization</u> - the history of the site and characterization of soil and groundwater are discussed.

Section 3.0 <u>Identification of chemicals of concern</u> - chemical selection criteria for chemicals of concern in soil and groundwater are presented.

Section 4.0 Exposure assessment - the exposure assumptions and equations used to assess chemical uptake are presented.

Section 5.0 Environmental fate and transport modeling - the fate and transport methodologies used to estimate air and groundwater concentrations from soil chemicals are presented.

Section 6.0 Toxicity assessment - a brief summary of the toxicity of each chemical of concern and the toxicity values used to characterize risk are discussed.

Section 7.0 Dose calculations and health risk estimates - the contaminant doses and associated health risks are calculated.

Section 8.0 Risk characterization - the toxicity and exposure assessments are summarized and integrated into quantitative and qualitative descriptions of risk.

Section 9.0 References

2.0 SITE CHARACTERIZATION

This section presents a review of the site setting and conditions relevant to the risk assessment. The information presented in this section is excerpted from Sections 1,2, and 4 of the *Remedial Investigation (RI) Report.*

The Site is located in the city of Santa Fe Springs, Los Angeles County, California (Plate 1) of the RI report. The Site is fenced and occupies approximately 21.32 acres. The Site is bordered by industrial areas to the north, east, and south. The Metropolitan State Hospital is located across Bloomfield Avenue to the west. Residential areas, including schools, are located approximately 1/4 mile from the Site.

The only current occupant at the site is Balboa, a company that designs and constructs industrial wastewater treatment systems. Balboa operations include one building and a materials storage/fabrication yard. A section of the Powerine Oil Company refinery is located adjacent to the Site, across Lakeland Road. An abandoned railroad spur exists along the eastern portion of the Site, and a earthen-berm/concrete wall retention dike is present in the southwest corner of the property.

2.1 Site History

The Walker Property was owned by Getty from 1934 until it was sold to Walker in 1979. The Site was used since the 1920s for storage of crude oil, refined product, and waste oil. Additionally, some disposal of oil-well drilling fluids and muds occurred onsite. At various periods, onsite aboveground storage tanks (AGSTs) held crude oil, diesel fuel, waste oil, and carbon dioxide. Three underground storage tanks (USTs) were also onsite. In the 1960s, a commercial transport/utility trailer company stored diesel fuel in a 6,000-gallon UST; during the 1970s and 1980s, a 12,000-gallon UST was used to store waste oil.

From 1968 to 1984, Getty leased two large AGSTs on the southwest portion of the Site to Powerine Oil Company, which operates a refinery immediately across Lakeland road, to the northwest. From 1969 until 1984, Powerine handled butane, liquified petroleum gas, jet fuel, fuel oil, and liquid asphalt in the southwest portion of the Site.

2.2 Soil Characterization

A number of site investigations have been conducted since 1985. Summaries of historic soil and groundwater analyses are presented in Section 1 of the RI report. A summary of the results of the

current RI is presented in Section 4 of the RI report. Site data relevant to the risk assessment are presented below.

2.2.1 Previous Investigation

Between 1985 and 1990, soil samples were analyzed from ninety soil borings and six groundwater monitoring wells. Soil samples from exploration trenches and tank/pipeline excavations were also collected and submitted for analysis. Laboratory analyses included total recoverable petroleum hydrocarbons (TRPH) and total petroleum hydrocarbons (TPH) (EPA Methods 418.1 and 8015M); VOCs (EPA Method 8010); benzene, toluene, ethylbenzene, and xylenes (BTEX) (EPA Method 8020); VOCs (EPA Method 8240; EPA Methods 601 and 624); pesticides and PCBs (EPA Method 8080); polynuclear aromatic hydrocarbons (PNAs) (EPA Method 8310); and metals (Title 22 metals, lead, barium). Findings of these investigations indicated:

- Petroleum hydrocarbons (including waste oil, jet fuel, diesel fuel, and limited amounts of gasoline) were detected in soil in concentrations up to 2,200 mg/kg within the Railroad section of the Site.

- Elevated Levels of PCBs in soil (up to 248 mg/kg) were detected in the Lakewood section of the Site.

- Elevated levels of metals (lead and copper [one sample]) were detected in soil in the Lakewood section and just west of the Railroad section of the Site. Maximum concentrations detected were 2,470 mg/kg for lead.

- Elevated levels of chlorinated solvents (1,1,1-trichloroethane, 1,1-dichloroethane, tetrachloroethylene, and trichloroethylene) were detected in one soil sample from the Lakewood section of the Site. The maximum concentration detected was 32 mg/kg trichloroethylene.

- BTEX was detected in a limited number of samples in the Lakewood and Railroad sections of the Site. Maximum concentration detected was xylene (120 mg/kg) in the Lakewood section.

Concentrations of soil chemicals observed in previous investigations are presented in Attachment A.

2.2.2 Remedial Investigation

The RI was conducted in 1993 and 1994. The soil sampling plan used during the RI was developed based on site historical data, results of previous investigations, and risk assessment needs. Two specific areas, identified in the Remedial Action Order, were targeted for investigation of site soils. These were:

(1) "Lakewood Section" - an area located in the western portion of the Site where underground storage tanks and AGSTs were previously located.

(2) "Railroad Section" - an area located in the eastern portion of the Site. This area includes a former drainage course, previous sump areas, and Powerine's loading rack facility. Drilling muds were historically disposed of in this area.

These areas are shown on Plate 2 of the RI report.

Soil data were collected in two phases. During the first phase of the RI (September to October, 1993), soil samples were collected from both areas and analyzed for total fuel and extractable hydrocarbons (EPA Method 8015 M; VOCs (EPA Method 8260); TRPH (EPA Method 418.1); SVOCs (EPA Method 8270); lead (EPA Method 6010); and PCBs (EPA Method 8080). During the second phase (May 1994), soil samples were collected from limited areas and analyzed for total fuel and extractable hydrocarbons (EPA Method 8015M); TRPH (EPA Method 418.1); and SVOCs (EPA Method 8270); total lead (EPA Method 7421) and PCBs (EPA Method 8080). As a component of the second phase of sampling, fuel typing was conducted on five soils samples from the Railroad Section, using gas chromatography/mass spectrometer methods. Surface sediment samples were collected from areas potentially impacted by surface runoff and analyzed for total fuel and extractable hydrocarbons (EPA Method 8015M, as gasoline and diesel); VOCs (EPA Method 8260); TRPH (EPA Method 418.1); lead (EPA Method 6010); barium (EPA Method 6010); and PCBs (EPA Method 8080). These potentially impacted areas were (1) at the storm drain inlet in the southern end of the Railroad Section and (2) at the concrete box located at the northern end of the Railroad Section.

In general, the RI confirmed the findings of previous soil investigations and further delineated the extent of contamination in the two areas of interest. Analysis of surface sediment samples indicated that levels of chemicals likely to migrate via surface runoff were not elevated in areas most likely to show chemical accumulation.

Concentrations of soil chemicals from the remedial investigation are presented in Attachment B.

2.3 Groundwater Characterization

Historical groundwater data were obtained from five onsite monitoring wells installed prior to the RI. One additional groundwater monitoring well was installed in the southeast area of the Railroad Section as part of the RI in September 1993. All six Site wells were sampled in September and October 1993. The results of the groundwater investigation indicated that groundwater at the Site does not appear to have been impacted by any Site activity. Although elevated concentration of VOCs were identified in upgradient wells, the concentrations were found to decrease downgradient across the Site with no VOCs or other compounds being detected downgradient of the former sump and ponding areas. Offsite contaminant plumes and offsite sources are known to exist both upgradient and crossgradient of the Site, and most likely are the source of the compounds detected in the Site wells. Analyses included total fuel and extractable hydrocarbons (EPA method 8015M as diesel and gasoline); VOCs (EPA Method 8260); TRPH (EPA Method 418.1); and general and trace minerals (EPA Method 6010). The results of the groundwater analyses indicated the presence of chemicals that are not related to past operations on either the Railroad or Lakewood Sections of the Site.

Concentrations of chemicals in groundwater at the Site are presented in Attachment C.

3.0 SELECTION OF CHEMICALS OF CONCERN

3.1 Soil Chemicals of Concern

Data collected during site investigations conducted from 1985 to 1994 were considered in the selection of semivolatile chemicals and metals of concern. Data from the more recent and extensive remedial investigation conducted by HLA were considered in the selection of VOCs.

TPH was detected in numerous soil samples but was not quantitatively evaluated in the risk assessment because EPA and Cal-EPA have not derived toxicity criteria for TPH. TPH consists primarily of middle- to long-chain paraffinic or naphthalenic compounds. In general, long-chain petroleum hydrocarbons are considered to be relatively nontoxic. The more toxic components of TPH were evaluated for inclusion in the risk assessment. These toxic components are BTEX and PNAs.

All chemicals detected in soil, regardless of detection frequency, were initially considered for evaluation in the risk assessment. Several chemicals were subsequently excluded from the evaluation because it was likely that they did not result from activities at the Site. These chemicals include the BTEX components, benzene, toluene and mixed xylenes. These chemicals were detected only in the northernmost portion of the Railroad Section, near Lakeland Road. The likely source of these constituents was pipelines located beneath Lakeland Road, which transported refined product. Ethylbenzene was included in the risk assessment, as it was detected in one sample in an area away from the likely offsite source of BTEX constituents.

If a chemical was known to be a common laboratory contaminant, a noncarcinogen, and was detected in soils in only one sample (from over 100 samples), the chemical was excluded from the assessment. The chemicals eliminated by this criteria were acetone, di-n-octylphthalate, dibutylphthalate, and methyl ethyl ketone.

Site investigations revealed that copper and lead were the only metals found at elevated concentrations relative to background. Onsite lead concentrations of up to 2,470 mg/kg were greater than 2.0 to 200 mg/kg reported for native soils (Dragun, 1988). As copper was only detected at an elevated concentration in one soil sample, and EPA or Cal-EPA toxicity criteria (i.e., Reference Dose) do not exist for this element, this metal was not further evaluated. Although onsite barium concentrations of 24 to 2,520 mg/kg were within the reported typical native soil concentrations of 100 to 3,500 mg/kg (Dragun, 1988), barium was retained as a chemical of concern based on the variability of detected concentrations in onsite soils, and the possibility that drilling muds containing barium were deposited at the site.

Therefore, lead and barium were the two metals that were quantitatively evaluated in the risk assessment.

The selection criteria yielded 28 soil chemicals of concern that were quantitatively evaluated in this assessment. The chemicals of concern in soil are summarized in Table 1. Only chemicals detected in surficial soils were evaluated for exposure via direct contact pathways (i.e., soil ingestion and dermal contact). Chemicals detected in both surficial and subsurface soils were evaluated for potential impact to groundwater.

3.2 Groundwater Chemicals of Concern

As described in detail in the remedial investigation report, there appears to be a significant amount of offsite contribution to contaminant levels measured in groundwater sampled onsite. Because the degree of contribution to onsite (relative to offsite) activities to the presence of chemicals in groundwater has not yet been determined, information is deemed insufficient to accurately identify chemicals of concern for purposes of evaluating site-related risks from groundwater.

4.0 EXPOSURE ASSESSMENT

This section identifies the potential pathways of exposure to the chemicals at the site, the potentially exposed populations, and estimates of the frequency and duration of contact with the contaminated media. The exposure scenarios and potentially exposed population considered in this assessment are described in detail in Section 4.1. Sections 4.2 and 4.3 identify the exposure pathways and exposure parameters, respectively, that are considered for the evaluated scenario.

4.1 Exposure Scenarios

The exposure scenarios considered in this assessment address both current and potential future conditions at the Site. The only current occupant of the Site is Balboa, located on a small parcel of land just south of the Lakewood section. The parcel of land on which Balboa is located is approximately 300 feet contaminated areas of the Lakewood section, but workers at this facility could be exposed to airborne contaminants emitted from contaminated areas of the Site. Theoretically, nearby offsite populations could be exposed to site-related contaminants via contact with groundwater contaminants that have migrated offsite or inhalation of vapors and particulates that may be emitted from onsite sources. As discussed in Section 8.0, the health risks associated with particulate and vapor emissions onsite were negligible, and therefore characterization of offsite exposures to airborne contaminants (which would be considerably less) was deemed unnecessary. As discussed in Section 2.0, it is clear that there are offsite contributions to the groundwater contaminant levels, and the relative degree of contribution from onsite (if any) and offsite sources has not yet been quantified. Accordingly, exposure to groundwater is not considered in this assessment, because it is not yet possible to evaluate groundwater risks directly related to the Site.

The Site is located in an area of heavy industrialization. The nearest schools and residential areas are located over 1/4 of a mile to the east. Therefore, it is highly unlikely that the Site would have future use as residential land. Accordingly, a future onsite residential land use scenario was not evaluated in the risk assessment. This decision is supported by EPA *Risk Assessment Guidance For Superfund, Part A* (EPA, 1989), which notes that "an assumption of future residential land use may not be justifiable if the probability that the site will support residential use in the future is exceedingly small."

In summary, for the purposes of this assessment, the evaluated exposure scenarios were as follows:

Current:

- Onsite exposure to volatile emissions and particulates for workers at Balboa.

Future:

- An onsite occupational scenario that assumes adult exposure during a 40-hour work week.

4.2 Exposure Pathways

Pathways of exposure are the means through which an individual may come in contact with a chemical. These are determined by environmental conditions, potential for a chemical to move from one medium to another, and the activities of the exposed population. Although several potential pathways may exist, usually only a few contribute significantly to the total exposure. For a complete exposure pathway to exist, each of the following elements must be present (EPA, 1989):

- A source and mechanism for chemical release,
- An environmental transport medium (e.g., air, soil, water),
- A point of potential human contact with the medium,
- A route of exposure (e.g., inhalation, ingestion, dermal contact), and
- Bioavailability (absorption of the chemical through biological barriers).

In general, the potential pathways of exposure to environmental chemicals consist of ingestion of soil and groundwater, inhalation of vapors and particulates, and dermal contact with soil and groundwater. Exposure pathways associated with the current and future onsite occupational receptors are described below.

4.2.1 Current Worker at the Site

Current workers at the Site are associated with an onsite business, located in an area distant from where soils have been impacted by chemicals of concern. Additional exposure would be negligible from infrequent visits to other areas of the site. Therefore soil ingestion and dermal contact pathways were not evaluated for the current onsite worker at the Site. However, the current onsite worker at the Site may be exposed to chemicals emitted and translocated from contaminated areas of the Site. Low

(i.e., ppb) levels of VOCs were found at a low frequency of detection in a small percentage of the soil samples that were analyzed. Although the levels were low, and not representative of Site-wide levels, inhalation of vapors emitted from the soil was evaluated for current workers on the Site. In addition, inhalation of particulates resulting from suspended surficial soil was also evaluated.

4.2.2 Future Receptor at the Site

The future receptor at the Site may be exposed to volatile emissions and suspended soil particulates. Direct contact with contaminants in surface soil via incidental soil ingestion and dermal contact with soil could also occur, and therefore these pathways were also evaluated for the future onsite worker.

The contaminated aquifer at the Site has never been used as a drinking water source because of factors other than the presence of Site-related contamination. Hence, direct ingestion of groundwater from the aquifer is not a viable exposure pathway. In addition, the relative contribution of local, versus regional, chemical contamination has not been adequately defined and therefore, even if the impacted aquifer was used a drinking water source, it would not be possible to accurately assess uptake of Site-related groundwater contaminants. Accordingly, potential health risks associated with exposure to groundwater were not quantitatively evaluated in this assessment for current or future onsite populations.

In summary, incidental soil ingestion, dermal contact with soil, and vapor and respirable particulate inhalation were considered for future onsite occupational populations. Vapor and respirable particulate inhalation were the only pathways considered for current onsite occupational receptors located at the Balboa facility.

4.3 Exposure Parameters

Consistent with current EPA guidance, the following general dose equation is used to assess uptake for each direct exposure pathway considered in this assessment:

$$ADD = \frac{C \times IR \times EF \times ED \times B}{BW \times AT}$$

Where:

ADD	=	Average daily dose (mg/kg-day)
C	=	Chemical concentration in environmental medium (mg/kg)
IR	=	Intake rate (mg/day)

EF	=	Exposure frequency (fraction of year exposed)
ED	=	Exposure duration (years)
B	=	Bioavailability
BW	=	Body weight (kg)
AT	=	Averaging time (years)

For noncarcinogenic effects, AT = exposure duration
For carcinogenic risks, AT = 70 years, and the dose calculated is a Lifetime Average daily dose (LADD)

For each receptor evaluated in the risk assessment, uptake was calculated using exposure parameters associated with reasonable maximum exposure (RME) and average exposure scenarios. This approach provides a measure of the range of potential risks. An RME, as defined by EPA, is the "highest exposure that is reasonably expected to occur" and is estimated by using upperbound values of human exposure factors (EPA, 1989). An average exposure scenario provides an estimate of central tendency for exposure at the Site by using average or median values for human exposure factors. EPA has not provided guidance on estimating central tendency exposures in Superfund, but is aware of the need to develop such guidance (EPA, 1992). In lieu of such guidance, the EPA Exposure Factors Handbook (EPA, 1990) and data reported in the scientific literature were used to select appropriate values for the average exposure scenario. The exposure parameters used to calculate contaminant uptake via potential exposure pathways are described below and summarized in Table 2.

4.3.1 Receptor Characterization Factors

4.3.1.1 Body Weight

The standard body weight given in EPA and Cal-EPA risk assessment guidance is 70 kilograms. This represents the average of the median body weight for an adult male and female.

4.3.1.2 Exposure Frequency

Exposure frequency represents the rate at which an individual may come in contact with a contaminated medium. For the purposes of this assessment, a working individual was assumed to be present onsite for 8 hours per day, 5 days per week, 50 weeks per year, during job tenure in both the RME and average exposure scenarios.

4.3.1.3 Exposure Duration

Exposure duration is a measure of the length of time an individual may be in contact with a contaminated medium. For the purposes of this assessment, occupational tenure for the RME and average exposure scenarios was based on data from the Bureau of Labor Statistics (1987). These data indicate that the 90th and 50th percentile of job tenure with an employer is 25 years and 4.2 years, respectively.

4.3.2 Pathway-Specific Parameters

The following subsections discuss the rationale for the pathway-specific exposure parameter values used in this assessment.

4.3.2.1 Soil Ingestion

Soil Ingestion Rate

Incidental ingestion of soil and dust occurs primarily as a result of hand-to-mouth contact and ingestion of soil particulates that have been deposited on foods and surfaces. For an occupational receptor, incidental ingestion of soil and dust depends on the type of work performed. A study by Calabrese et al. (1990), limited by the number of test subjects, is the only published study that examined soil ingestion in workers via soil tracer element studies. From this study, EPA guidance (EPA, 1991) suggests using a value of 50 milligrams of soil per day as an upperbound (RME) estimate value for nonsoil-invasive worker activities. This value is considered conservative and is further substantiated by the extensive work conducted by Calabrese and co-investigators in children (Calabrese and Stanek, 1991a,b). Paustenbach, et al. (1992) have evaluated adult soil ingestion rates based on the data of Calabrese and suggest that a more likely, yet still conservative, ingestion rate for adults is 10 milligrams per day.

Oral (Gastrointestinal) Bioavailability

Bioavailability is a measure of the degree to which a chemical is systematically absorbed following body contact. When chemicals are bound to soil, the efficiency of absorption generally decreases relative to the free, or unbound, form (Goon, et al., 1990, 1991). Bioavailability is typically reported as the percentage of the applied or administered dose of a chemical that is ultimately absorbed. For the purposes of this risk assessment, a conservative oral bioavailability factor of 1.0 (100 percent absorption) was used.

4.3.2.2 Dermal Contact with Soil

Skin Surface Area

Skin surface area represents the amount of exposed skin that may come into contact with contaminated soil. For the RME occupational receptor, the hands, forearms, and head were assumed to be exposed, which corresponds to a surface area of 3,160 cm^2 based on 50th percentile surface area values (EPA, 1990). For typical workers, it was assumed that only the hands would come in contact with dust or soil, which corresponds to a surface area of 990 cm^2.

Soil-to-Skin Adherence Factor

Numerous studies have evaluated the amount of soil that is likely to be in contact with skin on a daily basis. Roels (1980) estimated that approximately 1.0 mg/cm^2 of skin adheres to a child's hand after play in and around the home. Several other studies suggest that soil adheres to skin to a lesser degree. Using adhesive tape to sample a defined area of skin, it has been suggested that the amount of soil adhering to human skin is approximately 0.5 mg/cm^2 (Lepow, 1975). In a different study, using a variety of soils of different particle size, an average of 0.2 mg/cm^2 of soil adhered to the hand (Que Hee, 1985). Current EPA dermal guidance (1992) notes that "A range of values from 0.2 mg/cm^2 to 1.5 mg/cm^2 per event appear possible. Because this range is derived from hand measurements only, it may overestimate average adherence for the entire exposed area. Thus the lower range (0.2) may be the best value to represent an average over all the exposed skin, and 1 mg may be a reasonable upper value." Cal-EPA guidance suggests the use of a default value for the adherence factor of 1.0 mg/cm^2 for evaluating dermal uptake of soil contaminants. This value was used to represent a reasonable maximum value. For assessing dermal uptake for the average worker scenario, a mid-range value of 0.2 mg/cm^2 was used.

Dermal Bioavailability

Current EPA and Cal-EPA guidance indicate that it is appropriate to account for chemical bioavailability from soil when assessing dermal uptake of chemicals from soil. The dermal absorption of benzo(a)pyrene (Wester, et al., 1990) and PCBs (Wester, et al., 1993) from soil has been studied in monkeys. For benzo(a)pyrene and PCBs, approximately 13 percent and 14 percent, respectively, of the soil-bound chemical was absorbed following a 24-hour application of the soil to monkey skin. Based on similarity in chemical structure, this value was applied to other PNAs evaluated in the assessment. For other semivolatile chemicals evaluated in the assessment, a default dermal absorption value of 10 percent

was used (DTSC, 1994). For metals associated with the Site, dermal absorption was assumed to be 1 percent (DTSC, 1994).

4.3.2.3 Inhalation of VOCs and Suspended Particulates

Inhalation Rate

The Toxics Integration Board of Superfund (TIBS) calculated inhalation rates from time\use activity level data reported in the document entitled *Development of Statistical Distributions or Ranges of Standard Factors Used in Exposure Assessments* (EPA, 1985) to develop a RME for occupational settings. An analysis of the data by TIBS indicated that the highest weekly inhalation rate for the workplace was 18 m^3/day. EPA risk assessment guidance (1991) recommends the use of a 20 m^3 per day (2.5 m^3/hour) inhalation rate for an 8-hour workday, as this value represents a reasonable upperbound inhalation rate for the occupational setting. This value was used for the RME scenario. For the average worker scenario, an inhalation rate of 10 m^3/day (1.25 m^3/hour) was assumed. This value approximates the mean of the inhalation rates for adult males engaged in heavy or moderate activity, as referenced in the *Exposure Factors Handbook* (EPA, 1990).

Pulmonary Bioavailability

Vapors:

For this assessment, all the VOCs of concern were assumed to be 100-percent bioavailable via inhalation. This is a reasonable assumption because inhaled vapors are easily absorbed into the lungs.

Particulates:

Chemicals in the PM10 fraction are conservatively assumed to be 100-percent bioavailable via inhalation. A significant proportion of inhaled particulates are immediately exhaled. Therefore, not all of the PM10 particulates reach the lower respiratory tract. Further, those particulate-bound chemicals that do reach the deeper regions of the pulmonary tree are not readily absorbed across the lung/capillary interface.

5.0 ENVIRONMENTAL FATE AND TRANSPORT MODELING

This section describes the methodology used to estimate (1) the emissions of volatile contaminants from soil, (2) the ambient air concentrations associated with these emissions, (3) the air concentration of nonvolatile contaminants associated with suspended soil particulates, and (4) the potential future impact of soil contaminants to groundwater.

5.1 Vapor Emission Modeling

The transport of chemicals from contaminated media to the atmosphere is a complex process. The physical properties of the chemical (e.g., vapor pressure, solubility, soil absorption), physical properties of the soil matrix (e.g., bulk density, porosity, organic carbon, moisture content) and environmental factors (e.g., temperature, humidity, depth to contamination, annual precipitation, wind speed) all govern vapor emission rates. The vapor emission model used in this assessment and the predicted emission rates for the Site are discussed below.

Hwang-Falco Emission Model

The Hwang-Falco model is a volatile emissions model recommended for use in the *Preliminary Endangerment Assessment Guidance Manual* (DTSC, 1994). This simple model was used as a screening evaluation of the risks associated with vapor inhalation for the Site. Because the cancer and noncancer risks associated with emission rates generated by this model were negligible, it was not necessary to estimate emissions by a less conservative, yet more realistic model (i.e., the Jury Behavior Assessment Model).

For purposes of this assessment, the 4.2-year and 25-year average flux rates were calculated for each volatile soil chemical of concern using default soil parameters found in the *Preliminary Endangerment Assessment Manual* (DTSC, 1994). The periods over which flux rates were averaged correspond to a 50th percentile and 95th percentile occupational exposure duration, respectively, as described in Section 4.0.

The 95th percent upper confidence limits (UCLs) of the arithmetic mean soil concentrations of the subsurface samples (greater than 1.5-foot depth) evaluated in HLA's RI were used as representative concentrations for model input. Representative soil concentrations, other model input parameters, and calculational spreadsheets for all volatile chemicals are presented in Attachment D. The flux rates predicted by the Hwang-Falco model for the occupational scenarios were used directly in the estimation of onsite ambient air concentrations.

Air Concentration From Volatile Emissions

uate potential contaminant uptake via inhalation, the ambient air concentrations for the chemicals ern were determined from the emission rates. As described below, the "box model" was used to e onsite ambient air concentrations.

ple, yet conservative, approach to the prediction of onsite concentrations is the use of a box model. model is a simple mass-balance equation that uses the concept of a theoretically enclosed space or er the area of interest. The model assumes the emission of compounds into a box, with their al based on wind speed. Airborne concentrations for the area can then be calculated and used to ent onsite air contaminant concentration. The box model fails to fully take into account the s processes of dispersion and may lead to the prediction of relatively high exposure concentrations at relatively small flux rates, and is therefore used as a conservative screening level model. The sure concentration in the theoretical box is calculated using the following equation:

$$Ca = \frac{E}{LS \times V \times MH}$$

re:

Ca	=	chemical concentration in air, mg/m^3
E	=	emission rate over site (mg/sec) (from flux model)
LS	=	length dimension, perpendicular to the wind (m)
V	=	average wind speed within the mixing zone (m/sec)
MH	=	mixing height (m)

e length dimension was assumed to be equivalent to the square root of the area of the box. The erage wind speed within the mixing zone was assumed to be 2.25 meters per second. This is a nservative value associated with a calm wind speed, and is a default value in the Preliminary ndangerment Assessment Guidance Manual (NDTSC, 1994). The mixing height was set to approximate e breathing zone of an average person (2.0 meters). The predicted air concentrations were associated ith the breathing zone at the border of the site, where the estimated air concentrations are highest.

he box model input parameters and calculational spreadsheets are presented in Attachment D. The nsite airborne VOC concentration estimates for the occupational scenarios are presented in Table 3, with federal Occupational Safety and Health Administration (OSHA) 8-hour time weighted averages given as a comparison. Predicted air concentrations range from 2,800,000 to 19,900,000 times lower than

ıt occupational exposure limits. For purposes of this assessment, the estimated ambient ntration of VOCs over the entire site was calculated.

Air Concentration of Site-Related Chemicals Associated With Suspended Particulates

particulate resuspension factor (RSF) accounts for the concentration of suspended particulates in air :h are respirable and originate from the Site. Respirable particulates are those less than 10 microns iameter (also referred to as PM10) and are typically measured by local and State air pollution control ıcies. Nonsoil sources of respirable particulates include industrial materials, motor vehicles, oil ning, secondary sulfate, paint, and pigment. For the purposes of this assessment, it was servatively assumed that 100 percent of the respirable particulate present at the Site originated from ite soils. In reality, Site soil contribution to airborne particulate would be substantially less. For this essment, a PM10 value of 50 ug/m^3 was used, which is the default value used in the DTSC "LEAD READ" model (1992). The estimated concentration of respirable particle-bound chemicals in air was ıculated as follows:

Respirable air concentration of chemical (mg/m^3) = surface soil concentration (mg/kg) x PM10 (ug/m^3) x conversion factor (kg/ug)

his equation is incorporated into the spreadsheets used for calculating inhalation doses from suspended articulates (Attachment H).

;.4 Soil Leachate Model

The potential for contaminants in subsurface soils to impact groundwater was evaluated using a two-step modeling process. In the first step of the modeling process. a vadose zone flow and transport model, VLEACH (CH2M Hill, 1990), was used to simulate transport of the chemical from the unsaturated zone to the uppermost aquifer. The second step utilized chemical mass output from the VLEACH model as input into a Groundwater Mixing Model (HLA, 1993). The Groundwater Mixing Model simulates chemical mixing with groundwater and estimates the resultant groundwater chemical concentration in the uppermost aquifer.

VLEACH was specifically developed for USEPA Region IX. VLEACH models contaminant transport by dissolved liquid phase-transport via recharge driven advection in pore water and concentration-driven gas diffusion through air-filled pore space in the vadose zone. VLEACH does not model gravity-driven

downward migration of non aqueous-phase liquids (NAPLS), nor density-driven migration of high concentration vapors. Soil concentrations of VOCs observed at the site were well below concentrations expected for soil containing residual NAPLs or high concentration vapors.

Based on information collected during prior and current investigations at the Site, a conceptual model was developed to simulate in-situ conditions related to vadose and saturated zone chemical fate and transport. The conceptual model is applicable to the vapor emission, soil leachate, and groundwater mixing models. Soil boring logs were reviewed to characterize subsurface conditions. In general, the western half of the Site consists of native material from the surface, whereas the eastern portion consists of artificial fill as thick as 10 feet. Fine-grained soils (silt and clay) dominate to a depth of approximately 15 feet below ground surface. An intermediate coarse-grained zone (fine- to medium-grained, well sorted sand with some mixed silt and clay) extends to a depth of approximately 105 feet below ground surface. A lower fine-grained zone (silt and fine-grained sand) extends to approximately 130 feet below ground surface. Depth to water is approximately 100 feet below ground surface.

The input parameters required for the VLEACH model are categorized into soil, hydrologic, and chemical-specific properties. The soil parameters include effective porosity, bulk density, volumetric water content, and soil organic carbon content. The hydrologic parameters include recharge rate and unsaturated zone thickness. The chemical-specific parameters include the organic carbon distribution coefficient, Henry's Law constant, aqueous solubility, free air diffusion coefficient, and chemical concentration.

Based on the extremely low detection frequency of each chemical of concern in soil at the site (typically less than 5%), and the lack of clustering for each chemical, the source area for each contaminant was assumed to be 100 square feet. Based on characterization of the site, the unsaturated zone thickness was assumed to be 100 feet. The values used for effective porosity (0.36) and bulk density (1.70) are associated with a clayey soil (Maidment, 1993).

The Groundwater Mixing Model consists of a two-dimensional flow tube of the upper aquifer beneath the VLEACH soil column. The depth of the flow tube is equivalent to the saturated thickness of the upper aquifer. The equation used to estimate the resultant groundwater concentration is as follows:

$$Caq = \frac{Mc}{[(Qv \times A) + (K \times b \times i \times W)] \times \Delta t}$$

Where:

Caq	=	groundwater concentration of the chemical in the aquifer (g/ft^3)
Mc	=	mass of the chemical moving out of the soil column during one year (g)
Qv	=	recharge rate (feet/yr)
A	=	ground surface area of the soil column (sq feet)
K	=	hydraulic conductivity (feet/yr)
Δt	=	time step length (year)
b	=	aquifer thickness (feet)
i	=	hydraulic gradient (dimensionless)
W	=	aquifer width in the control volume (feet)

The uppermost aquifer width was assumed to be 40 feet and the hydraulic gradient was assumed to be 0.008, based on characterization of the site. The recharge rate was assumed to be 0.167, based on annual rainfall in Santa Fe Springs.

As a conservative screening evaluation, the maximum soil concentration for all selected chemicals of concern was evaluated for future impact to groundwater. Each chemical was input into the cell associated with the depth at which the maximum concentration of the chemical was detected. Each cell in the model was 5 feet in width. The estimated maximum groundwater concentrations of chemicals of concern within the 100-year simulations are presented in Table 4. Input parameters and full model runs for each chemical are presented in Attachment E.

6.0 TOXICITY ASSESSMENT

This section describes the regulatory dose-response criteria for each of the chemicals of concern. Sections 6.1 and 6.2 present the basis for the development of noncancer and cancer toxicologic criteria, respectively. Section 6.3 presents the numerical criteria for the chemicals potentially associated with exposure at the Site. Toxicologic uprofiles for the risk-driving chemicals at the Site are presented in Attachment F.

6.1 Noncarcinogenic Health Effects

It is widely accepted that noncarcinogenic effects from chemical substances occur only after a threshold dose is reached. For the purposes of establishing health criteria, the threshold dose is usually estimated from the no-observed adverse effect level (NOAEL) or the lowest-observed adverse effect level (LOAEL) determined from chronic animal studies. The NOAEL is defined as the highest dose at which no adverse effects are observed, while the LOAEL is defined as the lowest dose at which adverse effects are observed.

Uncertainty factors or safety factors are applied to the NOAEL/LOAEL observed in animal studies or human epidemiologic studies to establish "reference doses" (RfDs). An RfD is an estimate of a dose level that is not expected to result in adverse health effects in persons exposed for a lifetime, even among the most sensitive members of the population.

6.2 Carcinogenic Responses

Regulatory agencies have generally assumed that agents that are carcinogenic should be treated as if they do not have thresholds. In short, the dose-response curve for carcinogens used for regulatory purposes only predicts zero risk when there is zero dose: i.e., for all doses, some risk is assumed to be present. Cancer risk from human exposures to carcinogenic chemicals are modeled mathematically using either animal data or, when a chemical is a known human carcinogen, human data. EPA and Cal-EPA generally use the linearized multistage model for low-dose extrapolation.

Cancer risks for exposure to carcinogens are defined in terms of probabilities. The probabilities identify the likelihood of a carcinogenic response in an individual that receives a given dose of a particular chemical based on mathematical modeling of the data. These probabilities are expressed in terms of the slope factor (SF). The SF, when derived from animal studies, is the upper 95-percent confidence limit on the probability of a carcinogenic response per unit daily intake of a chemical over a lifetime, usually

expressed as $(mg/kg\text{-}d)^{-1}$. The slope factor multiplied by the predicted human uptake of the chemical provides an estimate of the incremental cancer risk.

In assessing the carcinogenic potential of a chemical, the Human Health Assessment Group (HHAG) of EPA classifies the chemical into one of the following groups, according to the weight of evidence from epidemiologic and animal studies:

- Group A - Human carcinogen (sufficient evidence of carcinogenicity in humans)
- Group B - Probable human carcinogen (B1-limited evidence of carcinogenicity in humans; B2-sufficient evidence of carcinogenicity in animals with inadequate or lack of evidence in humans)
- Group C - Possible human carcinogen (limited evidence of carcinogenicity in animals and inadequate or lack of human data)
- Group D - Not classifiable as to human carcinogenicity (inadequate or no evidence)
- Group E - Evidence of noncarcinogenicity for humans (no evidence of carcinogenicity in adequate studies).

Quantitative carcinogenic risk assessments are performed for chemicals in Groups A and B and on a case-by-case basis for chemicals in Group C.

6.3 Toxicity Criteria

Cal-EPA toxicity criteria, when available, were used to evaluate carcinogenic responses to Site-related chemicals. When Cal-EPA slope factors were not available, EPA slope factors were used. For evaluating noncarcinogenic effects for all Site-related chemicals except lead, EPA toxicity criteria were used, as Cal-EPA has not promulgated noncarcinogenic toxicity criteria. Potential noncarcinogenic effects associated with exposure to lead were evaluated using Cal-EPA guidance and the "LEADSPREAD" model.

Cal-EPA (OEHHA) has recently developed Potency Equivalency Factors (PEFs) for the carcinogenic PNA which assess the relative potencies of PNAs and PNA derivatives. The PEFs are presented and discussed in the CalEPA/Air Resources Board Health Assessment for benzo[a[pyrene (CalEPA, 1994). "Expedited" cancer potency values have been developed for dibenz(a,h)anthrecene, 7,12-dimethylbenzanthracene,

3-methylcholanthrene, and 5-nitroacenapthene using standard risk assessment methodology and valid tumor data. For the remaining 20 carcinogenic PNAs, a relative carcinogenic activity was assigned to each, based primarily on cancer bioassay data. The four expedited cancer potency values are listed in Table 5. The cancer potency value for benzo[a]pyrene and the PEFs are listed in Table 6. These values were used in the characterization of risks associated with PNAs.

EPA has not derived noncancer toxicity criteria for several of the PCBs and PNAs. Consistent with Cal-EPA guidance, it was assumed that the toxicity of these compounds was equivalent to that of the most toxic chemical within the chemical class of which the compounds of concern were members.

For purposes of this assessment and consistency with EPA guidance, the oral slope factors were used to represent dermal slope factors. Where inhalation toxicity criteria for a chemical did not exist, oral toxicity criteria were used.

Toxicity criteria used in the risk assessment are presented in Tables 7 and 8.

7.0 DOSE CALCULATIONS AND HEALTH RISK ESTIMATES

This section describes the methods used to estimate the chemical uptake (dose) and associated health risks for the exposure scenarios described in Section 4.0. Dose is defined as the average amount of chemical absorbed by the body over a given period of time. For noncarcinogenic effects, the dose is averaged over the period of exposure and is referred to as the average daily dose (ADD). For carcinogenic effects, the dose is averaged over a lifetime and is referred to as the lifetime average daily dose (LADD). Subsection 7.1 describes the derivation of representative chemical concentrations in surficial soils and subsurface soils. In Subsection 7.2, these chemical concentrations and the exposure estimates defined in Subsection 4.0 are input to pathway-specific dose equations to estimate chemical uptake via each exposure pathway.

7.1 Representative Chemical Concentrations

As discussed in Section 5.0, the 95th-percent upper confidence limit (95 percent UCL) of the arithmetic mean of subsurface soil concentrations (sample depth greater than 1.5 feet) of the chemicals of concern was input into the Hwang and Falco vapor emission model to predict vapor concentrations in air at breathing height.

Similarly, the 95th percent UCL of arithmetic mean surficial soil concentrations (sample depth 0-1.5 feet) of these chemicals were used as representative chemical concentrations for the soil ingestion and dermal contact exposure pathways and for input to the particulate suspension model. In calculating 95 percent UCL values from Site data, it was assumed that the concentration of chemical associated with nondetect values was equal to half of the detection limit of those values. Where the 95 percent UCL concentration exceeded the maximum detected value (such as with certain PNAs), the maximum detected value was used.

The use of the 95th percent UCL as a conservative representative Site concentration assumes that samples are collected based on a statistically valid sampling plan. For one class of contaminant at the Site (PCBs), this was not the case. PCBs were oversampled in the area of the Site where they were detected. DTSC guidance suggests that in cases where "hot spots" are oversampled, "it will often be appropriate...to divide the site into multiple area sources instead of considering the entire site as a single source; averaging the hot spots separately from large areas of low or zero concentrations of a chemical introduces less error than averaging across the whole site" (DTSC, 1990). As presented in Plate 3, two rectangles were used to define the area where elevated levels of PCBs were found. The inner rectangle encompasses an area (designated A) where concentrations of PCBs in soil samples exceeded 10 mg/kg.

Between the inner rectangle and the outer rectangle (designated B) encompasses an area where minimum to nondetectable levels of PCBs were detected. No detectable levels of PCBs were found in any samples outside of Subareas A and B. In the two defined subareas where elevated levels of PCBs were detected and sampling was conducted at higher density than other Site locations, the 95 percent UCL concentrations of Aroclors were calculated. Representative surface soil concentrations of PCBs were calculated for the entire site by averaging according to area, as follows:

$$\text{Concentration} = \frac{[\text{Concentration at A x area of A}] + [\text{Concentration at B x area of B}]}{\text{Area of Entire Site}}$$

Although PNAs were not oversampled in any area of the Site, they were only detected in surface soils in the Railroad Section. Based on the Site characterization data, it was assumed that PNA concentrations in other areas of the Site were not above background concentrations. Accordingly, a weighted average concentration of each PNA of concern was calculated using the following equation:

$$\text{Concentration} = \text{Railroad section conc (95 percent UCL)} \times \frac{\text{Area of Railroad Section}}{\text{Area of Site}}$$

Soil concentrations PCBs and PNAs were adjusted to account for their estimated half-life in soil, using values listed in a California guidance document for "air toxics" (CAPCOA, 1993). Accounting for chemical depletion is consistent with current EPA guidance, which states that it is appropriate to consider degradation for chemicals or site conditions where "leaching, volatilization, photolysis, biodegradation, wind erosion, and surface runoff will reduce chemical concentrations over time" (EPA, 1989).

Chemical loss from soil generally follows an exponential decay process described in the following equation:

$$N = N_o e^{-kT}$$

This equation provides an estimate of the amount of chemical (N) remaining at time (T) given the initial concentration at time (No) (e.g., present), and the first order decay constant (k). To calculate the average concentration (C_{av}), over the interval time (T1 to T2), the concentration must be summed over the time period of interest and divided by the total time (T2-T1). Subsequent to integrating the previous equation and substituting C_{av} for N, from T2-T1, the following equation was used to estimate a representative chemical concentration for the time intervals of interest (i.e., 4.2 years and 25 years):

$$C_{av} = \frac{C_o}{(T2-T1)k} (e^{-kT2} - e^{-kT1})$$

Where:

C_{av} = Representative soil concentration for a particular exposure period

C_o = Soil concentration at the beginning of the exposure period

T2-T1 = Time period of exposure

k = Decay constant $(years)^{-1}$

Representative soil concentrations of chemicals of concern for human exposure are presented in Table 9. Spreadsheets for calculation of representative concentrations for PNAs and PCBs are presented in Attachment G. Chemical degradation was not incorporated when deriving estimates of vapor emissions or groundwater impacts from soil chemicals.

7.2 Dose Calculations

This section presents the methods used to calculate dose for each exposure pathway. The contaminant concentrations discussed in Subsection 7.1 and the exposure estimates described in Section 4.0 are input into equations to yield a dose estimate. Attachment H presents the dose calculation spreadsheets and health risk estimates for each exposure scenario. The health risk estimates are discussed in detail in Section 8.0.

7.2.1 Soil Ingestion

Chemical uptake via ingestion of surficial soil is calculated according to the following equation:

$$\text{Dose} = \frac{C \times IR \times CF \times EF \times ED}{BW \times AT}$$

Where:

Dose = Dose for each chemical of concern (mg/kg-day)

C = Soil concentration (mg/kg)

IR = Soil ingestion rate (mg/day)

CF = Conversion factor (10^{-6} kg/mg)

EF = Exposure frequency (workdays/365)

ED = Exposure duration (years)

BW = Body weight (kg)

AT = Averaging time - time period over which exposure is averaged (years)
(= ED for noncarcinogens; 70 years for carcinogens)

7.2.2 Dermal Contact With Soil

Chemical dose via dermal contact with surficial Site soil is calculated according to the following equation:

$$\text{Dose} = \frac{C \times SA \times AF \times Abs \times CF \times EF \times ED}{BW \times AT}$$

Where:

Dose = Dose for each chemical of concern (mg/kg-day)

C = Soil concentration (mg/kg)

SA = Surface area of exposed skin (cm^2)

AF = Soil to skin adherence factor (mg/cm^2)

Abs = Absorption from soil (percent)

CF = Conversion factor (10^{-6} kg/mg)

EF = Exposure frequency (workdays/365)

ED = Exposure duration (years)

BW = Body weight (kg)

AT = Averaging time - time period over which exposure is averaged (years)
(= ED for noncarcinogens; 70 years for carcinogens)

7.2.3 Vapor and Particulate Inhalation

Chemical uptake via inhalation of vapors or particulates is calculated according to the following equation:

$$\text{Dose} = \frac{C \times IR \times EF \times ED}{BW \times AT}$$

Where:

Dose	=	Dose for each chemical of concern (mg/kg-day)
C	=	Vapor or particulate bound chemical concentration from model (mg/m^3)
IR	=	Inhalation Rate (m^3/day)
EF	=	Exposure frequency (workdays/365)
ED	=	Exposure duration (years)
BW	=	Body weight (kg)
AT	=	Averaging time - time period over which exposure is averaged (years) (= ED for noncarcinogens; 70 years for carcinogens)

8.0 RISK CHARACTERIZATION

This section of the risk assessment summarizes and characterizes the health risk estimates derived in Section 7.0. Subsections 8.1 and 8.2 describe the noncancer and cancer health risk estimates, respectively. Regulatory perspectives on cancer risks are presented in Subsection 8.3. Subsection 8.4 describes the potential groundwater impacts of Site-related chemicals. In Subsection 8.4, the conservatism of methods and assumptions used in the risk assessment are discussed.

8.1 Noncancer Hazard

The noncancer hazard is determined by summing the ratios of the ADD/RfD (hazard quotient) for each chemical and each exposure pathway. The sum of the hazard quotients is referred to as the "hazard index" (HI). If this total sum is greater than 1, there may be potential health effects. This is considered a conservative method. Specifically, it is more appropriate to sum the ratios of ADD/RfD for those chemicals that act on the same target organ (i.e., respiratory tract, liver, etc). However, summing the ADD/RfD is used here as a conservative approach.

Hazard indices were calculated for the following receptors:

- Future workers on the Site, under RME and average exposure assumptions, and
- Current onsite workers, under RME and average exposure assumptions.

Table 10 summarizes the hazard indices associated with RME and average exposure parameters for current and future workers on the Site. The sum of all pathway hazard indices is less than 1 for both the RME and average exposure scenarios, indicating that there is not a noncarcinogenic hazard associated with soil chemicals of concern at the Site, under conditions described in this assessment.

Under RME assumptions, estimated noncancer hazards are substantially less for the current worker on the Site relative to the future worker on the Site. This is because the direct contact pathways (dermal contact, soil ingestion) are the dominant sources of exposure under the RME scenario. Under average exposure assumptions, the estimated noncancer hazards are closer as a result of the vapor inhalation pathway arising as a more significant pathway of exposure to noncarcinogens.

Potential health impacts from exposure to lead were evaluated using the DTSC (1992) "LEADSPREAD" model (calculational spreadsheet presented in Attachment I). The model provides a method for

estimating the distribution of blood lead levels in a population exposed to lead from impacted soils and other sources (e.g., diet). DTSC guidance suggests that the blood lead level of concern is 10 micrograms per deciliter of whole blood, and the point of departure for risk management is a 1 percent risk of exceeding this value. The results of the model indicate that blood lead levels for future workers on the Site would be significantly below 10 micrograms per deciliter at the one percent risk level. Therefore, lead at the Site does not pose a significant health risk for future occupational populations at the Site.

8.2 Carcinogenic Risks

For potential carcinogens, risks are estimated as the incremental probability of an individual developing cancer over a lifetime as a result of exposure to the chemical. The lifetime ADD is multiplied by the chemical-specific slope factor to determine the incremental risk of cancer.

Cancer risks were calculated for the following receptors:

- Future workers on the Site, under RME and average exposure assumptions, and
- Current workers on the Site, under RME and average exposure assumptions.

Tables 10 through 14 summarize the estimated increased cancer risks under RME and average exposure assumptions, respectively, for each chemical by each pathway. The tables also present the sum of chemical risks by pathway. Cancer risks are 9×10^{-6} (nine in one-million) and 5×10^{-7} (five in ten-million) for the future occupational receptor under the RME and average exposure assumptions, respectively. For the current onsite receptor, the estimated cancer risks are 3×10^{-7} (three in ten-million) and 4×10^{-7} (two in ten-million) for RME and average exposure assumptions, respectively.

8.3 Risk Perspective

The risk level of one in one-million (1×10^{-6}) is often perceived as a "benchmark" (i.e., many in the regulatory community believe that a theoretical increased cancer risk of greater than 1×10^{-6} is indicative of significant risk). However, a review of the literature indicates that theoretical risk levels in excess of 1×10^{-6} are often considered acceptable by regulatory agencies. Travis et al. (1987) conducted a retrospective examination of the level of risk that triggered regulatory action in 132 decisions. The findings of Travis et al. can be summarized as follows:

(1) Every chemical with an individual lifetime risk above 4×10^{-3} (four in one-thousand) received regulation. Those with values below 1×10^{-6} (one in one-million) remained unregulated.

(2) For small populations, regulatory action never resulted from individual risks below 1×10^{-4} (one in ten-thousand).

(3) For effects resulting from exposures to the entire United States population, a risk level below 1×10^{-6} never triggered action; above 3×10^{-4} always triggered action.

In short, regulatory agencies have found risks far in excess of 1×10^{-6} (one in one-million) acceptable if experienced by small populations. In California, an increased cancer risk of 1×10^{-5} (ten in one-million) for large populations has been used as an acceptable "benchmark" for setting regulatory policy. Specifically, an estimated cancer risk of 1×10^{-5} or less is considered insignificant under the 1986 Safe Drinking Water and Toxics Enforcement Act (i.e., Proposition 65). In addition, increased cancer risk levels of 1×10^{-5} or less are considered insignificant for compliance with the Air Toxics "Hot Spots" program (AB2588).

8.4 Potential Groundwater Impacts

As a conservative screening evaluation, the maximum soil concentration for all selected chemicals of concern, was evaluated for future impact to groundwater using the VLEACH model, a vadose zone flow and transport model. The mass output of the VLEACH model was input into a Groundwater Mixing Model to estimate the maximum groundwater chemical concentrations (in the uppermost aquifer) that could potentially occur over time. The evaluation indicated that PCBs, PNAs, and other semivolatiles would not reach groundwater within a period of 100 years. VOCs were predicted to reach groundwater within several years at low part-per-trillion concentrations. If average Site soil concentrations had been used in the vadose zone model, the resultant groundwater concentrations would be significantly lower. Therefore, soil contaminants at the Site are not expected to impact (i.e., degrade) groundwater underlying the Site.

8.5 Conservatism in the Risk Assessment

The risk assessment is based on the application of conservative methods and assumptions in all phases of the assessment. Because direct measurements were not used for many of the criteria upon which the risk assessment is dependent (e.g., human exposure parameters and toxicity criteria), conservative assumptions and methodology were necessarily employed to eliminate the possibility of underestimating risk. This practice, although commonly used in the risk assessment process to eliminate the possibility of underestimating risk, necessarily introduces a significant level of conservatism in the risk estimate by

relying on upperbound values rather than scientifically-based, best-estimate values. In order to interpret the incremental lifetime cancer risk, this uncertainty must be considered by the risk manager.

One of the major sources of conservatism in the risk assessment is the application of the slope factor derived from an animal bioassay of Aroclor 1260 (a mixture containing 60 percent chlorine) for evaluating the risk of exposure to other, less chlorinated PCBs. Aroclor 1260 is the only PCB that has been demonstrated to induce a statistically elevated level of cancers in laboratory animals. A study of the next highest chlorinated PCB (Aroclor 1254), performed by the National Cancer Institute, was negative. EPA and Cal-EPA have recognized the need to adjust potency estimates for certain members of chemical classes. EPA has determined that approximately 10 percent of the polychlorinated dibenzo-p-dioxin and polychlorinated dibenzo-p-dioxin congeners are considered toxic enough to be measured for risk assessment purposes. This ten percent consists of congeners that have chlorines specifically in the 2, 3, 7, and 8 positions, with additional chlorines in other positions. Based on toxicity tests, "toxic equivalency factors" have been calculated relative to the most toxic congener, 2,3,7,8-TCDD. These equivalency factors are used to calculate the sum of "TCDD equivalents" for any mixture of dioxins and furans. This toxicity equivalency approach is applied to dioxins, furans and PNAs; however, current EPA and Cal-EPA policy regarding PCBs (in which the potency for Aroclor 1260 has been assigned to other less carcinogenic or noncarcinogenic mixtures) is inconsistent. Thus, the cancer risks associated with PCBs at the site may be overestimated, as the highest concentrations observed at the Site have been associated with PCBs of lower chlorine content than Aroclor 1260.

Examples of some of the other points of conservatism in this assessment are described below:

- The cancer slope factors are based on the 95-percent UCL of the dose-response slope in rodents.

- The dose-response relationship predicted at low doses in humans is based on animal response at high dosage and is predicted using one of the most conservative low dose extrapolation models (the linearized multistage model) in terms of assumptions regarding proposed carcinogenic mechanisms. The multistage model assumes there are no thresholds below which carcinogenic risk does not exist. Experimental evidence indicates that PCBs may act by a receptor-mediated mechanism, which would indicate a threshold exists for the carcinogenic activity of this class of chemicals.

- Numerous epidemiologic studies have been conducted among human populations with high levels of exposure to PCBs. The studies have not provided strong evidence for the carcinogenicity of PCBs in humans.

- RME exposure parameters have been promulgated by EPA to estimate the risks to the 95th percentile person. However, as noted by Burmaster and Lehr (1991), rather than estimate the risks to the 95th percentile person, the RME approach can often predict the risks for the 99.99th percentile person.

