

October 6, 1997
1124-2A

**Ms. Madhulla Logan
ALAMEDA COUNTY
ENVIRONMENTAL HEALTH SERVICES
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577**

**RE: WORK PLAN
15550 WASHINGTON AVENUE,
SAN LORENZO, CALIFORNIA**

Dear Ms. Logan:

We are pleased to present this work plan to mix soil with residual agricultural pesticides at 15550 Washington Boulevard in San Lorenzo, California (Figure 1). This work plan was prepared on behalf of Centex Homes, who is planning to develop the property for either single-family or multi-family residential use. As you know, the California Department of Toxic Substances Control (DTSC) has allowed the mixing of soil to reduce pesticide concentrations on similar sites (DTSC, November 1, 1995).

Introduction

This work plan presents the general steps and procedures to be used in the excavation and mixing of soil with residual pesticides. In addition, this work plan presents the verification sampling procedures to document that levels of the soil do not exceed the proposed cleanup goals, which are discussed below.

Purpose

The approximately 7-acre property has historically been utilized for agricultural purposes. In addition to agricultural fields, the site is currently occupied by a house, a garage, barns, sheds, and other farm related structures.

Site Background

To evaluate the presence of residual pesticides as a result of the former agricultural use, seven soil samples (SS-1 through SS-7) were randomly

collected from the site on August 26, 1997. The soil samples were randomly collected from the surface to approximately $\frac{1}{2}$ foot. To further evaluate the extent of residual pesticides detected in soil samples SS-1 through SS-7, borings EB-1 through EB-23 were hand augered to depths of approximately $1\frac{1}{2}$ feet on September 11, 1997. One boring was randomly located on each of 23 planned fourplex residential lots. Soil samples were collected from the surface to approximately $\frac{1}{2}$ foot and from approximately 1 to $1\frac{1}{2}$ feet from each boring. In addition, four soil samples (SS-12 through SS-15) were collected from the dirt floor of the on-site barn. Soil sample locations are shown are Figure 2, and soil sampling protocol is summarized in Attachment A.

Soil samples SS-1 through SS-7, and soil samples SS-12 through SS-15 (composite), were analyzed for organochlorine pesticides (EPA Test Method 8080), arsenic, lead, and mercury. Soil samples collected from borings EB-1 through EB-23 were also analyzed for organochlorine pesticides (EPA Test Method 8080). The analytical results are summarized on Table 1, and the complete analytical results are presented in Attachment B.

As shown in Table 1, laboratory analysis of soil samples collected from the upper $1\frac{1}{2}$ -foot from the site detected residual pesticides, including up to 5.3 parts per million (ppm) total DDT compounds. The mean DDT concentration exceeds the 1.0 ppm total threshold limit concentration (TTLC). The mean DDT concentration also exceeds the preliminary remedial goal (PRG) for total DDT of 1.3 ppm.

Up to 0.26 ppm dieldrin, 0.43 endrin, and 0.26 ppm chlordane were also detected. The PRGs for dieldrin, endrin, and chlordane are 0.028 ppm, 20 ppm, and 0.34 ppm, respectively. In addition, the TTLCs for dieldrin, endrin, and chlordane are 8.0 ppm, 0.2 ppm, and 2.5 ppm.

Remedial Goal Evaluation

TABLE 1. Analytical Results of Selected Soil Samples
(concentrations in parts per million)

Sample ID	Depth (feet)	Total DDT	Dieldrin	Eendrin	Total Chlordane	Arsenic	Lead	Mercury
SS-1	0-½	ND	ND	ND	ND	6.6	<0.50	<0.10
SS-2	0-½	2.58	ND	ND	ND	2.6	19	<0.10
SS-3	0-½	5.50	ND	ND	ND	3.0	21	<0.10
SS-4	0-½	0.87	ND	ND	ND	4.4	25	<0.10
SS-5	0-½	0.69	ND	ND	ND	5.4	25	<0.10
SS-6	0-½	0.12	ND	ND	ND	5.4	33	0.21
SS-7	0-½	0.70	ND	ND	ND	4.2	37	<0.10
SS-12 to 15 ^①	0-½	0.72	0.12	0.19	ND	1.1	39	0.11
EB-1	½-1	0.60	ND	0.17	ND	-	-	-
EB-1	1-1½	0.25	ND	ND	ND	-	-	-
EB-2	½-1	0.23	ND	ND	ND	-	-	-
EB-2	1-1½	0.015	ND	ND	ND	-	-	-
EB-3	½-1	0.062	ND	ND	ND	-	-	-
EB-3	1-1½	ND	ND	ND	ND	-	-	-
EB-4	½-1	0.71	0.12	ND	ND	-	-	-
EB-4	½-1	0.419	0.052	ND	ND	-	-	-
EB-5	½-1	2.29	ND	ND	ND	-	-	-
EB-5	1-1½	0.403	0.068	ND	ND	-	-	-
EB-6	½-1	0.81	0.058	0.22	ND	-	-	-
EB-6	1-1½	0.218	ND	ND	ND	-	-	-
EB-7	½-1	2.7	0.18	0.32	0.19	-	-	-
EB-7	1-1½	0.89	0.16	ND	0.182	-	-	-
EB-8	½-1	2.4	0.16	ND	0.19	-	-	-
EB-8	1-1½	0.10	0.070	ND	ND	-	-	-
EB-9	½-1	2.69	0.16	ND	0.080	-	-	-
EB-9	1-1½	0.25	ND	ND	ND	-	-	-
EB-10	½-1	4.1	0.16	0.43	0.163	-	-	-
EB-10	1-1½	2.5	ND	0.31	ND	-	-	-
EB-11	½-1	0.59	0.16	ND	ND	-	-	-
EB-11	1-1½	ND	ND	ND	ND	-	-	-
EB-12	½-1	0.74	ND	0.22	ND	-	-	-
EB-12	1-1½	ND	ND	ND	ND	-	-	-
EB-13	½-1	3.2	0.15	0.41	0.26	-	-	-
EB-13	1-1½	0.33	ND	ND	ND	-	-	-
EB-14	½-1	2.7	ND	0.36	0.23	-	-	-
EB-14	1-1½	0.42	ND	0.090	0.055	-	-	-
EB-15	½-1	2.46	ND	0.28	ND	-	-	-
EB-15	1-1½	0.061	ND	ND	ND	-	-	-
EB-16	½-1	0.022	ND	ND	ND	-	-	-
EB-16	1-1½	ND	ND	ND	ND	-	-	-
EB-17	½-1	ND	ND	ND	ND	-	-	-
EB-17	1-1½	1.84	0.11	0.24	ND	-	-	-
EB-18	½-1	0.82	ND	ND	ND	-	-	-
EB-18	1-1½	0.040	ND	ND	ND	-	-	-
EB-19	½-1	ND	ND	ND	ND	-	-	-
EB-19	1-1½	ND	ND	ND	ND	-	-	-
EB-20	½-1	1.52	0.26	0.20	ND	-	-	-
EB-20	1-1½	1.02	0.10	0.17	ND	-	-	-
EB-21	½-1	ND	ND	ND	ND	-	-	-
EB-21	1-1½	0.34	0.080	ND	ND	-	-	-
EB-22	½-1	ND	ND	ND	ND	-	-	-
EB-22	1-1½	2.12	ND	ND	ND	-	-	-
EB-23	½-1	2.3	ND	ND	ND	-	-	-
EB-23	1-1½	2.16	ND	ND	ND	-	-	-
PRGs ^{**}		1.3	0.028	20	0.34	22/0.38***	130	6.5

* Indicates that the compound was not detected at or above the stated laboratory reporting limit

Additional Compounds Detected

ND Indicates compounds not detected at or above laboratory reporting limits

① Endosulfan 2 - 0.089

- Not Analyzed

* Composite Sample

** Residential Preliminary Remediation Goal - EPA Region 9, August 1996

*** Non-cancer endpoint/cancer endpoint

**** Dependent upon individual compounds

NE Not Established

We have defined the cleanup goals for total DDT, dieldrin, endrin, and chlordane as either the TTLC or PRG for each compound, whichever is lowest. The cleanup goals are summarized below in Table 2.

Table 2. Cleanup Goals

Pesticide	Cleanup Goal	Source
Total DDT	1.0	TTLC
Dieldrin	0.028	PRG
Endrin	0.2	TTLC
Chlordane	0.34	PRG

SCOPE OF WORK

Mixing Plan and Method

To confirm the effectiveness of mixing, a preliminary mixing evaluation will initially be performed. Earth moving equipment, such as scrapers or bulldozers, or agricultural tilling equipment will initially be used to mix the upper approximately 3 feet on approximately 1,200 square feet of the site. The pilot mixing will be performed at the location of samples SS-2 and EB-10, where 4.58 ppm and 4.1 ppm total DDT, respectively, were detected in the upper approximately $\frac{1}{2}$ -foot (Figure 2). Following the preliminary mixing, soil samples will be collected from depths of approximately $\frac{1}{2}$ to 1-foot and 2 to 2 $\frac{1}{2}$ -feet at five randomly selected locations within the tilled area. The samples will be analyzed by a state certified analytical laboratory for organochlorine pesticides (EPA Test Method 8080) on a 24-hour laboratory response. Sampling protocol is presented in Attachment A.

Mixing Pilot Test

Following receipt of the analytical results, we will evaluate whether the mixing depth and/or number of passes needs to be adjusted.

Following the mixing pilot study and approval of the development project, the soil on the remainder of the site will be mixed. Earth moving equipment, such as scrapers or bulldozers, or agricultural tilling equipment will be used to mix the upper approximately 3 to 4 of soil, with the exception of the area mixed during the pilot evaluation. The mixing depth and type of equipment used will be selected based on the results of the pilot mixing evaluation.

Mixing

Verification Sampling

Following the mixing of the on-site soil, soil samples will be collected from a depth of approximately $\frac{1}{2}$ to 1 foot using hand sampling equipment. There are 23 fourplex lots currently proposed. Samples will be randomly collected per EPA document SW846, with one randomly located sample in each fourplex lot. If the residential development is changed to a single family configuration, one sample will be randomly located for every three to four single family lots. Sampling protocol is presented in Attachment A. The samples will be analyzed by a state certified analytical laboratory for organochlorine pesticides (EPA Test Method 8080).

Human Health Risk Assessment

Depending on the final analytical results of the verification samples, a health risk assessment may be performed to evaluate potential risk to human health.

Report Preparation

We will prepare a technical report presenting and summarizing the site activities, verification sampling results, health risk assessment results (if needed), as well as our recommendations and conclusions.

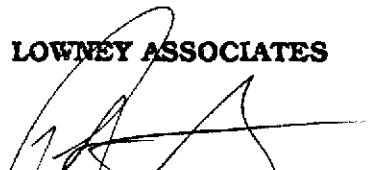
Schedule

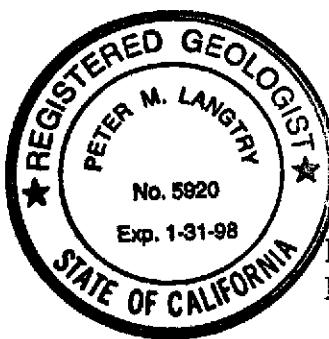
The pilot mixing evaluation will be performed by October 15, 1997. Centex Homes currently anticipates mixing the remainder of the site during summer 1998.

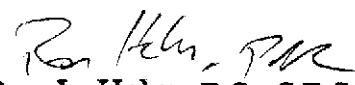
If you have any questions regarding this work plan, please call and we will be glad to discuss them with you.

Very truly yours,

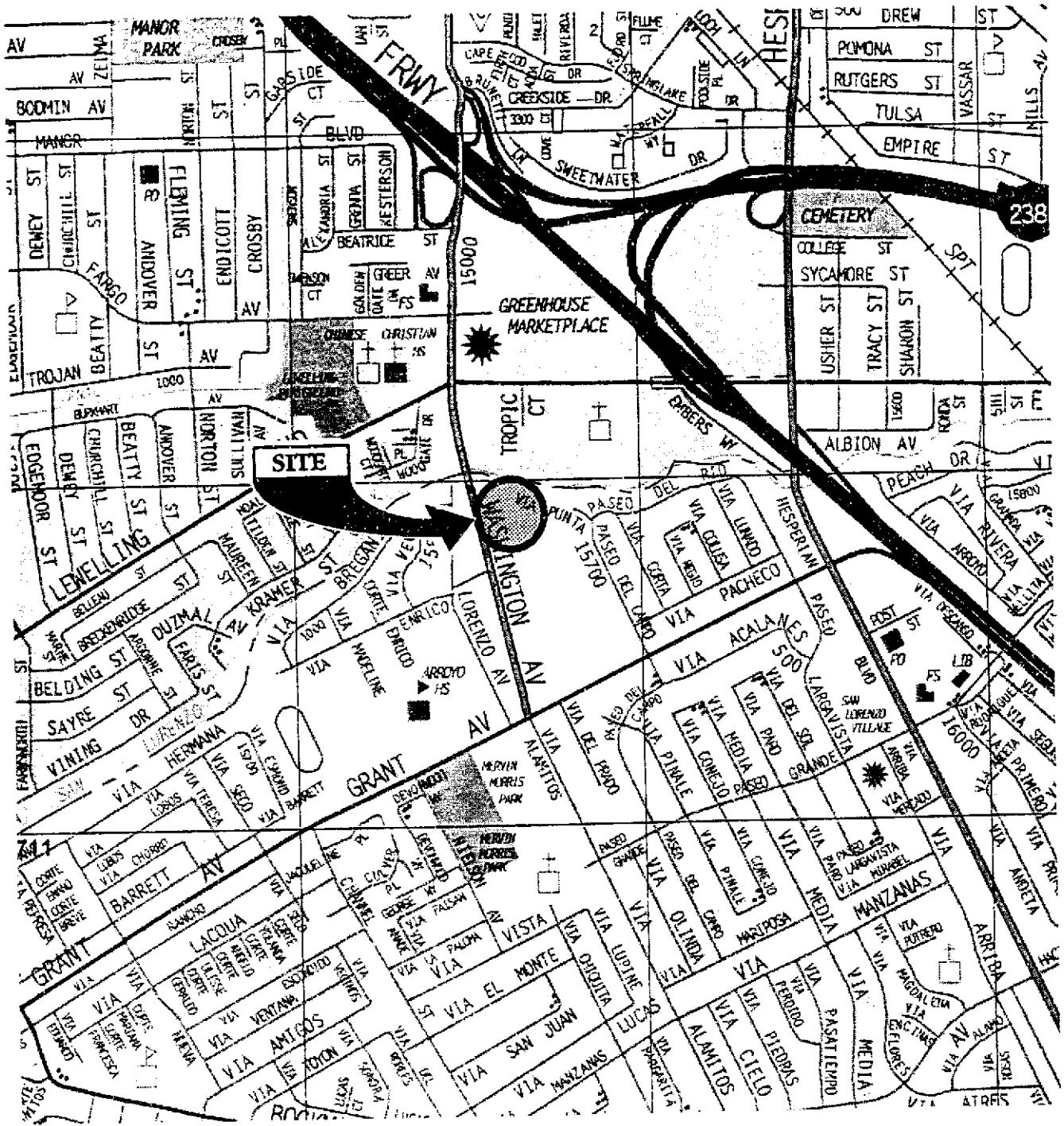
LOWNEY ASSOCIATES


Peter M. Langtry, R.G., C.E.G.
Associate
Environmental Geologist



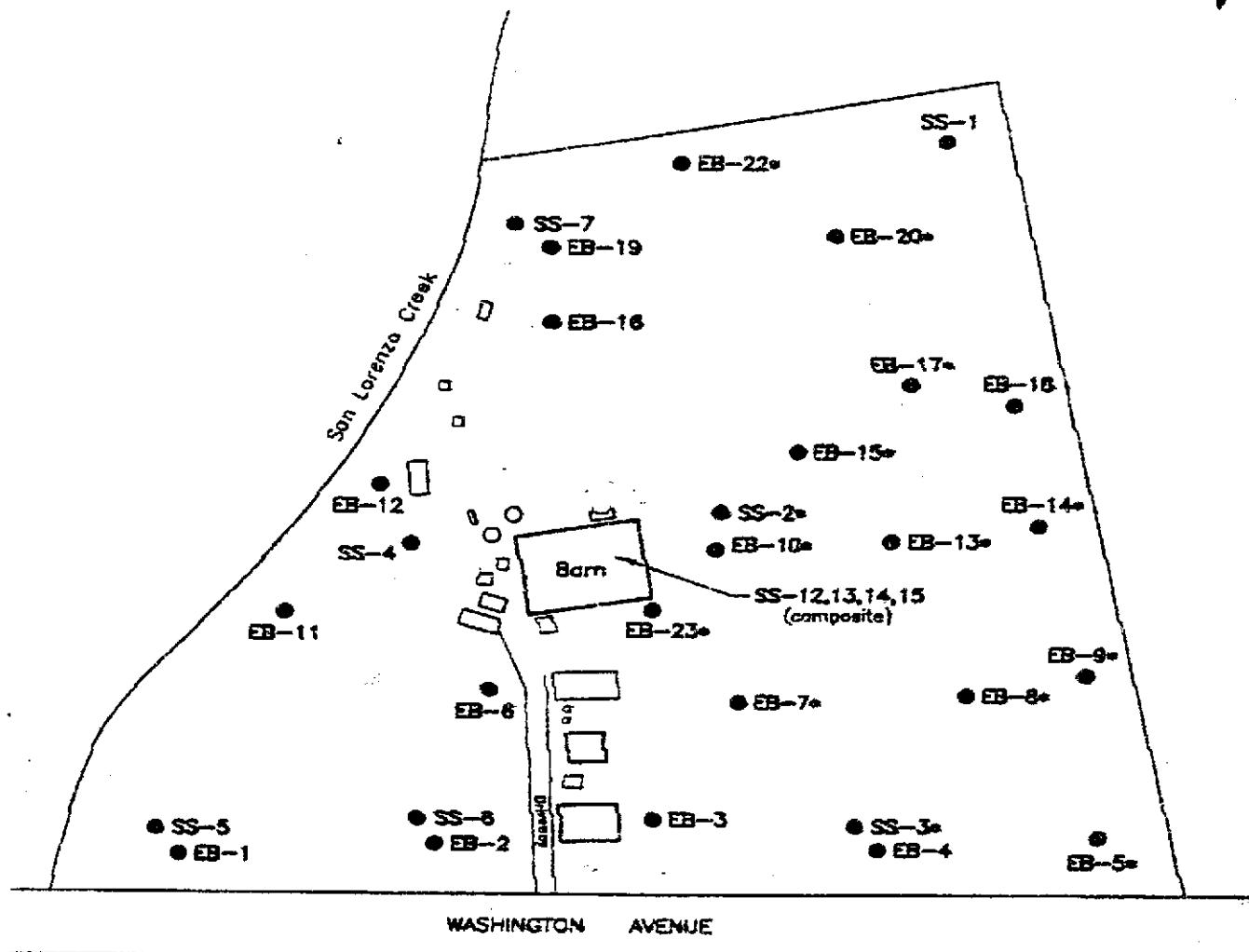

Ron L. Helm, R.G., C.E.G.
Principal
Environmental Geologist

Copies: Addressee (1)
Centex Homes (2)
Attn: Mr. Dennis Gerber
Attachments: Figure 1 - Vicinity Map
Figure 2 - Site Plan



"Reproduced with permission granted by THOMAS BROS. MAP."

