

# SOIL REMEDIATION REPORT

114 ALVARADO STREET  
SAN LEANDRO, CALIFORNIA

Prepared by

MR. RONALD C. COOPER  
GREENSBORO, VIRGINIA

September 1979

★ Stellar Environmental Solutions

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September 10, 1999

Mr. Donald Coffel  
2504 Londonderry Road  
Alexandria, Virginia 22308-2333

Subject: Soil Remediation for Real Property Located at 2144 Alvarado Street, San Leandro, California

Dear Mr. Coffel:

Stellar Environmental Solutions (SES) has been retained by you to complete project site remediation per the workplan approved by the lead regulatory agency, the Alameda County Health Care Services Agency. The project site is a former residential and commercial pest control contractor. From at least 1964 until June 1987 it was the office and base of operations for pest control contractors. Previous subsurface investigations identified limited areas of soils containing several organochlorine pesticides at concentrations in excess of the negotiated cleanup goal, which was USEPA PRGs for residential land use. Groundwater sampling at the site showed no detectable pesticides. SES implemented a soil remediation program in accordance with a workplan that was approved by ACHCSA, and included excavation and removal of approximately 25 tons from four areas. Base of excavation and sidewall samples showed residual contamination to be within the cleanup goal in two of the excavations, in excess of the cleanup goal in the other two excavations, and within USEPA industrial PRGs at all locations.

Please be advised that you can rely on this report entitled "Soil Remediation Report - 2144 Alvarado Street, San Leandro, California," dated September 10, 1999, subject to the limitations and qualifications contained therein. The undersigned further acknowledges that your successors and/or assigns may rely on this Report to the same extent that you are able to rely on the Report.

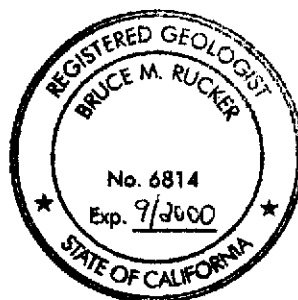
Sincerely,

*Bruce M. Rucker*

Bruce M. Rucker, R.G., R.E.A.  
Project Manager

*Richard S. Makdisi*

Richard S. Makdisi, R.G., R.E.A.  
Principal



# **SOIL REMEDIATION REPORT**

**2144 ALVARADO STREET  
SAN LEANDRO, CALIFORNIA**

*Prepared For:*

**MR. DONALD COFFEL  
2504 LONDONDERRY ROAD  
ALEXANDRIA, VIRGINIA 22308**

*Prepared By:*

**STELLAR ENVIRONMENTAL SOLUTIONS  
2198 SIXTH STREET  
BERKELEY, CALIFORNIA 94710**

**September 10, 1999**

**Project No. 99032**

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## **EXECUTIVE SUMMARY**

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Stellar Environmental Solutions (SES) was contracted by Mr. Don Coffel to conduct soil remediation activities associated with near-surface pesticide soil contamination at the real property located at 2144 Alvarado Street in San Leandro, California (project site). This work was conducted in accordance with our May 10, 1999 proposal to Mr. Coffel and subsequent change orders.

### **SITE DESCRIPTION**

The project site is located within a mixed-use (residential, commercial and light industrial) area and the site is currently developed for commercial use as a pest control contractor including an office, two storage sheds, and a covered parking area. The remainder of the parcel is paved driveway and courtyard. The project site is a former residential and commercial pest control contractor since at least 1964 to June 1987. The entirety of the site in the areas of documented residual soil contaminations is paved with asphalt or concrete.

The project site is located on fine-grained alluvial sediments at an elevation of about 25 feet Above Mean Sea Level (AMSL). The parcel is relatively flat with first occurrence of groundwater (unconfined) at approximately 20 feet below ground surface. The expected direction of shallow groundwater flow in this region is to the west, toward San Francisco Bay, in the absence of groundwater pumping or lithologic influences.

### **PREVIOUS INVESTIGATION, FINDINGS AND REGULATORY STATUS**

Two phases of subsurface investigation were conducted to evaluate the lateral and vertical extent of pesticide contamination. A total of 19 soil samples and one grab-groundwater sample were collected from 13 exploratory bores. Four localized areas were identified with organochlorine pesticides (including chlordane, DDE and DDT) in excess of regulatory agency screening criteria. Soil concentrations decreased significantly with increasing depth. The grab-groundwater sample collected immediately downgradient (west) of the area with the highest detected soil contamination contained no detectable pesticides.

All investigative and remedial activities have been conducted under oversight by the lead regulatory agency – Alameda County Health Care Services Agency (ACHCSA) which stipulated

that the cleanup goal for soil contamination should be USEPA PRGs for residential use, in order to be protective of potential future residential land use, even though residential occupancy appears unlikely. The site is under no regulatory cleanup order or directive for further investigations/remediation. All environmental work has been conducted proactively by the property owner in preparation for sale of the property, and all environmental reports have been submitted to the ACHCSA for their review.

### **SOIL REMEDIATION AND SITE RESTORATION ACTIVITIES**

A total of 25.4 tons (approximately 20 cubic yards) of pesticide-contaminated soil was excavated from the four localized areas. Excavation confirmation sidewall and base samples confirmed that the cleanup goals were met in two of the four excavations, and were not met in the remaining two excavations, although the majority of soil contamination has been removed at those two locations. All residual soil contamination concentrations are below the USEPA PRGs for industrial land use. Further soil excavation was discontinued due to site constraints and the low probability of removing all contaminated soil above the cleanup goals. Waste soil was transported offsite for disposal at a permitted Class I landfill. All excavations were resurfaced with pavement (concrete or asphalt) to prevent infiltration of precipitation and potential desorption and migration to groundwater of residual contaminants.

### **RESIDUAL CONTAMINATION POTENTIAL IMPACTS**

In the current site conditions, there are no pathways for human exposure or ecological impacts. Breaching of the pavement in areas of residual soil contamination could allow human exposure to residual pesticide contamination via dermal contact, ingestion or inhalation of airborne dust. These potential impacts can be mitigated via institutional controls such as a deed notification and/or a residual risk management plan that notifies future property owners of the potential health risks.

Desorption of near-surface pesticide contamination and downward migration to groundwater is considered highly unlikely due to the impermeable site cap and the high sorptive characteristics of pesticides.

### **RECOMMENDATIONS**

This report should be submitted to the lead regulatory agency (ACHCSA) for their review and to obtain their concurrence with the investigation conclusions and recommendations to achieve site closure. Also, if the project site is sold, this report should be provided to the buyer, as required by applicable real estate disclosure laws.



## 1.0 INTRODUCTION

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### PROJECT DESCRIPTION

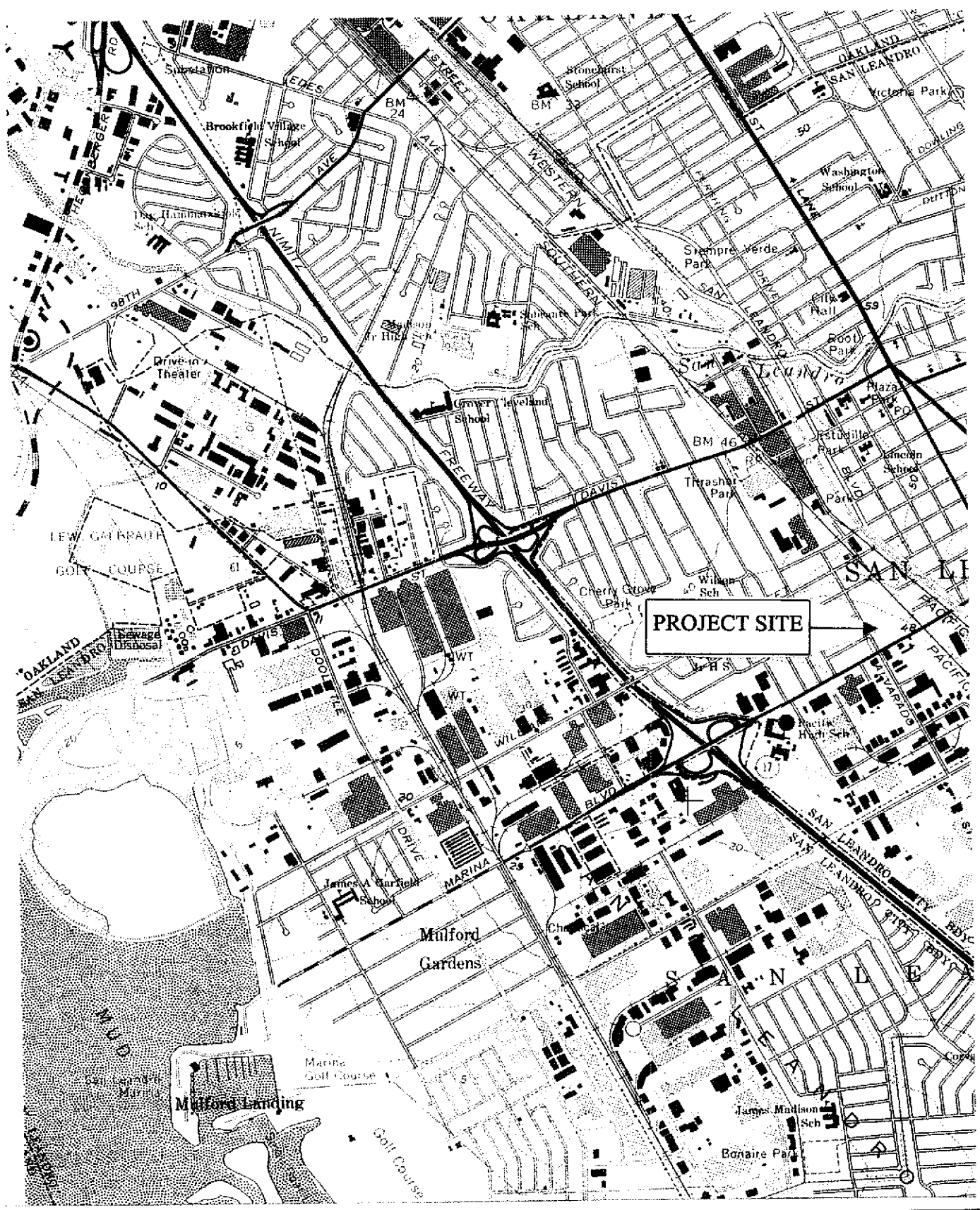
Stellar Environmental Solutions (SES) was retained by Don Coffel of Alexandria, Virginia to conduct remediation of pesticide-contaminated soil at the real property consisting of one parcel located at 2144 Alvarado Street in San Leandro, California. This work follows a previous (October 1998) site sampling investigation conducted by another consulting firm, and a Phase II site investigation conducted by SES in December 1998. Figure 1 shows the location of the project site on a U.S. Geological Survey topographic map. SES performed this work in conformance with our proposal to Mr. Don Coffel.

### SITE DESCRIPTION

The site is an approximately 8,950-square foot parcel (210 feet long by 42 feet wide) containing one 1-story building used as a commercial office building, two storage sheds, a covered parking area, and a paved courtyard and driveway. There are two small grassy areas in the front of the parcel between the building and the sidewalk. Approximately 78 square foot (26 feet long by 3 feet wide) strip of open ground was located between the cinder block wall and the storage shed in the central portion of the northern property boundary, prior to being paved as part of post-remediation site restoration. Figure 2 shows the site layout.

The site is located in a mixed-use area, including residential, commercial and light industrial. Land use bordering the subject property includes a Jack-in-the-Box restaurant, a metal pattern fabrication facility and a construction company office (Figure 2). The City of San Leandro Planning Department has zoned the property "IL – Industrial Limited." This designation allows residential occupancy (if pre-existing) in the portion of the property bordering the street and industrial usage in the rear of the parcel (City of San Leandro Zoning Code, Article 7, Section 2-704).

Site lithology and hydrogeologic conditions were determined as part of the SES Phase II investigation. Soils encountered at the site included approximately 1 foot of compacted fill material underlain by slightly stiff clay or silt. Thin, fine-grained sand lenses were encountered in both bores at approximately 8 to 10 feet Below Ground Surface (bgs), and in the deeper bore



**PROJECT SITE**



**SITE LOCATION ON U.S.G.S. TOPOGRAPHIC MAP**

**Coffel Property,  
2144 Alvarado St., San Leandro**

By: MJC

JANUARY 1999

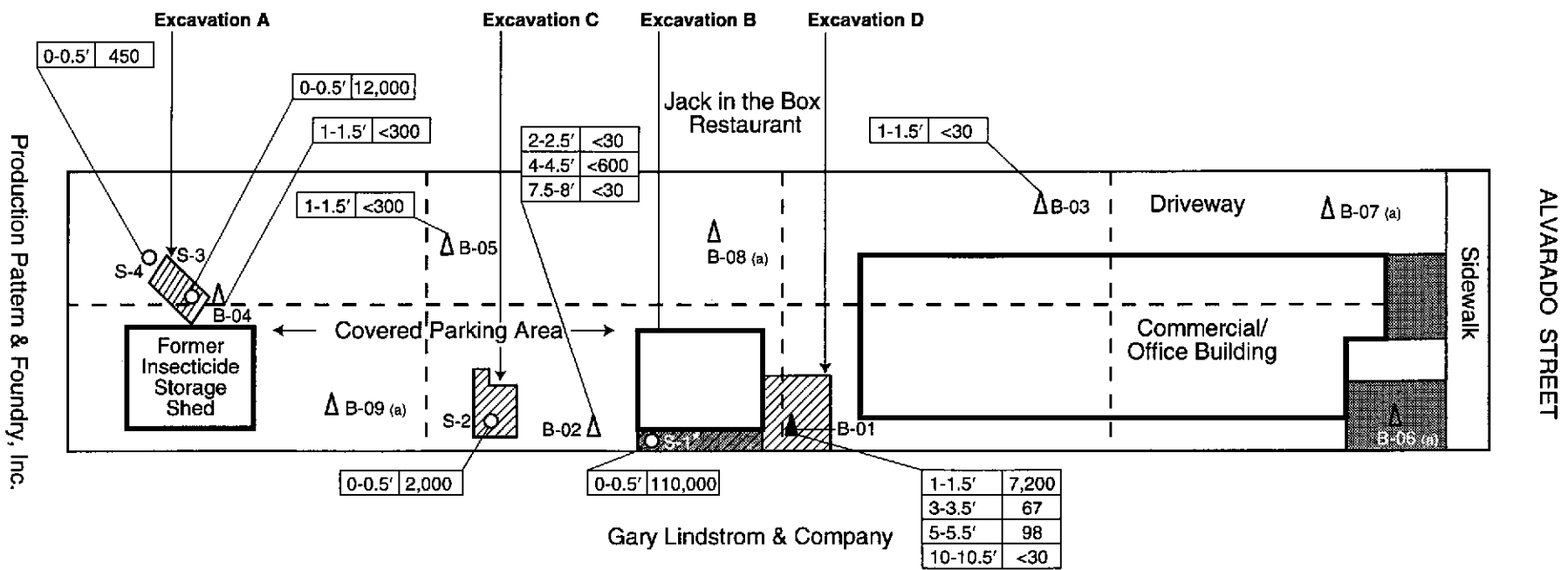
**Figure 1**



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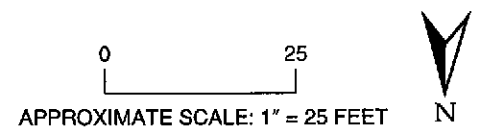


**LEGEND**

- S-2 K/JC Soil Sample (Oct. 1998)
- △ B-05 Feb. 1999 SES Exploratory Bore (Soil Sample Only)
- ▲ B-01 Feb. 1999 SES Exploratory Bore (Soil and Groundwater Sample)
- Unpaved Area
- 0-0.5' 450 Chlordane concentration (µg/kg) and depth of soil sample (feet)
- ▨ Area of excavation
- | Grid overlay for selection of March 1999 4-point composite soil sample "Comp B06/B07/B08/B09"
- (a) 4-point composite soil sample "Comp B06/B07/B08/B09" contained 300µg/kg chlordane

"<" designation indicates concentration less than detection limit

\* Location incorrect on previous investigation report's figure



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Areas of Excavation and Previous Investigation Chlordane Analytical Results  
2144 Alvarado Street, San Leandro, CA

**Figure 2**

by: MJC      JULY 1999

at approximately 20.5 feet bgs. The direction of shallow groundwater flow in the immediate vicinity of the site is very likely to the west (toward San Francisco Bay). Groundwater was encountered at 20.5 feet below ground surface (bgs) in the one site bore advanced to groundwater.

## **PREVIOUS INVESTIGATION FINDINGS**

Limited shallow soil sampling was conducted at the project site in October 1998 by another consulting firm (Kennedy/Jenks Consultants, 1998). Four sampling locations were selected based on historical site usage and accessibility at the time of sampling. Figure 2 shows the sampling locations, as confirmed in the field. Tables 1 and 2 summarize the analytical results of the previous investigations. Soil samples collected at the surface (less than 0.5 feet deep) were analyzed only for organochlorine pesticides and phenols. Soil samples collected between 2 and 3 feet deep (maximum sampling depth) were analyzed only for volatile organic compounds (VOCs).

Elevated levels of several organochlorine pesticides (including chlordane, 4,4-DDT, 4,4-DDD, and 4,4-DDE) were detected in all four of the surface soil samples, at concentrations in excess of U.S. Environmental Protection Agency (USEPA) Preliminary Remediation Goals (PRGs), which are screening criteria for further assessment and/or remediation (USEPA, 1998). Also detected in one sample was 2,4-dichlorophenol, at a concentration well below its PRG. No VOCs were detected in the deeper (2 to 3 feet) soil samples. The consultant concluded that neither solvents nor phenols were site contaminants of concern. No groundwater sampling was conducted. A more detailed discussion of the previous phase analytical results is presented in the body of this report. The consultant recommended that additional site characterization be conducted to evaluate the lateral and vertical extent of soil contamination and the potential impacts to groundwater.

In December 1998, SES conducted a Phase II environmental site investigation designed to: 1) evaluate the vertical extent of soil contamination at locations previously determined to have soil contamination; 2) evaluate the potential for soil contamination at two additional "control" locations (i.e., not specifically identified as being near pesticide usage areas); and 3) evaluate the potential for pesticide contamination in groundwater. The investigation confirmed that four locations contained shallow (less than 2 feet deep) pesticide contamination in excess of USEPA PRGs, and that groundwater was not impacted with pesticides, confirming the low mobility of these compounds in soil and the absence of potential impacts to groundwater. (SES, 1999a).