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TABLES

TABLE 1

SOIL CHEMICALS OF CONCERN

Chemical	Detected in Surface Soil (0 - 1.5 feet)
Polynuclear Aromatic Hydrocarbons	
Benzo(a)anthracene	✔
Benzo(a)pyrene	✔
Benzo(b)fluoranthene	✔
Chrysene	✔
Fluoranthene	✔
Fluorene	
2-Methyl Naphthalene	
Naphthalene	
Phenanthrene	✔
Pyrene	✔
Polychlorinated Biphenyls	
Aroclor 1242	✔
Aroclor 1248	✔
Aroclor 1254	✔
Aroclor 1260	✔
Volatile Chlorinated Solvents	
cis-1,2-Dichloroethylene	NA*
1,1-Dichloroethane	NA*
Methylene Chloride	NA*
Tetrachloroethene	NA*
Trichloroethene	NA*
BTEX Compounds	
Ethylbenzene	NA*
Metals	
Barium	✔
Lead	✔

TABLE 1

SOIL CHEMICALS OF CONCERN (continued)

Chemical	Detected in Surface Soil (0 - 1.5 feet)
Phenols	
2,4-Dimethylphenol	
4-Methylphenol	✔
Phenol	✔
Nitrosamines	
n-Nitrosodi-N-propylamine	
N-Nitrosodiphenylamine	
Phthalates	
bis(2-Ethylhexyl)phthalate	✔

Note:

a = Volatile compounds readily evaporate from surficial soil and, if detected, would be expected to have a very limited presence over time. Only 2 surface samples were analyzed for VOCs in the remedial investigation

TABLE 2

EXPOSURE ASSESSMENT PARAMETERS FOR AN ADULT WORKER

Parameter	Average Exposure	Reasonable Maximum Exposure (RME)
General Parameters:		
Body Weight (BW)	Value: 70 kg Rationale: USEPA, 1989	Value: 70 kg Rationale: USEPA, 1989
Exposure Time	Value: 8 hours/day Rationale: Standard workday	Value: 8 hours/day Rationale: Standard workday
Exposure Frequency (EF)	Value: 250 days/year Rationale: 5 days per week; 50 weeks per year	Value: 250 days/year Rationale: 5 days per week; 50 weeks per year
Exposure Duration (ED)	Value: 4.2 years Rationale: 50th percentile (Bureau of Labor Statistics, 1990)	Value: 25 years Rationale: 95th percentile (Bureau of Labor Statistics, 1990)
Averaging Time (AT)	Value: Carcinogenic Effects: 70 years (25,550 days) Noncarcinogenic Effects: AT = 4.2 years (1,530 days)	Value: Carcinogenic Effects: 70 years (25,550 days) Noncarcinogenic Effects: AT = 25 years (9,130 days)
Inhalation:		
Breathing Rate (BR)	Value: 1.25 m^3/hr (10 m^3/day) Rationale: Average inhalation rate for heavy or moderate activity (USEPA, 1989)	Value: 2.5 m^3/hr (20 m^3/day) Rationale: Upperbound inhalation rate for occupational setting (USEPA, 1991)

TABLE 2 (continued)

EXPOSURE ASSESSMENT PARAMETERS FOR AN ADULT WORKER

Parameter	Average Exposure	Reasonable Maximum Exposure (RME)
Absorption Factor (ABS)	Value: 1.0 Rationale: Maximum assumed	Value: 1.0 Rationale: Maximum assumed
Dermal Contact with Soil:		
Soil to Skin Adherence Factor (SCR)	Value: 0.2 mg/cm²-day Rationale: EPA, 1992	Value: 1.0 mg/cm²-day Rationale: EPA, 1992
Surface Area (SA)	Value: 990 cm² Rationale: 50th percentile value for hands (USEPA, 1990)	Value: 3,600 cm² Rationale: 50th percentile value for head, hands, and forearms (USEPA, 1990)
Absorption Factor (ABS)	Chemical Specific	Chemical Specific
Incidental Soil Ingestion:		
Ingestion Rate (IR_{soil})	Value: 10 mg/day Rationale: Paustenbach et al., 1992a; 1992b (based on Calabrese and Stanek, 1991a, 1991b)	Value: 50 mg/day Rationale: USEPA, 1991
Absorption Factor (ABS)	Value: 1.0 Rationale: Maximum assumed	Value: 1.0 Rationale: Maximum assumed

TABLE 3

ESTIMATED ONSITE CONCENTRATIONS FROM EMISSIONS OF VOLATILE ORGANIC COMPOUNDS

	Concentration (mg/m^3)	
Chemical	25 - Year Average	4.2 - Year Average
cis-1,2-Dichloroethylene	3.44×10^{-5}	8.41×10^{-5}
1,1-Dichloroethane	2.01×10^{-5}	4.90×10^{-5}
Ethylbenzene	3.68×10^{-5}	9.00×10^{-5}
Methylene Chloride	2.52×10^{-5}	6.16×10^{-5}
Tetrachloroethene	7.99×10^{-5}	1.95×10^{-4}
Trichloroethene	4.66×10^{-5}	1.14×10^{-4}

TABLE 4

ESTIMATION OF POTENTIAL GROUNDWATER IMPACTS FROM CHEMICALS OF CONCERN

Chemical	Maximum Soil Concentration (mg/kg)	Maximum Groundwater Impact (μg/l)	Time of Maximum Impact (year)
Polynuclear Aromatic Hydrocarbons			
Benzo(a)anthracene	0.24	0	
Benzo(a)pyrene	0.53	0	
Benzo(b)fluoranthene	0.37	0	
Chrysene	0.31	0	
Fluoranthene	1.2	0	
Fluorene	10	0	
Indeno(1,2,3-c,d)pyrene	38	0	
Naphthalene	5.1	0.0005	90
Phenanthrene	17	0	
Pyrene	1.5	0	
Polychlorinated Biphenyls	2.48	0	
Volatile Chlorinated Solvents			
cis-1,2-Dichloroethylene	0.031	0.0004	23
1,1-Dichloroethane	0.019	0.0009	15
Methylene Chloride	0.18	0.013	37
Tetrachloroethene	0.11	0.0002	27
Trichloroethene	0.14	0.0009	47
BTEX Compounds			
Ethylbenzene	2.3	0.0036	98
Phenols			
2,4-Dimethylphenol	0.21	0	
4-Methylphenol	0.55	0.072	100
Phenol		0.29	65
Nitrosamines			
n-Nitrosodi-n-propylamine	0.35	0	
n-Nitrosodiphenylamine	0.2	0	
Phthalates			
bis(2-Ethylhexyl)phthalate	10	0	

TABLE 5

POTENCIES OF PNAS AND DERIVATIVES[a]

Chemical	Potency[b]	Unit Risk[b]
benzo(a)pyrene	11.5	1.1×10^{-3}
dibenz(a,h)anthracene	4.1	3.9×10^{-4}
7,12-dimethylbenzanthracene	250	2.4×10^{-2}
3-methylcholanthrene	22	2.1×10^{-3}
5-nitroacenaphthene	0.13	1.1×10^{-5}

[a] Cal EPA (July, 1994)

[b] Units are $(mg/kg\text{-}day)^{-1}$ for [potency and $(\mu g/m^3)^{-1}$ for unit risk

TABLE 6

PEF WEIGHTING SCHEME FOR PNAs*

PNA or Derivative	Suggested PEF
benzo(a)pyrene	1.0 (index compound)
benz(a)anthracene	0.1
benzo(b)fluoranthene	0.1
benzo(j)fluoranthene	0.1
benzo(k)fluoranthene	0.1
dibenz(a,j)acridine	0.1
dibenz(a,h)acridine	0.1
7H-dibenzo(c,g)carbazole	1.0
dibenzo(a,e)pyrene	1.0
dibenzo(a,h)pyrene	10
dibenzo(a,i)pyrene	10
dibenzo(a,l)pyrene	10
indeno(1,2,3-c,d)pyrene	0.1
5-methylchrysene	1.0
1-nitropyrene	0.1
4-nitropyrene	0.1
1,6-dinitropyrene	10
1,8-dinitropyrene	1.0
6-nitrochrysene	10
2-nitrofluorene	0.01
chrysene	0.01

* Cal EPA (July, 1994)

TABLE 7

CARCINOGENIC TOXICITY CRITERIA

Chemical	Slope Factor (SF) (mg/kg-day)$^{-1}$				
	EPA Group	Oral	Source	Inhalation	Source
Polynuclear Aromatic Hydrocarbons[1]					
Benzo(a)anthracene	B2	1.15	Cal EPA, 1994	0.385	Cal EPA, 1994
Benzo(a)pyrene	B2	11.5	Cal EPA, 1994	3.85	Cal EPA, 1994
Benzo(b)fluoranthene	B2	1.15	Cal EPA, 1994	0.385	Cal EPA, 1994
Chrysene	B2	0.115	Cal EPA, 1994	0.0385	Cal EPA, 1994
Fluoranthene		NA	---	NA	---
Phenanthrene		NA	---	NA	---
Pyrene		NA	---	NA	---
Polychlorinated Biphenyls[2]					
Aroclor 1242	B2	7.7	Cal EPA, 1992	7.7	Cal EPA, 1992
Aroclor 1248	B2	7.7	Cal EPA, 1992	7.7	Cal EPA, 1992
Aroclor 1254	B2	7.7	Cal EPA, 1992	7.7	Cal EPA, 1992
Aroclor 1260	B2	7.7	Cal EPA, 1992	7.7	Cal EPA, 1992
Other Semivolatiles					
bis (2-ethylhexyl) Phthalate	B2	0.0084	Cal EPA, 1992	0.0084	Cal EPA, 1992
4-Methylphenol		NA	---	NA	---
Phenol		NA	---	NA	---
Volatile Halogenated Hydrocarbons					
cis-1,2-Dichloroethylene		NA	---	NA	---
1,1-Dichloroethane	C	ND	IRIS, 1994	ND	IRIS, 1994
Methylene Chloride	B2	0.014	Cal EPA, 1992	0.0035	Cal EPA, 1992
Tetrachloroethylene	B2	0.051	Cal EPA, 1992	0.051	Cal EPA, 1992
Trichloroethylene	B2-C	0.015	Cal EPA, 1992	0.01	Cal EPA, 1992
BTEX Compounds					
Ethylbenzene		NA	---	NA	---
Metals					
Barium		NA	---	NA	---
Lead	B2	ND	IRIS, 1994	ND	IRIS, 1994

[1] PNA slope factors based on application of Potency Equivalency Factors (Cal EPA, 1994)
[2] All carcinogenic PCBs assumed to have cancer potency equal to Aroclor 1260

TABLE 8

NONCARCINOGENIC TOXICITY CRITERIA

Chemical	Reference Dose (RFD) (mg/kg-day)$^{-1}$			
	Oral	Source	Inhalation	Source
Polynuclear Aromatic Hydrocarbons				
Benzo(a)anthracene	0.03	Surrogate[a]	0.03	Surrogate[a,b]
Benzo(a)pyrene	0.03	Surrogate[a]	0.03	Surrogate[a,b]
Benzo(b)fluoranthene	0.03	Surrogate[a]	0.03	Surrogate[a,b]
Chrysene	0.03	Surrogate[a]	0.03	Surrogate[a,b]
Fluoranthene	0.04	IRIS, 1994	0.04	IRIS, 1994[b]
Phenanthrene	0.03	Surrogate[a]	0.03	Surrogate[a,b]
Pyrene	0.03	IRIS, 1994	0.03	IRIS, 1994[b]
Polychlorinated Biphenyls				
Aroclor 1242	7×10^{-5}	Surrogate[c]	7×10^{-5}	Surrogate[b,c]
Aroclor 1248	7×10^{-5}	Surrogate[c]	7×10^{-5}	Surrogate[b,c]
Aroclor 1254	7×10^{-5}	Surrogate[c]	7×10^{-5}	Surrogate[b,c]
Aroclor 1260	7×10^{-5}	Surrogate[c]	7×10^{-5}	Surrogate[b,c]
Other Semivolatiles				
bis (2-ethylhexyl) phthalate	0.02	IRIS, 1994	0.02	IRIS, 1994[b]
4-Methylphenol	0.05	Surrogate[d]	0.05	Surrogate[b,d]
Phenol	0.6	IRIS, 1994	0.6	IRIS, 1994[b]
Volatile Halogenated Hydrocarbons				
cis-1,2-Dichloroethylene	0.01	HEAST, 1992	0.01	HEAST, 1992[b]
1,1-Dichloroethane	0.1	HEAST, 1992	0.1	HEAST, 1992[b]
Methylene Chloride	0.06	IRIS, 1994	0.06	IRIS, 1994[b]
Tetrachloroethylene	0.01	IRIS, 1994	0.01	IRIS, 1994[b]
Trichloroethylene	0.006	ECAO, 1992	0.006	ECAO, 1992[b]
BTEX Compounds				
Ethylbenzene	0.1	IRIS, 1994	0.29	IRIS, 1994
Metals				
Barium	0.07	IRIS, 1994	0.07	IRIS, 1994[b]
Lead	Evaluated by lead biokinetic model			

Notes:

a = The noncarcinogenic toxicity criteria for the most toxic chemical of the PAHs, pyrene, was used as a surrogate.

b = Route-to-route extrapolation. Oral RFD used as inhalation RFD.

c = The noncarcinogenic criteria of Aroclor 1016 was used as a surrogate.

d = The noncarcinogenic criteria of 2-methylphenol was used as a surrogate.

NA = Not applicable

ND = Not done

TABLE 9

REPRESENTATIVE SOIL CONCENTRATIONS

Chemical	RME Exposure (mg/kg)	Average Exposure (mg/kg)
Polynuclear Aromatic Hydrocarbons		
Benzo(a)anthracene	3.18×10^{4}	9.46×10^{-3}
Benzo(a)pyrene	3.58×10^{4}	1.06×10^{-2}
Benzo(b)fluoranthene	4.91×10^{4}	1.46×10^{-2}
Chrysene	4.11×10^{4}	1.22×10^{-2}
Fluoranthene	5.17×10^{4}	1.54×10^{-2}
Phenanthrene	2.65×10^{4}	7.89×10^{-3}
Pyrene	7.43×10^{4}	2.21×10^{-2}
Polychlorinated Biphenyls		
Aroclor 1242	0.164	0.299
Aroclor 1248	0.201	0.367
Aroclor 1254	0.265	0.484
Aroclor 1260	0.051	0.094
Volatile Chlorinated Solvents		
cis-1,2-Dichloroethylene	3.44×10^{-5}	3.44×10^{-5}
1,1-Dichloroethane	2.01×10^{-5}	2.01×10^{-5}
Methylene Chloride	3.68×10^{-5}	3.68×10^{-5}
Tetrachloroethene	7.99×10^{-5}	7.99×10^{-5}
Trichloroethene	4.66×10^{-5}	4.66×10^{-5}
BTEX Compounds		
Ethylbenzene	1.60×10^{-4}	1.60×10^{-4}
Metals		
Barium	406.9	406.9
Lead	450	450
Phenols		
4-Methylphenol	1.47	1.47
Phenol	0.864	0.864
Phthalates		
bis(2-Ethylhexyl)phthalate	2.08	2.08

TABLE 10

TOTAL HAZARD INDEX

RME Assumptions		Average Exposure Assumptions	
Future Occupational Receptor	Current Occupational Receptor	Future Occupational Receptor	Current Occupational Receptor
6×10^{-2}	4×10^{-3}	2×10^{-2}	8×10^{-3}

TABLE 11

CANCER RISK FOR A FUTURE ON-SITE OCCUPATIONAL RECEPTOR
BY CHEMICAL AND PATHWAY [RME ASSUMPTIONS]

	Dermal Contact	Soil Ingestion	Vapor Inhalation	Particle Inhalation	All Pathways
Polynuclear Aromatic Hydrocarbons					
Benzo(a) anthracene	5.22×10^{-10}	6.35×10^{-11}	NA	4.25×10^{-13}	5.9×10^{-10}
Benzo(a) pyrene	5.87×10^{-9}	7.14×10^{-10}	NA	4.78×10^{-12}	6.6×10^{-9}
Benzo(b) fluoranthene	8.04×10^{-10}	9.79×10^{-11}	NA	6.56×10^{-13}	9.0×10^{-10}
Chrysene	6.74×10^{-11}	8.20×10^{-12}	NA	5.49×10^{-14}	7.6×10^{-11}
Polychlorinated Biphenyls					
Aroclor 1242	1.94×10^{-6}	2.19×10^{-7}	NA	4.38×10^{-9}	2.2×10^{-6}
Aroclor 1248	2.38×10^{-6}	2.68×10^{-7}	NA	5.37×10^{-9}	2.7×10^{-6}
Aroclor 1254	3.13×10^{-6}	3.54×10^{-7}	NA	7.08×10^{-9}	3.5×10^{-6}
Aroclor 1260	6.03×10^{-7}	6.81×10^{-8}	NA	1.36×10^{-9}	6.7×10^{-7}
Other Semivolatiles					
bis (2-Ethylhexyl) phthalate	1.92×10^{-8}	3.03×10^{-9}	NA	6.06×10^{-11}	2.2×10^{-8}
Volatile Halogenated Hydrocarbons					
Methylene Chloride	NA	NA	6.13×10^{-9}	NA	6.1×10^{-9}
Tetrachloroethene	NA	NA	2.83×10^{-7}	NA	2.8×10^{-7}
Trichloroethene	NA	NA	3.23×10^{-8}	NA	3.2×10^{-8}
Total Cancer Risk	8×10^{-6}	9×10^{-7}	3×10^{-7}	2×10^{-8}	9×10^{-6}

NA = Pathway not applicable

TABLE 12

CANCER RISK FOR A CURRENT ON-SITE OCCUPATIONAL RECEPTOR
BY CHEMICAL AND PATHWAY [RME ASSUMPTIONS]

	Vapor Inhalation	Particle Inhalation	All Pathways
Polynuclear Aromatic Hydrocarbons			
Benzo(a) anthracene	NA	4.25×10^{-13}	4.3×10^{-13}
Benzo(a) pyrene	NA	4.78×10^{-12}	4.8×10^{-12}
Benzo(b) fluoranthene	NA	6.56×10^{-13}	6.6×10^{-13}
Chrysene	NA	5.49×10^{-14}	5.0×10^{-14}
Polychlorinated Biphenyls			
Aroclor 1242	NA	4.38×10^{-9}	4.4×10^{-9}
Aroclor 1248	NA	5.37×10^{-9}	5.4×10^{-9}
Aroclor 1254	NA	7.08×10^{-9}	7.1×10^{-9}
Aroclor 1260	NA	1.36×10^{-9}	1.4×10^{-9}
Other Semivolatiles			
bis (2-Ethylhexyl) phthalate	NA	6.06×10^{-11}	6.1×10^{-11}
Volatile Halogenated Hydrocarbons			
Methylene Chloride	6.13×10^{-9}	NA	6.1×10^{-9}
Tetrachloroethene	2.83×10^{-7}	NA	2.8×10^{-7}
Trichloroethene	3.23×10^{-8}	NA	3.2×10^{-8}
Total Cancer Risk	3×10^{-7}	2×10^{-8}	3×10^{-7}

NA = Pathway not applicable

TABLE 13

CANCER RISK FOR A FUTURE ON-SITE OCCUPATIONAL RECEPTOR
BY CHEMICAL AND PATHWAY [AVERAGE EXPOSURE ASSUMPTIONS]

	Dermal Contact	Soil Ingestion	Vapor Inhalation	Particle Inhalation	All Pathways
Polynuclear Aromatic Hydrocarbons					
Benzo(a)anthracene	1.63×10^{-10}	6.34×10^{-11}	NA	9.82×10^{-13}	2.3×10^{-10}
Benzo(a)pyrene	1.83×10^{-9}	7.11×10^{-10}	NA	1.11×10^{-11}	2.6×10^{-9}
Benzo(b)fluoranthene	2.52×10^{-10}	9.79×10^{-11}	NA	1.71×10^{-12}	3.5×10^{-10}
Chrysene	2.10×10^{-11}	8.18×10^{-12}	NA	1.27×10^{-13}	2.9×10^{-11}
Polychlorinated Biphenyls					
Aroclor 1242	3.72×10^{-8}	1.34×10^{-8}	NA	6.19×10^{-10}	5.1×10^{-8}
Aroclor 1248	4.57×10^{-8}	1.65×10^{-8}	NA	7.61×10^{-10}	6.3×10^{-8}
Aroclor 1254	6.02×10^{-8}	2.17×10^{-8}	NA	1.01×10^{-9}	8.3×10^{-8}
Aroclor 1260	1.16×10^{-8}	4.20×10^{-9}	NA	1.95×10^{-10}	1.6×10^{-8}
Other Semivolatiles					
bis (2-Ethylhexyl) phthalate	2.02×10^{-10}	1.02×10^{-10}	NA	5.09×10^{-12}	3.1×10^{-10}
Volatile Halogenated Hydrocarbons					
Methylene Chloride	NA	NA	2.24×10^{-9}	NA	4.4×10^{-9}
Tetrachloroethene	NA	NA	1.03×10^{-7}	NA	2.1×10^{-7}
Trichloroethene	NA	NA	1.18×10^{-8}	NA	2.4×10^{-8}
Total Cancer Risk	2×10^{-7}	6×10^{-8}	1×10^{-7}	3×10^{-9}	4×10^{-7}

NA = Pathway not applicable

TABLE 14

CANCER RISK FOR A CURRENT ON-SITE OCCUPATIONAL RECEPTOR BY CHEMICAL AND PATHWAY [AVERAGE EXPOSURE ASSUMPTIONS]

	Vapor Inhalation	Particle Inhalation	All Pathways
Polynuclear Aromatic Hydrocarbons			
Benzo(a) anthracene	NA	9.82×10^{-13}	9.8×10^{-13}
Benzo(a) pyrene	NA	1.11×10^{-11}	1.1×10^{-11}
Benzo(b) fluoranthene	NA	1.71×10^{-12}	1.7×10^{-12}
Chrysene	NA	1.27×10^{-13}	1.3×10^{-13}
Polychlorinated Biphenyls			
Aroclor 1242	NA	6.19×10^{-10}	6.2×10^{-10}
Aroclor 1248	NA	7.61×10^{-10}	7.6×10^{-10}
Aroclor 1254	NA	1.01×10^{-9}	1.0×10^{-9}
Aroclor 1260	NA	1.95×10^{-10}	2.0×10^{-10}
Other Semivolatiles			
bis (2-Ethylhexyl) phthalate	NA	5.09×10^{-12}	5.1×10^{-12}
Volatile Halogenated Hydrocarbons			
Methylene Chloride	2.24×10^{-9}	NA	4.4×10^{-9}
Tetrachloroethene	1.03×10^{-7}	NA	2.1×10^{-7}
Trichloroethene	1.18×10^{-8}	NA	2.4×10^{-8}
Total Cancer Risk	1×10^{-7}	3×10^{-9}	1×10^{-7}

NA = Pathway not applicable

PLATES

Reference: USGS 7.5-minute quadrangle, Whittier, California (photorevised 1981)

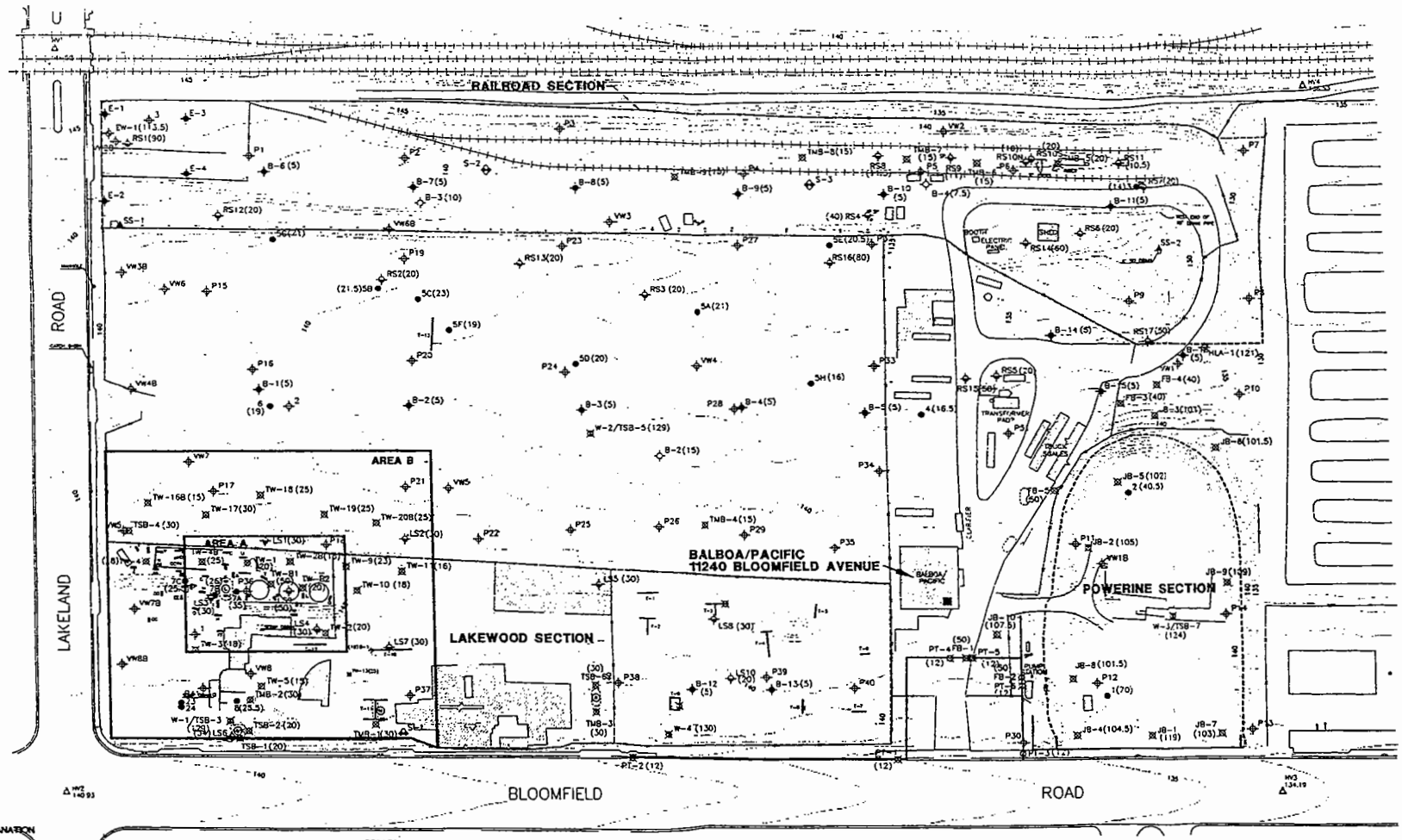
PLATE

Harding Lawson Associates
Engineering and Environmental Services

VICINITY MAP
Walker Property Site
Santa Fe Springs, California

1

DRAWN	PROJECT-TASK NUMBER	APPROVED	DATE	REVISED	DATE
JTL	24246-2.7		8/94		



EXPLANATION

- 6 — DAMES AND MOORE SOIL BORING (23 and 24 are surface samples)
- B-1,E-1 — ENCON SOIL BORING
- 2,P34,VW5 — GEOSCIENCE ANALYTICAL (B – borehole, P – probe, and VW – vapor monitoring well)
- PB-1,JB-5,PT-5, TSB-2,TWB-2,TW-3 — TRC SOIL BORING
- B-2 — APPLIED GEOTECHNICAL ENGINEERING, INC. SOIL BORING
- EW-1 — ENCON WELL
- W-4 — TRC WELL
- J — 33 SHALLOW TRENCHES BY DAMES AND MOORE WITH SAMPLE LOCATION
- T-3 — 13 SHALLOW TRENCHES BY TRC WITH SAMPLE LOCATION
- (50) — TOTAL DEPTH OF BORING
- RS1,LS1 — HLA BORING
- HLA-1 — HLA MONITORING WELL
- SS-1 — HLA SURFACE SEDIMENT SAMPLE
- HLA METEROLOGICAL STATION
- S-3 — HLA AIR SAMPLING LOCATION
- LOCATION OF FORMER UNDERGROUND STORAGE TANK
- LAKEWOOD OIL SERVICE
- MOHAWK SALES, INC.
- NORWALK DISPOSAL
- CONCRETE PAD

NOTE:
LOCATIONS OF PREVIOUS TENANTS ARE APPROXIMATE.
LEASEHOLD BOUNDARIES UNKNOWN.

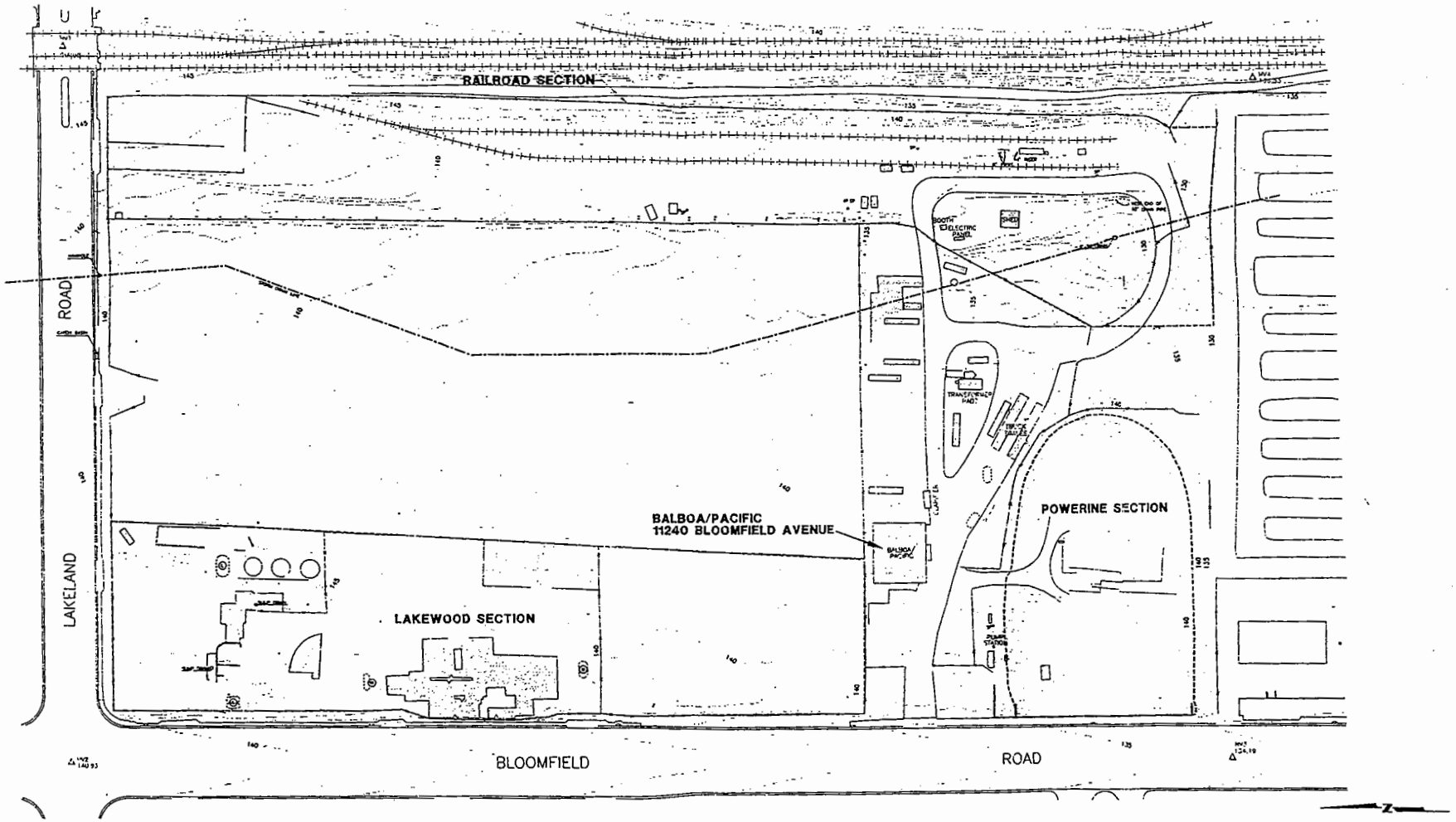
Scale 0 60 120 feet

HARDING LAWSON ASSOCIATES
Engineering and Environmental Services

AREAS WITH ELEVATED LEVELS OF POLYCHLORINATED BIPHENYLS
Walker Property Site
Santa Fe Springs, California

PLATE 3

DRAWN	PROJECT-TASK NUMBER	APPROVED	DATE	REVISED DATE
JTL	32538-4		7/95	



EXPLANATION

- LOCATION OF FORMER UNDERGROUND STORAGE TANK
- LAKEWOOD OIL SERVICE
- MOHAWK SALES, INC.
- NORWALK DISPOSAL
- CONCRETE PAD

NOTE:
LOCATIONS OF PREVIOUS TENANTS ARE APPROXIMATE. LEASEHOLD BOUNDARIES UNKNOWN.

HARDING LAWSON ASSOCIATES
Engineering and Environmental Services

SITE PLAN
Walker Property Site
Santa Fe Springs, California

PLATE **2**

DRAWN	PROJECT-TASK NUMBER	APPROVED	DATE	REVISED DATE
JTL	32538-4		7/95	

ATTACHMENT A

SOIL CONCENTRATIONS OF CHEMICALS IN PREVIOUS SITE INVESTIGATIONS

Table 3
Summary of Historic Soil Analytical Results - PCBs
Walker Property Site

Location ID	Depth (feet)	Date Collected	Consultant	PCB 1016 8080	PCB 1221 8080	PCB 1232 8080	PCB 1242 8080	PCB 1248 8080	PCB 1254 8080	PCB 1260 8080
3	11-13.5	4/01/85	D&M				(0.08)	(0.08)	(0.08)	(0.08)
4	1.5-8.5	4/01/85	D&M				(0.08)	(0.08)	(0.08)	(0.08)
5A	3.5	4/01/85	D&M				(0.08)	(0.08)	(0.08)	(0.08)
5B	3.5	4/01/85	D&M				(0.08)	(0.08)	(0.08)	(0.08)
6	6-13.5	4/01/85	D&M				(0.08)	(0.08)	(0.08)	(0.08)
7A	4.5-9.5	4/01/85	D&M				(0.08)	(0.08)	(0.08)	(0.08)
7B	2-3.5	4/01/85	D&M				(0.08)	94	(0.08)	(0.08)
8	20.5-25	4/01/85	D&M				(0.08)	(0.08)	(0.08)	(0.08)
UST 1	8	9/01/86	D&M				(0.08)	29		
UST 2	8	9/01/86	D&M				58	(0.08)		
UST 3	3	9/01/86	D&M				248	(0.08)		
UST 4	5	9/01/86	D&M				1	(0.08)		
B1	1	10/01/86	D&M				200	(0.08)		(0.08)
B2	3.5	10/01/86	D&M				0.27	(0.08)		(0.08)
C3	1	10/01/86	D&M				(0.08)	(0.08)		(0.08)
E5	7	10/01/86	D&M				(0.08)	3.4		(0.08)
H10	2	10/01/86	D&M				3.1	(0.08)		3.3
H11	4	10/01/86	D&M				(0.08)	(0.08)		(0.08)
I12	4	10/01/86	D&M				4.3	(0.08)		(0.08)
J13	1	10/01/86	D&M				2.3	(0.08)		(0.08)
K14	1	10/01/86	D&M				30	(0.08)		(0.08)
L16	5	10/01/86	D&M				13	(0.08)		(0.08)
M17	6	10/01/86	D&M				15	(0.08)		(0.08)
P18	1	10/01/86	D&M				1.7	(0.08)		1.8
P19	4	10/01/86	D&M				(0.08)	(0.08)		(0.08)
Stockpile 20		10/01/86	D&M				(0.08)	10		(0.08)
Stockpile 21		10/01/86	D&M				(0.08)	11		(0.08)
TW-1	5	10/01/89	TRC	(20)	(20)	(20)	240	(20)	(20)	(20)
TW-1	10	10/01/89	TRC	(10)	(10)	(10)	140	(10)	(10)	(10)
TW-1	15	10/01/89	TRC	(5)	(5)	(5)	120	(5)	(5)	(5)
TW-2	5	10/01/89	TRC	(.01)	0.09	(.01)	(.01)	(.01)	(.01)	(.01)
TW-2B	5	10/01/89	TRC	(.5)	43	(.5)	(.5)	(.5)	(.5)	2.7

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.

Table 3
Summary of Historic Soil Analytical Results - PCBs
Walker Property Site

Location ID	Depth (feet)	Date Collected	Consultant	PCB 1016 8080	PCB 1221 8080	PCB 1232 8080	PCB 1242 8080	PCB 1248 8080	PCB 1254 8080	PCB 1260 8080
TW-2B	10	10/01/89	TRC	(.01)	(.01)	(.01)	0.014	(.01)	(.01)	(.01)
TW-3	3	10/01/89	TRC	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)
TW-3	8	10/01/89	TRC	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
TW-4	3	10/01/89	TRC	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)
TW-4B	5	10/01/89	TRC	(10)	140	(10)	(10)	(10)	(10)	(10)
TW-4B	7	10/01/89	TRC	(.03)	0.5	(.03)	(.03)	(.03)	(.03)	(.03)
TW-4B	15	10/01/89	TRC	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
TW-5	5	10/01/89	TRC	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)
TW-9	4-8	10/01/89	TRC	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)
TW-10	3	10/01/89	TRC	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)
TW-10	8	10/01/89	TRC	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)
TW-11	3	10/01/89	TRC	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
TW-12	3	10/01/89	TRC	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)
TW-13	3	10/01/89	TRC	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)
TW-16B	5	10/01/89	TRC	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)
TW-17	5	10/01/89	TRC	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)
TW-20B	5	10/01/89	TRC	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)
TW-B1	5	10/01/89	TRC	(.2)	(.2)	(.2)	15	(.2)	(.2)	(.2)
TW-B1	10	10/01/89	TRC	(.5)	(.5)	(.5)	6.1	(.5)	(.5)	(.5)
TW-B1	15	10/01/89	TRC	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
TW-B1	25	10/01/89	TRC	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)
TW-B1	50	10/01/89	TRC	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)
TW-B2	5	10/01/89	TRC	(.1)	8	(.1)	(.1)	(.1)	(.1)	(.1)
TW-B2	10	10/01/89	TRC	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)
TW-B2	15	10/01/89	TRC	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.

Table 4
Summary of Historic Soil Analytical Results - Metals
Walker Property Site

Location ID	Depth (feet)	Date Collected	Consultant	Barium CAM	Lead CAM
1	25-40	4/01/85	D&M	42	(5)
2	25-30	4/01/85	D&M	36	(5)
3	11-13.5	4/01/85	D&M	47	(5)
4	1.5-8.5	4/01/85	D&M	163	5.1
5A	3.5-6	4/01/85	D&M	760	30
5B	3.5	4/01/85	D&M	2520	88
5C	2	3/01/86	D&M	1120	52
5D	2	3/01/86	D&M	615	37
5E	2	3/01/86	D&M	473	17
5E	5	3/01/86	D&M	49	(5)
5G	2	3/01/86	D&M	248	93
5H	1	3/01/86	D&M	526	98
6	6-13.5	4/01/85	D&M	96	6.5
7A	4.5-9.5	4/01/85	D&M	221	(5)
7B	2-3.5	4/01/85	D&M	572	1450
8	20.5-25	4/01/85	D&M	36	(5)
B1	1	10/01/86	D&M	127	9.1
B2	3.5	10/01/86	D&M	216	15
C3	1	10/01/86	D&M	118	7.6
E5	7	10/01/86	D&M	127	8.1
H10	2	10/01/86	D&M	256	438
H11	4	10/01/86	D&M	164	10
I12	4	10/01/86	D&M	164	220
J13	1	10/01/86	D&M	178	12
K14	1	10/01/86	D&M	1260	2470
L16	5	10/01/86	D&M	158	17
M17	6	10/01/86	D&M	126	276
P18	1	10/01/86	D&M	760	450
P19	4	10/01/86	D&M	131	15
Stockpile 20		10/01/86	D&M	68	(5)
Stockpile 21		10/01/86	D&M	180	(5)
Surface 23	1	10/01/86	D&M	88	120
B-1	1	7/01/88	EMCON	137	12.6
B-2	5	7/01/88	EMCON	169	14.5
B-3	5	7/01/88	EMCON	123	12.5
B-4	5	7/01/88	EMCON	120	11.5
B-5	5	7/01/88	EMCON	91.3	13.8
B-6	5	7/01/88	EMCON	96.7	17.9
B-7	5	7/01/88	EMCON	108	12
B-8	5	7/01/88	EMCON	63.9	9.5
B-9	5	7/01/88	EMCON	47.1	8.9
B-10	5	7/01/88	EMCON	640	84.9
B-11	5	7/01/88	EMCON	321	32
B-12	5	7/01/88	EMCON	107	10.4
B-13	5	7/01/88	EMCON	126	16.6
B-14	5	9/01/88	EMCON	208	6.2
B-15	5	9/01/88	EMCON	118	2.2

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.

Table 4
Summary of Historic Soil Analytical Results - Metals
Walker Property Site

Location ID	Depth (feet)	Date Collected	Consultant	Barium CAM	Lead CAM
B-16	5	9/01/88	EMCON	293	11.2
UST 1	8	9/01/86	D&M	190	130
UST 2	8	9/01/86	D&M	150	54
UST 3	3	9/01/86	D&M	260	1100
UST 4	5	9/01/86	D&M	190	74
Surface 24	1	10/01/86	D&M	84	21

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.

Table 5
Summary of Historic Soil Analytical Results - Chlorinated Hydrocarbons
Walker Property Site

Location ID	Depth (feet)	Date Collected	Consultant	1,1,1-Tri-chloro-ethane 8010	1,1-Di-chloro-ethane 8010	Tetra-chloro-ethene 8010	Tri-chloro-ethane 8010
1	25-40	4/01/85	D&M	(0.05)	(0.05)	(0.05)	(0.05)
2	25-30	4/01/85	D&M	(0.05)	(0.05)	(0.05)	(0.05)
3	11-13.5	4/01/85	D&M	(0.05)	(0.05)	(0.05)	(0.05)
4	1.5-8.5	4/01/85	D&M	(0.05)	(0.05)	(0.05)	(0.05)
5A	3.5-6	4/01/85	D&M	(0.05)	(0.05)	(0.05)	(0.05)
5B	2.5-4.0	4/01/85	D&M	0.07	(0.05)	0.11	0.25
6	6-13.5	4/01/85	D&M	(0.05)	(0.05)	(0.05)	(0.05)
7A	4.5-9.5	4/01/85	D&M	(0.05)	(0.05)	(0.05)	(0.05)
7B	2-3.5	4/01/85	D&M	9.7	4.4	12	32
8	20.5-25	4/01/85	D&M	(0.05)	(0.05)	(0.05)	(0.05)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.

Table 6
Summary of Historic Soil Analytical Results - Volatile and Semivolatile Aromatics
Walker Property Site

Location ID	Depth (feet)	Date Collected	Consultant	TRPH 418.1	TPH as Diesel 8015	TPH as Gasoline 8015	Benzene 8020	Ethyl-benzene 8020	Toluene 8020	Xylene 8020
1	25.00	4/01/85	D&M				(0.05)	(0.05)	(0.05)	(0.05)
2	25.00	4/01/85	D&M				(0.05)	(0.05)	(0.05)	(0.05)
3	11.00	4/01/85	D&M				(0.05)	(0.05)	(0.05)	(0.05)
4	1.50	4/01/85	D&M				(0.05)	(0.05)	(0.05)	(0.05)
5A	3.50	4/01/85	D&M				(0.05)	(0.05)	0.64	(0.05)
5B	2.50	4/01/85	D&M				(0.05)	(0.05)	0.49	
6	6.00	4/01/85	D&M				(0.05)	(0.05)	(0.05)	(0.05)
7A	4.50	4/01/85	D&M				(0.05)	(0.05)	0.06	
7B	2.00	4/01/85	D&M				(0.05)	5.5	62	44
8	20.50	4/01/85	D&M				(0.05)	(0.05)	(0.05)	(0.05)
C3	1.00	10/01/86	D&M							
E-1	10.00	12/01/88	EMCON		(10)	2.93	(0.08)	0.12	0.44	0.62
E-1	30.00	12/01/88	EMCON		1690	186	(0.13)	5.20	0.33	4.12
E-1	70.00	12/01/88	EMCON		(10)	3.10	1.26	0.35	0.10	0.66
E-1	80.00	12/01/88	EMCON		1570	3350		64.6	12.5	30.7
E-1	90.00	12/01/88	EMCON		1570	1230	3.84	26.5	6.25	15.2
E-1	95.00	12/01/88	EMCON		2090	1790	5.44	36.6	8.68	21.5
E-2	10.00	12/01/88	EMCON		(10)	(1.0)				
E-2	20.00	12/01/88	EMCON		(10)	1.2				
E-2	30.00	12/01/88	EMCON		(10)	(1.0)				
E-2	40.00	12/01/88	EMCON		(10)	(1.0)				
E-2	50.00	12/01/88	EMCON		(10)	(1.0)				
E-3	10.00	12/01/88	EMCON		(10)	(1.0)				
E-3	20.00	12/01/88	EMCON		(10)	(1.0)				
E-3	30.00	12/01/88	EMCON		(10)	(1.0)				
E-3	40.00	12/01/88	EMCON		(10)	(1.0)				
E-4	10.00	12/01/88	EMCON		(10)	(1.0)				
E-4	20.00	12/01/88	EMCON		(10)	(1.0)				
E-4	30.00	12/01/88	EMCON		(10)	(1.0)				
E-4	40.00	12/01/88	EMCON		(10)	(1.0)				
Excavation 11	7.00	10/01/89	TRC			(1.0)	(0.05)	0.08	(0.05)	0.10
Excavation 3	1.50	10/01/89	TRC	150000						

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All results reported in milligrams per kilograms.

Table
Summary of Historic Soil Analytical Results - Volatile and Semivolatile Aromatics
Walker Property Site

Location ID	Depth (feet)	Date Collected	Consultant	TRPH 418.1	TPH as Diesel 8015	TPH as Gasoline 8015	Benzene 8020	Ethyl-benzene 8020	Toluene 8020	Xylene 8020
Excavation 9	6.00	10/01/89	TRC	46000						
FB-1	10.00	2/06/90	TRC		53					
FB-1	40.00	2/06/90	TRC		(5)					
FB-2	40.00	2/06/90	TRC		(5)					
FB-3	20.00	2/06/90	TRC		(5)					
FB-4	20.00	2/06/90	TRC		(5)					
FB-5	20.00	2/06/90	TRC		(5)					
JB-1	20.00	1/01/90	TRC		4400					
JB-1	101.00	1/01/90	TRC		5900					
JB-1	107.50	1/01/90	TRC		10000					
JB-10	30.00	1/01/90	TRC		(5)					
JB-10	70.00	1/01/90	TRC		(5)					
JB-10	106.00	1/01/90	TRC		(5)					
JB-2	30.00	1/01/90	TRC		(5)					
JB-2	70.00	1/01/90	TRC		(5)					
JB-2	103.00	1/01/90	TRC		(5)					
JB-3	20.00	1/01/90	TRC		4200					
JB-3	40.00	1/01/90	TRC		(5)					
JB-3	90.00	1/01/90	TRC		(5)					
JB-3	100.50	1/01/90	TRC		(5)					
JB-4	70.00	1/01/90	TRC		(5)					
JB-4	90.00	1/01/90	TRC		(5)					
JB-5	30.00	1/01/90	TRC		5500					
JB-5	40.00	1/01/90	TRC		(5)					
JB-5	90.00	1/01/90	TRC		(5)					
JB-5	101.00	1/01/90	TRC		(5)					
JB-6	30.00	1/01/90	TRC		(5)					
JB-6	70.00	1/01/90	TRC		(5)					
JB-6	100.00	1/01/90	TRC		(5)					
JB-7	40.00	1/01/90	TRC		(5)					
JB-7	90.00	1/01/90	TRC		(5)					
JB-7	102.50	1/01/90	TRC		3200					

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All results reported in milligrams per kilograms.

Table u
Summary of Historic Soil Analytical Results - Volatile and Semivolatile Aromatics
Walker Property Site

Location ID	Depth (feet)	Date Collected	Consultant	TRPH 418.1	TPH as Diesel 8015	TPH as Gasoline 8015	Benzene 8020	Ethyl-benzene 8020	Toluene 8020	Xylene 8020
JB-8	20.00	1/01/90	TRC		7500					
JB-8	70.00	1/01/90	TRC		4000					
JB-8	90.00	1/01/90	TRC		(5)					
JB-8	100.50	1/01/90	TRC		(5)					
JB-9	10.00	1/01/90	TRC		870					
JB-9	50.00	1/01/90	TRC		(5)					
JB-9	70.00	1/01/90	TRC		14					
JB-9	100.00	1/01/90	TRC		1300					
JB-9	105.00	1/01/90	TRC		2500					
L14	5.00	10/01/86	D&M							
PT-1	1.00	1/01/90	TRC			(5)				
PT-13	13.00	1/01/90	TRC			(5)				
PT-2	13.00	1/01/90	TRC			(5)				
PT-3	10.00	1/01/90	TRC			33				
PT-4	10.00	1/01/90	TRC			(5)				
PT-5	12.00	1/01/90	TRC			49				
PT-6	12.00	1/01/90	TRC			2900				
TMB-1	20.00	10/01/89	TRC			(1.0)				
TMB-2	15.00	10/01/89	TRC	8.5						
TMB-2	25.00	10/01/89	TRC	(5)						
TMB-3	10.00	10/01/89	TRC			2200				
TMB-3	30.00	10/01/89	TRC			3.3				
TMB-4	10.00	10/01/89	TRC			(5)				
TMB-5	10.00	10/01/89	TRC	11000						
TMB-5	20.00	10/01/89	TRC	(5)						
TMB-6	10.00	10/01/89	TRC	7000						
TMB-6	15.00	10/01/89	TRC	(5)						
TMB-7	10.00	10/01/98	TRC	110						
TMB-8	10.00	10/01/89	TRC	(5)						
TMB-9	10.00	10/01/89	TRC	1900						
TSB-3 (W-1)	20.00	10/01/89	TRC	(5)						
TSB-3 (W-1)	35.00	10/01/89	TRC			(5)				

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.

Table 6
Summary of Historic Soil Analytical Results - Volatile and Semivolatile Aromatics
Walker Property Site

Location ID	Depth (feet)	Date Collected	Consultant	TRPH 418.1	TPH as Diesel 8015	TPH as Gasoline 8015	Benzene 8020	Ethyl-benzene 8020	Toluene 8020	Xylene 8020
TSB-4	30.00	10/01/89	TRC	(5)						
TSB-5 (W-2)	60.00	10/01/89	TRC	(5)						
TSB-6	30.00	10/01/89	TRC			(1.0)	(0.05)	(0.05)	(0.05)	(0.05)
TSB-6	10.00	10/01/89	TRC			1800	0.14	22	4.4	120
TSB-7 (W-3)	20.00	10/01/89	TRC	11000						
TSB-7 (W-3)	100.00	10/01/89	TRC	12000		12000				
TSB-7 (W-3)	110.00	10/01/89	TRC	(5)		(100)				
TW-10	13.00	10/01/89	TRC			(1.0)	(0.05)	(0.05)	(0.05)	(0.05)
TW-11	3.00	10/01/89	TRC	73000		(5)				
TW-11	7.00	10/01/89	TRC			(5)				
TW-17	15.00	10/01/89	TRC				(0.05)	0.88	(0.05)	5.3
TW-19	15.00	10/01/89	TRC			5.3				
TW-2	15.00	10/01/89	TRC			(5)				
TW-20B	10.00	10/01/89	TRC			440				
TW-3	18.00	10/01/89	TRC	(5)						
TW-4	5.00	10/01/89	TRC				(0.05)	(0.05)	0.15	(0.05)
TW-4	15.00	10/01/89	TRC				(0.05)	0.88	(0.05)	5.3
TW-4B	15.00	10/01/89	TRC			(5)				
TW-5	5.00	10/01/89	TRC	570		(5)				
TW-9	18.00	10/01/89	TRC			(5)				
TW-B1	25.00	10/01/89	TRC			(5)				
TW-B1	35.00	10/01/89	TRC			(5)				
TW-B2	15.00	10/01/89	TRC	24						

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.

Table
Summary of Historic Soil Analytical Results - Volatile and Semivolatile Aromatics
Walker Property Site

Location ID	Depth (feet)	Date Collected	Consultant	Anthracene 8310	Benzo(a)-pyrene 8310	Fluor-anthra-cene 8310	Fluorene 8310	Napthalene 8310	Phen-anthrene 8310	Pyrene 8310
1	25.00	4/01/85	D&M							
2	25.00	4/01/85	D&M							
3	11.00	4/01/85	D&M							
4	1.50	4/01/85	D&M							
5A	3.50	4/01/85	D&M							
5B	2.50	4/01/85	D&M							
6	6.00	4/01/85	D&M							
7A	4.50	4/01/85	D&M							
7B	2.00	4/01/85	D&M							
8	20.50	4/01/85	D&M							
C3	1.00	10/01/86	D&M	(0.004)	(0.010)	(0.010)	(0.020)	(0.1)	0.035	(0.020)
E-1	10.00	12/01/88	EMCON							
E-1	30.00	12/01/88	EMCON							
E-1	70.00	12/01/88	EMCON							
E-1	80.00	12/01/88	EMCON							
E-1	90.00	12/01/88	EMCON							
E-1	95.00	12/01/88	EMCON							
E-2	10.00	12/01/88	EMCON							
E-2	20.00	12/01/88	EMCON							
E-2	30.00	12/01/88	EMCON							
E-2	40.00	12/01/88	EMCON							
E-2	50.00	12/01/88	EMCON							
E-3	10.00	12/01/88	EMCON							
E-3	20.00	12/01/88	EMCON							
E-3	30.00	12/01/88	EMCON							
E-3	40.00	12/01/88	EMCON							
E-4	10.00	12/01/88	EMCON							
E-4	20.00	12/01/88	EMCON							
E-4	30.00	12/01/88	EMCON							
E-4	40.00	12/01/88	EMCON							
Excavation 11	7.00	10/01/89	TRC							
Excavation 3	1.50	10/01/89	TRC							

() Indicates compound not detected at or above enclosed reporting limit.

All results reported in milligrams per kilograms.

Table 6
Summary of Historic Soil Analytical Results - Volatile and Semivolatile Aromatics
Walker Property Site

Location ID	Depth (feet)	Date Collected	Consultant	Anthracene 8310	Benzo(a)-pyrene 8310	Fluor-anthra-cene 8310	Fluorene 8310	Napthalene 8310	Phen-anthrene 8310	Pyrene 8310
Excavation 9	6.00	10/01/89	TRC							
FB-1	10.00	2/06/90	TRC							
FB-1	40.00	2/06/90	TRC							
FB-2	40.00	2/06/90	TRC							
FB-3	20.00	2/06/90	TRC							
FB-4	20.00	2/06/90	TRC							
FB-5	20.00	2/06/90	TRC							
JB-1	20.00	1/01/90	TRC							
JB-1	101.00	1/01/90	TRC							
JB-1	107.50	1/01/90	TRC							
JB-10	30.00	1/01/90	TRC							
JB-10	70.00	1/01/90	TRC							
JB-10	106.00	1/01/90	TRC							
JB-2	30.00	1/01/90	TRC							
JB-2	70.00	1/01/90	TRC							
JB-2	103.00	1/01/90	TRC							
JB-3	20.00	1/01/90	TRC							
JB-3	40.00	1/01/90	TRC							
JB-3	90.00	1/01/90	TRC							
JB-3	100.50	1/01/90	TRC							
JB-4	70.00	1/01/90	TRC							
JB-4	90.00	1/01/90	TRC							
JB-5	30.00	1/01/90	TRC							
JB-5	40.00	1/01/90	TRC							
JB-5	90.00	1/01/90	TRC							
JB-5	101.00	1/01/90	TRC							
JB-6	30.00	1/01/90	TRC							
JB-6	70.00	1/01/90	TRC							
JB-6	100.00	1/01/90	TRC							
JB-7	40.00	1/01/90	TRC							
JB-7	90.00	1/01/90	TRC							
JB-7	102.50	1/01/90	TRC							

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.

Table 6
Summary of Historic Soil Analytical Results - Volatile and Semivolatile Aromatics
Walker Property Site

Location ID	Depth (feet)	Date Collected	Consultant	Anthracene 8310	Benzo(a)-pyrene 8310	Fluor-anthra-cene 8310	Fluorene 8310	Napthalene 8310	Phen-anthrene 8310	Pyrene 8310
JB-8	20.00	1/01/90	TRC							
JB-8	70.00	1/01/90	TRC							
JB-8	90.00	1/01/90	TRC							
JB-8	100.50	1/01/90	TRC							
JB-9	10.00	1/01/90	TRC							
JB-9	50.00	1/01/90	TRC							
JB-9	70.00	1/01/90	TRC							
JB-9	100.00	1/01/90	TRC							
JB-9	105.00	1/01/90	TRC							
L14	5.00	10/01/86	D&M	0.24	0.53	1.2	1.4	2.2		1.5
PT-1	1.00	1/01/90	TRC							
PT-13	13.00	1/01/90	TRC							
PT-2	13.00	1/01/90	TRC							
PT-3	10.00	1/01/90	TRC							
PT-4	10.00	1/01/90	TRC							
PT-5	12.00	1/01/90	TRC							
PT-6	12.00	1/01/90	TRC							
TMB-1	20.00	10/01/89	TRC							
TMB-2	15.00	10/01/89	TRC							
TMB-2	25.00	10/01/89	TRC							
TMB-3	10.00	10/01/89	TRC							
TMB-3	30.00	10/01/89	TRC							
TMB-4	10.00	10/01/89	TRC							
TMB-5	10.00	10/01/89	TRC							
TMB-5	20.00	10/01/89	TRC							
TMB-6	10.00	10/01/89	TRC							
TMB-6	15.00	10/01/89	TRC							
TMB-7	10.00	10/01/98	TRC							
TMB-8	10.00	10/01/89	TRC							
TMB-9	10.00	10/01/89	TRC							
TSB-3 (W-1)	20.00	10/01/89	TRC							
TSB-3 (W-1)	35.00	10/01/89	TRC							

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.