VICINITY MAP
WASHINGTON AVENUE PHASE I
San Lorenzo, California



LEGEND

- — Approximate location of soil sample
- * — Sample location with greater than 1 ppm total DDT

Base approximated from Lovney Associates field notes.

Scale: 0 120 feet

SITE PLAN
WASHINGTON AVENUE PHASE I
San Lorenzo, California

LOVNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

FIGURE 2
1124-2

Attachment A
Sampling Equipment Decontamination

All sampling equipment will be thoroughly cleaned with an aqueous solution of tri-sodium phosphate and distilled water, or steam cleaned. The cleaning procedure will be repeated between each sampling location.

Soil Sample Collection: Soil samples will be collected in brass or stainless steel liners at approximately $\frac{1}{2}$ - to 1-foot. The ends of the liners will be covered with aluminum foil and plastic end caps and securely taped. The samples then will be placed on ice for transportation to the state certified laboratory. Chain of custody documentation will be maintained for all samples.



Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Attn: Peter Langtry
 Lowney Associates
 129 Filbert Street
 Oakland, CA 94607

Date:	9/3/97
Date Received:	8/27/97
Date Analyzed:	8/29-9/3/97
Project Name:	15550 Washington Ave
Job No.:	P7767
Sampled By:	Client

Certified Analytical Report

Soil Sample Analysis:

Test	SS-1 0-½'	SS-2 0-½'	SS-3 0-½'	SS-4 0-½'	Units	PQL	EPA Method #
Sample Matrix	Soil	Soil	Soil	Soil			
Sample Date	8/26/97	8/26/97	8/26/97	8/26/97			
Sample Time							
Lab #	D13492	D13493	D13494	D13495			
Arsenic	6.6	2.6	3.0	4.4	mg/kg	0.50 mg/kg	6010
Lead	ND	19	21	25	mg/kg	0.50 mg/kg	6010
Mercury	ND	ND	ND	ND	mg/kg	0.10 mg/kg	7471
Pesticides	ND	4.58	5.3	0.87	mg/kg	See Report	8080

1. DLR=DF x PQL
2. EPA 8080 analysis performed by WEST Laboratory (CAELAP #1346); see WEST report for individual compounds, detection limits, and analysis dates
3. Remaining analysis performed by Entech Analytical Labs, Inc. (CAELAP #2224)


 Michael N. Golden, Lab Director

 DF=Dilution Factor
 DLR=Detection Reporting Limit

 PQL=Practical Quantitation Limit
 ND=None Detected at or above DLR

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Attn: Peter Langtry
Lowney Associates
129 Filbert Street
Oakland, CA 94607

Date:	9/3/97
Date Received:	8/27/97
Date Analyzed:	8/29-9/3/97
Project Name:	15550 Washington Ave
Job No.:	P7767
Sampled By:	Client

Certified Analytical Report

Soil Sample Analysis:

Test	SS-5 0- $\frac{1}{2}$ '	SS-6 0- $\frac{1}{2}$ '	SS-7 0- $\frac{1}{2}$ '	Units	PQL	EPA Method #
Sample Matrix	Soil	Soil	Soil			
Sample Date	8/26/97	8/26/97	8/26/97			
Sample Time						
Lab #	D13496	D13497	D13498			
Arsenic	5.4	5.4	4.2	mg/kg	0.50 mg/kg	6010
Lead	25	33	37	mg/kg	0.50 mg/kg	6010
Mercury	ND	0.21	ND	mg/kg	0.10 mg/kg	7471
Pesticides	0.69	0.12	0.70	mg/kg	See Report	8080

1. DLR=DF x PQL
2. EPA 8080 analysis performed by WEST Laboratory (CAELAP #1346); see WEST report for individual compounds, detection limits, and analysis dates
3. Remaining analysis performed by Entech Analytical Labs, Inc. (CAELAP #2224)

Michael N. Golden, Lab Director

DF=Dilution Factor
 DLR=Detection Reporting Limit

PQL=Practical Quantitation Limit
 ND=None Detected at or above DLR

Environmental Analysis Since 1983

9-03-1997 5:04PM

FROM ENTECH ANALYTICAL 408 7351554

P. 4

SEP-03-97 WED 05:53 PM WEST End

FAX NO. 916-75-4610

P.02/10

WEST LABORATORY

September 3, 1997
 Sample Log 17236
 17236-01

Sample: D13492 (55-1 0-1/2)

From : Lowney (P7767)
 Sampled : 08/26/97
 Matrix : Soil
 Dilution : 1:5

Extracted : 09/02/97
 Analyzed : 09/03/97
 QC Batch : PS970901

EPA8080 - Organochlorine Pesticides
 EPA3550 Extraction

Parameter	(MRL) $\mu\text{g}/\text{kg}$	Measured Value $\mu\text{g}/\text{kg}$	Flag
Aldrin	(0.025)	< 0.025	
alpha-BHC	(0.025)	< 0.025	
beta-BHC	(0.025)	< 0.025	
delta-BHC	(0.025)	< 0.025	
gamma-BHC	(0.025)	< 0.025	
Chlordane Technical	(0.50)	< 0.50	
gamma-Chlordane	(0.025)	< 0.025	
alpha-Chlordane	(0.025)	< 0.025	
4,4'-DDD	(0.050)	< 0.050	
4,4'-DDE	(0.050)	< 0.050	
4,4'-DDT	(0.050)	< 0.050	
Dieldrin	(0.050)	< 0.050	
Endosulfan 1	(0.025)	< 0.025	
Endosulfan 2	(0.050)	< 0.050	
Endosulfan Sulfate	(0.050)	< 0.050	
Endrin	(0.050)	< 0.050	
Endrin Aldehyde	(0.050)	< 0.050	
Heptachlor	(0.025)	< 0.025	
Heptachlor Epoxide	(0.025)	< 0.025	
Toxaphene	(1.0)	< 1.0	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	102 D	(60-150)
Decachlorobiphenyl	122 D	(60-150)

D Value derived from diluted extract (5:1)

J. Pobly
 STAFF CHEMIST
 Senior Chemist

9-03-1997 5:05PM

FROM ENTECH ANALYTICAL 408 7351554

P.5

SEP-03-97 WED 05:53 PM WEST Lab

FAX NO. 916-75. 4610

P.03/10

WEST LABORATORY

September 3, 1997
 Sample Log 17236
 17236-02

Sample: n13493 (SS-2 0-1/2)

From : Lowney (P7767)
 Sampled : 08/26/97
 Matrix : Soil
 Dilution : 1:25

Extracted : 09/02/97
 Analyzed : 09/03/97
 QC Batch : PS970901

EPA8080 - Organochlorine Pesticides
EPA3550 Extraction

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(0.13)	< 0.13	
alpha-BHC	(0.13)	< 0.13	
beta-BHC	(0.13)	< 0.13	
delta-BHC	(0.13)	< 0.13	
gamma-BHC	(0.13)	< 0.13	
Chlordane Technical	(2.5)	< 2.5	
gamma-Chlordane	(0.13)	< 0.13	
alpha-Chlordane	(0.13)	< 0.13	
4,4'-DDD	(0.25)	0.68	
4,4'-DDE	(0.25)	1.7	
4,4'-DDT	(0.25)	2.2	
Dieldrin	(0.25)	< 0.25	
Endosulfan 1	(0.13)	< 0.13	
Endosulfan 2	(0.25)	< 0.25	
Endosulfan Sulfate	(0.25)	< 0.25	
Endrin	(0.30)	< 0.30	
Endrin Aldehyde	(0.25)	< 0.25	
Heptachlor	(0.13)	< 0.13	
Heptachlor Epoxide	(0.13)	< 0.13	
Toxaphene	(5.0)	< 5.0	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	***	(60-150)
Decachlorobiphenyl	***	(60-150)

***Surrogate diluted out (25:1)

P. Rely
 SURVEYOR/POLAROID
 Senior Chemist

9-03-1997 5:05PM

FROM ENTECH ANALYTICAL 408 7351554

P.6

SEP-03-97 WED 05:54 PM WEST LAB

FAX NO. 916-751-4610

P.05/10

WEST LABORATORY

September 3, 1997
 Sample Log 17236
 17236-03

Sample: D13494 (SS-3 0-1/2)

From : Lowney (P7767)
 Sampled : 08/26/97
 Matrix : Soil
 Dilution : 1:25

Extracted : 09/02/97
 Analyzed : 09/03/97
 QC Batch : PS970901

EPA8080 - Organochlorine Pesticides
 EPA3550 Extraction

Parameter	(MRL) $\mu\text{g}/\text{mL}$	Measured Value $\mu\text{g}/\text{mL}$	Flag
Aldrin	(0.13)	< 0.13	
alpha-BHC	(0.13)	< 0.13	
beta-BHC	(0.13)	< 0.13	
delta-BHC	(0.13)	< 0.13	
gamma-BHC	(0.13)	< 0.13	
Chlordane Technical	(2.5)	< 2.5	
gamma-Chlordane	(0.13)	< 0.13	
alpha-Chlordane	(0.13)	< 0.13	
4,4'-DDD	(0.25)	0.80	
4,4'-DDE	(0.25)	1.9	
4,4'-DDT	(0.25)	2.6	
Dieldrin	(0.25)	< 0.25	
Endosulfan 1	(0.13)	< 0.13	
Endosulfan 2	(0.25)	< 0.25	
Endosulfan Sulfate	(0.25)	< 0.25	
Endrin	(0.30)	< 0.30	
Endrin Aldehyde	(0.25)	< 0.25	
Heptachlor	(0.13)	< 0.13	
Heptachlor Epoxide	(0.13)	< 0.13	
Toxaphene	(5.0)	< 5.0	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	***	(60-150)
Decachlorobiphenyl	***	(60-150)

***Surrogate diluted out (25:1)

D Padd
 WEST LABORATORY
 Senior Chemist

9-03-1997 5:06PM

FROM ENTECH ANALYTICAL 408 7351574

SEP-03-97 WED 05:54 PM WEST Lab

FAX NO. 916-751-4610

P. 7

P. 06/10

WEST LABORATORY

September 3, 1997
 Sample Log 17236
 17236-04

Sample: D13495 (SS-4 0-1/2)

From : Lowney (P7767)
 Sampled : 08/26/97
 Matrix : Soil
 Dilution : 1:5

Extracted : 09/02/97
 Analyzed : 09/03/97
 QC Batch : PS970901

EPA6080 - Organochlorine Pesticides
 EPA3550 Extraction

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(0.025)	<0.025	
alpha-BHC	(0.025)	<0.025	
beta-BHC	(0.025)	<0.025	
delta-BHC	(0.025)	<0.025	
gamma-BHC	(0.025)	<0.025	
Chlordane Technical	(0.50)	<0.50	
gamma-Chlordane	(0.025)	<0.025	
alpha-Chlordane	(0.025)	<0.025	
4,4'-DDD	(0.050)	0.12	
4,4'-DDO	(0.050)	0.34	
4,4'-DDT	(0.050)	0.41	
Dieldrin	(0.050)	<0.050	
Endosulfan 1	(0.025)	<0.025	
Endosulfan 2	(0.050)	<0.050	
Endosulfan Sulfate	(0.050)	<0.050	
Endrin	(0.15)	<0.15	
Endrin Aldehyde	(0.050)	<0.050	
Heptachlor	(0.025)	<0.025	
Heptachlor Epoxide	(0.025)	<0.025	
Toxaphene	(1.0)	<1.0	

Method 608/6080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	102 D	(60-150)
Decachlorobiphenyl	108 D	(60-150)

D Value derived from diluted extract (5:1)

D. Piddig
 D. Piddig
 Senior Chemist

9-03-1997 5:08PM

FROM ENTECH ANALYTICAL 408 7351554

P. 8

SEP-03-97 WED 05:54 PM

WEST LAB

FAX NO. 816-75-4610

P.07/10

WEST LABORATORY

September 3, 1997
 Sample Log 17236
 17236-05

Sample: D13496 (SS-5 0-1/2)

From : Lowney (P7767)
 Sampled : 08/26/97
 Matrix : Soil
 Dilution : 1:10

Extracted : 09/02/97
 Analyzed : 09/03/97
 QC Batch : PS970901

EPA8080 - Organochlorine Pesticides
 EPA3550 Extraction

Parameter	(MRL) $\mu\text{g}/\text{kg}$	Measured Value $\mu\text{g}/\text{kg}$	Flag
Aldrin	(0.050)	< 0.050	
alpha-BHC	(0.050)	< 0.050	
beta-BHC	(0.050)	< 0.050	
delta-BHC	(0.050)	< 0.050	
gamma-BHC	(0.050)	< 0.050	
Chlordane Technical	(1.0)	< 1.0	
gamma-Chlordane	(0.050)	< 0.050	
alpha-Chlordane	(0.050)	< 0.050	
4,4'-DDD	(0.15)	< 0.15	
4,4'-DDX	(0.10)	0.29	
4,4'-DDT	(0.10)	0.40	
Dieldrin	(0.10)	< 0.10	
Endosulfan 1	(0.050)	< 0.050	
Endosulfan 2	(0.10)	< 0.10	
Endosulfan Sulfate	(0.10)	< 0.10	
Endrin	(0.15)	< 0.15	
Endrin Aldehyde	(0.10)	< 0.10	
Heptachlor	(0.050)	< 0.050	
Heptachlor Epoxide	(0.050)	< 0.050	
Toxaphene	(2.0)	< 2.0	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	98 D	(60-150)
Decachlorobiphenyl	131 D	(60-150)

D Value derived from diluted extract (10:1)

D. Riddle
 SENIOR CHEMIST

SEP-03-97 WED 05:55 PM WEST -18

FAX NO. 916-751-4610

P.08/10

WEST LABORATORY

September 3, 1997
 Sample Log 17236
 17236-04

Sample: D13497 (SS-6 0-1/2)

From : Lowney (P7767)
 Sampled : 08/26/97
 Matrix : Soil
 Dilution : 1:10

Extracted : 09/02/97
 Analyzed : 09/03/97
 QC Batch : PS970901

EPA6080 - Organochlorine Pesticides
 EPA3550 Extraction

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(0.050)	< 0.050	
alpha-BHC	(0.050)	< 0.050	
beta-BHC	(0.050)	< 0.050	
delta-BHC	(0.050)	< 0.050	
gamma-BHC	(0.050)	< 0.050	
Chlordane Technical	(1.0)	< 1.0	
gamma-Chlordane	(0.050)	< 0.050	
alpha-Chlordane	(0.050)	< 0.050	
4,4'-DDD	(0.10)	< 0.10	
4,4'-DDE	(0.10)	< 0.10	
4,4'-DDT	(0.10)	0.12	
Dieldrin	(0.10)	< 0.10	
Endosulfan 1	(0.050)	< 0.050	
Endosulfan 2	(0.10)	< 0.10	
Endosulfan Sulfate	(0.10)	< 0.10	
Endrin	(0.10)	< 0.10	
Endrin Aldehyde	(0.10)	< 0.10	
Heptachlor	(0.050)	< 0.050	
Heptachlor Epoxide	(0.050)	< 0.050	
Toxaphene	(2.0)	< 2.0	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene 102 D (60-150)

Decachlorobiphenyl 120 D (60-150)

D Value derived from diluted extract (10:1)

S. Rdoll
 Seward Technology
 Senior Chemist

SEP-03-97 WED 05:55 PM WEST Lab

FAX NO. 916-751-4610

P.09/10

WEST LABORATORY

September 3, 1997
 Sample Log 17236
 17236-01

Sample: D13493 (SS-7 0-1/2)