**Table 1**  
**Phase I (October 1998) Soil Analytical Results**  
**2144 Alvarado Street, San Leandro, California**  
(all concentrations in µg/Kg)

Sample I.D.	Sample Depth Interval (feet bgs)	Chlordane	4,4-DDD	4,4-DDE	4,4-DDT	Phenols	Volatile Organic Compounds
S-1A	0 to 0.5	110,000	4,500	< 1,200	< 1,200	NA	NA
S-1B	2.0 to 2.5	NA	NA	NA	NA	NA	ND
S-2A	0 to 0.5	4,000	< 120	230	2,000	ND	NA
S-2B	2.0 to 2.5	NA	NA	NA	NA	NA	ND
S-3A	0 to 0.5	12,000	590	< 120	< 120	2,300 <sup>(a)</sup>	NA
S-3B	2.5 to 3.0	NA	NA	NA	NA	NA	ND
S-4A	0 to 0.5	450	< 60	< 60	< 60	NA	NA
S-4B	2.5 to 3.0	NA	NA	NA	NA	NA	ND
<b>Regulatory Considerations</b>							
PRG-Residential (and site-specific cleanup goal)		1,600	2,400	1,700	1,700	160,000	1,000 (b)
PRG-Industrial		12,000	19,000	13,000	13,000	3,200,000	1,000 (b)

(a) 2,4-Dichlorophenol was the only phenol compound detected

(b) Regional Water Quality Control Board's To Be Considered ARAR of 1 ppm total volatile organic compounds  
bgs = below ground surface; NA = Not Analyzed; ND = Not Detected at levels above the method detection limit;  
PRG = U.S. Environmental Protection Agency Preliminary Remediation Goal (updated May 7, 1998)

Table includes only detected compounds.

**Table 2**  
**Phase II (December 1998) Soil Analytical Results**  
**2144 Alvarado Street, San Leandro, California**  
(all concentrations in µg/Kg)

Sample I.D.	Sample Depth Interval (feet bgs)	Chlordane	4,4-DDD	4,4-BDE	4,4-DDT
B-01-1'	1.0 to 1.5	7,200	< 120	< 120	< 120
B-01-3'	3.0 to 3.5	67	< 6	< 6	< 6
B-01-5'	5.0 to 5.5	98	< 6	< 6	< 6
B-01-10'	10.0 to 10.5	< 30	< 6	< 6	< 6
B-02-2'	2.0 to 2.5	< 30	< 6	< 6	< 6
B-02-4'	4.0 to 4.5	< 600	< 120	< 120	< 120
B-02-7.5'	7.5 to 8.0	< 30	< 6	< 6	< 6
B-03-1'	1.0 to 1.5	< 30	< 6	< 6	< 6
B-04-1.5'	1.5 to 2.0	< 300	< 60	< 60	< 60
B-05-1'	1.0 to 1.5	< 300	< 60	< 60	< 60
<b>Regulatory Considerations</b>					
PRG-Residential (and site-specific cleanup goal)		1,600	2,400	1,700	1,700
PRG-Industrial		12,000	19,000	13,000	13,000

bgs = below ground surface; NA = Not Analyzed; PRG = U.S. Environmental Protection Agency Preliminary Remediation Goal (updated May 7, 1998); Table includes only detected compounds.

## **WORKPLAN AND ACHCSA CONDITIONS FOR CLOSURE**

As a condition of site closure, the lead regulatory agency (Alameda County Health Care Services Agency [ACHCSA]) stipulated that additional soil samples should be collected to determine if there were additional areas of soil contamination (SES, 1999b). Using a grid system, the site was divided into 8 grid cells, four of which had adequate representation by previous soil samples. SES collected for laboratory analysis one shallow soil sample from each of the four remaining grid cells with no previous representation. Pesticide concentrations in all the samples were below the USEPA PRGs. These results were summarized in the SES workplan for contaminated soil remediation (SES, 1999c). That workplan was submitted to and approved by ACHCSA (ACHCSA, March 23, 1999). The work summarized in this report was conducted in accordance with that workplan, with minor revisions that included more rigorous excavation confirmation sampling and slightly larger excavation areas.

The workplan stipulated and ACHCSA agreed that the appropriate soil cleanup goal for the primary contaminant of concern – chlordane – should be the USEPA PRG of 1,600 µg/kg. The ACHCSA stipulated that if the soil cleanup goal was not achieved by the proposed remediation, then the ACHCSA would allow the residual soil contamination to stay in place, and that the ACHCSA might consider requiring an institutional control (e.g. deed notification) to manage the residual soil contamination. Previous investigation sample locations and analytical results are discussed in more detail in Section 3.0.

## **PURPOSE AND SCOPE OF WORK OF CURRENT INVESTIGATION**

The objective of the current remediation work was to remove shallow soils contaminated with pesticides above the agreed-upon cleanup goals. To achieve this objective, SES coordinated the removal of approximately 20 cubic yards of soil at the four locations with identified pesticide contamination above the cleanup goals; collected for laboratory analysis excavation confirmation soil samples; backfilled, compacted and resurfaced the excavation areas; and disposed of the soil at a permitted landfill.

## **SOIL CLEANUP GOALS**

The ACHCSA stipulated that the site soil cleanup goal would be the USEPA PRGs for residential land use, since the site holds a dual zoning for residential and commercial uses. The three organochlorine pesticides historically detected at the site above their respective residential PRGs include:

- Chlordane (residential PRG = 1,600 µg/kg)

- 4,4-DDD (residential PRG = 2,400 µg/kg)
- 4,4-DDT (residential PRG = 1,700 µg/kg)
- Heptachlor (residential PRG = 99 µg/kg)



## **2.0 SOIL REMEDIATION ACTIVITIES**

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This section discusses the rationale and methodology of soil excavation, confirmation sampling and site restoration activities. Appendix A contains photodocumentation of field activities.

### **PRE-FIELD WORKING PLANNING**

Prior to drilling, a site reconnaissance was conducted and Underground Service Alert (USA) was notified to identify potential subsurface utilities. The ACHCSA was verbally notified of the schedule for remediation activities, although ACHCSA did not elect to be present during the field work. SES also submitted the analytical results of previous investigation soil samples to local soil disposal landfills (Class III and Class II) to obtain a preliminary decision on whether the excavated soil would be accepted for disposal, or whether the soil would need to be disposed of as Class I hazardous waste. The local Class III landfill determined that they would not accept the waste, and the Class II landfill indicated that the waste might be accepted, contingent upon the analytical results of post-remediation soil stockpile samples.

### **RATIONALE FOR REMEDIATION LOCATIONS, SPATIAL EXTENT AND CONFIRMATION SAMPLING**

As discussed in the previous section, soil excavation areas and spatial extent were selected based on the results of previous sampling investigations, and the rationale was approved by the ACHCSA. A total of 13 shallow soil borings were advanced from which 19 soil samples were collected to a depth of 5 feet for laboratory analysis. Four localized areas were identified with pesticide concentrations in excess of the agreed-upon cleanup goals, as discussed below. The investigations' finding of elevated pesticide contamination in near surface soils and rapidly decreasing concentrations with depth suggest that surface spillage was the source of the detected contamination.

The lateral extent of soil excavation areas were delineated in the workplan. At several of the excavation areas, the excavations were increased slightly in size to maximize the potential for achieving the soil cleanup goals. The following discusses each excavation area. The location and lateral limits of each excavation is shown on Figures 3 and 4 in subsequent Section 3.0 – Findings.

### **Excavation A (represented by soil boring S-3)**

This area is located adjacent to the former insecticide storage shed in the extreme eastern portion of the site. The 0.5-foot soil sample from previous investigation soil boring S-3 contained chlordane at 12,000 µg/kg, which is above the cleanup goal. The lateral extent of pesticide contamination above PRGs was delineated on two sides by other borings located within several feet of S-3. The maximum depth of soil contamination above residential PRGs was estimated to be 1.5 feet. The proposed excavation dimensions were approximately 5 feet square and 2 feet deep, centered around the boring location. The final excavation measured 12 feet long by 6 feet wide by 2 feet deep.

### **Excavation B (represented by soil boring S-1)**

This area of open ground is located in the 3-foot wide area between the small cinder block building and the northern property line, just west of the covered parking area. The 0.5-foot deep soil sample from previous investigation soil boring S-1 contained 110,000 µg/kg chlordane and 4,500 µg/kg 4,4-DDD, both above the cleanup goal. The lateral extent of pesticide contamination above PRGs is delineated on one side by boring B-02 located within 10 feet of S-2. Excavation to the north and south was limited by the cinder block wall on the northern property line and the building, respectively. The maximum depth of soil contamination above residential PRGs was estimated to be 2.5 feet. The proposed excavation was to include the entire area of open ground, and the final excavation was as proposed, except for several small sidewall areas that were not excavated beneath footings.

### **Excavation C (represented by soil boring S-2)**

This area is located in the covered parking area to the west of the former insecticide storage shed. The 0.5-foot deep soil sample from previous investigation soil boring S-2 contained 4,000 µg/kg chlordane and 2,000 µg/kg 4,4-DDT, both above the cleanup goal. The lateral extent of pesticide contamination above PRGs was delineated on one side by boring B-02 located within 10 feet of S-2. Excavation to the north was limited by the cinder block wall on the northern property line. The maximum depth of soil contamination above residential PRGs was estimated to be 2 feet. The proposed excavation dimensions were approximately 5 feet square by 2 feet deep, centered around the boring location. The final excavation measured 8 feet long by 7 feet wide by 2 feet deep. An additional 3-foot square area was excavated at the southeast corner of the main excavation because eroded asphalt indicated it could have been a conduit for surface spillage to impact the subsurface.

### **Excavation D (represented by soil boring B-01)**

This area is located between the office area and the shed on the northern property line. Previous investigation soil boring B-01 contained 7,200 µg/kg chlordane, which is in excess of the cleanup goal. Excavation to the east and to the north was limited by the shed to the east and by the cinder block wall to the north. The maximum depth of soil contamination above residential PRGs was estimated to be 2.5 feet. The proposed excavation dimensions were 5 feet square by 3 feet deep, centered around the boring location. The final excavation measured 11 feet long by 10 feet wide by 3 feet deep.

### **EXCAVATION CONFIRMATION SAMPLING**

The SES soil remediation workplan discussed in detail the locations of and rationale methodology for collecting excavation confirmation soil samples. The ACHCSA stipulated that if excavation confirmation composite soil samples were collected, then the analytical result of the composite sample(s) would be multiplied by the number of locations within the composite sample. In other words, it would be assumed that if a two point composite sample contained 1,000 µg/kg chlordane (cleanup goal of 1,600 µg/kg), all of the detected chlordane would be attributed to one of the two locations comprising the composite, hence the assumed maximum concentration would be 2,000 µg/kg, and this composite sample would therefore not meet the cleanup goal. In that event, the discrete soil samples that comprised the composite would be analyzed to determine which, if either, discrete sample did not meet the cleanup goal. To reduce the potential for this occurrence, SES decreased the number of components in each composite sample (from 4-point composites to 2-point composites). In addition, discrete samples were collected from sidewalls where further soil removal would be precluded by adjacent buildings or property lines. This resulted in more excavation confirmation samples than originally proposed in the workplan.

Confirmation soil samples were collected by SES for laboratory analysis to document if the soil cleanup goals were met. Discrete soil samples were collected from each excavation sidewall and base. When sidewall composite samples were collected, equal volumes of the sidewall samples were composited into 2-point composite samples for analysis. The remaining sample volume was submitted to the analytical laboratory and held pending analysis of the composite samples. In the event that a composite sample exceeds the cleanup goal, the discrete sidewall samples from that excavation could then be analyzed to determine in which direction(s) over-excavation may need to be conducted. Soil samples were collected with a clean trowel after scraping off the sampling location to ensure no cross-contamination from sloughing, and the soil was

immediately containerized in 4-oz glass jars with Teflon-lined lids. The sampling jars were labeled, chilled and transported under chain-of-custody record to the analytical laboratory.

## **SOIL EXCAVATION ACTIVITIES**

Soil excavation was conducted on July 12, 1999 by DECON Environmental Services (San Leandro, California – California contractor's license no. 545726) under supervision of SES' Registered Geologist Mr. Bruce Rucker. Prior to excavation, overlying concrete and asphalt was sawcut then removed. Soil was excavated using a Bobcat excavator, and inaccessible areas were excavated by hand. The inferred lesser-contaminated soil from Excavations A and C (emplaced in a steel bin) was segregated from the inferred greater-contaminated soil from Excavations B and D (stockpiled on plastic sheeting), to allow for potential discrete waste soil profiling. Following soil removal, all excavations were covered with plywood, and barricades and caution tape were put up around the areas to prevent entry, pending receipt of analytical results.

Soil excavation activities were discontinued following the initial phase of excavation based on facility constraints creating a low potential for removing all the contaminated soil above the negotiated cleanup goal (see Section 3.0 for discussion of excavation confirmation soil sample analytical results). The excavations were backfilled with clean imported fill from the La Vista Quarry in Hayward, California, which is owned by Dumbarton Quarries. Backfill material was emplaced in approximately 1-foot lifts and compacted with a "whacker-packer." The surfaces of each excavation were repaved with concrete, except for the former area of open ground (Excavation Area B) which was paved with asphalt.

## **LABORATORY ANALYSES**

All excavation confirmation samples were analyzed for organochlorine pesticides by EPA Method 8081A. Laboratory analyses were conducted by Star Analytical (Forth Worth, Texas, under contract to Sequoia Analytical (Walnut Creek, California), which both maintain current certification for EPA 8081A analyses under the state of California Department of Health Services (DOHS) Environmental Laboratory Accreditation Program (ELAP). Waste profile samples were analyzed by Curtis & Tompkins, Ltd. (Berkeley, California) which maintains current certification for EPA 8081A analyses under the state of California Department of Health Services (DOHS) Environmental Laboratory Accreditation Program (ELAP).

Laboratory quality control samples (e.g., method blanks, matrix spikes, surrogate spikes, etc.) were analyzed by each laboratory in accordance with requirements of each analytical method. All laboratory QC sample results and sample holding times were within the acceptance limits of the methods.

## WASTE SOIL PROFILING AND DISPOSAL

Waste (including excavated soil) can be classified as non-hazardous, designated, hazardous and RCRA Characteristic Hazardous, based on contaminant concentrations. Waste that is non-hazardous or designated can be directly landfilled in Class III or Class II landfills, depending on contaminant concentrations and landfill-specific acceptance criteria. Waste is deemed hazardous by the State of California if exceeds the Total Threshold Limit Concentration – TTLC or Soluble Threshold Limit Concentration – STLC, and must be either landfilled at a Class I facility or incinerated. Waste that exceeds the Maximum Contaminant Concentration for the Toxicity Characteristic (California Code of Regulations Section 66261.24) is considered a USEPA Resource Conservation and Recovery Act (RCRA) characteristic waste, is subject to the federal Land Ban Restrictions prohibiting disposal to land, and must be incinerated. The method for determining the toxicity characteristic is the Toxicity Characteristic Leaching Potential (TCLP) extraction and analysis, to determine the soluble contaminant concentration(s).

In accordance with local Class II landfill requirements, one 4-point composite soil sample was collected on July 12, 1999 from the entirety of the approximately 30 cubic yards of stockpiled soil (both stockpiles). To ensure maximum representativeness, approximately equal volumes of soil from each of the four excavations were included in the composite sample. Table 4 summarizes the analytical results of waste soil profile samples.

Two organochlorine pesticides were detected - chlordane and heptachlor. Only the chlordane concentration (11,660 µg/kg) exceeded the total threshold limit concentration (TTLC) 2,500 µg/kg, and the waste soil would therefore be classified as hazardous waste, requiring either Class I landfill disposal or incineration. To determine if the soil was a RCRA characteristic waste, which would require incineration, a TCLP extraction and analysis was conducted. The soluble concentrations of both chlordane and heptachlor (the only pesticides detected) were both below the acceptable concentrations for Class I landfilling. However, the sample was not analyzed within the method-prescribed holding time, and the analysis was not acceptable to the Class I landfill.

The stockpiled soil was resampled on August 5, 1999. Prior to waste soil profiling, the soil from Excavations A and C was emptied from the bin and placed on plastic sheeting, segregated from the already stockpiled soil from Excavations B and D, which was anticipated to have higher pesticide concentrations than the soil from Excavations A and C, based on initial investigation

borehole analytical results. Each of the two stockpiles was separately blended with the backhoe to ensure homogenization before waste profile sampling. One 4-point composite soil sample was collected from the entirety of the approximately 30 cubic yards of stockpiled soil (both stockpiles). To ensure maximum representativeness, approximately equal volumes of soil from each of the four excavations were included in the composite sample. In anticipation of the stockpile sample exceeding local landfill requirements, the stockpile containing soil from Excavations A and C (inferred to have lower pesticide concentrations) was sub-divided into 3 separate piles, and individual 4-point composite samples were collected from each of the approximately 5 cubic yard piles. This would allow for subsequent re-analysis of individual subpiles if the entire stockpile failed landfill acceptance criteria. The profile sample from the entire stockpile was analyzed for total and TCLP soluble concentrations of organochlorine pesticides, in accordance with the anticipated Class I landfill requirements.

The total concentration of chlordane was in excess of the TTLC criterion concentration, rendering it a California hazardous waste. The soluble (TCLP) chlordane concentration (9.5 µg/L) was well below the RCRA characteristic waste concentration (30 µg/L), and therefore could be landfilled directly at a Class I landfill. Neither heptachlor nor other historically detected organochlorine pesticides were detected in the sample above any of the disposal criterion concentrations. Because the initial sample from the entire stockpile met Class I acceptance criteria, yet failed the non-hazardous criterion concentration, analysis of the sub-divided stockpile samples was not conducted, and a waste profile package was completed and submitted for acceptance approval at Chemical Waste Management's Kettleman Hills, California Class I facility,

The soil was transported offsite on August 27, 1999 as non-RCRA hazardous waste under hazardous waste manifesting procedures. The landfill weighmaster certificate determined the exact weight of the transported soil to be 25.4 tons. Copies of waste manifests and disposal facility acceptance documentation are included as Appendix C.

**Table 3**  
**Waste Soil Disposal Profile Sampling Analytical Results**  
**2144 Alvarado Street, San Leandro, California**

(all concentrations in  $\mu\text{g}/\text{Kg}$  or  $\mu\text{g}/\text{L}$ , equivalent to parts per billion)

Sample ID	Sample Date	Total Chlordane ( $\mu\text{g}/\text{Kg}$ ) (a)	Soluble Chlordane ( $\mu\text{g}/\text{L}$ ) (b)	Total Heptachlor ( $\mu\text{g}/\text{Kg}$ )	Soluble Heptachlor ( $\mu\text{g}/\text{L}$ ) (b)
Soil Stockpile, 4-pt. Composite	July 12, 1999	11,660	18.3 (c)	976	0.81 (c)
Full Soil Pile	August 5, 1999	48,000	9.5	< 600	< 0.1
<b>Regulatory Considerations / Disposal Facility Acceptance Criteria</b>					
		2,500 (d)	30 (e)	4,700 (d)	8 (e)

NA = Not Analyzed; Table includes only detected compounds.

Both samples are 4-point composites of the entire stockpile.

(a) Concentration is the sum of alpha-chlordane and gamma-chlordane isomers

(b) Toxicity Characteristic Leaching Potential (TCLP) extraction

(c) Sample analyzed beyond the USEPA method holding time, and was not considered valid by the Class I landfill.

(d) Total threshold limit concentration (TTL) over which waste is considered hazardous.

(e) Maximum Contaminant Concentration for the Toxicity Characteristic (California Code of Regulations 66261.24), above which the waste is considered a RCRA waste subject to the Land Disposal Restrictions, and must be incinerated.

### 3.0 FINDINGS

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The following subsections discuss the magnitude of residual soil contamination and the toxicity, environmental fate and mobility of detected contaminants. Table 4 summarizes the analytical results of excavation confirmation sampling. Figures 3 and 4 show the location of excavation confirmation samples and summarizes the analytical results.