Table 6
Summary of Historic Soil Analytical Results - Volatile and Semivolatile Aromatics
Walker Property Site

Location ID	Depth (feet)	Date Collected	Consultant	Anthracene 8310	Benzo(a)-pyrene 8310	Fluor-anthra-cene 8310	Fluorene 8310	Napthalene 8310	Phen-anthrene 8310	Pyrene 8310
TSB-4	30.00	10/01/89	TRC							
TSB-5 (W-2)	60.00	10/01/89	TRC							
TSB-6	30.00	10/01/89	TRC							
TSB-6	10.00	10/01/89	TRC							
TSB-7 (W-3)	20.00	10/01/89	TRC							
TSB-7 (W-3)	100.00	10/01/89	TRC							
TSB-7 (W-3)	110.00	10/01/89	TRC							
TW-10	13.00	10/01/89	TRC							
TW-11	3.00	10/01/89	TRC							
TW-11	7.00	10/01/89	TRC							
TW-17	15.00	10/01/89	TRC							
TW-19	15.00	10/01/89	TRC							
TW-2	15.00	10/01/89	TRC							
TW-20B	10.00	10/01/89	TRC							
TW-3	18.00	10/01/89	TRC							
TW-4	5.00	10/01/89	TRC							
TW-4	15.00	10/01/89	TRC							
TW-4B	15.00	10/01/89	TRC							
TW-5	5.00	10/01/89	TRC							
TW-9	18.00	10/01/89	TRC							
TW-B1	25.00	10/01/89	TRC							
TW-B1	35.00	10/01/89	TRC							
TW-B2	15.00	10/01/89	TRC							

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.

ATTACHMENT B

SOIL CONCENTRATIONS OF CHEMICALS IN HLA REMEDIAL INVESTIGATION

Table 14a.
Summary of Soil Analytical Results - PCBs
Walker Property Site

Location ID	Depth (feet)	Date Collected	Arclor 1016 8080	Arclor 1221 8080	Arclor 1232 8080	Arclor 1242 8080	Arclor 1248 8080	Arclor 1254 8080	Arclor 1260 8080	Arclor 1262 8080	Total PCB's 8080
LS-01	1.0	9/01/93	(0.03)	(0.03)	(0.03)	(0.03)	0.37	2.00	0.68	(0.03)	3.0
LS-01	6.0	9/01/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-01	10.5	9/01/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-01	15.5	9/01/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-01	20.5	9/01/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-01	25.5	9/01/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-01	30.0	9/01/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-02	1.0	9/09/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-02	5.5	9/09/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-02	10.5	9/09/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-02	15.5	9/09/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-02	19.0	9/09/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-02	19.5	9/09/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-02	24.0	9/09/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-02	29.0	9/09/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-03	1.0	9/02/93	(0.6)	(0.6)	(0.6)	(0.6)	3.6	6.8	1.7	(0.6)	12
LS-03	5.0	9/02/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-03	10.5	9/02/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-03	11.0	9/02/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-03	15.5	9/02/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-03	20.5	9/02/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-03	25.5	9/02/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-03	26.5	9/02/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-03	30.5	9/02/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-04	1.0	9/02/93	(2)	(2)	(2)	(2)	34	13	2.3	(2)	49
LS-04	5.5	9/02/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-04	10.5	9/02/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-04	11.0	9/02/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-04	15.5	9/02/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.
UJ = Sample result estimated non-detect.

Table 14a.
Summary of Soil Analytical Results - PCBs
Walker Property Site

Location ID	Depth (feet)	Date Collected	Arclor 1016 8080	Arclor 1221 8080	Arclor 1232 8080	Arclor 1242 8080	Arclor 1248 8080	Arclor 1254 8080	Arclor 1260 8080	Arclor 1262 8080	Total PCB's 8080
LS-04	20.5	9/02/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-04	25.5	9/02/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-04	31.0	9/02/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-05	1.0	9/02/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-05	6.0	9/02/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-05	11.0	9/02/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-05	15.5	9/02/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-05	16.0	9/02/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-05	20.5	9/02/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-05	26.0	9/02/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-05	31.5	9/02/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-06	18.0	9/09/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-06	23.0	9/09/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-06	28.0	9/09/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-07	1.0	9/03/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-07	6.0	9/03/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-07	11.0	9/03/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-07	15.5	9/03/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-07	21.0	9/03/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-07	25.5	9/03/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-07	31.0	9/03/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-08	6.0	9/03/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-08	10.5	9/03/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-08	16.0	9/03/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-08	21.0	9/03/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-08	26.0	9/03/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
LS-08	30.5	9/03/93	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.
UJ = Sample result estimated non-detect.

Table 14a.
Summary of Soil Analytical Results - PCBs
Walker Property Site

Location ID	Depth (feet)	Date Collected	Arclor 1016 8080	Arclor 1221 8080	Arclor 1232 8080	Arclor 1242 8080	Arclor 1248 8080	Arclor 1254 8080	Arclor 1260 8080	Arclor 1262 8080	Total PCB's 8080
LS-09	1.5	5/13/94	(.03)UJ	(.03)UJ	(.03)UJ	(.03)UJ	(.03)UJ	(.03)UJ	(.03)UJ	(.03)UJ	(.03)UJ
LS-09	10.0	5/13/94	(.03)UJ	(.03)UJ	(.03)UJ	(.03)UJ	(.03)UJ	(.03)UJ	(.03)UJ	(.03)UJ	(.03)UJ
LS-09	20.0	5/13/94	(.03)UJ	(.03)UJ	(.03)UJ	(.03)UJ	(.03)UJ	(.03)UJ	(.03)UJ	(.03)UJ	(.03)UJ
LS-09	29.5	5/13/94	(.03)UJ	(.03)UJ	(.03)UJ	(.03)UJ	(.03)UJ	(.03)UJ	(.03)UJ	(.03)UJ	(.03)UJ
LS-09	39.0	5/13/94	(.03)UJ	(.03)UJ	(.03)UJ	(.03)UJ	(.03)UJ	(.03)UJ	(.03)UJ	(.03)UJ	(.03)UJ
LS-09	50.0	5/13/94	(.03)UJ	(.03)UJ	(.03)UJ	(.03)UJ	(.03)UJ	(.03)UJ	(.03)UJ	(.03)UJ	(.03)UJ
SS-1	0.0	5/13/94	(.06)UJ	(.06)UJ	(.06)UJ	(.06)UJ	(.06)UJ	(.06)UJ	(.06)UJ	(.06)UJ	(.06)UJ
SS-2	0.0	5/13/94	(.06)UJ	(.06)UJ	(.06)UJ	(.06)UJ	(.06)UJ	(.06)UJ	(.06)UJ	(.06)UJ	(.06)UJ

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.
UJ = Sample result estimated non-detect.

Table 14b.
Summary of Soil Analytical Results - Metals
Walker Property Site

Location ID	Depth (feet)	Date Collected	Barium 6010	Lead 6010
LS-01	1.0	9/01/93	150	130
LS-01	6.0	9/01/93	140	6.4
LS-01	10.5	9/01/93	170	5.5
LS-01	15.5	9/01/93	83	6.3
LS-01	20.5	9/01/93	40	4.7
LS-02	1.0	9/09/93	220	32
LS-02	5.5	9/09/93	150	12
LS-02	10.5	9/09/93	53	4.4
LS-02	15.5	9/09/93	43	4.4
LS-02	19.0	9/09/93	48	5.6
LS-02	19.5	9/09/93	55	5.8
LS-03	1.0	9/02/93	460	250
LS-03	5.0	9/02/93	190	12
LS-03	10.5	9/02/93	140	8.5
LS-03	11.0	9/02/93	170	8.0
LS-03	15.5	9/02/93	57	4.0
LS-03	20.5	9/02/93	51	4.2
LS-04	1.0	9/02/93	170	620 ✓
LS-04	5.5	9/02/93	190	10
LS-04	10.5	9/02/93	160	8.3
LS-04	11.0	9/02/93	180	9.0
LS-04	15.5	9/02/93	170	(4)
LS-05	1.0	9/02/93	120	25
LS-05	6.0	9/02/93	170	8.7
LS-05	11.0	9/02/93	160	6.1
LS-05	15.5	9/02/93	32	(4)
LS-05	16.0	9/02/93	48	(4)
LS-06	18.0	9/09/93	24	(4)
LS-07	1.0	9/03/93	140	10
LS-07	6.0	9/03/93	170	8.4
LS-07	11.0	9/03/93	140	4.3
LS-07	15.5	9/03/93	110	(4)
LS-08	6.0	9/03/93	190	9.5
LS-08	10.5	9/03/93	160	4.8
LS-08	16.0	9/03/93	72	4.6
LS-09	1.5	5/13/94	NA	8.9
LS-09	10.0	5/13/94	NA	13
LS-09	20.0	5/13/94	NA	8.1
LS-09	29.5	5/13/94	NA	4.1

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.

Table 14b.
Summary of Soil Analytical Results - Metals
Walker Property Site

Location ID	Depth (feet)	Date Collected	Barium 6010	Lead 6010
LS-09	39.0	5/13/94	NA	3.7
LS-09	50.0	5/13/94	NA	12
RS-01	1.0	9/02/93	94	33
RS-01	8.5	9/02/93	170	7.5
RS-01	19.0	9/02/93	46	(4)
RS-01	19.5	9/02/93	46	(4)
RS-02	1.0	9/01/93	120	95
RS-02	5.5	9/01/93	950	39
RS-02	6.0	9/01/93	620	26
RS-02	10.5	9/01/93	120	6.5
RS-02	16.0	9/01/93	82	5.0
RS-02	20.0	9/01/93	86	4.8
RS-03	1.0	9/01/93	150	59
RS-03	5.5	9/01/93	NA	25
RS-03	11.0	9/01/93	NA	5.2
RS-03	16.0	9/01/93	63	(4)
RS-03	20.0	9/01/93	38	(4)
RS-04	1.0	9/01/93	340	21
RS-04	6.0	9/01/93	770	26
RS-04	10.5	9/01/93	970	28
RS-04	16.0	9/01/93	68	4.7
RS-04	20.5	9/01/93	42	(4)
RS-05	1.0	9/08/93	1200	51
RS-05	5.5	9/08/93	250	29
RS-05	11.0	9/08/93	790	46
RS-05	15.5	9/08/93	670	71
RS-05	20.5	9/08/93	340	18
RS-06	1.0	9/01/93	270	23
RS-06	6.0	9/01/93	160	14
RS-06	11.0	9/01/93	77	6.0
RS-06	16.0	9/01/93	28	(4)
RS-06	21.0	9/01/93	35	(4)
RS-07	1.0	9/01/93	270	18
RS-07	5.5	9/01/93	670	21
RS-07	10.5	9/01/93	690	18
RS-07	11.0	9/01/93	170	11
RS-07	16.0	9/01/93	130	4.9
RS-07	20.5	9/01/93	58	(4)
RS-08	1.0	9/03/93	250	39

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() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.

Table 14b.
Summary of Soil Analytical Results - Metals
Walker Property Site

Location ID	Depth (feet)	Date Collected	Barium 6010	Lead 6010
RS-08	5.0	9/03/93	290	20
RS-08	10.0	9/03/93	150	5.8
RS-08	10.5	9/03/93	150	7.8
RS-09	1.0	9/03/93	280	28
RS-09	5.0	9/03/93	220	17
RS-09	5.5	9/03/93	300	25
RS-09	10.0	9/03/93	350	16
RS-10	1.0	9/03/93	350	89
RS-10	5.0	9/03/93	560	23
RS-10	10.0	9/03/93	370	27
RS-10	16.0	9/09/93	85	8.3
RS-11	1.0	9/03/93	220	16
RS-11	5.0	9/03/93	860	33
RS-11	10.0	9/03/93	150	9.0
RS-11	10.5	9/03/93	130	7.3
SS-1	0.0	5/13/94	330	39
SS-2	0.0	5/13/94	280	87

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.

Table 14c.
Summary of Soil Analytical Results - Volatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	1,1,1-Trichloroethane 8260	1,1,2,2-Tetrachloroethane 8260	1,1,2-Trichloroethane 8260	1,1,-Dichloroethane 8260	1,1,-Dichloroethene 8260	1,2-Dichlorobenzene 8260	1,2-Dichloroethane 8260	1,2-Dichloropropane 8260	1,3-Dichlorobenzene 8260	1,4-Dichlorobenzene 8260	2-Chloroethylvinylether 8260
LS-01	6.0	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-01	10.5	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-01	15.5	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-01	20.5	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-01	25.5	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-01	30.0	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-02	5.5	9/09/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-02	10.5	9/09/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-02	15.5	9/09/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-02	19.0	9/09/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-02	19.5	9/09/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-02	24.0	9/09/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-02	29.0	9/09/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-03	5.0	9/02/93	(0.005)	(0.005)	(0.005)	0.019	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-03	10.5	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-03	11.0	9/02/93	(0.005)	(0.005)	(0.005)	0.0082	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-03	15.5	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-03	20.5	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-03	25.5	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-03	26.5	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-03	30.5	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-04	5.5	9/02/93	(0.005)	(0.005)	(0.005)	0.0060	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-04	10.5	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-04	11.0	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-04	15.5	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-04	20.5	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-04	25.5	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-04	31.0	9/02/93	(0.005)	(0.005)	(0.005)	0.0065	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms. B = Constituent present in method blank.

Table 14c.
Summary of Soil Analytical Results - Volatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	1,1,1-Trichloroethane 8260	1,1,2,2-Tetrachloroethane 8260	1,1,2-Trichloroethane 8260	1,1,-Dichloroethane 8260	1,1,-Dichloroethene 8260	1,2-Dichlorobenzene 8260	1,2-Dichloroethane 8260	1,2-Dichloropropane 8260	1,3-Dichlorobenzene 8260	1,4-Dichlorobenzene 8260	2-Chloroethylvinylether 8260
LS-05	6.0	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-05	11.0	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-05	15.5	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-05	16.0	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-05	20.5	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-05	26.0	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-05	31.5	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-06	18.0	9/09/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-06	23.0	9/09/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-06	28.0	9/09/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-07	6.0	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-07	11.0	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-07	15.5	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-07	21.0	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-07	25.5	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-07	31.0	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-08	1.0	9/03/93	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	NA
LS-08	6.0	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-08	10.5	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-08	16.0	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-08	21.0	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-08	26.0	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-08	30.5	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-01	1.0	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-01	8.5	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-01	19.0	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-01	19.5	9/02/93	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
RS-01	29.5	9/02/93	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms. B = Constituent present in method blank.

Table 14c.
Summary of Soil Analytical Results - Volatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	1,1,1-Tri-chloro-ethane 8260	1,1,2,2-Tetra-chloro-ethane 8260	1,1,2-Trichloro-ethane 8260	1,1,-Di-chloro-ethane 8260	1,1,-Di-chloro-ethene 8260	1,2-Di-chloro-benzene 8260	1,2-Di-chloro-ethane 8260	1,2-Di-chloro-propane 8260	1,3-Di-chloro-benzene 8260	1,4-Di-chloro-benzene 8260	2-Chloro-ethyl-vinyl-ether 8260
RS-01	39.5	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-01	49.0	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-01	59.0	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-01	69.0	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-01	69.5	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-01	79.0	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-01	79.5	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-01	89.0	9/02/93	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
RS-02	1.0	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-02	5.5	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-02	6.0	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-02	10.5	9/01/93	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
RS-02	16.0	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-02	20.0	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-03	5.5	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-03	11.0	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-03	16.0	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-03	20.0	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-04	6.0	9/01/93	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
RS-04	10.5	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-04	16.0	9/01/93	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
RS-04	20.5	9/01/93	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
RS-04	24.5	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-04	29.0	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-04	29.5	9/03/93	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
RS-04	34.5	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-04	39.5	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-05	5.5	9/08/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms. B = Constituent present in method blank.

Table 14c.
Summary of Soil Analytical Results - Volatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	1,1,1-Tri-chloro-ethane 8260	1,1,2,2-Tetra-chloro-ethane 8260	1,1,2-Trichloro-ethane 8260	1,1,-Di-chloro-ethane 8260	1,1,-Di-chloro-ethene 8260	1,2-Di-chloro-benzene 8260	1,2-Di-chloro-ethane 8260	1,2-Di-chloro-propane 8260	1,3-Di-chloro-benzene 8260	1,4-Di-chloro-benzene 8260	2-Chloro-ethyl-vinyl-ether 8260
RS-05	11.0	9/08/93	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
RS-05	15.5	9/08/93	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
RS-05	20.5	9/08/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-06	6.0	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-06	11.0	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-06	16.0	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-06	21.0	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-07	5.5	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-07	10.5	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-07	11.0	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-07	16.0	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-07	20.5	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-08	5.0	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-08	10.0	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-08	10.5	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-09	5.0	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-09	5.5	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-09	10.0	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-10	5.0	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-10	16.0	9/09/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-11	5.0	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-11	10.0	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-11	10.5	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms. B = Constituent present in method blank.

Table 14c.
Summary of Soil Analytical Results - Volatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	2-Hexanone 8260	Acetone 8260	Acrolein 8260	Acrylo-nitrile 8260	Benzene 8260	Bromo-dichloro-methane 8260	Bromo-form 8260	Bromo-methane 8260	Carbon Diulfide 8260	Carbon Tetra-chloride 8260	Chloro-benzene 8260
LS-01	6.0	9/01/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-01	10.5	9/01/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-01	15.5	9/01/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-01	20.5	9/01/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-01	25.5	9/01/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-01	30.0	9/01/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-02	5.5	9/09/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-02	10.5	9/09/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-02	15.5	9/09/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-02	19.0	9/09/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-02	19.5	9/09/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-02	24.0	9/09/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-02	29.0	9/09/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-03	5.0	9/02/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-03	10.5	9/02/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-03	11.0	9/02/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-03	15.5	9/02/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-03	20.5	9/02/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-03	25.5	9/02/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-03	26.5	9/02/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-03	30.5	9/02/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-04	5.5	9/02/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-04	10.5	9/02/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-04	11.0	9/02/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-04	15.5	9/02/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-04	20.5	9/02/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-04	25.5	9/02/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-04	31.0	9/02/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)

() indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms. B = Constituent present in method blank.

Table 14c.
Summary of Soil Analytical Results - Volatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	2-Hexanone 8260	Acetone 8260	Acrolein 8260	Acrylo-nitrile 8260	Benzene 8260	Bromo-dichloro-methane 8260	Bromo-form 8260	Bromo-methane 8260	Carbon Disulfide 8260	Carbon Tetra-chloride 8260	Chloro-benzene 8260
LS-05	6.0	9/02/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-05	11.0	9/02/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-05	15.5	9/02/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-05	16.0	9/02/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-05	20.5	9/02/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-05	26.0	9/02/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-05	31.5	9/02/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-06	18.0	9/09/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-06	23.0	9/09/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-06	28.0	9/09/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-07	6.0	9/03/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-07	11.0	9/03/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-07	15.5	9/03/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-07	21.0	9/03/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-07	25.5	9/03/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-07	31.0	9/03/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-08	1.0	9/03/93	(5)	(20)	NA	NA	(5)	(5)	(5)	(5)	(5)	(5)	(5)
LS-08	6.0	9/03/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-08	10.5	9/03/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-08	16.0	9/03/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-08	21.0	9/03/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-08	26.0	9/03/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
LS-08	30.5	9/03/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-01	1.0	9/02/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-01	8.5	9/02/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-01	19.0	9/02/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-01	19.5	9/02/93	(0.5)	(2)	(5)	(5)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)	(0.1)	(0.1)
RS-01	29.5	9/02/93	(0.5)	(2)	(5)	(5)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)	(0.1)	(0.1)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms. B = Constituent present in method blank.

Table 14c.
Summary of Soil Analytical Results - Volatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	2-Hexanone 8260	Acetone 8260	Acrolein 8260	Acrylo-nitrile 8260	Benzene 8260	Bromo-dichloro-methane 8260	Bromo-form 8260	Bromo-methane 8260	Carbon Diulfide 8260	Carbon Tetra-chloride 8260	Chloro-benzene 8260
RS-01	39.5	9/02/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-01	49.0	9/02/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-01	59.0	9/02/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-01	69.0	9/02/93	(0.03)	(0.1)	(0.3)	(0.3)	0.0065	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-01	69.5	9/02/93	(0.03)	(0.1)	(0.3)	(0.3)	0.13	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-01	79.0	9/02/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-01	79.5	9/02/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-01	89.0	9/02/93	(0.5)	(2)	(5)	(5)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)	(0.1)	(0.1)
RS-02	1.0	9/01/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-02	5.5	9/01/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-02	6.0	9/01/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-02	10.5	9/01/93	(0.5)	(2)	(5)	(5)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)	(0.1)	(0.1)
RS-02	16.0	9/01/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-02	20.0	9/01/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-03	5.5	9/01/93	(0.03)	0.14	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-03	11.0	9/01/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-03	16.0	9/01/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-03	20.0	9/01/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-04	6.0	9/01/93	(0.5)	(2)	(5)	(5)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)	(0.1)	(0.1)
RS-04	10.5	9/01/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-04	16.0	9/01/93	(0.5)	(2)	(5)	(5)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)	(0.1)	(0.1)
RS-04	20.5	9/01/93	(0.5)	(2)	(5)	(5)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)	(0.1)	(0.1)
RS-04	24.5	9/03/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-04	29.0	9/03/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-04	29.5	9/03/93	(0.5)	(2)	(5)	(5)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)	(0.1)	(0.1)
RS-04	34.5	9/03/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-04	39.5	9/03/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-05	5.5	9/08/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms. B = Constituent present in method blank.

Table 14c.
Summary of Soil Analytical Results - Volatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	2-Hexanone 8260	Acetone 8260	Acrolein 8260	Acrylo-nitrile 8260	Benzene 8260	Bromo-dichloro-methane 8260	Bromo-form 8260	Bromo-methane 8260	Carbon Diulfide 8260	Carbon Tetra-chloride 8260	Chloro-benzene 8260
RS-05	11.0	9/08/93	(0.5)	(2)	(5)	(5)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)	(0.1)	(0.1)
RS-05	15.5	9/08/93	(0.5)	(2)	(5)	(5)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)	(0.1)	(0.1)
RS-05	20.5	9/08/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-06	6.0	9/01/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-06	11.0	9/01/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-06	16.0	9/01/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-06	21.0	9/01/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-07	5.5	9/01/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-07	10.5	9/01/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-07	11.0	9/01/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-07	16.0	9/01/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-07	20.5	9/01/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-08	5.0	9/03/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-08	10.0	9/03/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-08	10.5	9/03/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-09	5.0	9/03/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-09	5.5	9/03/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-09	10.0	9/03/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-10	5.0	9/03/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-10	16.0	9/09/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-11	5.0	9/03/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-11	10.0	9/03/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)
RS-11	10.5	9/03/93	(0.03)	(0.1)	(0.3)	(0.3)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.005)	(0.005)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms. B = Constituent present in method blank.

Table 14c.
Summary of Soil Analytical Results - Volatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	Chloro-ethane 8260	Chloro-form 8260	Chloro-methane 8260	Dibromo-chloro-methane 8260	Ethyl-benzene 8260	Freon 113 8260	Methyl Ethyl Ketone 8260	Methyl Isobutyl Ketone 8260	Methylene Chloride 8260	Styrene 8260	Tetra-chloro-ethene 8260
LS-01	6.0	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-01	10.5	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-01	15.5	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-01	20.5	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-01	25.5	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-01	30.0	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-02	5.5	9/09/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	0.0051	(0.005)	(0.005)
LS-02	10.5	9/09/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-02	15.5	9/09/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-02	19.0	9/09/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-02	19.5	9/09/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-02	24.0	9/09/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-02	29.0	9/09/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-03	5.0	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	0.022	(0.005)	(0.03)	(0.03)	(0.005)	(0.005)	0.11
LS-03	10.5	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-03	11.0	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-03	15.5	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-03	20.5	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-03	25.5	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-03	26.5	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-03	30.5	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-04	5.5	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-04	10.5	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-04	11.0	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-04	15.5	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-04	20.5	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-04	25.5	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-04	31.0	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms. B = Constituent present in method blank.

Table 14c.
Summary of Soil Analytical Results - Volatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	Chloro-ethane 8260	Chloro-form 8260	Chloro-methane 8260	Dibromo-chloro-methane 8260	Ethyl-benzene 8260	Freon 113 8260	Methyl Ethyl Ketone 8260	Methyl Isobutyl Ketone 8260	Methylene Chloride 8260	Styrene 8260	Tetra-chloro-ethene 8260
LS-05	6.0	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-05	11.0	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-05	15.5	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-05	16.0	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-05	20.5	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-05	26.0	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-05	31.5	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-06	18.0	9/09/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-06	23.0	9/09/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-06	28.0	9/09/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-07	6.0	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-07	11.0	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-07	15.5	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-07	21.0	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-07	25.5	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-07	31.0	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-08	1.0	9/03/93	(5)	(5)	(5)	(5)	(5)	NA	(5)	(5)	(5)	(5)	(5)
LS-08	6.0	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-08	10.5	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-08	16.0	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-08	21.0	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-08	26.0	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
LS-08	30.5	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
RS-01	1.0	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
RS-01	8.5	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
RS-01	19.0	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
RS-01	19.5	9/02/93	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)	(0.5)	(0.5)	(0.1)	(0.1)	(0.1)
RS-01	29.5	9/02/93	(0.1)	(0.1)	(0.1)	(0.1)	2.3	(0.2)	(0.5)	(0.5)	(0.1)	(0.1)	(0.1)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms. B = Constituent present in method blank.

Table 14c.
Summary of Soil Analytical Results - Volatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	Chloro-ethane 8260	Chloro-form 8260	Chloro-methane 8260	Dibromo-chloro-methane 8260	Ethyl-benzene 8260	Freon 113 8260	Methyl Ethyl Ketone 8260	Methyl Isobutyl Ketone 8260	Methylene Chloride 8260	Styrene 8260	Tetra-chloro-ethene 8260
RS-01	39.5	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
RS-01	49.0	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
RS-01	59.0	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
RS-01	69.0	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
RS-01	69.5	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	0.049	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
RS-01	79.0	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
RS-01	79.5	9/02/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
RS-01	89.0	9/02/93	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)	(0.5)	(0.5)	(0.1)	(0.1)	(0.1)
RS-02	1.0	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	0.0079B	(0.005)	(0.005)
RS-02	5.5	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
RS-02	6.0	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
RS-02	10.5	9/01/93	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)	(0.5)	(0.5)	(0.1)	(0.1)	(0.1)
RS-02	16.0	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
RS-02	20.0	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
RS-03	5.5	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	0.032	(0.03)	(0.005)	(0.005)	(0.005)
RS-03	11.0	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	0.0055B	(0.005)	(0.005)
RS-03	16.0	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
RS-03	20.0	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
RS-04	6.0	9/01/93	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)	(0.5)	(0.5)	(0.1)	(0.1)	(0.1)
RS-04	10.5	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
RS-04	16.0	9/01/93	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)	(0.5)	(0.5)	(0.1)	(0.1)	(0.1)
RS-04	20.5	9/01/93	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)	(0.5)	(0.5)	(0.1)	(0.1)	(0.1)
RS-04	24.5	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
RS-04	29.0	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
RS-04	29.5	9/03/93	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)	(0.5)	(0.5)	(0.1)	(0.1)	(0.1)
RS-04	34.5	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
RS-04	39.5	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
RS-05	5.5	9/08/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms. B = Constituent present in method blank.

Table 14c.
Summary of Soil Analytical Results - Volatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	Chloro-ethane 8260	Chloro-form 8260	Chloro-methane 8260	Dibromo-chloro-methane 8260	Ethyl-benzene 8260	Freon 113 8260	Methyl Ethyl Ketone 8260	Methyl Isobutyl Ketone 8260	Methylene Chloride 8260	Styrene 8260	Tetra-chloro-ethene 8260
RS-05	11.0	9/08/93	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)	(0.5)	(0.5)	(0.1)	(0.1)	(0.1)
RS-05	15.5	9/08/93	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.2)	(0.5)	(0.5)	(0.1)	(0.1)	(0.1)
RS-05	20.5	9/08/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
RS-06	6.0	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
RS-06	11.0	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
RS-06	16.0	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
RS-06	21.0	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
RS-07	5.5	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
RS-07	10.5	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
RS-07	11.0	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
RS-07	16.0	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
RS-07	20.5	9/01/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
RS-08	5.0	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
RS-08	10.0	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
RS-08	10.5	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
RS-09	5.0	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
RS-09	5.5	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	0.085	(0.005)	(0.005)
RS-09	10.0	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	0.10	(0.005)	(0.005)
RS-10	5.0	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	0.11	(0.005)	(0.005)
RS-10	16.0	9/09/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
RS-11	5.0	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	0.18	(0.005)	(0.005)
RS-11	10.0	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)
RS-11	10.5	9/03/93	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.01)	(0.03)	(0.03)	(0.005)	(0.005)	(0.005)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms. B = Constituent present in method blank.

Table 14c.
Summary of Soil Analytical Results - Volatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	Toluene 8260	Total Xylene Isomers 8260	Trichloro-ethene 8260	Trichloro-fluoro-methane 8260	Vinyl acetate 8260	Vinyl Chloride 8260	cis-1,2-Dichloro-ethene 8260	cis-1,3-Dichloro-propene 8260	trans-1,2-Dichloro-ethene 8260	trans-1,3-Dichloro-propene 8260
LS-01	6.0	9/01/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-01	10.5	9/01/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-01	15.5	9/01/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-01	20.5	9/01/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-01	25.5	9/01/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-01	30.0	9/01/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-02	5.5	9/09/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-02	10.5	9/09/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-02	15.5	9/09/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-02	19.0	9/09/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-02	19.5	9/09/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-02	24.0	9/09/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-02	29.0	9/09/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-03	5.0	9/02/93	(0.005)	(0.02)	0.14	(0.005)	(0.05)	(0.005)	0.031	(0.005)	(0.005)	(0.005)
LS-03	10.5	9/02/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	0.011	(0.005)	(0.005)	(0.005)
LS-03	11.0	9/02/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	0.028	(0.005)	(0.005)	(0.005)
LS-03	15.5	9/02/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-03	20.5	9/02/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-03	25.5	9/02/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-03	26.5	9/02/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-03	30.5	9/02/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-04	5.5	9/02/93	(0.005)	(0.02)	0.022	(0.005)	(0.05)	(0.005)	0.0083	(0.005)	(0.005)	(0.005)
LS-04	10.5	9/02/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-04	11.0	9/02/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-04	15.5	9/02/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-04	20.5	9/02/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-04	25.5	9/02/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-04	31.0	9/02/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms. B = Constituent present in method blank.

Table 14c.
Summary of Soil Analytical Results - Volatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	Toluene 8260	Total Xylene Isomers 8260	Trichloro-ethene 8260	Trichloro-fluoro-methane 8260	Vinyl acetate 8260	Vinyl Chloride 8260	cis-1,2-Dichloro-ethene 8260	cis-1,3-Dichloro-propene 8260	trans-1,2-Dichloro-ethene 8260	trans-1,3-Dichloro-propene 8260
LS-05	6.0	9/02/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-05	11.0	9/02/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-05	15.5	9/02/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-05	16.0	9/02/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-05	20.5	9/02/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-05	26.0	9/02/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-05	31.5	9/02/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-06	18.0	9/09/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-06	23.0	9/09/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-06	28.0	9/09/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-07	6.0	9/03/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-07	11.0	9/03/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-07	15.5	9/03/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-07	21.0	9/03/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-07	25.5	9/03/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-07	31.0	9/03/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-08	1.0	9/03/93	(5)	NA	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
LS-08	6.0	9/03/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-08	10.5	9/03/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-08	16.0	9/03/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-08	21.0	9/03/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-08	26.0	9/03/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
LS-08	30.5	9/03/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-01	1.0	9/02/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-01	8.5	9/02/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-01	19.0	9/02/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-01	19.5	9/02/93	(0.1)	(0.3)	(0.1)	(0.1)	(1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
RS-01	29.5	9/02/93	(0.1)	(0.3)	(0.1)	(0.1)	(1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms. B = Constituent present in method blank.

Table 14c.
Summary of Soil Analytical Results - Volatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	Toluene 8260	Total Xylene Isomers 8260	Trichloro-ethene 8260	Trichloro-fluoro-methane 8260	Vinyl acetate 8260	Vinyl Chloride 8260	cis-1,2-Dichloro-ethene 8260	cis-1,3-Dichloro-propene 8260	trans-1,2-Dichloro-ethene 8260	trans-1,3-Dichloro-propene 8260
RS-01	39.5	9/02/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-01	49.0	9/02/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-01	59.0	9/02/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-01	69.0	9/02/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-01	69.5	9/02/93	0.092	0.051	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-01	79.0	9/02/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-01	79.5	9/02/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-01	89.0	9/02/93	(0.1)	(0.3)	(0.1)	(0.1)	(1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
RS-02	1.0	9/01/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-02	5.5	9/01/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-02	6.0	9/01/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-02	10.5	9/01/93	(0.1)	(0.3)	(0.1)	(0.1)	(1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
RS-02	16.0	9/01/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-02	20.0	9/01/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-03	5.5	9/01/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-03	11.0	9/01/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-03	16.0	9/01/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-03	20.0	9/01/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-04	6.0	9/01/93	(0.1)	(0.3)	(0.1)	(0.1)	(1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
RS-04	10.5	9/01/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-04	16.0	9/01/93	(0.1)	(0.3)	(0.1)	(0.1)	(1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
RS-04	20.5	9/01/93	(0.1)	(0.3)	(0.1)	(0.1)	(1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
RS-04	24.5	9/03/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-04	29.0	9/03/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-04	29.5	9/03/93	(0.1)	(0.3)	(0.1)	(0.1)	(1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
RS-04	34.5	9/03/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-04	39.5	9/03/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-05	5.5	9/08/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms. B = Constituent present in method blank.

Table 14c.
Summary of Soil Analytical Results - Volatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	Toluene 8260	Total Xylene Isomers 8260	Trichloro-ethene 8260	Trichloro-fluoro-methane 8260	Vinyl acetate 8260	Vinyl Chloride 8260	cis-1,2-Dichloro-ethene 8260	cis-1,3-Dichloro-propene 8260	trans-1,2-Dichloro-ethene 8260	trans-1,3-Dichloro-propene 8260
RS-05	11.0	9/08/93	(0.1)	(0.3)	(0.1)	(0.1)	(1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
RS-05	15.5	9/08/93	(0.1)	(0.3)	(0.1)	(0.1)	(1)	(0.1)	(0.1)	(0.1)	(0.1)	(0.1)
RS-05	20.5	9/08/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-06	6.0	9/01/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-06	11.0	9/01/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-06	16.0	9/01/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-06	21.0	9/01/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-07	5.5	9/01/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-07	10.5	9/01/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-07	11.0	9/01/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-07	16.0	9/01/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-07	20.5	9/01/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-08	5.0	9/03/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-08	10.0	9/03/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-08	10.5	9/03/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-09	5.0	9/03/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-09	5.5	9/03/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-09	10.0	9/03/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-10	5.0	9/03/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-10	16.0	9/09/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-11	5.0	9/03/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-11	10.0	9/03/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
RS-11	10.5	9/03/93	(0.005)	(0.02)	(0.005)	(0.005)	(0.05)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms. B = Constituent present in method blank.

Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	1,2,4-Tri-chloro-benzene 8270	1,2-Di-chloro-benzene 8270	1,2-Di-phenyl-hydrazine 8270	1,3-Di-chloro-benzene 8270	1,4-Di-chloro-benzene 8270	2,4,5-Tri-chloro-phenol 8270	2,4,6-Tri-chloro-phenol 8270	2,4-Di-chloro-phenol 8270	2,4-Di-methyl-phenol 8270	2,4-Di-nitro-phenol 8270	2,4-Di-nitro-toluene 8270
LS-01	1.0	9/01/93	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ
LS-01	6.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-01	10.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-01	15.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-01	20.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-01	25.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-01	30.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-02	1.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-02	5.5	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-02	10.5	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-02	15.5	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-02	19.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-02	19.5	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-02	24.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-02	29.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-03	1.0	9/02/93	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
LS-03	5.0	9/02/93	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)
LS-03	10.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-03	11.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-03	15.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-03	20.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-03	25.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-03	26.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-03	30.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-04	1.0	9/02/93	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)
LS-04	5.5	9/02/93	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)
LS-04	10.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-04	11.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-04	15.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.
UJ = Sample result estimated non-detect.

Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	1,2,4-Tri-chloro-benzene 8270	1,2-Di-chloro-benzene 8270	1,2-Di-phenyl-hydrazine 8270	1,3-Di-chloro-benzene 8270	1,4-Di-chloro-benzene 8270	2,4,5-Tri-chloro-phenol 8270	2,4,6-Tri-chloro-phenol 8270	2,4-Di-chloro-phenol 8270	2,4-Di-methyl-phenol 8270	2,4-Di-nitro-phenol 8270	2,4-Di-nitro-toluene 8270
LS-04	20.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-04	25.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-04	31.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-05	1.0	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-05	6.0	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-05	11.0	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-05	15.5	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-05	16.0	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-05	20.5	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-05	26.0	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-05	31.5	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-06	18.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-06	23.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-06	28.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-07	1.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-07	6.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-07	11.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-07	15.5	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-07	21.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-07	25.5	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-07	31.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-08	1.0	9/03/93	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ
LS-08	6.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-08	10.5	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-08	16.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-08	21.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-08	26.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-08	30.5	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.
UJ = Sample result estimated non-detect.

Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	1,2,4-Tri-chloro-benzene 8270	1,2-Di-chloro-benzene 8270	1,2-Di-phenyl-hydrazine 8270	1,3-Di-chloro-benzene 8270	1,4-Di-chloro-benzene 8270	2,4,5-Tri-chloro-phenol 8270	2,4,6-Tri-chloro-phenol 8270	2,4-Di-chloro-phenol 8270	2,4-Di-methyl-phenol 8270	2,4-Di-nitro-phenol 8270	2,4-Di-nitro-toluene 8270
LS-09	1.5	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)
LS-09	10.0	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)	(0.2)	0.21	(0.5)	(0.2)
LS-09	20.0	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)
LS-09	29.5	5/13/94	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.5)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.5)UJ	(0.2)UJ
LS-09	39.0	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)
LS-09	50.0	5/13/94	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.5)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.5)UJ	(0.2)UJ
LS-10	1.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)
LS-10	10.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)
LS-10	20.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)
RS-01	1.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-01	8.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-01	19.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-01	19.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-01	29.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-01	39.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-01	49.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-01	59.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-01	69.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-01	69.5	9/02/93	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)
RS-01	79.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-01	79.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-01	89.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-02	1.0	9/01/93	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
RS-02	5.5	9/01/93	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)
RS-02	6.0	9/01/93	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
RS-02	10.5	9/01/93	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
RS-02	16.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-02	20.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.
UJ = Sample result estimated non-detect.

Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	1,2,4-Tri-chloro-benzene 8270	1,2-Di-chloro-benzene 8270	1,2-Di-phenyl-hydrazine 8270	1,3-Di-chloro-benzene 8270	1,4-Di-chloro-benzene 8270	2,4,5-Tri-chloro-phenol 8270	2,4,6-Tri-chloro-phenol 8270	2,4-Di-chloro-phenol 8270	2,4-Di-methyl-phenol 8270	2,4-Di-nitro-phenol 8270	2,4-Di-nitro-toluene 8270
RS-03	1.0	9/01/93	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
RS-03	5.5	9/01/93	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)
RS-03	11.0	9/01/93	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)
RS-03	16.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-03	20.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-04	1.0	9/01/93	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)
RS-04	6.0	9/01/93	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
RS-04	10.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-04	16.0	9/01/93	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)
RS-04	20.5	9/01/93	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)
RS-04	24.5	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-04	29.0	9/03/93	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)
RS-04	29.5	9/03/93	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)
RS-04	34.5	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-04	39.5	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-05	1.0	9/08/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-05	5.5	9/08/93	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)
RS-05	11.0	9/08/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-05	15.5	9/08/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	0.22
RS-05	20.5	9/08/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-06	1.0	9/01/93	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
RS-06	6.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-06	11.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-06	16.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-06	21.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-07	1.0	9/01/93	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)
RS-07	5.5	9/01/93	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)

() indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.
UJ = Sample result estimated non-detect.

Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	1,2,4-Trichlorobenzene 8270	1,2-Dichlorobenzene 8270	1,2-Diphenylhydrazine 8270	1,3-Dichlorobenzene 8270	1,4-Dichlorobenzene 8270	2,4,5-Trichlorophenol 8270	2,4,6-Trichlorophenol 8270	2,4-Dichlorophenol 8270	2,4-Dimethylphenol 8270	2,4-Dinitrophenol 8270	2,4-Dinitrotoluene 8270
RS-07	10.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-07	11.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-07	16.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-07	20.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-08	1.0	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-08	5.0	9/03/93	(1)UJ	(1)UJ	(1)UJ	(1)UJ	(1)UJ	(1)UJ	(1)UJ	(1)UJ	(1)UJ	(1)UJ	(1)UJ
RS-08	10.0	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-08	10.5	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-09	1.0	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-09	5.0	9/03/93	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)
RS-09	5.5	9/03/93	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)
RS-09	10.0	9/03/93	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)
RS-10	1.0	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-10	5.0	9/03/93	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)
RS-10	10.0	9/03/93	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)
RS-10	16.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-11	1.0	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-11	5.0	9/03/93	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)
RS-11	10.0	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-11	10.5	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-12	1.0	5/13/94	(0.4)UJ	(0.4)UJ	(0.4)UJ	(0.4)UJ	(0.4)UJ	(1)UJ	(0.4)UJ	(0.4)UJ	(0.4)UJ	(1)UJ	(0.4)UJ
RS-12	10.0	5/13/94	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(5)UJ	(2)UJ	(2)UJ	(2)UJ	(5)UJ	(2)UJ
RS-12	21.0	5/16/94	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.5)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.5)UJ	(0.2)UJ
RS-13	1.0	5/12/94	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(1)	(0.4)	(0.4)	(0.4)	(1)	(0.4)
RS-13	10.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)
RS-13	20.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.
UJ = Sample result estimated non-detect.

Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	1,2,4-Tri-chloro-benzene 8270	1,2-Di-chloro-benzene 8270	1,2-Di-phenyl-hydrazine 8270	1,3-Di-chloro-benzene 8270	1,4-Di-chloro-benzene 8270	2,4,5-Tri-chloro-phenol 8270	2,4,6-Tri-chloro-phenol 8270	2,4-Di-chloro-phenol 8270	2,4-Di-methyl-phenol 8270	2,4-Di-nitro-phenol 8270	2,4-Di-nitro-toluene 8270
RS-14	1.5	5/12/94	(2)	(2)	(2)	(2)	(2)	(5)	(2)	(2)	(2)	(5)	(2)
RS-14	11.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)
RS-14	20.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)
RS-14	31.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)
RS-14	40.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)
RS-14	50.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)
RS-14	60.0	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)
RS-15	.5	5/16/94	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(1)	(0.4)	(0.4)	(0.4)	(1)	(0.4)
RS-15	10.0	5/16/94	(2)	(2)	(2)	(2)	(2)	(5)	(2)	(2)	(2)	(5)	(2)
RS-15	15.0	5/16/94	(2)	(2)	(2)	(2)	(2)	(5)	(2)	(2)	(2)	(5)	(2)
RS-15	21.0	5/16/94	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(1)	(0.4)	(0.4)	(0.4)	(1)	(0.4)
RS-15	31.0	5/16/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)
RS-15	40.5	5/16/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)
RS-15	50.5	5/16/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)
RS-16	1.0	5/12/94	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(1)	(0.4)	(0.4)	(0.4)	(1)	(0.4)
RS-16	10.0	5/12/94	(2)	(2)	(2)	(2)	(2)	(5)	(2)	(2)	(2)	(5)	(2)
RS-16	20.5	5/12/94	(2)	(2)	(2)	(2)	(2)	(5)	(2)	(2)	(2)	(5)	(2)
RS-16	30.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)
RS-16	40.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)
RS-16	50.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)
RS-16	60.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)
RS-16	70.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)
RS-16	80.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)
RS-17	1.0	5/13/94	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(1)	(0.4)	(0.4)	(0.4)	(1)	(0.4)
RS-17	5.0	5/13/94	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(5)UJ	(2)UJ	(2)UJ	(2)UJ	(5)UJ	(2)UJ
RS-17	11.0	5/13/94	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(1)	(0.4)	(0.4)	(0.4)	(1)	(0.4)
RS-17	20.5	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)
RS-17	31.0	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.
UJ = Sample result estimated non-detect.

Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	1,2,4-Tri-chloro-benzene 8270	1,2-Di-chloro-benzene 8270	1,2-Di-phenyl-hydrazine 8270	1,3-Di-chloro-benzene 8270	1,4-Di-chloro-benzene 8270	2,4,5-Tri-chloro-phenol 8270	2,4,6-Tri-chloro-phenol 8270	2,4-Di-chloro-phenol 8270	2,4-Di-methyl-phenol 8270	2,4-Di-nitro-phenol 8270	2,4-Di-nitro-toluene 8270
RS-17	41.0	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)
RS-17	50.0	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)	(0.2)	(0.2)	(0.5)	(0.2)
SS-1	0.0	5/13/94	(2)	(2)	(2)	(2)	(2)	(5)	(2)	(2)	(2)	(5)	(2)
SS-2	0.0	5/13/94	(2)	(2)	(2)	(2)	(2)	(5)	(2)	(2)	(2)	(5)	(2)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.
UJ = Sample result estimated non-detect.

Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	2,6-Di-nitro-toluene 8270	2-Chloro-naphthalene 8270	2-Chloro-phenol 8270	2-Methyl 4,6-di-nitro-phenol 8270	2-Methyl-naphthalene 8270	2-Methyl-phenol (o-Cresol) 8270	2-Nitro-aniline 8270	2-Nitro-phenol 8270	3,3-Di-chloro-benzidine 8270	3-Nitro-aniline 8270	4-Bromo-phenyl Phenyl Ether 8270
LS-01	1.0	9/01/93	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(7)UJ	(2)UJ	(2)UJ
LS-01	6.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
LS-01	10.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
LS-01	15.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
LS-01	20.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
LS-01	25.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
LS-01	30.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
LS-02	1.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
LS-02	5.5	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
LS-02	10.5	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
LS-02	15.5	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
LS-02	19.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
LS-02	19.5	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
LS-02	24.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
LS-02	29.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
LS-03	1.0	9/02/93	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(4)	(1)	(1)
LS-03	5.0	9/02/93	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(2)	(0.4)	(0.4)
LS-03	10.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
LS-03	11.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
LS-03	15.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
LS-03	20.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
LS-03	25.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
LS-03	26.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
LS-03	30.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
LS-04	1.0	9/02/93	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(40)	(10)	(10)
LS-04	5.5	9/02/93	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(40)	(10)	(10)
LS-04	10.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
LS-04	11.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
LS-04	15.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.
UJ = Sample result estimated non-detect.

Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	2,6-Di-nitro-toluene 8270	2-Chloro-naphthalene 8270	2-Chloro-phenol 8270	2-Methyl 4,6-di-nitro-phenol 8270	2-Methyl-naphthalene 8270	2-Methyl-phenol (o-Cresol) 8270	2-Nitro-aniline 8270	2-Nitro-phenol 8270	3,3-Di-chloro-benzidine 8270	3-Nitro-aniline 8270	4-Bromo-phenyl Phenyl Ether 8270
LS-04	20.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
LS-04	25.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
LS-04	31.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
LS-05	1.0	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.7)UJ	(0.2)UJ	(0.2)UJ
LS-05	6.0	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.7)UJ	(0.2)UJ	(0.2)UJ
LS-05	11.0	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.7)UJ	(0.2)UJ	(0.2)UJ
LS-05	15.5	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.7)UJ	(0.2)UJ	(0.2)UJ
LS-05	16.0	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.7)UJ	(0.2)UJ	(0.2)UJ
LS-05	20.5	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.7)UJ	(0.2)UJ	(0.2)UJ
LS-05	26.0	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.7)UJ	(0.2)UJ	(0.2)UJ
LS-05	31.5	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.7)UJ	(0.2)UJ	(0.2)UJ
LS-06	18.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
LS-06	23.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
LS-06	28.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
LS-07	1.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.7)UJ	(0.2)UJ	(0.2)UJ
LS-07	6.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.7)UJ	(0.2)UJ	(0.2)UJ
LS-07	11.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.7)UJ	(0.2)UJ	(0.2)UJ
LS-07	15.5	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.7)UJ	(0.2)UJ	(0.2)UJ
LS-07	21.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.7)UJ	(0.2)UJ	(0.2)UJ
LS-07	25.5	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.7)UJ	(0.2)UJ	(0.2)UJ
LS-07	31.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.7)UJ	(0.2)UJ	(0.2)UJ
LS-08	1.0	9/03/93	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(7)UJ	(2)UJ	(2)UJ
LS-08	6.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.7)UJ	(0.2)UJ	(0.2)UJ
LS-08	10.5	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.7)UJ	(0.2)UJ	(0.2)UJ
LS-08	16.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.7)UJ	(0.2)UJ	(0.2)UJ
LS-08	21.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.7)UJ	(0.2)UJ	(0.2)UJ
LS-08	26.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.7)UJ	(0.2)UJ	(0.2)UJ
LS-08	30.5	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.7)UJ	(0.2)UJ	(0.2)UJ

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.
UJ = Sample result estimated non-detect.

Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	2,6-Di-nitro-toluene 8270	2-Chloro-naphthalene 8270	2-Chloro-phenol 8270	2-Methyl 4,6-di-nitro-phenol 8270	2-Methyl-naphthalene 8270	2-Methyl-phenol (o-Cresol) 8270	2-Nitro-aniline 8270	2-Nitro-phenol 8270	3,3-Di-chloro-benzidine 8270	3-Nitro-aniline 8270	4-Bromo-phenyl Phenyl Ether 8270
LS-09	1.5	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.3)	(0.2)	(0.5)	(0.2)
LS-09	10.0	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.3)	(0.2)	(0.5)	(0.2)
LS-09	20.0	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.3)	(0.2)	(0.5)	(0.2)
LS-09	29.5	5/13/94	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.5)UJ	(0.3)UJ	(0.2)UJ	(0.5)UJ	(0.2)UJ
LS-09	39.0	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.3)	(0.2)	(0.5)	(0.2)
LS-09	50.0	5/13/94	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.5)UJ	(0.3)UJ	(0.2)UJ	(0.5)UJ	(0.2)UJ
LS-10	1.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.3)	(0.2)	(0.5)	(0.2)
LS-10	10.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.3)	(0.2)	(0.5)	(0.2)
LS-10	20.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.3)	(0.2)	(0.5)	(0.2)
RS-01	1.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-01	8.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-01	19.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-01	19.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-01	29.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	2.1	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-01	39.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-01	49.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-01	59.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-01	69.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-01	69.5	9/02/93	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(70)	(20)	(20)
RS-01	79.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-01	79.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-01	89.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-02	1.0	9/01/93	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(4)	(1)	(1)
RS-02	5.5	9/01/93	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(40)	(10)	(10)
RS-02	6.0	9/01/93	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(4)	(1)	(1)
RS-02	10.5	9/01/93	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(4)	(1)	(1)
RS-02	16.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-02	20.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.
UJ = Sample result estimated non-detect.

Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	2,6-Di-nitro-toluene 8270	2-Chloro-naphthalene 8270	2-Chloro-phenol 8270	2-Methyl 4,6-di-nitro-phenol 8270	2-Methyl-naphthalene 8270	2-Methyl-phenol (o-Cresol) 8270	2-Nitro-aniline 8270	2-Nitro-phenol 8270	3,3-Di-chloro-benzidine 8270	3-Nitro-aniline 8270	4-Bromo-phenyl Phenyl Ether 8270
RS-03	1.0	9/01/93	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(7)	(2)	(2)
RS-03	5.5	9/01/93	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(70)	(20)	(20)
RS-03	11.0	9/01/93	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(70)	(20)	(20)
RS-03	16.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-03	20.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-04	1.0	9/01/93	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(2)	(0.4)	(0.4)
RS-04	6.0	9/01/93	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(4)	(1)	(1)
RS-04	10.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-04	16.0	9/01/93	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(70)	(20)	(20)
RS-04	20.5	9/01/93	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(40)	(10)	(10)
RS-04	24.5	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	0.83	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-04	29.0	9/03/93	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(40)	(10)	(10)
RS-04	29.5	9/03/93	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(40)	(10)	(10)
RS-04	34.5	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-04	39.5	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-05	1.0	9/08/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-05	5.5	9/08/93	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(40)	(10)	(10)
RS-05	11.0	9/08/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-05	15.5	9/08/93	(0.2)	(0.2)	(0.2)	(0.2)	0.50	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-05	20.5	9/08/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-06	1.0	9/01/93	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(7)	(2)	(2)
RS-06	6.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-06	11.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-06	16.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-06	21.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-07	1.0	9/01/93	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(2)	(0.4)	(0.4)
RS-07	5.5	9/01/93	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(4)	(1)	(1)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.
UJ = Sample result estimated non-detect.

Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	2,6-Di-nitro-toluene 8270	2-Chloro-naphthalene 8270	2-Chloro-phenol 8270	2-Methyl 4,6-di-nitro-phenol 8270	2-Methyl-naphthalene 8270	2-Methyl-phenol (o-Cresol) 8270	2-Nitro-aniline 8270	2-Nitro-phenol 8270	3,3-Di-chloro-benzidine 8270	3-Nitro-aniline 8270	4-Bromo-phenyl Phenyl Ether 8270
RS-07	10.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-07	11.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-07	16.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-07	20.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-08	1.0	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-08	5.0	9/03/93	(1)UJ	(1)UJ	(1)UJ	(1)UJ	(1)UJ	(1)UJ	(1)UJ	(1)UJ	(4)UJ	(1)UJ	(1)UJ
RS-08	10.0	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-08	10.5	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-09	1.0	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-09	5.0	9/03/93	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(40)	(10)	(10)
RS-09	5.5	9/03/93	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(40)	(10)	(10)
RS-09	10.0	9/03/93	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(40)	(10)	(10)
RS-10	1.0	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-10	5.0	9/03/93	(10)	(10)	(10)	(10)	38	(10)	(10)	(10)	(40)	(10)	(10)
RS-10	10.0	9/03/93	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(40)	(10)	(10)
RS-10	16.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-11	1.0	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-11	5.0	9/03/93	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(40)	(10)	(10)
RS-11	10.0	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-11	10.5	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.7)	(0.2)	(0.2)
RS-12	1.0	5/13/94	(0.4)UJ	(0.4)UJ	(0.4)UJ	(0.4)UJ	(0.4)UJ	(0.4)UJ	(1)UJ	(0.6)UJ	(0.4)UJ	(1)UJ	(0.4)UJ
RS-12	10.0	5/13/94	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(5)UJ	(3)UJ	(2)UJ	(5)UJ	(2)UJ
RS-12	21.0	5/16/94	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.5)UJ	(0.3)UJ	(0.2)UJ	(0.5)UJ	(0.2)UJ
RS-13	1.0	5/12/94	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(1)	(0.6)	(0.4)	(1)	(0.4)
RS-13	10.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.3)	(0.2)	(0.5)	(0.2)
RS-13	20.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.3)	(0.2)	(0.5)	(0.2)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.
UJ = Sample result estimated non-detect.

Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	2,6-Di-nitro-toluene 8270	2-Chloro-naphthalene 8270	2-Chloro-phenol 8270	2-Methyl 4,6-di-nitro-phenol 8270	2-Methyl-naphthalene 8270	2-Methyl-phenol (o-Cresol) 8270	2-Nitro-aniline 8270	2-Nitro-phenol 8270	3,3-Di-chloro-benzidine 8270	3-Nitro-aniline 8270	4-Bromo-phenyl Phenyl Ether 8270
RS-14	1.5	5/12/94	(2)	(2)	(2)	(2)	(2)	(2)	(5)	(3)	(2)	(5)	(2)
RS-14	11.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.3)	(0.2)	(0.5)	(0.2)
RS-14	20.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.3)	(0.2)	(0.5)	(0.2)
RS-14	31.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.3)	(0.2)	(0.5)	(0.2)
RS-14	40.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.3)	(0.2)	(0.5)	(0.2)
RS-14	50.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.3)	(0.2)	(0.5)	(0.2)
RS-14	60.0	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.3)	(0.2)	(0.5)	(0.2)
RS-15	.5	5/16/94	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(1)	(0.6)	(0.4)	(1)	(0.4)
RS-15	10.0	5/16/94	(2)	(2)	(2)	(2)	3.8	(2)	(5)	(3)	(2)	(5)	(2)
RS-15	15.0	5/16/94	(2)	(2)	(2)	(2)	(2)	(2)	(5)	(3)	(2)	(5)	(2)
RS-15	21.0	5/16/94	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(1)	(0.6)	(0.4)	(1)	(0.4)
RS-15	31.0	5/16/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.3)	(0.2)	(0.5)	(0.2)
RS-15	40.5	5/16/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.3)	(0.2)	(0.5)	(0.2)
RS-15	50.5	5/16/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.3)	(0.2)	(0.5)	(0.2)
RS-16	1.0	5/12/94	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(1)	(0.6)	(0.4)	(1)	(0.4)
RS-16	10.0	5/12/94	(2)	(2)	(2)	(2)	6.3	(2)	(5)	(3)	(2)	(5)	(2)
RS-16	20.5	5/12/94	(2)	(2)	(2)	(2)	13	(2)	(5)	(3)	(2)	(5)	(2)
RS-16	30.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.3)	(0.2)	(0.5)	(0.2)
RS-16	40.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.3)	(0.2)	(0.5)	(0.2)
RS-16	50.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.3)	(0.2)	(0.5)	(0.2)
RS-16	60.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.3)	(0.2)	(0.5)	(0.2)
RS-16	70.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.3)	(0.2)	(0.5)	(0.2)
RS-16	80.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.3)	(0.2)	(0.5)	(0.2)
RS-17	1.0	5/13/94	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(1)	(0.6)	(0.4)	(1)	(0.4)
RS-17	5.0	5/13/94	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(5)UJ	(3)UJ	(2)UJ	(5)UJ	(2)UJ
RS-17	11.0	5/13/94	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(1)	(0.6)	(0.4)	(1)	(0.4)
RS-17	20.5	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.3)	(0.2)	(0.5)	(0.2)
RS-17	31.0	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.3)	(0.2)	(0.5)	(0.2)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.
UJ = Sample result estimated non-detect.

Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	2,6-Di-nitro-toluene 8270	2-Chloro-naphthalene 8270	2-Chloro-phenol 8270	2-Methyl 4,6-di-nitro-phenol 8270	2-Methyl-naphthalene 8270	2-Methyl-phenol (o-Cresol) 8270	2-Nitro-aniline 8270	2-Nitro-phenol 8270	3,3-Di-chloro-benzidine 8270	3-Nitro-aniline 8270	4-Bromo-phenyl Phenyl Ether 8270
RS-17	41.0	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.3)	(0.2)	(0.5)	(0.2)
RS-17	50.0	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.3)	(0.2)	(0.5)	(0.2)
SS-1	0.0	5/13/94	(2)	(2)	(2)	(2)	(2)	(2)	(5)	(3)	(2)	(5)	(2)
SS-2	0.0	5/13/94	(2)	(2)	(2)	(2)	(2)	(2)	(5)	(3)	(2)	(5)	(2)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.
UJ = Sample result estimated non-detect.

Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	4-Chloro-3-methyl-phenol 8270	4-Chloro-aniline 8270	4-Chloro-phenyl Phenyl Ether 8270	4-Methyl-phenol (p-Cresol) 8270	4-Nitro-aniline 8270	4-Nitro-phenol 8270	Acenaph-thene 8270	Acenaph-thylene 8270	Aniline 8270	Anthracene 8270	Benzidine 8270
LS-01	1.0	9/01/93	(2)UJ	(2)UJ	(2)UJ	(3)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(70)UJ
LS-01	6.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
LS-01	10.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
LS-01	15.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
LS-01	20.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
LS-01	25.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
LS-01	30.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
LS-02	1.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
LS-02	5.5	9/09/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
LS-02	10.5	9/09/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
LS-02	15.5	9/09/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
LS-02	19.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
LS-02	19.5	9/09/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
LS-02	24.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
LS-02	29.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
LS-03	1.0	9/02/93	(1)	(1)	(1)	(2)	(1)	(1)	(1)	(1)	(1)	(1)	(40)
LS-03	5.0	9/02/93	(0.4)	(0.4)	(0.4)	(0.6)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(20)
LS-03	10.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
LS-03	11.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
LS-03	15.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
LS-03	20.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
LS-03	25.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
LS-03	26.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
LS-03	30.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
LS-04	1.0	9/02/93	(10)	(10)	(10)	(20)	(10)	(10)	(10)	(10)	(10)	(10)	(400)
LS-04	5.5	9/02/93	(10)	(10)	(10)	(20)	(10)	(10)	(10)	(10)	(10)	(10)	(400)
LS-04	10.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
LS-04	11.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
LS-04	15.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.
UJ = Sample result estimated non-detect.

Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	4-Chloro-3-methyl-phenol 8270	4-Chloro-aniline 8270	4-Chloro-phenyl Phenyl Ether 8270	4-Methyl-phenol (p-Cresol) 8270	4-Nitro-aniline 8270	4-Nitro-phenol 8270	Acenaph-thene 8270	Acenaph-thylene 8270	Aniline 8270	Anthracene 8270	Benzidine 8270
LS-04	20.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
LS-04	25.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
LS-04	31.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
LS-05	1.0	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(7)UJ
LS-05	6.0	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(7)UJ
LS-05	11.0	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(7)UJ
LS-05	15.5	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(7)UJ
LS-05	16.0	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(7)UJ
LS-05	20.5	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(7)UJ
LS-05	26.0	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(7)UJ
LS-05	31.5	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(7)UJ
LS-06	18.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
LS-06	23.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
LS-06	28.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
LS-07	1.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(7)UJ
LS-07	6.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(7)UJ
LS-07	11.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(7)UJ
LS-07	15.5	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(7)UJ
LS-07	21.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(7)UJ
LS-07	25.5	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(7)UJ
LS-07	31.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(7)UJ
LS-08	1.0	9/03/93	(2)UJ	(2)UJ	(2)UJ	(3)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(70)UJ
LS-08	6.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(7)UJ
LS-08	10.5	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(7)UJ
LS-08	16.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(7)UJ
LS-08	21.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(7)UJ
LS-08	26.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(7)UJ
LS-08	30.5	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(7)UJ

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.
UJ = Sample result estimated non-detect.

Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	4-Chloro-3-methyl-phenol 8270	4-Chloro-aniline 8270	4-Chloro-phenyl Phenyl Ether 8270	4-Methyl-phenol (p-Cresol) 8270	4-Nitro-aniline 8270	4-Nitro-phenol 8270	Acenaph-thene 8270	Acenaph-thylene 8270	Aniline 8270	Anthracene 8270	Benzidine 8270
LS-09	1.5	5/13/94	(0.2)	(0.2)	(0.2)	0.30	(0.5)	(0.5)	(0.2)	(0.2)	(0.5)	(0.2)	(10)
LS-09	10.0	5/13/94	(0.2)	(0.2)	(0.2)	0.30	(0.5)	(0.5)	(0.2)	(0.2)	(0.5)	(0.2)	(10)
LS-09	20.0	5/13/94	(0.2)	(0.2)	(0.2)	0.55	(0.5)	(0.5)	(0.2)	(0.2)	(0.5)	(0.2)	(10)
LS-09	29.5	5/13/94	(0.2)UJ	(0.2)UJ	(0.2)UJ	0.43UJ	(0.5)UJ	(0.5)UJ	(0.2)UJ	(0.2)UJ	(0.5)UJ	(0.2)UJ	(10)UJ
LS-09	39.0	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.5)	(0.2)	(0.2)	(0.5)	(0.2)	(10)
LS-09	50.0	5/13/94	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.5)UJ	(0.5)UJ	(0.2)UJ	(0.2)UJ	(0.5)UJ	(0.2)UJ	(10)UJ
LS-10	1.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.5)	(0.2)	(0.2)	(0.5)	(0.2)	(10)
LS-10	10.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.5)	(0.2)	(0.2)	(0.5)	(0.2)	(10)
LS-10	20.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.5)	(0.2)	(0.2)	(0.5)	(0.2)	(10)
RS-01	1.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-01	8.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-01	19.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-01	19.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-01	29.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-01	39.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-01	49.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-01	59.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-01	69.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-01	69.5	9/02/93	(20)	(20)	(20)	(30)	(20)	(20)	(20)	(20)	(20)	(20)	(700)
RS-01	79.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-01	79.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-01	89.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-02	1.0	9/01/93	(1)	(1)	(1)	(2)	(1)	(1)	(1)	(1)	(1)	(1)	(40)
RS-02	5.5	9/01/93	(10)	(10)	(10)	(20)	(10)	(10)	(10)	(10)	(10)	(10)	(400)
RS-02	6.0	9/01/93	(1)	(1)	(1)	(2)	(1)	(1)	(1)	(1)	(1)	(1)	(40)
RS-02	10.5	9/01/93	(1)	(1)	(1)	(2)	(1)	(1)	(1)	(1)	(1)	(1)	(40)
RS-02	16.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-02	20.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.
UJ = Sample result estimated non-detect.

Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	4-Chloro-3-methyl-phenol 8270	4-Chloro-aniline 8270	4-Chloro-phenyl Phenyl Ether 8270	4-Methyl-phenol (p-Cresol) 8270	4-Nitro-aniline 8270	4-Nitro-phenol 8270	Acenaph-thene 8270	Acenaph-thylene 8270	Aniline 8270	Anthracene 8270	Benzidine 8270
RS-03	1.0	9/01/93	(2)	(2)	(2)	(3)	(2)	(2)	(2)	(2)	(2)	(2)	(70)
RS-03	5.5	9/01/93	(20)	(20)	(20)	(30)	(20)	(20)	(20)	(20)	(20)	(20)	(700)
RS-03	11.0	9/01/93	(20)	(20)	(20)	(30)	(20)	(20)	(20)	(20)	(20)	(20)	(700)
RS-03	16.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-03	20.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-04	1.0	9/01/93	(0.4)	(0.4)	(0.4)	(0.6)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(20)
RS-04	6.0	9/01/93	(1)	(1)	(1)	(2)	(1)	(1)	(1)	(1)	(1)	(1)	(40)
RS-04	10.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-04	16.0	9/01/93	(20)	(20)	(20)	(30)	(20)	(20)	(20)	(20)	(20)	(20)	(700)
RS-04	20.5	9/01/93	(10)	(10)	(10)	(20)	(10)	(10)	(10)	(10)	(10)	(10)	(400)
RS-04	24.5	9/03/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-04	29.0	9/03/93	(10)	(10)	(10)	(20)	(10)	(10)	(10)	(10)	(10)	(10)	(400)
RS-04	29.5	9/03/93	(10)	(10)	(10)	(20)	(10)	(10)	(10)	(10)	(10)	(10)	(400)
RS-04	34.5	9/03/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-04	39.5	9/03/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-05	1.0	9/08/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-05	5.5	9/08/93	(10)	(10)	(10)	(20)	(10)	(10)	(10)	(10)	(10)	(10)	(400)
RS-05	11.0	9/08/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-05	15.5	9/08/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-05	20.5	9/08/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-06	1.0	9/01/93	(2)	(2)	(2)	(3)	(2)	(2)	(2)	(2)	(2)	(2)	(70)
RS-06	6.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-06	11.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-06	16.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-06	21.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-07	1.0	9/01/93	(0.4)	(0.4)	(0.4)	(0.6)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(20)
RS-07	5.5	9/01/93	(1)	(1)	(1)	(2)	(1)	(1)	(1)	(1)	(1)	(1)	(40)

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UJ = Sample result estimated non-detect.

Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	4-Chloro-3-methyl-phenol 8270	4-Chloro-aniline 8270	4-Chloro-phenyl Phenyl Ether 8270	4-Methyl-phenol (p-Cresol) 8270	4-Nitro-aniline 8270	4-Nitro-phenol 8270	Acenaph-thene 8270	Acenaph-thylene 8270	Aniline 8270	Anthracene 8270	Benzidine 8270
RS-07	10.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-07	11.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-07	16.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-07	20.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-08	1.0	9/03/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-08	5.0	9/03/93	(1)UJ	(1)UJ	(1)UJ	(2)UJ	(1)UJ	(1)UJ	(1)UJ	(1)UJ	(1)UJ	(1)UJ	(40)UJ
RS-08	10.0	9/03/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-08	10.5	9/03/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-09	1.0	9/03/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-09	5.0	9/03/93	(10)	(10)	(10)	(20)	(10)	(10)	(10)	(10)	(10)	(10)	(400)
RS-09	5.5	9/03/93	(10)	(10)	(10)	(20)	(10)	(10)	(10)	(10)	(10)	(10)	(400)
RS-09	10.0	9/03/93	(10)	(10)	(10)	(20)	(10)	(10)	(10)	(10)	(10)	(10)	(400)
RS-10	1.0	9/03/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-10	5.0	9/03/93	(10)	(10)	(10)	(20)	(10)	(10)	(10)	(10)	(10)	(10)	(400)
RS-10	10.0	9/03/93	(10)	(10)	(10)	(20)	(10)	(10)	(10)	(10)	(10)	(10)	(400)
RS-10	16.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-11	1.0	9/03/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-11	5.0	9/03/93	(10)	(10)	(10)	(20)	(10)	(10)	(10)	(10)	(10)	(10)	(400)
RS-11	10.0	9/03/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-11	10.5	9/03/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(7)
RS-12	1.0	5/13/94	(0.4)UJ	(0.4)UJ	(0.4)UJ	(0.4)UJ	(1)UJ	(1)UJ	(0.4)UJ	(0.4)UJ	(1)UJ	(0.4)UJ	(20)UJ
RS-12	10.0	5/13/94	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(5)UJ	(5)UJ	(2)UJ	(2)UJ	(5)UJ	(2)UJ	(100)UJ
RS-12	21.0	5/16/94	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.5)UJ	(0.5)UJ	(0.2)UJ	(0.2)UJ	(0.5)UJ	(0.2)UJ	(10)UJ
RS-13	1.0	5/12/94	(0.4)	(0.4)	(0.4)	(0.4)	(1)	(1)	(0.4)	(0.4)	(1)	(0.4)	(20)
RS-13	10.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.5)	(0.2)	(0.2)	(0.5)	(0.2)	(10)
RS-13	20.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.5)	(0.2)	(0.2)	(0.5)	(0.2)	(10)

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All results reported in milligrams per kilograms.
UJ = Sample result estimated non-detect.

Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	4-Chloro-3-methyl-phenol 8270	4-Chloro-aniline 8270	4-Chloro-phenyl Phenyl Ether 8270	4-Methyl-phenol (p-Cresol) 8270	4-Nitro-aniline 8270	4-Nitro-phenol 8270	Acenaph-thene 8270	Acenaph-thylene 8270	Aniline 8270	Anthracene 8270	Benzidine 8270
RS-14	1.5	5/12/94	(2)	(2)	(2)	(2)	(5)	(5)	(2)	(2)	(5)	(2)	(100)
RS-14	11.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.5)	(0.2)	(0.2)	(0.5)	(0.2)	(10)
RS-14	20.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.5)	(0.2)	(0.2)	(0.5)	(0.2)	(10)
RS-14	31.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.5)	(0.2)	(0.2)	(0.5)	(0.2)	(10)
RS-14	40.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.5)	(0.2)	(0.2)	(0.5)	(0.2)	(10)
RS-14	50.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.5)	(0.2)	(0.2)	(0.5)	(0.2)	(10)
RS-14	60.0	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.5)	(0.2)	(0.2)	(0.5)	(0.2)	(10)
RS-15	.5	5/16/94	(0.4)	(0.4)	(0.4)	(0.4)	(1)	(1)	(0.4)	(0.4)	(1)	(0.4)	(20)
RS-15	10.0	5/16/94	(2)	(2)	(2)	(2)	(5)	(5)	(2)	(2)	(5)	(2)	(100)
RS-15	15.0	5/16/94	(2)	(2)	(2)	(2)	(5)	(5)	(2)	(2)	(5)	(2)	(100)
RS-15	21.0	5/16/94	(0.4)	(0.4)	(0.4)	(0.4)	(1)	(1)	(0.4)	(0.4)	(1)	(0.4)	(20)
RS-15	31.0	5/16/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.5)	(0.2)	(0.2)	(0.5)	(0.2)	(10)
RS-15	40.5	5/16/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.5)	(0.2)	(0.2)	(0.5)	(0.2)	(10)
RS-15	50.5	5/16/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.5)	(0.2)	(0.2)	(0.5)	(0.2)	(10)
RS-16	1.0	5/12/94	(0.4)	(0.4)	(0.4)	(0.4)	(1)	(1)	(0.4)	(0.4)	(1)	(0.4)	(20)
RS-16	10.0	5/12/94	(2)	(2)	(2)	(2)	(5)	(5)	(2)	(2)	(5)	(2)	(100)
RS-16	20.5	5/12/94	(2)	(2)	(2)	(2)	(5)	(5)	(2)	(2)	(5)	(2)	(100)
RS-16	30.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.5)	(0.2)	(0.2)	(0.5)	(0.2)	(10)
RS-16	40.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.5)	(0.2)	(0.2)	(0.5)	(0.2)	(10)
RS-16	50.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.5)	(0.2)	(0.2)	(0.5)	(0.2)	(10)
RS-16	60.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.5)	(0.2)	(0.2)	(0.5)	(0.2)	(10)
RS-16	70.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.5)	(0.2)	(0.2)	(0.5)	(0.2)	(10)
RS-16	80.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.5)	(0.2)	(0.2)	(0.5)	(0.2)	(10)
RS-17	1.0	5/13/94	(0.4)	(0.4)	(0.4)	(0.4)	(1)	(1)	(0.4)	(0.4)	(1)	(0.4)	(20)
RS-17	5.0	5/13/94	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(5)UJ	(5)UJ	(2)UJ	(2)UJ	(5)UJ	(2)UJ	(100)UJ
RS-17	11.0	5/13/94	(0.4)	(0.4)	(0.4)	(0.4)	(1)	(1)	(0.4)	(0.4)	(1)	(0.4)	(20)
RS-17	20.5	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.5)	(0.2)	(0.2)	(0.5)	(0.2)	(10)
RS-17	31.0	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.5)	(0.2)	(0.2)	(0.5)	(0.2)	(10)

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Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	4-Chloro-3-methyl-phenol 8270	4-Chloro-aniline 8270	4-Chloro-phenyl Phenyl Ether 8270	4-Methyl-phenol (p-Cresol) 8270	4-Nitro-aniline 8270	4-Nitro-phenol 8270	Acenaph-thene 8270	Acenaph-thylene 8270	Aniline 8270	Anthracene 8270	Benzidine 8270
RS-17	41.0	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.5)	(0.2)	(0.2)	(0.5)	(0.2)	(10)
RS-17	50.0	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.5)	(0.5)	(0.2)	(0.2)	(0.5)	(0.2)	(10)
SS-1	0.0	5/13/94	(2)	(2)	(2)	(2)	(5)	(5)	(2)	(2)	(5)	(2)	(100)
SS-2	0.0	5/13/94	(2)	(2)	(2)	(2)	(5)	(5)	(2)	(2)	(5)	(2)	(100)

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Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	Benzo(a)-anthracene 8270	Benzo(a)-pyrene 8270	Benzo(b)-fluor-anthene 8270	Benzo-(g,h,i)-perylene 8270	Benzo(k)-fluor-anthene 8270	Benzoic acid 8270	Benzyl Alcohol 8270	Bis(2-chloro-ethoxy)-methane 8270	Bis(2-chloro-ethyl) Ether 8270	Bis(2-chloroiso-propyl) Ether 8270	Bis(2-ethyl-hexyl) Phthalate 8270
LS-01	1.0	9/01/93	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(20)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(3)UJ
LS-01	6.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
LS-01	10.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
LS-01	15.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
LS-01	20.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
LS-01	25.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
LS-01	30.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
LS-02	1.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
LS-02	5.5	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
LS-02	10.5	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
LS-02	15.5	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
LS-02	19.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
LS-02	19.5	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
LS-02	24.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
LS-02	29.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
LS-03	1.0	9/02/93	(1)	(1)	(1)	(1)	(1)	(10)	(1)	(1)	(1)	(1)	(2)
LS-03	5.0	9/02/93	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.6)
LS-03	10.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
LS-03	11.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
LS-03	15.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
LS-03	20.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
LS-03	25.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
LS-03	26.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
LS-03	30.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
LS-04	1.0	9/02/93	(10)	(10)	(10)	(10)	(10)	(100)	(10)	(10)	(10)	(10)	(20)
LS-04	5.5	9/02/93	(10)	(10)	(10)	(10)	(10)	(100)	(10)	(10)	(10)	(10)	(20)
LS-04	10.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
LS-04	11.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
LS-04	15.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)

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Walker Property Site

Location ID	Depth (feet)	Date Collected	Benzo(a)-anthracene 8270	Benzo(a)-pyrene 8270	Benzo(b)-fluor-anthene 8270	Benzo-(g,h,i)-perylene 8270	Benzo(k)-fluor-anthene 8270	Benzoic acid 8270	Benzyl Alcohol 8270	Bis(2-chloro-ethoxy)-methane 8270	Bis(2-chloro-ethyl) Ether 8270	Bis(2-chloroiso-propyl) Ether 8270	Bis(2-ethyl-hexyl) Phthalate 8270
LS-04	20.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
LS-04	25.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
LS-04	31.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
LS-05	1.0	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ
LS-05	6.0	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ
LS-05	11.0	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ
LS-05	15.5	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ
LS-05	16.0	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ
LS-05	20.5	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ
LS-05	26.0	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	NA	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ
LS-05	31.5	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ
LS-06	18.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
LS-06	23.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
LS-06	28.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
LS-07	1.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ
LS-07	6.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ
LS-07	11.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ
LS-07	15.5	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ
LS-07	21.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(2)UJ	(0.2)UJ	(0.2)UJ	NA	(0.2)UJ	(0.3)UJ
LS-07	25.5	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ
LS-07	31.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ
LS-08	1.0	9/03/93	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(20)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(3)UJ
LS-08	6.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ
LS-08	10.5	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ
LS-08	16.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ
LS-08	21.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ
LS-08	26.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ
LS-08	30.5	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.
UJ = Sample result estimated non-detect.

Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	Benzo(a)-anthracene 8270	Benzo(a)-pyrene 8270	Benzo(b)-fluor-anthene 8270	Benzo-(g,h,i)-perylene 8270	Benzo(k)-fluor-anthene 8270	Benzoic acid 8270	Benzyl Alcohol 8270	Bis(2-chloro-ethoxy)-methane 8270	Bis(2-chloro-ethyl) Ether 8270	Bis(2-chloroiso-propyl) Ether 8270	Bis(2-ethyl-hexyl) Phthalate 8270
LS-09	1.5	5/13/94	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-09	10.0	5/13/94	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-09	20.0	5/13/94	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-09	29.5	5/13/94	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	(2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-09	39.0	5/13/94	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-09	50.0	5/13/94	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	(2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-10	1.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-10	10.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-10	20.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-01	1.0	9/02/93	0.24	0.27	0.37	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-01	8.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-01	19.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-01	19.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-01	29.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-01	39.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-01	49.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-01	59.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-01	69.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-01	69.5	9/02/93	(20)	(20)	(20)	(20)	(20)	(200)	(20)	(20)	(20)	(20)	(30)
RS-01	79.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-01	79.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-01	89.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-02	1.0	9/01/93	(1)	(1)	(1)	(1)	(1)	(10)	(1)	(1)	(1)	(1)	(2)
RS-02	5.5	9/01/93	(10)	(10)	(10)	(10)	(10)	(100)	(10)	(10)	(10)	(10)	(20)
RS-02	6.0	9/01/93	(1)	(1)	(1)	(1)	(1)	(10)	(1)	(1)	(1)	(1)	(2)
RS-02	10.5	9/01/93	(1)	(1)	(1)	(1)	(1)	(10)	(1)	(1)	(1)	(1)	(2)
RS-02	16.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-02	20.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)

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UJ = Sample result estimated non-detect.

Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	Benzo(a)-anthracene 8270	Benzo(a)-pyrene 8270	Benzo(b)-fluor-anthene 8270	Benzo-(g,h,i)-perylene 8270	Benzo(k)-fluor-anthene 8270	Benzoic acid 8270	Benzyl Alcohol 8270	Bis(2-chloro-ethoxy)-methane 8270	Bis(2-chloro-ethyl) Ether 8270	Bis(2-chloroiso-propyl) Ether 8270	Bis(2-ethyl-hexyl) Phthalate 8270
RS-03	1.0	9/01/93	(2)	(2)	(2)	(2)	(2)	(20)	(2)	(2)	(2)	(2)	(3)
RS-03	5.5	9/01/93	(20)	(20)	(20)	(20)	(20)	(200)	(20)	(20)	(20)	(20)	(30)
RS-03	11.0	9/01/93	(20)	(20)	(20)	(20)	(20)	(200)	(20)	(20)	(20)	(20)	(30)
RS-03	16.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-03	20.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-04	1.0	9/01/93	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.6)
RS-04	6.0	9/01/93	(1)	(1)	(1)	(1)	(1)	(10)	(1)	(1)	(1)	(1)	(2)
RS-04	10.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-04	16.0	9/01/93	(20)	(20)	(20)	(20)	(20)	(200)	(20)	(20)	(20)	(20)	(30)
RS-04	20.5	9/01/93	(10)	(10)	(10)	(10)	(10)	(100)	(10)	(10)	(10)	(10)	(20)
RS-04	24.5	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-04	29.0	9/03/93	(10)	(10)	(10)	(10)	(10)	(100)	(10)	(10)	(10)	(10)	(20)
RS-04	29.5	9/03/93	(10)	(10)	(10)	(10)	(10)	(100)	(10)	(10)	(10)	(10)	(20)
RS-04	34.5	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-04	39.5	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-05	1.0	9/08/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-05	5.5	9/08/93	(10)	(10)	(10)	(10)	(10)	(100)	(10)	(10)	(10)	(10)	(20)
RS-05	11.0	9/08/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-05	15.5	9/08/93	0.23	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-05	20.5	9/08/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-06	1.0	9/01/93	(2)	(2)	(2)	(2)	(2)	(20)	(2)	(2)	(2)	(2)	(3)
RS-06	6.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-06	11.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-06	16.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-06	21.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-07	1.0	9/01/93	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.6)
RS-07	5.5	9/01/93	(1)	(1)	(1)	(1)	(1)	(10)	(1)	(1)	(1)	(1)	(2)

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Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	Benzo(a)-anthracene 8270	Benzo(a)-pyrene 8270	Benzo(b)-fluor-anthene 8270	Benzo-(g,h,i)-perylene 8270	Benzo(k)-fluor-anthene 8270	Benzoic acid 8270	Benzyl Alcohol 8270	Bis(2-chloro-ethoxy)-methane 8270	Bis(2-chloro-ethyl) Ether 8270	Bis(2-chloroiso-propyl) Ether 8270	Bis(2-ethyl-hexyl) Phthalate 8270
RS-07	10.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-07	11.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-07	16.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-07	20.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-08	1.0	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-08	5.0	9/03/93	(1)UJ	(1)UJ	(1)UJ	(1)UJ	(1)UJ	(10)UJ	(1)UJ	(1)UJ	(1)UJ	(1)UJ	(2)UJ
RS-08	10.0	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-08	10.5	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-09	1.0	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-09	5.0	9/03/93	(10)	(10)	(10)	(10)	(10)	(100)	(10)	(10)	(10)	(10)	(20)
RS-09	5.5	9/03/93	(10)	(10)	(10)	(10)	(10)	(100)	(10)	(10)	(10)	(10)	(20)
RS-09	10.0	9/03/93	(10)	(10)	(10)	(10)	(10)	(100)	(10)	(10)	(10)	(10)	(20)
RS-10	1.0	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-10	5.0	9/03/93	(10)	(10)	(10)	(10)	(10)	(100)	(10)	(10)	(10)	(10)	(20)
RS-10	10.0	9/03/93	(10)	(10)	(10)	(10)	(10)	(100)	(10)	(10)	(10)	(10)	(20)
RS-10	16.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-11	1.0	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-11	5.0	9/03/93	(10)	(10)	(10)	(10)	(10)	(100)	(10)	(10)	(10)	(10)	(20)
RS-11	10.0	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-11	10.5	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.3)
RS-12	1.0	5/13/94	(0.4)UJ	(0.4)UJ	(0.4)UJ	(0.6)UJ	(0.4)UJ	(4)UJ	(0.4)UJ	(0.4)UJ	(0.4)UJ	(0.4)UJ	(0.4)UJ
RS-12	10.0	5/13/94	(2)UJ	(2)UJ	(2)UJ	(3)UJ	(2)UJ	(20)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ
RS-12	21.0	5/16/94	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	(2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
RS-13	1.0	5/12/94	(0.4)	(0.4)	(0.4)	(0.6)	(0.4)	(4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)
RS-13	10.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-13	20.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.
UJ = Sample result estimated non-detect.

Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	Benzo(a)-anthracene 8270	Benzo(a)-pyrene 8270	Benzo(b)-fluor-anthene 8270	Benzo-(g,h,i)-perylene 8270	Benzo(k)-fluor-anthene 8270	Benzoic acid 8270	Benzyl Alcohol 8270	Bis(2-chloro-ethoxy)-methane 8270	Bis(2-chloro-ethyl) Ether 8270	Bis(2-chloroiso-propyl) Ether 8270	Bis(2-ethyl-hexyl) Phthalate 8270
RS-14	1.5	5/12/94	(2)	(2)	(2)	(3)	(2)	(20)	(2)	(2)	(2)	(2)	(2)
RS-14	11.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-14	20.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-14	31.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-14	40.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-14	50.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-14	60.0	5/13/94	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-15	.5	5/16/94	(0.4)	(0.4)	(0.4)	(0.6)	(0.4)	(4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)
RS-15	10.0	5/16/94	(2)	(2)	(2)	(3)	(2)	(20)	(2)	(2)	(2)	(2)	(2)
RS-15	15.0	5/16/94	(2)	(2)	(2)	(3)	(2)	(20)	(2)	(2)	(2)	(2)	(2)
RS-15	21.0	5/16/94	(0.4)	(0.4)	(0.4)	(0.6)	(0.4)	(4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)
RS-15	31.0	5/16/94	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-15	40.5	5/16/94	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-15	50.5	5/16/94	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-16	1.0	5/12/94	(0.4)	(0.4)	(0.4)	(0.6)	(0.4)	(4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)
RS-16	10.0	5/12/94	(2)	(2)	(2)	(3)	(2)	(20)	(2)	(2)	(2)	(2)	(2)
RS-16	20.5	5/12/94	(2)	(2)	(2)	(3)	(2)	(20)	(2)	(2)	(2)	(2)	(2)
RS-16	30.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-16	40.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-16	50.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-16	60.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-16	70.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-16	80.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-17	1.0	5/13/94	(0.4)	(0.4)	(0.4)	(0.6)	(0.4)	(4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)
RS-17	5.0	5/13/94	(2)UJ	(2)UJ	(2)UJ	(3)UJ	(2)UJ	(20)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ
RS-17	11.0	5/13/94	(0.4)	(0.4)	(0.4)	(0.6)	(0.4)	(4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)
RS-17	20.5	5/13/94	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-17	31.0	5/13/94	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.
UJ = Sample result estimated non-detect.

Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	Benzo(a)-anthracene 8270	Benzo(a)-pyrene 8270	Benzo(b)-fluor-anthene 8270	Benzo-(g,h,i)-perylene 8270	Benzo(k)-fluor-anthene 8270	Benzoic acid 8270	Benzyl Alcohol 8270	Bis(2-chloro-ethoxy)-methane 8270	Bis(2-chloro-ethyl) Ether 8270	Bis(2-chloroiso-propyl) Ether 8270	Bis(2-ethyl-hexyl) Phthalate 8270
RS-17	41.0	5/13/94	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-17	50.0	5/13/94	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
SS-1	0.0	5/13/94	(2)	(2)	(2)	(3)	(2)	(20)	(2)	(2)	(2)	(2)	(2)
SS-2	0.0	5/13/94	(2)	(2)	(2)	(3)	(2)	(20)	(2)	(2)	(2)	(2)	11

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Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	Butyl-benzyl Phthalate 8270	Chrysene 8270	Di-n-octyl Phthalate 8270	Dibenzo-(a,h)-anthracene 8270	Dibenzo-furan 8270	Dibutyl Phthalate 8270	Diethyl Phthalate 8270	Dimethyl Phthalate 8270	Fluor-anthene 8270	Fluorene 8270	Hexa-chloro-benzene 8270
LS-01	1.0	9/01/93	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ
LS-01	6.0	9/01/93	(0.2)	(0.2)	0.38	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-01	10.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-01	15.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-01	20.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-01	25.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-01	30.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-02	1.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-02	5.5	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-02	10.5	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-02	15.5	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-02	19.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	0.39	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-02	19.5	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-02	24.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-02	29.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-03	1.0	9/02/93	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
LS-03	5.0	9/02/93	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)
LS-03	10.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-03	11.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-03	15.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-03	20.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-03	25.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-03	26.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-03	30.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-04	1.0	9/02/93	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)
LS-04	5.5	9/02/93	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)
LS-04	10.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-04	11.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-04	15.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.
UJ = Sample result estimated non-detect.

Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	Butyl-benzyl Phthalate 8270	Chrysene 8270	Di-n-octyl Phthalate 8270	Dibenzo-(a,h)-anthracene 8270	Dibenzo-furan 8270	Dibutyl Phthalate 8270	Diethyl Phthalate 8270	Dimethyl Phthalate 8270	Fluor-anthene 8270	Fluorene 8270	Hexa-chloro-benzene 8270
LS-04	20.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-04	25.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-04	31.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-05	1.0	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-05	6.0	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-05	11.0	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-05	15.5	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-05	16.0	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-05	20.5	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-05	26.0	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-05	31.5	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-06	18.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-06	23.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-06	28.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-07	1.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-07	6.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-07	11.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-07	15.5	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-07	21.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-07	25.5	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-07	31.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-08	1.0	9/03/93	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ
LS-08	6.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-08	10.5	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-08	16.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-08	21.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-08	26.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-08	30.5	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.
UJ = Sample result estimated non-detect.

Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	Butyl-benzyl Phthalate 8270	Chrysene 8270	Di-n-octyl Phthalate 8270	Dibenzo-(a,h)-anthracene 8270	Dibenzo-furan 8270	Dibutyl Phthalate 8270	Diethyl Phthalate 8270	Dimethyl Phthalate 8270	Fluor-anthene 8270	Fluorene 8270	Hexa-chloro-benzene 8270
LS-09	1.5	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-09	10.0	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-09	20.0	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-09	29.5	5/13/94	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-09	39.0	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-09	50.0	5/13/94	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-10	1.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-10	10.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-10	20.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-01	1.0	9/02/93	(0.2)	0.31	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	0.39	(0.2)	(0.2)
RS-01	8.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-01	19.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-01	19.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-01	29.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-01	39.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-01	49.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-01	59.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-01	69.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-01	69.5	9/02/93	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)
RS-01	79.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-01	79.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-01	89.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-02	1.0	9/01/93	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
RS-02	5.5	9/01/93	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)
RS-02	6.0	9/01/93	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
RS-02	10.5	9/01/93	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
RS-02	16.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-02	20.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.
UJ = Sample result estimated non-detect.

Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	Butyl-benzyl Phthalate 8270	Chrysene 8270	Di-n-octyl Phthalate 8270	Dibenzo-(a,h)-anthracene 8270	Dibenzo-furan 8270	Dibutyl Phthalate 8270	Diethyl Phthalate 8270	Dimethyl Phthalate 8270	Fluor-anthene 8270	Fluorene 8270	Hexa-chloro-benzene 8270
RS-03	1.0	9/01/93	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
RS-03	5.5	9/01/93	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)
RS-03	11.0	9/01/93	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)
RS-03	16.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-03	20.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-04	1.0	9/01/93	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)
RS-04	6.0	9/01/93	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
RS-04	10.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-04	16.0	9/01/93	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)
RS-04	20.5	9/01/93	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)
RS-04	24.5	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-04	29.0	9/03/93	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)
RS-04	29.5	9/03/93	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)
RS-04	34.5	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-04	39.5	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-05	1.0	9/08/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-05	5.5	9/08/93	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)
RS-05	11.0	9/08/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-05	15.5	9/08/93	(0.2)	0.29	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	0.37	(0.2)
RS-05	20.5	9/08/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-06	1.0	9/01/93	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
RS-06	6.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-06	11.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-06	16.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-06	21.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-07	1.0	9/01/93	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)
RS-07	5.5	9/01/93	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)

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Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	Butyl-benzyl Phthalate 8270	Chrysene 8270	Di-n-octyl Phthalate 8270	Dibenzo-(a,h)-anthracene 8270	Dibenzo-furan 8270	Dibutyl Phthalate 8270	Diethyl Phthalate 8270	Dimethyl Phthalate 8270	Fluor-anthene 8270	Fluorene 8270	Hexa-chloro-benzene 8270
RS-07	10.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-07	11.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-07	16.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-07	20.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-08	1.0	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-08	5.0	9/03/93	(1)UJ	(1)UJ	(1)UJ	(1)UJ	(1)UJ	(1)UJ	(1)UJ	(1)UJ	(1)UJ	(1)UJ	(1)UJ
RS-08	10.0	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-08	10.5	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-09	1.0	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-09	5.0	9/03/93	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)
RS-09	5.5	9/03/93	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)
RS-09	10.0	9/03/93	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)
RS-10	1.0	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-10	5.0	9/03/93	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	10	(10)
RS-10	10.0	9/03/93	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)
RS-10	16.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-11	1.0	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-11	5.0	9/03/93	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)
RS-11	10.0	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-11	10.5	9/03/93	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-12	1.0	5/13/94	(0.4)UJ	(0.4)UJ	(0.4)UJ	(0.4)UJ	(0.4)UJ	(0.4)UJ	(0.4)UJ	(0.4)UJ	(0.4)UJ	(0.4)UJ	(0.4)UJ
RS-12	10.0	5/13/94	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ
RS-12	21.0	5/16/94	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
RS-13	1.0	5/12/94	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)
RS-13	10.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-13	20.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)

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All results reported in milligrams per kilograms.
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Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	Butyl-benzyl Phthalate 8270	Chrysene 8270	Di-n-octyl Phthalate 8270	Dibenzo-(a,h)-anthracene 8270	Dibenzo-furan 8270	Dibutyl Phthalate 8270	Diethyl Phthalate 8270	Dimethyl Phthalate 8270	Fluor-anthene 8270	Fluorene 8270	Hexa-chloro-benzene 8270
RS-14	1.5	5/12/94	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
RS-14	11.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-14	20.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0,2)
RS-14	31.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-14	40.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-14	50.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-14	60.0	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-15	.5	5/16/94	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)
RS-15	10.0	5/16/94	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
RS-15	15.0	5/16/94	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
RS-15	21.0	5/16/94	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)
RS-15	31.0	5/16/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-15	40.5	5/16/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-15	50.5	5/16/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-16	1.0	5/12/94	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)
RS-16	10.0	5/12/94	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
RS-16	20.5	5/12/94	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
RS-16	30.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-16	40.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-16	50.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-16	60.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-16	70.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-16	80.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-17	1.0	5/13/94	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)
RS-17	5.0	5/13/94	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ
RS-17	11.0	5/13/94	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)
RS-17	20.5	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-17	31.0	5/13/94	(0.2)	(0.2)	(0.2)	(0,2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.
UJ = Sample result estimated non-detect.

Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	Butyl-benzyl Phthalate 8270	Chrysene 8270	Di-n-octyl Phthalate 8270	Dibenzo-(a,h)-anthracene 8270	Dibenzo-furan 8270	Dibutyl Phthalate 8270	Diethyl Phthalate 8270	Dimethyl Phthalate 8270	Fluor-anthene 8270	Fluorene 8270	Hexa-chloro-benzene 8270
RS-17	41.0	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-17	50.0	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
SS-1	0.0	5/13/94	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
SS-2	0.0	5/13/94	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)

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All results reported in milligrams per kilograms.
UJ = Sample result estimated non-detect.

Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	Hexa-chloro-butadiene 8270	Hexachloro-cyclo-pentadiene 8270	Hexa-chloro-ethane 8270	Indeno-(1,2,3-c,d) pyrene 8270	Isophorone 8270	N-Nitroso-di-n-propyl-amine 8270	N-Nitroso-diphenyl-amine 8270	N-Nitroso-dimethyl-amine 8270	Naphthalene 8270	Nitro-benzene 8270	Penta-chloro-phenol 8270
LS-01	1.0	9/01/93	(2)UJ	(2)UJ	(2)UJ	(3)UJ	(2)UJ	(2)UJ	(2)UJ	NA	(2)UJ	(2)UJ	(2)UJ
LS-01	6.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
LS-01	10.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
LS-01	15.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
LS-01	20.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
LS-01	25.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
LS-01	30.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
LS-02	1.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
LS-02	5.5	9/09/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
LS-02	10.5	9/09/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
LS-02	15.5	9/09/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
LS-02	19.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
LS-02	19.5	9/09/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
LS-02	24.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
LS-02	29.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
LS-03	1.0	9/02/93	(1)	(1)	(1)	(2)	(1)	(1)	(1)	NA	(1)	(1)	(1)
LS-03	5.0	9/02/93	(0.4)	(0.4)	(0.4)	(0.6)	(0.4)	(0.4)	(0.4)	NA	(0.4)	(0.4)	(0.4)
LS-03	10.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
LS-03	11.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
LS-03	15.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
LS-03	20.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
LS-03	25.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
LS-03	26.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
LS-03	30.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
LS-04	1.0	9/02/93	(10)	(10)	(10)	(20)	(10)	(10)	(10)	NA	(10)	(10)	(10)
LS-04	5.5	9/02/93	(10)	(10)	(10)	(20)	(10)	(10)	(10)	NA	(10)	(10)	(10)
LS-04	10.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
LS-04	11.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
LS-04	15.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.

Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	Hexa-chloro-butadiene 8270	Hexachloro-cyclo-pentadiene 8270	Hexa-chloro-ethane 8270	Indeno-(1,2,3-c,d) pyrene 8270	Isophorone 8270	N-Nitroso-di-n-propyl-amine 8270	N-Nitroso-diphenyl-amine 8270	N-Nitroso-dimethyl-amine 8270	Naphthalene 8270	Nitro-benzene 8270	Penta-chloro-phenol 8270
LS-04	20.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
LS-04	25.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
LS-04	31.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
LS-05	1.0	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	NA	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-05	6.0	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	NA	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-05	11.0	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	NA	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-05	15.5	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	NA	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-05	16.0	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	0.33J	(0.2)UJ	NA	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-05	20.5	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	0.30J	(0.2)UJ	NA	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-05	26.0	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	0.34J	(0.2)UJ	NA	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-05	31.5	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	0.35J	(0.2)UJ	NA	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-06	18.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
LS-06	23.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
LS-06	28.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
LS-07	1.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	NA	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-07	6.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	0.32J	(0.2)UJ	NA	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-07	11.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	NA	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-07	15.5	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	NA	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-07	21.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	NA	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-07	25.5	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	NA	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-07	31.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	NA	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-08	1.0	9/03/93	(2)UJ	(2)UJ	(2)UJ	(3)UJ	(2)UJ	(2)UJ	(2)UJ	NA	(2)UJ	(2)UJ	(2)UJ
LS-08	6.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	NA	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-08	10.5	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	NA	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-08	16.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	0.30J	(0.2)UJ	NA	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-08	21.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	0.29J	(0.2)UJ	NA	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-08	26.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	NA	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-08	30.5	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.3)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	NA	(0.2)UJ	(0.2)UJ	(0.2)UJ

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.
UJ = Sample result estimated non-detect.

Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	Hexa-chloro-butadiene 8270	Hexachloro-cyclo-pentadiene 8270	Hexa-chloro-ethane 8270	Indeno-(1,2,3-c,d) pyrene 8270	Isophorone 8270	N-Nitroso-di-n-propyl-amine 8270	N-Nitroso-diphenyl-amine 8270	N-Nitroso-dimethyl-amine 8270	Naphthalene 8270	Nitro-benzene 8270	Penta-chloro-phenol 8270
LS-09	1.5	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-09	10.0	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-09	20.0	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-09	29.5	5/13/94	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-09	39.0	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-09	50.0	5/13/94	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-10	1.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-10	10.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
LS-10	20.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-01	1.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
RS-01	8.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
RS-01	19.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
RS-01	19.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
RS-01	29.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
RS-01	39.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
RS-01	49.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
RS-01	59.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
RS-01	69.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
RS-01	69.5	9/02/93	(20)	(20)	(20)	(30)	(20)	(20)	(20)	NA	(20)	(20)	(20)
RS-01	79.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
RS-01	79.5	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
RS-01	89.0	9/02/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
RS-02	1.0	9/01/93	(1)	(1)	(1)	(2)	(1)	(1)	(1)	NA	(1)	(1)	(1)
RS-02	5.5	9/01/93	(10)	(10)	(10)	(20)	(10)	(10)	(10)	NA	(10)	(10)	(10)
RS-02	6.0	9/01/93	(1)	(1)	(1)	(2)	(1)	(1)	(1)	NA	(1)	(1)	(1)
RS-02	10.5	9/01/93	(1)	(1)	(1)	(2)	(1)	(1)	(1)	NA	(1)	(1)	(1)
RS-02	16.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
RS-02	20.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.
UJ = Sample result estimated non-detect.

Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	Hexa-chloro-butadiene 8270	Hexachloro-cyclo-pentadiene 8270	Hexa-chloro-ethane 8270	Indeno-(1,2,3-c,d) pyrene 8270	Isophorone 8270	N-Nitroso-di-n-propyl-amine 8270	N-Nitroso-diphenyl-amine 8270	N-Nitroso-dimethyl-amine 8270	Naphthalene 8270	Nitro-benzene 8270	Penta-chloro-phenol 8270
RS-03	1.0	9/01/93	(2)	(2)	(2)	(3)	(2)	(2)	(2)	NA	(2)	(2)	(2)
RS-03	5.5	9/01/93	(20)	(20)	(20)	(30)	(20)	(20)	(20)	NA	(20)	(20)	(20)
RS-03	11.0	9/01/93	(20)	(20)	(20)	(30)	(20)	(20)	(20)	NA	(20)	(20)	(20)
RS-03	16.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
RS-03	20.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
RS-04	1.0	9/01/93	(0.4)	(0.4)	(0.4)	(0.6)	(0.4)	(0.4)	(0.4)	NA	(0.4)	(0.4)	(0.4)
RS-04	6.0	9/01/93	(1)	(1)	(1)	(2)	(1)	(1)	(1)	NA	(1)	(1)	(1)
RS-04	10.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
RS-04	16.0	9/01/93	(20)	(20)	(20)	(30)	(20)	(20)	(20)	NA	(20)	(20)	(20)
RS-04	20.5	9/01/93	(10)	(10)	(10)	(20)	(10)	(10)	(10)	NA	(10)	(10)	(10)
RS-04	24.5	9/03/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
RS-04	29.0	9/03/93	(10)	(10)	(10)	(20)	(10)	(10)	(10)	NA	(10)	(10)	(10)
RS-04	29.5	9/03/93	(10)	(10)	(10)	(20)	(10)	(10)	(10)	NA	(10)	(10)	(10)
RS-04	34.5	9/03/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
RS-04	39.5	9/03/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	0.26	(0.2)	NA	(0.2)	(0.2)	(0.2)
RS-05	1.0	9/08/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
RS-05	5.5	9/08/93	(10)	(10)	(10)	(20)	(10)	(10)	(10)	NA	(10)	(10)	(10)
RS-05	11.0	9/08/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
RS-05	15.5	9/08/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	0.20	NA	(0.2)	(0.2)	(0.2)
RS-05	20.5	9/08/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
RS-06	1.0	9/01/93	(2)	(2)	(2)	(3)	(2)	(2)	(2)	NA	(2)	(2)	(2)
RS-06	6.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
RS-06	11.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
RS-06	16.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
RS-06	21.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
RS-07	1.0	9/01/93	(0.4)	(0.4)	(0.4)	(0.6)	(0.4)	(0.4)	(0.4)	NA	(0.4)	(0.4)	(0.4)
RS-07	5.5	9/01/93	(1)	(1)	(1)	(2)	(1)	(1)	(1)	NA	(1)	(1)	(1)

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UJ = Sample result estimated non-detect.

Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	Hexa-chloro-butadiene 8270	Hexachloro-cyclo-pentadiene 8270	Hexa-chloro-ethane 8270	Indeno-(1,2,3-c,d) pyrene 8270	Isophorone 8270	N-Nitroso-di-n-propyl-amine 8270	N-Nitroso-diphenyl-amine 8270	N-Nitroso-dimethyl-amine 8270	Naphthalene 8270	Nitro-benzene 8270	Penta-chloro-phenol 8270
RS-07	10.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
RS-07	11.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
RS-07	16.0	9/01/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
RS-07	20.5	9/01/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
RS-08	1.0	9/03/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
RS-08	5.0	9/03/93	(1)UJ	(1)UJ	(1)UJ	(2)UJ	(1)UJ	(1)UJ	(1)UJ	NA	(1)UJ	(1)UJ	(1)UJ
RS-08	10.0	9/03/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
RS-08	10.5	9/03/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
RS-09	1.0	9/03/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
RS-09	5.0	9/03/93	(10)	(10)	(10)	(20)	(10)	(10)	(10)	NA	(10)	(10)	(10)
RS-09	5.5	9/03/93	(10)	(10)	(10)	(20)	(10)	(10)	(10)	NA	(10)	(10)	(10)
RS-09	10.0	9/03/93	(10)	(10)	(10)	(20)	(10)	(10)	(10)	NA	(10)	(10)	(10)
RS-10	1.0	9/03/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
RS-10	5.0	9/03/93	(10)	(10)	(10)	(20)	(10)	(10)	(10)	NA	(10)	(10)	(10)
RS-10	10.0	9/03/93	(10)	(10)	(10)	(20)	(10)	(10)	(10)	NA	(10)	(10)	(10)
RS-10	16.0	9/09/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
RS-11	1.0	9/03/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
RS-11	5.0	9/03/93	(10)	(10)	(10)	(20)	(10)	(10)	(10)	NA	(10)	(10)	(10)
RS-11	10.0	9/03/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
RS-11	10.5	9/03/93	(0.2)	(0.2)	(0.2)	(0.3)	(0.2)	(0.2)	(0.2)	NA	(0.2)	(0.2)	(0.2)
RS-12	1.0	5/13/94	NA	(0.4)UJ	(0.4)UJ	(0.4)UJ	(0.4)UJ	(0.4)UJ	(0.4)UJ	(0.4)UJ	(0.4)UJ	(0.4)UJ	(0.4)UJ
RS-12	10.0	5/13/94	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ
RS-12	21.0	5/16/94	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ	(0.2)UJ
RS-13	1.0	5/12/94	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)
RS-13	10.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-13	20.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)

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Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	Hexa-chloro-butadiene 8270	Hexachloro-cyclo-pentadiene 8270	Hexa-chloro-ethane 8270	Indeno-(1,2,3-c,d) pyrene 8270	Isophorone 8270	N-Nitroso-di-n-propyl-amine 8270	N-Nitroso-diphenyl-amine 8270	N-Nitroso-dimethyl-amine 8270	Naphthalene 8270	Nitro-benzene 8270	Penta-chloro-phenol 8270
RS-14	1.5	5/12/94	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
RS-14	11.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-14	20.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-14	31.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-14	40.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-14	50.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-14	60.0	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-15	.5	5/16/94	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)
RS-15	10.0	5/16/94	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
RS-15	15.0	5/16/94	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
RS-15	21.0	5/16/94	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)
RS-15	31.0	5/16/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-15	40.5	5/16/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-15	50.5	5/16/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-16	1.0	5/12/94	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)
RS-16	10.0	5/12/94	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
RS-16	20.5	5/12/94	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	5.1	(2)	(2)
RS-16	30.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-16	40.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-16	50.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-16	60.0	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-16	70.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-16	80.5	5/12/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-17	1.0	5/13/94	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)
RS-17	5.0	5/13/94	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ	(2)UJ
RS-17	11.0	5/13/94	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)
RS-17	20.5	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-17	31.0	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)

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Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	Hexa-chloro-butadiene 8270	Hexachloro-cyclo-pentadiene 8270	Hexa-chloro-ethane 8270	Indeno-(1,2,3-c,d) pyrene 8270	Isophorone 8270	N-Nitroso-di-n-propyl-amine 8270	N-Nitroso-diphenyl-amine 8270	N-Nitroso-dimethyl-amine 8270	Naphthalene 8270	Nitro-benzene 8270	Penta-chloro-phenol 8270
RS-17	41.0	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
RS-17	50.0	5/13/94	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)
SS-1	0.0	5/13/94	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
SS-2	0.0	5/13/94	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.
UJ = Sample result estimated non-detect.

Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	Phen-anthrene 8270	Phenol 8270	Pyrene 8270
LS-01	1.0	9/01/93	(2)UJ	(2)UJ	(2)UJ
LS-01	6.0	9/01/93	(0.2)	(0.2)	(0.2)
LS-01	10.5	9/01/93	(0.2)	(0.2)	(0.2)
LS-01	15.5	9/01/93	(0.2)	(0.2)	(0.2)
LS-01	20.5	9/01/93	(0.2)	(0.2)	(0.2)
LS-01	25.5	9/01/93	(0.2)	(0.2)	(0.2)
LS-01	30.0	9/01/93	(0.2)	(0.2)	(0.2)
LS-02	1.0	9/09/93	(0.2)	(0.2)	(0.2)
LS-02	5.5	9/09/93	(0.2)	(0.2)	(0.2)
LS-02	10.5	9/09/93	(0.2)	(0.2)	(0.2)
LS-02	15.5	9/09/93	(0.2)	(0.2)	(0.2)
LS-02	19.0	9/09/93	(0.2)	(0.2)	(0.2)
LS-02	19.5	9/09/93	(0.2)	(0.2)	(0.2)
LS-02	24.0	9/09/93	(0.2)	(0.2)	(0.2)
LS-02	29.0	9/09/93	(0.2)	(0.2)	(0.2)
LS-03	1.0	9/02/93	(1)	(1)	(1)
LS-03	5.0	9/02/93	(0.4)	(0.4)	(0.4)
LS-03	10.5	9/02/93	(0.2)	(0.2)	(0.2)
LS-03	11.0	9/02/93	(0.2)	(0.2)	(0.2)
LS-03	15.5	9/02/93	(0.2)	(0.2)	(0.2)
LS-03	20.5	9/02/93	(0.2)	(0.2)	(0.2)
LS-03	25.5	9/02/93	(0.2)	(0.2)	(0.2)
LS-03	26.5	9/02/93	(0.2)	(0.2)	(0.2)
LS-03	30.5	9/02/93	(0.2)	(0.2)	(0.2)
LS-04	1.0	9/02/93	(10)	(10)	(10)
LS-04	5.5	9/02/93	(10)	(10)	(10)
LS-04	10.5	9/02/93	(0.2)	(0.2)	(0.2)
LS-04	11.0	9/02/93	(0.2)	(0.2)	(0.2)
LS-04	15.5	9/02/93	(0.2)	(0.2)	(0.2)

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All results reported in milligrams per kilograms.
UJ = Sample result estimated non-detect.

Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	Phen-anthrene 8270	Phenol 8270	Pyrene 8270
LS-04	20.5	9/02/93	(0.2)	(0.2)	(0.2)
LS-04	25.5	9/02/93	(0.2)	(0.2)	(0.2)
LS-04	31.0	9/02/93	(0.2)	(0.2)	(0.2)
LS-05	1.0	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-05	6.0	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-05	11.0	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-05	15.5	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-05	16.0	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-05	20.5	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-05	26.0	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-05	31.5	9/02/93	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-06	18.0	9/09/93	(0.2)	(0.2)	(0.2)
LS-06	23.0	9/09/93	(0.2)	(0.2)	(0.2)
LS-06	28.0	9/09/93	(0.2)	(0.2)	(0.2)
LS-07	1.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-07	6.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-07	11.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-07	15.5	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-07	21.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-07	25.5	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-07	31.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-08	1.0	9/03/93	(2)UJ	(2)UJ	(2)UJ
LS-08	6.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-08	10.5	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-08	16.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-08	21.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-08	26.0	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-08	30.5	9/03/93	(0.2)UJ	(0.2)UJ	(0.2)UJ

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Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	Phen-anthrene 8270	Phenol 8270	Pyrene 8270
LS-09	1.5	5/13/94	(0.2)	0.23	(0.2)
LS-09	10.0	5/13/94	(0.2)	0.39	(0.2)
LS-09	20.0	5/13/94	(0.2)	1.2	(0.2)
LS-09	29.5	5/13/94	(0.2)UJ	0.51UJ	(0.2)UJ
LS-09	39.0	5/13/94	(0.2)	(0.2)	(0.2)
LS-09	50.0	5/13/94	(0.2)UJ	(0.2)UJ	(0.2)UJ
LS-10	1.0	5/12/94	(0.2)	(0.2)	(0.2)
LS-10	10.5	5/12/94	(0.2)	(0.2)	(0.2)
LS-10	20.5	5/12/94	(0.2)	(0.2)	(0.2)
RS-01	1.0	9/02/93	0.20	(0.2)	0.57
RS-01	8.5	9/02/93	(0.2)	(0.2)	(0.2)
RS-01	19.0	9/02/93	(0.2)	(0.2)	(0.2)
RS-01	19.5	9/02/93	(0.2)	(0.2)	(0.2)
RS-01	29.5	9/02/93	(0.2)	(0.2)	(0.2)
RS-01	39.5	9/02/93	(0.2)	(0.2)	(0.2)
RS-01	49.0	9/02/93	(0.2)	(0.2)	(0.2)
RS-01	59.0	9/02/93	(0.2)	(0.2)	(0.2)
RS-01	69.0	9/02/93	(0.2)	(0.2)	(0.2)
RS-01	69.5	9/02/93	(20)	(20)	(20)
RS-01	79.0	9/02/93	(0.2)	(0.2)	(0.2)
RS-01	79.5	9/02/93	(0.2)	(0.2)	(0.2)
RS-01	89.0	9/02/93	(0.2)	(0.2)	(0.2)
RS-02	1.0	9/01/93	(1)	(1)	1.2
RS-02	5.5	9/01/93	(10)	(10)	(10)
RS-02	6.0	9/01/93	(1)	(1)	(1)
RS-02	10.5	9/01/93	(1)	(1)	(1)
RS-02	16.0	9/01/93	(0.2)	(0.2)	(0.2)
RS-02	20.0	9/01/93	(0.2)	(0.2)	(0.2)

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UJ = Sample result estimated non-detect.

Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	Phen-anthrene 8270	Phenol 8270	Pyrene 8270
RS-03	1.0	9/01/93	(2)	(2)	(2)
RS-03	5.5	9/01/93	(20)	(20)	(20)
RS-03	11.0	9/01/93	(20)	(20)	(20)
RS-03	16.0	9/01/93	(0.2)	(0.2)	(0.2)
RS-03	20.0	9/01/93	(0.2)	(0.2)	(0.2)
RS-04	1.0	9/01/93	(0.4)	(0.4)	(0.4)
RS-04	6.0	9/01/93	(1)	(1)	(1)
RS-04	10.5	9/01/93	(0.2)	(0.2)	(0.2)
RS-04	16.0	9/01/93	(20)	(20)	(20)
RS-04	20.5	9/01/93	(10)	(10)	(10)
RS-04	24.5	9/03/93	(0.2)	(0.2)	(0.2)
RS-04	29.0	9/03/93	(10)	(10)	(10)
RS-04	29.5	9/03/93	(10)	(10)	(10)
RS-04	34.5	9/03/93	(0.2)	(0.2)	(0.2)
RS-04	39.5	9/03/93	(0.2)	(0.2)	(0.2)
RS-05	1.0	9/08/93	(0.2)	(0.2)	(0.2)
RS-05	5.5	9/08/93	(10)	(10)	(10)
RS-05	11.0	9/08/93	(0.2)	(0.2)	(0.2)
RS-05	15.5	9/08/93	0.62	(0.2)	(0.2)
RS-05	20.5	9/08/93	(0.2)	(0.2)	(0.2)
RS-06	1.0	9/01/93	(2)	(2)	(2)
RS-06	6.0	9/01/93	(0.2)	(0.2)	(0.2)
RS-06	11.0	9/01/93	(0.2)	(0.2)	(0.2)
RS-06	16.0	9/01/93	(0.2)	(0.2)	(0.2)
RS-06	21.0	9/01/93	(0.2)	(0.2)	(0.2)
RS-07	1.0	9/01/93	(0.4)	(0.4)	(0.4)
RS-07	5.5	9/01/93	(1)	(1)	(1)

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Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	Phen-anthrene 8270	Phenol 8270	Pyrene 8270
RS-07	10.5	9/01/93	(0.2)	(0.2)	(0.2)
RS-07	11.0	9/01/93	(0.2)	(0.2)	(0.2)
RS-07	16.0	9/01/93	(0.2)	(0.2)	(0.2)
RS-07	20.5	9/01/93	(0.2)	(0.2)	(0.2)
RS-08	1.0	9/03/93	(0.2)	(0.2)	(0.2)
RS-08	5.0	9/03/93	(1)UJ	(1)UJ	(1)UJ
RS-08	10.0	9/03/93	(0.2)	(0.2)	(0.2)
RS-08	10.5	9/03/93	(0.2)	(0.2)	(0.2)
RS-09	1.0	9/03/93	(0.2)	(0.2)	(0.2)
RS-09	5.0	9/03/93	(10)	(10)	(10)
RS-09	5.5	9/03/93	(10)	(10)	(10)
RS-09	10.0	9/03/93	(10)	(10)	(10)
RS-10	1.0	9/03/93	(0.2)	(0.2)	(0.2)
RS-10	5.0	9/03/93	17	(10)	(10)
RS-10	10.0	9/03/93	(10)	(10)	(10)
RS-10	16.0	9/09/93	(0.2)	(0.2)	(0.2)
RS-11	1.0	9/03/93	(0.2)	(0.2)	(0.2)
RS-11	5.0	9/03/93	(10)	(10)	(10)
RS-11	10.0	9/03/93	(0.2)	(0.2)	(0.2)
RS-11	10.5	9/03/93	(0.2)	(0.2)	(0.2)
RS-12	1.0	5/13/94	(0.4)UJ	(0.4)UJ	(0.4)UJ
RS-12	10.0	5/13/94	(2)UJ	(2)UJ	(2)UJ
RS-12	21.0	5/16/94	(0.2)UJ	(0.2)UJ	(0.2)UJ
RS-13	1.0	5/12/94	(0.4)	(0.4)	(0.4)
RS-13	10.5	5/12/94	(0.2)	(0.2)	(0.2)
RS-13	20.0	5/12/94	(0.2)	(0.2)	(0.2)

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Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	Phen-anthrene 8270	Phenol 8270	Pyrene 8270
RS-14	1.5	5/12/94	(2)	(2)	(2)
RS-14	11.0	5/12/94	(0.2)	(0.2)	(0.2)
RS-14	20.0	5/12/94	(0.2)	(0.2)	(0.2)
RS-14	31.0	5/12/94	(0.2)	(0.2)	(0.2)
RS-14	40.5	5/12/94	(0.2)	(0.2)	(0.2)
RS-14	50.0	5/12/94	(0.2)	(0.2)	(0.2)
RS-14	60.0	5/13/94	(0.2)	(0.2)	(0.2)
RS-15	.5	5/16/94	(0.4)	(0.4)	(0.4)
RS-15	10.0	5/16/94	2.2	(2)	(2)
RS-15	15.0	5/16/94	(2)	(2)	(2)
RS-15	21.0	5/16/94	(0.4)	(0.4)	(0.4)
RS-15	31.0	5/16/94	(0.2)	(0.2)	(0.2)
RS-15	40.5	5/16/94	(0.2)	(0.2)	(0.2)
RS-15	50.5	5/16/94	(0.2)	(0.2)	(0.2)
RS-16	1.0	5/12/94	(0.4)	(0.4)	(0.4)
RS-16	10.0	5/12/94	(2)	(2)	(2)
RS-16	20.5	5/12/94	(2)	(2)	(2)
RS-16	30.0	5/12/94	(0.2)	(0.2)	(0.2)
RS-16	40.5	5/12/94	(0.2)	(0.2)	(0.2)
RS-16	50.5	5/12/94	(0.2)	(0.2)	(0.2)
RS-16	60.0	5/12/94	(0.2)	(0.2)	(0.2)
RS-16	70.5	5/12/94	(0.2)	(0.2)	(0.2)
RS-16	80.5	5/12/94	(0.2)	(0.2)	(0.2)
RS-17	1.0	5/13/94	(0.4)	(0.4)	(0.4)
RS-17	5.0	5/13/94	(2)UJ	(2)UJ	(2)UJ
RS-17	11.0	5/13/94	(0.4)	(0.4)	(0.4)
RS-17	20.5	5/13/94	(0.2)	(0.2)	(0.2)
RS-17	31.0	5/13/94	(0.2)	(0.2)	(0.2)

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All results reported in milligrams per kilograms.
UJ = Sample result estimated non-detect.

Table 14d.
Summary of Soil Analytical Results - Semivolatile Organic Compounds
Walker Property Site

Location ID	Depth (feet)	Date Collected	Phen-anthrene 8270	Phenol 8270	Pyrene 8270
RS-17	41.0	5/13/94	(0.2)	(0.2)	(0.2)
RS-17	50.0	5/13/94	(0.2)	(0.2)	(0.2)
SS-1	0.0	5/13/94	(2)	(2)	(2)
SS-2	0.0	5/13/94	(2)	(2)	(2)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.
UJ = Sample result estimated non-detect.

Table 14e.
Summary of Soil Analytical Results - Petroleum Hydrocarbons
Walker Property Site

Location ID	Depth (feet)	Date Collected	TRPH 418.1	Petroleum Hydrocarbons as Diesel 8015M	Petroleum Hydrocarbons as Gas 8015M
LS-01	1.0	9/01/93	430	220	(5)
LS-01	6.0	9/01/93	21	(5)	(5)
LS-01	10.5	9/01/93	(10)	(5)	(5)
LS-01	15.5	9/01/93	(10)	(5)	(5)
LS-01	20.5	9/01/93	(10)	(5)	(5)
LS-01	25.5	9/01/93	(10)	(5)	(5)
LS-01	30.0	9/01/93	(10)	(5)	(5)
LS-02	1.0	9/09/93	250	(5)	(5)
LS-02	5.5	9/09/93	37	(5)	(5)
LS-02	10.5	9/09/93	12	(5)	(5)
LS-02	15.5	9/09/93	(10)	(5)	(5)
LS-02	19.0	9/09/93	13	(5)	(5)
LS-02	19.5	9/09/93	(10)	(5)	(5)
LS-02	24.0	9/09/93	(10)	(5)	(5)
LS-02	29.0	9/09/93	(10)	(5)	(5)
LS-03	1.0	9/02/93	390	3700	100
LS-03	5.0	9/02/93	44	1600	(5)
LS-03	10.5	9/02/93	13	(5)	(5)
LS-03	11.0	9/02/93	30	(5)	(5)
LS-03	15.5	9/02/93	(10)	(5)	(5)
LS-03	20.5	9/02/93	(10)	(5)	(5)
LS-03	25.5	9/02/93	22	(5)	(5)
LS-03	26.5	9/02/93	(10)	(5)	(5)
LS-03	30.5	9/02/93	(10)	(5)	(5)
LS-04	1.0	9/02/93	1700	13000	(5)
LS-04	5.5	9/02/93	1200	2400	200
LS-04	10.5	9/02/93	50	220	(5)
LS-04	11.0	9/02/93	460	(5)	(5)
LS-04	15.5	9/02/93	17	(5)	(5)
LS-04	20.5	9/02/93	11	(5)	(5)
LS-04	25.5	9/02/93	(10)	(5)	(5)
LS-04	31.0	9/02/93	(10)	(5)	(5)
LS-05	1.0	9/02/93	(10)	(5)	(5)
LS-05	6.0	9/02/93	(10)	(5)	(5)
LS-05	11.0	9/02/93	(10)	(5)	(5)
LS-05	15.5	9/02/93	(10)	(5)	(5)
LS-05	16.0	9/02/93	(10)	(5)	(5)
LS-05	20.5	9/02/93	(10)	(5)	(5)
LS-05	26.0	9/02/93	(10)	(5)	(5)
LS-05	31.5	9/02/93	(10)	(5)	(5)
LS-06	18.0	9/09/93	(10)	(5)	(5)
LS-06	23.0	9/09/93	(10)	(5)	(5)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.

Table 14e.
Summary of Soil Analytical Results - Petroleum Hydrocarbons
Walker Property Site

Location ID	Depth (feet)	Date Collected	TRPH 418.1	Petroleum Hydrocarbons as Diesel 8015M	Petroleum Hydrocarbons as Gas 8015M
LS-06	28.0	9/09/93	(10)	(5)	(5)
LS-07	1.0	9/03/93	150	(5)	(5)
LS-07	6.0	9/03/93	23	(5)	(5)
LS-07	11.0	9/03/93	14	(5)	(5)
LS-07	15.5	9/03/93	17	(5)	(5)
LS-07	21.0	9/03/93	21	(5)	(5)
LS-07	25.5	9/03/93	12	(5)	(5)
LS-07	31.0	9/03/93	(10)	(5)	(5)
LS-08	1.0	9/03/93	(10)	800	(5)
LS-08	6.0	9/03/93	(10)	(5)	(5)
LS-08	10.5	9/03/93	(10)	(5)	(5)
LS-08	16.0	9/03/93	(10)	(5)	(5)
LS-08	21.0	9/03/93	(10)	(5)	(5)
LS-08	26.0	9/03/93	(10)	(5)	(5)
LS-08	30.5	9/03/93	10	(5)	(5)
LS-09	1.5	5/13/94	(10)	(5)	6.6
LS-09	10.0	5/13/94	(10)	(5)	9.3
LS-09	20.0	5/13/94	(10)	(5)	27
LS-09	29.5	5/13/94	(10)	(5)	(5)
LS-09	39.0	5/13/94	150	(5)	(5)
LS-09	50.0	5/13/94	(10)	(5)	(5)
LS-10	1.0	5/12/94	(10)	(5)	(5)
LS-10	10.5	5/12/94	(10)	(5)	(5)
LS-10	20.5	5/12/94	(10)	(5)	(5)
RS-01	1.0	9/02/93	53	(5)	(5)
RS-01	8.5	9/02/93	25	(5)	(5)
RS-01	19.0	9/02/93	(10)	(5)	(5)
RS-01	19.5	9/02/93	(10)	(5)	(5)
RS-01	29.5	9/02/93	320	2000	1400
RS-01	39.5	9/02/93	(10)	(5)	(5)
RS-01	49.0	9/02/93	(10)	(5)	(5)
RS-01	59.0	9/02/93	(10)	7.2	(5)
RS-01	69.0	9/02/93	22	(5)	(5)
RS-01	69.5	9/02/93	1300	2100	4000
RS-01	79.0	9/02/93	25	(5)	(5)
RS-01	79.5	9/02/93	(10)	(5)	(5)
RS-01	89.0	9/02/93	10	(5)	11
RS-02	1.0	9/01/93	(200)	130	(5)
RS-02	5.5	9/01/93	700	7100	(5)
RS-02	6.0	9/01/93	340	6300	(5)
RS-02	10.5	9/01/93	430	1540	79

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.

Table 14e.
Summary of Soil Analytical Results - Petroleum Hydrocarbons
Walker Property Site

Location ID	Depth (feet)	Date Collected	TRPH 418.1	Petroleum Hydrocarbons as Diesel 8015M	Petroleum Hydrocarbons as Gas 8015M
RS-02	16.0	9/01/93	(10)	(5)	(5)
RS-02	20.0	9/01/93	(10)	(5)	(5)
RS-03	1.0	9/01/93	(200)	(5)	(5)
RS-03	5.5	9/01/93	1300	4300	(5)
RS-03	11.0	9/01/93	540	9200	(5)
RS-03	16.0	9/01/93	(200)	(5)	(5)
RS-03	20.0	9/01/93	(200)	(5)	(5)
RS-04	1.0	9/01/93	260	130	(5)
RS-04	6.0	9/01/93	100	3600	200
RS-04	10.5	9/01/93	250	2700	200
RS-04	16.0	9/01/93	2300	4400	700
RS-04	20.5	9/01/93	3900	5800	900
RS-04	24.5	9/03/93	46	160	30
RS-04	29.0	9/03/93	3700	4900	1000
RS-04	29.5	9/03/93	1400	2400	400
RS-04	34.5	9/03/93	29	(5)	(5)
RS-04	39.5	9/03/93	26	(5)	(5)
RS-05	1.0	9/08/93	300	240	(5)
RS-05	5.5	9/08/93	1600	4400	(5)
RS-05	11.0	9/08/93	630	45	(5)
RS-05	15.5	9/08/93	1100	4800	(5)
RS-05	20.5	9/08/93	110	410	(5)
RS-06	1.0	9/01/93	(10)	(5)	(5)
RS-06	6.0	9/01/93	17	497	3
RS-06	11.0	9/01/93	(10)	(5)	(5)
RS-06	16.0	9/01/93	(10)	(5)	(5)
RS-06	21.0	9/01/93	(10)	(5)	(5)
RS-07	1.0	9/01/93	270	150	(5)
RS-07	5.5	9/01/93	230	1800	(5)
RS-07	10.5	9/01/93	59	(5)	(5)
RS-07	11.0	9/01/93	870	(5)	(5)
RS-07	16.0	9/01/93	350	62	(5)
RS-07	20.5	9/01/93	12	(5)	(5)
RS-08	1.0	9/03/93	260	190	(5)
RS-08	5.0	9/03/93	11	(5)	(5)
RS-08	10.0	9/03/93	(10)	(5)	(5)
RS-08	10.5	9/03/93	(10)	(5)	(5)
RS-09	1.0	9/03/93	220	(5)	(5)
RS-09	5.0	9/03/93	1300	7500	(5)
RS-09	5.5	9/03/93	960	7500	(5)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.

Table 14e.
Summary of Soil Analytical Results - Petroleum Hydrocarbons
Walker Property Site

Location ID	Depth (feet)	Date Collected	TRPH 418.1	Petroleum Hydrocarbons as Diesel 8015M	Petroleum Hydrocarbons as Gas 8015M
RS-09	10.0	9/03/93	57	410	30
RS-10	1.0	9/03/93	34	250	(5)
RS-10	5.0	9/03/93	3200	23000	1000
RS-10	10.0	9/03/93	1600	18000	(5)
RS-10	16.0	9/09/93	24	(5)	(5)
RS-11	1.0	9/03/93	49	(5)	(5)
RS-11	5.0	9/03/93	650	4900	(5)
RS-11	10.0	9/03/93	40	550	(5)
RS-11	10.5	9/03/93	30	34	(5)
RS-12	1.0	5/13/94	530	66	(5)
RS-12	10.0	5/13/94	1000	1000	33
RS-12	21.0	5/16/94	(10)	(5)	(5)
RS-13	1.0	5/12/94	150	(5)	(5)
RS-13	10.5	5/12/94	(10)	(5)	(5)
RS-13	20.0	5/12/94	(10)	(5)	(5)
RS-14	1.5	5/12/94	760	640	(5)
RS-14	11.0	5/12/94	(10)	(5)	(5)
RS-14	20.0	5/12/94	(10)	(5)	(5)
RS-14	31.0	5/12/94	(10)	(5)	(5)
RS-14	40.5	5/12/94	(10)	(5)	(5)
RS-14	50.0	5/12/94	(10)	(5)	(5)
RS-14	60.0	5/13/94	(10)	(5)	(5)
RS-15	.5	5/16/94	170	140	(5)
RS-15	10.0	5/16/94	3900	3000	180
RS-15	15.0	5/16/94	5200	13000	700
RS-15	21.0	5/16/94	62	(5)	(5)
RS-15	31.0	5/16/94	(10)	(5)	(5)
RS-15	40.5	5/16/94	(10)	(5)	(5)
RS-15	50.5	5/16/94	(10)	(5)	(5)
RS-16	1.0	5/12/94	180	360	(5)
RS-16	10.0	5/12/94	2400	2300	670
RS-16	20.5	5/12/94	3900	6000	2100
RS-16	30.0	5/12/94	(10)	(5)	(5)
RS-16	40.5	5/12/94	(10)	(5)	(5)
RS-16	50.5	5/12/94	(10)	(5)	(5)
RS-16	60.0	5/12/94	(10)	(5)	(5)
RS-16	70.5	5/12/94	(10)	(5)	(5)
RS-16	80.5	5/12/94	(10)	(5)	(5)
RS-17	1.0	5/13/94	NA	(5)	(5)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.

Table 14e.
Summary of Soil Analytical Results - Petroleum Hydrocarbons
Walker Property Site

Location ID	Depth (feet)	Date Collected	TRPH 418.1	Petroleum Hydrocarbons as Diesel 8015M	Petroleum Hydrocarbons as Gas 8015M
RS-17	5.0	5/13/94	15000	16000	360
RS-17	11.0	5/13/94	670	(5)	(5)
RS-17	20.5	5/13/94	(50)	(5)	(5)
RS-17	31.0	5/13/94	NA	(5)	(5)
RS-17	41.0	5/13/94	(10)	(5)	(5)
RS-17	50.0	5/13/94	(10)	(5)	(5)
SS-1	0.0	5/13/94	790	370	(5)
SS-2	0.0	5/13/94	470	420	(5)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in milligrams per kilograms.

ATTACHMENT C

CONCENTRATIONS OF CHEMICALS IN GROUNDWATER

Table 15
Summary of Groundwater Analytical Results.
Walker Property Site

Location ID	Date Collected	TRPH 418.1	Aluminum 6010	Calcium 6010	Copper 6010	Iron 6010	Magnesium 6010	Manganese 6010	Potassium 6010	Sodium 6010	Zinc 6010	Petroleum Hydrocarbons as Diesel 8015M	1,1,1-Tri-chloro-ethane 8260
EW-1	9/14/93	73	0.14	150	(0.02)	0.32	84	0.11	7.6	310	0.066	7.8	(5)
EW-1	11/09/93	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	(5)
H-7	9/14/93	(0.5)	NA	NA	NA	NA	NA	NA	NA	NA	NA	(1)	(1)
HLA-1	9/14/93	(0.5)	(0.1)	79	(0.02)	1.4	24	0.46	5.9	720	0.19	(1)	(1)
W-1	9/14/93	(0.5)	1.2	210	(0.02)	3.0	83	0.29	8.7	390	0.057	(1)	(5)
W-1	11/09/93	4.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	(5)
W-2	9/14/93	0.80	(0.1)	220	(0.02)	(0.04)	98	(0.01)	9.8	520	(0.01)	(1)	(1)
W-2	11/09/93	1.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	(1)
W-3	9/14/93	0.70	(0.1)	250	(0.02)	5.4	86	0.61	10	470	1.1	(1)	(1)
W-3	11/09/93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
W-4	9/14/93	0.50	(0.1)	140	(0.02)	1.1	56	0.31	7.6	370	0.87	(1)	(1)
W-4	11/09/93	2.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	(5)
W-5	9/14/93	(0.5)	0.10	140	(0.02)	1.5	56	0.32	7.6	370	0.81	(1)	(1)
W-5	11/09/93	1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	(1)
Trip Blk	9/14/93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	(1)
Trip Blk	11/09/93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	(1)

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All results reported in micrograms per liter. NA = Not analyzed.

Table 15
Summary of Groundwater Analytical Results.
Walker Property Site

Location ID	Date Collected	1,1,2,2-Tetra-chloro-ethane 8260	1,1,2-Trichloro-ethane 8260	1,1,-Di-chloro-ethane 8260	1,1,-Di-chloro-ethene 8260	1,2-Di-chloro-benzene 8260	1,2-Di-chloro-ethane 8260	1,2-Di-chloro-propane 8260	1,3-Di-chloro-benzene 8260	1,4-Di-chloro-benzene 8260	2-Chloro-ethyl-vinyl-ether 8260	2-Hexanone 8260	Acetone 8260
EW-1	9/14/93	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(30)	180
EW-1	11/09/93	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(30)	(100)
H-7	9/14/93	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(5)	(20)
HLA-1	9/14/93	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(5)	(20)
W-1	9/14/93	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(30)	100
W-1	11/09/93	(5)	(5)	8.4	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(30)	(100)
W-2	9/14/93	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(5)	66
W-2	11/09/93	(1)	(1)	1.3	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(5)	(20)
W-3	9/14/93	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	1.3	(1)	(5)	(20)
W-3	11/09/93	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
W-4	9/14/93	(1)	(1)	3.9	(1)	(1)	(1)	(1)	(1)	1.5	(1)	(5)	(20)
W-4	11/09/93	(5)	(5)	12	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(30)	(100)
W-5	9/14/93	(1)	(1)	3.6	(1)	(1)	(1)	(1)	(1)	1.7	(1)	(5)	(20)
W-5	11/09/93	(1)	(1)	1.3	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(5)	(20)
Trip Blk	9/14/93	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(5)	(20)
Trip Blk	11/09/93	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(5)	(20)

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All results reported in micrograms per liter. NA = Not analyzed.

Table 15
Summary of Groundwater Analytical Results.
Walker Property Site

Location ID	Date Collected	Acrolein 8260	Acrylo-nitrile 8260	Benzene 8260	Bromo-dichloro-methane 8260	Bromo-form 8260	Bromo-methane 8260	Carbon Disulfide 8260	Carbon Tetra-chloride 8260	Chloro-benzene 8260	Chloro-ethane 8260	Chloro-form 8260	Chloro-methane 8260
EW-1	9/14/93	(300)	(300)	190	(5)	(5)	(5)	(10)	(5)	(5)	(5)	(5)	(5)
EW-1	11/09/93	(300)	(300)	190	(5)	(5)	(5)	(10)	(5)	(5)	(5)	(5)	(5)
H-7	9/14/93	(50)	(50)	(1)	(1)	(1)	(1)	(2)	(1)	(1)	(1)	(1)	(1)
HLA-1	9/14/93	(50)	(50)	(1)	(1)	(1)	(1)	(2)	(1)	(1)	(1)	(1)	(1)
W-1	9/14/93	(300)	(300)	410	(5)	(5)	(5)	(10)	(5)	(5)	(5)	(5)	(5)
W-1	11/09/93	(300)	(300)	660	(5)	(5)	(5)	(10)	(5)	(5)	(5)	(5)	(5)
W-2	9/14/93	(50)	(50)	180	(1)	(1)	(1)	(2)	(1)	(1)	(1)	(1)	(1)
W-2	11/09/93	(50)	(50)	130	(1)	(1)	(1)	(2)	(1)	(1)	(1)	(1)	(1)
W-3	9/14/93	(50)	(50)	5.1	(1)	(1)	(1)	6.1	(1)	(1)	(1)	(1)	(1)
W-3	11/09/93	NA	NA	NA	NA	NA	NA	(2)	NA	NA	NA	NA	(1)
W-4	9/14/93	(50)	(50)	140	(1)	(1)	(1)	34	(1)	(1)	(1)	(1)	(1)
W-4	11/09/93	(300)	(300)	320	(5)	(5)	(5)	(10)	(5)	(5)	(5)	(5)	23
W-5	9/14/93	(50)	(50)	140	(1)	(1)	(1)	15	(1)	(1)	(1)	(1)	(1)
W-5	11/09/93	(50)	(50)	130	(1)	(1)	(1)	(2)	(1)	(1)	(1)	(1)	(1)
Trip Blk	9/14/93	(50)	(50)	(1)	(1)	(1)	(1)	(2)	(1)	(1)	(1)	(1)	(1)
Trip Blk	11/09/93	(50)	(50)	(1)	(1)	(1)	(1)	(2)	(1)	(1)	(1)	(1)	(1)

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in micrograms per liter. NA = Not analyzed.

Table 15
Summary of Groundwater Analytical Results.
Walker Property Site

Location ID	Date Collected	Dibromo-chloro-methane 8260	Ethyl-benzene 8260	Freon 113 8260	Methyl Ethyl Ketone 8260	Methyl Isobutyl Ketone 8260	Methylene Chloride 8260	Styrene 8260	Tetra-chloro-ethene 8260	Toluene 8260	Total Xylene Isomers 8260	Trichloro-ethene 8260	Trichloro-fluoro-methane 8260
EW-1	9/14/93	(5)	260	(10)	(30)	(30)	(5)	(5)	(5)	(5)	60	(5)	(5)
EW-1	11/09/93	(5)	260	(10)	(30)	(30)	(5)	(5)	(5)	(5)	59	(5)	(5)
H-7	9/14/93	(1)	(1)	(2)	(5)	(5)	(1)	(1)	(1)	(1)	(3)	(1)	(1)
HLA-1	9/14/93	(1)	(1)	(2)	(5)	(5)	(1)	(1)	(1)	(1)	(3)	(1)	(1)
W-1	9/14/93	(5)	55	(10)	(30)	(30)	(5)	(5)	(5)	(5)	(20)	(5)	(5)
W-1	11/09/93	(5)	69	(10)	(30)	(30)	15	(5)	(5)	(5)	58	(5)	(5)
W-2	9/14/93	(1)	10	(2)	(5)	(5)	(1)	(1)	(1)	1.4	(3)	(1)	(1)
W-2	11/09/93	(1)	12	(2)	(5)	(5)	2.6	(1)	(1)	1.1	(3)	(1)	(1)
W-3	9/14/93	(1)	(1)	(2)	(5)	(5)	(1)	(1)	(1)	(1)	(3)	(1)	(1)
W-3	11/09/93	(1)	(1)	(2)	(5)	(5)	(1)	(1)	(1)	(1)	(3)	(1)	(1)
W-4	9/14/93	(1)	1.4	(2)	(5)	(5)	(1)	(1)	(1)	(1)	3.3	(1)	(1)
W-4	11/09/93	(5)	(5)	(10)	(30)	(30)	(5)	(5)	(5)	5.4	(20)	(5)	(5)
W-5	9/14/93	(1)	1.3	(2)	(5)	(5)	(1)	(1)	(1)	1.9	(3)	(1)	(1)
W-5	11/09/93	(1)	11	(2)	(5)	(5)	1.5	(1)	(1)	(1)	(3)	(1)	(1)
Trip Blk	9/14/93	(1)	(1)	(2)	(5)	(5)	(1)	(1)	(1)	(1)	(3)	(1)	(1)
Trip Blk	11/09/93	(1)	(1)	(2)	(5)	(5)	(1)	(1)	(1)	(1)	(3)	(1)	(1)

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All results reported in micrograms per liter. NA = Not analyzed.

Table 15
Summary of Groundwater Analytical Results.
Walker Property Site

Location ID	Date Collected	Vinyl acetate 8260	Vinyl Chloride 8260	cis-1,2-Dichloro-ethene 8260	cis-1,3-Dichloro-propene 8260	trans-1,2-Dichloro-ethene 8260	trans-1,3-Dichloro-propene 8260	pH 150.1	Chloride 325.3	Fluoride 340.2	Nitrate (as N) 353.2	Nitrate (as NO3) 353.2	Sulfate 375.4
EW-1	9/14/93	(50)	(5)	28	(5)	31	(5)	7.1	590	0.13	(0.05)	(0.2)	20
EW-1	11/09/93	(50)	(5)	27	(5)	25	(5)	7.0	570	0.14	(0.05)	(0.2)	20
H-7	9/14/93	(10)	(1)	(1)	(1)	(1)	(1)	NA	NA	NA	NA	NA	NA
HLA-1	9/14/93	(10)	(1)	(1)	(1)	(1)	(1)	7.2	170	0.17	(0.05)	(0.2)	230
W-1	9/14/93	(50)	(5)	51	(5)	(5)	(5)	7.0	820	0.081	(0.05)	(0.2)	2.6
W-1	11/09/93	(50)	(5)	76	(5)	(5)	(5)	7.0	570	0.13	(0.05)	(0.2)	4
W-2	9/14/93	(10)	(1)	100	(1)	18	(1)	7.0	1100	0.084	(0.05)	(0.2)	2.9
W-2	11/09/93	(10)	5.8	100	(1)	21	(1)	6.9	1070	0.094	(0.05)	(0.2)	3
W-3	9/14/93	(10)	(1)	5.8	(1)	(1)	(1)	7.1	850	0.10	0.14	0.63	4.4
W-3	11/09/93	(10)	(1)	(1)	(1)	(1)	(1)	NA	NA	NA	NA	NA	NA
W-4	9/14/93	(10)	(1)	8.6	(1)	(1)	(1)	7.2	370	0.10	0.084	0.37	6.4
W-4	11/09/93	(50)	44	8.0	(5)	(5)	(5)	6.9	710	0.094	(0.05)	(0.2)	5.2
W-5	9/14/93	(10)	(1)	7.9	(1)	(1)	(1)	7.2	370	0.11	0.051	0.23	6.7
W-5	11/09/93	(10)	5.8	98	(1)	21	(1)	6.9	1000	0.091	(0.05)	(0.2)	4
Trip Blk	9/14/93	(10)	(1)	(1)	(1)	(1)	(1)	NA	NA	NA	NA	NA	NA
Trip Blk	11/09/93	(10)	(1)	(1)	(1)	(1)	(1)	NA	NA	NA	NA	NA	NA

() Indicates compound not detected at or above enclosed reporting limit.
All results reported in micrograms per liter. NA = Not analyzed.

ATTACHMENT D

VAPOR EMISSIONS MODEL INPUTS AND CALCULATIONS

Calculational Spreadsheet For Estimation of VOC Emission Rates For 4.2 Year Duration [Average Exposure Scenario]

Calculation of Flux Rate

Ei = 2 A Dei Pa Kas Ci CF/(Pi alpha T)^0.5

Chemical	Constant (u)	Area (cm2)	Dei (cm2/sec)	Pa (u)	Kas (gm/cm3)	Ci (gm/gm-soil)	CF (mg/gm)	Pi (u)	alpha (u)	T (sec)	Ei (mg/sec)
cis-1,2-Dichloroethylene	2	8.65E+08	6.34E-03	0.284	0.233	1.35E-08	1.00E+03	3.14	1.93E-04	1.32E+08	1.49E-01
1,1-Dichloroethane	2	8.65E+08	7.30E-03	0.284	0.401	9.60E-09	1.00E+03	3.14	3.81E-04	1.32E+08	8.86E-02
Ethylbenzene	2	8.65E+08	6.02E-03	0.284	0.079	8.60E-09	1.00E+03	3.14	6.16E-05	1.32E+08	1.59E-01
Methylene chloride	2	8.65E+08	8.11E-03	0.284	0.624	1.43E-08	1.00E+03	3.14	6.59E-04	1.32E+08	1.09E-01
Tetrachloroethene	2	8.65E+08	5.78E-03	0.284	0.046	1.46E-08	1.00E+03	3.14	3.48E-05	1.32E+08	3.45E-01
Trichloroethene	2	8.65E+08	6.50E-03	0.284	0.168	1.53E-08	1.00E+03	3.14	1.42E-04	1.32E+08	2.01E-01

Calculation of Diffusivity, Dei

Dei = Di (Pa^3.33/Pt^2)

Chemical	Di (cm2/sec)	Pa^3.33 (u)	Pt^2 (u)	Dei (cm2/sec)
cis-1,2-Dichloroethylene	7.90E-02	1.51E-02	1.88E-01	6.34E-03
1,1-Dichloroethane	9.10E-02	1.51E-02	1.88E-01	7.30E-03
Ethylbenzene	7.50E-02	1.51E-02	1.88E-01	6.02E-03
Methylene chloride	1.01E-01	1.51E-02	1.88E-01	8.11E-03
Tetrachloroethene	7.20E-02	1.51E-02	1.88E-01	5.78E-03
Trichloroethene	8.10E-02	1.51E-02	1.88E-01	6.50E-03

Calculation of Soil/Air Partition Coefficient, Kas

Kas = (Hc/Kd) x 41

Chemical	Hc (atm-m3/mole)	Kd (L/kg)	Constant (u)	Kas (gm/cm3)
cis-1,2-Dichloroethylene	6.72E-03	1.18	41	2.33E-01
1,1-Dichloroethane	5.87E-03	0.6	41	4.01E-01
Ethylbenzene	8.44E-03	4.4	41	7.86E-02
Methylene chloride	2.68E-03	0.176	41	6.24E-01
Tetrachloroethene	1.49E-02	13.2	41	4.63E-02
Trichloroethene	1.03E-02	2.51	41	1.68E-01

Calculation of Conversion Factor, alpha

alpha = (Dei Pa)/(Pa + (p)(1-Pa)/Kas))

Chemical	Dei (cm2/sec)	Pa (u)	p (gm/cm3)	1-Pa (u)	Kas (gm/cm3)	alpha (u)
cis-1,2-Dichloroethylene	6.34E-03	0.284	2.65	0.716	2.33E-01	1.93E-04
1,1-Dichloroethane	7.30E-03	0.284	2.65	0.716	4.01E-01	3.81E-04
Ethylbenzene	6.02E-03	0.284	2.65	0.716	7.86E-02	6.16E-05
Methylene chloride	8.11E-03	0.284	2.65	0.716	6.24E-01	6.59E-04
Tetrachloroethene	5.78E-03	0.284	2.65	0.716	4.63E-02	3.48E-05
Trichloroethene	6.50E-03	0.284	2.65	0.716	1.68E-01	1.42E-04

Ei = average emission rate of contaminant, mg/sec
Di = diffusivity in air, cm2/sec
Dei = effective diffusivity of compound, cm2/sec
Pa = air filled soil porosiy, unitless
Pt = total soil porosity, unitless
Hc = Henry's Law constant, atm-m3/mole
Kas = soil/air partition coefficient, g/cm3

alpha = conversion factor, cm2/sec
p = particle density, g/cm3
Kd = soil/water partition coefficient, cm3-water/g-soil
where,
Kd = foc x Koc
foc = fraction of organic carbon in soil, g/g
Koc = organic carbon partition coefficient, cm3-water/g-soil

Calculational Spreadsheet For Estimation of VOC Emission Rates For 25 Year Duration [RME Scenario]

Calculation of Flux Rate, Ei

Ei = 2 A Dei Pa Kas Ci CF/(Pi alpha T)^0.5

Chemical	Constant (u)	Area (cm2)	Dei (cm2/sec)	Pa (u)	Kas (gm/cm3)	Ci (gm/gm-soil)	CF (mg/gm)	Pi (u)	alpha (u)	T (sec)	Ei (mg/sec)
cis-1,2-Dichloroethylene	2	8.65E+08	6.34E-03	0.284	0.233	1.35E-08	1.00E+03	3.14	1.93E-04	7.88E+08	6.09E-02
1,1-Dichloroethane	2	8.65E+08	7.30E-03	0.284	0.401	9.60E-09	1.00E+03	3.14	3.81E-04	7.88E+08	3.55E-02
Ethylbenzene	2	8.65E+08	6.02E-03	0.284	0.079	8.60E-09	1.00E+03	3.14	6.16E-05	7.88E+08	6.51E-02
Methylene chloride	2	8.65E+08	8.11E-03	0.284	0.624	1.43E-08	1.00E+03	3.14	6.59E-04	7.88E+08	4.46E-02
Tetrachloroethene	2	8.65E+08	5.78E-03	0.284	0.046	1.46E-08	1.00E+03	3.14	3.48E-05	7.88E+08	1.41E-01
Trichloroethene	2	8.65E+08	6.50E-03	0.284	0.168	1.53E-08	1.00E+03	3.14	1.42E-04	7.88E+08	8.23E-02

Calculation of Diffusivity, Dei

Dei = Di (Pa^3.33/Pt^2)

	Di (cm2/sec)	Pa^3.33 (u)	Pt^2 (u)	Dei (cm2/sec)
cis-1,2-Dichloroethylene	0.079	1.51E-02	1.88E-01	6.34E-03
1,1-Dichloroethane	0.091	1.51E-02	1.88E-01	7.30E-03
Ethylbenzene	0.075	1.51E-02	1.88E-01	6.02E-03
Methylene chloride	0.101	1.51E-02	1.88E-01	8.11E-03
Tetrachloroethene	0.072	1.51E-02	1.88E-01	5.78E-03
Trichloroethene	0.081	1.51E-02	1.88E-01	6.50E-03

Calculation of Soil/Air Partition Coefficient, Kas

Kas = (Hc/Kd) x 41

	Hc (atm-m3/mole)	Kd (L/kg)	Constant (u)	Kas (gm/cm3)
cis-1,2-Dichloroethylene	6.72E-03	1.18	41	0.233
1,1-Dichloroethane	5.87E-03	0.6	41	0.401
Ethylbenzene	8.44E-03	4.4	41	0.079
Methylene chloride	2.68E-03	0.176	41	0.624
Tetrachloroethene	1.49E-02	13.2	41	0.046
Trichloroethene	1.03E-02	2.51	41	0.168

Calculation of Conversion Factor, alpha

alpha = (Dei Pa)/(Pa + (p)(1-Pa)/Kas))

	Dei (cm2/sec)	Pa (u)	density (gm/cm3)	1-Pa (u)	Kas (gm/cm3)	alpha (u)
cis-1,2-Dichloroethylene	0.0063	0.284	2.65	0.716	0.233	1.93E-04
1,1-Dichloroethane	0.0073	0.284	2.65	0.716	0.401	3.81E-04
Ethylbenzene	0.0060	0.284	2.65	0.716	0.079	6.16E-05
Methylene chloride	0.0081	0.284	2.65	0.716	0.624	6.59E-04
Tetrachloroethene	0.0058	0.284	2.65	0.716	0.046	3.48E-05
Trichloroethene	0.0065	0.284	2.65	0.716	0.168	1.42E-04

Ei = average emission rate of contaminant, mg/sec
Di = diffusivity in air, cm2/sec
Dei = effective diffusivity of compound, cm2/sec
Pa = air filled soil porosiy, unitless
Pt = total soil porosity, unitless
Hc = Henry's Law constant, atm-m3/mole
Kas = soil/air partition coefficient, g/cm3

alpha = conversion factor, cm2/sec
p = particle density, g/cm3
Kd = soil/water partition coefficient, cm3-water/g-soil
where,
Kd = foc x Koc
foc = fraction of organic carbon in soil, g/g
Koc = organic carbon partition coefficient, cm3-water/g-soil

Calculational Spreadsheet For Estimation of Ambient Air Concentrations of VOCs For 4.2 Year Duration [Average Exposure Scenario]

Ca = Ei/(LS V MH)

Chemical	Ei (mg/sec)	LS (m)	V (m/sec)	MH (m)	Ca (mg/m3)
cis-1,2-Dichloroethylene	1.49E-01	393	2.25	2	8.41E-05
1,1-Dichloroethane	8.66E-02	393	2.25	2	4.90E-05
Ethylbenzene	1.59E-01	393	2.25	2	9.00E-05
Methylene chloride	1.09E-01	393	2.25	2	6.16E-05
Tetrachloroethene	3.45E-01	393	2.25	2	1.95E-04
Trichloroethene	2.01E-01	393	2.25	2	1.14E-04

Ca = chemical concentration in air over site, mg/m3
Ei = average emission rate of chemical over site from flux model, mg/sec
LS = length dimension perpendicular to the wind, m
V = average wind speed within the mixing zone, m/sec
MH = mixing height, m

Calculational Spreadsheet For Estimation of Ambient Air Concentrations of VOCs For 25 Year Duration [RME Scenario]

Ca = Ei/(LS V MH)

	Ei (mg/sec)	LS (m)	V (m/sec)	MH (m)	Ca (mg/m3)
cis-1,2-Dichloroethylene	6.09E-02	393	2.25	2	3.44E-05
1,1-Dichloroethane	3.55E-02	393	2.25	2	2.01E-05
Ethylbenzene	6.51E-02	393	2.25	2	3.68E-05
Methylene chloride	4.46E-02	393	2.25	2	2.52E-05
Tetrachloroethene	1.41E-01	393	2.25	2	7.99E-05
Trichloroethene	8.23E-02	393	2.25	2	4.66E-05

Ca = chemical concentration in air over site, mg/m3

Ei = average emission rate of chemical over site from flux model, mg/sec

LS = length dimension perpendicular to the wind, m

V = average wind speed within the mixing zone, m/sec

MH = mixing height, m

ATTACHMENT E

SOIL LEACHATE AND GROUNDWATER MIXING MODEL INPUTS AND SIMULATIONS

Table E-1. Walker Property Site
VLEACH Input Parameter Values

Compound Specific

Compound	Koc (ml/g)	Kh (dimentionless)	Aqueous Solubility (mg/l)	Free Air Diffusion Coefficient (sq.m/day)	Soil Concentration (µg/kg)	Depth (feet bgs)
Benzo(a)anthracene	1.38E+06	5.00E-05	5.70E-03	0.4443	240	1
Benzo(a)pyrene	5.50E+06	6.00E-05	1.20E-03	0.4313	530	5
Benzo(b)fluoranthene	5.50E+05	4.90E-04	1.40E-02	0.4161	370	1
Bis(2-ethylhexyl)phthalate	5.90E+03	2.00E-05	2.85E-01	0.3130	11,000	0
Chrysene	4.60E+03	6.00E-05	1.70E-02	0.4311	310	1
1,1-Dichloroethane	3.00E+01	1.79E-01	5.05E+05	0.7689	19	5
cis-1,2-Dichloroethene	4.90E+01	3.15E-01	3.50E+03	0.7868	31	5
2,4-Dimethylphenol	2.22E+02	9.88E-05	4.20E+03	0.5637	210	10
Ethylbenzene	1.10E+03	3.57E-01	1.52E+02	0.5421	2,300	29.5
Fluoranthene	4.17E+04	7.01E-01	1.70E-01	0.4628	1,200	5
Fluorene	7.30E+03	2.66E-03	1.69E+00	0.5000	10,000	5
Methylene Chloride	8.80E+00	8.00E-02	2.00E+04	0.8816	180	5
2-Methylnaphthalene	8.50E+03	2.66E-03	2.54E+01	0.5505	38,000	5
4-Methylphenol	4.90E+01	3.00E-05	2.30E+04	0.6501	550	20
Naphthalene	1.30E+03	6.39E-02	3.17E+01	0.5900	5,100	20.5
N-nitrosodiphenylamine	5.75E+02	9.67E-07	3.51E+01	0.5000	200	15.5
N-nitrosodi-n-propylamine	1.02E+01	1.00E-05	9.90E+03	0.5000	350	31.5
Phenol	1.42E+01	1.00E-05	9.30E+04	0.6501	510	29.5
Polychlorinated biphenyls	5.30E+05	4.40E-02	3.10E-02	0.4798	248,000	3
Phenanthrene	3.89E+04	1.65E-03	1.18E+00	0.5019	17,000	5
Pyrene	3.80E+04	2.10E-04	1.32E-01	0.4832	1,500	5
Tetrachloroethene	3.64E+02	1.44E+00	1.50E+02	0.6020	110	5
Trichloroethene	1.26E+02	3.78E-01	1.10E+03	0.7004	140	5

Site Specific

Groundwater Recharge Rate	0.167	ft/yr
Soil Bulk Density	1.7	g/cc
Effective Porosity	0.36	dimentionless
Moisture Content	0.0807	dimentionless
Fraction of Organic Content	0.00258	dimentionless

Model Specific

Time Step Length	1	years
Simulation Length	100	years
Area of Polygon	100	square feet
Vertical Cell Thickness	5	feet
Fraction of Organic Content	0.00258	dimentionless

Notes:
KOC - organic carbon distribution coefficient. Values obtained from EPA 600/8-90/003
Kh - Henry's Law Coefficient. Values obtained from EPA-600/8-90/003.
Aqueous solubility values obtained from EPA-600/8-90/003.
Free air diffusion coefficient values calculated using Fuller's Method (EPA, 1988).
EPA 600/8-90/003 - Basics of Pump-and-treat Ground-water Remediation Technology.

Simulation, 1,1-Dichloroethane as Contaminant
Aquifer Concentration Calculations Based on VLEACH Simulations
Walker Propoerty

Input Parameters	Value	Units	Abbreviation
Infiltration Rate	0.167	feet/year	Qv
Soil Area	100	square feet	A
Hydraulic Conductivity	10,350	feet/year	K
Saturated Thickness	40	feet	b
Gradient	8.00E-03	dimensionless	i
Layer Width	10	feet	W
Groundwater Flow Through Control Volume	Shown below	cubic feet/year	Qh
ontaminant Mass From Soil Column (Pore Water	Varies*	grams	Mw

* Output from VLEACH simulation, shown in simulation results below.

Output	Value	Units	Abbreviation
Aquifer Concentration	Shown in simulation results below	grams/cubic foot and micrograms/liter	Caq

Equations

Qh = K * b * i * W	33,120	cubic feet/year
Caq = Mw / [(Qv*A) + Qh]	Shown in simulation results below	

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Aquifer Concentration Caq (µg/l)
1	2.70E-16	0.0000	0.0000
2	2.49E-05	0.0000	0.0000
3	6.46E-05	0.0000	0.0001
4	1.18E-04	0.0000	0.0001
5	1.81E-04	0.0000	0.0002
6	2.53E-04	0.0000	0.0003
7	3.29E-04	0.0000	0.0004
8	4.07E-04	0.0000	0.0004
9	4.84E-04	0.0000	0.0005
10	5.58E-04	0.0000	0.0006
11	6.26E-04	0.0000	0.0007
12	6.87E-04	0.0000	0.0007

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Caq (µg/l)
13	7.41E-04	0.0000	0.0008
14	7.86E-04	0.0000	0.0008
15	8.22E-04	0.0000	0.0009
16	8.49E-04	0.0000	0.0009
17	8.69E-04	0.0000	0.0009
18	8.81E-04	0.0000	0.0009
19	8.86E-04	0.0000	0.0009
20	8.85E-04	0.0000	0.0009
21	8.78E-04	0.0000	0.0009
22	8.67E-04	0.0000	0.0009
23	8.52E-04	0.0000	0.0009
24	8.35E-04	0.0000	0.0009
25	8.14E-04	0.0000	0.0009
26	7.92E-04	0.0000	0.0008
27	7.69E-04	0.0000	0.0008
28	7.44E-04	0.0000	0.0008
29	7.19E-04	0.0000	0.0008
30	6.94E-04	0.0000	0.0007
31	6.68E-04	0.0000	0.0007
32	6.43E-04	0.0000	0.0007
33	6.18E-04	0.0000	0.0007
34	5.94E-04	0.0000	0.0006
35	5.70E-04	0.0000	0.0006
36	5.46E-04	0.0000	0.0006
37	5.24E-04	0.0000	0.0006
38	5.02E-04	0.0000	0.0005
39	4.80E-04	0.0000	0.0005
40	4.60E-04	0.0000	0.0005
41	4.40E-04	0.0000	0.0005
42	4.21E-04	0.0000	0.0004
43	4.03E-04	0.0000	0.0004
44	3.85E-04	0.0000	0.0004
45	3.69E-04	0.0000	0.0004
46	3.53E-04	0.0000	0.0004
47	3.37E-04	0.0000	0.0004
48	3.22E-04	0.0000	0.0003
49	3.08E-04	0.0000	0.0003
50	2.95E-04	0.0000	0.0003
51	2.82E-04	0.0000	0.0003
52	2.69E-04	0.0000	0.0003
53	2.57E-04	0.0000	0.0003
54	2.46E-04	0.0000	0.0003
55	2.35E-04	0.0000	0.0003
56	2.25E-04	0.0000	0.0002
57	2.15E-04	0.0000	0.0002
58	2.05E-04	0.0000	0.0002
59	1.96E-04	0.0000	0.0002
60	1.87E-04	0.0000	0.0002

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Caq (µg/l)
61	1.79E-04	0.0000	0.0002
62	1.71E-04	0.0000	0.0002
63	1.64E-04	0.0000	0.0002
64	1.56E-04	0.0000	0.0002
65	1.49E-04	0.0000	0.0002
66	1.43E-04	0.0000	0.0002
67	1.37E-04	0.0000	0.0001
68	1.30E-04	0.0000	0.0001
69	1.25E-04	0.0000	0.0001
70	1.19E-04	0.0000	0.0001
71	1.14E-04	0.0000	0.0001
72	1.09E-04	0.0000	0.0001
73	1.04E-04	0.0000	0.0001
74	9.94E-05	0.0000	0.0001
75	9.50E-05	0.0000	0.0001
76	9.08E-05	0.0000	0.0001
77	8.68E-05	0.0000	0.0001
78	8.29E-05	0.0000	0.0001
79	7.93E-05	0.0000	0.0001
80	7.58E-05	0.0000	0.0001
81	7.24E-05	0.0000	0.0001
82	6.92E-05	0.0000	0.0001
83	6.61E-05	0.0000	0.0001
84	6.32E-05	0.0000	0.0001
85	6.04E-05	0.0000	0.0001
86	5.77E-05	0.0000	0.0001
87	5.52E-05	0.0000	0.0001
88	5.27E-05	0.0000	0.0001
89	5.04E-05	0.0000	0.0001
90	4.82E-05	0.0000	0.0001
91	4.60E-05	0.0000	0.0000
92	4.40E-05	0.0000	0.0000
93	4.20E-05	0.0000	0.0000
94	4.02E-05	0.0000	0.0000
95	3.84E-05	0.0000	0.0000
96	3.67E-05	0.0000	0.0000
97	3.51E-05	0.0000	0.0000
98	3.35E-05	0.0000	0.0000
99	3.20E-05	0.0000	0.0000
100	3.06E-05	0.0000	0.0000

Simulation, 2,4-Dimethylphenol as Contaminant
Aquifer Concentration Calculations Based on VLEACH Simulations
Walker Propoerty

Input Parameters	Value	Units	Abbreviation
Infiltration Rate	0.167	feet/year	Qv
Soil Area	100	square feet	A
Hydraulic Conductivity	10,350	feet/year	K
Saturated Thickness	40	feet	b
Gradient	8.00E-03	dimensionless	i
Layer Width	10	feet	W
Groundwater Flow Through Control Volume	Shown below	cubic feet/year	Qh
ontaminant Mass From Soil Column (Pore Water	Varies*	grams	Mw

* Output from VLEACH simulation, shown in simulation results below.