From : Lowney (P7767)
 Sampled : 09/26/97
 Matrix : Soil
 Dilution : 1:5

Extracted : 09/02/97
 Analyzed : 09/03/97
 QC Batch : PS970901

EPA8080 - Organochlorine Pesticides
 EPA3550 Extraction

Parameter	(MRL) $\mu\text{g}/\text{kg}$	Measured Value $\mu\text{g}/\text{kg}$	Flag
Aldrin	(0.025)	<0.025	
alpha-BHC	(0.025)	<0.025	
beta-BHC	(0.025)	<0.025	
delta-BHC	(0.025)	<0.025	
gamma-BHC	(0.025)	<0.025	
Chlordane Technical	(0.50)	< 0.50	
gamma-Chlordane	(0.025)	<0.025	
alpha-Chlordane	(0.025)	<0.025	
4,4'-DDD	(0.15)	< 0.15	
4,4'-DDE	(0.050)	0.30	
4,4'-DDT	(0.050)	0.40	
Dieldrin	(0.050)	<0.050	
Endosulfan 1	(0.025)	<0.025	
Endosulfan 2	(0.050)	<0.050	
Endosulfan Sulfate	(0.050)	<0.050	
Endrin	(0.15)	< 0.15	
Endrin Aldehyde	(0.050)	<0.050	
Heptachlor	(0.025)	<0.025	
Heptachlor Epoxide	(0.025)	<0.025	
Toxaphene	(1.0)	< 1.0	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	106 D	(60-150)
Decachlorobiphenyl	117 D	(60-150)

D Value derived from diluted extract (5:1)

O. Oddy
 SENIOR CHEMIST

LOWNEY ASSOCIATES
CHAIN OF CUSTODY RECORD

Send Results To: Mountain View Office
 405 Clyde Avenue
 Mountain View, CA 94043
 415-967-2365

Fax Copy To: 415-967-2785 (fax)

Oakland Office
 129 Filbert Street
 Oakland, CA 94607
 510-267-1970

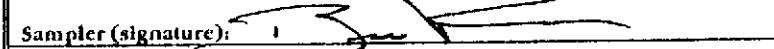
510-267-1972 (fax)

Project Name:
 15650 WASHINGTON AV

Job Number: P7767

Report To: Peter Langtry

Sampler (print): Brock Foster

Sampler (signature): 

QC Requirements:

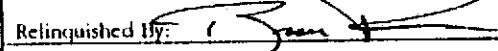
Level A (standard) Level B Level C Level D

Turnaround Requirements

- 10 working days
- 5 working days
- 3 working days
- 48 hours
- 24 hours
- 2-3 hours (RUSH)

ANALYSES REQUESTED

						ANALYSES REQUESTED												
						ANALYSES REQUESTED												
						ANALYSES REQUESTED												
Sample I.D.	Date	Time	Sample Matrix	# of Cont.	Laboratory I.D.	Organic Solvents	Inorganic	Asbestos	Lead	Cadmium	Mercury	Chromium	nickel	zinc	tin	copper	iron	Remarks
SS-1 0-1/2'	8/26/97		Soil	1		✓	✓	✓	✓									
SS-2 0-1/2'						✓	✓	✓	✓									
SS-3 0-1/2'						✓	✓	✓	✓									
SS-4 0-1/2'						✓	✓	✓	✓									
SS-5 0-1/2'						✓	✓	✓	✓									
SS-6 0-1/2'						✓	✓	✓	✓									
SS-7 0-1/2'						✓	✓	-	-									
Hold																		
SS-8 0-1/2'																		
SS-9 0-1/2'	†		†	†														

Relinquished By: 

Date: 8/27/97 Time: 12:00

Received By: Paul

Date: 8/27 Time: 12:05

PM initials

Relinquished By:

Date: Time:

Received By:

Date: Time:

Relinquished By:

Date: Time:

Lab of Record: _____

Temperature

Received by Lab:

Date: Time:

LOWNEY ASSOCIATES
CHAIN OF CUSTODY RECORD

[Send Results To...](#)

Mountain View Office
405 Clyde Avenue
Mountain View, CA 94031
415-967-2365

415-967-2785 (fax)

Oakland Office
129 Filbert Street
Oakland, CA 94607
510-267-1970
510-267-1972 (fax)

September 16, 1997

Sample Log 17300

17300-01

Sample: D14288 (EB-24; 6.5'-7.0')

From : 1124-2
 Sampled : 09/11/97
 Matrix : Soil
 Dilution : 1:1

Extracted : 09/11/97
 Analyzed : 09/15/97
 QC Batch : PS970904

EPA8080 - Organochlorine Pesticides and PCBs
 EPA3550 Extraction

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(.0050)	<.0050	
alpha-BHC	(.0050)	<.0050	
beta-BHC	(.0050)	<.0050	
delta-BHC	(.0050)	<.0050	
gamma-BHC	(.0050)	<.0050	
Chlordane Technical	(0.10)	< 0.10	
gamma-Chlordane	(.0050)	<.0050	
alpha-Chlordane	(.0050)	<.0050	
4,4'-DDD	(0.010)	<0.010	
4,4'-DDE	(0.010)	<0.010	
4,4'-DDT	(0.010)	<0.010	
Dieldrin	(0.010)	<0.010	
Endosulfan 1	(.0050)	<.0050	
Endosulfan 2	(0.010)	<0.010	
Endosulfan Sulfate	(0.010)	<0.010	
Endrin	(0.010)	<0.010	
Endrin Aldehyde	(0.010)	<0.010	
Heptachlor	(.0050)	<.0050	
Heptachlor Epoxide	(.0050)	<.0050	
Toxaphene	(0.20)	< 0.20	
PCB 1016	(0.10)	< 0.10	
PCB 1221	(0.20)	< 0.20	
PCB 1232	(0.10)	< 0.10	
PCB 1242	(0.10)	< 0.10	
PCB 1248	(0.10)	< 0.10	
PCB 1254	(0.10)	< 0.10	
PCB 1260	(0.10)	< 0.10	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	86	(60-150)
Decachlorobiphenyl	98	(60-150)

JF
Senior Chemist

WEST LABORATORY

September 16, 1997

Sample Log 17300

17300-02

Sample: D14289(EB-25; 6.5'-7.0')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:1Extracted : 09/11/97
Analyzed : 09/15/97
QC Batch : PS970904**EPA8080 - Organochlorine Pesticides and PCBs**
EPA3550 Extraction

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(.0050)	<.0050	
alpha-BHC	(.0050)	<.0050	
beta-BHC	(.0050)	<.0050	
delta-BHC	(.0050)	<.0050	
gamma-BHC	(.0050)	<.0050	
Chlordane Technical	(0.10)	< 0.10	
gamma-Chlordane	(.0050)	<.0050	
alpha-Chlordane	(.0050)	<.0050	
4,4'-DDD	(0.010)	<0.010	
4,4'-DDE	(0.010)	<0.010	
4,4'-DDT	(0.010)	<0.010	
Dieldrin	(0.010)	<0.010	
Endosulfan 1	(.0050)	<.0050	
Endosulfan 2	(0.010)	<0.010	
Endosulfan Sulfate	(0.010)	<0.010	
Endrin	(0.010)	<0.010	
Endrin Aldehyde	(0.010)	<0.010	
Heptachlor	(.0050)	<.0050	
Heptachlor Epoxide	(.0050)	<.0050	
Toxaphene	(0.20)	< 0.20	
PCB 1016	(0.10)	< 0.10	
PCB 1221	(0.20)	< 0.20	
PCB 1232	(0.10)	< 0.10	
PCB 1242	(0.10)	< 0.10	
PCB 1248	(0.10)	< 0.10	
PCB 1254	(0.10)	< 0.10	
PCB 1260	(0.10)	< 0.10	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	93	(60-150)
Decachlorobiphenyl	108	(60-150)

BP
Senior Chemist

September 16, 1997

Sample Log 17300

17300-03

Sample: D14291(SS-11;0'-0.5')

From : 1124-2
 Sampled : 09/11/97
 Matrix : Soil
 Dilution : 1:5

Extracted : 09/11/97
 Analyzed : 09/12/97
 QC Batch : PS970904

EPA8080 - Organochlorine Pesticides and PCBs
 EPA3550 Extraction

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(0.025)	< 0.025	
alpha-BHC	(0.025)	< 0.025	
beta-BHC	(0.025)	< 0.025	
delta-BHC	(0.025)	< 0.025	
gamma-BHC	(0.025)	< 0.025	
Chlordane Technical	(0.50)	< 0.50	
gamma-Chlordane	(0.025)	< 0.025	
alpha-Chlordane	(0.025)	< 0.025	
4,4'-DDD	(0.050)	< 0.050	
4,4'-DDE	(0.050)	0.14	
4,4'-DDT	(0.050)	0.39	
Dieldrin	(0.050)	< 0.050	
Endosulfan 1	(0.025)	0.044	
Endosulfan 2	(0.050)	0.68	
Endosulfan Sulfate	(0.050)	0.21	
Endrin	(0.050)	< 0.050	
Endrin Aldehyde	(0.050)	< 0.050	
Heptachlor	(0.025)	< 0.025	
Heptachlor Epoxide	(0.025)	< 0.025	
Toxaphene	(1.0)	< 1.0	
PCB 1016	(0.50)	< 0.50	
PCB 1221	(1.0)	< 1.0	
PCB 1232	(0.50)	< 0.50	
PCB 1242	(0.50)	< 0.50	
PCB 1248	(0.50)	< 0.50	
PCB 1254	(0.50)	< 0.50	
PCB 1260	(0.50)	< 0.50	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	93 D	(60-150)
Decachlorobiphenyl	125 D	(60-150)

D Value derived from diluted extract (5:1)

RP
Senior Chemist

September 16, 1997

Sample Log 17300

17300-04

Sample: D14292 (SS-12,13,14,15; 0'-0.5')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:5

Extracted : 09/11/97
Analyzed : 09/13/97
QC Batch : PS970904

EPA8080 - Organochlorine Pesticides and PCBs
EPA3550 Extraction

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(0.025)	<0.025	
alpha-BHC	(0.025)	<0.025	
beta-BHC	(0.025)	<0.025	
delta-BHC	(0.025)	<0.025	
gamma-BHC	(0.025)	<0.025	
Chlordane Technical	(0.50)	< 0.50	
gamma-Chlordane	(0.025)	<0.025	
alpha-Chlordane	(0.025)	<0.025	
4,4'-DDD	(0.050)	0.24	
4,4'-DDE	(0.050)	0.15	
4,4'-DDT	(0.050)	0.33	
Dieldrin	(0.050)	0.12	
Endosulfan 1	(0.025)	<0.025	
Endosulfan 2	(0.050)	0.089	
Endosulfan Sulfate	(0.050)	<0.050	
Endrin	(0.050)	0.19	
Endrin Aldehyde	(0.050)	<0.050	
Heptachlor	(0.025)	<0.025	
Heptachlor Epoxide	(0.025)	<0.025	
Toxaphene	(1.0)	< 1.0	
PCB 1016	(0.50)	< 0.50	
PCB 1221	(1.0)	< 1.0	
PCB 1232	(0.50)	< 0.50	
PCB 1242	(0.50)	< 0.50	
PCB 1248	(0.50)	< 0.50	
PCB 1254	(0.50)	< 0.50	
PCB 1260	(0.50)	< 0.50	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	102 D	(60-150)
Decachlorobiphenyl	75 D	(60-150)

D Value derived from diluted extract (5:1)

MJ
Senior Chemist

September 16, 1997

Sample Log 17300

17300-05

Sample: D14293 (EB-1;.5'-1')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:5Extracted : 09/11/97
Analyzed : 09/12/97
QC Batch : PS970904**EPA8080 - Organochlorine Pesticides**
EPA3550 Extraction

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(0.025)	<0.025	
alpha-BHC	(0.025)	<0.025	
beta-BHC	(0.025)	<0.025	
delta-BHC	(0.025)	<0.025	
gamma-BHC	(0.025)	<0.025	
Chlordane Technical	(0.50)	< 0.50	
gamma-Chlordane	(0.025)	<0.025	
alpha-Chlordane	(0.025)	<0.025	
4,4'-DDD	(0.10)	< 0.10	
4,4'-DDE	(0.050)	0.43	
4,4'-DDT	(0.050)	0.17	
Dieldrin	(0.050)	<0.050	
Endosulfan 1	(0.025)	<0.025	
Endosulfan 2	(0.050)	<0.050	
Endosulfan Sulfate	(0.050)	<0.050	
Endrin	(0.050)	0.17	
Endrin Aldehyde	(0.050)	<0.050	
Heptachlor	(0.025)	<0.025	
Heptachlor Epoxide	(0.025)	<0.025	
Toxaphene	(1.0)	< 1.0	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	110 D	(60-150)
Decachlorobiphenyl	122 D	(60-150)

D Value derived from diluted extract (5:1)

SP
Senior Chemist

MFST LABORATORY

September 16, 1997

Sample Log 17300

17300-06

Sample: D14294(EB-1;1'-1.5')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:5

Extracted : 09/11/97
Analyzed : 09/13/97
QC Batch : PS970904

**EPA8080 - Organochlorine Pesticides
EPA3550 Extraction**

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(0.025)	<0.025	
alpha-BHC	(0.025)	<0.025	
beta-BHC	(0.025)	<0.025	
delta-BHC	(0.025)	<0.025	
gamma-BHC	(0.025)	<0.025	
Chlordane Technical	(0.50)	< 0.50	
gamma-Chlordane	(0.025)	<0.025	
alpha-Chlordane	(0.025)	<0.025	
4,4'-DDD	(0.050)	<0.050	
4,4'-DDE	(0.050)	0.15	
4,4'-DDT	(0.050)	0.10	
Dieldrin	(0.050)	<0.050	
Endosulfan 1	(0.025)	<0.025	
Endosulfan 2	(0.050)	<0.050	
Endosulfan Sulfate	(0.050)	<0.050	
Endrin	(0.050)	<0.050	
Endrin Aldehyde	(0.050)	<0.050	
Heptachlor	(0.025)	<0.025	
Heptachlor Epoxide	(0.025)	<0.025	
Toxaphene	(1.0)	< 1.0	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	80 D	(60-150)
Decachlorobiphenyl	112 D	(60-150)

D Value derived from diluted extract (5:1)



Senior Chemist

WEST LABORATORYSeptember 16, 1997
Sample Log 17300
17300-07

Sample: D14295 (EB-2; .5'-1')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:5Extracted : 09/11/97
Analyzed : 09/13/97
QC Batch : PS970904**EPA8080 - Organochlorine Pesticides
EPA3550 Extraction**

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(0.025)	< 0.025	
alpha-BHC	(0.025)	< 0.025	
beta-BHC	(0.025)	< 0.025	
delta-BHC	(0.025)	< 0.025	
gamma-BHC	(0.025)	< 0.025	
Chlordane Technical	(0.50)	< 0.50	
gamma-Chlordane	(0.025)	< 0.025	
alpha-Chlordane	(0.025)	< 0.025	
4,4'-DDD	(0.10)	< 0.10	
4,4'-DDE	(0.050)	0.23	
4,4'-DDT	(0.10)	< 0.10	
Dieldrin	(0.050)	< 0.050	
Endosulfan 1	(0.025)	< 0.025	
Endosulfan 2	(0.050)	< 0.050	
Endosulfan Sulfate	(0.050)	< 0.050	
Endrin	(0.10)	< 0.10	
Endrin Aldehyde	(0.050)	< 0.050	
Heptachlor	(0.025)	< 0.025	
Heptachlor Epoxide	(0.025)	< 0.025	
Toxaphene	(1.0)	< 1.0	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene 99 D (60-150)

Decachlorobiphenyl 125 D (60-150)

D Value derived from diluted extract (5:1)

WJ
Senior Chemist

September 16, 1997

Sample Log 17300

17300-08

Sample: D14296 (EB-2;1'-1.5')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:1

Extracted : 09/11/97
Analyzed : 09/15/97
QC Batch : PS970904

EPA8080 - Organochlorine Pesticides
EPA3550 Extraction

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(.0050)	<.0050	
alpha-BHC	(.0050)	<.0050	
beta-BHC	(.0050)	<.0050	
delta-BHC	(.0050)	<.0050	
gamma-BHC	(.0050)	<.0050	
Chlordane Technical	(0.10)	< 0.10	
gamma-Chlordane	(.0050)	<.0050	
alpha-Chlordane	(.0050)	<.0050	
4,4'-DDD	(0.010)	<0.010	
4,4'-DDE	(0.010)	0.015	
4,4'-DDT	(0.010)	<0.010	
Dieldrin	(0.010)	<0.010	
Endosulfan 1	(.0050)	<.0050	
Endosulfan 2	(0.010)	<0.010	
Endosulfan Sulfate	(0.010)	<0.010	
Endrin	(0.010)	<0.010	
Endrin Aldehyde	(0.010)	<0.010	
Heptachlor	(.0050)	<.0050	
Heptachlor Epoxide	(.0050)	<.0050	
Toxaphene	(0.20)	< 0.20	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	88	(60-150)
Decachlorobiphenyl	100	(60-150)

b7f
Senior Chemist

WEST LABORATORY

September 16, 1997

Sample Log 17300

17300-09

Sample: D14297 (EB-3;.5'-1')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:1

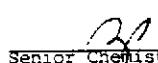
Extracted : 09/11/97
Analyzed : 09/15/97
QC Batch : PS970904