#### RESIDUAL SOIL CONTAMINATION

The analytical results of the previous site investigation bore sampling and excavation confirmation samples document the following regarding residual soil contamination:

- Prior to remediation, a total of 19 soil samples were collected from 13 exploratory bores over the project site. Four localized areas of pesticide contamination above the cleanup goal were identified. Contaminants detected at these four locations included: chlordane; heptachlor; 4,4-DDD; 4,4-DDE; 4,4-DDT; and eldrin. Detected contaminant concentrations in soil decreased rapidly with depth, very likely due to the high sorption tendency of these contaminants (discussed in subsequent subsection). Contaminant concentrations were either not detected or insignificant ( $< 100 \mu\text{g}/\text{Kg}$ ) in all soil samples collected at depths of 2 feet or greater, whereas elevated concentrations were detected in all of the surface (less than 0.5 feet deep) soil samples.
- No organochlorine pesticides were detected in the grab-groundwater sample that was collected immediately downgradient of the area of highest soil contamination, confirming the low vertical mobility of these compounds.
- Excavation sidewall and base confirmation samples from two of the four excavation areas (Excavation Areas A and C, both located in the eastern portion of the property) met the cleanup goals for all pesticides.
- At Excavation Area B (former open ground area), two of the six discrete sidewall samples (both in the south sidewall) contained chlordane concentrations at approximately 40 percent above the cleanup goal. One of the sidewall samples (in the north sidewall) contained heptachlor at approximately 70 percent above the cleanup goal. One of the two excavation base samples contained chlordane and heptachlor concentrations at

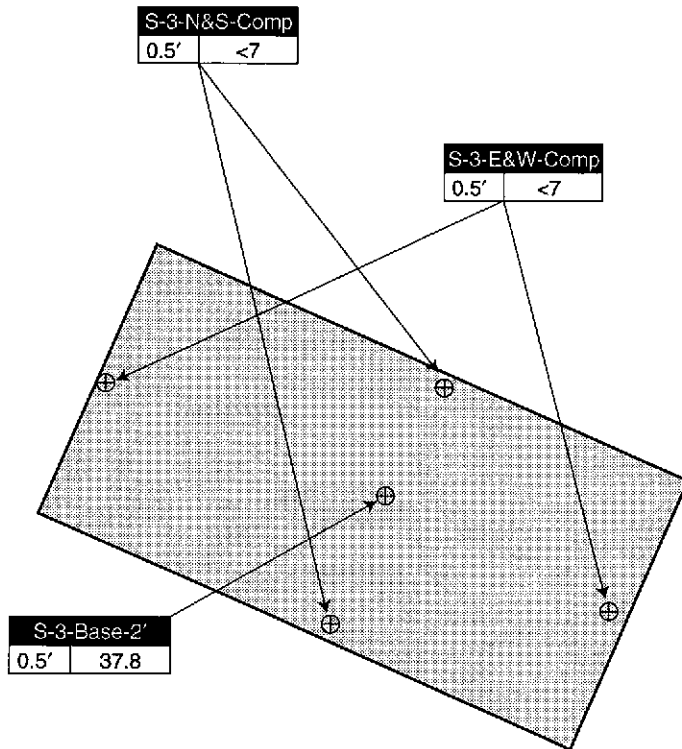


Chlordane Residential soil PRGs: <sup>1.6 mg/kg</sup> ~~0.34 mg/kg~~  
or ~~340 mg/kg~~ 1,600 mg/kg

Soil screening levels for  
migration to Groundwater

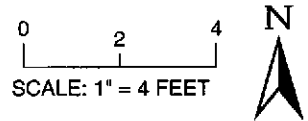
	DAF 20 mg/kg	DAF 1 mg/kg
Chlordane	10.0	0.5

Former Insecticide Storage Shed

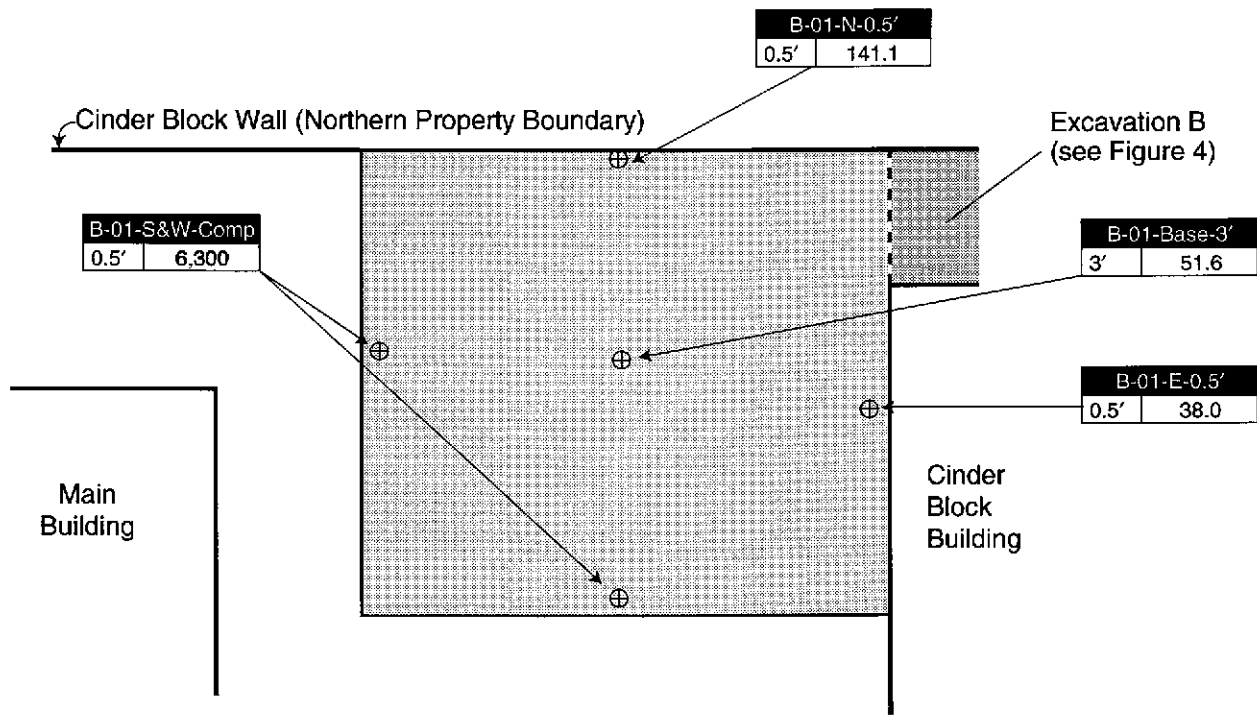


LEGEND

- Area of excavation
  - Excavation confirmation soil sample
- |                   |                                   |
|-------------------|-----------------------------------|
| <b>S-1-Base-E</b> | ← Soil sample name                |
| 0.5'              | ← Chlordane concentration (µg/kg) |
| 450               | ← Soil sample depth (feet)        |



EXCAVATION A



EXCAVATION D



Excavations A and D—Residual Soil Chlordane Analytical Results

2144 Alvarado Street  
San Leandro, CA

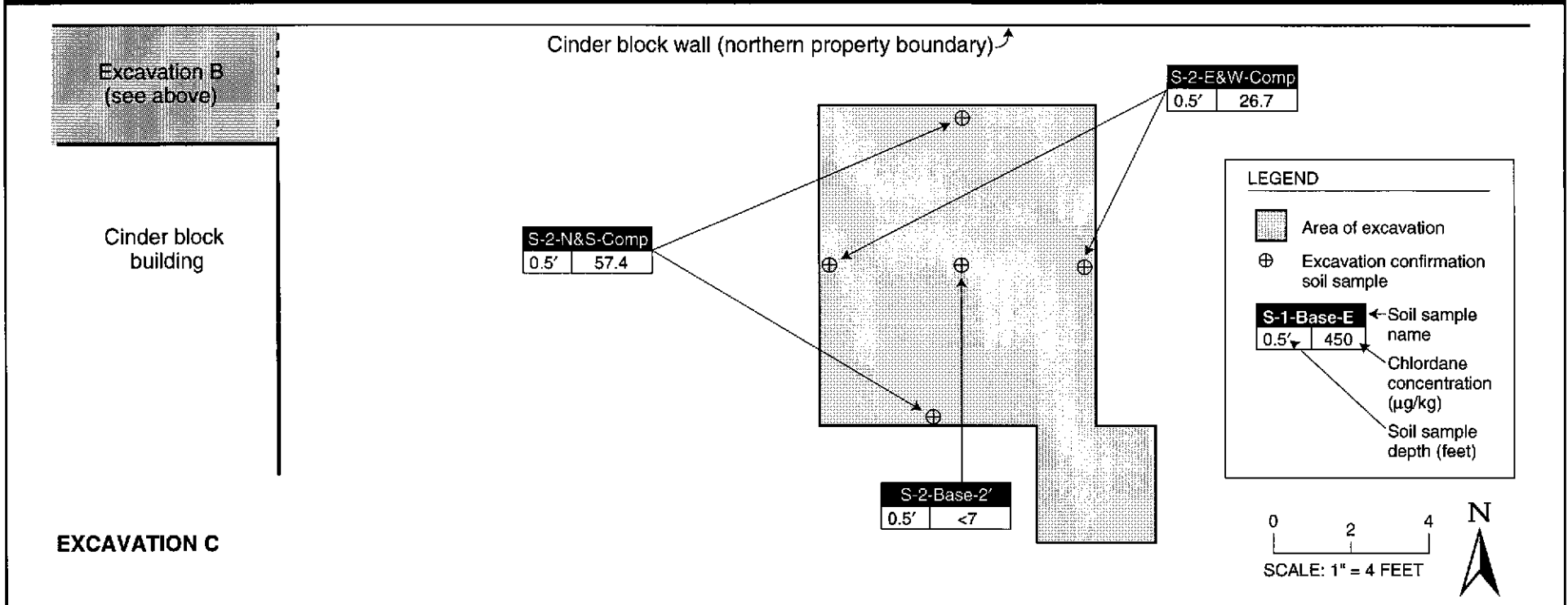
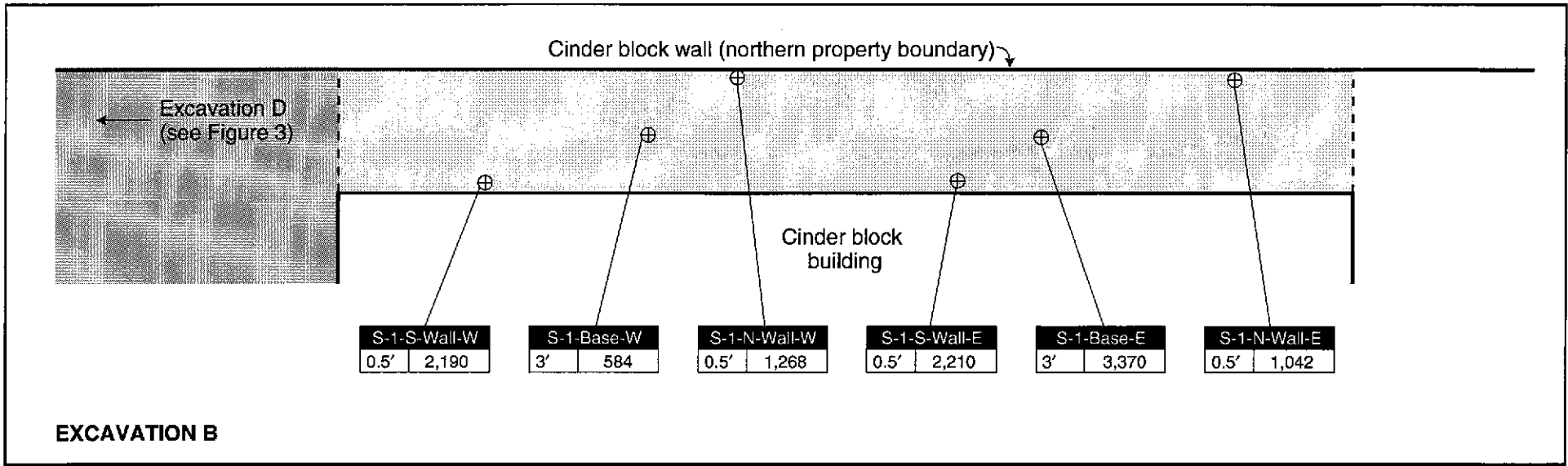
By: MJC

JULY 1999

Figure 3

★ Stellar Environmental Solutions  
Geoscience & Engineering Consulting

99032-4



99032-3-a

**Table 4**  
**Remedial Excavation Confirmation Soil Analytical Results**  
**2144 Alvarado Street, San Leandro, California**  
(all concentrations in  $\mu\text{g}/\text{Kg}$ )

Sample I.D.	Sample Type	Sample Depth (feet bgs)	Chlordane(a)	4,4-DDD	4,4-DDE	4,4-DDT	Heptachlor
<b>Excavation Area A</b>							
S-3-Base-2'	Single excavation base	2'	37.8	< 6.0	< 6.0	< 6.0	< 1.0
S-3-N&S-Comp.	2-point sidewall composite	0.5'	< 7.0	< 6.0	< 6.0	< 6.0	< 1.0
S-3-E&W-Comp.	2-point sidewall composite	0.5'	< 7.0	< 6.0	< 6.0	< 6.0	< 1.0
<b>Excavation Area B</b>							
S-1-S-Wall-W	Single sidewall	0.5'	<b>2,190</b>	< 120	< 120	< 120	98.2
S-1-N-Wall-W	Single sidewall	0.5'	1,268	< 120	< 120	< 120	<b>169</b>
S-1-S-Wall-E	Single sidewall	0.5'	<b>2,210</b>	< 120	< 120	< 120	92.7
S-1-N-Wall-E	Single sidewall	0.5'	1,042	< 120	< 120	< 120	22.5
S-1-Base-W	Single excavation base	3.0	584	< 60	< 60	< 60	71.6
S-1-Base-E	Single excavation base	3.0'	<b>3,370</b>	< 120	< 120	< 120	<b>502</b>
<b>Excavation Area C</b>							
S-2-N&S-Comp	2-point sidewall composite	0.5'	57.4	< 60	< 60	< 60	< 10
S-2-E&W-Comp	2-point sidewall composite	0.5'	26.7	< 6.0	< 6.0	7.73	6.04
S-2-Base-2'	Single excavation base	2'	< 7.0	< 6.0	< 6.0	< 6.0	1.8

Sample I.D.	Sample Type	Sample Depth (feet bgs)	Chlordane(a)	4,4-DDD	4,4-DDE	4,4-DDT	Heptachlor
<b>Excavation Area D</b>							
B-01-Base-3'	Single excavation base	3'	51.6	< 60	< 60	< 60	< 10
B-01-N-0.5'	Single sidewall	0.5'	141.1	< 60	< 60	< 60	< 10
B-01-E-0.5' (b)	Single sidewall	0.5'	38.0	< 6.0	< 6.0	< 6.0	1.57
B-01-S&W-Comp	2-point sidewall composite	0.5'	<b>6,300</b>	< 600	< 600	< 600	< 100
<b>Regulatory Considerations</b>							
PRG-Residential (and site-specific cleanup goal)			1,600	2,400	1,700	1,700	99
PRG-Industrial			12,000	19,000	13,000	13,000	670

(a) Sum total of alpha- and gamma-chlordane isomers; (b) Endrin also detected at 1.57  $\mu\text{g}/\text{kg}$   
 PRG = U.S. Environmental Protection Agency Preliminary Remediation Goal (updated May 7, 1998); bgs = below ground surface  
 Concentrations in bold are in excess of the negotiated cleanup goal; Table includes only detected compounds

- approximately twice and five times their cleanup goals, respectively. Additional sidewall soil excavation in this location is precluded by site constraints.
- At Excavation Area D, two of the four sidewall samples and the base sample had no concentrations above the cleanup goals. The 2-point composite sample collected from the south and west sidewall contained chlordane at approximately three times the cleanup goal. It is not known if the two sidewalls have comparable chlordane concentrations or if one sidewall has the majority or all of the contamination. Additional soil excavation at this location was discontinued due to the low probability of removing all the soil contamination above the cleanup goals.
- None of the excavation confirmation soil samples contained pesticides in excess of their respective PRGs for industrial land use.

### **TOXICITY, ENVIRONMENTAL FATE AND MOBILITY OF ORGANOCHLORINE PESTICIDES**

The detected contaminants are in a class of pesticides known as chlorinated hydrocarbon insecticides or organochlorine pesticides, and are known or probable human carcinogens. Chlordane is in the cyclodiene class of pesticides (Morrill et al., 1982) and has a reported range of half-lives in soils of 283 days to 3.8 years (Howard et al., 1991). The DDD, DDE and DDT congeners have a reported range of half-lives in soil of 2 years to 15.6 years (Howard et al., 1991). All these pesticides are relatively resistant to biodegradation, but can be environmentally degraded by several different pathways, including epoxidation of the non-chlorinated ring, dehydrochlorination, oxidation/hydroxylation and reductive dechlorination (occurs under anaerobic conditions only) (Morrill et al., 1982). Molecular rearrangements through reactions mediated by microbes may also occur. Degradation products can be more toxic than the original compounds. Factors that are reported to increase the rate of environmental degradation of DDT include decreased oxygen content and increasing temperature, soil moisture, organic matter content and pH. Increasing depth of placement has also been cited as inhibiting pesticide degradation, likely due to decreased microbial activity, organic content and clay content (Morrill et al., 1982). Both DDT and chlordane are classified as "mobility class 1" (in a range of 1 to 5, with 1 being the lowest mobility class) (Ramlit Associates, Inc., 1983).

Pesticides remain toxic in soils for varying periods of time. The longer the persistence, the greater the probability that the pesticide will impact groundwater. Persistence is broadly defined as the period over which a chemical remains intact and biologically active. Persistence values of 4 years and 5 years were assigned to DDT and chlordane, respectively, by Morrill et al. (1982).

Environmental factors that increase the mobility of pesticides—the ability to move from the unsaturated zone to groundwater—have been reported in a series of case studies in California (Ramlit Associates, Inc., 1983). This compilation noted that most or all of the following conditions existed at sites where pesticides were detected in groundwater:

- Alluvial soils having interbedded coarse and fine-grained materials;
- Large quantities of water applied to the soil in excess of background precipitation;
- Water table aquifers generally less than 30 feet deep;
- High mass loading of pesticides with extensive or concentrated pesticide application to soils occurring over many years; and
- Application of pesticides which are highly persistent or mobile in groundwater (Ramlit Associates, Inc., 1983).

The site conditions do not meet the above characteristics, which is confirmed by the absence of detectable pesticide contamination in site groundwater.

Because degradation of pesticides is, to a large degree, related to the availability of microbes, the criteria for microbial populations is an important indicator of the probable pesticide persistence. Also important is the type of soil; pesticides do not readily move through soil, being held in place or retarded by adsorption on clay minerals. Microbial populations capable of degrading pesticides are more likely to be found below the near-surface where moisture is more available. Thus, the concentration of pesticides at the site would be expected to be significantly reduced with depth, a hypothesis borne out by the results of the site investigations.

## 4.0 REGULATORY CONSIDERATIONS

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The following summarizes regulatory considerations for the documented contamination at the project site.

The lead regulatory agency providing oversight of site contamination issues is the Alameda County Health Care Services Agency (ACHCSA). The SES technical workplan for soil remediation activities (SES, 1999b) was reviewed and approved by the ACHCSA in their March 23, 1999 letter to Mr. Coffel. The ACHCSA indicated prior to the workplan that contaminated soil could be left in place without remediation, and that residual soil contamination above the negotiated cleanup goals could be managed in place with institutional controls. Mr. Coffel elected to proactively initiate soil remediation as that option was the most protective of the environment and land use.