Output	Value	Units	Abbreviation
Aquifer Concentration	Shown in simulation results below	grams/cubic foot and micrograms/liter	Caq

Equations

Qh = K * b * i * W	33,120	cubic feet/year
Caq = Mw / [(Qv*A) + Qh]	Shown in simulation results below	

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Aquifer Concentration Caq (µg/l)
1	2.18E-15	0.0000	0.0000
2	2.74E-09	0.0000	0.0000
3	5.54E-09	0.0000	0.0000
4	8.42E-09	0.0000	0.0000
5	1.14E-08	0.0000	0.0000
6	1.44E-08	0.0000	0.0000
7	1.75E-08	0.0000	0.0000
8	2.07E-08	0.0000	0.0000
9	2.39E-08	0.0000	0.0000
10	2.73E-08	0.0000	0.0000
11	3.07E-08	0.0000	0.0000
12	3.42E-08	0.0000	0.0000

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Caq (µg/l)
13	3.78E-08	0.0000	0.0000
14	4.15E-08	0.0000	0.0000
15	4.52E-08	0.0000	0.0000
16	4.91E-08	0.0000	0.0000
17	5.30E-08	0.0000	0.0000
18	5.70E-08	0.0000	0.0000
19	6.11E-08	0.0000	0.0000
20	6.54E-08	0.0000	0.0000
21	6.97E-08	0.0000	0.0000
22	7.41E-08	0.0000	0.0000
23	7.86E-08	0.0000	0.0000
24	8.32E-08	0.0000	0.0000
25	8.79E-08	0.0000	0.0000
26	9.27E-08	0.0000	0.0000
27	9.77E-08	0.0000	0.0000
28	1.03E-07	0.0000	0.0000
29	1.08E-07	0.0000	0.0000
30	1.13E-07	0.0000	0.0000
31	1.19E-07	0.0000	0.0000
32	1.24E-07	0.0000	0.0000
33	1.30E-07	0.0000	0.0000
34	1.35E-07	0.0000	0.0000
35	1.41E-07	0.0000	0.0000
36	1.47E-07	0.0000	0.0000
37	1.54E-07	0.0000	0.0000
38	1.60E-07	0.0000	0.0000
39	1.66E-07	0.0000	0.0000
40	1.73E-07	0.0000	0.0000
41	1.80E-07	0.0000	0.0000
42	1.87E-07	0.0000	0.0000
43	1.94E-07	0.0000	0.0000
44	2.01E-07	0.0000	0.0000
45	2.09E-07	0.0000	0.0000
46	2.16E-07	0.0000	0.0000
47	2.24E-07	0.0000	0.0000
48	2.32E-07	0.0000	0.0000
49	2.40E-07	0.0000	0.0000
50	2.49E-07	0.0000	0.0000
51	2.58E-07	0.0000	0.0000
52	2.66E-07	0.0000	0.0000
53	2.76E-07	0.0000	0.0000
54	2.85E-07	0.0000	0.0000
55	2.95E-07	0.0000	0.0000
56	3.05E-07	0.0000	0.0000
57	3.15E-07	0.0000	0.0000
58	3.26E-07	0.0000	0.0000
59	3.37E-07	0.0000	0.0000
60	3.48E-07	0.0000	0.0000

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Caq (µg/l)
61	3.60E-07	0.0000	0.0000
62	3.72E-07	0.0000	0.0000
63	3.85E-07	0.0000	0.0000
64	3.98E-07	0.0000	0.0000
65	4.11E-07	0.0000	0.0000
66	4.25E-07	0.0000	0.0000
67	4.40E-07	0.0000	0.0000
68	4.55E-07	0.0000	0.0000
69	4.70E-07	0.0000	0.0000
70	4.87E-07	0.0000	0.0000
71	5.04E-07	0.0000	0.0000
72	5.21E-07	0.0000	0.0000
73	5.40E-07	0.0000	0.0000
74	5.59E-07	0.0000	0.0000
75	5.79E-07	0.0000	0.0000
76	6.00E-07	0.0000	0.0000
77	6.22E-07	0.0000	0.0000
78	6.45E-07	0.0000	0.0000
79	6.69E-07	0.0000	0.0000
80	6.94E-07	0.0000	0.0000
81	7.21E-07	0.0000	0.0000
82	7.48E-07	0.0000	0.0000
83	7.77E-07	0.0000	0.0000
84	8.08E-07	0.0000	0.0000
85	8.40E-07	0.0000	0.0000
86	8.74E-07	0.0000	0.0000
87	9.09E-07	0.0000	0.0000
88	9.46E-07	0.0000	0.0000
89	9.85E-07	0.0000	0.0000
90	1.03E-06	0.0000	0.0000
91	1.07E-06	0.0000	0.0000
92	1.12E-06	0.0000	0.0000
93	1.16E-06	0.0000	0.0000
94	1.21E-06	0.0000	0.0000
95	1.27E-06	0.0000	0.0000
96	1.32E-06	0.0000	0.0000
97	1.38E-06	0.0000	0.0000
98	1.45E-06	0.0000	0.0000
99	1.51E-06	0.0000	0.0000
100	1.58E-06	0.0000	0.0000

Simulation, 4-Methylphenol as Contaminant
Aquifer Concentration Calculations Based on VLEACH Simulations
Walker Propoerty

Input Parameters	Value	Units	Abbreviation
Infiltration Rate	0.167	feet/year	Qv
Soil Area	100	square feet	A
Hydraulic Conductivity	10,350	feet/year	K
Saturated Thickness	40	feet	b
Gradient	8.00E-03	dimensionless	i
Layer Width	10	feet	W
Groundwater Flow Through Control Volume	Shown below	cubic feet/year	Qh
ontaminant Mass From Soil Column (Pore Water	Varies*	grams	Mw

* Output from VLEACH simulation, shown in simulation results below.

Output	Value	Units	Abbreviation
Aquifer Concentration	Shown in simulation results below	grams/cubic foot and micrograms/liter	Caq

Equations

Qh = K * b * i * W	33,120	cubic feet/year
Caq = Mw / [(Qv*A) + Qh]	Shown in simulation results below	

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Aquifer Concentration Caq (µg/l)
1	6.91E-13	0.0000	0.0000
2	8.69E-08	0.0000	0.0000
3	1.79E-07	0.0000	0.0000
4	2.78E-07	0.0000	0.0000
5	3.83E-07	0.0000	0.0000
6	4.94E-07	0.0000	0.0000
7	6.25E-07	0.0000	0.0000
8	7.41E-07	0.0000	0.0000
9	8.79E-07	0.0000	0.0000
10	1.03E-06	0.0000	0.0000
11	1.19E-06	0.0000	0.0000
12	1.37E-06	0.0000	0.0000

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Caq (µg/l)
13	1.58E-06	0.0000	0.0000
14	1.81E-06	0.0000	0.0000
15	2.09E-06	0.0000	0.0000
16	2.43E-06	0.0000	0.0000
17	2.83E-06	0.0000	0.0000
18	3.34E-06	0.0000	0.0000
19	3.98E-06	0.0000	0.0000
20	4.79E-06	0.0000	0.0000
21	5.82E-06	0.0000	0.0000
22	7.15E-06	0.0000	0.0000
23	8.85E-06	0.0000	0.0000
24	1.10E-05	0.0000	0.0000
25	1.38E-05	0.0000	0.0000
26	1.73E-05	0.0000	0.0000
27	2.17E-05	0.0000	0.0000
28	2.72E-05	0.0000	0.0000
29	3.41E-05	0.0000	0.0000
30	4.27E-05	0.0000	0.0000
31	5.31E-05	0.0000	0.0001
32	6.60E-05	0.0000	0.0001
33	8.16E-05	0.0000	0.0001
34	1.00E-04	0.0000	0.0001
35	1.23E-04	0.0000	0.0001
36	1.50E-04	0.0000	0.0002
37	1.82E-04	0.0000	0.0002
38	2.20E-04	0.0000	0.0002
39	2.64E-04	0.0000	0.0003
40	3.16E-04	0.0000	0.0003
41	3.77E-04	0.0000	0.0004
42	4.47E-04	0.0000	0.0005
43	5.27E-04	0.0000	0.0006
44	6.20E-04	0.0000	0.0007
45	7.25E-04	0.0000	0.0008
46	8.46E-04	0.0000	0.0009
47	9.82E-04	0.0000	0.0010
48	1.14E-03	0.0000	0.0012
49	1.31E-03	0.0000	0.0014
50	1.50E-03	0.0000	0.0016
51	1.72E-03	0.0000	0.0018
52	1.96E-03	0.0000	0.0021
53	2.22E-03	0.0000	0.0024
54	2.52E-03	0.0000	0.0027
55	2.84E-03	0.0000	0.0030
56	3.20E-03	0.0000	0.0034
57	3.59E-03	0.0000	0.0038
58	4.02E-03	0.0000	0.0043
59	4.48E-03	0.0000	0.0048
60	4.98E-03	0.0000	0.0053

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Caq (µg/l)
61	5.53E-03	0.0000	0.0059
62	6.12E-03	0.0000	0.0065
63	6.75E-03	0.0000	0.0072
64	7.43E-03	0.0000	0.0079
65	8.16E-03	0.0000	0.0087
66	8.94E-03	0.0000	0.0095
67	9.77E-03	0.0000	0.0104
68	1.07E-02	0.0000	0.0114
69	1.16E-02	0.0000	0.0124
70	1.26E-02	0.0000	0.0134
71	1.36E-02	0.0000	0.0145
72	1.48E-02	0.0000	0.0157
73	1.59E-02	0.0000	0.0170
74	1.72E-02	0.0000	0.0183
75	1.84E-02	0.0000	0.0197
76	1.98E-02	0.0000	0.0211
77	2.12E-02	0.0000	0.0226
78	2.27E-02	0.0000	0.0242
79	2.42E-02	0.0000	0.0258
80	2.58E-02	0.0000	0.0275
81	2.74E-02	0.0000	0.0292
82	2.91E-02	0.0000	0.0310
83	3.09E-02	0.0000	0.0329
84	3.27E-02	0.0000	0.0348
85	3.46E-02	0.0000	0.0368
86	3.65E-02	0.0000	0.0389
87	3.84E-02	0.0000	0.0410
88	4.04E-02	0.0000	0.0431
89	4.25E-02	0.0000	0.0453
90	4.46E-02	0.0000	0.0475
91	4.67E-02	0.0000	0.0498
92	4.89E-02	0.0000	0.0521
93	5.11E-02	0.0000	0.0545
94	5.34E-02	0.0000	0.0569
95	5.56E-02	0.0000	0.0593
96	5.79E-02	0.0000	0.0617
97	6.02E-02	0.0000	0.0642
98	6.26E-02	0.0000	0.0667
99	6.49E-02	0.0000	0.0692
100	6.73E-02	0.0000	0.0717

Simulation, Naphthalene as Contaminant
Aquifer Concentration Calculations Based on VLEACH Simulations
Walker Propoerty

Input Parameters	Value	Units	Abbreviation
Infiltration Rate	0.167	feet/year	Qv
Soil Area	100	square feet	A
Hydraulic Conductivity	10,350	feet/year	K
Saturated Thickness	40	feet	b
Gradient	8.00E-03	dimensionless	i
Layer Width	10	feet	W
Groundwater Flow Through Control Volume	Shown below	cubic feet/year	Qh
ontaminant Mass From Soil Column (Pore Water	Varies*	grams	Mw

* Output from VLEACH simulation, shown in simulation results below.

Output	Value	Units	Abbreviation
Aquifer Concentration	Shown in simulation results below	grams/cubic foot and micrograms/liter	Caq

Equations

Qh = K * b * i * W	33,120	cubic feet/year
Caq = Mw / [(Qv*A) + Qh]	Shown in simulation results below	

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Aquifer Concentration Caq (µg/l)
1	3.27E-13	0.0000	0.0000
2	3.72E-06	0.0000	0.0000
3	7.47E-06	0.0000	0.0000
4	1.12E-05	0.0000	0.0000
5	1.50E-05	0.0000	0.0000
6	1.89E-05	0.0000	0.0000
7	2.27E-05	0.0000	0.0000
8	2.66E-05	0.0000	0.0000
9	3.04E-05	0.0000	0.0000
10	3.44E-05	0.0000	0.0000
11	3.83E-05	0.0000	0.0000
12	4.23E-05	0.0000	0.0000

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Caq (µg/l)
13	4.62E-05	0.0000	0.0000
14	5.02E-05	0.0000	0.0001
15	5.43E-05	0.0000	0.0001
16	5.83E-05	0.0000	0.0001
17	6.24E-05	0.0000	0.0001
18	6.65E-05	0.0000	0.0001
19	7.06E-05	0.0000	0.0001
20	7.48E-05	0.0000	0.0001
21	7.90E-05	0.0000	0.0001
22	8.32E-05	0.0000	0.0001
23	8.74E-05	0.0000	0.0001
24	9.16E-05	0.0000	0.0001
25	9.59E-05	0.0000	0.0001
26	1.00E-04	0.0000	0.0001
27	1.05E-04	0.0000	0.0001
28	1.09E-04	0.0000	0.0001
29	1.13E-04	0.0000	0.0001
30	1.18E-04	0.0000	0.0001
31	1.22E-04	0.0000	0.0001
32	1.26E-04	0.0000	0.0001
33	1.31E-04	0.0000	0.0001
34	1.35E-04	0.0000	0.0001
35	1.40E-04	0.0000	0.0001
36	1.44E-04	0.0000	0.0002
37	1.49E-04	0.0000	0.0002
38	1.54E-04	0.0000	0.0002
39	1.58E-04	0.0000	0.0002
40	1.63E-04	0.0000	0.0002
41	1.68E-04	0.0000	0.0002
42	1.72E-04	0.0000	0.0002
43	1.77E-04	0.0000	0.0002
44	1.82E-04	0.0000	0.0002
45	1.86E-04	0.0000	0.0002
46	1.91E-04	0.0000	0.0002
47	1.96E-04	0.0000	0.0002
48	2.01E-04	0.0000	0.0002
49	2.06E-04	0.0000	0.0002
50	2.11E-04	0.0000	0.0002
51	2.16E-04	0.0000	0.0002
52	2.21E-04	0.0000	0.0002
53	2.26E-04	0.0000	0.0002
54	2.30E-04	0.0000	0.0002
55	2.36E-04	0.0000	0.0003
56	2.41E-04	0.0000	0.0003
57	2.46E-04	0.0000	0.0003
58	2.51E-04	0.0000	0.0003
59	2.56E-04	0.0000	0.0003
60	2.61E-04	0.0000	0.0003

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Caq (µg/l)
61	2.66E-04	0.0000	0.0003
62	2.71E-04	0.0000	0.0003
63	2.77E-04	0.0000	0.0003
64	2.82E-04	0.0000	0.0003
65	2.87E-04	0.0000	0.0003
66	2.92E-04	0.0000	0.0003
67	2.98E-04	0.0000	0.0003
68	3.03E-04	0.0000	0.0003
69	3.08E-04	0.0000	0.0003
70	3.14E-04	0.0000	0.0003
71	3.19E-04	0.0000	0.0003
72	3.25E-04	0.0000	0.0003
73	3.30E-04	0.0000	0.0004
74	3.36E-04	0.0000	0.0004
75	3.41E-04	0.0000	0.0004
76	3.47E-04	0.0000	0.0004
77	3.52E-04	0.0000	0.0004
78	3.58E-04	0.0000	0.0004
79	3.64E-04	0.0000	0.0004
80	3.69E-04	0.0000	0.0004
81	3.75E-04	0.0000	0.0004
82	3.81E-04	0.0000	0.0004
83	3.86E-04	0.0000	0.0004
84	3.92E-04	0.0000	0.0004
85	3.98E-04	0.0000	0.0004
86	4.04E-04	0.0000	0.0004
87	4.10E-04	0.0000	0.0004
88	4.16E-04	0.0000	0.0004
89	4.21E-04	0.0000	0.0004
90	4.27E-04	0.0000	0.0005
91	4.33E-04	0.0000	0.0005
92	4.39E-04	0.0000	0.0005
93	4.45E-04	0.0000	0.0005
94	4.51E-04	0.0000	0.0005
95	4.57E-04	0.0000	0.0005
96	4.64E-04	0.0000	0.0005
97	4.70E-04	0.0000	0.0005
98	4.76E-04	0.0000	0.0005
99	4.82E-04	0.0000	0.0005
100	4.88E-04	0.0000	0.0005

Simulation, N-nitrosodiphenylamine as Contaminant
Aquifer Concentration Calculations Based on VLEACH Simulations
Walker Propoerty

Input Parameters	Value	Units	Abbreviation
Infiltration Rate	0.167	feet/year	Qv
Soil Area	100	square feet	A
Hydraulic Conductivity	10,350	feet/year	K
Saturated Thickness	40	feet	b
Gradient	8.00E-03	dimensionless	i
Layer Width	10	feet	W
Groundwater Flow Through Control Volume	Shown below	cubic feet/year	Qh
Contaminant Mass From Soil Column (Pore Water)	Varies*	grams	Mw

* Output from VLEACH simulation, shown in simulation results below.

Output	Value	Units	Abbreviation
Aquifer Concentration	Shown in simulation results below	grams/cubic foot and micrograms/liter	Caq

Equations

Qh = K * b * i * W	33,120	cubic feet/year
Caq = Mw / [(Qv*A) + Qh]	Shown in simulation results below	

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Aquifer Concentration Caq (µg/l)
1	1.21E-14	0.0000	0.0000
2	4.24E-09	0.0000	0.0000
3	8.57E-09	0.0000	0.0000
4	1.30E-08	0.0000	0.0000
5	1.75E-08	0.0000	0.0000
6	2.21E-08	0.0000	0.0000
7	2.68E-08	0.0000	0.0000
8	3.17E-08	0.0000	0.0000
9	3.66E-08	0.0000	0.0000
10	4.16E-08	0.0000	0.0000
11	4.67E-08	0.0000	0.0000
12	5.19E-08	0.0000	0.0000

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Caq (µg/l)
13	5.73E-08	0.0000	0.0000
14	6.27E-08	0.0000	0.0000
15	6.83E-08	0.0000	0.0000
16	7.39E-08	0.0000	0.0000
17	7.97E-08	0.0000	0.0000
18	8.56E-08	0.0000	0.0000
19	9.17E-08	0.0000	0.0000
20	9.78E-08	0.0000	0.0000
21	1.04E-07	0.0000	0.0000
22	1.11E-07	0.0000	0.0000
23	1.17E-07	0.0000	0.0000
24	1.24E-07	0.0000	0.0000
25	1.31E-07	0.0000	0.0000
26	1.38E-07	0.0000	0.0000
27	1.45E-07	0.0000	0.0000
28	1.52E-07	0.0000	0.0000
29	1.60E-07	0.0000	0.0000
30	1.67E-07	0.0000	0.0000
31	1.75E-07	0.0000	0.0000
32	1.83E-07	0.0000	0.0000
33	1.91E-07	0.0000	0.0000
34	1.99E-07	0.0000	0.0000
35	2.08E-07	0.0000	0.0000
36	2.17E-07	0.0000	0.0000
37	2.25E-07	0.0000	0.0000
38	2.35E-07	0.0000	0.0000
39	2.44E-07	0.0000	0.0000
40	2.54E-07	0.0000	0.0000
41	2.63E-07	0.0000	0.0000
42	2.74E-07	0.0000	0.0000
43	2.84E-07	0.0000	0.0000
44	2.95E-07	0.0000	0.0000
45	3.06E-07	0.0000	0.0000
46	3.17E-07	0.0000	0.0000
47	3.29E-07	0.0000	0.0000
48	3.41E-07	0.0000	0.0000
49	3.53E-07	0.0000	0.0000
50	3.66E-07	0.0000	0.0000
51	3.79E-07	0.0000	0.0000
52	3.93E-07	0.0000	0.0000
53	4.07E-07	0.0000	0.0000
54	4.21E-07	0.0000	0.0000
55	4.37E-07	0.0000	0.0000
56	4.52E-07	0.0000	0.0000
57	4.69E-07	0.0000	0.0000
58	4.86E-07	0.0000	0.0000
59	5.03E-07	0.0000	0.0000
60	5.22E-07	0.0000	0.0000

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Caq (µg/l)
61	5.41E-07	0.0000	0.0000
62	5.61E-07	0.0000	0.0000
63	5.82E-07	0.0000	0.0000
64	6.04E-07	0.0000	0.0000
65	6.26E-07	0.0000	0.0000
66	6.50E-07	0.0000	0.0000
67	6.75E-07	0.0000	0.0000
68	7.02E-07	0.0000	0.0000
69	7.29E-07	0.0000	0.0000
70	7.58E-07	0.0000	0.0000
71	7.89E-07	0.0000	0.0000
72	8.21E-07	0.0000	0.0000
73	8.55E-07	0.0000	0.0000
74	8.90E-07	0.0000	0.0000
75	9.27E-07	0.0000	0.0000
76	9.67E-07	0.0000	0.0000
77	1.01E-06	0.0000	0.0000
78	1.05E-06	0.0000	0.0000
79	1.10E-06	0.0000	0.0000
80	1.15E-06	0.0000	0.0000
81	1.20E-06	0.0000	0.0000
82	1.25E-06	0.0000	0.0000
83	1.31E-06	0.0000	0.0000
84	1.37E-06	0.0000	0.0000
85	1.44E-06	0.0000	0.0000
86	1.50E-06	0.0000	0.0000
87	1.57E-06	0.0000	0.0000
88	1.65E-06	0.0000	0.0000
89	1.73E-06	0.0000	0.0000
90	1.82E-06	0.0000	0.0000
91	1.91E-06	0.0000	0.0000
92	2.00E-06	0.0000	0.0000
93	2.10E-06	0.0000	0.0000
94	2.21E-06	0.0000	0.0000
95	2.32E-06	0.0000	0.0000
96	2.44E-06	0.0000	0.0000
97	2.56E-06	0.0000	0.0000
98	2.69E-06	0.0000	0.0000
99	2.83E-06	0.0000	0.0000
100	2.98E-06	0.0000	0.0000

Simulation, Phenol as Contaminant
Aquifer Concentration Calculations Based on VLEACH Simulations
Walker Propoerty

Input Parameters	Value	Units	Abbreviation
Infiltration Rate	0.167	feet/year	Qv
Soil Area	100	square feet	A
Hydraulic Conductivity	10,350	feet/year	K
Saturated Thickness	40	feet	b
Gradient	8.00E-03	dimensionless	i
Layer Width	10	feet	W
Groundwater Flow Through Control Volume	Shown below	cubic feet/year	Qh
ontaminant Mass From Soil Column (Pore Water	Varies*	grams	Mw

* Output from VLEACH simulation, shown in simulation results below.

Output	Value	Units	Abbreviation
Aquifer Concentration	Shown in simulation results below	grams/cubic foot and micrograms/liter	Caq

Equations

Qh = K * b * i * W	33,120	cubic feet/year
Caq = Mw / [(Qv*A) + Qh]	Shown in simulation results below	

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Caq (µg/l)
1	7.73E-12	0.0000	0.0000
2	1.62E-07	0.0000	0.0000
3	3.44E-07	0.0000	0.0000
4	5.53E-07	0.0000	0.0000
5	7.99E-07	0.0000	0.0000
6	1.11E-06	0.0000	0.0000
7	1.55E-06	0.0000	0.0000
8	2.26E-06	0.0000	0.0000
9	3.52E-06	0.0000	0.0000
10	5.85E-06	0.0000	0.0000
11	1.02E-05	0.0000	0.0000
12	1.81E-05	0.0000	0.0000

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Caq (µg/l)
13	3.19E-05	0.0000	0.0000
14	5.53E-05	0.0000	0.0001
15	9.35E-05	0.0000	0.0001
16	1.54E-04	0.0000	0.0002
17	2.47E-04	0.0000	0.0003
18	3.84E-04	0.0000	0.0004
19	5.83E-04	0.0000	0.0006
20	8.64E-04	0.0000	0.0009
21	1.25E-03	0.0000	0.0013
22	1.77E-03	0.0000	0.0019
23	2.46E-03	0.0000	0.0026
24	3.36E-03	0.0000	0.0036
25	4.50E-03	0.0000	0.0048
26	5.92E-03	0.0000	0.0063
27	7.69E-03	0.0000	0.0082
28	9.83E-03	0.0000	0.0105
29	1.24E-02	0.0000	0.0132
30	1.54E-02	0.0000	0.0164
31	1.90E-02	0.0000	0.0202
32	2.31E-02	0.0000	0.0246
33	2.77E-02	0.0000	0.0296
34	3.30E-02	0.0000	0.0352
35	3.89E-02	0.0000	0.0415
36	4.54E-02	0.0000	0.0484
37	5.26E-02	0.0000	0.0561
38	6.04E-02	0.0000	0.0643
39	6.87E-02	0.0000	0.0732
40	7.76E-02	0.0000	0.0827
41	8.70E-02	0.0000	0.0927
42	9.69E-02	0.0000	0.1032
43	1.07E-01	0.0000	0.1141
44	1.18E-01	0.0000	0.1254
45	1.28E-01	0.0000	0.1369
46	1.39E-01	0.0000	0.1486
47	1.50E-01	0.0000	0.1603
48	1.61E-01	0.0000	0.1720
49	1.72E-01	0.0000	0.1836
50	1.83E-01	0.0000	0.1950
51	1.93E-01	0.0000	0.2060
52	2.03E-01	0.0000	0.2167
53	2.13E-01	0.0000	0.2268
54	2.22E-01	0.0000	0.2363
55	2.30E-01	0.0000	0.2452
56	2.38E-01	0.0000	0.2534
57	2.45E-01	0.0000	0.2608
58	2.51E-01	0.0000	0.2674
59	2.56E-01	0.0000	0.2731
60	2.61E-01	0.0000	0.2779

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Caq (µg/l)
61	2.64E-01	0.0000	0.2817
62	2.67E-01	0.0000	0.2847
63	2.69E-01	0.0000	0.2867
64	2.70E-01	0.0000	0.2878
65	2.70E-01	0.0000	0.2880
66	2.70E-01	0.0000	0.2874
67	2.68E-01	0.0000	0.2858
68	2.66E-01	0.0000	0.2835
69	2.63E-01	0.0000	0.2804
70	2.60E-01	0.0000	0.2766
71	2.55E-01	0.0000	0.2721
72	2.50E-01	0.0000	0.2669
73	2.45E-01	0.0000	0.2613
74	2.39E-01	0.0000	0.2550
75	2.33E-01	0.0000	0.2484
76	2.26E-01	0.0000	0.2414
77	2.20E-01	0.0000	0.2340
78	2.12E-01	0.0000	0.2263
79	2.05E-01	0.0000	0.2185
80	1.97E-01	0.0000	0.2104
81	1.90E-01	0.0000	0.2022
82	1.82E-01	0.0000	0.1940
83	1.74E-01	0.0000	0.1857
84	1.66E-01	0.0000	0.1774
85	1.59E-01	0.0000	0.1692
86	1.51E-01	0.0000	0.1610
87	1.44E-01	0.0000	0.1530
88	1.36E-01	0.0000	0.1451
89	1.29E-01	0.0000	0.1374
90	1.22E-01	0.0000	0.1299
91	1.15E-01	0.0000	0.1226
92	1.08E-01	0.0000	0.1155
93	1.02E-01	0.0000	0.1086
94	9.57E-02	0.0000	0.1020
95	8.98E-02	0.0000	0.0957
96	8.40E-02	0.0000	0.0896
97	7.86E-02	0.0000	0.0837
98	7.34E-02	0.0000	0.0782
99	6.84E-02	0.0000	0.0729
100	6.37E-02	0.0000	0.0679

Simulation, n-nitrosodi-n-propylamine
Aquifer Concentration Calculations Based on VLEACH Simulations
Walker Propoerty

Input Parameters	Value	Units	Abbreviation
Infiltration Rate	0.167	feet/year	Qv
Soil Area	100	square feet	A
Hydraulic Conductivity	10,350	feet/year	K
Saturated Thickness	40	feet	b
Gradient	8.00E-03	dimensionless	i
Layer Width	10	feet	W
Groundwater Flow Through Control Volume	Shown below	cubic feet/year	Qh
Contaminant Mass From Soil Column (Pore Water)	Varies*	grams	Mw

* Output from VLEACH simulation, shown in simulation results below.

Output	Value	Units	Abbreviation
Aquifer Concentration	Shown in simulation results below	grams/cubic foot and micrograms/liter	Caq

Equations

Qh = K * b * i * W	33,120	cubic feet/year
Caq = Mw / [(Qv*A) + Qh]	Shown in simulation results below	

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Aquifer Concentration Caq (µg/l)
1	2.06E-10	0.0000	0.0000
2	2.21E-07	0.0000	0.0000
3	4.92E-07	0.0000	0.0000
4	8.77E-07	0.0000	0.0000
5	1.58E-06	0.0000	0.0000
6	3.11E-06	0.0000	0.0000
7	6.66E-06	0.0000	0.0000
8	1.46E-05	0.0000	0.0000
9	3.16E-05	0.0000	0.0000
10	6.50E-05	0.0000	0.0001
11	1.27E-04	0.0000	0.0001
12	2.36E-04	0.0000	0.0003

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Caq (μg/l)
13	4.17E-04	0.0000	0.0004
14	7.04E-04	0.0000	0.0008
15	1.14E-03	0.0000	0.0012
16	1.78E-03	0.0000	0.0019
17	2.69E-03	0.0000	0.0029
18	3.93E-03	0.0000	0.0042
19	5.59E-03	0.0000	0.0060
20	7.74E-03	0.0000	0.0083
21	1.05E-02	0.0000	0.0112
22	1.39E-02	0.0000	0.0148
23	1.80E-02	0.0000	0.0191
24	2.29E-02	0.0000	0.0244
25	2.86E-02	0.0000	0.0305
26	3.52E-02	0.0000	0.0375
27	4.26E-02	0.0000	0.0454
28	5.08E-02	0.0000	0.0542
29	5.99E-02	0.0000	0.0638
30	6.97E-02	0.0000	0.0743
31	8.01E-02	0.0000	0.0854
32	9.11E-02	0.0000	0.0971
33	1.03E-01	0.0000	0.1093
34	1.14E-01	0.0000	0.1217
35	1.26E-01	0.0000	0.1343
36	1.38E-01	0.0000	0.1468
37	1.49E-01	0.0000	0.1592
38	1.61E-01	0.0000	0.1712
39	1.71E-01	0.0000	0.1827
40	1.82E-01	0.0000	0.1936
41	1.91E-01	0.0000	0.2036
42	2.00E-01	0.0000	0.2128
43	2.07E-01	0.0000	0.2209
44	2.14E-01	0.0000	0.2280
45	2.19E-01	0.0000	0.2338
46	2.24E-01	0.0000	0.2385
47	2.27E-01	0.0000	0.2420
48	2.29E-01	0.0000	0.2442
49	2.30E-01	0.0000	0.2452
50	2.30E-01	0.0000	0.2451
51	2.29E-01	0.0000	0.2438
52	2.27E-01	0.0000	0.2414
53	2.23E-01	0.0000	0.2380
54	2.19E-01	0.0000	0.2337
55	2.14E-01	0.0000	0.2286
56	2.09E-01	0.0000	0.2227
57	2.03E-01	0.0000	0.2161
58	1.96E-01	0.0000	0.2090
59	1.89E-01	0.0000	0.2014
60	1.82E-01	0.0000	0.1934

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Caq (μg/l)
61	1.74E-01	0.0000	0.1852
62	1.66E-01	0.0000	0.1767
63	1.58E-01	0.0000	0.1681
64	1.50E-01	0.0000	0.1594
65	1.41E-01	0.0000	0.1507
66	1.33E-01	0.0000	0.1421
67	1.25E-01	0.0000	0.1337
68	1.18E-01	0.0000	0.1254
69	1.10E-01	0.0000	0.1173
70	1.03E-01	0.0000	0.1094
71	9.56E-02	0.0000	0.1019
72	8.88E-02	0.0000	0.0946
73	8.22E-02	0.0000	0.0876
74	7.60E-02	0.0000	0.0810
75	7.01E-02	0.0000	0.0747
76	6.45E-02	0.0000	0.0688
77	5.93E-02	0.0000	0.0632
78	5.43E-02	0.0000	0.0579
79	4.97E-02	0.0000	0.0530
80	4.54E-02	0.0000	0.0484
81	4.14E-02	0.0000	0.0441
82	3.76E-02	0.0000	0.0401
83	3.42E-02	0.0000	0.0364
84	3.10E-02	0.0000	0.0330
85	2.80E-02	0.0000	0.0298
86	2.53E-02	0.0000	0.0270
87	2.28E-02	0.0000	0.0243
88	2.05E-02	0.0000	0.0219
89	1.85E-02	0.0000	0.0197
90	1.66E-02	0.0000	0.0177
91	1.49E-02	0.0000	0.0158
92	1.33E-02	0.0000	0.0142
93	1.19E-02	0.0000	0.0127
94	1.06E-02	0.0000	0.0113
95	9.44E-03	0.0000	0.0101
96	8.40E-03	0.0000	0.0090
97	7.47E-03	0.0000	0.0080
98	6.63E-03	0.0000	0.0071
99	5.88E-03	0.0000	0.0063
100	5.20E-03	0.0000	0.0055

Simulation, PCBs as Contaminant
Aquifer Concentration Calculations Based on VLEACH Simulations
Walker Property

Input Parameters	Value	Units	Abbreviation
Infiltration Rate	0.167	feet/year	Qv
Soil Area	100	square feet	A
Hydraulic Conductivity	10,350	feet/year	K
Saturated Thickness	40	feet	b
Gradient	8.00E-03	dimensionless	i
Layer Width	10	feet	W
Groundwater Flow Through Control Volume	Shown below	cubic feet/year	Qh
Contaminant Mass From Soil Column (Pore Water)	Varies*	grams	Mw

* Output from VLEACH simulation, shown in simulation results below.

Output	Value	Units	Abbreviation
Aquifer Concentration	Shown in simulation results below	grams/cubic foot and micrograms/liter	Caq

Equations

Qh = K * b * i * W	33,120	cubic feet/year
Caq = Mw / [(Qv*A) + Qh]	Shown in simulation results below	

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Aquifer Concentration Caq (μg/l)
1	2.00E-16	0.0000	0.0000
2	9.58E-11	0.0000	0.0000
3	1.92E-10	0.0000	0.0000
4	2.87E-10	0.0000	0.0000
5	3.83E-10	0.0000	0.0000
6	4.79E-10	0.0000	0.0000
7	5.75E-10	0.0000	0.0000
8	6.71E-10	0.0000	0.0000
9	7.67E-10	0.0000	0.0000
10	8.62E-10	0.0000	0.0000
11	9.58E-10	0.0000	0.0000
12	1.05E-09	0.0000	0.0000
13	1.15E-09	0.0000	0.0000

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Aquifer Concentration Caq (μg/l)
14	1.25E-09	0.0000	0.0000
15	1.34E-09	0.0000	0.0000
16	1.44E-09	0.0000	0.0000
17	1.53E-09	0.0000	0.0000
18	1.63E-09	0.0000	0.0000
19	1.72E-09	0.0000	0.0000
20	1.82E-09	0.0000	0.0000
21	1.92E-09	0.0000	0.0000
22	2.01E-09	0.0000	0.0000
23	2.11E-09	0.0000	0.0000
24	2.20E-09	0.0000	0.0000
25	2.30E-09	0.0000	0.0000
26	2.40E-09	0.0000	0.0000
27	2.49E-09	0.0000	0.0000
28	2.59E-09	0.0000	0.0000
29	2.68E-09	0.0000	0.0000
30	2.78E-09	0.0000	0.0000
31	2.88E-09	0.0000	0.0000
32	2.97E-09	0.0000	0.0000
33	3.07E-09	0.0000	0.0000
34	3.16E-09	0.0000	0.0000
35	3.26E-09	0.0000	0.0000
36	3.35E-09	0.0000	0.0000
37	3.45E-09	0.0000	0.0000
38	3.55E-09	0.0000	0.0000
39	3.64E-09	0.0000	0.0000
40	3.74E-09	0.0000	0.0000
41	3.83E-09	0.0000	0.0000
42	3.93E-09	0.0000	0.0000
43	4.03E-09	0.0000	0.0000
44	4.12E-09	0.0000	0.0000
45	4.22E-09	0.0000	0.0000
46	4.31E-09	0.0000	0.0000
47	4.41E-09	0.0000	0.0000
48	4.51E-09	0.0000	0.0000
49	4.60E-09	0.0000	0.0000
50	4.70E-09	0.0000	0.0000
51	4.79E-09	0.0000	0.0000
52	4.89E-09	0.0000	0.0000
53	4.99E-09	0.0000	0.0000
54	5.08E-09	0.0000	0.0000
55	5.18E-09	0.0000	0.0000
56	5.27E-09	0.0000	0.0000
57	5.37E-09	0.0000	0.0000
58	5.47E-09	0.0000	0.0000
59	5.56E-09	0.0000	0.0000
60	5.66E-09	0.0000	0.0000

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Caq (μg/l)
61	5.75E-09	0.0000	0.0000
62	5.85E-09	0.0000	0.0000
63	5.94E-09	0.0000	0.0000
64	6.04E-09	0.0000	0.0000
65	6.14E-09	0.0000	0.0000
66	6.23E-09	0.0000	0.0000
67	6.33E-09	0.0000	0.0000
68	6.42E-09	0.0000	0.0000
69	6.52E-09	0.0000	0.0000
70	6.62E-09	0.0000	0.0000
71	6.71E-09	0.0000	0.0000
72	6.81E-09	0.0000	0.0000
73	6.90E-09	0.0000	0.0000
74	7.00E-09	0.0000	0.0000
75	7.10E-09	0.0000	0.0000
76	7.19E-09	0.0000	0.0000
77	7.29E-09	0.0000	0.0000
78	7.38E-09	0.0000	0.0000
79	7.48E-09	0.0000	0.0000
80	7.58E-09	0.0000	0.0000
81	7.67E-09	0.0000	0.0000
82	7.77E-09	0.0000	0.0000
83	7.86E-09	0.0000	0.0000
84	7.96E-09	0.0000	0.0000
85	8.06E-09	0.0000	0.0000
86	8.15E-09	0.0000	0.0000
87	8.25E-09	0.0000	0.0000
88	8.34E-09	0.0000	0.0000
89	8.44E-09	0.0000	0.0000
90	8.54E-09	0.0000	0.0000
91	8.63E-09	0.0000	0.0000
92	8.73E-09	0.0000	0.0000
93	8.82E-09	0.0000	0.0000
94	8.92E-09	0.0000	0.0000
95	9.02E-09	0.0000	0.0000
96	9.11E-09	0.0000	0.0000
97	9.21E-09	0.0000	0.0000
98	9.31E-09	0.0000	0.0000
99	9.40E-09	0.0000	0.0000
100	9.50E-09	0.0000	0.0000

Simulation, Benzo (b) fluoranthene as Contaminant
Aquifer Concentration Calculations Based on VLEACH Simulations
Walker Property

Input Parameters	Value	Units	Abbreviation
Infiltration Rate	0.167	feet/year	Qv
Soil Area	100	square feet	A
Hydraulic Conductivity	10,350	feet/year	K
Saturated Thickness	40	feet	b
Gradient	8.00E-03	dimensionless	i
Layer Width	10	feet	W
Groundwater Flow Through Control Volume	Shown below	cubic feet/year	Qh
Contaminant Mass From Soil Column (Pore Water)	Varies*	grams	Mw

* Output from VLEACH simulation, shown in simulation results below.

Output	Value	Units	Abbreviation
Aquifer Concentration	Shown in simulation results below	grams/cubic foot and micrograms/liter	Caq

Equations

Qh = K * b * i * W	33,120	cubic feet/year
Caq = Mw / [(Qv*A) + Qh]	Shown in simulation results below	

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Caq (μg/l)
1	2.87E-19	0.0000	0.0000
2	1.02E-15	0.0000	0.0000
3	2.05E-15	0.0000	0.0000
4	3.07E-15	0.0000	0.0000
5	4.09E-15	0.0000	0.0000
6	5.12E-15	0.0000	0.0000
7	6.14E-15	0.0000	0.0000
8	7.16E-15	0.0000	0.0000
9	8.19E-15	0.0000	0.0000
10	9.21E-15	0.0000	0.0000
11	1.02E-14	0.0000	0.0000
12	1.13E-14	0.0000	0.0000
13	1.23E-14	0.0000	0.0000

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Aquifer Concentration Caq (μg/l)
14	1.33E-14	0.0000	0.0000
15	1.43E-14	0.0000	0.0000
16	1.53E-14	0.0000	0.0000
17	1.64E-14	0.0000	0.0000
18	1.74E-14	0.0000	0.0000
19	1.84E-14	0.0000	0.0000
20	1.94E-14	0.0000	0.0000
21	2.05E-14	0.0000	0.0000
22	2.15E-14	0.0000	0.0000
23	2.25E-14	0.0000	0.0000
24	2.35E-14	0.0000	0.0000
25	2.46E-14	0.0000	0.0000
26	2.56E-14	0.0000	0.0000
27	2.66E-14	0.0000	0.0000
28	2.76E-14	0.0000	0.0000
29	2.87E-14	0.0000	0.0000
30	2.97E-14	0.0000	0.0000
31	3.07E-14	0.0000	0.0000
32	3.17E-14	0.0000	0.0000
33	3.28E-14	0.0000	0.0000
34	3.38E-14	0.0000	0.0000
35	3.48E-14	0.0000	0.0000
36	3.58E-14	0.0000	0.0000
37	3.68E-14	0.0000	0.0000
38	3.79E-14	0.0000	0.0000
39	3.89E-14	0.0000	0.0000
40	3.99E-14	0.0000	0.0000
41	4.09E-14	0.0000	0.0000
42	4.20E-14	0.0000	0.0000
43	4.30E-14	0.0000	0.0000
44	4.40E-14	0.0000	0.0000
45	4.50E-14	0.0000	0.0000
46	4.61E-14	0.0000	0.0000
47	4.71E-14	0.0000	0.0000
48	4.81E-14	0.0000	0.0000
49	4.91E-14	0.0000	0.0000
50	5.02E-14	0.0000	0.0000
51	5.12E-14	0.0000	0.0000
52	5.22E-14	0.0000	0.0000
53	5.32E-14	0.0000	0.0000
54	5.43E-14	0.0000	0.0000
55	5.53E-14	0.0000	0.0000
56	5.63E-14	0.0000	0.0000
57	5.73E-14	0.0000	0.0000
58	5.84E-14	0.0000	0.0000
59	5.94E-14	0.0000	0.0000
60	6.04E-14	0.0000	0.0000

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Aquifer Concentration Caq (μg/l)
61	6.14E-14	0.0000	0.0000
62	6.24E-14	0.0000	0.0000
63	6.35E-14	0.0000	0.0000
64	6.45E-14	0.0000	0.0000
65	6.55E-14	0.0000	0.0000
66	6.65E-14	0.0000	0.0000
67	6.76E-14	0.0000	0.0000
68	6.86E-14	0.0000	0.0000
69	6.96E-14	0.0000	0.0000
70	7.06E-14	0.0000	0.0000
71	7.17E-14	0.0000	0.0000
72	7.27E-14	0.0000	0.0000
73	7.37E-14	0.0000	0.0000
74	7.47E-14	0.0000	0.0000
75	7.58E-14	0.0000	0.0000
76	7.68E-14	0.0000	0.0000
77	7.78E-14	0.0000	0.0000
78	7.88E-14	0.0000	0.0000
79	7.99E-14	0.0000	0.0000
80	8.09E-14	0.0000	0.0000
81	8.19E-14	0.0000	0.0000
82	8.29E-14	0.0000	0.0000
83	8.40E-14	0.0000	0.0000
84	8.50E-14	0.0000	0.0000
85	8.60E-14	0.0000	0.0000
86	8.70E-14	0.0000	0.0000
87	8.81E-14	0.0000	0.0000
88	8.91E-14	0.0000	0.0000
89	9.01E-14	0.0000	0.0000
90	9.11E-14	0.0000	0.0000
91	9.22E-14	0.0000	0.0000
92	9.32E-14	0.0000	0.0000
93	9.42E-14	0.0000	0.0000
94	9.52E-14	0.0000	0.0000
95	9.63E-14	0.0000	0.0000
96	9.73E-14	0.0000	0.0000
97	9.83E-14	0.0000	0.0000
98	9.93E-14	0.0000	0.0000
99	1.00E-13	0.0000	0.0000
100	1.01E-13	0.0000	0.0000

Simulation, Benzo (a) anthracene as contaminant
Aquifer Concentration Calculations Based on VLEACH Simulations
Walker Property

Input Parameters	Value	Units	Abbreviation
Infiltration Rate	0.167	feet/year	Qv
Soil Area	100	square feet	A
Hydraulic Conductivity	10,350	feet/year	K
Saturated Thickness	40	feet	b
Gradient	8.00E-03	dimensionless	i
Layer Width	10	feet	W
Groundwater Flow Through Control Volume	Shown below	cubic feet/year	Qh
Contaminant Mass From Soil Column (Pore Water)	Varies*	grams	Mw

* Output from VLEACH simulation, shown in simulation results below.

Output	Value	Units	Abbreviation
Aquifer Concentration	Shown in simulation results below	grams/cubic foot and micrograms/liter	Caq

Equations

$Qh = K * b * i * W$	33,120	cubic feet/year
$Caq = Mw / [(Qv*A) + Qh]$	Shown in simulation results below	

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Aquifer Concentration Caq (μg/l)
1	7.43E-20	0.0000	0.0000
2	1.29E-17	0.0000	0.0000
3	2.57E-17	0.0000	0.0000
4	3.85E-17	0.0000	0.0000
5	5.13E-17	0.0000	0.0000
6	6.41E-17	0.0000	0.0000
7	7.69E-17	0.0000	0.0000
8	8.97E-17	0.0000	0.0000
9	1.02E-16	0.0000	0.0000
10	1.15E-16	0.0000	0.0000
11	1.28E-16	0.0000	0.0000
12	1.41E-16	0.0000	0.0000
13	1.54E-16	0.0000	0.0000

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Caq (μg/l)
14	1.66E-16	0.0000	0.0000
15	1.79E-16	0.0000	0.0000
16	1.92E-16	0.0000	0.0000
17	2.05E-16	0.0000	0.0000
18	2.18E-16	0.0000	0.0000
19	2.30E-16	0.0000	0.0000
20	2.43E-16	0.0000	0.0000
21	2.56E-16	0.0000	0.0000
22	2.69E-16	0.0000	0.0000
23	2.82E-16	0.0000	0.0000
24	2.94E-16	0.0000	0.0000
25	3.07E-16	0.0000	0.0000
26	3.20E-16	0.0000	0.0000
27	3.33E-16	0.0000	0.0000
28	3.46E-16	0.0000	0.0000
29	3.58E-16	0.0000	0.0000
30	3.71E-16	0.0000	0.0000
31	3.84E-16	0.0000	0.0000
32	3.97E-16	0.0000	0.0000
33	4.10E-16	0.0000	0.0000
34	4.22E-16	0.0000	0.0000
35	4.35E-16	0.0000	0.0000
36	4.48E-16	0.0000	0.0000
37	4.61E-16	0.0000	0.0000
38	4.74E-16	0.0000	0.0000
39	4.86E-16	0.0000	0.0000
40	4.99E-16	0.0000	0.0000
41	5.12E-16	0.0000	0.0000
42	5.25E-16	0.0000	0.0000
43	5.38E-16	0.0000	0.0000
44	5.50E-16	0.0000	0.0000
45	5.63E-16	0.0000	0.0000
46	5.76E-16	0.0000	0.0000
47	5.89E-16	0.0000	0.0000
48	6.02E-16	0.0000	0.0000
49	6.14E-16	0.0000	0.0000
50	6.27E-16	0.0000	0.0000
51	6.40E-16	0.0000	0.0000
52	6.53E-16	0.0000	0.0000
53	6.66E-16	0.0000	0.0000
54	6.78E-16	0.0000	0.0000
55	6.91E-16	0.0000	0.0000
56	7.04E-16	0.0000	0.0000
57	7.17E-16	0.0000	0.0000
58	7.30E-16	0.0000	0.0000
59	7.42E-16	0.0000	0.0000
60	7.55E-16	0.0000	0.0000

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Caq (μg/l)
61	7.68E-16	0.0000	0.0000
62	7.81E-16	0.0000	0.0000
63	7.94E-16	0.0000	0.0000
64	8.07E-16	0.0000	0.0000
65	8.19E-16	0.0000	0.0000
66	8.32E-16	0.0000	0.0000
67	8.45E-16	0.0000	0.0000
68	8.58E-16	0.0000	0.0000
69	8.71E-16	0.0000	0.0000
70	8.83E-16	0.0000	0.0000
71	8.96E-16	0.0000	0.0000
72	9.09E-16	0.0000	0.0000
73	9.22E-16	0.0000	0.0000
74	9.35E-16	0.0000	0.0000
75	9.47E-16	0.0000	0.0000
76	9.60E-16	0.0000	0.0000
77	9.73E-16	0.0000	0.0000
78	9.86E-16	0.0000	0.0000
79	9.99E-16	0.0000	0.0000
80	1.01E-15	0.0000	0.0000
81	1.02E-15	0.0000	0.0000
82	1.04E-15	0.0000	0.0000
83	1.05E-15	0.0000	0.0000
84	1.06E-15	0.0000	0.0000
85	1.08E-15	0.0000	0.0000
86	1.09E-15	0.0000	0.0000
87	1.10E-15	0.0000	0.0000
88	1.11E-15	0.0000	0.0000
89	1.13E-15	0.0000	0.0000
90	1.14E-15	0.0000	0.0000
91	1.15E-15	0.0000	0.0000
92	1.17E-15	0.0000	0.0000
93	1.18E-15	0.0000	0.0000
94	1.19E-15	0.0000	0.0000
95	1.20E-15	0.0000	0.0000
96	1.22E-15	0.0000	0.0000
97	1.23E-15	0.0000	0.0000
98	1.24E-15	0.0000	0.0000
99	1.25E-15	0.0000	0.0000
100	1.27E-15	0.0000	0.0000

Simulation, Bis-(2-ethylhexyl) phthalate as Contaminant
Aquifer Concentration Calculations Based on VLEACH Simulations
Walker Property

Input Parameters	Value	Units	Abbreviation
Infiltration Rate	0.167	feet/year	Qv
Soil Area	100	square feet	A
Hydraulic Conductivity	10,350	feet/year	K
Saturated Thickness	40	feet	b
Gradient	8.00E-03	dimensionless	i
Layer Width	10	feet	W
Groundwater Flow Through Control Volume	Shown below	cubic feet/year	Qh
Contaminant Mass From Soil Column (Pore Water)	Varies*	grams	Mw

* Output from VLEACH simulation, shown in simulation results below.

Output	Value	Units	Abbreviation
Aquifer Concentration	Shown in simulation results below	grams/cubic foot and micrograms/liter	Caq

Equations

Qh = K * b * i * W	33,120	cubic feet/year
Caq = Mw / [(Qv*A) + Qh]	Shown in simulation results below	

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Aquifer Concentration Caq (μg/l)
1	7.94E-16	0.0000	0.0000
2	4.61E-12	0.0000	0.0000
3	9.22E-12	0.0000	0.0000
4	1.38E-11	0.0000	0.0000
5	1.85E-11	0.0000	0.0000
6	2.31E-11	0.0000	0.0000
7	2.78E-11	0.0000	0.0000
8	3.24E-11	0.0000	0.0000
9	3.71E-11	0.0000	0.0000
10	4.18E-11	0.0000	0.0000
11	4.65E-11	0.0000	0.0000
12	5.12E-11	0.0000	0.0000
13	5.59E-11	0.0000	0.0000

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Aquifer Concentration Caq (μg/l)
14	6.06E-11	0.0000	0.0000
15	6.53E-11	0.0000	0.0000
16	7.01E-11	0.0000	0.0000
17	7.48E-11	0.0000	0.0000
18	7.96E-11	0.0000	0.0000
19	8.43E-11	0.0000	0.0000
20	8.91E-11	0.0000	0.0000
21	9.39E-11	0.0000	0.0000
22	9.87E-11	0.0000	0.0000
23	1.03E-10	0.0000	0.0000
24	1.08E-10	0.0000	0.0000
25	1.13E-10	0.0000	0.0000
26	1.18E-10	0.0000	0.0000
27	1.23E-10	0.0000	0.0000
28	1.28E-10	0.0000	0.0000
29	1.33E-10	0.0000	0.0000
30	1.37E-10	0.0000	0.0000
31	1.42E-10	0.0000	0.0000
32	1.47E-10	0.0000	0.0000
33	1.52E-10	0.0000	0.0000
34	1.57E-10	0.0000	0.0000
35	1.62E-10	0.0000	0.0000
36	1.67E-10	0.0000	0.0000
37	1.72E-10	0.0000	0.0000
38	1.77E-10	0.0000	0.0000
39	1.82E-10	0.0000	0.0000
40	1.87E-10	0.0000	0.0000
41	1.92E-10	0.0000	0.0000
42	1.97E-10	0.0000	0.0000
43	2.02E-10	0.0000	0.0000
44	2.07E-10	0.0000	0.0000
45	2.12E-10	0.0000	0.0000
46	2.17E-10	0.0000	0.0000
47	2.22E-10	0.0000	0.0000
48	2.27E-10	0.0000	0.0000
49	2.32E-10	0.0000	0.0000
50	2.37E-10	0.0000	0.0000
51	2.42E-10	0.0000	0.0000
52	2.47E-10	0.0000	0.0000
53	2.52E-10	0.0000	0.0000
54	2.57E-10	0.0000	0.0000
55	2.62E-10	0.0000	0.0000
56	2.67E-10	0.0000	0.0000
57	2.72E-10	0.0000	0.0000
58	2.78E-10	0.0000	0.0000
59	2.83E-10	0.0000	0.0000
60	2.88E-10	0.0000	0.0000

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Aquifer Concentration Caq (μg/l)
61	2.93E-10	0.0000	0.0000
62	2.98E-10	0.0000	0.0000
63	3.03E-10	0.0000	0.0000
64	3.09E-10	0.0000	0.0000
65	3.14E-10	0.0000	0.0000
66	3.19E-10	0.0000	0.0000
67	3.24E-10	0.0000	0.0000
68	3.29E-10	0.0000	0.0000
69	3.35E-10	0.0000	0.0000
70	3.40E-10	0.0000	0.0000
71	3.45E-10	0.0000	0.0000
72	3.51E-10	0.0000	0.0000
73	3.56E-10	0.0000	0.0000
74	3.61E-10	0.0000	0.0000
75	3.66E-10	0.0000	0.0000
76	3.72E-10	0.0000	0.0000
77	3.77E-10	0.0000	0.0000
78	3.82E-10	0.0000	0.0000
79	3.88E-10	0.0000	0.0000
80	3.93E-10	0.0000	0.0000
81	3.98E-10	0.0000	0.0000
82	4.04E-10	0.0000	0.0000
83	4.09E-10	0.0000	0.0000
84	4.15E-10	0.0000	0.0000
85	4.20E-10	0.0000	0.0000
86	4.25E-10	0.0000	0.0000
87	4.31E-10	0.0000	0.0000
88	4.36E-10	0.0000	0.0000
89	4.42E-10	0.0000	0.0000
90	4.47E-10	0.0000	0.0000
91	4.53E-10	0.0000	0.0000
92	4.58E-10	0.0000	0.0000
93	4.64E-10	0.0000	0.0000
94	4.69E-10	0.0000	0.0000
95	4.75E-10	0.0000	0.0000
96	4.80E-10	0.0000	0.0000
97	4.86E-10	0.0000	0.0000
98	4.91E-10	0.0000	0.0000
99	4.97E-10	0.0000	0.0000
100	5.02E-10	0.0000	0.0000

Simulation, Benzo(a)pyrene as Contaminant
Aquifer Concentration Calculations Based on VLEACH Simulations
Walker Property

Input Parameters	Value	Units	Abbreviation
Infiltration Rate	0.167	feet/year	Qv
Soil Area	100	square feet	A
Hydraulic Conductivity	10,350	feet/year	K
Saturated Thickness	40	feet	b
Gradient	8.00E-03	dimensionless	i
Layer Width	10	feet	W
Groundwater Flow Through Control Volume	Shown below	cubic feet/year	Qh
Contaminant Mass From Soil Column (Pore Water)	Varies*	grams	Mw

* Output from VLEACH simulation, shown in simulation results below.