**EPA8080 - Organochlorine Pesticides
EPA3550 Extraction**

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(.0050)	<.0050	
alpha-BHC	(.0050)	<.0050	
beta-BHC	(.0050)	<.0050	
delta-BHC	(.0050)	<.0050	
gamma-BHC	(.0050)	<.0050	
Chlordane Technical	(0.10)	< 0.10	
gamma-Chlordane	(.0050)	<.0050	
alpha-Chlordane	(.0050)	<.0050	
4,4'-DDD	(0.010)	<0.010	
4,4'-DDE	(0.010)	0.012	
4,4'-DDT	(0.010)	0.050	
Dieldrin	(0.010)	<0.010	
Endosulfan 1	(.0050)	<.0050	
Endosulfan 2	(0.010)	<0.010	
Endosulfan Sulfate	(0.010)	<0.010	
Endrin	(0.010)	<0.010	
Endrin Aldehyde	(0.010)	<0.010	
Heptachlor	(.0050)	<.0050	
Heptachlor Epoxide	(.0050)	<.0050	
Toxaphene	(0.20)	< 0.20	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	116	(60-150)
Decachlorobiphenyl	134	(60-150)


Senior Chemist

WEST LABORATORY

September 16, 1997

Sample Log 17300

17300-10

Sample: D14298(EB-3;1'-1.5')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:1

Extracted : 09/11/97
Analyzed : 09/15/97
QC Batch : PS970904

**EPA8080 - Organochlorine Pesticides
EPA3550 Extraction**

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(.0050)	<.0050	
alpha-BHC	(.0050)	<.0050	
beta-BHC	(.0050)	<.0050	
delta-BHC	(.0050)	<.0050	
gamma-BHC	(.0050)	<.0050	
Chlordane Technical	(0.10)	< 0.10	
gamma-Chlordane	(.0050)	<.0050	
alpha-Chlordane	(.0050)	<.0050	
4,4'-DDD	(0.010)	<0.010	
4,4'-DDE	(0.010)	<0.010	
4,4'-DDT	(0.010)	<0.010	
Dieldrin	(0.010)	<0.010	
Endosulfan 1	(.0050)	<.0050	
Endosulfan 2	(0.010)	<0.010	
Endosulfan Sulfate	(0.010)	<0.010	
Endrin	(0.010)	<0.010	
Endrin Aldehyde	(0.010)	<0.010	
Heptachlor	(.0050)	<.0050	
Heptachlor Epoxide	(.0050)	<.0050	
Toxaphene	(0.20)	< 0.20	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	81	(60-150)
Decachlorobiphenyl	99	(60-150)


Senior Chemist

Sample: D14299 (EB-4;5'-1')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:5Extracted : 09/11/97
Analyzed : 09/13/97
QC Batch : PS970904**EPA8080 - Organochlorine Pesticides
EPA3550 Extraction**

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(0.025)	< 0.025	
alpha-BHC	(0.025)	< 0.025	
beta-BHC	(0.025)	< 0.025	
delta-BHC	(0.025)	< 0.025	
gamma-BHC	(0.025)	< 0.025	
Chlordane Technical	(0.50)	< 0.50	
gamma-Chlordane	(0.025)	< 0.025	
alpha-Chlordane	(0.025)	< 0.025	
4,4'-DDD	(0.10)	< 0.10	
4,4'-DDE	(0.050)	0.57	
4,4'-DDT	(0.050)	0.14	
Dieldrin	(0.050)	0.12	
Endosulfan 1	(0.025)	< 0.025	
Endosulfan 2	(0.050)	< 0.050	
Endosulfan Sulfate	(0.050)	< 0.050	
Endrin	(0.10)	< 0.10	
Endrin Aldehyde	(0.050)	< 0.050	
Heptachlor	(0.025)	< 0.025	
Heptachlor Epoxide	(0.025)	< 0.025	
Toxaphene	(1.0)	< 1.0	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	108 D	(60-150)
Decachlorobiphenyl	136 D	(60-150)

D Value derived from diluted extract (5:1)

MJ
Senior Chemist

WEST LABORATORY

September 16, 1997
Sample Log 17300
17300-12

Sample: D14300 (EB-4;1'-1.5')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:5

Extracted : 09/11/97
Analyzed : 09/13/97
QC Batch : PS970904

**EPA8080 - Organochlorine Pesticides
EPA3550 Extraction**

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(0.025)	< 0.025	
alpha-BHC	(0.025)	< 0.025	
beta-BHC	(0.025)	< 0.025	
delta-BHC	(0.025)	< 0.025	
gamma-BHC	(0.025)	< 0.025	
Chlordane Technical	(0.50)	< 0.50	
gamma-Chlordane	(0.025)	< 0.025	
alpha-Chlordane	(0.025)	< 0.025	
4,4'-DDD	(0.050)	< 0.050	
4,4'-DDE	(0.050)	0.36	
4,4'-DDT	(0.050)	0.059	
Dieldrin	(0.050)	0.052	
Endosulfan 1	(0.025)	< 0.025	
Endosulfan 2	(0.050)	< 0.050	
Endosulfan Sulfate	(0.050)	< 0.050	
Endrin	(0.050)	< 0.050	
Endrin Aldehyde	(0.050)	< 0.050	
Heptachlor	(0.025)	< 0.025	
Heptachlor Epoxide	(0.025)	< 0.025	
Toxaphene	(1.0)	< 1.0	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene 111 D (60-150)

Decachlorobiphenyl 138 D (60-150)

D Value derived from diluted extract (5:1)

AB
Senior Chemist

WEST LABORATORY

September 16, 1997

Sample Log 17300

17300-13

Sample: D14301(EB-5;5'-1')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:15

Extracted : 09/11/97
Analyzed : 09/14/97
QC Batch : PS970904

**EPA8080 - Organochlorine Pesticides
EPA3550 Extraction**

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(0.075)	< 0.075	
alpha-BHC	(0.075)	< 0.075	
beta-BHC	(0.075)	< 0.075	
delta-BHC	(0.075)	< 0.075	
gamma-BHC	(0.075)	< 0.075	
Chlordane Technical	(1.5)	< 1.5	
gamma-Chlordane	(0.075)	< 0.075	
alpha-Chlordane	(0.075)	< 0.075	
4,4'-DDD	(0.15)	< 0.15	
4,4'-DDE	(0.15)	0.99	
4,4'-DDT	(0.15)	1.3	
Dieldrin	(0.15)	< 0.15	
Endosulfan 1	(0.075)	< 0.075	
Endosulfan 2	(0.15)	< 0.15	
Endosulfan Sulfate	(0.15)	< 0.15	
Endrin	(0.20)	< 0.20	
Endrin Aldehyde	(0.15)	< 0.15	
Heptachlor	(0.075)	< 0.075	
Heptachlor Epoxide	(0.075)	< 0.075	
Toxaphene	(3.0)	< 3.0	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	***	(60-150)
Decachlorobiphenyl	***	(60-150)

***Surrogate diluted out (15:1)

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Senior Chemist

September 16, 1997

Sample Log 17300

17300-14

Sample: D14302 (EB-5; 1'-1.5')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:5

Extracted : 09/11/97
Analyzed : 09/13/97
QC Batch : PS970904

EPA8080 - Organochlorine Pesticides
EPA3550 Extraction

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(0.025)	< 0.025	
alpha-BHC	(0.025)	< 0.025	
beta-BHC	(0.025)	< 0.025	
delta-BHC	(0.025)	< 0.025	
gamma-BHC	(0.025)	< 0.025	
Chlordane Technical	(0.50)	< 0.50	
gamma-Chlordane	(0.025)	< 0.025	
alpha-Chlordane	(0.025)	< 0.025	
4,4'-DDD	(0.050)	< 0.050	
4,4'-DDE	(0.050)	0.32	
4,4'-DDT	(0.050)	0.083	
Dieldrin	(0.050)	0.068	
Endosulfan 1	(0.025)	< 0.025	
Endosulfan 2	(0.050)	< 0.050	
Endosulfan Sulfate	(0.050)	< 0.050	
Endrin	(0.10)	< 0.10	
Endrin Aldehyde	(0.050)	< 0.050	
Heptachlor	(0.025)	< 0.025	
Heptachlor Epoxide	(0.025)	< 0.025	
Toxaphene	(1.0)	< 1.0	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	84 D	(60-150)
Decachlorobiphenyl	120 D	(60-150)

D Value derived from diluted extract (5:1)

Senior Chemist

September 16, 1997

Sample Log 17300

17300-16

Sample: D14304 (EB-6; 1'-1.5')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:5

Extracted : 09/11/97
Analyzed : 09/13/97
QC Batch : PS970904

EPA8080 - Organochlorine Pesticides
EPA3550 Extraction

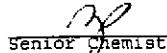
Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(0.025)	< 0.025	
alpha-BHC	(0.025)	< 0.025	
beta-BHC	(0.025)	< 0.025	
delta-BHC	(0.025)	< 0.025	
gamma-BHC	(0.025)	< 0.025	
Chlordane Technical	(0.50)	< 0.50	
gamma-Chlordane	(0.025)	< 0.025	
alpha-Chlordane	(0.025)	< 0.025	
4,4'-DDD	(0.050)	< 0.050	
4,4'-DDE	(0.050)	0.15	
4,4'-DDT	(0.050)	0.068	
Dieldrin	(0.050)	< 0.050	
Endosulfan 1	(0.025)	< 0.025	
Endosulfan 2	(0.050)	< 0.050	
Endosulfan Sulfate	(0.050)	< 0.050	
Endrin	(0.10)	< 0.10	
Endrin Aldehyde	(0.050)	< 0.050	
Heptachlor	(0.025)	< 0.025	
Heptachlor Epoxide	(0.025)	< 0.025	
Toxaphene	(1.0)	< 1.0	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene 90 D (60-150)

Decachlorobiphenyl 131 D (60-150)

D Value derived from diluted extract (5:1)


Senior Chemist

WEST LABORATORYSeptember 16, 1997
Sample Log 17300
17300-17

Sample: D14305(EB-7;5'-1')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:15Extracted : 09/11/97
Analyzed : 09/14/97
QC Batch : PS970904**EPA8080 - Organochlorine Pesticides**
EPA3550 Extraction

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(0.075)	<0.075	
alpha-BHC	(0.075)	<0.075	
beta-BHC	(0.075)	<0.075	
delta-BHC	(0.075)	<0.075	
gamma-BHC	(0.075)	<0.075	
Chlordane Technical	(1.5)	< 1.5	
gamma-Chlordane	(0.075)	0.090	
alpha-Chlordane	(0.075)	0.10	
4,4'-DDD	(0.20)	< 0.20	
4,4'-DDE	(0.15)	1.1	
4,4'-DDT	(0.15)	1.6	
Dieldrin	(0.15)	0.18	
Endosulfan 1	(0.075)	<0.075	
Endosulfan 2	(0.15)	< 0.15	
Endosulfan Sulfate	(0.15)	< 0.15	
Endrin	(0.15)	0.32	
Endrin Aldehyde	(0.15)	< 0.15	
Heptachlor	(0.075)	<0.075	
Heptachlor Epoxide	(0.075)	<0.075	
Toxaphene	(3.0)	< 3.0	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	***	(60-150)
Decachlorobiphenyl	***	(60-150)

***Surrogate diluted out (15:1)


Senior Chemist

September 16, 1997

Sample Log 17300

17300-18

Sample: D14306(EB-7;1'-1.5')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:5

Extracted : 09/11/97
Analyzed : 09/13/97
QC Batch : PS970904

EPA8080 - Organochlorine Pesticides
EPA3550 Extraction

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(0.025)	< 0.025	
alpha-BHC	(0.025)	< 0.025	
beta-BHC	(0.025)	< 0.025	
delta-BHC	(0.025)	< 0.025	
gamma-BHC	(0.025)	< 0.025	
Chlordane Technical	(0.50)	< 0.50	
gamma-Chlordane	(0.025)	0.088	
alpha-Chlordane	(0.025)	0.094	
4,4'-DDD	(0.050)	< 0.050	
4,4'-DDE	(0.050)	0.47	
4,4'-DDT	(0.050)	0.42	
Dieldrin	(0.050)	0.16	
Endosulfan 1	(0.025)	< 0.025	
Endosulfan 2	(0.050)	< 0.050	
Endosulfan Sulfate	(0.050)	< 0.050	
Endrin	(0.10)	< 0.10	
Endrin Aldehyde	(0.050)	< 0.050	
Heptachlor	(0.025)	< 0.025	
Heptachlor Epoxide	(0.025)	< 0.025	
Toxaphene	(1.0)	< 1.0	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	110 D	(60-150)
Decachlorobiphenyl	128 D	(60-150)

D Value derived from diluted extract (5:1)

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Senior Chemist

September 16, 1997

Sample Log 17300

17300-19

Sample: D14307 (EB-8;5'-1')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:15

Extracted : 09/11/97
Analyzed : 09/15/97
QC Batch : PS970904

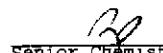
**EPA8080 - Organochlorine Pesticides
EPA3550 Extraction**

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(0.075)	< 0.075	
alpha-BHC	(0.075)	< 0.075	
beta-BHC	(0.075)	< 0.075	
delta-BHC	(0.075)	< 0.075	
gamma-BHC	(0.075)	< 0.075	
Chlordane Technical	(1.5)	< 1.5	
gamma-Chlordane	(0.075)	0.092	
alpha-Chlordane	(0.075)	0.098	
4,4'-DDD	(0.15)	< 0.15	
4,4'-DDE	(0.15)	1.0	
4,4'-DDT	(0.15)	1.4	
Dieldrin	(0.15)	0.16	
Endosulfan 1	(0.075)	< 0.075	
Endosulfan 2	(0.15)	< 0.15	
Endosulfan Sulfate	(0.15)	< 0.15	
Endrin	(0.20)	< 0.20	
Endrin Aldehyde	(0.15)	< 0.15	
Heptachlor	(0.075)	< 0.075	
Heptachlor Epoxide	(0.075)	< 0.075	
Toxaphene	(3.0)	< 3.0	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	***	(60-150)
Decachlorobiphenyl	***	(60-150)

***Surrogate diluted out (15:1)


Senior Chemist

WEST LABORATORY

September 16, 1997

Sample Log 17300

17300-20

Sample: D14308(EB-8;1'-1.5')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:5

Extracted : 09/11/97
Analyzed : 09/13/97
QC Batch : PS970904

**EPA8080 - Organochlorine Pesticides
EPA3550 Extraction**

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(0.025)	<0.025	
alpha-BHC	(0.025)	<0.025	
beta-BHC	(0.025)	<0.025	
delta-BHC	(0.025)	<0.025	
gamma-BHC	(0.025)	<0.025	
Chlordane Technical	(0.50)	< 0.50	
gamma-Chlordane	(0.025)	<0.025	
alpha-Chlordane	(0.025)	<0.025	
4,4'-DDD	(0.050)	<0.050	
4,4'-DDE	(0.050)	0.10	
4,4'-DDT	(0.050)	<0.050	
Dieldrin	(0.050)	0.070	
Endosulfan 1	(0.025)	<0.025	
Endosulfan 2	(0.050)	<0.050	
Endosulfan Sulfate	(0.050)	<0.050	
Endrin	(0.050)	<0.050	
Endrin Aldehyde	(0.050)	<0.050	
Heptachlor	(0.025)	<0.025	
Heptachlor Epoxide	(0.025)	<0.025	
Toxaphene	(1.0)	< 1.0	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	106 d	(60-150)
Decachlorobiphenyl	131 d	(60-150)

D Value derived from diluted extract (5:1)


Senior Chemist

WEST LABORATORYSeptember 16, 1997
Sample Log 17300
17300-21

Sample: D14309 (EB-9;5'-1')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:15Extracted : 09/12/97
Analyzed : 09/13/97
QC Batch : PS970905**EPA8080 - Organochlorine Pesticides**
EPA3550 Extraction

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(0.075)	< 0.075	
alpha-BHC	(0.075)	< 0.075	
beta-BHC	(0.075)	< 0.075	
delta-BHC	(0.075)	< 0.075	
gamma-BHC	(0.075)	< 0.075	
Chlordane Technical	(1.5)	< 1.5	
gamma-Chlordane	(0.075)	< 0.075	
alpha-Chlordane	(0.075)	0.080	
4,4'-DDD	(0.20)	< 0.20	
4,4'-DDE	(0.15)	0.99	
4,4'-DDT	(0.15)	1.7	
Dieldrin	(0.15)	0.16	
Endosulfan 1	(0.075)	< 0.075	
Endosulfan 2	(0.15)	< 0.15	
Endosulfan Sulfate	(0.15)	< 0.15	
Endrin	(0.20)	< 0.20	
Endrin Aldehyde	(0.15)	< 0.15	
Heptachlor	(0.075)	< 0.075	
Heptachlor Epoxide	(0.075)	< 0.075	
Toxaphene	(3.0)	< 3.0	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene *** (60-150)

Decachlorobiphenyl *** (60-150)

***Surrogate diluted out (15:1)

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Senior Chemist

September 16, 1997

Sample Log 17300

17300-22

Sample: D14310(EB-9;1'-1.5')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:5

Extracted : 09/12/97
Analyzed : 09/13/97
QC Batch : PS970905

EPA8080 - Organochlorine Pesticides
EPA3550 Extraction

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(0.025)	<0.025	
alpha-BHC	(0.025)	<0.025	
beta-BHC	(0.025)	<0.025	
delta-BHC	(0.025)	<0.025	
gamma-BHC	(0.025)	<0.025	
Chlordane Technical	(0.50)	< 0.50	
gamma-Chlordane	(0.025)	<0.025	
alpha-Chlordane	(0.025)	<0.025	
4,4'-DDD	(0.050)	<0.050	
4,4'-DDE	(0.050)	0.15	
4,4'-DDT	(0.050)	0.10	
Dieldrin	(0.050)	<0.050	
Endosulfan 1	(0.025)	<0.025	
Endosulfan 2	(0.050)	<0.050	
Endosulfan Sulfate	(0.050)	<0.050	
Endrin	(0.050)	<0.050	
Endrin Aldehyde	(0.050)	<0.050	
Heptachlor	(0.025)	<0.025	
Heptachlor Epoxide	(0.025)	<0.025	
Toxaphene	(1.0)	< 1.0	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	115 D	(60-150)
Decachlorobiphenyl	136 D	(60-150)