Excavation confirmation samples indicate that the majority of contaminated soil has been removed, and mobility of the residual soil contamination site will be limited by the 100 percent coverage of the site with an impermeable cap (concrete and asphalt). The low mobility of these contaminants and the absence of groundwater impacts suggest that the potential for offsite impacts from the residual contamination is unlikely. Current site conditions (100 percent paved) are such that there are no potential routes for ecological or human impacts associated with residual soil contamination. Breaching of the pavement in any area of soil contamination (i.e., trenching for utilities or building foundations) could result in human exposure. Therefore, capping as a remedial measure is often augmented by a long-term institutional control such as a deed notification and/or a residual risk management plan, so that future buyers of the property or other interested parties are notified of the residual soil contamination and potential health risks.



## **5.0 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

---

### **SUMMARY AND CONCLUSIONS**

The findings of previous site investigations and recent soil remediation activities for the property located at 2144 Alvarado Street in San Leandro, California, support the following conclusions:

- The project site is located within a mixed-use (residential, commercial and light industrial) area and the site is currently utilized by a commercial pest control contractor. Developed structures include an office, two storage sheds, and a covered parking area. The remainder of the parcel is paved driveway and courtyard.
- The project site was utilized by commercial pest control contractors since at least 1964 to June 1987. From June 1987 to June 1, 1996 the site was a commercial cleaning business which used no pesticides. Historical maps indicate that the front building may have been historically used as a residential dwelling. The entirety of the site in the areas of documented residual soil contaminations is paved with asphalt or concrete.
- The project site is located on fine-grained alluvial sediments at an elevation of about 25 feet amsl. The parcel is relatively flat with first occurrence of groundwater (unconfined) at approximately 20 feet below ground surface. The expected direction of shallow groundwater flow in this region is westerly, toward San Francisco Bay, in the absence of groundwater pumping or lithologic influences.
- Two phases of subsurface investigation were conducted to evaluate the lateral and vertical extent of pesticide contamination. A total of 19 soil samples and one grab-groundwater sample were collected from 13 exploratory bores. Four localized areas were identified with organochlorine pesticides (including chlordane, DDE and DDT) in excess of regulatory agency screening criteria. Soil concentrations decrease significantly with increasing depth.
- One grab-groundwater sample collected immediately downgradient (west) of the area with the highest detected soil contamination contained no detectable pesticides.
- The lead regulatory agency – ACHCSA – stipulated that the cleanup goal for soil contamination should be USEPA PRGs for residential use, in order to be protective of potential future residential land use. The site is under no regulatory cleanup order or directive for further investigations/remediation. All environmental work has been conducted

proactively by the property owner in preparation for sale of the property, and all environmental reports have been submitted to the ACHCSA for their review.

- A total of 25.4 tons of pesticide-contaminated soil was excavated from the four localized areas. Excavation confirmation sidewall and base samples confirmed that the cleanup goals (USEPA PRGs for residential land use) were met in two of the four excavations, and were not met in the remaining two excavations, although the majority of soil contamination has been removed at those two locations. All residual contaminant concentrations are below the USEPA PRGs for industrial land use. Further soil excavation was discontinued due to site constraints and the low probability of removing all contaminated soil above the cleanup goals. All excavated soil was transported offsite by a licensed waste hauler to a permitted Class I landfill. All excavations were backfilled with clean fill and resurfaced with an impermeable cap (concrete or asphalt) to prevent infiltration of precipitation and desorption and migration to groundwater of residual contamination.
- In the current site conditions, there are no pathways for human exposure or ecological impacts. Breaching of the pavement in areas of residual soil contamination could allow human exposure to residual pesticide contamination via dermal contact, ingestion or inhalation of airborne dust. These potential impacts can be mitigated via institutional controls such as a deed notification and/or a residual risk management plan that notifies future property owners of the potential health risks.
- Desorption of near-surface pesticide contamination and downward migration to groundwater is considered highly unlikely, due to the impermeable site cap and the high sorptive characteristics of pesticides.

## RECOMMENDATIONS

- Submit this report to the lead regulatory agency (ACHCSA) for their review to obtain their concurrence with the investigation conclusions and recommendations to achieve site closure.
- If the project site is sold, this report should be provided to the buyer, as required by applicable real estate disclosure laws.

## 6.0 LIMITATIONS

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This report has been prepared for the use of Don Coffel and Mr. Coffel's authorized representatives. The findings and conclusions presented in this report are based on our review of the previous investigation report (November 1998), the Phase II site investigation results and the results discussed in this report. This report provides neither a certification nor guarantee that the property is free of hazardous substance contamination. This report has been prepared in accordance with generally accepted methodologies and standards of practice of the area. The personnel performing this assessment are qualified to perform such investigations and have accurately reported the information available, but cannot attest to the validity of that information. No warranty, expressed or implied, is made as to the findings, conclusions and recommendations included in the report.

The findings of this report are valid as of August 1999. Project site conditions may change with the passage of time, natural processes or human intervention, which can invalidate the findings and conclusions presented in this report.

## 7.0 REFERENCES

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- Alameda County Health Care Services Agency, 1999. Letter approving SES technical workplan for contaminated soil remediation at 2144 Alvarado Street, San Leandro, California. March 23.
- Howard, P.H., Boethling, R.S., Jarvis, W.F., Meylan, W.M. and Michalenko, E.M., 1991. Handbook of Environmental Degradation Rates, Lewis Publishers, 725 pp.
- Kennedy/Jenks Consultants, 1998. Investigation Report – 2144 Alvarado Street, San Leandro, California. November 4
- Morrill, L.G., Mahilum, B.C. and Mohiuddin, S.H., 1982. Organic Compounds in Soils: Sorption, Degradation and Persistence, Ann Arbor Science, 326 pp.
- Ramlit Associates, Inc., 1983. Groundwater Contamination by Pesticides: A California Assessment. June 16
- Stellar Environmental Solutions, 1999a. Phase II Environmental Site Investigation, 2144 Alvarado Street, San Leandro, California. January 15.
- Stellar Environmental Solutions, 1999b. Letter to Alameda County Health Care Services Agency regarding proposed soil investigation and remediation at 2144 Alvarado Street, San Leandro, California. March 18.
- Stellar Environmental Solutions, 1999c. Workplan for Contaminated Soil Remediation, 2144 Alvarado Street, San Leandro, California. April 13.
- United States Environmental Protection Agency, 1998. Preliminary Remediation Goals and Soil Screening Levels, updated May 8.



Subject: Bobcat beginning excavation at Excavation B (Excavation D is underneath the Bobcat, not yet excavated)

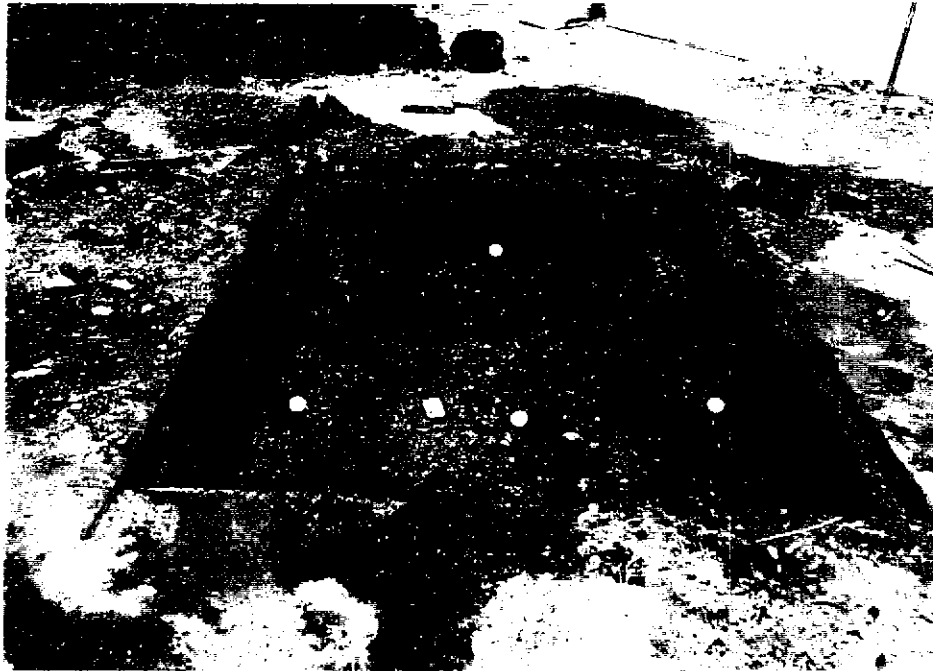
Site: 2144 Alvarado Street, San Leandro, California

Date Taken: August 5, 1999

Project No.: SES99032

Photographer: B. Rucker

Photo No.: 01



Subject: Final limits of Excavation A, looking west (flags show excavation confirmation sampling locations).

Site: 2144 Alvarado Street, San Leandro, California

Date Taken: August 5, 1999

Project No.: SES99032

Photographer: B. Rucker

Photo No.: 02



Subject: Final limits of Excavation B, looking west (flags show excavation confirmation sampling locations).

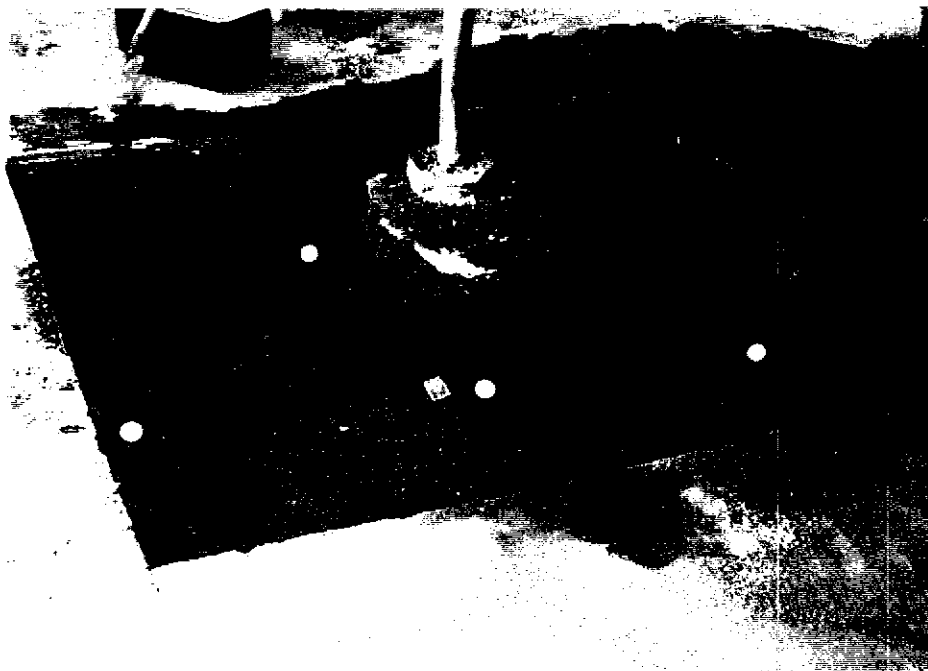
Site: 2144 Alvarado Street, San Leandro, California

Date Taken: August 5, 1999

Project No.: SES99032

Photographer: B. Rucker

Photo No.: 03



Subject: Final limits of Excavation C, looking east (flags show excavation confirmation sampling locations).

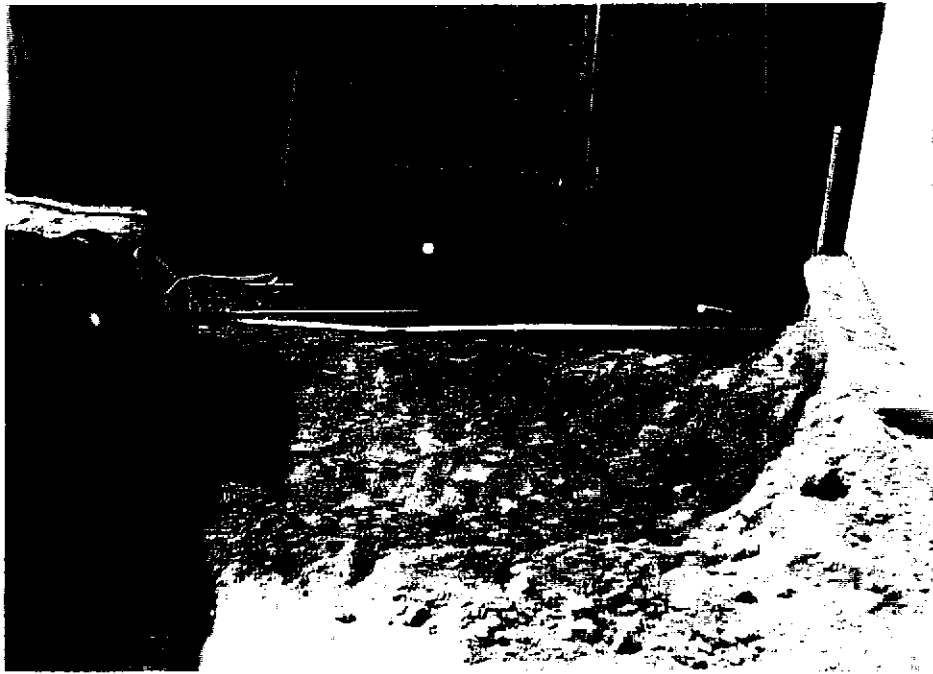
Site: 2144 Alvarado Street, San Leandro, California

Date Taken: August 5, 1999

Project No.: SES99032

Photographer: B. Rucker

Photo No.: 04



Subject: Final limits of Excavation D, looking north (flags show excavation confirmation sampling locations).

Site: 2144 Alvarado Street, San Leandro, California

Date Taken: August 5, 1999

Project No.: SES99032

Photographer: B. Rucker

Photo No.: 05



Subject: Excavation A, looking east, after backfilling and compaction and before resurfacing.

Site: 2144 Alvarado Street, San Leandro, California

Date Taken: August 5, 1998

Project No.: SES99032

Photographer: B. Rucker

Photo No.: 06

*STELLAR ENVIRONMENTAL SOLUTIONS*



Subject: Excavation B, looking west, after backfilling and compaction and before resurfacing.

Site: 2144 Alvarado Street, San Leandro, California

Date Taken: August 5, 1999

Project No.: SES99032

Photographer: B. Rucker

Photo No.: 07



Subject: Excavation C, looking east, after backfilling and compaction and before resurfacing.

Site: 2144 Alvarado Street, San Leandro, California

Date Taken: August 5, 1998

Project No.: SES99032

Photographer: B. Rucker

Photo No.: 08





Subject: Compacting Excavation D, looking north.

Site: 2144 Alvarado Street, San Leandro, California

Date Taken: August 5, 1999

Project No.: SES99032

Photographer: B. Rucker

Photo No.: 09



Subject: Excavation A after resurfacing, looking east

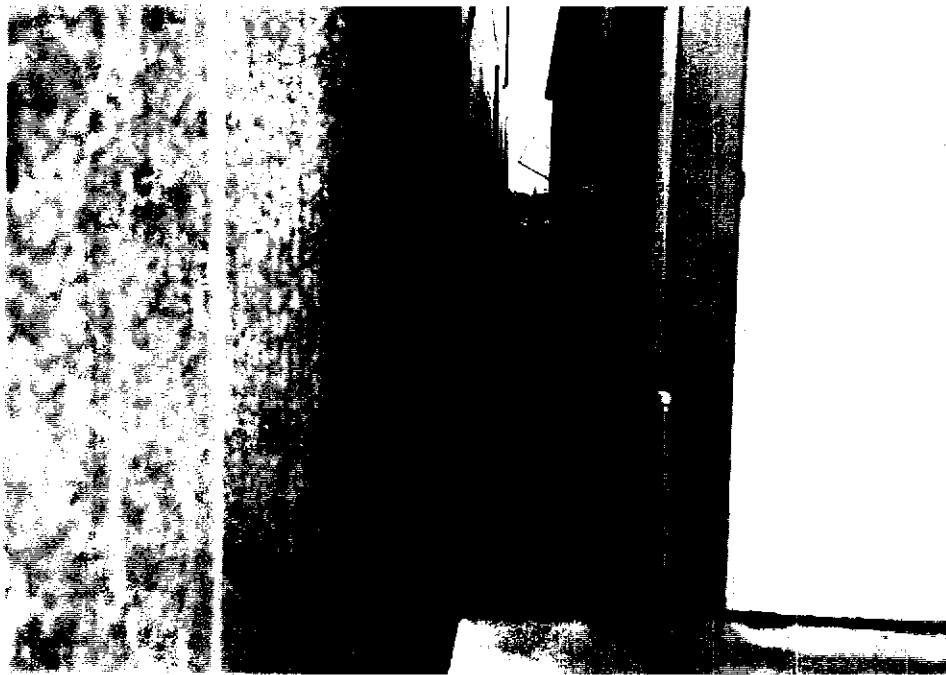
Site: 2144 Alvarado Street, San Leandro, California

Date Taken: August 12, 1998

Project No.: SES99032

Photographer: B. Rucker

Photo No.: 10



Subject: Excavation B after resurfacing, looking west

Site: 2144 Alvarado Street, San Leandro, California

Date Taken: August 12, 1999

Project No.: SES99032

Photographer: B. Rucker

Photo No.: 11



Subject: Excavation C after resurfacing, looking east.

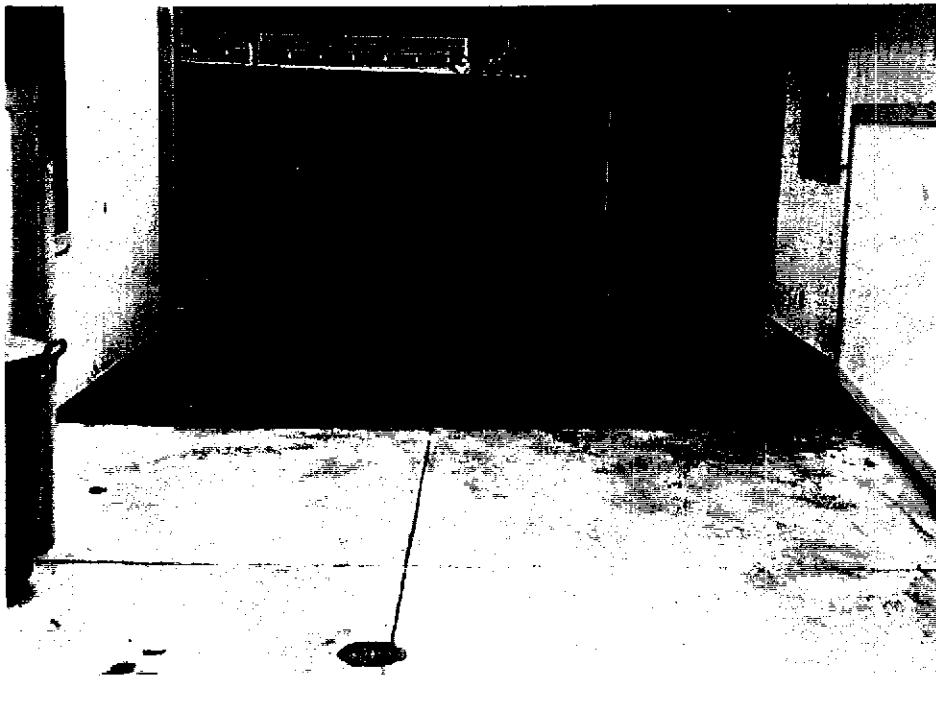
Site: 2144 Alvarado Street, San Leandro, California

Date Taken: August 12, 1998

Project No.: SES99032

Photographer: B. Rucker

Photo No.: 12



Subject: Excavation D after resurfacing, looking north.