Output	Value	Units	Abbreviation
Aquifer Concentration	Shown in simulation results below	grams/cubic foot and micrograms/liter	Caq

Equations

Qh = K * b * i * W	33,120	cubic feet/year
Caq = Mw / [(Qv*A) + Qh]	Shown in simulation results below	

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Aquifer Concentration Caq (μg/l)
1	4.11E-20	0.0000	0.0000
2	2.02E-18	0.0000	0.0000
3	3.99E-18	0.0000	0.0000
4	5.97E-18	0.0000	0.0000
5	7.94E-18	0.0000	0.0000
6	9.92E-18	0.0000	0.0000
7	1.19E-17	0.0000	0.0000
8	1.39E-17	0.0000	0.0000
9	1.58E-17	0.0000	0.0000
10	1.78E-17	0.0000	0.0000
11	1.98E-17	0.0000	0.0000
12	2.18E-17	0.0000	0.0000
13	2.37E-17	0.0000	0.0000

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Caq (μg/l)
14	2.57E-17	0.0000	0.0000
15	2.77E-17	0.0000	0.0000
16	2.97E-17	0.0000	0.0000
17	3.16E-17	0.0000	0.0000
18	3.36E-17	0.0000	0.0000
19	3.56E-17	0.0000	0.0000
20	3.76E-17	0.0000	0.0000
21	3.95E-17	0.0000	0.0000
22	4.15E-17	0.0000	0.0000
23	4.35E-17	0.0000	0.0000
24	4.55E-17	0.0000	0.0000
25	4.75E-17	0.0000	0.0000
26	4.94E-17	0.0000	0.0000
27	5.14E-17	0.0000	0.0000
28	5.34E-17	0.0000	0.0000
29	5.54E-17	0.0000	0.0000
30	5.73E-17	0.0000	0.0000
31	5.93E-17	0.0000	0.0000
32	6.13E-17	0.0000	0.0000
33	6.33E-17	0.0000	0.0000
34	6.52E-17	0.0000	0.0000
35	6.72E-17	0.0000	0.0000
36	6.92E-17	0.0000	0.0000
37	7.12E-17	0.0000	0.0000
38	7.31E-17	0.0000	0.0000
39	7.51E-17	0.0000	0.0000
40	7.71E-17	0.0000	0.0000
41	7.91E-17	0.0000	0.0000
42	8.10E-17	0.0000	0.0000
43	8.30E-17	0.0000	0.0000
44	8.50E-17	0.0000	0.0000
45	8.70E-17	0.0000	0.0000
46	8.89E-17	0.0000	0.0000
47	9.09E-17	0.0000	0.0000
48	9.29E-17	0.0000	0.0000
49	9.49E-17	0.0000	0.0000
50	9.68E-17	0.0000	0.0000
51	9.88E-17	0.0000	0.0000
52	1.01E-16	0.0000	0.0000
53	1.03E-16	0.0000	0.0000
54	1.05E-16	0.0000	0.0000
55	1.07E-16	0.0000	0.0000
56	1.09E-16	0.0000	0.0000
57	1.11E-16	0.0000	0.0000
58	1.13E-16	0.0000	0.0000
59	1.15E-16	0.0000	0.0000
60	1.17E-16	0.0000	0.0000

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Aquifer Concentration Caq (μg/l)
61	1.19E-16	0.0000	0.0000
62	1.21E-16	0.0000	0.0000
63	1.23E-16	0.0000	0.0000
64	1.25E-16	0.0000	0.0000
65	1.26E-16	0.0000	0.0000
66	1.28E-16	0.0000	0.0000
67	1.30E-16	0.0000	0.0000
68	1.32E-16	0.0000	0.0000
69	1.34E-16	0.0000	0.0000
70	1.36E-16	0.0000	0.0000
71	1.38E-16	0.0000	0.0000
72	1.40E-16	0.0000	0.0000
73	1.42E-16	0.0000	0.0000
74	1.44E-16	0.0000	0.0000
75	1.46E-16	0.0000	0.0000
76	1.48E-16	0.0000	0.0000
77	1.50E-16	0.0000	0.0000
78	1.52E-16	0.0000	0.0000
79	1.54E-16	0.0000	0.0000
80	1.56E-16	0.0000	0.0000
81	1.58E-16	0.0000	0.0000
82	1.60E-16	0.0000	0.0000
83	1.62E-16	0.0000	0.0000
84	1.64E-16	0.0000	0.0000
85	1.66E-16	0.0000	0.0000
86	1.68E-16	0.0000	0.0000
87	1.70E-16	0.0000	0.0000
88	1.72E-16	0.0000	0.0000
89	1.74E-16	0.0000	0.0000
90	1.76E-16	0.0000	0.0000
91	1.78E-16	0.0000	0.0000
92	1.80E-16	0.0000	0.0000
93	1.82E-16	0.0000	0.0000
94	1.84E-16	0.0000	0.0000
95	1.86E-16	0.0000	0.0000
96	1.88E-16	0.0000	0.0000
97	1.90E-16	0.0000	0.0000
98	1.92E-16	0.0000	0.0000
99	1.94E-16	0.0000	0.0000
100	1.96E-16	0.0000	0.0000

Simulation, cis-1,2-dichloroethene as Contaminant
Aquifer Concentration Calculations Based on VLEACH Simulations
Walker Property

Input Parameters	Value	Units	Abbreviation
Infiltration Rate	0.167	feet/year	Qv
Soil Area	100	square feet	A
Hydraulic Conductivity	10,350	feet/year	K
Saturated Thickness	40	feet	b
Gradient	8.00E-03	dimensionless	i
Layer Width	10	feet	W
Groundwater Flow Through Control Volume	Shown below	cubic feet/year	Qh
Contaminant Mass From Soil Column (Pore Water)	Varies*	grams	Mw

* Output from VLEACH simulation, shown in simulation results below.

Output	Value	Units	Abbreviation
Aquifer Concentration	Shown in simulation results below	grams/cubic foot and micrograms/liter	Caq

Equations

$Qh = K * b * i * W$	33,120	cubic feet/year
$Caq = Mw / [(Qv*A) + Qh]$	Shown in simulation results below	

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Aquifer Concentration Caq (μg/l)
1	1.51E-16	0.0000	0.0000
2	8.81E-06	0.0000	0.0000
3	2.00E-05	0.0000	0.0000
4	3.34E-05	0.0000	0.0000
5	4.84E-05	0.0000	0.0001
6	6.50E-05	0.0000	0.0001
7	8.26E-05	0.0000	0.0001
8	1.01E-04	0.0000	0.0001
9	1.20E-04	0.0000	0.0001
10	1.39E-04	0.0000	0.0001
11	1.58E-04	0.0000	0.0002
12	1.77E-04	0.0000	0.0002
13	1.96E-04	0.0000	0.0002

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Caq (μg/l)
14	2.14E-04	0.0000	0.0002
15	2.31E-04	0.0000	0.0002
16	2.47E-04	0.0000	0.0003
17	2.62E-04	0.0000	0.0003
18	2.77E-04	0.0000	0.0003
19	2.90E-04	0.0000	0.0003
20	3.02E-04	0.0000	0.0003
21	3.13E-04	0.0000	0.0003
22	3.23E-04	0.0000	0.0003
23	3.32E-04	0.0000	0.0004
24	3.39E-04	0.0000	0.0004
25	3.46E-04	0.0000	0.0004
26	3.51E-04	0.0000	0.0004
27	3.56E-04	0.0000	0.0004
28	3.59E-04	0.0000	0.0004
29	3.62E-04	0.0000	0.0004
30	3.64E-04	0.0000	0.0004
31	3.65E-04	0.0000	0.0004
32	3.66E-04	0.0000	0.0004
33	3.65E-04	0.0000	0.0004
34	3.65E-04	0.0000	0.0004
35	3.63E-04	0.0000	0.0004
36	3.61E-04	0.0000	0.0004
37	3.59E-04	0.0000	0.0004
38	3.56E-04	0.0000	0.0004
39	3.53E-04	0.0000	0.0004
40	3.49E-04	0.0000	0.0004
41	3.45E-04	0.0000	0.0004
42	3.41E-04	0.0000	0.0004
43	3.37E-04	0.0000	0.0004
44	3.32E-04	0.0000	0.0004
45	3.28E-04	0.0000	0.0003
46	3.23E-04	0.0000	0.0003
47	3.18E-04	0.0000	0.0003
48	3.13E-04	0.0000	0.0003
49	3.08E-04	0.0000	0.0003
50	3.02E-04	0.0000	0.0003
51	2.97E-04	0.0000	0.0003
52	2.92E-04	0.0000	0.0003
53	2.87E-04	0.0000	0.0003
54	2.81E-04	0.0000	0.0003
55	2.76E-04	0.0000	0.0003
56	2.71E-04	0.0000	0.0003
57	2.66E-04	0.0000	0.0003
58	2.60E-04	0.0000	0.0003
59	2.55E-04	0.0000	0.0003
60	2.50E-04	0.0000	0.0003

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Caq (μg/l)
61	2.45E-04	0.0000	0.0003
62	2.40E-04	0.0000	0.0003
63	2.35E-04	0.0000	0.0003
64	2.30E-04	0.0000	0.0002
65	2.26E-04	0.0000	0.0002
66	2.21E-04	0.0000	0.0002
67	2.16E-04	0.0000	0.0002
68	2.12E-04	0.0000	0.0002
69	2.07E-04	0.0000	0.0002
70	2.03E-04	0.0000	0.0002
71	1.98E-04	0.0000	0.0002
72	1.94E-04	0.0000	0.0002
73	1.90E-04	0.0000	0.0002
74	1.86E-04	0.0000	0.0002
75	1.82E-04	0.0000	0.0002
76	1.78E-04	0.0000	0.0002
77	1.74E-04	0.0000	0.0002
78	1.70E-04	0.0000	0.0002
79	1.67E-04	0.0000	0.0002
80	1.63E-04	0.0000	0.0002
81	1.59E-04	0.0000	0.0002
82	1.56E-04	0.0000	0.0002
83	1.53E-04	0.0000	0.0002
84	1.49E-04	0.0000	0.0002
85	1.46E-04	0.0000	0.0002
86	1.43E-04	0.0000	0.0002
87	1.40E-04	0.0000	0.0001
88	1.36E-04	0.0000	0.0001
89	1.33E-04	0.0000	0.0001
90	1.31E-04	0.0000	0.0001
91	1.28E-04	0.0000	0.0001
92	1.25E-04	0.0000	0.0001
93	1.22E-04	0.0000	0.0001
94	1.19E-04	0.0000	0.0001
95	1.17E-04	0.0000	0.0001
96	1.14E-04	0.0000	0.0001
97	1.12E-04	0.0000	0.0001
98	1.09E-04	0.0000	0.0001
99	1.07E-04	0.0000	0.0001
100	1.04E-04	0.0000	0.0001

Simulation, Chrysene as Contaminant
Aquifer Concentration Calculations Based on VLEACH Simulations
Walker Property

Input Parameters	Value	Units	Abbreviation
Infiltration Rate	0.167	feet/year	Qv
Soil Area	100	square feet	A
Hydraulic Conductivity	10,350	feet/year	K
Saturated Thickness	40	feet	b
Gradient	8.00E-03	dimensionless	i
Layer Width	10	feet	W
Groundwater Flow Through Control Volume	Shown below	cubic feet/year	Qh
Contaminant Mass From Soil Column (Pore Water)	Varies*	grams	Mw

* Output from VLEACH simulation, shown in simulation results below.

Output	Value	Units	Abbreviation
Aquifer Concentration	Shown in simulation results below	grams/cubic foot and micrograms/liter	Caq

Equations

Qh = K * b * i * W	33,120	cubic feet/year
Caq = Mw / [(Qv*A) + Qh]	Shown in simulation results below	

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Caq (μg/l)
1	2.87E-17	0.0000	0.0000
2	1.64E-12	0.0000	0.0000
3	3.28E-12	0.0000	0.0000
4	4.92E-12	0.0000	0.0000
5	6.57E-12	0.0000	0.0000
6	8.22E-12	0.0000	0.0000
7	9.88E-12	0.0000	0.0000
8	1.15E-11	0.0000	0.0000
9	1.32E-11	0.0000	0.0000
10	1.49E-11	0.0000	0.0000
11	1.65E-11	0.0000	0.0000
12	1.82E-11	0.0000	0.0000
13	1.99E-11	0.0000	0.0000

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Caq (μg/l)
14	2.16E-11	0.0000	0.0000
15	2.33E-11	0.0000	0.0000
16	2.49E-11	0.0000	0.0000
17	2.66E-11	0.0000	0.0000
18	2.83E-11	0.0000	0.0000
19	3.00E-11	0.0000	0.0000
20	3.17E-11	0.0000	0.0000
21	3.35E-11	0.0000	0.0000
22	3.52E-11	0.0000	0.0000
23	3.69E-11	0.0000	0.0000
24	3.86E-11	0.0000	0.0000
25	4.03E-11	0.0000	0.0000
26	4.21E-11	0.0000	0.0000
27	4.38E-11	0.0000	0.0000
28	4.55E-11	0.0000	0.0000
29	4.73E-11	0.0000	0.0000
30	4.90E-11	0.0000	0.0000
31	5.08E-11	0.0000	0.0000
32	5.25E-11	0.0000	0.0000
33	5.43E-11	0.0000	0.0000
34	5.60E-11	0.0000	0.0000
35	5.78E-11	0.0000	0.0000
36	5.96E-11	0.0000	0.0000
37	6.13E-11	0.0000	0.0000
38	6.31E-11	0.0000	0.0000
39	6.49E-11	0.0000	0.0000
40	6.67E-11	0.0000	0.0000
41	6.84E-11	0.0000	0.0000
42	7.02E-11	0.0000	0.0000
43	7.20E-11	0.0000	0.0000
44	7.38E-11	0.0000	0.0000
45	7.56E-11	0.0000	0.0000
46	7.74E-11	0.0000	0.0000
47	7.92E-11	0.0000	0.0000
48	8.11E-11	0.0000	0.0000
49	8.29E-11	0.0000	0.0000
50	8.47E-11	0.0000	0.0000
51	8.65E-11	0.0000	0.0000
52	8.84E-11	0.0000	0.0000
53	9.02E-11	0.0000	0.0000
54	9.20E-11	0.0000	0.0000
55	9.39E-11	0.0000	0.0000
56	9.57E-11	0.0000	0.0000
57	9.76E-11	0.0000	0.0000
58	9.94E-11	0.0000	0.0000
59	1.01E-10	0.0000	0.0000
60	1.03E-10	0.0000	0.0000

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Caq (μg/l)
61	1.05E-10	0.0000	0.0000
62	1.07E-10	0.0000	0.0000
63	1.09E-10	0.0000	0.0000
64	1.11E-10	0.0000	0.0000
65	1.13E-10	0.0000	0.0000
66	1.14E-10	0.0000	0.0000
67	1.16E-10	0.0000	0.0000
68	1.18E-10	0.0000	0.0000
69	1.20E-10	0.0000	0.0000
70	1.22E-10	0.0000	0.0000
71	1.24E-10	0.0000	0.0000
72	1.26E-10	0.0000	0.0000
73	1.28E-10	0.0000	0.0000
74	1.30E-10	0.0000	0.0000
75	1.32E-10	0.0000	0.0000
76	1.33E-10	0.0000	0.0000
77	1.35E-10	0.0000	0.0000
78	1.37E-10	0.0000	0.0000
79	1.39E-10	0.0000	0.0000
80	1.41E-10	0.0000	0.0000
81	1.43E-10	0.0000	0.0000
82	1.45E-10	0.0000	0.0000
83	1.47E-10	0.0000	0.0000
84	1.49E-10	0.0000	0.0000
85	1.51E-10	0.0000	0.0000
86	1.53E-10	0.0000	0.0000
87	1.55E-10	0.0000	0.0000
88	1.57E-10	0.0000	0.0000
89	1.59E-10	0.0000	0.0000
90	1.61E-10	0.0000	0.0000
91	1.63E-10	0.0000	0.0000
92	1.65E-10	0.0000	0.0000
93	1.67E-10	0.0000	0.0000
94	1.69E-10	0.0000	0.0000
95	1.71E-10	0.0000	0.0000
96	1.73E-10	0.0000	0.0000
97	1.75E-10	0.0000	0.0000
98	1.77E-10	0.0000	0.0000
99	1.79E-10	0.0000	0.0000
100	1.81E-10	0.0000	0.0000

Simulation, Ethylbenzene as Contaminant
Aquifer Concentration Calculations Based on VLEACH Simulations
Walker Property

Input Parameters	Value	Units	Abbreviation
Infiltration Rate	0.167	feet/year	Qv
Soil Area	100	square feet	A
Hydraulic Conductivity	10,350	feet/year	K
Saturated Thickness	40	feet	b
Gradient	8.00E-03	dimensionless	i
Layer Width	10	feet	W
Groundwater Flow Through Control Volume	Shown below	cubic feet/year	Qh
Contaminant Mass From Soil Column (Pore Water)	Varies*	grams	Mw

* Output from VLEACH simulation, shown in simulation results below.

Output	Value	Units	Abbreviation
Aquifer Concentration	Shown in simulation results below	grams/cubic foot and micrograms/liter	Caq

Equations

$Qh = K * b * i * W$	33,120	cubic feet/year
$Caq = Mw / [(Qv*A) + Qh]$	Shown in simulation results below	

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Caq (μg/l)
1	5.81E-12	0.0000	0.0000
2	2.16E-05	0.0000	0.0000
3	4.37E-05	0.0000	0.0000
4	6.62E-05	0.0000	0.0001
5	8.91E-05	0.0000	0.0001
6	1.12E-04	0.0000	0.0001
7	1.36E-04	0.0000	0.0001
8	1.60E-04	0.0000	0.0002
9	1.85E-04	0.0000	0.0002
10	2.09E-04	0.0000	0.0002
11	2.35E-04	0.0000	0.0003
12	2.60E-04	0.0000	0.0003
13	2.86E-04	0.0000	0.0003

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Aquifer Concentration Caq (μg/l)
14	3.13E-04	0.0000	0.0003
15	3.39E-04	0.0000	0.0004
16	3.66E-04	0.0000	0.0004
17	3.94E-04	0.0000	0.0004
18	4.21E-04	0.0000	0.0004
19	4.49E-04	0.0000	0.0005
20	4.78E-04	0.0000	0.0005
21	5.07E-04	0.0000	0.0005
22	5.36E-04	0.0000	0.0006
23	5.65E-04	0.0000	0.0006
24	5.95E-04	0.0000	0.0006
25	6.25E-04	0.0000	0.0007
26	6.55E-04	0.0000	0.0007
27	6.86E-04	0.0000	0.0007
28	7.17E-04	0.0000	0.0008
29	7.48E-04	0.0000	0.0008
30	7.79E-04	0.0000	0.0008
31	8.11E-04	0.0000	0.0009
32	8.43E-04	0.0000	0.0009
33	8.75E-04	0.0000	0.0009
34	9.08E-04	0.0000	0.0010
35	9.41E-04	0.0000	0.0010
36	9.74E-04	0.0000	0.0010
37	1.01E-03	0.0000	0.0011
38	1.04E-03	0.0000	0.0011
39	1.07E-03	0.0000	0.0011
40	1.11E-03	0.0000	0.0012
41	1.14E-03	0.0000	0.0012
42	1.18E-03	0.0000	0.0013
43	1.21E-03	0.0000	0.0013
44	1.25E-03	0.0000	0.0013
45	1.28E-03	0.0000	0.0014
46	1.32E-03	0.0000	0.0014
47	1.35E-03	0.0000	0.0014
48	1.39E-03	0.0000	0.0015
49	1.43E-03	0.0000	0.0015
50	1.46E-03	0.0000	0.0016
51	1.50E-03	0.0000	0.0016
52	1.53E-03	0.0000	0.0016
53	1.57E-03	0.0000	0.0017
54	1.61E-03	0.0000	0.0017
55	1.65E-03	0.0000	0.0018
56	1.68E-03	0.0000	0.0018
57	1.72E-03	0.0000	0.0018
58	1.76E-03	0.0000	0.0019
59	1.80E-03	0.0000	0.0019
60	1.83E-03	0.0000	0.0020

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Aquifer Concentration Caq (μg/l)
61	1.87E-03	0.0000	0.0020
62	1.91E-03	0.0000	0.0020
63	1.95E-03	0.0000	0.0021
64	1.99E-03	0.0000	0.0021
65	2.02E-03	0.0000	0.0022
66	2.06E-03	0.0000	0.0022
67	2.10E-03	0.0000	0.0022
68	2.14E-03	0.0000	0.0023
69	2.18E-03	0.0000	0.0023
70	2.22E-03	0.0000	0.0024
71	2.26E-03	0.0000	0.0024
72	2.30E-03	0.0000	0.0024
73	2.34E-03	0.0000	0.0025
74	2.38E-03	0.0000	0.0025
75	2.42E-03	0.0000	0.0026
76	2.46E-03	0.0000	0.0026
77	2.49E-03	0.0000	0.0027
78	2.53E-03	0.0000	0.0027
79	2.57E-03	0.0000	0.0027
80	2.61E-03	0.0000	0.0028
81	2.65E-03	0.0000	0.0028
82	2.69E-03	0.0000	0.0029
83	2.73E-03	0.0000	0.0029
84	2.77E-03	0.0000	0.0030
85	2.82E-03	0.0000	0.0030
86	2.86E-03	0.0000	0.0030
87	2.90E-03	0.0000	0.0031
88	2.94E-03	0.0000	0.0031
89	2.98E-03	0.0000	0.0032
90	3.02E-03	0.0000	0.0032
91	3.06E-03	0.0000	0.0033
92	3.10E-03	0.0000	0.0033
93	3.14E-03	0.0000	0.0033
94	3.18E-03	0.0000	0.0034
95	3.22E-03	0.0000	0.0034
96	3.26E-03	0.0000	0.0035
97	3.30E-03	0.0000	0.0035
98	3.34E-03	0.0000	0.0036
99	3.38E-03	0.0000	0.0036
100	3.42E-03	0.0000	0.0036

Simulation, Fluorene as Contaminant
Aquifer Concentration Calculations Based on VLEACH Simulations
Walker Property

Input Parameters	Value	Units	Abbreviation
Infiltration Rate	0.167	feet/year	Qv
Soil Area	100	square feet	A
Hydraulic Conductivity	10,350	feet/year	K
Saturated Thickness	40	feet	b
Gradient	8.00E-03	dimensionless	i
Layer Width	10	feet	W
Groundwater Flow Through Control Volume	Shown below	cubic feet/year	Qh
Contaminant Mass From Soil Column (Pore Water)	Varies*	grams	Mw

* Output from VLEACH simulation, shown in simulation results below.

Output	Value	Units	Abbreviation
Aquifer Concentration	Shown in simulation results below	grams/cubic foot and micrograms/liter	Caq

Equations

Qh = K * b * i * W	33,120	cubic feet/year
Caq = Mw / [(Qv*A) + Qh]	Shown in simulation results below	

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Aquifer Concentration Caq (μg/l)
1	5.83E-16	0.0000	0.0000
2	1.35E-09	0.0000	0.0000
3	2.71E-09	0.0000	0.0000
4	4.07E-09	0.0000	0.0000
5	5.43E-09	0.0000	0.0000
6	6.79E-09	0.0000	0.0000
7	8.15E-09	0.0000	0.0000
8	9.52E-09	0.0000	0.0000
9	1.09E-08	0.0000	0.0000
10	1.23E-08	0.0000	0.0000
11	1.36E-08	0.0000	0.0000
12	1.50E-08	0.0000	0.0000
13	1.64E-08	0.0000	0.0000

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Caq (μg/l)
14	1.78E-08	0.0000	0.0000
15	1.91E-08	0.0000	0.0000
16	2.05E-08	0.0000	0.0000
17	2.19E-08	0.0000	0.0000
18	2.33E-08	0.0000	0.0000
19	2.47E-08	0.0000	0.0000
20	2.61E-08	0.0000	0.0000
21	2.74E-08	0.0000	0.0000
22	2.88E-08	0.0000	0.0000
23	3.02E-08	0.0000	0.0000
24	3.16E-08	0.0000	0.0000
25	3.30E-08	0.0000	0.0000
26	3.44E-08	0.0000	0.0000
27	3.58E-08	0.0000	0.0000
28	3.72E-08	0.0000	0.0000
29	3.86E-08	0.0000	0.0000
30	4.01E-08	0.0000	0.0000
31	4.15E-08	0.0000	0.0000
32	4.29E-08	0.0000	0.0000
33	4.43E-08	0.0000	0.0000
34	4.57E-08	0.0000	0.0000
35	4.71E-08	0.0000	0.0000
36	4.85E-08	0.0000	0.0000
37	5.00E-08	0.0000	0.0000
38	5.14E-08	0.0000	0.0000
39	5.28E-08	0.0000	0.0000
40	5.42E-08	0.0000	0.0000
41	5.57E-08	0.0000	0.0000
42	5.71E-08	0.0000	0.0000
43	5.85E-08	0.0000	0.0000
44	6.00E-08	0.0000	0.0000
45	6.14E-08	0.0000	0.0000
46	6.29E-08	0.0000	0.0000
47	6.43E-08	0.0000	0.0000
48	6.57E-08	0.0000	0.0000
49	6.72E-08	0.0000	0.0000
50	6.86E-08	0.0000	0.0000
51	7.01E-08	0.0000	0.0000
52	7.15E-08	0.0000	0.0000
53	7.30E-08	0.0000	0.0000
54	7.44E-08	0.0000	0.0000
55	7.59E-08	0.0000	0.0000
56	7.74E-08	0.0000	0.0000
57	7.88E-08	0.0000	0.0000
58	8.03E-08	0.0000	0.0000
59	8.18E-08	0.0000	0.0000
60	8.32E-08	0.0000	0.0000

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Caq (μg/l)
61	8.47E-08	0.0000	0.0000
62	8.62E-08	0.0000	0.0000
63	8.76E-08	0.0000	0.0000
64	8.91E-08	0.0000	0.0000
65	9.06E-08	0.0000	0.0000
66	9.21E-08	0.0000	0.0000
67	9.36E-08	0.0000	0.0000
68	9.50E-08	0.0000	0.0000
69	9.65E-08	0.0000	0.0000
70	9.80E-08	0.0000	0.0000
71	9.95E-08	0.0000	0.0000
72	1.01E-07	0.0000	0.0000
73	1.02E-07	0.0000	0.0000
74	1.04E-07	0.0000	0.0000
75	1.05E-07	0.0000	0.0000
76	1.07E-07	0.0000	0.0000
77	1.08E-07	0.0000	0.0000
78	1.10E-07	0.0000	0.0000
79	1.11E-07	0.0000	0.0000
80	1.13E-07	0.0000	0.0000
81	1.15E-07	0.0000	0.0000
82	1.16E-07	0.0000	0.0000
83	1.18E-07	0.0000	0.0000
84	1.19E-07	0.0000	0.0000
85	1.21E-07	0.0000	0.0000
86	1.22E-07	0.0000	0.0000
87	1.24E-07	0.0000	0.0000
88	1.25E-07	0.0000	0.0000
89	1.27E-07	0.0000	0.0000
90	1.28E-07	0.0000	0.0000
91	1.30E-07	0.0000	0.0000
92	1.31E-07	0.0000	0.0000
93	1.33E-07	0.0000	0.0000
94	1.34E-07	0.0000	0.0000
95	1.36E-07	0.0000	0.0000
96	1.37E-07	0.0000	0.0000
97	1.39E-07	0.0000	0.0000
98	1.40E-07	0.0000	0.0000
99	1.42E-07	0.0000	0.0000
100	1.44E-07	0.0000	0.0000

Simulation, Fluoranthene as Contaminant
Aquifer Concentration Calculations Based on VLEACH Simulations
Walker Property

Input Parameters	Value	Units	Abbreviation
Infiltration Rate	0.167	feet/year	Qv
Soil Area	100	square feet	A
Hydraulic Conductivity	10,350	feet/year	K
Saturated Thickness	40	feet	b
Gradient	8.00E-03	dimensionless	i
Layer Width	10	feet	W
Groundwater Flow Through Control Volume	Shown below	cubic feet/year	Qh
Contaminant Mass From Soil Column (Pore Water)	Varies*	grams	Mw

* Output from VLEACH simulation, shown in simulation results below.

Output	Value	Units	Abbreviation
Aquifer Concentration	Shown in simulation results below	grams/cubic foot and micrograms/liter	Caq

Equations

Qh = K * b * i * W	33,120	cubic feet/year
Caq = Mw / [(Qv*A) + Qh]	Shown in simulation results below	

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Aquifer Concentration Caq (μg/l)
1	1.23E-17	0.0000	0.0000
2	1.09E-09	0.0000	0.0000
3	2.18E-09	0.0000	0.0000
4	3.27E-09	0.0000	0.0000
5	4.36E-09	0.0000	0.0000
6	5.46E-09	0.0000	0.0000
7	6.55E-09	0.0000	0.0000
8	7.65E-09	0.0000	0.0000
9	8.75E-09	0.0000	0.0000
10	9.86E-09	0.0000	0.0000
11	1.10E-08	0.0000	0.0000
12	1.21E-08	0.0000	0.0000
13	1.32E-08	0.0000	0.0000

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Caq (μg/l)
14	1.43E-08	0.0000	0.0000
15	1.54E-08	0.0000	0.0000
16	1.65E-08	0.0000	0.0000
17	1.76E-08	0.0000	0.0000
18	1.88E-08	0.0000	0.0000
19	1.99E-08	0.0000	0.0000
20	2.10E-08	0.0000	0.0000
21	2.21E-08	0.0000	0.0000
22	2.33E-08	0.0000	0.0000
23	2.44E-08	0.0000	0.0000
24	2.55E-08	0.0000	0.0000
25	2.67E-08	0.0000	0.0000
26	2.78E-08	0.0000	0.0000
27	2.89E-08	0.0000	0.0000
28	3.01E-08	0.0000	0.0000
29	3.12E-08	0.0000	0.0000
30	3.24E-08	0.0000	0.0000
31	3.35E-08	0.0000	0.0000
32	3.46E-08	0.0000	0.0000
33	3.58E-08	0.0000	0.0000
34	3.69E-08	0.0000	0.0000
35	3.81E-08	0.0000	0.0000
36	3.93E-08	0.0000	0.0000
37	4.04E-08	0.0000	0.0000
38	4.16E-08	0.0000	0.0000
39	4.27E-08	0.0000	0.0000
40	4.39E-08	0.0000	0.0000
41	4.51E-08	0.0000	0.0000
42	4.62E-08	0.0000	0.0000
43	4.74E-08	0.0000	0.0000
44	4.86E-08	0.0000	0.0000
45	4.98E-08	0.0000	0.0000
46	5.09E-08	0.0000	0.0000
47	5.21E-08	0.0000	0.0000
48	5.33E-08	0.0000	0.0000
49	5.45E-08	0.0000	0.0000
50	5.57E-08	0.0000	0.0000
51	5.68E-08	0.0000	0.0000
52	5.80E-08	0.0000	0.0000
53	5.92E-08	0.0000	0.0000
54	6.04E-08	0.0000	0.0000
55	6.16E-08	0.0000	0.0000
56	6.28E-08	0.0000	0.0000
57	6.40E-08	0.0000	0.0000
58	6.52E-08	0.0000	0.0000
59	6.64E-08	0.0000	0.0000
60	6.76E-08	0.0000	0.0000

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Caq (μg/l)
61	6.88E-08	0.0000	0.0000
62	7.00E-08	0.0000	0.0000
63	7.12E-08	0.0000	0.0000
64	7.25E-08	0.0000	0.0000
65	7.37E-08	0.0000	0.0000
66	7.49E-08	0.0000	0.0000
67	7.61E-08	0.0000	0.0000
68	7.73E-08	0.0000	0.0000
69	7.86E-08	0.0000	0.0000
70	7.98E-08	0.0000	0.0000
71	8.10E-08	0.0000	0.0000
72	8.22E-08	0.0000	0.0000
73	8.35E-08	0.0000	0.0000
74	8.47E-08	0.0000	0.0000
75	8.59E-08	0.0000	0.0000
76	8.72E-08	0.0000	0.0000
77	8.84E-08	0.0000	0.0000
78	8.97E-08	0.0000	0.0000
79	9.09E-08	0.0000	0.0000
80	9.21E-08	0.0000	0.0000
81	9.34E-08	0.0000	0.0000
82	9.46E-08	0.0000	0.0000
83	9.59E-08	0.0000	0.0000
84	9.71E-08	0.0000	0.0000
85	9.84E-08	0.0000	0.0000
86	9.97E-08	0.0000	0.0000
87	1.01E-07	0.0000	0.0000
88	1.02E-07	0.0000	0.0000
89	1.03E-07	0.0000	0.0000
90	1.05E-07	0.0000	0.0000
91	1.06E-07	0.0000	0.0000
92	1.07E-07	0.0000	0.0000
93	1.09E-07	0.0000	0.0000
94	1.10E-07	0.0000	0.0000
95	1.11E-07	0.0000	0.0000
96	1.12E-07	0.0000	0.0000
97	1.14E-07	0.0000	0.0000
98	1.15E-07	0.0000	0.0000
99	1.16E-07	0.0000	0.0000
100	1.17E-07	0.0000	0.0000

Simulation, Methylene Chloride as Contaminant
Aquifer Concentration Calculations Based on VLEACH Simulations
Walker Property

Input Parameters	Value	Units	Abbreviation
Infiltration Rate	0.167	feet/year	Qv
Soil Area	100	square feet	A
Hydraulic Conductivity	10,350	feet/year	K
Saturated Thickness	40	feet	b
Gradient	8.00E-03	dimensionless	i
Layer Width	10	feet	W
Groundwater Flow Through Control Volume	Shown below	cubic feet/year	Qh
Contaminant Mass From Soil Column (Pore Water)	Varies*	grams	Mw

* Output from VLEACH simulation, shown in simulation results below.

Output	Value	Units	Abbreviation
Aquifer Concentration	Shown in simulation results below	grams/cubic foot and micrograms/liter	Caq

Equations

Qh = K * b * i * W	33,120	cubic feet/year
Caq = Mw / [(Qv*A) + Qh]	Shown in simulation results below	

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Aquifer Concentration Caq (μg/l)
1	2.38E-15	0.0000	0.0000
2	1.15E-04	0.0000	0.0001
3	2.73E-04	0.0000	0.0003
4	4.73E-04	0.0000	0.0005
5	7.16E-04	0.0000	0.0008
6	9.98E-04	0.0000	0.0011
7	1.32E-03	0.0000	0.0014
8	1.68E-03	0.0000	0.0018
9	2.07E-03	0.0000	0.0022
10	2.49E-03	0.0000	0.0027
11	2.95E-03	0.0000	0.0031
12	3.42E-03	0.0000	0.0036
13	3.92E-03	0.0000	0.0042

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Aquifer Concentration Caq (μg/l)
14	4.43E-03	0.0000	0.0047
15	4.95E-03	0.0000	0.0053
16	5.48E-03	0.0000	0.0058
17	6.02E-03	0.0000	0.0064
18	6.55E-03	0.0000	0.0070
19	7.08E-03	0.0000	0.0075
20	7.59E-03	0.0000	0.0081
21	8.10E-03	0.0000	0.0086
22	8.58E-03	0.0000	0.0091
23	9.05E-03	0.0000	0.0096
24	9.50E-03	0.0000	0.0101
25	9.91E-03	0.0000	0.0106
26	1.03E-02	0.0000	0.0110
27	1.07E-02	0.0000	0.0114
28	1.10E-02	0.0000	0.0117
29	1.13E-02	0.0000	0.0120
30	1.16E-02	0.0000	0.0123
31	1.18E-02	0.0000	0.0126
32	1.20E-02	0.0000	0.0128
33	1.21E-02	0.0000	0.0129
34	1.23E-02	0.0000	0.0131
35	1.24E-02	0.0000	0.0132
36	1.24E-02	0.0000	0.0132
37	1.25E-02	0.0000	0.0133
38	1.25E-02	0.0000	0.0133
39	1.24E-02	0.0000	0.0133
40	1.24E-02	0.0000	0.0132
41	1.23E-02	0.0000	0.0131
42	1.22E-02	0.0000	0.0130
43	1.21E-02	0.0000	0.0129
44	1.20E-02	0.0000	0.0127
45	1.18E-02	0.0000	0.0126
46	1.16E-02	0.0000	0.0124
47	1.15E-02	0.0000	0.0122
48	1.13E-02	0.0000	0.0120
49	1.11E-02	0.0000	0.0118
50	1.08E-02	0.0000	0.0116
51	1.06E-02	0.0000	0.0113
52	1.04E-02	0.0000	0.0111
53	1.02E-02	0.0000	0.0108
54	9.93E-03	0.0000	0.0106
55	9.69E-03	0.0000	0.0103
56	9.45E-03	0.0000	0.0101
57	9.21E-03	0.0000	0.0098
58	8.97E-03	0.0000	0.0096
59	8.74E-03	0.0000	0.0093
60	8.50E-03	0.0000	0.0091

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Aquifer Concentration Caq (μg/l)
61	8.27E-03	0.0000	0.0088
62	8.04E-03	0.0000	0.0086
63	7.81E-03	0.0000	0.0083
64	7.59E-03	0.0000	0.0081
65	7.37E-03	0.0000	0.0078
66	7.15E-03	0.0000	0.0076
67	6.94E-03	0.0000	0.0074
68	6.73E-03	0.0000	0.0072
69	6.53E-03	0.0000	0.0070
70	6.33E-03	0.0000	0.0067
71	6.14E-03	0.0000	0.0065
72	5.95E-03	0.0000	0.0063
73	5.77E-03	0.0000	0.0061
74	5.59E-03	0.0000	0.0060
75	5.41E-03	0.0000	0.0058
76	5.25E-03	0.0000	0.0056
77	5.08E-03	0.0000	0.0054
78	4.92E-03	0.0000	0.0052
79	4.77E-03	0.0000	0.0051
80	4.62E-03	0.0000	0.0049
81	4.47E-03	0.0000	0.0048
82	4.33E-03	0.0000	0.0046
83	4.19E-03	0.0000	0.0045
84	4.06E-03	0.0000	0.0043
85	3.93E-03	0.0000	0.0042
86	3.80E-03	0.0000	0.0041
87	3.68E-03	0.0000	0.0039
88	3.56E-03	0.0000	0.0038
89	3.45E-03	0.0000	0.0037
90	3.34E-03	0.0000	0.0036
91	3.23E-03	0.0000	0.0034
92	3.13E-03	0.0000	0.0033
93	3.03E-03	0.0000	0.0032
94	2.93E-03	0.0000	0.0031
95	2.84E-03	0.0000	0.0030
96	2.74E-03	0.0000	0.0029
97	2.66E-03	0.0000	0.0028
98	2.57E-03	0.0000	0.0027
99	2.49E-03	0.0000	0.0027
100	2.41E-03	0.0000	0.0026

ADSPREAD: A LEAD RISK ASSESSMENT SPREADSHEI

INPUT

MEDIUM	LEVEI
LEAD IN AIR (ug/m^3)	0.1
LEAD IN SOIL (ug/g)	450
LEAD IN WATER (ug/l)	. 4
SITE-GROWN PRODUCE? (1 = Yes; 0 = No)	0

OUTPUT

	50th percentile	95th le percentile	99th le percentile
BLOOD Pb, ADULT (ug/dl)	1.55	2.76	3.5
BLOOD Pb, CHILD (ug/dl)	4.34	7.7	9.8
BLOOD Pb, PICA CHILD (ug/dl)	27.5	48.8	62.2

EQUATIONS, ADULTS

Pathway	Blood Pb ug/dl	Route-specific constant	concentration in medium	contact rate	percent of total
SOIL CONTACT:	0.09 = 0	1E-04 (ug/dl)/(ug/day) *	450 ug/g *	1.85 g soil/day (5 g/m^2 * 0.37 m^2)	6%
SOIL INGESTION:	0.20 =	0.018 (ug/dl)/(ug/day) *	450 ug/g *	0.03 g soil/day	13%
INHALATION:	0.16 =	1.64 (ug/dl)/(ug/m^3) *	0.10 ug/m^3		11%
WATER INGESTION:	0.22 =	0.04 (ug/dl)/(ug/day) *	4 ug/l *	1.4 l water/day	14%
FOOD INGESTION:	0.88 =	0.04 (ug/dl)/(ug/day) *	10.0 ug Pb/kg diet *	2.2 kg diet/day	57%

EQUATIONS, CHILDREN (TYPICAL)

Pathway	Blood Pb ug/dl	Route-specific constant	concentration in medium	contact rate	percent of total
SOIL CONTACT:	0.07 = 0	1E-04 (ug/dl)/(ug/day) *	450 ug/g *	1.4 g soil/day (5 g/m^2 * 0.28 m^2)	2%
SOIL INGESTION:	1.74 =	0.07 (ug/dl)/(ug/day) *	450 ug/g *	0.06 g soil/day	40%
INHALATION:	0.19 =	1.92 (ug/dl)/(ug/m^3) *	0.10 ug/m^3		4%
WATER INGESTION:	0.26 =	0.16 (ug/dl)/(ug/day) *	4 ug/l *	0.4 l water/day	6%
FOOD INGESTION:	2.08 =	0.16 (ug/dl)/(ug/day) *	10.0 ug Pb/kg diet *	1.3 kg diet/day	48%

EQUATIONS, CHILDREN (PICA)

Pathway	Blood Pb ug/dl	Route-specific constant	concentration in medium	contact rate	percent of total
SOIL CONTACT:	0.07 = 0	1E-04 (ug/dl)/(ug/day) *	450 ug/g *	1.4 g soil/day (5 g/m^2 * 0.25 m^2)	0%
SOIL INGESTION:	24.89 =	0.07 (ug/dl)/(ug/day) *	450 ug/g *	0.79 g soil/day	91%
INHALATION:	0.19 =	1.92 (ug/dl)/(ug/m^3) *	0.10 ug/m^3		1%
WATER INGESTION:	0.26 =	0.16 (ug/dl)/(ug/day) *	4 ug/l *	0.4 l water/day	1%
FOOD INGESTION:	2.08 =	0.16 (ug/dl)/(ug/day) *	10.0 ug Pb/kg diet *	1.3 kg diet/day	8%

EQUATIONS, DIETARY LEAD

TOTAL DIETARY LEAD = 0 .945 * 10 + 0.055 * Pb in produce (ug/kg) = 10.0 ug/kg

LEAD IN PRODUCE = 10 ug/kg or 0.00045 * soil lead d = 10.0 ug/kg

Simulation, 2-methylnaphthalene as Contaminant
Aquifer Concentration Calculations Based on VLEACH Simulations
Walker Property

Input Parameters	Value	Units	Abbreviation
Infiltration Rate	0.167	feet/year	Qv
Soil Area	100	square feet	A
Hydraulic Conductivity	10,350	feet/year	K
Saturated Thickness	40	feet	b
Gradient	8.00E-03	dimensionless	i
Layer Width	10	feet	W
Groundwater Flow Through Control Volume	Shown below	cubic feet/year	Qh
Contaminant Mass From Soil Column (Pore Water)	Varies*	grams	Mw

* Output from VLEACH simulation, shown in simulation results below.

Output	Value	Units	Abbreviation
Aquifer Concentration	Shown in simulation results below	grams/cubic foot and micrograms/liter	Caq

Equations

$Qh = K * b * i * W$	33,120	cubic feet/year
$Caq = Mw / [(Qv*A) + Qh]$	Shown in simulation results below	

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Aquifer Concentration Caq (μg/l)
1	1.90E-15	0.0000	0.0000
2	4.75E-09	0.0000	0.0000
3	9.50E-09	0.0000	0.0000
4	1.43E-08	0.0000	0.0000
5	1.90E-08	0.0000	0.0000
6	2.38E-08	0.0000	0.0000
7	2.86E-08	0.0000	0.0000
8	3.33E-08	0.0000	0.0000
9	3.81E-08	0.0000	0.0000
10	4.29E-08	0.0000	0.0000
11	4.77E-08	0.0000	0.0000
12	5.25E-08	0.0000	0.0000
13	5.73E-08	0.0000	0.0000

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Aquifer Concentration Caq (μg/l)
14	6.21E-08	0.0000	0.0000
15	6.70E-08	0.0000	0.0000
16	7.18E-08	0.0000	0.0000
17	7.66E-08	0.0000	0.0000
18	8.15E-08	0.0000	0.0000
19	8.63E-08	0.0000	0.0000
20	9.11E-08	0.0000	0.0000
21	9.60E-08	0.0000	0.0000
22	1.01E-07	0.0000	0.0000
23	1.06E-07	0.0000	0.0000
24	1.11E-07	0.0000	0.0000
25	1.15E-07	0.0000	0.0000
26	1.20E-07	0.0000	0.0000
27	1.25E-07	0.0000	0.0000
28	1.30E-07	0.0000	0.0000
29	1.35E-07	0.0000	0.0000
30	1.40E-07	0.0000	0.0000
31	1.45E-07	0.0000	0.0000
32	1.50E-07	0.0000	0.0000
33	1.55E-07	0.0000	0.0000
34	1.60E-07	0.0000	0.0000
35	1.65E-07	0.0000	0.0000
36	1.70E-07	0.0000	0.0000
37	1.74E-07	0.0000	0.0000
38	1.79E-07	0.0000	0.0000
39	1.84E-07	0.0000	0.0000
40	1.89E-07	0.0000	0.0000
41	1.94E-07	0.0000	0.0000
42	1.99E-07	0.0000	0.0000
43	2.04E-07	0.0000	0.0000
44	2.09E-07	0.0000	0.0000
45	2.14E-07	0.0000	0.0000
46	2.19E-07	0.0000	0.0000
47	2.24E-07	0.0000	0.0000
48	2.29E-07	0.0000	0.0000
49	2.34E-07	0.0000	0.0000
50	2.39E-07	0.0000	0.0000
51	2.44E-07	0.0000	0.0000
52	2.49E-07	0.0000	0.0000
53	2.54E-07	0.0000	0.0000
54	2.59E-07	0.0000	0.0000
55	2.64E-07	0.0000	0.0000
56	2.70E-07	0.0000	0.0000
57	2.75E-07	0.0000	0.0000
58	2.80E-07	0.0000	0.0000
59	2.85E-07	0.0000	0.0000
60	2.90E-07	0.0000	0.0000

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Aquifer Concentration Caq (μg/l)
61	2.95E-07	0.0000	0.0000
62	3.00E-07	0.0000	0.0000
63	3.05E-07	0.0000	0.0000
64	3.10E-07	0.0000	0.0000
65	3.15E-07	0.0000	0.0000
66	3.20E-07	0.0000	0.0000
67	3.26E-07	0.0000	0.0000
68	3.31E-07	0.0000	0.0000
69	3.36E-07	0.0000	0.0000
70	3.41E-07	0.0000	0.0000
71	3.46E-07	0.0000	0.0000
72	3.51E-07	0.0000	0.0000
73	3.56E-07	0.0000	0.0000
74	3.62E-07	0.0000	0.0000
75	3.67E-07	0.0000	0.0000
76	3.72E-07	0.0000	0.0000
77	3.77E-07	0.0000	0.0000
78	3.82E-07	0.0000	0.0000
79	3.87E-07	0.0000	0.0000
80	3.93E-07	0.0000	0.0000
81	3.98E-07	0.0000	0.0000
82	4.03E-07	0.0000	0.0000
83	4.08E-07	0.0000	0.0000
84	4.13E-07	0.0000	0.0000
85	4.19E-07	0.0000	0.0000
86	4.24E-07	0.0000	0.0000
87	4.29E-07	0.0000	0.0000
88	4.34E-07	0.0000	0.0000
89	4.40E-07	0.0000	0.0000
90	4.45E-07	0.0000	0.0000
91	4.50E-07	0.0000	0.0000
92	4.55E-07	0.0000	0.0000
93	4.61E-07	0.0000	0.0000
94	4.66E-07	0.0000	0.0000
95	4.71E-07	0.0000	0.0000
96	4.77E-07	0.0000	0.0000
97	4.82E-07	0.0000	0.0000
98	4.87E-07	0.0000	0.0000
99	4.92E-07	0.0000	0.0000
100	4.98E-07	0.0000	0.0000

Simulation, PCE as Contaminant
Aquifer Concentration Calculations Based on VLEACH Simulations
Walker Property

Input Parameters	Value	Units	Abbreviation
Infiltration Rate	0.167	feet/year	Qv
Soil Area	100	square feet	A
Hydraulic Conductivity	10,350	feet/year	K
Saturated Thickness	40	feet	b
Gradient	8.00E-03	dimensionless	i
Layer Width	10	feet	W
Groundwater Flow Through Control Volume	Shown below	cubic feet/year	Qh
Contaminant Mass From Soil Column (Pore Water)	Varies*	grams	Mw

* Output from VLEACH simulation, shown in simulation results below.

Output	Value	Units	Abbreviation
Aquifer Concentration	Shown in simulation results below	grams/cubic foot and micrograms/liter	Caq

Equations

Qh = K * b * i * W	33,120	cubic feet/year
Caq = Mw / [(Qv*A) + Qh]	Shown in simulation results below	

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Aquifer Concentration Caq (μg/l)
1	9.91E-17	0.0000	0.0000
2	2.91E-06	0.0000	0.0000
3	6.51E-06	0.0000	0.0000
4	1.07E-05	0.0000	0.0000
5	1.55E-05	0.0000	0.0000
6	2.07E-05	0.0000	0.0000
7	2.63E-05	0.0000	0.0000
8	3.23E-05	0.0000	0.0000
9	3.85E-05	0.0000	0.0000
10	4.50E-05	0.0000	0.0000
11	5.15E-05	0.0000	0.0001
12	5.82E-05	0.0000	0.0001
13	6.49E-05	0.0000	0.0001

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Aquifer Concentration Caq (μg/l)
14	7.16E-05	0.0000	0.0001
15	7.82E-05	0.0000	0.0001
16	8.48E-05	0.0000	0.0001
17	9.12E-05	0.0000	0.0001
18	9.75E-05	0.0000	0.0001
19	1.04E-04	0.0000	0.0001
20	1.09E-04	0.0000	0.0001
21	1.15E-04	0.0000	0.0001
22	1.21E-04	0.0000	0.0001
23	1.26E-04	0.0000	0.0001
24	1.31E-04	0.0000	0.0001
25	1.35E-04	0.0000	0.0001
26	1.40E-04	0.0000	0.0001
27	1.44E-04	0.0000	0.0002
28	1.48E-04	0.0000	0.0002
29	1.51E-04	0.0000	0.0002
30	1.55E-04	0.0000	0.0002
31	1.58E-04	0.0000	0.0002
32	1.61E-04	0.0000	0.0002
33	1.63E-04	0.0000	0.0002
34	1.66E-04	0.0000	0.0002
35	1.68E-04	0.0000	0.0002
36	1.70E-04	0.0000	0.0002
37	1.72E-04	0.0000	0.0002
38	1.73E-04	0.0000	0.0002
39	1.74E-04	0.0000	0.0002
40	1.75E-04	0.0000	0.0002
41	1.76E-04	0.0000	0.0002
42	1.77E-04	0.0000	0.0002
43	1.78E-04	0.0000	0.0002
44	1.78E-04	0.0000	0.0002
45	1.78E-04	0.0000	0.0002
46	1.78E-04	0.0000	0.0002
47	1.78E-04	0.0000	0.0002
48	1.78E-04	0.0000	0.0002
49	1.78E-04	0.0000	0.0002
50	1.78E-04	0.0000	0.0002
51	1.77E-04	0.0000	0.0002
52	1.77E-04	0.0000	0.0002
53	1.76E-04	0.0000	0.0002
54	1.75E-04	0.0000	0.0002
55	1.75E-04	0.0000	0.0002
56	1.74E-04	0.0000	0.0002
57	1.73E-04	0.0000	0.0002
58	1.72E-04	0.0000	0.0002
59	1.71E-04	0.0000	0.0002
60	1.70E-04	0.0000	0.0002

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Caq (μg/l)
61	1.69E-04	0.0000	0.0002
62	1.67E-04	0.0000	0.0002
63	1.66E-04	0.0000	0.0002
64	1.65E-04	0.0000	0.0002
65	1.64E-04	0.0000	0.0002
66	1.62E-04	0.0000	0.0002
67	1.61E-04	0.0000	0.0002
68	1.60E-04	0.0000	0.0002
69	1.58E-04	0.0000	0.0002
70	1.57E-04	0.0000	0.0002
71	1.55E-04	0.0000	0.0002
72	1.54E-04	0.0000	0.0002
73	1.52E-04	0.0000	0.0002
74	1.51E-04	0.0000	0.0002
75	1.49E-04	0.0000	0.0002
76	1.48E-04	0.0000	0.0002
77	1.47E-04	0.0000	0.0002
78	1.45E-04	0.0000	0.0002
79	1.44E-04	0.0000	0.0002
80	1.42E-04	0.0000	0.0002
81	1.41E-04	0.0000	0.0001
82	1.39E-04	0.0000	0.0001
83	1.38E-04	0.0000	0.0001
84	1.36E-04	0.0000	0.0001
85	1.35E-04	0.0000	0.0001
86	1.33E-04	0.0000	0.0001
87	1.32E-04	0.0000	0.0001
88	1.30E-04	0.0000	0.0001
89	1.29E-04	0.0000	0.0001
90	1.28E-04	0.0000	0.0001
91	1.26E-04	0.0000	0.0001
92	1.25E-04	0.0000	0.0001
93	1.23E-04	0.0000	0.0001
94	1.22E-04	0.0000	0.0001
95	1.21E-04	0.0000	0.0001
96	1.19E-04	0.0000	0.0001
97	1.18E-04	0.0000	0.0001
98	1.16E-04	0.0000	0.0001
99	1.15E-04	0.0000	0.0001
100	1.14E-04	0.0000	0.0001

Simulation, Phenanthrene as Contaminant
Aquifer Concentration Calculations Based on VLEACH Simulations
Walker Property

Input Parameters	Value	Units	Abbreviation
Infiltration Rate	0.167	feet/year	Qv
Soil Area	100	square feet	A
Hydraulic Conductivity	10,350	feet/year	K
Saturated Thickness	40	feet	b
Gradient	8.00E-03	dimensionless	i
Layer Width	10	feet	W
Groundwater Flow Through Control Volume	Shown below	cubic feet/year	Qh
Contaminant Mass From Soil Column (Pore Water)	Varies*	grams	Mw

* Output from VLEACH simulation, shown in simulation results below.