D Value derived from diluted extract (5:1)

20
Senior Chemist

September 16, 1997
Sample Log 17300
17300-23

Sample: D14311(EB-10;5'-1')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:15Extracted : 09/12/97
Analyzed : 09/14/97
QC Batch : PS970905**EPA8080 - Organochlorine Pesticides**
EPA3550 Extraction

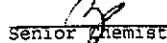
Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(0.075)	< 0.075	
alpha-BHC	(0.075)	< 0.075	
beta-BHC	(0.075)	< 0.075	
delta-BHC	(0.075)	< 0.075	
gamma-BHC	(0.075)	< 0.075	
Chlordane Technical	(1.5)	< 1.5	
gamma-Chlordane	(0.075)	0.076	
alpha-Chlordane	(0.075)	0.087	
4,4'-DDD	(0.15)	< 0.15	
4,4'-DDE	(0.15)	1.7	
4,4'-DDT	(0.15)	2.4	
Dieldrin	(0.15)	0.16	
Endosulfan 1	(0.075)	< 0.075	
Endosulfan 2	(0.15)	< 0.15	
Endosulfan Sulfate	(0.15)	< 0.15	
Endrin	(0.15)	0.43	
Endrin Aldehyde	(0.15)	< 0.15	
Heptachlor	(0.075)	< 0.075	
Heptachlor Epoxide	(0.075)	< 0.075	
Toxaphene	(3.0)	< 3.0	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene *** (60-150)

Decachlorobiphenyl *** (60-150)

***Surrogate diluted out (15:1)


Senior Chemist

WEST LABORATORYSeptember 16, 1997
Sample Log 17300
17300-24

Sample: D14312(EB-10;1'-1.5')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:15Extracted : 09/12/97
Analyzed : 09/14/97
QC Batch : PS970905**EPA8080 - Organochlorine Pesticides
EPA3550 Extraction**

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(0.075)	< 0.075	
alpha-BHC	(0.075)	< 0.075	
beta-BHC	(0.075)	< 0.075	
delta-BHC	(0.075)	< 0.075	
gamma-BHC	(0.075)	< 0.075	
Chlordane Technical	(1.5)	< 1.5	
gamma-Chlordane	(0.075)	< 0.075	
alpha-Chlordane	(0.075)	< 0.075	
4,4'-DDD	(0.15)	< 0.15	
4,4'-DDE	(0.15)	1.1	
4,4'-DDT	(0.15)	1.4	
Dieldrin	(0.15)	< 0.15	
Endosulfan 1	(0.075)	< 0.075	
Endosulfan 2	(0.15)	< 0.15	
Endosulfan Sulfate	(0.15)	< 0.15	
Endrin	(0.15)	0.31	
Endrin Aldehyde	(0.15)	< 0.15	
Heptachlor	(0.075)	< 0.075	
Heptachlor Epoxide	(0.075)	< 0.075	
Toxaphene	(3.0)	< 3.0	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene *** (60-150)

Decachlorobiphenyl *** (60-150)

***Surrogate diluted out (15:1)

MJ
Senior Chemist

WEST LABORATORY

September 16, 1997

Sample Log 17300

17300-25

Sample: D14313 (EB-11;5'-1')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:5

Extracted : 09/12/97
Analyzed : 09/13/97
QC Batch : PS970905

**EPA8080 - Organochlorine Pesticides
EPA3550 Extraction**

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(0.025)	< 0.025	
alpha-BHC	(0.025)	< 0.025	
beta-BHC	(0.025)	< 0.025	
delta-BHC	(0.025)	< 0.025	
gamma-BHC	(0.025)	< 0.025	
Chlordane Technical	(0.50)	< 0.50	
gamma-Chlordane	(0.025)	< 0.025	
alpha-Chlordane	(0.025)	< 0.025	
4,4'-DDD	(0.050)	< 0.050	
4,4'-DDE	(0.050)	0.40	
4,4'-DDT	(0.050)	0.19	
Dieldrin	(0.050)	0.16	
Endosulfan 1	(0.025)	< 0.025	
Endosulfan 2	(0.050)	< 0.050	
Endosulfan Sulfate	(0.050)	< 0.050	
Endrin	(0.050)	< 0.050	
Endrin Aldehyde	(0.050)	< 0.050	
Heptachlor	(0.025)	< 0.025	
Heptachlor Epoxide	(0.025)	< 0.025	
Toxaphene	(1.0)	< 1.0	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	104 D	(60-150)
Decachlorobiphenyl	131 D	(60-150)

D Value derived from diluted extract (5:1)

RP
Senior Chemist

WEST LABORATORY

September 16, 1997

Sample Log 17300

17300-26

Sample: D14314(EB-11;1'-1.5

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:1

Extracted : 09/12/97
Analyzed : 09/15/97
QC Batch : PS970905

**EPA8080 - Organochlorine Pesticides
EPA3550 Extraction**

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(.0050)	<.0050	
alpha-BHC	(.0050)	<.0050	
beta-BHC	(.0050)	<.0050	
delta-BHC	(.0050)	<.0050	
gamma-BHC	(.0050)	<.0050	
Chlordane Technical	(0.10)	< 0.10	
gamma-Chlordane	(.0050)	<.0050	
alpha-Chlordane	(.0050)	<.0050	
4,4'-DDD	(0.010)	<0.010	
4,4'-DDE	(0.010)	<0.010	
4,4'-DDT	(0.010)	<0.010	
Dieldrin	(0.010)	<0.010	
Endosulfan 1	(.0050)	<.0050	
Endosulfan 2	(0.010)	<0.010	
Endosulfan Sulfate	(0.010)	<0.010	
Endrin	(0.010)	<0.010	
Endrin Aldehyde	(0.010)	<0.010	
Heptachlor	(.0050)	<.0050	
Heptachlor Epoxide	(.0050)	<.0050	
Toxaphene	(0.20)	< 0.20	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	87	(60-150)
Decachlorobiphenyl	100	(60-150)

BL
Senior Chemist

WEST LABORATORY

September 16, 1997

Sample Log 17300

17300-27

Sample: D14315 (EB-12;5'-1')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:5

Extracted : 09/12/97
Analyzed : 09/13/97
QC Batch : PS970905

**EPA8080 - Organochlorine Pesticides
EPA3550 Extraction**

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(0.025)	< 0.025	
alpha-BHC	(0.025)	< 0.025	
beta-BHC	(0.025)	< 0.025	
delta-BHC	(0.025)	< 0.025	
gamma-BHC	(0.025)	< 0.025	
Chlordane Technical	(0.50)	< 0.50	
gamma-Chlordane	(0.025)	< 0.025	
alpha-Chlordane	(0.025)	< 0.025	
4,4'-DDD	(0.050)	< 0.050	
4,4'-DDE	(0.050)	0.47	
4,4'-DDT	(0.050)	0.27	
Dieldrin	(0.10)	< 0.10	
Endosulfan 1	(0.025)	< 0.025	
Endosulfan 2	(0.050)	< 0.050	
Endosulfan Sulfate	(0.050)	< 0.050	
Endrin	(0.050)	0.22	
Endrin Aldehyde	(0.050)	< 0.050	
Heptachlor	(0.025)	< 0.025	
Heptachlor Epoxide	(0.025)	< 0.025	
Toxaphene	(1.0)	< 1.0	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	102 D	(60-150)
Decachlorobiphenyl	131 D	(60-150)

D Value derived from diluted extract (5:1)

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Senior Chemist

WEST LABORATORY

September 16, 1997

Sample Log 17300

17300-28

Sample: D14316 (EB-12; 1'-1.5')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:1

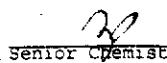
Extracted : 09/12/97
Analyzed : 09/15/97
QC Batch : PS970905

**EPA8080 - Organochlorine Pesticides
EPA3550 Extraction**

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(.0050)	<.0050	
alpha-BHC	(.0050)	<.0050	
beta-BHC	(.0050)	<.0050	
delta-BHC	(.0050)	<.0050	
gamma-BHC	(.0050)	<.0050	
Chlordane Technical	(0.10)	< 0.10	
gamma-Chlordane	(.0050)	<.0050	
alpha-Chlordane	(.0050)	<.0050	
4,4'-DDD	(0.010)	<0.010	
4,4'-DDE	(0.010)	<0.010	
4,4'-DDT	(0.010)	<0.010	
Dieldrin	(0.010)	<0.010	
Endosulfan 1	(.0050)	<.0050	
Endosulfan 2	(0.010)	<0.010	
Endosulfan Sulfate	(0.010)	<0.010	
Endrin	(0.010)	<0.010	
Endrin Aldehyde	(0.010)	<0.010	
Heptachlor	(.0050)	<.0050	
Heptachlor Epoxide	(.0050)	<.0050	
Toxaphene	(0.20)	< 0.20	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	90	(60-150)
Decachlorobiphenyl	101	(60-150)


Senior Chemist

WEST LABORATORYSeptember 16, 1997
Sample Log 17300
17300-29

Sample: D14317 (EB-13;5'-1')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:15Extracted : 09/12/97
Analyzed : 09/14/97
QC Batch : PS970905**EPA8080 - Organochlorine Pesticides**
EPA3550 Extraction

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(0.075)	< 0.075	
alpha-BHC	(0.075)	< 0.075	
beta-BHC	(0.075)	< 0.075	
delta-BHC	(0.075)	< 0.075	
gamma-BHC	(0.075)	< 0.075	
Chlordane Technical	(1.5)	< 1.5	
gamma-Chlordane	(0.075)	0.12	
alpha-Chlordane	(0.075)	0.14	
4,4'-DDD	(0.15)	< 0.15	
4,4'-DDE	(0.15)	1.3	
4,4'-DDT	(0.15)	1.9	
Dieldrin	(0.15)	0.15	
Endosulfan 1	(0.075)	< 0.075	
Endosulfan 2	(0.15)	< 0.15	
Endosulfan Sulfate	(0.15)	< 0.15	
Endrin	(0.15)	0.41	
Endrin Aldehyde	(0.15)	< 0.15	
Heptachlor	(0.075)	< 0.075	
Heptachlor Epoxide	(0.075)	< 0.075	
Toxaphene	(3.0)	< 3.0	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	***	(60-150)
Decachlorobiphenyl	***	(60-150)

***Surrogate diluted out (15:1)

RJ
Senior Chemist

September 16, 1997
 Sample Log 17300
 17300-30

Sample: D14318(EB-13;1'-1.5')

From : 1124-2
 Sampled : 09/11/97
 Matrix : Soil
 Dilution : 1:5

Extracted : 09/12/97
 Analyzed : 09/13/97
 QC Batch : PS970905

**EPA8080 - Organochlorine Pesticides
 EPA3550 Extraction**

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(0.025)	<0.025	
alpha-BHC	(0.025)	<0.025	
beta-BHC	(0.025)	<0.025	
delta-BHC	(0.025)	<0.025	
gamma-BHC	(0.025)	<0.025	
Chlordane Technical	(0.50)	< 0.50	
gamma-Chlordane	(0.025)	<0.025	
alpha-Chlordane	(0.025)	<0.025	
4,4'-DDD	(0.050)	<0.050	
4,4'-DDE	(0.050)	0.22	
4,4'-DDT	(0.050)	0.11	
Dieldrin	(0.050)	<0.050	
Endosulfan 1	(0.025)	<0.025	
Endosulfan 2	(0.050)	<0.050	
Endosulfan Sulfate	(0.050)	<0.050	
Endrin	(0.10)	< 0.10	
Endrin Aldehyde	(0.050)	<0.050	
Heptachlor	(0.025)	<0.025	
Heptachlor Epoxide	(0.025)	<0.025	
Toxaphene	(1.0)	< 1.0	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	138 D	(60-150)
Decachlorobiphenyl	134 D	(60-150)

D Value derived from diluted extract (5:1)

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 Senior Chemist

WEST LABORATORY

September 16, 1997

Sample Log 17300

17300-31

Sample: D14319 (EB-14;5'-1')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:15

Extracted : 09/12/97
Analyzed : 09/14/97
QC Batch : PS970905

**EPA8080 - Organochlorine Pesticides
EPA3550 Extraction**

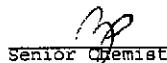
Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(0.075)	<0.075	
alpha-BHC	(0.075)	<0.075	
beta-BHC	(0.075)	<0.075	
delta-BHC	(0.075)	<0.075	
gamma-BHC	(0.075)	<0.075	
Chlordane Technical	(1.5)	< 1.5	
gamma-Chlordane	(0.075)	0.11	
alpha-Chlordane	(0.075)	0.12	
4,4'-DDD	(0.15)	< 0.15	
4,4'-DDE	(0.15)	1.1	
4,4'-DDT	(0.15)	1.6	
Dieldrin	(0.15)	< 0.15	
Endosulfan 1	(0.075)	<0.075	
Endosulfan 2	(0.15)	< 0.15	
Endosulfan Sulfate	(0.15)	< 0.15	
Endrin	(0.15)	0.36	
Endrin Aldehyde	(0.15)	< 0.15	
Heptachlor	(0.075)	<0.075	
Heptachlor Epoxide	(0.075)	<0.075	
Toxaphene	(3.0)	< 3.0	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene *** (60-150)

Decachlorobiphenyl *** (60-150)

***Surrogate diluted out (15:1)


Senior Chemist

WEST LABORATORYSeptember 16, 1997
Sample Log 17300
17300-32

Sample: D14320 (EB-14; 1'-1.5')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:5Extracted : 09/12/97
Analyzed : 09/13/97
QC Batch : PS970905**EPA8080 - Organochlorine Pesticides
EPA3550 Extraction**

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(0.025)	< 0.025	
alpha-BHC	(0.025)	< 0.025	
beta-BHC	(0.025)	< 0.025	
delta-BHC	(0.025)	< 0.025	
gamma-BHC	(0.025)	< 0.025	
Chlordane Technical	(0.50)	< 0.50	
gamma-Chlordane	(0.025)	0.025	
alpha-Chlordane	(0.025)	0.030	
4,4'-DDD	(0.050)	< 0.050	
4,4'-DDE	(0.050)	0.25	
4,4'-DDT	(0.050)	0.17	
Dieldrin	(0.050)	< 0.050	
Endosulfan 1	(0.025)	< 0.025	
Endosulfan 2	(0.050)	< 0.050	
Endosulfan Sulfate	(0.050)	< 0.050	
Endrin	(0.050)	0.090	
Endrin Aldehyde	(0.050)	< 0.050	
Heptachlor	(0.025)	< 0.025	
Heptachlor Epoxide	(0.025)	< 0.025	
Toxaphene	(1.0)	< 1.0	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	99 D	(60-150)
Decachlorobiphenyl	123 D	(60-150)

D Value derived from diluted extract (5:1)

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Senior Chemist

WEST LABORATORY

September 16, 1997

Sample Log 17300

17300-33

Sample: D14321(EB-15;5'-1')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:15

Extracted : 09/12/97
Analyzed : 09/15/97
QC Batch : PS970905

**EPA8080 - Organochlorine Pesticides
EPA3550 Extraction**

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(0.075)	< 0.075	
alpha-BHC	(0.075)	< 0.075	
beta-BHC	(0.075)	< 0.075	
delta-BHC	(0.075)	< 0.075	
gamma-BHC	(0.075)	< 0.075	
Chlordane Technical	(1.5)	< 1.5	
gamma-Chlordane	(0.075)	< 0.075	
alpha-Chlordane	(0.075)	< 0.075	
4,4'-DDD	(0.15)	< 0.15	
4,4'-DDE	(0.15)	0.96	
4,4'-DDT	(0.15)	1.5	
Dieldrin	(0.15)	< 0.15	
Endosulfan 1	(0.075)	< 0.075	
Endosulfan 2	(0.15)	< 0.15	
Endosulfan Sulfate	(0.15)	< 0.15	
Endrin	(0.15)	0.28	
Endrin Aldehyde	(0.15)	< 0.15	
Heptachlor	(0.075)	< 0.075	
Heptachlor Epoxide	(0.075)	< 0.075	
Toxaphene	(3.0)	< 3.0	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	***	(60-150)
Decachlorobiphenyl	***	(60-150)

***Surrogate diluted out (15:1)

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Senior Chemist

September 16, 1997

Sample Log 17300

17300-34

Sample: D14322(EB-15;1'-1.5')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:1Extracted : 09/12/97
Analyzed : 09/15/97
QC Batch : PS970905**EPA8080 - Organochlorine Pesticides
EPA3550 Extraction**