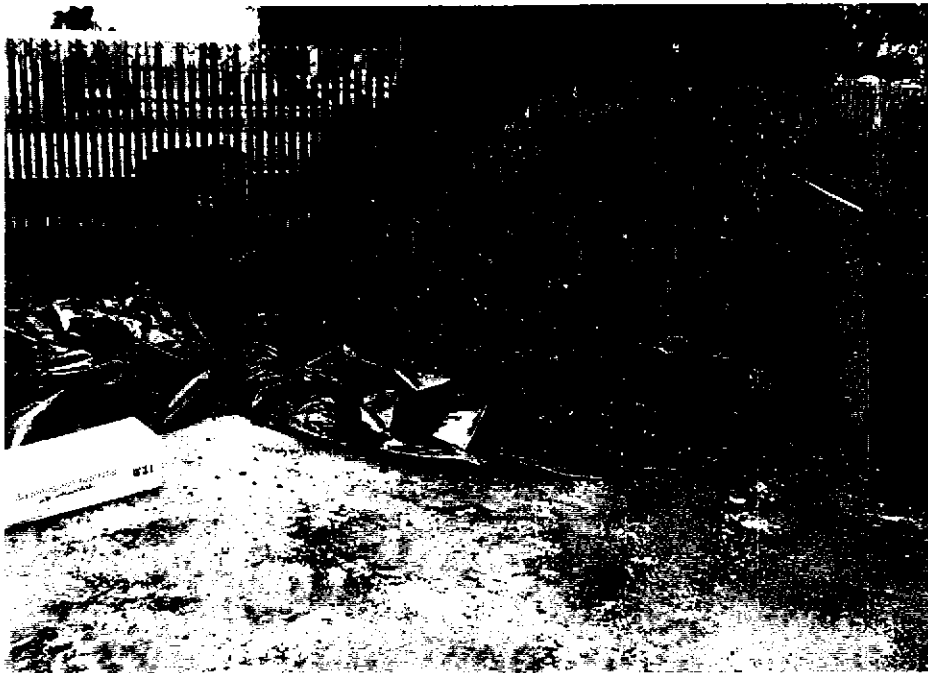
Site: 2144 Alvarado Street, San Leandro, California

Date Taken: August 12, 1999

Project No.: SES99032

Photographer: B. Rucker

Photo No.: 13



Subject: Portion of excavated soil stockpile showing segregation of subpiles.

Site: 2144 Alvarado Street, San Leandro, California

Date Taken: August 12, 1998

Project No.: SES99032

Photographer: B. Rucker

Photo No.: 14

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**Excavation Confirmation Samples**



# Sequoia Analytical

404 N. Wiget Lane  
Walnut Creek, CA 94598  
(925) 988-9600  
FAX (925) 988-9673

Stellar Environmental Solutions  
2198 Sixth Street  
Berkeley, CA 94710  
Attention: Bruce Rucker

Client Project ID: 2144 Alvarado St., San Leandro  
Sample Descript: Soil  
Analysis for: EPA 8080  
First Sample #: 907-0742

Sampled: Jul 12, 1999  
Received: Jul 13, 1999  
Extracted: -  
Analyzed: -  
Reported: Aug 4, 1999

## LABORATORY ANALYSIS FOR: EPA 8080

Sample Number	Sample Description	Sample Results
907-0742	S-3-Base-2'	Please See Attached Report
907-0743	S-3-N+S-Comp.	Please See Attached Report
907-0744	S-3-E+W-Comp.	Please See Attached Report
907-0745	S-2-E+W-Comp.	Please See Attached Report
907-0746	S-2-N+S-Comp.	Please See Attached Report
907-0747	S-2-Base-2'	Please See Attached Report
907-0748	S-1-W-Base	Please See Attached Report
907-0749	S-1-E-Base	Please See Attached Report
907-0750	-1-South Wall- W	Please See Attached Report
907-0751	S-1-South Wall-E	Please See Attached Report
907-0752	S-1-North Wall-W	Please See Attached Report

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL, #1271

*D Sharma*  
Dimple Sharma  
Project Manager





# Sequoia Analytical

404 N. Wiget Lane  
Walnut Creek, CA 94598  
(925) 988-9600  
FAX (925) 988-9673

Stellar Environmental Solutions  
2198 Sixth Street  
Berkeley, CA 94710  
Attention: Bruce Rucker

Client Project ID: 2144 Alvarado St., San Leandro  
Sample Descript: Soil  
Analysis for: EPA 8080  
First Sample #: 907-0753

Sampled: Jul 12, 1999  
Received: Jul 13, 1999  
Extracted: -  
Analyzed: -  
Reported: Aug 4, 1999

## LABORATORY ANALYSIS FOR: EPA 8080

Sample Number	Sample Description	Sample Results
907-0753	S-1-North Wall-E	Please See Attached Report
907-0754	B-01-Base-3'	Please See Attached Report
907-0755	B-01-S+W-Comp.	Please See Attached Report
907-0756	B-01-N-0.5'	Please See Attached Report
907-0757	B-01-E-0.5'	Please See Attached Report
907-0758	Soil Stockpile 4Pt. Comp.	Please See Attached Report

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL, #1271

  
Dimple Sharma  
Project Manager

9070742.SSS <2>





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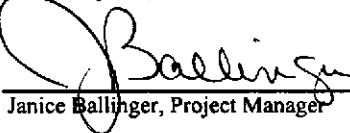
Sequoia Analytical - Walnut Creek 404 N Wiget Lane Walnut Creek, CA 94598	Project: 9907209 Project Number: none Project Manager: Dimple Sharma	Sampled: 7/12/99 to 7/13/99 Received: 7/15/99 Reported: 7/28/99 15:38
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## ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
9070742	9070189-01	Solid	7/12/99
9070743	9070189-02	Solid	7/12/99
9070744	9070189-03	Solid	7/12/99
9070745	9070189-04	Solid	7/12/99
9070746	9070189-05	Solid	7/12/99
9070747	9070189-06	Solid	7/12/99
9070748	9070189-07	Solid	7/12/99
9070749	9070189-08	Solid	7/12/99
9070750	9070189-09	Solid	7/12/99
9070751	9070189-10	Solid	7/12/99
9070752	9070189-11	Solid	7/12/99
9070753	9070189-12	Solid	7/12/99
9070754	9070189-13	Solid	7/12/99
9070755	9070189-14	Solid	7/13/99
9070756	9070189-15	Solid	7/13/99
9070757	9070189-16	Solid	7/13/99

Star Analytical, Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document.  
This analytical report must be reproduced in its entirety.*

  
Janice Ballinger, Project Manager



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Sequoia Analytical - Walnut Creek 404 N Wiget Lane Walnut Creek, CA 94598	Project: 9907209 Project Number: none Project Manager: Dimple Sharma	Sampled: 7/12/99 to 7/13/99 Received: 7/15/99 Reported: 7/28/99 15:38
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## Organochlorine Pesticides by EPA Method 8081A Star Analytical, Inc.

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<b>9070742</b>				<b>9070189-01</b>			<b>Solid</b>	
Aldrin	07V9468	7/21/99	7/27/99		1.00	ND	ug/kg	
alpha-BHC	"	"	"		1.00	ND	"	
beta-BHC	"	"	"		1.00	ND	"	
delta-BHC	"	"	"		1.00	ND	"	
gamma-BHC (Lindane)	"	"	"		1.00	ND	"	
alpha-Chlordane	"	"	"		5.00	16.3	"	
gamma-Chlordane	"	"	"		2.00	21.5	"	
4,4'-DDD	"	"	"		6.00	ND	"	
4,4'-DDE	"	"	"		6.00	ND	"	
4,4'-DDT	"	"	"		6.00	ND	"	
Dieldrin	"	"	"		2.00	ND	"	
Endosulfan I	"	"	"		2.00	ND	"	
Endosulfan II	"	"	"		2.00	ND	"	
Endosulfan sulfate	"	"	"		6.00	ND	"	
Endrin	"	"	"		2.00	ND	"	
Endrin aldehyde	"	"	"		6.00	ND	"	
Heptachlor	"	"	"		1.00	ND	"	
Heptachlor epoxide	"	"	"		1.00	ND	"	
Methoxychlor	"	"	"		20.0	ND	"	
Toxaphene	"	"	"		80.0	ND	"	
Surrogate: TCMX	"	"	"	34.0-192		45.3	%	
<b>9070743</b>				<b>9070189-02</b>			<b>Solid</b>	
Aldrin	07V9468	7/21/99	7/27/99		1.00	ND	ug/kg	
alpha-BHC	"	"	"		1.00	ND	"	
beta-BHC	"	"	"		1.00	ND	"	
delta-BHC	"	"	"		1.00	ND	"	
gamma-BHC (Lindane)	"	"	"		1.00	ND	"	
alpha-Chlordane	"	"	"		5.00	ND	"	
gamma-Chlordane	"	"	"		2.00	ND	"	
4,4'-DDD	"	"	"		6.00	ND	"	
4,4'-DDE	"	"	"		6.00	ND	"	
4,4'-DDT	"	"	"		6.00	ND	"	
Dieldrin	"	"	"		2.00	ND	"	
Endosulfan I	"	"	"		2.00	ND	"	
Endosulfan II	"	"	"		2.00	ND	"	
Endosulfan sulfate	"	"	"		6.00	ND	"	
Endrin	"	"	"		2.00	ND	"	
Endrin aldehyde	"	"	"		6.00	ND	"	
Heptachlor	"	"	"		1.00	ND	"	
Heptachlor epoxide	"	"	"		1.00	ND	"	

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\*Refer to end of report for text of notes and definitions.

Janice Ballinger, Project Manager





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Sequoia Analytical - Walnut Creek 404 N Wiget Lane Walnut Creek, CA 94598	Project: 9907209 Project Number: none Project Manager: Dimple Sharma	Sampled: 7/12/99 to 7/13/99 Received: 7/15/99 Reported: 7/28/99 15:38
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### Organochlorine Pesticides by EPA Method 8081A Star Analytical, Inc.

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<b>9070743 (continued)</b>				<b>9070189-02</b>				<b>Solid</b>
Methoxychlor	07V9468	7/21/99	7/27/99		20.0	ND	ug/kg	
Toxaphene	"	"	"		80.0	ND	"	
<i>Surrogate: TCMX</i>	"	"	"	34.0-192		38.7	%	
<b>9070744</b>				<b>9070189-03</b>				<b>Solid</b>
Aldrin	07V9468	7/21/99	7/27/99		1.00	ND	ug/kg	
alpha-BHC	"	"	"		1.00	ND	"	
beta-BHC	"	"	"		1.00	ND	"	
delta-BHC	"	"	"		1.00	ND	"	
gamma-BHC (Lindane)	"	"	"		1.00	ND	"	
alpha-Chlordane	"	"	"		5.00	ND	"	
gamma-Chlordane	"	"	"		2.00	ND	"	
4,4'-DDD	"	"	"		6.00	ND	"	
4,4'-DDE	"	"	"		6.00	ND	"	
4,4'-DDT	"	"	"		6.00	ND	"	
Dieldrin	"	"	"		2.00	ND	"	
Endosulfan I	"	"	"		2.00	ND	"	
Endosulfan II	"	"	"		2.00	ND	"	
Endosulfan sulfate	"	"	"		6.00	ND	"	
Endrin	"	"	"		2.00	ND	"	
Endrin aldehyde	"	"	"		6.00	ND	"	
Heptachlor	"	"	"		1.00	ND	"	
Heptachlor epoxide	"	"	"		1.00	ND	"	
Methoxychlor	"	"	"		20.0	ND	"	
Toxaphene	"	"	"		80.0	ND	"	
<i>Surrogate: TCMX</i>	"	"	"	34.0-192		38.4	%	
<b>9070745</b>				<b>9070189-04</b>				<b>Solid</b>
Aldrin	07V9468	7/21/99	7/27/99		1.00	ND	ug/kg	
alpha-BHC	"	"	"		1.00	ND	"	
beta-BHC	"	"	"		1.00	ND	"	
delta-BHC	"	"	"		1.00	ND	"	
gamma-BHC (Lindane)	"	"	"		1.00	ND	"	
alpha-Chlordane	"	"	"		5.00	11.7	"	
gamma-Chlordane	"	"	"		2.00	15.0	"	
4,4'-DDD	"	"	"		6.00	ND	"	
4,4'-DDE	"	"	"		6.00	ND	"	
4,4'-DDT	"	"	"		6.00	7.73	"	
Dieldrin	"	"	"		2.00	ND	"	
Endosulfan I	"	"	"		2.00	ND	"	
Endosulfan II	"	"	"		2.00	ND	"	

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Janice Ballinger, Project Manager



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Sequoia Analytical - Walnut Creek 404 N Wiget Lane Walnut Creek, CA 94598	Project: 9907209 Project Number: none Project Manager: Dimple Sharma	Sampled: 7/12/99 to 7/13/99 Received: 7/15/99 Reported: 7/28/99 15:38
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## Organochlorine Pesticides by EPA Method 8081A Star Analytical, Inc.

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<b>9070745 (continued)</b>				<b>9070189-04</b>			<b>Solid</b>	
Endosulfan sulfate	07V9468	7/21/99	7/27/99		6.00	ND	ug/kg	
Endrin	"	"	"		2.00	ND	"	
Endrin aldehyde	"	"	"		6.00	ND	"	
<b>Heptachlor</b>	"	"	"		1.00	<b>6.04</b>	"	
Heptachlor epoxide	"	"	"		1.00	ND	"	
Methoxychlor	"	"	"		20.0	ND	"	
Toxaphene	"	"	"		80.0	ND	"	
<i>Surrogate: TCMX</i>	"	"	"	34.0-192		53.2	%	
<b>9070746</b>				<b>9070189-05</b>			<b>Solid</b>	
Aldrin	07V9468	7/21/99	7/27/99		10.0	ND	ug/kg	D
alpha-BHC	"	"	"		10.0	ND	"	D
beta-BHC	"	"	"		10.0	ND	"	D
delta-BHC	"	"	"		10.0	ND	"	D
gamma-BHC (Lindane)	"	"	"		10.0	ND	"	D
alpha-Chlordane	"	"	"		50.0	ND	"	D
<b>gamma-Chlordane</b>	"	"	"		20.0	<b>57.4</b>	"	D
4,4'-DDD	"	"	"		60.0	ND	"	D
4,4'-DDE	"	"	"		60.0	ND	"	D
4,4'-DDT	"	"	"		60.0	ND	"	D
Dieldrin	"	"	"		20.0	ND	"	D
Endosulfan I	"	"	"		20.0	ND	"	D
Endosulfan II	"	"	"		20.0	ND	"	D
Endosulfan sulfate	"	"	"		60.0	ND	"	D
Endrin	"	"	"		20.0	ND	"	D
Endrin aldehyde	"	"	"		60.0	ND	"	D
Heptachlor	"	"	"		10.0	ND	"	D
Heptachlor epoxide	"	"	"		10.0	ND	"	D
Methoxychlor	"	"	"		200	ND	"	D
Toxaphene	"	"	"		800	ND	"	D
<i>Surrogate: TCMX</i>	"	"	"	34.0-192		44	%	
<b>9070747</b>				<b>9070189-06</b>			<b>Solid</b>	
Aldrin	07V9468	7/21/99	7/27/99		1.00	ND	ug/kg	
alpha-BHC	"	"	"		1.00	ND	"	
beta-BHC	"	"	"		1.00	ND	"	
delta-BHC	"	"	"		1.00	ND	"	
gamma-BHC (Lindane)	"	"	"		1.00	ND	"	
alpha-Chlordane	"	"	"		5.00	ND	"	
gamma-Chlordane	"	"	"		2.00	ND	"	
4,4'-DDD	"	"	"		6.00	ND	"	
4,4'-DDE	"	"	"		6.00	ND	"	

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Janice Ballinger, Project Manager



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Sequoia Analytical - Walnut Creek 404 N Wiget Lane Walnut Creek, CA 94598	Project: 9907209 Project Number: none Project Manager: Dimple Sharma	Sampled: 7/12/99 to 7/13/99 Received: 7/15/99 Reported: 7/28/99 15:38
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## Organochlorine Pesticides by EPA Method 8081A Star Analytical, Inc.