Output	Value	Units	Abbreviation
Aquifer Concentration	Shown in simulation results below	grams/cubic foot and micrograms/liter	Caq

Equations

Qh = K * b * i * W	33,120	cubic feet/year
Caq = Mw / [(Qv*A) + Qh]	Shown in simulation results below	

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Aquifer Concentration Caq (μg/l)
1	1.87E-16	0.0000	0.0000
2	5.09E-11	0.0000	0.0000
3	1.02E-10	0.0000	0.0000
4	1.53E-10	0.0000	0.0000
5	2.04E-10	0.0000	0.0000
6	2.55E-10	0.0000	0.0000
7	3.06E-10	0.0000	0.0000
8	3.57E-10	0.0000	0.0000
9	4.08E-10	0.0000	0.0000
10	4.59E-10	0.0000	0.0000
11	5.10E-10	0.0000	0.0000
12	5.61E-10	0.0000	0.0000
13	6.12E-10	0.0000	0.0000

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Aquifer Concentration Caq (μg/l)
14	6.63E-10	0.0000	0.0000
15	7.14E-10	0.0000	0.0000
16	7.66E-10	0.0000	0.0000
17	8.17E-10	0.0000	0.0000
18	8.68E-10	0.0000	0.0000
19	9.19E-10	0.0000	0.0000
20	9.70E-10	0.0000	0.0000
21	1.02E-09	0.0000	0.0000
22	1.07E-09	0.0000	0.0000
23	1.12E-09	0.0000	0.0000
24	1.18E-09	0.0000	0.0000
25	1.23E-09	0.0000	0.0000
26	1.28E-09	0.0000	0.0000
27	1.33E-09	0.0000	0.0000
28	1.38E-09	0.0000	0.0000
29	1.43E-09	0.0000	0.0000
30	1.48E-09	0.0000	0.0000
31	1.53E-09	0.0000	0.0000
32	1.59E-09	0.0000	0.0000
33	1.64E-09	0.0000	0.0000
34	1.69E-09	0.0000	0.0000
35	1.74E-09	0.0000	0.0000
36	1.79E-09	0.0000	0.0000
37	1.84E-09	0.0000	0.0000
38	1.89E-09	0.0000	0.0000
39	1.95E-09	0.0000	0.0000
40	2.00E-09	0.0000	0.0000
41	2.05E-09	0.0000	0.0000
42	2.10E-09	0.0000	0.0000
43	2.15E-09	0.0000	0.0000
44	2.20E-09	0.0000	0.0000
45	2.25E-09	0.0000	0.0000
46	2.31E-09	0.0000	0.0000
47	2.36E-09	0.0000	0.0000
48	2.41E-09	0.0000	0.0000
49	2.46E-09	0.0000	0.0000
50	2.51E-09	0.0000	0.0000
51	2.56E-09	0.0000	0.0000
52	2.62E-09	0.0000	0.0000
53	2.67E-09	0.0000	0.0000
54	2.72E-09	0.0000	0.0000
55	2.77E-09	0.0000	0.0000
56	2.82E-09	0.0000	0.0000
57	2.87E-09	0.0000	0.0000
58	2.93E-09	0.0000	0.0000
59	2.98E-09	0.0000	0.0000
60	3.03E-09	0.0000	0.0000

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Aquifer Concentration Caq (μg/l)
61	3.08E-09	0.0000	0.0000
62	3.13E-09	0.0000	0.0000
63	3.18E-09	0.0000	0.0000
64	3.24E-09	0.0000	0.0000
65	3.29E-09	0.0000	0.0000
66	3.34E-09	0.0000	0.0000
67	3.39E-09	0.0000	0.0000
68	3.44E-09	0.0000	0.0000
69	3.50E-09	0.0000	0.0000
70	3.55E-09	0.0000	0.0000
71	3.60E-09	0.0000	0.0000
72	3.65E-09	0.0000	0.0000
73	3.70E-09	0.0000	0.0000
74	3.75E-09	0.0000	0.0000
75	3.81E-09	0.0000	0.0000
76	3.86E-09	0.0000	0.0000
77	3.91E-09	0.0000	0.0000
78	3.96E-09	0.0000	0.0000
79	4.01E-09	0.0000	0.0000
80	4.07E-09	0.0000	0.0000
81	4.12E-09	0.0000	0.0000
82	4.17E-09	0.0000	0.0000
83	4.22E-09	0.0000	0.0000
84	4.27E-09	0.0000	0.0000
85	4.33E-09	0.0000	0.0000
86	4.38E-09	0.0000	0.0000
87	4.43E-09	0.0000	0.0000
88	4.48E-09	0.0000	0.0000
89	4.54E-09	0.0000	0.0000
90	4.59E-09	0.0000	0.0000
91	4.64E-09	0.0000	0.0000
92	4.69E-09	0.0000	0.0000
93	4.74E-09	0.0000	0.0000
94	4.80E-09	0.0000	0.0000
95	4.85E-09	0.0000	0.0000
96	4.90E-09	0.0000	0.0000
97	4.95E-09	0.0000	0.0000
98	5.01E-09	0.0000	0.0000
99	5.06E-09	0.0000	0.0000
100	5.11E-09	0.0000	0.0000

Simulation, Pyrene as Contaminant
Aquifer Concentration Calculations Based on VLEACH Simulations
Walker Property

Input Parameters	Value	Units	Abbreviation
Infiltration Rate	0.167	feet/year	Qv
Soil Area	100	square feet	A
Hydraulic Conductivity	10,350	feet/year	K
Saturated Thickness	40	feet	b
Gradient	8.00E-03	dimensionless	i
Layer Width	10	feet	W
Groundwater Flow Through Control Volume	Shown below	cubic feet/year	Qh
Contaminant Mass From Soil Column (Pore Water)	Varies*	grams	Mw

* Output from VLEACH simulation, shown in simulation results below.

Output	Value	Units	Abbreviation
Aquifer Concentration	Shown in simulation results below	grams/cubic foot and micrograms/liter	Caq

Equations

Qh = K * b * i * W	33,120	cubic feet/year
Caq = Mw / [(Qv*A) + Qh]	Shown in simulation results below	

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Aquifer Concentration Caq (μg/l)
1	1.68E-17	0.0000	0.0000
2	5.47E-13	0.0000	0.0000
3	1.09E-12	0.0000	0.0000
4	1.64E-12	0.0000	0.0000
5	2.19E-12	0.0000	0.0000
6	2.74E-12	0.0000	0.0000
7	3.28E-12	0.0000	0.0000
8	3.83E-12	0.0000	0.0000
9	4.38E-12	0.0000	0.0000
10	4.93E-12	0.0000	0.0000
11	5.48E-12	0.0000	0.0000
12	6.02E-12	0.0000	0.0000
13	6.57E-12	0.0000	0.0000

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Aquifer Concentration Caq (μg/l)
14	7.12E-12	0.0000	0.0000
15	7.67E-12	0.0000	0.0000
16	8.22E-12	0.0000	0.0000
17	8.77E-12	0.0000	0.0000
18	9.32E-12	0.0000	0.0000
19	9.87E-12	0.0000	0.0000
20	1.04E-11	0.0000	0.0000
21	1.10E-11	0.0000	0.0000
22	1.15E-11	0.0000	0.0000
23	1.21E-11	0.0000	0.0000
24	1.26E-11	0.0000	0.0000
25	1.32E-11	0.0000	0.0000
26	1.37E-11	0.0000	0.0000
27	1.43E-11	0.0000	0.0000
28	1.48E-11	0.0000	0.0000
29	1.54E-11	0.0000	0.0000
30	1.59E-11	0.0000	0.0000
31	1.65E-11	0.0000	0.0000
32	1.70E-11	0.0000	0.0000
33	1.76E-11	0.0000	0.0000
34	1.81E-11	0.0000	0.0000
35	1.87E-11	0.0000	0.0000
36	1.92E-11	0.0000	0.0000
37	1.98E-11	0.0000	0.0000
38	2.03E-11	0.0000	0.0000
39	2.09E-11	0.0000	0.0000
40	2.14E-11	0.0000	0.0000
41	2.20E-11	0.0000	0.0000
42	2.25E-11	0.0000	0.0000
43	2.31E-11	0.0000	0.0000
44	2.37E-11	0.0000	0.0000
45	2.42E-11	0.0000	0.0000
46	2.48E-11	0.0000	0.0000
47	2.53E-11	0.0000	0.0000
48	2.59E-11	0.0000	0.0000
49	2.64E-11	0.0000	0.0000
50	2.70E-11	0.0000	0.0000
51	2.75E-11	0.0000	0.0000
52	2.81E-11	0.0000	0.0000
53	2.86E-11	0.0000	0.0000
54	2.92E-11	0.0000	0.0000
55	2.97E-11	0.0000	0.0000
56	3.03E-11	0.0000	0.0000
57	3.09E-11	0.0000	0.0000
58	3.14E-11	0.0000	0.0000
59	3.20E-11	0.0000	0.0000
60	3.25E-11	0.0000	0.0000

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Caq (μg/l)
61	3.31E-11	0.0000	0.0000
62	3.36E-11	0.0000	0.0000
63	3.42E-11	0.0000	0.0000
64	3.47E-11	0.0000	0.0000
65	3.53E-11	0.0000	0.0000
66	3.59E-11	0.0000	0.0000
67	3.64E-11	0.0000	0.0000
68	3.70E-11	0.0000	0.0000
69	3.75E-11	0.0000	0.0000
70	3.81E-11	0.0000	0.0000
71	3.86E-11	0.0000	0.0000
72	3.92E-11	0.0000	0.0000
73	3.98E-11	0.0000	0.0000
74	4.03E-11	0.0000	0.0000
75	4.09E-11	0.0000	0.0000
76	4.14E-11	0.0000	0.0000
77	4.20E-11	0.0000	0.0000
78	4.25E-11	0.0000	0.0000
79	4.31E-11	0.0000	0.0000
80	4.37E-11	0.0000	0.0000
81	4.42E-11	0.0000	0.0000
82	4.48E-11	0.0000	0.0000
83	4.53E-11	0.0000	0.0000
84	4.59E-11	0.0000	0.0000
85	4.65E-11	0.0000	0.0000
86	4.70E-11	0.0000	0.0000
87	4.76E-11	0.0000	0.0000
88	4.81E-11	0.0000	0.0000
89	4.87E-11	0.0000	0.0000
90	4.93E-11	0.0000	0.0000
91	4.98E-11	0.0000	0.0000
92	5.04E-11	0.0000	0.0000
93	5.09E-11	0.0000	0.0000
94	5.15E-11	0.0000	0.0000
95	5.21E-11	0.0000	0.0000
96	5.26E-11	0.0000	0.0000
97	5.32E-11	0.0000	0.0000
98	5.37E-11	0.0000	0.0000
99	5.43E-11	0.0000	0.0000
100	5.49E-11	0.0000	0.0000

Simulation, TCE as Contaminant
Aquifer Concentration Calculations Based on VLEACH Simulations
Walker Property

Input Parameters	Value	Units	Abbreviation
Infiltration Rate	0.167	feet/year	Qv
Soil Area	100	square feet	A
Hydraulic Conductivity	10,350	feet/year	K
Saturated Thickness	40	feet	b
Gradient	8.00E-03	dimensionless	i
Layer Width	10	feet	W
Groundwater Flow Through Control Volume	Shown below	cubic feet/year	Qh
Contaminant Mass From Soil Column (Pore Water)	Varies*	grams	Mw

* Output from VLEACH simulation, shown in simulation results below.

Output	Value	Units	Abbreviation
Aquifer Concentration	Shown in simulation results below	grams/cubic foot and micrograms/liter	Caq

Equations

Qh = K * b * i * W	33,120	cubic feet/year
Caq = Mw / [(Qv*A) + Qh]	Shown in simulation results below	

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Aquifer Concentration Caq (μg/l)
1	3.55E-16	0.0000	0.0000
2	1.04E-05	0.0000	0.0000
3	2.28E-05	0.0000	0.0000
4	3.69E-05	0.0000	0.0000
5	5.26E-05	0.0000	0.0001
6	6.99E-05	0.0000	0.0001
7	8.85E-05	0.0000	0.0001
8	1.08E-04	0.0000	0.0001
9	1.29E-04	0.0000	0.0001
10	1.51E-04	0.0000	0.0002
11	1.74E-04	0.0000	0.0002
12	1.97E-04	0.0000	0.0002
13	2.21E-04	0.0000	0.0002

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Aquifer Concentration Caq (μg/l)
14	2.45E-04	0.0000	0.0003
15	2.70E-04	0.0000	0.0003
16	2.95E-04	0.0000	0.0003
17	3.20E-04	0.0000	0.0003
18	3.44E-04	0.0000	0.0004
19	3.69E-04	0.0000	0.0004
20	3.93E-04	0.0000	0.0004
21	4.17E-04	0.0000	0.0004
22	4.41E-04	0.0000	0.0005
23	4.64E-04	0.0000	0.0005
24	4.87E-04	0.0000	0.0005
25	5.09E-04	0.0000	0.0005
26	5.30E-04	0.0000	0.0006
27	5.51E-04	0.0000	0.0006
28	5.71E-04	0.0000	0.0006
29	5.90E-04	0.0000	0.0006
30	6.09E-04	0.0000	0.0006
31	6.27E-04	0.0000	0.0007
32	6.44E-04	0.0000	0.0007
33	6.60E-04	0.0000	0.0007
34	6.75E-04	0.0000	0.0007
35	6.90E-04	0.0000	0.0007
36	7.03E-04	0.0000	0.0007
37	7.16E-04	0.0000	0.0008
38	7.28E-04	0.0000	0.0008
39	7.40E-04	0.0000	0.0008
40	7.50E-04	0.0000	0.0008
41	7.60E-04	0.0000	0.0008
42	7.69E-04	0.0000	0.0008
43	7.77E-04	0.0000	0.0008
44	7.84E-04	0.0000	0.0008
45	7.91E-04	0.0000	0.0008
46	7.97E-04	0.0000	0.0008
47	8.02E-04	0.0000	0.0009
48	8.07E-04	0.0000	0.0009
49	8.11E-04	0.0000	0.0009
50	8.14E-04	0.0000	0.0009
51	8.17E-04	0.0000	0.0009
52	8.19E-04	0.0000	0.0009
53	8.21E-04	0.0000	0.0009
54	8.22E-04	0.0000	0.0009
55	8.23E-04	0.0000	0.0009
56	8.23E-04	0.0000	0.0009
57	8.23E-04	0.0000	0.0009
58	8.22E-04	0.0000	0.0009
59	8.21E-04	0.0000	0.0009
60	8.19E-04	0.0000	0.0009

Simulation Results

Time (year)	Contaminant Mass (grams)	Aquifer Concentration Caq (g/ft³)	Aquifer Concentration Caq (μg/l)
61	8.17E-04	0.0000	0.0009
62	8.15E-04	0.0000	0.0009
63	8.12E-04	0.0000	0.0009
64	8.09E-04	0.0000	0.0009
65	8.06E-04	0.0000	0.0009
66	8.02E-04	0.0000	0.0009
67	7.98E-04	0.0000	0.0009
68	7.94E-04	0.0000	0.0008
69	7.90E-04	0.0000	0.0008
70	7.85E-04	0.0000	0.0008
71	7.81E-04	0.0000	0.0008
72	7.76E-04	0.0000	0.0008
73	7.71E-04	0.0000	0.0008
74	7.65E-04	0.0000	0.0008
75	7.60E-04	0.0000	0.0008
76	7.54E-04	0.0000	0.0008
77	7.49E-04	0.0000	0.0008
78	7.43E-04	0.0000	0.0008
79	7.37E-04	0.0000	0.0008
80	7.31E-04	0.0000	0.0008
81	7.25E-04	0.0000	0.0008
82	7.19E-04	0.0000	0.0008
83	7.12E-04	0.0000	0.0008
84	7.06E-04	0.0000	0.0008
85	7.00E-04	0.0000	0.0007
86	6.93E-04	0.0000	0.0007
87	6.87E-04	0.0000	0.0007
88	6.80E-04	0.0000	0.0007
89	6.74E-04	0.0000	0.0007
90	6.67E-04	0.0000	0.0007
91	6.61E-04	0.0000	0.0007
92	6.54E-04	0.0000	0.0007
93	6.48E-04	0.0000	0.0007
94	6.41E-04	0.0000	0.0007
95	6.35E-04	0.0000	0.0007
96	6.28E-04	0.0000	0.0007
97	6.22E-04	0.0000	0.0007
98	6.15E-04	0.0000	0.0007
99	6.09E-04	0.0000	0.0006
100	6.02E-04	0.0000	0.0006

ATTACHMENT F

TOXICOLOGICAL PROFILE FOR POLYCHLORINATED BIPHENYLS

APPENDIX F

TOXICOLOGICAL PROFILE FOR POLYCHLORINATED BIPHENYLS

The following toxicological profile presents toxicity information on PCBs based on animal studies and human studies. It should be recognized that the health effects reported in this toxicological profile occur at exposure levels thousands to millions of times greater than those estimated in the site-specific risk assessment.

Introduction

PCBs are inert, stable chemicals made of two chlorinated phenyl rings. The biphenyl ring has ten positions which can be chlorinated. As a result, a total of 210 possible isomers of PCBs exist. The degree of chlorination has toxicological and environmental importance. The higher chlorinated PCBs are generally more toxic and environmentally persistent than PCBs with relatively low chlorination.

PCBs do not occur naturally in the environment; their prevalence in the environment has resulted solely from industrial manufacturing practices. Some commercial PCB mixtures are known in the United States by their industrial trade name, Aroclor. Aroclor 1254, for example, signifies that the molecule contains 12 carbon atoms (the first two digits) and approximately 54% chlorine by weight (second two digits). Due to their chemical stability, nonflammability, high dielectric constant, and low volatility, PCBs have been used for numerous industrial applications including nonflammable hydraulic and lubricating fluids, heat-exchanger and dielectric fluids, plasticizers for plastics and coatings, adhesives and paints.

Noncarcinogenic Effects

Acute toxicity

In general, symptoms of acute PCB poisoning (associated with exposure to concentrated mixtures of PCBs) are reported to include acne, hyperpigmentation of skin, conjunctivitis, subcutaneous edema, hyperplasia of hair follicle epithelium, liver hypertrophy, decreased number of red blood cells, and increased number of leukocytes in the blood (IARC, 1978; ATSDR, 1993).

Rats fed a diet containing large amounts of PCBs for a short period had mild liver damage, and some died (ATSDR, 1993).

Chronic Toxicity

Findings of elevated serum levels of hepatic enzymes (serum glutamic-oxaloacetic transaminase and gamma-glutamyl transpeptidase) in adult workers chronically exposed to PCBs are suggestive of hepatic effects. Asymptomatic hepatomegaly has also been seen; however, specific liver histologic findings in humans remain inconclusive. In animals, the liver is a primary target of PCB toxicity following chronic inhalation exposure. Alterations in liver metabolism, fatty degeneration, and a relative increase in liver weight have been reported in laboratory animals. Chloracne (nonadolescent acne), skin rashes, and burning eyes and skin have been observed in workers chronically exposed to PCBs via inhalation. There have been inconclusive findings of immune effects in workers exposed to PCBs including elevations in white blood cell levels and alterations in various globulin levels. Animal studies have demonstrated immunotoxic effects more conclusively. An increased excretion of porphyrin in the urine has been observed in PCB-exposed workers, although there was no evidence of porphyria (a disturbance of the liver metabolism). Studies of other PCBs found potential thyroid and gastric effects in animals (ATSDR,1993).

The EPA has not established oral or inhalation reference doses for noncarcinogenic toxicity of the Aroclors detected at the Site. Accordingly, the RfD for Aroclor 1016 was used as a surrogate to evaluate the potential noncarcinogenic effects of PCBs detected at the Site. Aroclor 1016 is a product of redistillation of Aroclor 1242, resulting in a chlorine composition of 41 percent. An oral RfD of 7×10^{-5} mg/kg-day was derived based on reproductive studies in monkeys where reduced birth weights were observed in offspring at an average dose of 0.028 mg/kg-day.

Carcinogenic Effects

The EPA classifies PCBs as B2 compounds (probable human carcinogens) based on inadequate human, and sufficient animal, carcinogenicity data. Thus, although these chemicals are considered to be "probable human carcinogens", this designation is based on animal data only. In animals, oral exposure to PCBs resulted in an increase in hepatocellular carcinomas and neoplastic hepatic nodules (EPA,1992). The EPA has calculated an oral slope factor (SF) of 7.7 $(mg/kg/day)^{-1}$ for PCBs based on the study of Norback and Weltman (1985) in which Sprague-Dawley rats were fed a diet containing Aroclor 1260 (a PCB commercial product) at an average daily dose of 3.45 milligrams per kilogram per day for 24 months. Female rats that survived for at least 18 months exhibited a 91-percent incidence of hepatocellular carcinoma and a 4-percent incidence of pre-malignant neoplastic nodules (EPA,1994). The Office of Environmental Health Hazard Assessment (OEHHA) of Cal-EPA has adopted this value for California risk assessments (Cal-EPA, 1992). For characterization of inhalation risks, the OEHHA inhalation SF of 7.7 $(mg/kg/day)^{-1}$ was used (1992).

The EPA IRIS file for PCBs (where the evidence of carcinogenicity is presented and the slope factor derivation is discussed) states that "Although it is known that PCB congeners vary greatly as to their potency in producing biological effects, for purposes of this carcinogenicity assessment, Aroclor 1260 is intended to be representative of all PCB mixtures." Available data strongly suggest that carcinogenic potency decreases with percent chlorination (ATSDR, 1993). Recently, five rodent studies of PCB carcinogenicity were reevaluated by expert pathologists using contemporary nomenclature for malignant and nonmalignant tumors (IEHR, 1991; in press, Regulatory Toxicology and Pharmacology, 1994). The reassessment results indicated that 54% chlorine PCB and 42% chlorine PCB do not show a carcinogenic response in the studies evaluated.

Developmental/Reproductive Toxicity

In animal studies at high doses, reproductive effects reported included reproductive failure (minks), reduced litter size (rats), lengthened maternal menstrual cycles, early abortions, increased fetal resorptions (monkeys), and reduced conception rate in mice (ATSDR,1993). In humans, reports of reduced birth weight, reduced gestational age, and neurological or behavioral effects in infants of mothers environmentally or occupationally exposed to PCBs are inconclusive due to inadequacies in study design.

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ATTACHMENT G

CALCULATION OF REPRESENTATIVE SOIL CONCENTRATIONS OF PCBS AND PNAS

Representative Exposure Concentrations of PCBs

AREA "A" STATISTICS

Location ID	Aroclor 1242 (mg/kg)	Aroclor 1248 (mg/kg)	Aroclor 1254 (mg/kg)	Aroclor 1260 (mg/kg)
C3	0.04	0.04		0.04
J13	2.3	0.04		0.04
K14	30	0.04		0.04
P18	1.7	0.04		1.8
LS-3	0.3	3.6	6.8	1.7
LS-4	1	34	13	2.3
LS-9	0.015	0.015	0.015	0.015
Avg	5.05	5.40	6.61	0.85
SD	11.04	12.68	6.49	1.03
95% UCL	13.16	14.71	17.55	1.61
Maximum	30	34	13	2.3

AREA "B" STATISTICS

LS-1	0.015	0.37	2	0.68
LS-2	0.015	0.015	0.015	0.015
LS-7	0.015	0.015	0.015	0.015
23				0.6
24				0.11
Ave	0.02	0.13	0.68	0.28
SD	0.00	0.20	1.15	0.33
95% UCL	0.02	0.48	2.61	0.60

WEIGHTED AVERAGE CONCENTRATION FOR SITE

Chemical	Area "A" Conc (mg/kg)	Site Fract "A" (u)	Area "B" Conc (mg/kg)	Site Fract "B" (u)	Weighted Ave Conc. Site (mg/kg)
Aroclor 1242	13.2	0.026	0.015	0.11	0.345
Aroclor 1248	14.7	0.026	0.37	0.11	0.423
Aroclor 1254	13	0.026	2	0.11	0.558
Aroclor 1260	1.61	0.026	0.6	0.11	0.108

25 YEAR AND 4.2 YEAR REPRESENTATIVE EXPOSURE CONCENTRATIONS

Chemical	Weighted Ave Conc. Site (mg/kg)	Prop Remain 25 yrs (u)	Avg 25 year conc (mg/kg)	Prop Remain 4.2 yrs (u)	Avg 4.2 year conc (mg/kg)
Arocolor 1242	0.345	0.475	1.64E-01	0.868	2.99E-01
Aroclor 1248	0.423	0.475	2.01E-01	0.868	3.67E-01
Aroclor 1254	0.558	0.475	2.65E-01	0.868	4.84E-01
Aroclor 1260	0.108	0.475	5.12E-02	0.868	9.36E-02

Site Fract - fraction of Site encompassed by area

Prop Remain - Average proportion of chemical left in soil over the exposure duration

PCB Half-Life in Soil = 3,600 days (CAPCOA, 1993)

Representative Exposure Concentrations of PNAs

Chemical	Railroad Sect Conc (mg/kg)	Prop Remai 25 years (u)	Railroad Sect Site Fraction (u)	Representative Concentration (mg/kg)
Benzo(a)anthracene	0.24	0.00555	0.239	3.18E-04
Benzo(a)pyrene	0.27	0.00555	0.239	3.58E-04
Benzo(b)fluoranthene	0.37	0.00555	0.239	4.91E-04
Chrysene	0.31	0.00555	0.239	4.11E-04
Fluoranthene	0.39	0.00555	0.239	5.17E-04
Phenanthrene	0.2	0.00555	0.239	2.65E-04
Pyrene	0.56	0.00555	0.239	7.43E-04

Chemical	Railroad Sect Conc (mg/kg)	Prop Remai 4.2 years (u)	Railroad Sect Site Fraction (u)	Representative Concentration (mg/kg)
Benzo(a)anthracene	0.24	0.165	0.239	9.46E-03
Benzo(a)pyrene	0.27	0.165	0.239	1.06E-02
Benzo(b)fluoranthene	0.37	0.165	0.239	1.46E-02
Chrysene	0.31	0.165	0.239	1.22E-02
Fluoranthene	0.39	0.165	0.239	1.54E-02
Phenanthrene	0.2	0.165	0.239	7.89E-03
Pyrene	0.56	0.165	0.239	2.21E-02

Prop Remain - Average proportion of chemical left in soil over exposure duration
Railroad Sect Site Fraction - fraction of Site encompassed by Railroad Section
PAH Half-Life in Soil = 480 days (CAPCOA, 1993)

ATTACHMENT H

DOSE CALCULATION SPREADSHEETS

TABLE H-1

Estimated Cancer Risk Associated With Dermal Uptake By A Future On-Site Occupational Receptor [RME]

Chemical	Cs (mg/kg)	Abs (u)	SA (cm2)	AF (mg/cm2)	CF (kg/mg)	EF (u)	ED (yrs)	BW (kg)	AT (yrs)	LADD (mg/kg-d)	SF (mg/kg-d)-1	Cancer Risk (u)	Percent
PAHS													
Benzo(a)anthracene	3.18E-04	0.13	3100	1	1.00E-06	0.68	25	70	70	4.54E-10	1.15	5.22E-10	0.01
Benzo[a]pyrene	3.56E-04	0.13	3100	1	1.00E-06	0.68	25	70	70	5.10E-10	11.5	5.87E-09	0.07
Benzo[b]fluoranthene	4.91E-04	0.13	3100	1	1.00E-06	0.68	25	70	70	6.99E-10	1.15	8.04E-10	0.01
Chrysene	4.11E-04	0.13	3100	1	1.00E-06	0.68	25	70	70	5.86E-10	0.115	6.74E-11	0.00
POLYCHLORINATED BIPHENYLS													
Aroclor 1242	0.104	0.14	3100	1	1.00E-06	0.68	25	70	70	2.52E-07	7.7	1.94E-06	24.06
Aroclor 1248	0.201	0.14	3100	1	1.00E-06	0.68	25	70	70	3.09E-07	7.7	2.38E-06	29.49
Aroclor 1254	0.265	0.14	3100	1	1.00E-06	0.68	25	70	70	4.07E-07	7.7	3.13E-06	38.88
Aroclor 1260	0.051	0.14	3100	1	1.00E-06	0.68	25	70	70	7.83E-08	7.7	6.03E-07	7.48
OTHER SEMIVOLATILES													
Bis(2-ethylhexyphthalate	2.08	0.1	3100	1	1.00E-06	0.68	25	70	70	2.28E-06	0.0084	1.92E-08	0.24
											Total	8.06E-06	

TABLE H-2

Estimated Cancer Risk Associated With Incidental Ingestion of Soil By A Future On-Site Occupational Receptor [RME]

Chemical	Cs (mg/kg)	IR (mg/d)	CF (kg/mg)	EF (u)	ED (yrs)	BW (kg)	AT (yrs)	LADD (mg/kg-d)	SF (mg/kg-d)-1	Cancer Risk (u)	Percent
PAHS											
Benzo(a)anthracene	3.18E-04	50	1.00E-06	0.08	25	70	70	5.52E-11	1.15	6.35E-11	0.01
Benzo[a]pyrene	3.58E-04	50	1.00E-06	0.08	25	70	70	6.21E-11	11.5	7.14E-10	0.08
Benzo[b]fluoranthene	4.91E-04	50	1.00E-06	0.08	25	70	70	8.51E-11	1.15	9.79E-11	0.01
Chrysene	4.11E-04	50	1.00E-06	0.08	25	70	70	7.13E-11	0.115	8.20E-12	0.00
POLYCHLORINATED BIPHENYLS											
Aroclor 1242	0.164	50	1.00E-06	0.08	25	70	70	2.84E-08	7.7	2.19E-07	24.06
Aroclor 1248	0.201	50	1.00E-06	0.08	25	70	70	3.49E-08	7.7	2.68E-07	29.49
Aroclor 1254	0.265	50	1.00E-06	0.08	25	70	70	4.60E-08	7.7	3.54E-07	38.88
Aroclor 1260	0.051	50	1.00E-06	0.08	25	70	70	8.85E-09	7.7	6.81E-08	7.48
OTHER SEMIVOLATILES											
Bis(2-ethylhexyl)phthalate)	2.08	50	1.00E-06	0.08	25	70	70	3.61E-07	0.0084	3.03E-09	0.33
									Total	9.11E-07	

TABLE H-3

Estimated Cancer Risk Associated With Inhalation of Particulates By A Future On-Site Occupational Receptor [RME]

Chemical	Cs (mg/kg)	PM10 (ug/m3)	SC (u)	CF (kg/ug)	IR (m3/d)	EF (u)	ED (yrs)	BW (kg)	AT (yrs)	LADD (mg/kg-d)	SF (mg/kg-d)-1	Cancer Risk (u)	Percent
PAHS													
Benzo(a)anthracene	3.18E-04	50	1	1.00E-09	20	0.68	25	70	70	1.1E-12	0.385	4.25E-13	0.00
Benzo[a]pyrene	3.58E-04	50	1	1.00E-09	20	0.68	25	70	70	1.24E-12	3.85	4.78E-12	0.03
Benzo[b]fluoranthene	4.91E-04	50	1	1.00E-09	20	0.68	25	70	70	1.7E-12	0.385	6.56E-13	0.00
Chrysene	4.11E-04	50	1	1.00E-09	20	0.68	25	70	70	1.43E-12	0.0385	5.49E-14	0.00
POLYCHLORINATED BIPHENYLS													
Aroclor 1242	0.164	50	1	1.00E-09	20	0.68	25	70	70	5.69E-10	7.7	4.38E-09	24.07
Aroclor 1248	0.201	50	1	1.00E-09	20	0.68	25	70	70	6.97E-10	7.7	5.37E-09	29.51
Aroclor 1254	0.265	50	1	1.00E-09	20	0.68	25	70	70	9.19E-10	7.7	7.08E-09	38.90
Aroclor 1260	0.051	50	1	1.00E-09	20	0.68	25	70	70	1.77E-10	7.7	1.36E-09	7.49
OTHER SEMIVOLATILES													
Bis(2-ethylhexyl)phthalate)	2.08	50	1	1.00E-09	20	0.68	25	70	70	7.22E-09	0.0084	6.06E-11	0.33
											Total	1.82E-08	

TABLE H-4

Estimated Cancer Risk Associated With Inhalation Of VOCs By A Future On-Site Occupational Receptor [RME]

Chemical	Ca (mg/m3)	IR (m3/day)	EF (u)	ED (yrs)	BW (kg)	AT (yrs)	Dose (mg/kg-d)	SF (mg/kg-d)-1	Cancer Risk (u)	Percent
Methylene chloride	2.52E-05	20	0.00	25	70	70	1.75E-06	3.50E-03	6.13E-09	1.91
Tetrachloroethene	7.99E-05	20	0.00	25	70	70	5.54E-06	5.10E-02	2.83E-07	88.03
Trichloroethene	4.66E-05	20	0.00	25	70	70	3.23E-06	1.00E-02	3.23E-08	10.06
								Total	3.21E-07	

TABLE H-6

Estimated Hazard Index Associated With Incidental Soil Ingestion By A Future On-Site Occupational Receptor [RME]

Chemical	Cs (mg/kg)	IR (mg/d)	CF (kg/mg)	EF (u)	ED (yrs)	BW (kg)	AT (yrs)	ADD (mg/kg-d)	RfD (mg/kg-d)	HQ (u)	Percent
PAHS											
Benzo(a)anthracene	3.18E-04	50	1.00E-06	0.68	25	70	25	1.55E-10	0.03	5.15E-09	0.00
Benzo[a]pyrene	3.58E-04	50	1.00E-06	0.68	25	70	25	1.74E-10	0.03	5.80E-09	0.00
Benzo[b]fluoranthene	4.91E-04	50	1.00E-06	0.68	25	70	25	2.38E-10	0.03	7.95E-09	0.00
Chrysene	4.11E-04	50	1.00E-06	0.68	25	70	25	2.00E-10	0.03	6.66E-09	0.00
Fluoranthene	5.17E-04	50	1.00E-06	0.68	25	70	25	2.51E-10	0.04	6.28E-09	0.00
Phenanthrene	2.65E-04	50	1.00E-06	0.68	25	70	25	1.29E-10	0.03	4.30E-09	0.00
Pyrene	7.43E-04	50	1.00E-06	0.68	25	70	25	3.61E-10	0.03	1.20E-08	0.00
POLYCHLORINATED BIPHENYLS											
Aroclor 1242	0.164	50	1.00E-06	0.68	25	70	25	7.97E-08	7.00E-05	1.14E-03	14.95
Aroclor 1248	0.201	50	1.00E-06	0.68	25	70	25	9.76E-08	7.00E-05	1.39E-03	18.32
Aroclor 1254	0.265	50	1.00E-06	0.68	25	70	25	1.29E-07	7.00E-05	1.84E-03	24.15
Aroclor 1260	0.051	50	1.00E-06	0.68	25	70	25	2.48E-08	7.00E-05	3.54E-04	4.65
OTHER SEMIVOLATILES											
Bis(2-ethylhexyl)phthalate)	2.08	50	1.00E-06	0.68	25	70	25	1.01E-06	2.00E-02	5.05E-05	0.66
4-Methylphenol	1.47	50	1.00E-06	0.68	25	70	25	7.14E-07	5.00E-02	1.43E-05	0.19
Phenol	0.864	50	1.00E-06	0.68	25	70	25	4.20E-07	6.00E-01	6.99E-07	0.01
Metals											
Barium	406.9	50	1.00E-06	0.68	25	70	25	1.98E-04	7.00E-02	2.82E-03	37.08
									Total	**7.61E-03**	

Table H-7

Estimated Hazard Index Associated With Inhalation Of Particulates By A Future On-Site Occupational Receptor [RME]

Chemical	Cs (mg/kg)	PM10 (ug/m3)	FC (u)	CF (kg/ug)	IR (m3/d)	EF (u)	ED (yrs)	BW (kg)	AT (yrs)	ADD (mg/kg-d)	RfD (mg/kg-d)	HQ (u)	Percent
PAHS													
Benzo(a)anthracene	3.18E-04	50	1	1.00E-09	20	0.68	25	70	25	3.09E-12	0.03	1E-10	0.00
Benzo[a]pyrene	3.58E-04	50	1	1.00E-09	20	0.68	25	70	25	3.48E-12	0.03	1.2E-10	0.00
Benzo[b]fluoranthene	4.91E-04	50	1	1.00E-09	20	0.68	25	70	25	4.77E-12	0.03	1.6E-10	0.00
Chrysene	4.11E-04	50	1	1.00E-09	20	0.68	25	70	25	3.99E-12	0.03	1.3E-10	0.00
Fluoranthene	5.17E-04	50	1	1.00E-09	20	0.68	25	70	25	5.03E-12	0.04	1.3E-10	0.00
Phenanthrene	2.65E-04	50	1	1.00E-09	20	0.68	25	70	25	2.58E-12	0.03	8.6E-11	0.00
Pyrene	7.43E-04	50	1	1.00E-09	20	0.68	25	70	25	7.22E-12	0.03	2.4E-10	0.00
POLYCHLORINATED BIPHENYLS													
Aroclor 1242	0.164	50	1	1.00E-09	20	0.68	25	70	25	1.59E-09	7.00E-05	2.3E-05	14.95
Aroclor 1248	0.201	50	1	1.00E-09	20	0.68	25	70	25	1.95E-09	7.00E-05	2.8E-05	18.32
Aroclor 1254	0.265	50	1	1.00E-09	20	0.68	25	70	25	2.57E-09	7.00E-05	3.7E-05	24.15
Aroclor 1260	0.051	50	1	1.00E-09	20	0.68	25	70	25	4.95E-10	7.00E-05	7.1E-06	4.65
OTHER SEMIVOLATILES													
Bis(2-ethylhexyl)phthalate	2.08	50	1	1.00E-09	20	0.68	25	70	25	2.02E-08	0.02	1E-06	0.66
4-Methylphenol	1.47	50	1	1.00E-09	20	0.68	25	70	25	1.43E-08	0.05	2.9E-07	0.19
Phenol	0.864	50	1	1.00E-09	20	0.68	25	70	25	8.39E-09	0.6	1.4E-08	0.01
METALS													
Barium	406.9	50	1	1.00E-09	20	0.68	25	70	25	3.95E-06	0.07	5.6E-05	37.08
											Total	1.52E-04	

TABLE H-8

Estimated Hazard Index Associated With Inhalation of VOCs By A Future On-Site Occupational Receptor [RME]

Chemical	Ca (mg/m3)	IR (m3/day)	EF (u)	ED (yrs)	BW (kg)	AT (yrs)	Dose (mg/kg-d)	RfD (mg/kg-d)	HQ (u)	Percent
cis-1,2-Dichloroethylene	3.44E-05	20	0.68	25	70	25	6.69E-06	0.01	6.69E-04	17.27
1,1-Dichloroethane	2.01E-05	20	0.68	25	70	25	3.90E-06	0.1	3.90E-05	1.01
Ethylbenzene	3.66E-05	20	0.68	25	70	25	7.16E-06	0.29	2.47E-05	0.64
Methylene chloride	2.52E-05	20	0.68	25	70	25	4.90E-06	0.06	8.17E-05	2.11
Tetrachloroethylene	7.99E-05	20	0.68	25	70	25	1.55E-05	0.01	1.55E-03	40.06
Trichloroethylene	4.66E-05	20	0.68	25	70	25	9.05E-06	0.006	1.51E-03	38.92
								Total	3.87E-03	

TABLE H-9

Estimated Cancer Risk Associated With Dermal Uptake By A Future On-site Occupational Receptor [Average]

Chemical	Cs (mg/kg)	Abs (u)	SA (cm2)	AF (mg/cm2)	CF (kg/mg)	EF (u)	ED (yrs)	BW (kg)	AT (yrs)	LADD (mg/kg-d)	SF (mg/kg-d)-1	Cancer Risk (u)	Percent
Polyclic Aromatic Hydrocarbons													
Benzo(a)anthracene	9.46E-03	0.13	990	0.2	1.00E-06	0.68	4.2	70	70	1.42E-10	1.15	1.63E-10	0.10
Benzo[a]pyrene	1.06E-02	0.13	990	0.2	1.00E-06	0.68	4.2	70	70	1.59E-10	11.5	1.83E-09	1.17
Benzo[b]fluoranthene	1.46E-02	0.13	990	0.2	1.00E-06	0.68	4.2	70	70	2.19E-10	1.15	2.52E-10	0.16
Chrysene	1.22E-02	0.13	990	0.2	1.00E-06	0.68	4.2	70	70	1.83E-10	0.115	2.10E-11	0.01
POLYCHLORINATED BIPHENYLS													
Aroclor 1242	0.299	0.14	990	0.2	1.00E-06	0.68	4.2	70	70	4.83E-09	7.7	3.72E-08	23.70
Aroclor 1248	0.367	0.14	990	0.2	1.00E-06	0.68	4.2	70	70	5.93E-09	7.7	4.57E-08	29.09
Aroclor 1254	0.484	0.14	990	0.2	1.00E-06	0.68	4.2	70	70	7.82E-09	7.7	6.02E-08	38.36
Aroclor 1260	0.094	0.14	990	0.2	1.00E-06	0.68	4.2	70	70	1.51E-09	7.7	1.16E-08	7.42
OTHER SEMIVOLATILES													
Bis(2-ethylhexyl)phthalate	2.08	0.1	990	0.2	1.00E-06	0.68	4.2	70	70	2.40E-08	0.0084	2.02E-10	0.13
											Total	**1.57E-07**	

TABLE H-10

Estimated Cancer Risk Associated With Incidental Ingestion of Soil By A Future On-Site Occupational Receptor [Average]

Chemical	Cs (mg/kg)	IR (mg/d)	CF (kg/mg)	EF (u)	ED (yrs)	BW (kg)	AT (yrs)	LADD (mg/kg-d)	SF (mg/kg-d)-1	Cancer Risk (u)	Percent
PAHS											
Benzo(a)anthracene	9.46E-03	10	1.00E-06	0.68	4.2	70	70	5.51E-11	1.15	6.34E-11	0.11
Benzo[a]pyrene	1.06E-02	10	1.00E-06	0.68	4.2	70	70	6.18E-11	11.5	7.11E-10	1.25
Benzo[b]fluoranthene	1.46E-02	10	1.00E-06	0.68	4.2	70	70	8.51E-11	1.15	9.79E-11	0.17
Chrysene	1.22E-02	10	1.00E-06	0.68	4.2	70	70	7.11E-11	0.115	8.18E-12	0.01
POLYCHLORINATED BIPHENYLS											
Aroclor 1242	0.299	10	1.00E-06	0.68	4.2	70	70	1.74E-09	7.7	1.34E-08	23.67
Aroclor 1248	0.367	10	1.00E-06	0.68	4.2	70	70	2.14E-09	7.7	1.65E-08	29.05
Aroclor 1254	0.484	10	1.00E-06	0.68	4.2	70	70	2.82E-09	7.7	2.17E-08	38.32
Aroclor 1260	0.094	10	1.00E-06	0.68	4.2	70	70	5.46E-10	7.7	4.20E-09	7.41
OTHER SEMIVOLATILES											
Bis(2-ethylhexyl)phthalate	2.08	10	1.00E-06	0.68	4.2	70	70	1.21E-08	0.0084	1.02E-10	0.18
									Total	5.67E-08	

Table H-11

Estimated Cancer Risk Associated With Inhalation Of Particulates By A Future On-Site Occupational Receptor [Average]

Chemical	Cs (mg/kg)	PM10 (ug/m3)	SC (u)	CF (kg/ug)	IR (m3/d)	EF (u)	ED (yrs)	BW (kg)	AT (yrs)	LADD (mg/kg-d)	SF (mg/kg-d)-1	Cancer Risk (u)	Percent
PAHS													
Benzo(a)anthracene	8.75E-03	50	1	1.00E-09	10	0.68	4.2	70	70	2.55E-12	0.385	9.82E-13	0.04
Benzo[a]pyrene	9.90E-03	50	1	1.00E-09	10	0.68	4.2	70	70	2.89E-12	3.85	1.11E-11	0.43
Benzo[b]fluoranthene	0.0152	50	1	1.00E-09	10	0.68	4.2	70	70	4.43E-12	0.385	1.71E-12	0.07
Chrysene	0.0113	50	1	1.00E-09	10	0.68	4.2	70	70	3.29E-12	0.0385	1.27E-13	0.00
POLYCHLORINATED BIPHENYLS													
Aroclor 1242	0.276	50	1	1.00E-09	10	0.68	4.2	70	70	8.04E-11	7.7	6.19E-10	23.88
Aroclor 1248	0.339	50	1	1.00E-09	10	0.68	4.2	70	70	9.88E-11	7.7	7.61E-10	29.33
Aroclor 1254	0.448	50	1	1.00E-09	10	0.68	4.2	70	70	1.31E-10	7.7	1.01E-09	38.75
Aroclor 1260	0.087	50	1	1.00E-09	10	0.68	4.2	70	70	2.53E-11	7.7	1.95E-10	7.51
OTHER SEMIVOLATILES													
Bis(2-ethylhexyl)phthalate	2.08	50	1	1.00E-09	10	0.68	4.2	70	70	6.06E-10	0.0084	5.09E-12	0.20
											Total	**2.59E-09**	

TABLE H-12

Estimated Cancer Risk Associated With Inhalation of VOCs By A Future On-Site Occupational Receptor (Average)

Chemical	Ca (mg/m3)	IR (m3/day)	EF (u)	ED (yrs)	BW (kg)	AT (yrs)	Dose (mg/kg-d)	SF (mg/kg-d)-1	Cancer Risk (u)	Percent
Methylene chloride	1.10E-04	10	0.68	4.2	70	70	6.39E-07	0.0035	2.24E-09	1.95
Tetrachloroethene	3.47E-04	10	0.68	4.2	70	70	2.02E-06	0.051	1.03E-07	89.74
Trichloroethene	2.02E-04	10	0.68	4.2	70	70	1.18E-06	0.01	1.18E-08	10.26
								Total	**1.15E-07**	

TABLE H-13

Estimated Hazard Index Associated With Dermal Uptake By A Future On-Site Occupational Receptor [Average]

Chemical	Cs (mg/kg)	Abs (u)	SA (cm2)	AF (mg/cm2)	CF (kg/mg)	EF (u)	ED (yrs)	BW (kg)	AT (yrs)	ADD (mg/kg-d)	RfD (mg/kg-d)	HQ (u)	Percent
PAHS													
Benzo[a]anthracene	9.46E-03	0.13	990	0.2	1.00E-06	0.68	4.2	70	4.2	2.37E-09	0.03	7.88E-08	0.00
Benzo[a]pyrene	1.06E-02	0.13	990	0.2	1.00E-06	0.68	4.2	70	4.2	2.65E-09	0.03	8.83E-08	0.00
Benzo[b]fluoranthene	1.46E-02	0.13	990	0.2	1.00E-06	0.68	4.2	70	4.2	3.65E-09	0.03	1.22E-07	0.00
Chrysene	1.22E-02	0.13	990	0.2	1.00E-06	0.68	4.2	70	4.2	3.05E-09	0.03	1.02E-07	0.00
Fluoranthene	1.54E-02	0.13	990	0.2	1.00E-06	0.68	4.2	70	4.2	3.85E-09	0.03	1.28E-07	0.00
Phenanthrene	7.89E-03	0.13	990	0.2	1.00E-06	0.68	4.2	70	4.2	1.97E-09	0.03	6.58E-08	0.00
Pyrene	2.21E-02	0.13	990	0.2	1.00E-06	0.68	4.2	70	4.2	5.53E-09	0.03	1.84E-07	0.00
POLYCHLORINATED BIPHENYLS													
Aroclor 1242	0.299	0.14	990	0.2	1.00E-06	0.68	4.2	70	4.2	8.05E-08	7.00E-05	1.15E-03	22.83
Aroclor 1248	0.367	0.14	990	0.2	1.00E-06	0.68	4.2	70	4.2	9.88E-08	7.00E-05	1.41E-03	28.02
Aroclor 1254	0.484	0.14	990	0.2	1.00E-06	0.68	4.2	70	4.2	1.30E-07	7.00E-05	1.86E-03	36.95
Aroclor 1260	0.094	0.14	990	0.2	1.00E-06	0.68	4.2	70	4.2	2.52E-08	7.00E-05	3.60E-04	7.15
OTHER SEMIVOLATILES													
Bis(2-ethylhexyl)phthalate	2.080	0.1	990	0.2	1.00E-06	0.68	4.2	70	4.2	4.00E-07	2.00E-02	2.00E-05	0.40
4-Methylphenol	1.47	0.1	990	0.2	1.00E-06	0.68	4.2	70	4.2	2.83E-07	5.00E-02	5.65E-06	0.11
Phenol	0.864	0.1	990	0.2	1.00E-06	0.68	4.2	70	4.2	1.66E-07	6.00E-01	2.77E-07	0.01
METALS													
Barium	400.9	0.01	2020	0.2	1.00E-06	0.68	4.2	70	4.2	1.60E-05	7.00E-02	2.28E-04	4.53
											Total	5.04E-03	

TABLE H-14

Estimated Hazard Index Associated With Incidental Soil Ingestion By An Occupational Receptor [Average]

Chemical	Cs (mg/kg)	IR (mg/d)	CF (kg/mg)	EF (u)	ED (yrs)	BW (kg)	AT (yrs)	ADD (mg/kg-d)	RfD (mg/kg-d)	HQ (u)	Percent
PAHS											
Benzo(a)anthracene	9.46E-03	10	1.00E-06	0.68	4.2	70	4.2	9.19E-10	0.03	3.06E-08	0.00
Benzo[a]pyrene	1.06E-02	10	1.00E-06	0.68	4.2	70	4.2	1.03E-09	0.03	3.43E-08	0.00
Benzo[b]fluoranthene	1.46E-02	10	1.00E-06	0.68	4.2	70	4.2	1.42E-09	0.03	4.73E-08	0.00
Chrysene	1.22E-02	10	1.00E-06	0.68	4.2	70	4.2	1.19E-09	0.03	3.95E-08	0.00
Fluoranthene	1.54E-02	10	1.00E-06	0.68	4.2	70	4.2	1.50E-09	0.04	3.74E-08	0.00
Phenanthrene	7.89E-03	10	1.00E-06	0.68	4.2	70	4.2	7.66E-10	0.03	2.55E-08	0.00
Pyrene	2.21E-02	10	1.00E-06	0.68	4.2	70	4.2	2.15E-09	0.03	7.16E-08	0.00
POLYCHLORINATED BIPHENYLS											
Aroclor 1242	0.299	10	1.00E-06	0.68	4.2	70	4.2	2.90E-08	7.00E-05	4.15E-04	18.01
Aroclor 1248	0.367	10	1.00E-06	0.68	4.2	70	4.2	3.57E-08	7.00E-05	5.09E-04	22.11
Aroclor 1254	0.484	10	1.00E-06	0.68	4.2	70	4.2	4.70E-08	7.00E-05	6.72E-04	29.15
Aroclor 1260	0.094	10	1.00E-06	0.68	4.2	70	4.2	9.09E-09	7.00E-05	1.30E-04	5.64
OTHER SEMIVOLATILES											
Bis(2-ethylhexyl)phthalate	2.080	10	1.00E-06	0.68	4.2	70	4.2	2.02E-07	2.00E-02	1.01E-05	0.44
4-Methylphenol	1.47	10	1.00E-06	0.68	4.2	70	4.2	1.43E-07	5.00E-02	2.86E-06	0.12
Phenol	0.864	10	1.00E-06	0.68	4.2	70	4.2	8.39E-08	6.00E-01	1.40E-07	0.01
Metals											
Barium	406.9	10	1.00E-06	0.68	4.2	70	4.2	3.95E-05	7.00E-02	5.65E-04	24.51
Total HI									Total	2.30E-03	

TABLE H-15

Estimated Hazard Index Associated With Inhalation Of Particulates By A Future On-Site Occupational Receptor [Average]

Chemical	Cs (mg/kg)	PM10 (ug/m3)	SC (u)	CF (kg/ug)	IR (m3/d)	EF (u)	ED (yrs)	BW (kg)	AT (yrs)	ADD (mg/kg-d)	RfD (mg/kg-d)	HQ (u)	Percent
PAHS													
Benzo(a)anthracene	9.46E-03	50	1	1.00E-09	10	0.68	4.2	70	4.2	4.59E-11	0.03	1.53E-09	0.00
Benzo[a]pyrene	1.06E-02	50	1	1.00E-09	10	0.68	4.2	70	4.2	5.15E-11	0.03	1.72E-09	0.00
Benzo[b]fluoranthene	1.46E-02	50	1	1.00E-09	10	0.68	4.2	70	4.2	7.09E-11	0.03	2.36E-09	0.00
Chrysene	1.22E-02	50	1	1.00E-09	10	0.68	4.2	70	4.2	5.93E-11	0.03	1.98E-09	0.00
Fluoranthene	1.54E-02	50	1	1.00E-09	10	0.68	4.2	70	4.2	7.48E-11	0.04	1.87E-09	0.00
Phenanthrene	7.89E-03	50	1	1.00E-09	10	0.68	4.2	70	4.2	3.83E-11	0.03	1.28E-09	0.00
Pyrene	2.21E-02	50	1	1.00E-09	10	0.68	4.2	70	4.2	1.07E-10	0.03	3.58E-09	0.00
POLYCHLORINATED BIPHENYLS													
Aroclor 1242	0.299	50	1	1.00E-09	10	0.68	4.2	70	4.2	1.45E-09	7.00E-05	2.07E-05	18.01
Aroclor 1248	0.367	50	1	1.00E-09	10	0.68	4.2	70	4.2	1.78E-09	7.00E-05	2.55E-05	22.11
Aroclor 1254	0.484	50	1	1.00E-09	10	0.68	4.2	70	4.2	2.35E-09	7.00E-05	3.36E-05	29.15
Aroclor 1260	0.094	50	1	1.00E-09	10	0.68	4.2	70	4.2	4.55E-10	7.00E-05	6.49E-06	5.64
OTHER SEMIVOLATILES													
Bis(2-ethylhexyl)phthalate	2.080	50	1	1.00E-09	10	0.68	4.2	70	4.2	1.01E-08	2.00E-02	5.05E-07	0.44
4-Methylphenol	1.47	50	1	1.00E-09	10	0.68	4.2	70	4.2	7.14E-09	0.05	1.43E-07	0.12
Phenol	0.864	50	1	1.00E-09	10	0.68	4.2	70	4.2	4.2E-09	0.6	6.99E-09	0.01
METALS													
Barium	406.9	50	1	1.00E-09	10	0.68	4.2	70	4.2	1.98E-06	0.07	2.82E-05	24.51
											Total	**1.15E-04**	

TABLE H-16

Estimated Hazard Index Associated With Inhalation Of VOCs By A Future On-Site Occupational Receptor (Average)

Chemical	Ca (mg/m3)	IR (m3/day)	EF (u)	ED (yrs)	BW (kg)	AT (yrs)	Dose (mg/kg-d)	RfD (mg/kg-d)	HQ (u)	Percent
cis-1,2-Dichloroethylene	1.50E-04	10	0.68	4.2	70	4.2	1.45E-05	0.01	1.45E-03	17.62
1,1-Dichloroethane	8.71E-05	10	0.68	4.2	70	4.2	8.46E-06	0.1	8.46E-05	1.03
Ethylbenzene	1.60E-04	10	0.68	4.2	70	4.2	1.55E-05	0.29	5.36E-05	0.65
Methylene chloride	1.10E-04	10	0.68	4.2	70	4.2	1.06E-05	1	1.06E-05	0.13
Tetrachloroethylene	3.47E-04	10	0.68	4.2	70	4.2	3.37E-05	0.01	3.37E-03	40.87
Trichloroethylene	2.02E-04	10	0.68	4.2	70	4.2	1.97E-05	0.006	3.28E-03	39.71
								Total	**8.25E-03**	

APPENDIX D

COMPLETED FIVE-YEAR REVIEW SUMMARY FORM

Five-Year Review Summary Form

SITE IDENTIFICATION

Site name *(from WasteLAN)*: FORMER WALKER PROPERTY

EPA ID *(from WasteLAN)*: N/A

Region: 3 | **State:** CA | **City/County:** SANTA FE SPRINGS / LOS ANGELES

SITE STATUS

NPL status: Final Deleted Other (specify) NA

Remediation status (choose all that apply): Under Construction Operating (Complete)

Multiple OUs?* YES (NO) | **Construction completion date:** 06 / 26 / 1998

Has site been put into reuse? (YES) NO

REVIEW STATUS

Lead agency: EPA (State) Tribe Other Federal Agency

Author name: PAUL A. ROBERTS

Author title: SR. ENVIRO.GEOLOGIST | **Author affiliation:** NINYO & MOORE

Review period:** 09 / 08 / 1998 to 08 / 04 / 2003

Date(s) of site inspection: 05 / 15 / 2003

Type of review:

Post-SARA Pre-SARA NPL-Removal only
(Non-NPL Remedial Action Site) NPL State/Tribe-lead
Regional Discretion

Review number: (1 (first)) 2 (second) 3 (third) Other (specify)

Triggering action:

Actual RA Onsite Construction at OU #____ Actual RA Start at OU#____
Construction Completion Previous Five-Year Review Report
Other (specify) FIRST FIVE YEAR REVIEW

Triggering action date *(from WasteLAN)*: 09 / 08 / 1998

Due date *(five years after triggering action date)*: 09 / 08 / 2003

* ["OU" refers to operable unit.]
** [Review period should correspond to the actual start and end dates of the Five-Year Review in WasteLAN.]

Five-Year Review Summary Form, cont'd.

Issues:

No issues were identified during the technical assessment and other five-year review activites.

Recommendations and Follow-up Actions:

The then property owner should continue to conduct annual inspections and five-year reviews of the PCB capped area in accordance with the schedule presented in this report.
These reports should be submitted to the DTSC for review.

The then current porperty owner should maintain the integrity of the PCB capped area by conducting periodic maintenance of the parking lot and capped area.

Protectiveness Statement(s):

Because the remedial action is protective, the site is protective of human health and the environment.

Other Comments:

NA- Not Applicable
DTSC - Department of Toxic Substances Control