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(.0050)	<.0050	
alpha-BHC	(.0050)	<.0050	
beta-BHC	(.0050)	<.0050	
delta-BHC	(.0050)	<.0050	
gamma-BHC	(.0050)	<.0050	
Chlordane Technical	(0.10)	< 0.10	
gamma-Chlordane	(.0050)	<.0050	
alpha-Chlordane	(.0050)	<.0050	
4,4'-DDD	(0.010)	<0.010	
4,4'-DDE	(0.010)	0.050	
4,4'-DDT	(0.010)	0.011	
Dieldrin	(0.010)	<0.010	
Endosulfan 1	(.0050)	<.0050	
Endosulfan 2	(0.010)	<0.010	
Endosulfan Sulfate	(0.010)	<0.010	
Endrin	(0.020)	<0.020	
Endrin Aldehyde	(0.010)	<0.010	
Heptachlor	(.0050)	<.0050	
Heptachlor Epoxide	(.0050)	<.0050	
Toxaphene	(0.20)	< 0.20	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	96	(60-150)
Decachlorobiphenyl	101	(60-150)

Senior Chemist *M*

WEST LABORATORY

September 16, 1997

Sample Log 17300

17300-35

Sample: D14323 (EB-16;5'-1')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:1

Extracted : 09/12/97
Analyzed : 09/15/97
QC Batch : PS970905

**EPA8080 - Organochlorine Pesticides
EPA3550 Extraction**

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(.0050)	<.0050	
alpha-BHC	(.0050)	<.0050	
beta-BHC	(.0050)	<.0050	
delta-BHC	(.0050)	<.0050	
gamma-BHC	(.0050)	<.0050	
Chlordane Technical	(0.10)	< 0.10	
gamma-Chlordane	(.0050)	<.0050	
alpha-Chlordane	(.0050)	<.0050	
4,4'-DDD	(0.020)	<0.020	
4,4'-DDE	(0.010)	0.022	
4,4'-DDT	(0.010)	<0.010	
Dieldrin	(0.010)	<0.010	
Endosulfan 1	(.0050)	<.0050	
Endosulfan 2	(0.010)	<0.010	
Endosulfan Sulfate	(0.010)	<0.010	
Endrin	(0.010)	<0.010	
Endrin Aldehyde	(0.010)	<0.010	
Heptachlor	(.0050)	<.0050	
Heptachlor Epoxide	(.0050)	<.0050	
Toxaphene	(0.20)	< 0.20	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	85	(60-150)
Decachlorobiphenyl	90	(60-150)

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Senior Chemist

September 16, 1997
 Sample Log 17300
 17300-36

Sample: D14324 (EB-16; 1'-1.5')

From : 1124-2
 Sampled : 09/11/97
 Matrix : Soil
 Dilution : 1:10

Extracted : 09/12/97
 Analyzed : 09/15/97
 QC Batch : PS970905

**EPA8080 - Organochlorine Pesticides
 EPA3550 Extraction**

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(0.025)	< 0.025	
alpha-BHC	(0.025)	< 0.025	
beta-BHC	(0.025)	< 0.025	
delta-BHC	(0.025)	< 0.025	
gamma-BHC	(0.025)	< 0.025	
Chlordane Technical	(0.50)	< 0.50	
gamma-Chlordane	(0.025)	< 0.025	
alpha-Chlordane	(0.025)	< 0.025	
4,4'-DDD	(0.050)	< 0.050	
4,4'-DDE	(0.050)	< 0.050	
4,4'-DDT	(0.050)	< 0.050	
Dieldrin	(0.050)	< 0.050	
Endosulfan 1	(0.025)	< 0.025	
Endosulfan 2	(0.050)	< 0.050	
Endosulfan Sulfate	(0.050)	< 0.050	
Endrin	(0.050)	< 0.050	
Endrin Aldehyde	(0.050)	< 0.050	
Heptachlor	(0.025)	< 0.025	
Heptachlor Epoxide	(0.025)	< 0.025	
Toxaphene	(1.0)	< 1.0	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene 115 D (60-150)

Decachlorobiphenyl 114 D (60-150)

D Value derived from diluted extract (10:1)

WEST LABORATORY

September 16, 1997

Sample Log 17300

17300-37

Sample: D14325(EB-17;5'-1')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:1

Extracted : 09/12/97
Analyzed : 09/15/97
QC Batch : PS970905

**EPA8080 - Organochlorine Pesticides
EPA3550 Extraction**

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(.0050)	<.0050	
alpha-BHC	(.0050)	<.0050	
beta-BHC	(.0050)	<.0050	
delta-BHC	(.0050)	<.0050	
gamma-BHC	(.0050)	<.0050	
Chlordane Technical	(0.10)	< 0.10	
gamma-Chlordane	(.0050)	<.0050	
alpha-Chlordane	(.0050)	<.0050	
4,4'-DDD	(0.010)	<0.010	
4,4'-DDE	(0.010)	<0.010	
4,4'-DDT	(0.010)	<0.010	
Dieldrin	(0.010)	<0.010	
Endosulfan 1	(.0050)	<.0050	
Endosulfan 2	(0.010)	<0.010	
Endosulfan Sulfate	(0.010)	<0.010	
Endrin	(0.010)	<0.010	
Endrin Aldehyde	(0.010)	<0.010	
Heptachlor	(.0050)	<.0050	
Heptachlor Epoxide	(.0050)	<.0050	
Toxaphene	(0.20)	< 0.20	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	104	(60-150)
Decachlorobiphenyl	107	(60-150)

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Senior Chemist

WEST LABORATORY

September 16, 1997

Sample Log 17300

17300-38

Sample: D14326 (EB-17; 1'-1.5')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:5

Extracted : 09/12/97
Analyzed : 09/14/97
QC Batch : PS970905

**EPA8080 - Organochlorine Pesticides
EPA3550 Extraction**

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(0.025)	< 0.025	
alpha-BHC	(0.025)	< 0.025	
beta-BHC	(0.025)	< 0.025	
delta-BHC	(0.025)	< 0.025	
gamma-BHC	(0.025)	< 0.025	
Chlordane Technical	(0.50)	< 0.50	
gamma-Chlordane	(0.025)	< 0.025	
alpha-Chlordane	(0.025)	< 0.025	
4,4'-DDD	(0.050)	< 0.050	
4,4'-DDE	(0.050)	0.94	
4,4'-DDT	(0.050)	0.90	
Dieldrin	(0.050)	0.11	
Endosulfan 1	(0.025)	< 0.025	
Endosulfan 2	(0.050)	< 0.050	
Endosulfan Sulfate	(0.050)	< 0.050	
Endrin	(0.050)	0.24	
Endrin Aldehyde	(0.050)	< 0.050	
Heptachlor	(0.025)	< 0.025	
Heptachlor Epoxide	(0.025)	< 0.025	
Toxaphene	(2.0)	< 2.0	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	99 D	(60-150)
Decachlorobiphenyl	125 D	(60-150)

D Value derived from diluted extract (5:1)

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WEST LABORATORY

September 16, 1997

Sample Log 17300

17300-39

Sample: D14327(EB-18;5'-1')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:5

Extracted : 09/12/97
Analyzed : 09/14/97
QC Batch : PS970905

**EPA8080 - Organochlorine Pesticides
EPA3550 Extraction**

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(0.025)	< 0.025	
alpha-BHC	(0.025)	< 0.025	
beta-BHC	(0.025)	< 0.025	
delta-BHC	(0.025)	< 0.025	
gamma-BHC	(0.025)	< 0.025	
Chlordane Technical	(0.50)	< 0.50	
gamma-Chlordane	(0.025)	< 0.025	
alpha-Chlordane	(0.050)	< 0.050	
4,4'-DDD	(0.050)	< 0.050	
4,4'-DDE	(0.050)	0.54	
4,4'-DDT	(0.050)	0.28	
Dieldrin	(0.10)	< 0.10	
Endosulfan 1	(0.025)	< 0.025	
Endosulfan 2	(0.050)	< 0.050	
Endosulfan Sulfate	(0.050)	< 0.050	
Endrin	(0.15)	< 0.15	
Endrin Aldehyde	(0.050)	< 0.050	
Heptachlor	(0.025)	< 0.025	
Heptachlor Epoxide	(0.025)	< 0.025	
Toxaphene	(1.0)	< 1.0	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	83 D	(60-150)
Decachlorobiphenyl	119 D	(60-150)

D Value derived from diluted extract (5:1)


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Sample Log 17300
17300-40

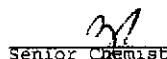
Sample: D14328 (EB-18;1'-1.5')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:1Extracted : 09/12/97
Analyzed : 09/15/97
QC Batch : PS970905**EPA8080 - Organochlorine Pesticides
EPA3550 Extraction**

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(.0050)	<.0050	
alpha-BHC	(.0050)	<.0050	
beta-BHC	(.0050)	<.0050	
delta-BHC	(.0050)	<.0050	
gamma-BHC	(.0050)	<.0050	
Chlordane Technical	(0.10)	< 0.10	
gamma-Chlordane	(.0050)	<.0050	
alpha-Chlordane	(.0050)	<.0050	
4,4'-DDD	(0.010)	<0.010	
4,4'-DDE	(0.010)	0.040	
4,4'-DDT	(0.010)	<0.010	
Dieldrin	(0.010)	<0.010	
Endosulfan 1	(.0050)	<.0050	
Endosulfan 2	(0.010)	<0.010	
Endosulfan Sulfate	(0.010)	<0.010	
Endrin	(0.010)	<0.010	
Endrin Aldehyde	(0.010)	<0.010	
Heptachlor	(.0050)	<.0050	
Heptachlor Epoxide	(.0050)	<.0050	
Toxaphene	(0.20)	< 0.20	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	85	(60-150)
Decachlorobiphenyl	99	(60-150)


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September 16, 1997

Sample Log 17300

17300-41

Sample: D14329 (EB-19;5'-1')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:5

Extracted : 09/12/97
Analyzed : 09/14/97
QC Batch : PS970906

**EPA8080 - Organochlorine Pesticides
EPA3550 Extraction**

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(0.025)	< 0.025	
alpha-BHC	(0.025)	< 0.025	
beta-BHC	(0.025)	< 0.025	
delta-BHC	(0.025)	< 0.025	
gamma-BHC	(0.025)	< 0.025	
Chlordane Technical	(0.50)	< 0.50	
gamma-Chlordane	(0.025)	< 0.025	
alpha-Chlordane	(0.025)	< 0.025	
4,4'-DDD	(0.050)	< 0.050	
4,4'-DDE	(0.050)	< 0.050	
4,4'-DDT	(0.050)	< 0.050	
Dieldrin	(0.050)	< 0.050	
Endosulfan 1	(0.025)	< 0.025	
Endosulfan 2	(0.050)	< 0.050	
Endosulfan Sulfate	(0.050)	< 0.050	
Endrin	(0.050)	< 0.050	
Endrin Aldehyde	(0.050)	< 0.050	
Heptachlor	(0.025)	< 0.025	
Heptachlor Epoxide	(0.025)	< 0.025	
Toxaphene	(1.0)	< 1.0	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene 104 D (60-150)

Decachlorobiphenyl 114 D (60-150)

D Value derived from diluted extract (5:1)

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Sample Log 17300
17300-42

Sample: D14330 (EB-19; 1'-1.5')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:1Extracted : 09/12/97
Analyzed : 09/15/97
QC Batch : PS970906**EPA8080 - Organochlorine Pesticides
EPA3550 Extraction**

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(.0050)	<.0050	
alpha-BHC	(.0050)	<.0050	
beta-BHC	(.0050)	<.0050	
delta-BHC	(.0050)	<.0050	
gamma-BHC	(.0050)	<.0050	
Chlordane Technical	(0.10)	< 0.10	
gamma-Chlordane	(.0050)	<.0050	
alpha-Chlordane	(.0050)	<.0050	
4,4'-DDD	(0.010)	<0.010	
4,4'-DDE	(0.010)	<0.010	
4,4'-DDT	(0.010)	<0.010	
Dieldrin	(0.010)	<0.010	
Endosulfan 1	(.0050)	<.0050	
Endosulfan 2	(0.010)	<0.010	
Endosulfan Sulfate	(0.010)	<0.010	
Endrin	(0.010)	<0.010	
Endrin Aldehyde	(0.010)	<0.010	
Heptachlor	(.0050)	<.0050	
Heptachlor Epoxide	(.0050)	<.0050	
Toxaphene	(0.20)	< 0.20	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	79	(60-150)
Decachlorobiphenyl	94	(60-150)

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September 16, 1997

Sample Log 17300

17300-43

Sample: D14331(EB-20;5'-1')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:5

Extracted : 09/12/97
Analyzed : 09/14/97
QC Batch : PS970906

**EPA8080 - Organochlorine Pesticides
EPA3550 Extraction**

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(0.025)	<0.025	
alpha-BHC	(0.025)	<0.025	
beta-BHC	(0.025)	<0.025	
delta-BHC	(0.025)	<0.025	
gamma-BHC	(0.025)	<0.025	
Chlordane Technical	(0.50)	< 0.50	
gamma-Chlordane	(0.025)	<0.025	
alpha-Chlordane	(0.025)	<0.025	
4,4'-DDD	(0.050)	<0.050	
4,4'-DDE	(0.050)	0.94	
4,4'-DDT	(0.050)	0.58	
Dieldrin	(0.050)	0.26	
Endosulfan 1	(0.025)	<0.025	
Endosulfan 2	(0.050)	<0.050	
Endosulfan Sulfate	(0.050)	<0.050	
Endrin	(0.050)	0.20	
Endrin Aldehyde	(0.050)	<0.050	
Heptachlor	(0.025)	<0.025	
Heptachlor Epoxide	(0.025)	<0.025	
Toxaphene	(1.0)	< 1.0	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	96 D	(60-150)
Decachlorobiphenyl	125 D	(60-150)

D Value derived from diluted extract (5:1)


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WEST LABORATORYSeptember 16, 1997
Sample Log 17300
17300-44

Sample: D14332 (EB-20;1'-1.5')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:5Extracted : 09/12/97
Analyzed : 09/14/97
QC Batch : PS970906**EPA8080 - Organochlorine Pesticides**
EPA3550 Extraction

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(0.025)	<0.025	
alpha-BHC	(0.025)	<0.025	
beta-BHC	(0.025)	<0.025	
delta-BHC	(0.025)	<0.025	
gamma-BHC	(0.025)	<0.025	
Chlordane Technical	(0.50)	< 0.50	
gamma-Chlordane	(0.025)	<0.025	
alpha-Chlordane	(0.025)	<0.025	
4,4'-DDD	(0.050)	<0.050	
4,4'-DDE	(0.050)	0.40	
4,4'-DDT	(0.050)	0.62	
Dieldrin	(0.050)	0.10	
Endosulfan 1	(0.025)	<0.025	
Endosulfan 2	(0.050)	<0.050	
Endosulfan Sulfate	(0.050)	<0.050	
Endrin	(0.050)	0.17	
Endrin Aldehyde	(0.050)	<0.050	
Heptachlor	(0.025)	<0.025	
Heptachlor Epoxide	(0.025)	<0.025	
Toxaphene	(1.0)	< 1.0	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	88 D	(60-150)
Decachlorobiphenyl	132 D	(60-150)

D Value derived from diluted extract (5:1)

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September 16, 1997

Sample Log 17300

17300-45

Sample: D14333 (EB-21;5'-1')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:1

Extracted : 09/12/97
Analyzed : 09/15/97
QC Batch : PS970906

**EPA8080 - Organochlorine Pesticides
EPA3550 Extraction**

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(.0050)	<.0050	
alpha-BHC	(.0050)	<.0050	
beta-BHC	(.0050)	<.0050	
delta-BHC	(.0050)	<.0050	
gamma-BHC	(.0050)	<.0050	
Chlordane Technical	(0.10)	< 0.10	
gamma-Chlordane	(.0050)	<.0050	
alpha-Chlordane	(.0050)	<.0050	
4,4'-DDD	(0.010)	<0.010	
4,4'-DDE	(0.010)	<0.010	
4,4'-DDT	(0.010)	<0.010	
Dieldrin	(0.010)	<0.010	
Endosulfan 1	(.0050)	<.0050	
Endosulfan 2	(0.010)	<0.010	
Endosulfan Sulfate	(0.010)	<0.010	
Endrin	(0.010)	<0.010	
Endrin Aldehyde	(0.010)	<0.010	
Heptachlor	(.0050)	<.0050	
Heptachlor Epoxide	(.0050)	<.0050	
Toxaphene	(0.20)	< 0.20	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	90	(60-150)
Decachlorobiphenyl	87	(60-150)

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September 16, 1997

Sample Log 17300

17300-46

Sample: D14334 (EB-21; 1'-1.5')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:5

Extracted : 09/12/97
Analyzed : 09/14/97
QC Batch : PS970906

**EPA8080 - Organochlorine Pesticides
EPA3550 Extraction**

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(0.025)	< 0.025	
alpha-BHC	(0.025)	< 0.025	
beta-BHC	(0.025)	< 0.025	
delta-BHC	(0.025)	< 0.025	
gamma-BHC	(0.025)	< 0.025	
Chlordane Technical	(0.50)	< 0.50	
gamma-Chlordane	(0.025)	< 0.025	
alpha-Chlordane	(0.025)	< 0.025	
4,4'-DDD	(0.050)	< 0.050	
4,4'-DDE	(0.050)	0.14	
4,4'-DDT	(0.050)	0.20	
Dieldrin	(0.050)	0.080	
Endosulfan 1	(0.025)	< 0.025	
Endosulfan 2	(0.050)	< 0.050	
Endosulfan Sulfate	(0.050)	< 0.050	
Endrin	(0.050)	< 0.050	
Endrin Aldehyde	(0.050)	< 0.050	
Heptachlor	(0.025)	< 0.025	
Heptachlor Epoxide	(0.025)	< 0.025	
Toxaphene	(1.0)	< 1.0	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	99 D	(60-150)
Decachlorobiphenyl	122 D	(60-150)

D Value derived from diluted extract (5:1)