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<b>9070747 (continued)</b>				<b>9070189-06</b>			<b>Solid</b>	
4,4'-DDT	07V9468	7/21/99	7/27/99		6.00	ND	ug/kg	
Dieldrin	"	"	"		2.00	ND	"	
Endosulfan I	"	"	"		2.00	ND	"	
Endosulfan II	"	"	"		2.00	ND	"	
Endosulfan sulfate	"	"	"		6.00	ND	"	
Endrin	"	"	"		2.00	ND	"	
Endrin aldehyde	"	"	"		6.00	ND	"	
<b>Heptachlor</b>	"	"	"		1.00	<b>1.81</b>	"	
Heptachlor epoxide	"	"	"		1.00	ND	"	
Methoxychlor	"	"	"		20.0	ND	"	
Toxaphene	"	"	"		80.0	ND	"	
<i>Surrogate: TCMX</i>	"	"	"	34.0-192		38.9	%	
<b>9070748</b>				<b>9070189-07</b>			<b>Solid</b>	
Aldrin	07V9468	7/21/99	7/27/99		10.0	ND	ug/kg	D
alpha-BHC	"	"	"		10.0	ND	"	D
beta-BHC	"	"	"		10.0	ND	"	D
delta-BHC	"	"	"		10.0	ND	"	D
gamma-BHC (Lindane)	"	"	"		10.0	ND	"	D
<b>alpha-Chlordane</b>	"	"	"		50.0	<b>275</b>	"	D
<b>gamma-Chlordane</b>	"	"	"		20.0	<b>309</b>	"	D
4,4'-DDD	"	"	"		60.0	ND	"	D
4,4'-DDE	"	"	"		60.0	ND	"	D
4,4'-DDT	"	"	"		60.0	ND	"	D
Dieldrin	"	"	"		20.0	ND	"	D
Endosulfan I	"	"	"		20.0	ND	"	D
Endosulfan II	"	"	"		20.0	ND	"	D
Endosulfan sulfate	"	"	"		60.0	ND	"	D
Endrin	"	"	"		20.0	ND	"	D
Endrin aldehyde	"	"	"		60.0	ND	"	D
<b>Heptachlor</b>	"	"	"		10.0	<b>71.6</b>	"	D
Heptachlor epoxide	"	"	"		10.0	ND	"	D
Methoxychlor	"	"	"		200	ND	"	D
Toxaphene	"	"	"		800	ND	"	D
<i>Surrogate: TCMX</i>	"	"	"	34.0-192		37.0	%	D
<b>9070749</b>				<b>9070189-08</b>			<b>Solid</b>	
Aldrin	07V9468	7/21/99	7/27/99		20.0	ND	ug/kg	D
alpha-BHC	"	"	"		20.0	ND	"	D
beta-BHC	"	"	"		20.0	ND	"	D
delta-BHC	"	"	"		20.0	ND	"	D

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Janice Ballinger, Project Manager



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Sequoia Analytical - Walnut Creek  
404 N Wiget Lane  
Walnut Creek, CA 94598

Project: 9907209  
Project Number: none  
Project Manager: Dimple Sharma

Sampled: 7/12/99 to 7/13/99  
Received: 7/15/99  
Reported: 7/28/99 15:38

## Organochlorine Pesticides by EPA Method 8081A Star Analytical, Inc.

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<b>9070749 (continued)</b>				<b>9070189-08</b>			<b>Solid</b>	
gamma-BHC (Lindane)	07V9468	7/21/99	7/27/99		20.0	ND	ug/kg	D
alpha-Chlordane	"	"	"		100	1560	"	D
gamma-Chlordane	"	"	"		40.0	1810	"	D
4,4'-DDD	"	"	"		120	ND	"	D
4,4'-DDE	"	"	"		120	ND	"	D
4,4'-DDT	"	"	"		120	ND	"	D
Dieldrin	"	"	"		40.0	ND	"	D
Endosulfan I	"	"	"		40.0	ND	"	D
Endosulfan II	"	"	"		40.0	ND	"	D
Endosulfan sulfate	"	"	"		120	ND	"	D
Endrin	"	"	"		40.0	ND	"	D
Endrin aldehyde	"	"	"		120	ND	"	D
Heptachlor	"	"	"		20.0	502	"	D
Heptachlor epoxide	"	"	"		20.0	ND	"	D
Methoxychlor	"	"	"		400	ND	"	D
Toxaphene	"	"	"		1600	ND	"	D
Surrogate: TCMX	"	"	"	34.0-192		24.8	%	I,D
<b>9070750</b>				<b>9070189-09</b>			<b>Solid</b>	
Aldrin	07V9468	7/21/99	7/27/99		20.0	ND	ug/kg	D
alpha-BHC	"	"	"		20.0	ND	"	D
beta-BHC	"	"	"		20.0	ND	"	D
delta-BHC	"	"	"		20.0	ND	"	D
gamma-BHC (Lindane)	"	"	"		20.0	ND	"	D
alpha-Chlordane	"	"	"		100	1010	"	D
gamma-Chlordane	"	"	"		40.0	1180	"	D
4,4'-DDD	"	"	"		120	ND	"	D
4,4'-DDE	"	"	"		120	ND	"	D
4,4'-DDT	"	"	"		120	ND	"	D
Dieldrin	"	"	"		40.0	ND	"	D
Endosulfan I	"	"	"		40.0	ND	"	D
Endosulfan II	"	"	"		40.0	ND	"	D
Endosulfan sulfate	"	"	"		120	ND	"	D
Endrin	"	"	"		40.0	ND	"	D
Endrin aldehyde	"	"	"		120	ND	"	D
Heptachlor	"	"	"		20.0	95.2	"	D
Heptachlor epoxide	"	"	"		20.0	ND	"	D
Methoxychlor	"	"	"		400	ND	"	D
Toxaphene	"	"	"		1600	ND	"	D
Surrogate: TCMX	"	"	"	34.0-192		25.2	%	I,D

Star Analytical, Inc.

\*Refer to end of report for text of notes and definitions.

Janice Ballinger, Project Manager



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Sequoia Analytical - Walnut Creek 404 N Wiget Lane Walnut Creek, CA 94598	Project: 9907209 Project Number: none Project Manager: Dimple Sharma	Sampled: 7/12/99 to 7/13/99 Received: 7/15/99 Reported: 7/28/99 15:38
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## Organochlorine Pesticides by EPA Method 8081A Star Analytical, Inc.

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<b>9070751</b>				<b>9070189-10</b>			<b>Solid</b>	
Aldrin	07V9468	7/21/99	7/27/99		20.0	ND	ug/kg	D
alpha-BHC	"	"	"		20.0	ND	"	D
beta-BHC	"	"	"		20.0	ND	"	D
delta-BHC	"	"	"		20.0	ND	"	D
gamma-BHC (Lindane)	"	"	"		20.0	ND	"	D
alpha-Chlordane	"	"	"		100	1020	"	D
gamma-Chlordane	"	"	"		40.0	1190	"	D
4,4'-DDD	"	"	"		120	ND	"	D
4,4'-DDE	"	"	"		120	ND	"	D
4,4'-DDT	"	"	"		120	ND	"	D
Dieldrin	"	"	"		40.0	ND	"	D
Endosulfan I	"	"	"		40.0	ND	"	D
Endosulfan II	"	"	"		40.0	ND	"	D
Endosulfan sulfate	"	"	"		120	ND	"	D
Endrin	"	"	"		40.0	ND	"	D
Endrin aldehyde	"	"	"		120	ND	"	D
Heptachlor	"	"	"		20.0	92.7	"	D
Heptachlor epoxide	"	"	"		20.0	ND	"	D
Methoxychlor	"	"	"		400	ND	"	D
Toxaphene	"	"	"		1600	ND	"	D
Surrogate: TCMX	"	"	"	34.0-192		20.0	%	I,D
<b>9070752</b>				<b>9070189-11</b>			<b>Solid</b>	
Aldrin	07V9468	7/21/99	7/27/99		20.0	ND	ug/kg	D
alpha-BHC	"	"	"		20.0	ND	"	D
beta-BHC	"	"	"		20.0	ND	"	D
delta-BHC	"	"	"		20.0	ND	"	D
gamma-BHC (Lindane)	"	"	"		20.0	ND	"	D
alpha-Chlordane	"	"	"		100	598	"	D
gamma-Chlordane	"	"	"		40.0	670	"	D
4,4'-DDD	"	"	"		120	ND	"	D
4,4'-DDE	"	"	"		120	ND	"	D
4,4'-DDT	"	"	"		120	ND	"	D
Dieldrin	"	"	"		40.0	ND	"	D
Endosulfan I	"	"	"		40.0	ND	"	D
Endosulfan II	"	"	"		40.0	ND	"	D
Endosulfan sulfate	"	"	"		120	ND	"	D
Endrin	"	"	"		40.0	ND	"	D
Endrin aldehyde	"	"	"		120	ND	"	D
Heptachlor	"	"	"		20.0	169	"	D
Heptachlor epoxide	"	"	"		20.0	ND	"	D

Star Analytical, Inc.

\*Refer to end of report for text of notes and definitions.

Janice Ballinger, Project Manager



# STAR ANALYTICAL

14500 Trinity Boulevard, Suite 106 • Fort Worth, Texas 76155  
(817) 571-6800 • Metro (817) 540-6982 • FAX (817) 267-5431



Sequoia Analytical - Walnut Creek 404 N Wiget Lane Walnut Creek, CA 94598	Project: 9907209 Project Number: none Project Manager: Dimple Sharma	Sampled: 7/12/99 to 7/13/99 Received: 7/15/99 Reported: 7/28/99 15:38
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## Organochlorine Pesticides by EPA Method 8081A Star Analytical, Inc.

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<b>9070752 (continued)</b>				<b>9070189-11</b>			<b>Solid</b>	
Methoxychlor	07V9468	7/21/99	7/27/99		400	ND	ug/kg	D
Toxaphene	"	"	"		1600	ND	"	D
Surrogate: TCMX	"	"	"	34.0-192		20.4	%	1,D
<b>9070753</b>				<b>9070189-12</b>			<b>Solid</b>	
Aldrin	07V9468	7/21/99	7/27/99		20.0	ND	ug/kg	D
alpha-BHC	"	"	"		20.0	ND	"	D
beta-BHC	"	"	"		20.0	ND	"	D
delta-BHC	"	"	"		20.0	ND	"	D
gamma-BHC (Lindane)	"	"	"		20.0	ND	"	D
alpha-Chlordane	"	"	"		100	468	"	D
gamma-Chlordane	"	"	"		40.0	574	"	D
4,4'-DDD	"	"	"		120	ND	"	D
4,4'-DDE	"	"	"		120	ND	"	D
4,4'-DDT	"	"	"		120	ND	"	D
Dieldrin	"	"	"		40.0	ND	"	D
Endosulfan I	"	"	"		40.0	ND	"	D
Endosulfan II	"	"	"		40.0	ND	"	D
Endosulfan sulfate	"	"	"		120	ND	"	D
Endrin	"	"	"		40.0	ND	"	D
Endrin aldehyde	"	"	"		120	ND	"	D
Heptachlor	"	"	"		20.0	22.5	"	D
Heptachlor epoxide	"	"	"		20.0	ND	"	D
Methoxychlor	"	"	"		400	ND	"	D
Toxaphene	"	"	"		1600	ND	"	D
Surrogate: TCMX	"	"	"	34.0-192		21.2	%	1,D
<b>9070754</b>				<b>9070189-13</b>			<b>Solid</b>	
Aldrin	07V9468	7/21/99	7/27/99		10.0	ND	ug/kg	D
alpha-BHC	"	"	"		10.0	ND	"	D
beta-BHC	"	"	"		10.0	ND	"	D
delta-BHC	"	"	"		10.0	ND	"	D
gamma-BHC (Lindane)	"	"	"		10.0	ND	"	D
alpha-Chlordane	"	"	"		50.0	ND	"	D
gamma-Chlordane	"	"	"		20.0	51.6	"	D
4,4'-DDD	"	"	"		60.0	ND	"	D
4,4'-DDE	"	"	"		60.0	ND	"	D
4,4'-DDT	"	"	"		60.0	ND	"	D
Dieldrin	"	"	"		20.0	ND	"	D
Endosulfan I	"	"	"		20.0	ND	"	D
Endosulfan II	"	"	"		20.0	ND	"	D

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Janice Ballinger, Project Manager



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## Organochlorine Pesticides by EPA Method 8081A Star Analytical, Inc.

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<b>9070754 (continued)</b>				<b>9070189-13</b>			<b>Solid</b>	
Endosulfan sulfate	07V9468	7/21/99	7/27/99		60.0	ND	ug/kg	D
Endrin	"	"	"		20.0	ND	"	D
Endrin aldehyde	"	"	"		60.0	ND	"	D
Heptachlor	"	"	"		10.0	ND	"	D
Heptachlor epoxide	"	"	"		10.0	ND	"	D
Methoxychlor	"	"	"		200	ND	"	D
Toxaphene	"	"	"		800	ND	"	D
Surrogate: TCMX	"	"	"	34.0-192		32.4	%	I,D
<b>9070755</b>				<b>9070189-14</b>			<b>Solid</b>	
Aldrin	07V9468	7/21/99	7/27/99		100	ND	ug/kg	D
alpha-BHC	"	"	"		100	ND	"	D
beta-BHC	"	"	"		100	ND	"	D
delta-BHC	"	"	"		100	ND	"	D
gamma-BHC (Lindane)	"	"	"		100	ND	"	D
alpha-Chlordane	"	"	"		500	3070	"	D
gamma-Chlordane	"	"	"		200	3230	"	D
4,4'-DDD	"	"	"		600	ND	"	D
4,4'-DDE	"	"	"		600	ND	"	D
4,4'-DDT	"	"	"		600	ND	"	D
Dieldrin	"	"	"		200	ND	"	D
Endosulfan I	"	"	"		200	ND	"	D
Endosulfan II	"	"	"		200	ND	"	D
Endosulfan sulfate	"	"	"		600	ND	"	D
Endrin	"	"	"		200	ND	"	D
Endrin aldehyde	"	"	"		600	ND	"	D
Heptachlor	"	"	"		100	ND	"	D
Heptachlor epoxide	"	"	"		100	ND	"	D
Methoxychlor	"	"	"		2000	ND	"	D
Toxaphene	"	"	"		8000	ND	"	D
Surrogate: TCMX	"	"	"	34.0-192		NR	%	I,D
<b>9070756</b>				<b>9070189-15</b>			<b>Solid</b>	
Aldrin	07V9468	7/21/99	7/27/99		10.0	ND	ug/kg	D
alpha-BHC	"	"	"		10.0	ND	"	D
beta-BHC	"	"	"		10.0	ND	"	D
delta-BHC	"	"	"		10.0	ND	"	D
gamma-BHC (Lindane)	"	"	"		10.0	ND	"	D
alpha-Chlordane	"	"	"		50.0	70.0	"	D
gamma-Chlordane	"	"	"		20.0	71.1	"	D
4,4'-DDD	"	"	"		60.0	ND	"	D

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Sequoia Analytical - Walnut Creek 404 N Wiget Lane Walnut Creek, CA 94598	Project: 9907209 Project Number: none Project Manager: Dimple Sharma	Sampled: 7/12/99 to 7/13/99 Received: 7/15/99 Reported: 7/28/99 15:38
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## Organochlorine Pesticides by EPA Method 8081A Star Analytical, Inc.

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<b>9070756 (continued)</b>				<b>9070189-15</b>			<b>Solid</b>	
4,4'-DDE	07V9468	7/21/99	7/27/99		60.0	ND	ug/kg	D
4,4'-DDT	"	"	"		60.0	ND	"	D
Dieldrin	"	"	"		20.0	ND	"	D
Endosulfan I	"	"	"		20.0	ND	"	D
Endosulfan II	"	"	"		20.0	ND	"	D
Endosulfan sulfate	"	"	"		60.0	ND	"	D
Endrin	"	"	"		20.0	ND	"	D
Endrin aldehyde	"	"	"		60.0	ND	"	D
Heptachlor	"	"	"		10.0	ND	"	D
Heptachlor epoxide	"	"	"		10.0	ND	"	D
Methoxychlor	"	"	"		200	ND	"	D
Toxaphene	"	"	"		800	ND	"	D
Surrogate: TCMX	"	"	"	34.0-192		37.5	%	D
<b>9070757</b>				<b>9070189-16</b>			<b>Solid</b>	
Aldrin	07V9468	7/21/99	7/27/99		1.00	ND	ug/kg	
alpha-BHC	"	"	"		1.00	ND	"	
beta-BHC	"	"	"		1.00	ND	"	
delta-BHC	"	"	"		1.00	ND	"	
gamma-BHC (Lindane)	"	"	"		1.00	ND	"	
alpha-Chlordane	"	"	"		5.00	18.7	"	
gamma-Chlordane	"	"	"		2.00	19.3	"	
4,4'-DDD	"	"	"		6.00	ND	"	
4,4'-DDE	"	"	"		6.00	8.14	"	
4,4'-DDT	"	"	"		6.00	21.9	"	
Dieldrin	"	"	"		2.00	ND	"	
Endosulfan I	"	"	"		2.00	ND	"	
Endosulfan II	"	"	"		2.00	ND	"	
Endosulfan sulfate	"	"	"		6.00	ND	"	
Endrin	"	"	"		2.00	9.80	"	
Endrin aldehyde	"	"	"		6.00	ND	"	
Heptachlor	"	"	"		1.00	1.57	"	
Heptachlor epoxide	"	"	"		1.00	ND	"	
Methoxychlor	"	"	"		20.0	ND	"	
Toxaphene	"	"	"		80.0	ND	"	
Surrogate: TCMX	"	"	"	34.0-192		58.8	%	

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\*Refer to end of report for text of notes and definitions.

  
 Janice Ballinger, Project Manager





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Sequoia Analytical - Walnut Creek 404 N Wiget Lane Walnut Creek, CA 94598	Project: 9907209 Project Number: none Project Manager: Dimple Sharma	Sampled: 7/12/99 to 7/13/99 Received: 7/15/99 Reported: 7/28/99 15:38
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## Organochlorine Pesticides by EPA Method 8081A/Quality Control Star Analytical, Inc.

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<b>Batch: 07V9468</b>			<b>Date Prepared: 7/21/99</b>		<b>Extraction Method: EPA 3550</b>					
<b>Blank</b>			<b>07V9468-BLK1</b>							
Aldrin	7/27/99			ND	ug/kg	1.00				
alpha-BHC	"			ND	"	1.00				
beta-BHC	"			ND	"	1.00				
delta-BHC	"			ND	"	1.00				
gamma-BHC (Lindane)	"			ND	"	1.00				
alpha-Chlordane	"			ND	"	5.00				
gamma-Chlordane	"			ND	"	2.00				
4,4'-DDD	"			ND	"	6.00				
4,4'-DDE	"			ND	"	6.00				
4,4'-DDT	"			ND	"	6.00				
Dieldrin	"			ND	"	2.00				
Endosulfan I	"			ND	"	2.00				
Endosulfan II	"			ND	"	2.00				
Endosulfan sulfate	"			ND	"	6.00				
Endrin	"			ND	"	2.00				
Endrin aldehyde	"			ND	"	6.00				
Heptachlor	"			ND	"	1.00				
Heptachlor epoxide	"			ND	"	1.00				
Methoxychlor	"			ND	"	20.0				
Toxaphene	"			ND	"	80.0				
<i>Surrogate: TCMX</i>	"	8.33		4.13	"	34.0-192	49.6			
<b>LCS</b>			<b>07V9468-BS1</b>							
Aldrin	7/27/99	6.67		4.81	ug/kg	60.0-130	72.1			
gamma-BHC (Lindane)	"	6.67		4.73	"	60.0-130	70.9			
4,4'-DDT	"	16.7		18.4	"	60.0-130	110			
Dieldrin	"	16.7		14.0	"	60.0-130	83.8			
Endrin	"	16.7		17.6	"	60.0-130	105			
Heptachlor	"	6.67		6.50	"	60.0-130	97.5			
<i>Surrogate: TCMX</i>	"	8.33		4.24	"	34.0-192	50.9			
<b>LCS Dup</b>			<b>07V9468-BSD1</b>							
Aldrin	7/27/99	6.67		5.08	ug/kg	60.0-130	76.2	30.0	5.53	
gamma-BHC (Lindane)	"	6.67		5.53	"	60.0-130	82.9	30.0	15.6	
4,4'-DDT	"	16.7		18.4	"	60.0-130	110	30.0	0	
Dieldrin	"	16.7		14.6	"	60.0-130	87.4	30.0	4.21	
Endrin	"	16.7		17.3	"	60.0-130	104	30.0	0.957	
Heptachlor	"	6.67		6.76	"	60.0-130	101	30.0	3.53	
<i>Surrogate: TCMX</i>	"	8.33		5.18	"	34.0-192	62.2			

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Sequoia Analytical - Walnut Creek  
404 N Wiget Lane  
Walnut Creek, CA 94598

Project: 9907209  
Project Number: none  
Project Manager: Dimple Sharma

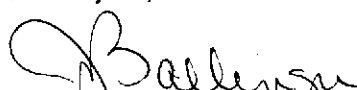
Sampled: 7/12/99 to 7/13/99  
Received: 7/15/99  
Reported: 7/28/99 15:38

## Notes and Definitions

#	Note
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- D Data reported from a dilution.
- 1 Please note large dilutions were required to get target compounds in range; which incidently diluted out the surrogate.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- Recov. Recovery
- RPD Relative Percent Difference

Star Analytical, Inc.