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September 16, 1997

Sample Log 17300

17300-47

Sample: D14335 (EB-22; 5'-1')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:1

Extracted : 09/12/97
Analyzed : 09/15/97
QC Batch : PS970906

**EPA8080 - Organochlorine Pesticides
EPA3550 Extraction**

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(.0050)	<.0050	
alpha-BHC	(.0050)	<.0050	
beta-BHC	(.0050)	<.0050	
delta-BHC	(.0050)	<.0050	
gamma-BHC	(.0050)	<.0050	
Chlordane Technical	(0.10)	< 0.10	
gamma-Chlordane	(.0050)	<.0050	
alpha-Chlordane	(.0050)	<.0050	
4,4'-DDD	(0.010)	<0.010	
4,4'-DDE	(0.010)	<0.010	
4,4'-DDT	(0.010)	<0.010	
Dieldrin	(0.010)	<0.010	
Endosulfan 1	(.0050)	<.0050	
Endosulfan 2	(0.010)	<0.010	
Endosulfan Sulfate	(0.010)	<0.010	
Endrin	(0.010)	<0.010	
Endrin Aldehyde	(0.010)	<0.010	
Heptachlor	(.0050)	<.0050	
Heptachlor Epoxide	(.0050)	<.0050	
Toxaphene	(0.20)	< 0.20	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	78	(60-150)
Decachlorobiphenyl	90	(60-150)

B
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Sample Log 17300
17300-48

Sample: D14336 (EB-22;1'-1.5')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:15Extracted : 09/12/97
Analyzed : 09/15/97
QC Batch : PS970906EPA8080 - Organochlorine Pesticides
EPA3550 Extraction

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(0.075)	<0.075	
alpha-BHC	(0.075)	<0.075	
beta-BHC	(0.075)	<0.075	
delta-BHC	(0.075)	<0.075	
gamma-BHC	(0.075)	<0.075	
Chlordane Technical	(1.5)	< 1.5	
gamma-Chlordane	(0.075)	<0.075	
alpha-Chlordane	(0.075)	<0.075	
4,4'-DDD	(0.15)	< 0.15	
4,4'-DDE	(0.15)	0.72	
4,4'-DDT	(0.15)	1.4	
Dieldrin	(0.15)	< 0.15	
Endosulfan 1	(0.075)	<0.075	
Endosulfan 2	(0.15)	< 0.15	
Endosulfan Sulfate	(0.15)	< 0.15	
Endrin	(0.20)	< 0.20	
Endrin Aldehyde	(0.15)	< 0.15	
Heptachlor	(0.075)	<0.075	
Heptachlor Epoxide	(0.075)	<0.075	
Toxaphene	(3.0)	< 3.0	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	***	(60-150)
Decachlorobiphenyl	***	(60-150)

***Surrogate diluted out (15:1)

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September 16, 1997

Sample Log 17300

17300-49

Sample: D14337 (EB-23; 5'-1')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:15

Extracted : 09/12/97
Analyzed : 09/15/97
QC Batch : PS970906

**EPA8080 - Organochlorine Pesticides
EPA3550 Extraction**

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(0.075)	< 0.075	
alpha-BHC	(0.075)	< 0.075	
beta-BHC	(0.075)	< 0.075	
delta-BHC	(0.075)	< 0.075	
gamma-BHC	(0.075)	< 0.075	
Chlordane Technical	(1.5)	< 1.5	
gamma-Chlordane	(0.075)	< 0.075	
alpha-Chlordane	(0.075)	< 0.075	
4,4'-DDD	(0.15)	< 0.15	
4,4'-DDE	(0.15)	1.0	
4,4'-DDT	(0.15)	1.3	
Dieldrin	(0.15)	< 0.15	
Endosulfan 1	(0.075)	< 0.075	
Endosulfan 2	(0.15)	< 0.15	
Endosulfan Sulfate	(0.15)	< 0.15	
Endrin	(0.20)	< 0.20	
Endrin Aldehyde	(0.15)	< 0.15	
Heptachlor	(0.075)	< 0.075	
Heptachlor Epoxide	(0.075)	< 0.075	
Toxaphene	(3.0)	< 3.0	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene	***	(60-150)
Decachlorobiphenyl	***	(60-150)

***Surrogate diluted out (15:1)

JP
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September 16, 1997

Sample Log 17300

17300-50

Sample: D14338 (EB-23; 1'-1.5')

From : 1124-2
Sampled : 09/11/97
Matrix : Soil
Dilution : 1:15

Extracted : 09/12/97
Analyzed : 09/15/97
QC Batch : PS970906

EPA8080 - Organochlorine Pesticides
EPA3550 Extraction

Parameter	(MRL) mg/kg	Measured Value mg/kg	Flag
Aldrin	(0.075)	< 0.075	
alpha-BHC	(0.075)	< 0.075	
beta-BHC	(0.075)	< 0.075	
delta-BHC	(0.075)	< 0.075	
gamma-BHC	(0.075)	< 0.075	
Chlordane Technical	(1.5)	< 1.5	
gamma-Chlordane	(0.075)	< 0.075	
alpha-Chlordane	(0.075)	< 0.075	
4,4'-DDD	(0.15)	< 0.15	
4,4'-DDE	(0.15)	0.86	
4,4'-DDT	(0.15)	1.3	
Dieldrin	(0.15)	< 0.15	
Endosulfan 1	(0.075)	< 0.075	
Endosulfan 2	(0.15)	< 0.15	
Endosulfan Sulfate	(0.15)	< 0.15	
Endrin	(0.20)	< 0.20	
Endrin Aldehyde	(0.15)	< 0.15	
Heptachlor	(0.075)	< 0.075	
Heptachlor Epoxide	(0.075)	< 0.075	
Toxaphene	(3.0)	< 3.0	

Method 608/8080 Surrogate Recoveries (%)

Tetrachloro-m-xylene *** (60-150)

Decachlorobiphenyl *** (60-150)

***Surrogate diluted out (15:1)

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September 19, 1997

QC Report
Pesticides/PCB by EPA 8080/3550

QC Batch PS970904

Matrix: Soil

Spike and Spike Duplicate Results

Parameter	Matrix Spike (%Rec)	Matrix Spike Dup. (%Rec)	RPD %
gamma-BHC	93	86	8
Heptachlor	104	100	4
Aldrin	108	106	2
Dieldrin	NC	NC	NC
Endrin	NC	NC	NC
4,4'-DDT	NC	NC	NC
NC Not calculated. Matrix interference			

Laboratory Control Spike

Parameter	Laboratory Control Spike-(%Rec)
gamma-BHC	85
Heptachlor	89
Aldrin	94
Dieldrin	95
Endrin	94
4,4'-DDT	97

SP
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Senior Chemist

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September 19, 1997

QC Report
Pesticides/PCB by EPA 8080

QC Batch PS970904

Matrix: Soil

Method Blank

Parameter	MRL (mg/Kg)	Measured Value (mg/Kg)
Aldrin	(.0050)	<.0050
alpha-BHC	(.0050)	<.0050
beta-BHC	(.0050)	<.0050
delta-BHC	(.0050)	<.0050
gamma-BHC	(.0050)	<.0050
Chlordane Technical	(0.10)	<0.10
gamma-Chlordane	(.0050)	<.0050
alpha-Chlordane	(.0050)	<.0050
4,4'-DDD	(0.010)	<0.010
4,4'-DDE	(0.010)	<0.010
4,4'-DDT	(0.010)	<0.010
Dieldrin	(0.010)	<0.010
Endosulfan 1	(.0050)	<.0050
Endosulfan 2	(0.010)	<0.010
Endosulfan Sulfate	(0.010)	<0.010
Endrin	(0.010)	<0.010
Endrin Aldehyde	(0.010)	<0.010
Heptachlor	(.0050)	<.0050
Heptachlor Epoxide	(.0050)	<.0050
Toxaphene	(0.20)	<0.20
PCB1016	(0.10)	<0.10
PCB1221	(0.20)	<0.20
PCB1232	(0.10)	<0.10
PCB1242	(0.10)	<0.10
PCB1248	(0.10)	<0.10
PCB1254	(0.10)	<0.10
PCB1260	(0.10)	<0.10


Stewart Podolsky
Senior Chemist

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September 19, 1997

QC Report
Pesticides/PCB by EPA 8080/3550

QC Batch PS970905

Matrix: Soil

Spike and Spike Duplicate Results

Parameter	Matrix Spike (%Rec)	Matrix Spike Dup. (%Rec)	RPD %
gamma-BHC	79	86	8
Heptachlor	88	95	8
Aldrin	85	91	7
Dieldrin	NC	NC	NC
Endrin	NC	NC	NC
4,4'-DDT	NC	NC	NC
NC Not calculated. Matrix interference			

Laboratory Control Spike

Parameter	Laboratory Control Spike-(%Rec)
gamma-BHC	82
Heptachlor	70
Aldrin	85
Dieldrin	71
Endrin	86
4,4'-DDT	92

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Senior Chemist

WEST LABORATORY

September 19, 1997

QC Report
Pesticides/PCB by EPA 8080

QC Batch PS970905

Matrix: Soil

Method Blank

Parameter	MRL (mg/Kg)	Measured Value (mg/Kg)
Aldrin	(.0050)	<.0050
alpha-BHC	(.0050)	<.0050
beta-BHC	(.0050)	<.0050
delta-BHC	(.0050)	<.0050
gamma-BHC	(.0050)	<.0050
Chlordane Technical	(0.10)	<0.10
gamma-Chlordane	(.0050)	<.0050
alpha-Chlordane	(.0050)	<.0050
4,4'-DDD	(0.010)	<0.010
4,4'-DDE	(0.010)	<0.010
4,4'-DDT	(0.010)	<0.010
Dieldrin	(0.010)	<0.010
Endosulfan 1	(.0050)	<.0050
Endosulfan 2	(0.010)	<0.010
Endosulfan Sulfate	(0.010)	<0.010
Endrin	(0.010)	<0.010
Endrin Aldehyde	(0.010)	<0.010
Heptachlor	(.0050)	<.0050
Heptachlor Epoxide	(.0050)	<.0050
Toxaphene	(0.20)	<0.20
PCB1016	(0.10)	<0.10
PCB1221	(0.20)	<0.20
PCB1232	(0.10)	<0.10
PCB1242	(0.10)	<0.10
PCB1248	(0.10)	<0.10
PCB1254	(0.10)	<0.10
PCB1260	(0.10)	<0.10

SP
Stewart Podolsky
Senior Chemist

WEST LABORATORY

September 19, 1997

QC Report
Pesticides/PCB by EPA 8080/3550

QC Batch PS970906

Matrix: Soil

Spike and Spike Duplicate Results

Parameter	Matrix Spike (%Rec)	Matrix Spike Dup. (%Rec)	RPD %
gamma-BHC	77	73	5
Heptachlor	99	92	7
Aldrin	90	84	7
Dieldrin	106	97	9
Endrin	118	106	11
4,4'-DDT	104	96	8

Laboratory Control Spike

Parameter	Laboratory Control Spike-(%Rec)
gamma-BHC	88
Heptachlor	74
Aldrin	90
Dieldrin	75
Endrin	92
4,4'-DDT	98

SP
Stewart Podolsky
Senior Chemist

WEST LABORATORY

September 19, 1997

QC Report
Pesticides/PCB by EPA 8080

QC Batch PS970906

Matrix: Soil

Method Blank

Parameter	MRL(mg/Kg)	Measured Value(mg/Kg)
Aldrin	(.0050)	<.0050
alpha-BHC	(.0050)	<.0050
beta-BHC	(.0050)	<.0050
delta-BHC	(.0050)	<.0050
gamma-BHC	(.0050)	<.0050
Chlordane Technical	(0.10)	<0.10
gamma-Chlordane	(.0050)	<.0050
alpha-Chlordane	(.0050)	<.0050
4,4'-DDD	(0.010)	<0.010
4,4'-DDE	(0.010)	<0.010
4,4'-DDT	(0.010)	<0.010
Dieldrin	(0.010)	<0.010
Endosulfan 1	(.0050)	<.0050
Endosulfan 2	(0.010)	<0.010
Endosulfan Sulfate	(0.010)	<0.010
Endrin	(0.010)	<0.010
Endrin Aldehyde	(0.010)	<0.010
Heptachlor	(.0050)	<.0050
Heptachlor Epoxide	(.0050)	<.0050
Toxaphene	(0.20)	<0.20
PCB1016	(0.10)	<0.10
PCB1221	(0.20)	<0.20
PCB1232	(0.10)	<0.10
PCB1242	(0.10)	<0.10
PCB1248	(0.10)	<0.10
PCB1254	(0.10)	<0.10
PCB1260	(0.10)	<0.10

Bp
Stewart Podolsky
Senior Chemist

Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Subcontract Chain of Custody

17300

Subcontract Lab: WEST	Date Sent: 9/11/97	Project Name: 1124-2	Due Date: 9/16/97 RUSH			
Sample ID and Source	Matrix	Required Analysis	Date Taken	Time Taken	Containers	Pres
D14288 (EB-24; 6.5'-7.0')	Soil	EPA 8080	9/11/97	0825	Brass Tube 4 oz. Jars	no
D14289 (EB-25; 6.5'-7.0')	Soil	EPA 8080	9/11/97	0925	Brass Tube 4 oz. Jars	no
D14291 (SS-11; 0'-0.5')	Soil	EPA 8080	9/11/97	1033	Brass Tube 4 oz. Jars	no
D14292 (SS-12,13,14,15; 0'-0.5')	Soil	EPA 8080	9/11/97	0957,1005, 1010,1015	Brass Tube 4 oz. Jars	no
D14293 (EB-1; .5'-1')	Soil	EPA 8080 Pesticides	9/11/97	1441	Brass Tube	no
D14294 (EB-1; 1'-1.5')	Soil	EPA 8080 Pesticides	9/11/97	1446	Brass Tube	no
D14295 (EB-2; .5'-1')	Soil	EPA 8080 Pesticides	9/11/97	1439	Brass Tube	no
D14296 (EB-2; 1'-1.5')	Soil	EPA 8080 Pesticides	9/11/97	1441	Brass Tube	no
D14297 (EB-3; .5'-1')	Soil	EPA 8080 Pesticides	9/11/97	1348	Brass Tube	no
D14298 (EB-3; 1'-1.5')	Soil	EPA 8080 Pesticides	9/11/97	1352	Brass Tube	no

Relinquished By: <i>Kelley L. Frazee</i>	Received By: <i>Sonya G. Jaeger</i>	Date: 9/11/97	Time: 6:10 pm
Relinquished By: <i>Ed</i>	Received By: <i>Sonya G. Jaeger</i>	Date: 9-11-97	Time: 9:00
Relinquished By: <i>Ed</i>	Received By: <i>Sonya G. Jaeger</i>	Date:	Time:

Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Subcontract Chain of Custody

17300

Subcontract Lab: WEST	Date Sent: 9/11/97	Project Name: 1124-2	Due Date: 9/16/97 RUSH			
Sample ID and Source	Matrix	Required Analysis	Date Taken	Time Taken	Containers	Pres
D14299 (EB-4; 5'-1')	Soil	EPA 8080 Pesticides	9/11/97	1356	Brass Tube	no
D14300 (EB-4; 1'-1.5')	Soil	EPA 8080 Pesticides	9/11/97	1358	Brass Tube	no
D14301 (EB-5; 5'-1')	Soil	EPA 8080 Pesticides	9/11/97	1144	Brass Tube	no
D14302 (EB-5; 1'-1.5')	Soil	EPA 8080 Pesticides	9/11/97	1148	Brass Tube	no
D14303 (EB-6; 5'-1')	Soil	EPA 8080 Pesticides	9/11/97	1433	Brass Tube	no
D14304 (EB-6; 1'-1.5')	Soil	EPA 8080 Pesticides	9/11/97	1435	Brass Tube	no
D14305 (EB-7; 5'-1')	Soil	EPA 8080 Pesticides	9/11/97	1343	Brass Tube	no
D14306 (EB-7; 1'-1.5')	Soil	EPA 8080 Pesticides	9/11/97	1346	Brass Tube	no
D14307 (EB-8; 5'-1')	Soil	EPA 8080 Pesticides	9/11/97	1337	Brass Tube	no
D14308 (EB-8; 1'-1.5')	Soil	EPA 8080 Pesticides	9/11/97	1340	Brass Tube	no
D14309 (EB-9; 5'-1')	Soil	EPA 8080 Pesticides	9/11/97	1152	Brass Tube	no
D14310 (EB-9; 1'-1.5')	Soil	EPA 8080 Pesticides	9/11/97	1156	Brass Tube	no
D14311 (EB-10; 5'-1')	Soil	EPA 8080 Pesticides	9/11/97	1330	Brass Tube	no
D14312 (EB-10; 1'-1.5')	Soil	EPA 8080 Pesticides	9/11/97	1333	Brass Tube	no

Relinquished By: <i>Kelley P. Flax</i>	Received By: <i>J. D. Sauer</i>	Date: 9/11/97	Time: 6:10 pm
Relinquished By: <i>J. D. Sauer</i>	Received By: <i>Troy D. Sauer</i>	Date: 9-11-97	Time: 950
Relinquished By: <i>Troy D. Sauer</i>	Received By:	Date:	Time:

Entech Analytical Labs, Inc.