  
Janice Ballinger, Project Manager



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Sequoia Analytical - Walnut Creek 404 N Wiget Lane Walnut Creek, CA 94598	Project: 9907209 Project Number: none Project Manager: Dimple Sharma	Sampled: 7/12/99 Received: 7/15/99 Reported: 7/20/99 14:23
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## ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
9070758	9070190-01	Solid	7/12/99

Star Analytical, Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document.  
This analytical report must be reproduced in its entirety.*

  
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Sequoia Analytical - Walnut Creek  
404 N Wiget Lane  
Walnut Creek, CA 94598

Project: 9907209  
Project Number: none  
Project Manager: Dimple Sharma

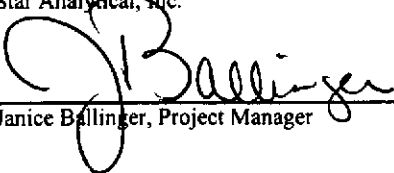
Sampled: 7/12/99  
Received: 7/15/99  
Reported: 7/20/99 14:23

## Organochlorine Pesticides by EPA Method 8081A Star Analytical, Inc.

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
<b>9070758</b>				<b>9070190-01</b>			<b>Solid</b>	
Aldrin	07V9321	7/16/99	7/19/99		20.0	ND	ug/kg	D
alpha-BHC	"	"	"		20.0	ND	"	D
beta-BHC	"	"	"		20.0	ND	"	D
delta-BHC	"	"	"		20.0	ND	"	D
gamma-BHC (Lindane)	"	"	"		20.0	ND	"	D
<b>alpha-Chlordane</b>	"	"	"		500	3950	"	D
<b>gamma-Chlordane</b>	"	"	"		200	7710	"	D
4,4'-DDD	"	"	"		120	ND	"	D
4,4'-DDE	"	"	"		120	ND	"	D
4,4'-DDT	"	"	"		120	ND	"	D
Dieldrin	"	"	"		40.0	ND	"	D
Endosulfan I	"	"	"		40.0	ND	"	D
Endosulfan II	"	"	"		40.0	ND	"	D
Endosulfan sulfate	"	"	"		120	ND	"	D
Endrin	"	"	"		40.0	ND	"	D
Endrin aldehyde	"	"	"		120	ND	"	D
<b>Heptachlor</b>	"	"	"		20.0	976	"	D
Heptachlor epoxide	"	"	"		20.0	ND	"	D
Methoxychlor	"	"	"		400	ND	"	D
Toxaphene	"	"	"		1600	ND	"	D
Surrogate: TCMX	"	"	"	34.0-192		191	%	

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## Organochlorine Pesticides by EPA Method 8081A/Quality Control Star Analytical, Inc.

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
<b>Batch: 07V9321</b>			<b>Date Prepared: 7/16/99</b>		<b>Extraction Method: EPA 3550</b>					
<b>Blank</b>			<b>07V9321-BLK1</b>							
Aldrin	7/19/99			ND	ug/kg	1.00				
alpha-BHC	"			ND	"	1.00				
beta-BHC	"			ND	"	1.00				
delta-BHC	"			ND	"	1.00				
gamma-BHC (Lindane)	"			ND	"	1.00				
alpha-Chlordane	"			ND	"	5.00				
gamma-Chlordane	"			ND	"	2.00				
4,4'-DDD	"			ND	"	6.00				
4,4'-DDE	"			ND	"	6.00				
4,4'-DDT	"			ND	"	6.00				
Dieldrin	"			ND	"	2.00				
Endosulfan I	"			ND	"	2.00				
Endosulfan II	"			ND	"	2.00				
Endosulfan sulfate	"			ND	"	6.00				
Endrin	"			ND	"	2.00				
Endrin aldehyde	"			ND	"	6.00				
Heptachlor	"			ND	"	1.00				
Heptachlor epoxide	"			ND	"	1.00				
Methoxychlor	"			ND	"	20.0				
Toxaphene	"			ND	"	80.0				
<i>Surrogate: TCMX</i>	"	8.33		8.27	"	34.0-192	99.3			
<b>LCS</b>			<b>07V9321-BS1</b>							
Aldrin	7/19/99	3.33		4.87	ug/kg	60.0-150	146			
gamma-Chlordane	"	3.33		2.99	"	60.0-150	90			
Heptachlor	"	3.33		4.13	"	60.0-130	124			
<i>Surrogate: TCMX</i>	"	8.33		7.05	"	34.0-192	84.6			

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Sequoia Analytical - Walnut Creek  
404 N Wiget Lane  
Walnut Creek, CA 94598

Project: 9907209  
Project Number: none  
Project Manager: Dimple Sharma

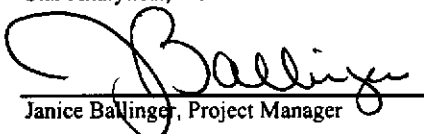
Sampled: 7/12/99  
Received: 7/15/99  
Reported: 7/20/99 14:23

## Notes and Definitions

#	Note
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- D Data reported from a dilution.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- Recov. Recovery
- RPD Relative Percent Difference

Star Analytical, Inc.

  
Janice Ballinger, Project Manager



STELLAR ENVIRONMENTAL SOLUTIONS  
Chain of Custody Record

9907209

Lab job no.: \_\_\_\_\_

Date \_\_\_\_\_

Page 2 of 3

Laboratory Sequoia Analytical  
Address 404 N - Wiget Lane  
Walnut Creek CA  
Client Stellar Environmental Solutions  
Address 2198 Sixth St.  
Berkeley CA 94710  
Project Name 2144 Alvarado Street San Leandro  
Project Number 99032

Method of Shipment lab courier  
Shipment No. \_\_\_\_\_  
Airbill No. \_\_\_\_\_  
Cooler No. \_\_\_\_\_  
Project Manager Bruce Rucker  
Telephone No. 510/644-3123  
Fax No. 510/644-3859  
Samplers: (Signature) B.M. Puck

Field Sample Number	Location/Depth	Date	Time	Sample Type	Type/Size of Container	Preservation		Temp.	Chemical	Analysis Required	Remarks
						Temp.	Chemical				
B-01-Bag-3'	3'	7-12-99	950	Soil	4oz glass jar	4°C	-	1	X	9070754	10 day TAT
B-01- <sup>STW</sup> Comp.	0.5'	7-13-99						1	X	9070755	
B-01-B-0.5'	0.5'							1	X	9070756	
B-01-E-0.5'	0.5'							1	X	9070757	
Soil Stockpile 4pt Comp	-	7-12-99	1610					1	X	9070758	5 day TAT

Relinquished by: B.M. Puck  
Signature \_\_\_\_\_  
Printed Bruce Rucker  
Company Stellar Env. Solutions  
Reason relinquish to lab

Date 7/17/99  
Received by: [Signature]  
Signature \_\_\_\_\_  
Printed SEAN MURDOCK  
Company SEQUOIA

Date 7-17-99  
Relinquished by: [Signature]  
Signature \_\_\_\_\_  
Printed SEAN MURDOCK  
Company SEQUOIA  
Reason \_\_\_\_\_

Date 7/13  
Received by: \_\_\_\_\_  
Signature \_\_\_\_\_  
Printed \_\_\_\_\_  
Company \_\_\_\_\_

Comments:  
5 Day turnaround on "soil stockpile 4 point Comp"  
10 Day turnaround on all others.  
Hold others for possible later analysis

Relinquished by: \_\_\_\_\_  
Signature \_\_\_\_\_  
Printed \_\_\_\_\_  
Company \_\_\_\_\_  
Reason \_\_\_\_\_

Date \_\_\_\_\_  
Received by: [Signature]  
Signature R. JENSEN  
Printed R. JENSEN  
Company SEQUOIA-WC  
Date 7/13/99  
Time 16:00



## STELLAR ENVIRONMENTAL SOLUTIONS Chain of Custody Record

Lab job no.: \_\_\_\_\_

Date \_\_\_\_\_

Page 3 of 3

Laboratory Sequoia Analytical Method of Shipment lab courier  
 Address 404 N-Wiget Lane Shipment No. \_\_\_\_\_  
Walnut Creek CA Airbill No. \_\_\_\_\_  
 Client Stellar Environmental Solutions Cooler No. \_\_\_\_\_  
 Address 2198 Sixth St. Project Manager Bluce Rucker  
Berkeley CA 94710 Telephone No. 510/644-3123  
 Project Name 2144 Alvarado Street San Leandro Fax No. 510/644-3859  
 Project Number 97032 Samplers: (Signature) B.M. Rucker

Field Sample Number	Location/Depth	Date	Time	Sample Type	Type/Size of Container	Preservation		Temp.	Chemical	Analysis Required	Remarks
						Temp.	Chemical				
S-3-N-0.5'	0.5'	7-11-99	1045	Soil	4oz glass jar	4°C	-			1	Hold
S-3-S-0.5'			"								
S-3-E-0.5'			"								
S-3-W-0.5'			"								
S-2-N-0.5'			1315								
S-2-S-0.5'			"								
S-2-E-0.5'			"								
S-2-W-0.5'			"								
B-01-W-0.5'		7-13-99	950								
B-01-S-0.5'		"	"								

Relinquished by: <u>B.M. Rucker</u> Signature _____ Printed <u>Bluce Rucker</u> Company <u>Stellar Env. Solutions</u> Reason <u>relinquish to lab</u>	Date <u>7/10/99</u> Time <u>14:15</u>	Received by: <u>[Signature]</u> Signature _____ Printed <u>JERRY MURPHY</u> Company <u>SEQUOIA</u>	Date <u>7/13/99</u> Time <u>14:15</u>	Relinquished by: _____ Signature _____ Printed _____ Company _____ Reason _____	Date _____ Time _____	Received by: _____ Signature _____ Printed _____ Company _____	Date _____ Time _____
Comments: _____ _____ _____							

---

**Waste Soil Profile Sample**



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900, Fax (510) 486-0532

A N A L Y T I C A L   R E P O R T

Prepared for:

Stellar Environmental Solutions  
2198 6th Street  
Suite 201  
Berkeley, CA 94710

Date: 17-AUG-99  
Lab Job Number: 140811  
Project ID: N/A  
Location: 2144 Alvarado St., S.L.

Reviewed by: \_\_\_\_\_

Reviewed by: \_\_\_\_\_

This package may be reproduced only in its entirety.



Organochlorine Pesticides and PCBs

Client: Stellar Environmental Solutions      Analysis Method: EPA 8080  
Location: 2144 Alvarado St., S.L.      Prep Method: EPA 3520

Field ID: FULL SOIL PILE      Sampled: 08/05/99  
Lab ID: 140811-001      Received: 08/05/99  
Matrix: TCLP Leachate      Extracted: 08/10/99  
Batch#: 49839      Analyzed: 08/16/99  
Units: ug/L  
Diln Fac: 2

Analyte	Result	Reporting Limit
gamma-BHC	ND	0.1
Heptachlor	ND	0.1
Heptachlor epoxide B	ND	0.1
Heptachlor epoxide A	ND	0.1
Endrin aldehyde	ND	0.2
Chlordane	9.5	1.0
Methoxychlor	ND	1.0
Toxaphene	ND	2.0

Surrogate	%Recovery	Recovery Limits
TCMX	35	25-140
Decachlorobiphenyl	48	15-147



Organochlorine Pesticides and PCBs

Client: Stellar Environmental Solutions      Analysis Method: EPA 8080  
Location: 2144 Alvarado St., S.L.      Prep Method: EPA 3550

Field ID: FULL SOIL PILE      Sampled: 08/05/99  
Lab ID: 140811-001      Received: 08/05/99  
Matrix: Soil      Extracted: 08/09/99  
Batch#: 49803      Analyzed: 08/16/99  
Units: ug/Kg  
Diln Fac: 200

Analyte	Result	Reporting Limit
alpha-BHC	ND	600
beta-BHC	ND	600
gamma-BHC	ND	600
delta-BHC	ND	600
Heptachlor	ND	600
Aldrin	ND	600
Heptachlor epoxide B	ND	600
Heptachlor epoxide A	ND	600
Endosulfan I	ND	600
Dieldrin	ND	1200
4,4'-DDE	ND	1200
Endrin	ND	1200
Endosulfan II	ND	1200
Endosulfan sulfate	ND	1200
4,4'-DDD	ND	1200
Endrin aldehyde	ND	1200
4,4'-DDT	ND	1200
Chlordane	48000	6000
Methoxychlor	ND	6000
Toxaphene	ND	12000
Aroclor-1016	ND	2400
Aroclor-1221	ND	4800
Aroclor-1232	ND	2400
Aroclor-1242	ND	2400
Aroclor-1248	ND	2400
Aroclor-1254	ND	2400
Aroclor-1260	ND	2400

Surrogate	%Recovery	Recovery Limits
TCMX	DO*	57-126
Decachlorobiphenyl	DO*	38-141

\* Values outside of QC limits  
DO: Surrogate diluted out

STELLAR ENVIRONMENTAL SOLUTIONS  
Chain of Custody Record

Lab Job no.: \_\_\_\_\_

Date \_\_\_\_\_

Page \_\_\_\_\_ of \_\_\_\_\_

140811

Laboratory Curtis & Tompkins Ltd Method of Shipment hand delivered  
 Address 2303 Fifth Street Shipment No. \_\_\_\_\_  
Berkeley CA 94710 Airbill No. \_\_\_\_\_  
 Client Stellar Environmental Solutions Cooler No. \_\_\_\_\_  
 Address \_\_\_\_\_ Project Manager Bruce Ricketts  
 Telephone No. 510/644-3223  
 Project Name 4044 Alameda Street, San Leandro Fax No. 510/644-3859  
 Project Number \_\_\_\_\_ Sample(s) (Signature) B.M. Ricketts

Chain of Custody No. of Containers	Analysis Required										Remarks	
	EPA 8081 (Metals)	(Residuals Only)	TCLP + EPA	8081 (Soluble)								
1	X		X									Hold all other samples for possible analysis  5 DAY TAT (critical!)

Field Sample Number	Location/Depth	Date	Time	Sample Type	Type/Size of Container	Preservation							
						Temp.	Chemical						
Full Soil Pile	-	8/5/99	1345	Soil	8oz glass jar	4°	-	-	1	X	X		
West Pile	-		1350										
Central Pile	-		1355										
East Pile	-		1400										

Relinquished by: B.M. Ricketts  
 Signature \_\_\_\_\_  
 Printed Bruce M. Ricketts  
 Company Stellar Environmental  
 Reason dump off at lab

Date 8/5/99  
 Received by: Tracy Roberts  
 Signature \_\_\_\_\_  
 Printed Tracy Roberts  
 Company Curtis & Tompkins

Relinquished by:  
 Signature \_\_\_\_\_  
 Printed \_\_\_\_\_  
 Company \_\_\_\_\_  
 Reason \_\_\_\_\_

Date \_\_\_\_\_  
 Received by:  
 Signature \_\_\_\_\_  
 Printed \_\_\_\_\_  
 Company \_\_\_\_\_

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Relinquished by:  
 Signature \_\_\_\_\_  
 Printed \_\_\_\_\_  
 Company \_\_\_\_\_  
 Reason \_\_\_\_\_

Date \_\_\_\_\_  
 Received by:  
 Signature \_\_\_\_\_  
 Printed \_\_\_\_\_  
 Company \_\_\_\_\_

SES-2110 Sixth Street, Berkeley, CA 95710

T-129 P 02/02 F-300  
5104860532  
From-CURTIS & TOMPKINS  
Aug-17-99 01:44pm

*YAddo91/0R* See instructions on back of page 6.

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802. WITHIN CALIFORNIA, CALL 1-800-852-7550

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA ID No. <b>CAC002221193</b>		Manifest Document No. <b>3171C</b>		2. Page 1 of 1		Information in the shaded areas is not required by Federal law					
3. Generator's Name and Mailing Address <b>Mr. Donald Coffel 2604 Londonberry Rd., Alexandria, CA 22308 703 780-0221</b>						A. State Manifest Document Number <b>99456483</b>							
4. Generator's Phone 1						B. State Generator's ID							
5. Transporter 1 Company Name <b>Cross Trucking Lutrel Trucking and Environmental Services</b>						C. State Transporter's ID (Required) <b>CA D083003699</b>							
7. Transporter 2 Company Name						D. Transporter's Phone <b>(806) 399-0246</b>							
9. Chemical Waste Management, Inc. 35251 Old Skyline Road Kettleman City, CA 93239						E. State Transporter's ID (Required)							
10. US EPA ID Number <b>CAT000646117</b>						F. Transporter's Phone							
11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number) <b>a. Non-RCRA, hazardous waste, solid (excavated soil with non-RCRA chlordane)</b>						12. Containers No. Type <b>001 DT</b>		13. Total Quantity <b>00018</b>		14. Unit Wt/Vol <b>K</b>		15. Waste Number State <b>611</b> EPA/Other <b>NR</b>	
Additional Descriptions for Materials Listed Above <b>Site Profile EAB450</b>						K. Handling Codes for Waste Listed Above <b>03</b>							
<p>16. <b>GENERATOR'S CERTIFICATION:</b> I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.</p> <p>If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.</p> <p><b>IN CASE OF EMERGENCY CONTACT: DECON Environmental Services, Inc. @ (510) 475-2901</b>                  Site pick up address: <b>2144 Alvarado Street San Leandro CA</b></p>													
Printed/Typed Name <b>Bruce Rucker - Stellar Environmental Solutions</b>						Signature <i>Bruce M. Rucker</i>		Month <b>08</b>		Day <b>27</b>		Year <b>99</b>	
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name <b>Robert M Cross</b>						Signature <i>Robert M Cross</i>		Month <b>08</b>		Day <b>27</b>		Year <b>99</b>	
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name						Signature		Month		Day		Year	
19. Discrepancy Indication Space													
20. Facility Owner or Operator Certification (Receipt of hazardous materials covered by this manifest except as noted in 19) Printed/Typed Name <i>W. Coffel</i>						Signature <i>W. Coffel</i>		Month <b>08</b>		Day <b>27</b>		Year <b>99</b>	

DO NOT WRITE BELOW THIS LINE.

WEIGHT (LB) TIME DATE COMMODITY: HAZARDOUS WASTE

GROSS: 2:27 PM 08/27/99 83000 lb 41.50 DEPUTY WEIGHMASTER

TARE: 3:26 PM 08/27/99 32260 lb 16.13

NET: \_\_\_\_\_

YARDAGE: \_\_\_\_\_

CHEMICAL WASTE MANAGEMENT, INC.  
WEIGHMASTER weighed of  
35257 Old Shilpa Road  
Kerman, CA 93625  
NO: 139375  
WEIGHMASTER CERTIFICATE  
This is to certify that the following described commodity was weighed, measured, or counted by a WEIGHMASTER, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by CHAPTER 7 (commencing with § 12700) of Division 5 of the California Business & Professions Code, administered by the Division of Measurement Standards of California Department of Food and Agriculture.

GENERATOR: MR. D.C. MANIFEST: 77456483 PROFILE NO: EA 6950

TRACTOR LICENSE NO. YAD091 TRAILER #1 LICENSE NO. TRAILER #2 LICENSE NO.

SITE DRIVER: \_\_\_\_\_ SAMPLE TIME: \_\_\_\_\_

DATE: \_\_\_\_\_ LABORATORY IN: \_\_\_\_\_

START: \_\_\_\_\_ RECEIVING OUT: \_\_\_\_\_

FINISH: \_\_\_\_\_ DRIVER: Robert

WASHOUT METER: \_\_\_\_\_ TRANSPORTER: C1033

FINISH: \_\_\_\_\_ START: \_\_\_\_\_ RELEASING SIGNATURE: \_\_\_\_\_

GALLONS USED: \_\_\_\_\_

SAMPLE # 8/27/99 BIN # \_\_\_\_\_ RECEIPT NO. 216091

MANDATORY ANALYSIS - ALL WASTES

PHYSICAL STATE	SOLID	LIQUID
APPEARANCE	_____	_____
pH	_____	_____
WATER MIX	Δ 1°F _____	SOX _____
FLAM POTENTIAL	NEG POS _____	_____
CN-SCREEN	NEG POS _____	_____
S-SCREEN	NEG POS _____	_____
OXIDIZER	NEG POS _____	_____
RADIO SCREEN	BKGD POS _____	_____
ANALYST	_____	_____

SUPPLEMENTAL ANALYSIS - TREATED WASTES

PAINT FILTER TEST	NA	PASS	FAIL
VISIBLE OIL	NEG	POS	_____ %
PCB SCREEN	NA	NO	POS _____ PPM
PERCENT SOLID	_____	_____	_____ LBS/GAL
CALCULATED QTY	_____	_____	_____
NET WGT	_____	_____	_____
SET	_____	_____	_____
> 50% DEBRIS	YES	NO	_____
> 60 MM	YES	NO	_____
< 6.75 FT.	YES	NO	_____
CAN MAJORITY OF WASTE BE COATED ON ALL SIDES	YES	NO	INT. _____

MULTIPLE LOAD # \_\_\_\_\_ DATE \_\_\_\_\_

SEE MANIFEST \_\_\_\_\_ GRID POINT \_\_\_\_\_

PROFILE EXPIRATION 8/00 ELEVATION \_\_\_\_\_

TREATMENT CODE 3E 15-6 TIME \_\_\_\_\_

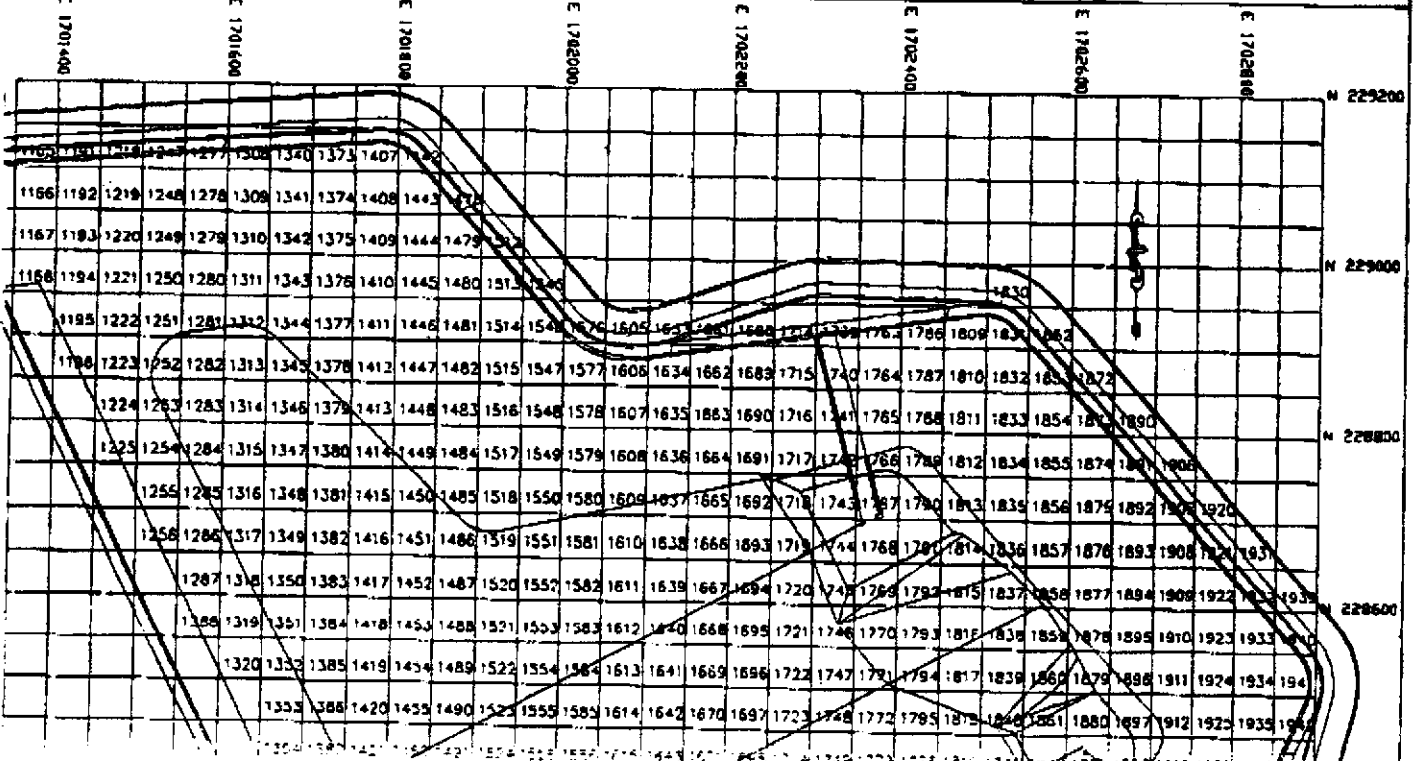
TIME OUT 7:37 TIME \_\_\_\_\_

REC. TECH. \_\_\_\_\_

LANDFILL UNIT B-18 PHASE II NORTH GRID SHEET

Point numbers identify grid location at lower corner of grid box. EXAMPLE: 1402

ADDITIONAL INFORMATION: SOIL ROCKS Debris





★ Stellar Environmental Solutions

2198 Sixth Street, Berkeley, CA 94710  
Tel: (510) 644-3123 • Fax: (510) 644-3859  
Geoscience & Engineering Consulting

August 17, 1999

Mr. Edward Vasquez  
Chemical Waste Management, Inc.  
35251 Old Skyline Road  
Kettleman City, California 93239-0471

Subject: Soil Profile – 2144 Alvarado Street, San Leandro, California

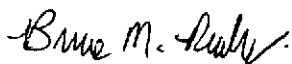
Dear Mr. Vasquez:

Please find attached the Chemical Waste Management, Inc. Generator's Waste Profile Sheet Form, analytical laboratory report and chain-of-custody record for the approximately 30 cubic yards of soil from the referenced property. The soil was generated as part of a soil remediation project. Chlordane is the sole constituent of concern, as indicated on the laboratory report.

One 4-point composite soil sample was collected from the waste soil stockpile following soil remediation activities, and was analyzed for the known contaminants of concern – organochlorine pesticides – by EPA Method 8080. Only chlordane was detected: total concentration is 48 mg/kg and TCLP soluble concentration is 9.5 µg/L, which is below the 30 µg/L Maximum Concentration for the Toxicity Characteristic.

Because the generator is on the East Coast, he has authorized SES to act as his agent for disposal to allow us to sign the waste profile form. Please contact me directly (510-644-3123) regarding acceptance of this wastestream.

Sincerely,



Bruce M. Rucker, R.G.  
Project Manager

Attachment: Waste Profile Sheet including analytical lab report and chain-of custody record

August 19, 1999

Ms. Cecilia Canoza  
Chemical Waste Management, Inc.  
35251 Old Skyline Road  
Kettleman City, California 93239-0471

Subject: Waste Profile EA 06450 – 2144 Alvarado Street, San Leandro, California

Dear Ms. Canoza:

In accordance with your request, Stellar Environmental Solutions (SES) is submitting information on the generator's knowledge of the site from which the approximately 30 cubic yards of soil was generated. The site is a former pest control facility that has been occupied by several entities. Shallow soil contamination by organochlorine pesticides has been documented by recent investigations. Approximately 30 cubic yards of shallow soil were excavated from several localized areas at the site.

We understand that your facility requires a "generator certification" as to our knowledge of the source of the documented contamination. We understand that this is required so that your facility can determine whether it can accept the soil on the basis of its contaminant concentrations, or if it will be a "listed" (hazardous) waste by virtue of a waste code. Based on the records available to me and a 1996 Phase I Environmental Assessment that included reviewing City Fire Department and County Health Department records, the following is the generator's full knowledge of the site history as regards the use of insecticides.

April 1964 – facility occupied by John Sprague Termite control and a July 1965 city fire inspection report indicates usage of "insecticides"

1969 – property occupied by Chestnut Pest Control and a July 1969 city fire inspection report indicates usage of "insecticides"

1974 – Cal Construction occupied the property

1976 – property occupied by A. B. Oliver Termite and a March 1976 city fire inspection report indicates usage of "chlordane"

Chemical Waste Management

Page 2


1983 to 1987 – property occupied by A. B. Hopkins Pest Control 1987 – The generator purchased the property in 1983 and has owned it since.

Other than the above, neither the generator nor SES has any knowledge of the site history, usage or storage of chemicals, chemical formulations or products used, or disposal practices.

Exploratory borehole soil sample analytical results contained 5 different pesticide compounds (chlordane, heptachlor, DDD, DDE, DDT and eldrin), suggesting that the facilities utilized a commercially-available mixture(s) that did not have a “sole active ingredient.” It is my understanding from California Code of Regulations Title 22 Section 66261.33 that if a discarded waste does not include a “sole active ingredient,” then it does not carry a U-code, and is therefore a potentially characteristic waste. Only chlordane and heptachlor were detected in the 4-point stockpile profile sample, and neither exceeded the RCRA Maximum Contaminant Concentration for the Toxicity Characteristic, as documented in the analytical laboratory report we submitted on August 18, 1999 with the Waste Profile package..

We trust that this additional information is sufficient for you to approve this wastestream. Please have Mr. Vasquez send to me via fax the acceptance confirmation letter, as soon as it is available. Thank you in advance.

Sincerely,



Bruce M. Rucker, R.G., R.E.A  
Project Manager and Senior Geologist

Donald Coffel  
2604 Londonderry Road  
Alexandria, VA 22308-2333

July 21, 1999

Subject: Assignment of Agent for Soil Disposal - 2144 Alvarado Street, San Leandro,  
California

To Whom It May Concern:

I am the owner of the referenced property. Stellar Environmental Solutions (SES) of Berkeley, California is coordinating the excavation and disposal of pesticide-contaminated soil at the property, and will be submitting on my behalf any required waste profile documentation. Mr. Bruce Rucker of SES is hereby authorized to act as my agent in signing all waste profile and transport documentation related to the waste soil. Please call me directly at 703-780-0221 if you have any questions.

Sincerely,

  
Donald Coffel  
Property Owner

cc: Bruce Rucker, Stellar Environmental Solutions



# Chemical Waste Management, Inc.

## GENERATOR'S WASTE PROFILE SHEET

EA 06450

Profile #

(Please carefully read the instructions before completing this form. Please print in ink or type)

Sales #

Service Agreement on file? Yes  No

Classification: Class I  Class II  Daily Cover  Non Haz

TSDF requested

Technology requested Direct Landfill

Check here if this is a Recertification

Check here if a Certificate of Destruction or Disposal is required

### GENERAL INFORMATION

1. GENERATOR NAME: Mr. Donald Coffel Generator USEPA ID: CAC00231193  
 2. Generator Address: 2144 Alvarado Street Billing Address:  Same: DECON Environmental Services  
San Leandro, CA Alexandria, Virginia 23490 Connecticut Street  
 3. Technical Contact/Phone: Bruce Rucker (consultant) 510/644-3833 Hwyway CA 94545  
 4. Alternate Contact/Phone: Billing Contact/Phone: Chris Patis 510/732-6444

### PROPERTIES AND COMPOSITION

5. A. Process Generating Waste: Excavation of pesticide-contaminated soil from commercial pest control facility  
 B. Is the waste from a CERCLA or state mandated cleanup? Yes  No  Location Name: \_\_\_\_\_  
 6. Waste Name: Excavated Soil  
 7. A. Is this a USEPA hazardous waste (40 CFR Part 261)? Yes  No   
 B. If D001, D002, D003, D004-D043 do any underlying hazardous constituents (UHC's) apply? Yes  No  (if yes, attach UHC form)  
 C. Does this waste contain debris (List size and type in chemical composition)? Yes  No   
 D. Identify ALL USEPA listed and characteristic waste code numbers (D, F, K, P, U): NONE State Waste Codes: 611  
 E. Does this waste contain any Class I or Class II ozone depleting substances?  Yes (List in chemical composition)  No  
 8. Physical state @ 70°F: A. Solid  Liquid  Both  Gas  B. Single Layer  Multilayer  C. Free Liquid range 0 to 10 %  
 9. A. pH: Range 6 to 8 or Not applicable  B. Strong Odor  describe none C. Color brown  
 10. Liquid Flash Point: < 73°F  73-99°F  100-139°F  140-199°F  > 200°F  N.A.   
 11. CHEMICAL COMPOSITION: List ALL constituents (including halogenated organics and UHC's) present in any concentration and forward available analysis.

Constituents	Range	Units	Constituents	Range	Units
Chlordane (total)	44	mg/kg (ppm)			
Chlordane (TCLP soluble)	9.5	mg/lb (ppb)			

TOTAL COMPOSITION MUST EQUAL OR EXCEED 100%

12. OTHER PCB's: if yes, concentration (dry weight) \_\_\_\_\_ ppm, PCB's regulated by 40 CFR 761  Pyrophoric  Explosive  Radioactive   
 Water Reactive  Shock Sensitive  Oxidizer  Carcinogen  Infectious  Other \_\_\_\_\_  
 13. If Benzene, concentration \_\_\_\_\_ ppm. Is the waste subject to the Benzene Waste Operation NESHAP? Yes  No  Unknown   
 14. Is the waste subject to RCRA subpart CC controls? Yes  No  Volatile organic concentration, if known \_\_\_\_\_ ppmw.  
 15. If the waste is subject to the land ban and meets the treatment standards, check here:  and supply analytical results. (attached)

### SHIPPING INFORMATION

16. PACKAGING: Bulk Solid  Type/Size: 30 CY Bulk Liquid  Type/Size \_\_\_\_\_ Drum  Type/Size \_\_\_\_\_ Other \_\_\_\_\_  
 17. SHIPPING FREQUENCY: Units \_\_\_\_\_ Per:  Month  Qtr.  Year  One Time  Other \_\_\_\_\_

### SAMPLING INFORMATION

18. A. Sample source (drum, lagoon, pond, tank, vat, etc.) stockpile  
 Date Sampled: August 5, 1999 Sampler's Name/Company: Bruce Rucker - Stellar Environmental Solutions  
 B. Generator's Agent Supervision Sampling: Bruce Rucker 19. No sample required (See instructions)

### GENERATOR'S CERTIFICATION

I hereby certify that all information submitted in this and all attached documents contains true and accurate descriptions of this waste. Any sample submitted is representative as defined in 40 CFR 261 - Appendix 1 or by using an equivalent method. All relevant information regarding known or suspected hazards in the possession of the generator has been disclosed. I authorize CWM to obtain a sample from any waste shipment for purposes of recertification. If this certification is made by a broker, the undersigned signs as authorized agent of the generator and has confirmed the information contained in this Profile Sheet from information provided by the generator and additional information as it has determined to be reasonably necessary.

Bruce M. Rucker (authorized agent for generator) Bruce M. Rucker - Project Manager 8/17/99  
 Signature Printed (or typed) name and title Date

If the waste profile is approved, Chemical Waste Management, Inc. has the appropriate permits and will accept the waste pursuant to our agreement. CWM Form 6000-DI replaces the following forms: CWM-51, CWM 6000, CWM 50-A-2, CWM 50-B, CWM 6000C AND CWM Form 6000-D.

## CONFIRMATION LETTER

August 20, 1999

CHRIS PACIS  
DECON ENVIRONMENTAL SERVICES  
23490 CONNECTICUT ST  
HAYWARD, CA 94545-1607

ORIGINAL

Re: Confirmation Number 4934812

Attention: CHRIS PACIS

We are pleased to confirm CWM's approval of your waste material as described below. The attached profile for the waste materials was prepared by CWM based upon information provided by you. It is important that no changes be made to the profile without CWM's consent. If the profile meets with your approval, please call 1- 800-222-2964 to schedule shipment of your waste materials.

CWM Profile Number: EA6450 KHF

Approved Mgmt. Facility: KETTLEMAN HILLS FACILITY

Waste Name: CHLORDANE CONTAMINATED SOIL

Disposal Method: SECURE LANDFILL

Pricing Conditions: Secure Landfill

Disposal Price: \*\*\*Special Pricing Effective 1/28/99\*\*\*  
\$55.00/55 Gallon Drum  
\$60.00/Ton > 1800 lbs/Cubic Yard  
\$60.00/Cubic Yard < 1800 lbs/Cubic Yard  
Add 10% Kings County Tax  
Add B.O.E. Tax - Hazardous (Clean-Up)

Transportation Price: \*\*If CWM Arranges Transportation:  
\*Trips less than 400 miles (one way)  
Drums:  
1-10 Drums \$33.00/Drum  
11-40 Drums \$28.00/Drum  
41 + Drums To be quoted at truck load rates.

Stop time for 1-10 drums should not exceed 30 minutes. For pick ups of > 10 drums stop time should not exceed 60 minutes.  
The transportation charge for overpacks will be \$50.00 per drum.

Bulk:

August 20, 1999

Re: Confirmation Number 4934812

\$67.00/Hour End Dump Trucks  
\$72.00/Hour Flat Bed Trucks & Roll-Off Trucks

Container Drop Off Fee: Current Transportation  
Rate Less 2 Hours  
Container Rental: \$225.00 month/flat fee  
Liners: \$60.00/liner

Demurrage:

\$70.00/Hour after the first hour

Additional Fees:

Jumbo Bags & Boxes 1.5 x Bulk Price Above  
Pallets 4 x Drum Price Above  
Containers > 55 Gallons 1.5 x Drum Price Above  
Incidental Liquid in Bulk Solid Loads \$400.00/Load  
Incidental Liquid in Drums \$220.00/Drum  
Leaking Bulk Loads/Drums \$200.00/Load or Drum  
Non-ring top containers solids requiring treatment  
\$25.00/drum.  
If overpacks are required they will be provided  
for an additional charge of \$130.00/drum.  
Truck washouts will be billed at \$0.90 per gallon  
with a \$250.00 minimum.  
Priority Approvals \$300.00

Profile Expiration Date:

8/19/00

Special Conditions:

**MUST BE SCHEDULED (CALL 1-800-222-2964)  
NO FREE LIQUIDS OR VOID SPACE IN DRUMS  
NO RCRA WASTE MAY BE SHIPPED ON THIS PROFILE.  
MUST NOT INCLUDE BIODEGRADABLE ABSORBENTS**

Applicable state and local taxes are not included in these disposal prices. All wastes are priced as profiled, invoiced as actually received. Invoices shall be paid no later than thirty (30) days from the date of receipt. All terms are governed by the Agreement previously executed between our companies. The prices quoted above are subject to change by CWM upon thirty (30) days' prior written notice to you unless otherwise specifically provided or per the terms of our Agreement. If we have not previously concluded a Service Agreement with your company, one is enclosed for your convenience. Please sign and return it to us as soon as possible. Also, if 'Signature on File' does not appear on the signature line of the Waste Profile Sheet, please sign and return it before scheduling your material.

August 20, 1999

Re: Confirmation Number 4934812

If you have any questions or would like to make changes to the profile, please contact your representative.  
Thank you for this opportunity to be of service.

*Ed Waldyński*  
\_\_\_\_\_  
Edward Waldyński/Tech. Manager

\_\_\_\_\_  
CHRIS PACIS  
DECON ENVIRONMENTAL SERVICES

CHEMICAL WASTE MANAGEMENT, INC