CA ELAP# 2224

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Subcontract Chain of Custody

17300

Subcontract Lab: WEST	Date Sent: 9/11/97	Project Name: 1124-2	Due Date: 9/16/97 RUSH			
Sample ID and Source	Matrix	Required Analysis	Date Taken	Time Taken	Containers	Pres
D14313 (EB-11; 5'-1')	Soil	EPA 8080 Pesticides	9/11/97	1450	Brass Tube	no
D14314 (EB-11; 1'-1.5')	Soil	EPA 8080 Pesticides	9/11/97	1453	Brass Tube	no
D14315 (EB-12; 5'-1')	Soil	EPA 8080 Pesticides	9/11/97	1455	Brass Tube	no
D14216 (EB-12; 1'-1.5')	Soil	EPA 8080 Pesticides	9/11/97	1458	Brass Tube	no
D14317 (EB-13; 5'-1')	Soil	EPA 8080 Pesticides	9/11/97	1321	Brass Tube	no
D14318 (EB-13; 1'-1.5')	Soil	EPA 8080 Pesticides	9/11/97	1325	Brass Tube	no
D14319 (EB-14; 5'-1')	Soil	EPA 8080 Pesticides	9/11/97	1201	Brass Tube	no
D14320 (EB-14; 1'-1.5')	Soil	EPA 8080 Pesticides	9/11/97	1204	Brass Tube	no
D14321 (EB-15; 5'-1')	Soil	EPA 8080 Pesticides	9/11/97	1315	Brass Tube	no
D14322 (EB-15; 1'-1.5')	Soil	EPA 8080 Pesticides	9/11/97	1320	Brass Tube	no
D14323 (EB-16; 5'-1')	Soil	EPA 8080 Pesticides	9/11/97	1422	Brass Tube	no
D14324 (EB-16; 1'-1.5')	Soil	EPA 8080 Pesticides	9/11/97	1426	Brass Tube	no
D14325 (EB-17; 5'-1')	Soil	EPA 8080 Pesticides	9/11/97	1251	Brass Tube	no
D14326 (EB-17; 1'-1.5')	Soil	EPA 8080 Pesticides	9/11/97	1256	Brass Tube	no

Relinquished By: <i>Kelley R. Johnson</i>	Received By: <i>S. J. Sampson</i>	Date: 9/11/97	Time: 6:10 pm
Relinquished By: <i>J. S. Sampson</i>	Received By: <i>S. J. Sampson</i>	Date: 9/11/97	Time: 9:50
Relinquished By:	Received By:	Date:	Time:

LOWNEY ASSOCIATES
CHAIN OF CUSTODY RECORD

Send Results To:

Mountain View Office
405 Clyde Avenue
Mountain View, CA 94043
415-967-2365

Oakland Office
129 Filbert Street
Oakland, CA 94607
510-267-1970
 510-267-1972 (fax)
 415-967-2785 (fax)

Fax Copy To:

ANALYSIS REQUESTED

Project Name:

Job Number: 1124-2

Report To: PETER LANGTRY

Sampler (print): KEVIN M. JENNA

Sampler (signature):

QC Requirements:

Level A (standard) Level B Level C Level D

Turnaround Requirements

- 10 working days
- 5 working days
- 3 working days
- 48 hours
- 24 hours
- 2-3 hours (RUSH)

Sample I.D.	Date	Time	Sample Matrix	# of Cont.	Laboratory I.D.	ANALYSIS REQUESTED										Remarks	
						* 8080	8015	8020	8010	Pb, As, Cd*	8015	8030	8080	Pb, As, Cd*	8080	*	
EB-24; 6.5'-7.0'	9-11-97	0825	SOIL	1	D14289	✓											
EB-25; 6.5'-7.0'		0925			D14289	✓											
SS-10; 0'-0.5'		1025			D14290		✓										
SS-11; 0'-0.5'		1033			D14291			✓									
SS-12; 0'-0.5'		0957								✓							
SS-13; 0'-0.5'		1005									✓						PAGE 1 OF 4
SS-14; 0'-0.5'		1010										✓					
SS-15; 0'-0.5'		1015										✓					
EB-1; 5'-1'		14:41			D14293							✓					
EB-1; 1'-1.5'		14:46			D14294								✓				
EE-2; .5'-1'		14:39			D14295								✓				
EP-2; 1'-1.5'		14:41			D14296								✓				
EE-3; .5'-1'		13:48			D14297								✓				
EE-3; 1'-1.5'		13:52			D14298								✓				

Relinquished By: K. J. D. Date: 9-11-97 Time: 1500

Received By: _____ Date: _____ Time: _____ PM initials _____

Relinquished By: _____ Date: _____ Time: _____

Received By: _____ Date: _____ Time: _____

Relinquished By: _____ Date: _____ Time: _____

Lab of Record: Esterly Received by Lab: Allen A. Date: 9-11-97 Time: 1500 Temperature: _____

Received by Lab: Allen A. Date: 9-11-97 Time: 1500

LOWNEY ASSOCIATES
CHAIN OF CUSTODY RECORD

Send Results To:

Mountain View Office
 405 Clyde Avenue
 Mountain View, CA 94043
 415-967-2365

Oakland Office
 129 Filbert Street
 Oakland, CA 94607
 510-267-1970
 510-267-1972 (fax)

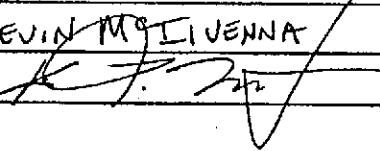
Fax Copy To:

415-967-2785 (fax)

Project Name:
 Job Number: 1124-2

Report To: PETER LANGTRY

Sampler (print): KEVIN MCGIVENNA

Sampler (signature): 

QC Requirements:

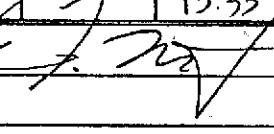
Level A (standard) Level B Level C Level D

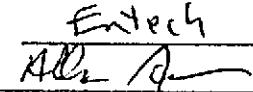
Turnaround Requirements

- 10 working days
- 5 working days
- 3 working days
- 48 hours
- 24 hours
- 2-3 hours (RUSII)

ANALYSES REQUESTED

Sample I.D.	Date	Time	Sample Matrix	# of Cont.	Laboratory I.D.	Remarks
EB-A; .5'-1'	9-11-97	13:56	SOIL	1	D14299	
EB-A; 1'-1.5'		13:58		1	D14300	
EB-5; .5'-1'		1144		1	D14301	
EB-5; 1'-1.5'		1148		1	D14302	
EB-6; .5'-1'		14:33		1	D14303	
EB-6; 1'-1.5'		14:35		1	D14304	
EB-7; .5'-1'	/	13:43		1	D14305	
EB-7; 1'-1.5'		13:46		1	D14306	PAGE 2 OF 4
EB-8; .5'-1'		13:37		1	D14307	
EB-8; 1'-1.5'		13:40		1	D14308	
EB-9; .5'-1'		1152		1	D14309	
EB-9; 1'-1.5'		1156		1	D14310	
EB-10; .5'-1'		13:30		1	D14311	
EB-10; 1'-1.5'		13:33		1	D14312	

Relinquished By:  Date: 9-11-97 Time: 1500

Received By:	Date:	Time:	PM initials
Received By:	Date:	Time:	
Lab of Record:	Entech		
Received by Lab:			Date: 9-11-97 Time: 1500
			Temperature

Relinquished By: Date: Time:

Relinquished By: Date: Time:

LOWNEY ASSOCIATES
CHAIN OF CUSTODY RECORD

Send Results To:

Mountain View Office
 405 Clyde Avenue
 Mountain View, CA 94043
 415-967-2365

Oakland Office
 129 Filbert Street
 Oakland, CA 94607
 510-267-1970
 510-267-1972 (fax)

Fax Copy To:

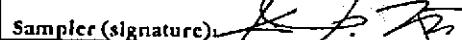
415-967-2785 (fax)

Project Name:

Job Number: 1124-2

Report To: PETER LANGTRY

Sampler (print): KEVIN M. JENNNA

Sampler (signature): 

QC Requirements:

Level A (standard) Level B Level C Level D

Turnaround Requirements

- 10 working days
- 5 working days
- 3 working days
- 48 hours
- 24 hours
- 2-3 hours (RUSH)

ANALYSES REQUESTED

Sample I.D.	Date	Time	Sample Matrix	# of Cont.	Laboratory I.D.	Remarks												
EB-11; .5'-1'	9-11-97	14:50	SOIL	1	D14313													
EB-11; 1'-1.5'		14:53			D14314													
EB-12; .5'-1'		14:55			D14315													
EB-12; 1'-1.5'		14:58			D14316													
EB-13; .5'-1'		13:21			D14317													
EB-13; 1'-1.5'		13:25			D14318													* DETAIL SHEET
EB-14; .5'-1'		1201			D14319													ATTACHED
EB-14; 1'-1.5'		1204			D14320													
EB-15; .5'-1'		13:15			D14321													
EB-15; 1'-1.5'		13:20			D14322													
EB-16; .5'-1'		14:00			D14323													
EB-16; 1'-1.5'		14:06			D14324													
EB-17; .5'-1'		12:51			D14325													
EB-17; 1'-1.5'		12:56			D14326													

Relinquished By:  Date: 9-11-97 Time: 1500

Received By: _____ Date: _____ Time: _____ PM initials _____

Relinquished By: _____ Date: _____ Time: _____

Received By: _____ Date: _____ Time: _____

Relinquished By: _____ Date: _____ Time: _____

Lab of Record: Entech _____ Received by Lab: Allen A _____ Date: 9-11-97 Time: 1500 Temperature _____

Relinquished By: _____ Date: _____ Time: _____

LOWNEY ASSOCIATES
CHAIN OF CUSTODY RECORD

Send Results To:

Mountain View Office
405 Clyde Avenue
Mountain View, CA 94043
415-967-2365

Oakland Office
129 Filbert Street
Oakland, CA 94607
510-267-1970
 510-267-1972 (fax)

Fax Copy To:

415-967-2785 (fax)

Project Name:

Job Number: 1124-2

Report To: PETER LANGTRY

Sampler (print): KEVIN L. MCIVENNA

Sampler (signature):

QC Requirements:

Level A (standard) Level B Level C Level D

Turnaround Requirements

- 10 working days
- 5 working days
- 3 working days
- 48 hours
- 24 hours
- 2-3 hours (RUSH)

ANALYSES REQUESTED

Sample I.D.	Date	Time	Sample Matrix	# of Cont.	Laboratory I.D.	Remarks
EB-18; .5'-1'	9-11-97	1205	SOIL	1	D14327	
EB-18; 1'-1.5'		1213			D14328	
EB-19; .5'-1'		14:10			D14329	
EB-19; 1'-1.5'		14:12			D14330	
EB-20; .5'-1'		1233			D14331	
EB-20; 1'-1.5'		1237			D14332	
EB-21; .5'-1'		12:20			D14333	PAGE <u>4</u> OF <u>4</u>
EB-21; 1'-1.5'		12:24			D14334	
EB-22; .5'-1'		12:44			D14335	
EB-22; 1'-1.5'		12:48			D14336	
EB-23; .5'-1'		1130			D14337	
EB-23; 1'-1.5'		1135			D14338	

Relinquished By: *[Signature]* Date: 9-11-97 Time: 1500

Received By:	Date:	Time:	PM initials
Received By:	Date:	Time:	
Lab of Record:	<u>Entech</u>		
Received by Lab:	<u>Allison</u>	Date: 9-11-97	Time: 1500
			Temperature:



**VERIFICATION SAMPLING RESULTS AND
REQUEST FOR NO FURTHER ACTION**

15550 Washington Avenue

San Lorenzo, California

This report has been prepared for:

Centex Homes

1855 Gateway Blvd., Suite 650, Concord, California 94520

December 29, 1998

Project No. 1124-2A

12/29/98
Lowney Associates
Environmental/Geotechnical/Engineering Services

Mountain View

Oakland

Pasadena

Pleasanton

129 Filbert Street Oakland, CA 94607-2531 Tel: 510-267-1970 Fax: 510-267-1972
E-mail: mail@lowney.com

December 29, 1998
1124-2A

Ms. Madhulla Logan
**ALAMEDA COUNTY DEPARTMENT OF
ENVIRONMENTAL HEALTH**
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

**RE: VERIFICATION SAMPLING RESULTS
AND REQUEST FOR
NO FURTHER ACTION
15550 WASHINGTON AVENUE
SAN LORENZO, CALIFORNIA**

Dear Ms. Logan:

On behalf of Centex Homes, we are pleased to present this report summarizing the results of the verification soil sampling performed at the Washington Avenue property, located at 15550 Washington Avenue in South San Lorenzo, California, and to request "no further action" for the site from the Alameda County Department of Environmental Health (ACDEH).

Background

The approximately 7-acre property has historically been utilized for agricultural purposes. To assess the presence of residual pesticides as a result of the former agricultural use, a soil quality reconnaissance was performed in August and September, 1997. Laboratory analysis of samples collected from the upper 1½ foot from the site detected residual pesticides, including up to 5.3 parts per million (ppm) total DDT compounds. The mean DDT concentration exceeded the 1.0 ppm total threshold limit concentration (TTL) and the preliminary remedial goal (PRG) of 1.3 ppm. Up to 0.26 ppm dieldrin, 0.43 ppm endrin, and 0.26 ppm chlordane were also detected. The PRGs for dieldrin, endrin, and chlordane are 0.028 ppm, 20 ppm, and 0.34 ppm, respectively. In addition, the TTLs for dieldrin, endrin, and chlordane are 8.0 ppm, 0.2 ppm, and 2.5 ppm. Clean-up goals for total DDT, dieldrin, endrin, and chlordane (either the TTL or PRG, whichever is lowest) were defined as the following:

Table 1: Clean-up Goals

Pesticide	Clean-up Goal	Source
Total DDT	1.0	TTL
Dieldrin	0.028	PRG
Endrin	0.2	TTL
Chlordane	0.34	PRG

The clean-up goals were presented in the October 7, 1997, work plan, which was verbally approved by the ACDEH in October 1997. The work plan proposed soil mixing to reduce the concentrations of residual pesticides.

Because of a change in development plans for multi-family to single-family residential, a revised sampling plan was presented in a work plan addendum dated August 12, 1998. If

laboratory analysis of a composite sample detected a concentration of pesticides that was 25 percent or greater than the clean-up goal(s); then the four samples that comprise the respective composite sample were to be analyzed individually for organochlorine pesticides. The revised plan included the collection of one randomly located sample per lot and compositing four lots into one for laboratory analysis.

As discussed below, additional organochlorine pesticides were detected in the verification samples. The detected concentrations were compared to residential PRGs, which are presented below in Table 2. The residential PRGs are the proposed clean-up goals for these pesticides.

Table 2: Additional Clean-up Goals

Pesticide	Clean-up Goal	Source
BHC	0.071	PRG
Aldrin	0.026	PRG
Toxaphene	0.4	PRG

Initial Soil Mixing and Soil Sampling

Soil mixing was initially performed on October 1 through October 27, 1998, by Desilva Gates, Inc. The upper 6 feet of soil contained within each of the 76 single-family residential lots was mixed using scrapers and bulldozers. After the mixing was completed, soil samples were collected from randomly chosen locations within each of the 76 lots; one verification soil sample was collected per single-family lot from the ground surface to approximately $\frac{1}{2}$ foot. A total of 19 four-point composite samples were analyzed for organochlorine pesticides, including DDT (EPA Test Method 8080). The soil sampling protocol is presented in Attachment A. Laboratory analytical results are summarized in Table B-1 in Appendix B.

Because seven of the four-point composite samples (28 total individual samples) contained concentrations of pesticides that were 25 percent or greater than the clean-up goals, the 28 individual-lot samples were analyzed for organochlorine pesticides (EPA Test Method 8080). Laboratory analytical results of the 28 individual samples indicated that lots 36, 39, and 46 contained concentrations of organochlorine pesticides above the clean-up goals.

Secondary Soil Mixing and Verification Soil Sampling

Secondary mixing of lots 36, 39, and 46 was performed during the week of November, 16, 1998. Soil samples were collected from each lot for analysis for organochlorine pesticides (EPA Test Method 8080). Soil sampling protocol is presented in Attachment A. The laboratory analytical results are summarized in Table B-1.

Based on the analytical results of samples collected from lots 36, 39, and 46, the second round of mixing was successful in reducing concentrations of total DDT, dieldrin, endrin, chlordane, and total BHC to below the clean-up goals.

Request for No Further Action

The residual levels of total DDT, dieldrin, endrin, chlordane, and total BHC detected in the soil samples are generally significantly less than the clean-up goals, and are therefore not a significant threat to human health. Furthermore, the residual concentrations will continue to decrease over time due to natural degradation processes. Therefore, based on the analytical results, further work in this area is not required; we recommend that the ACDEH issue a "no further action" letter for the site.

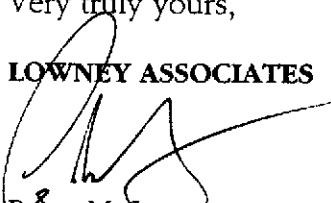
Limitations

This report was prepared for the use of Centex Homes in evaluating soil quality at the referenced site at the time of this study. The accuracy and reliability of geo- or hydrochemical studies are a reflection of the number and type of samples taken and extent of the analyses conducted, and are thus inherently limited and dependent upon the resources expended. We make no warranty, expressed or implied, except that our services have been performed in accordance with environmental principles generally accepted at this time and location. The chemical and other data presented in this report can change over time and are applicable only to the time this study was performed.

Thank you for choosing us to assist you with this project. If you have any questions, please call and we shall be glad to discuss them with you.

Very truly yours,

LOWNEY ASSOCIATES



Peter M. Langtry, R.G., C.E.G.
Senior Project Geologist

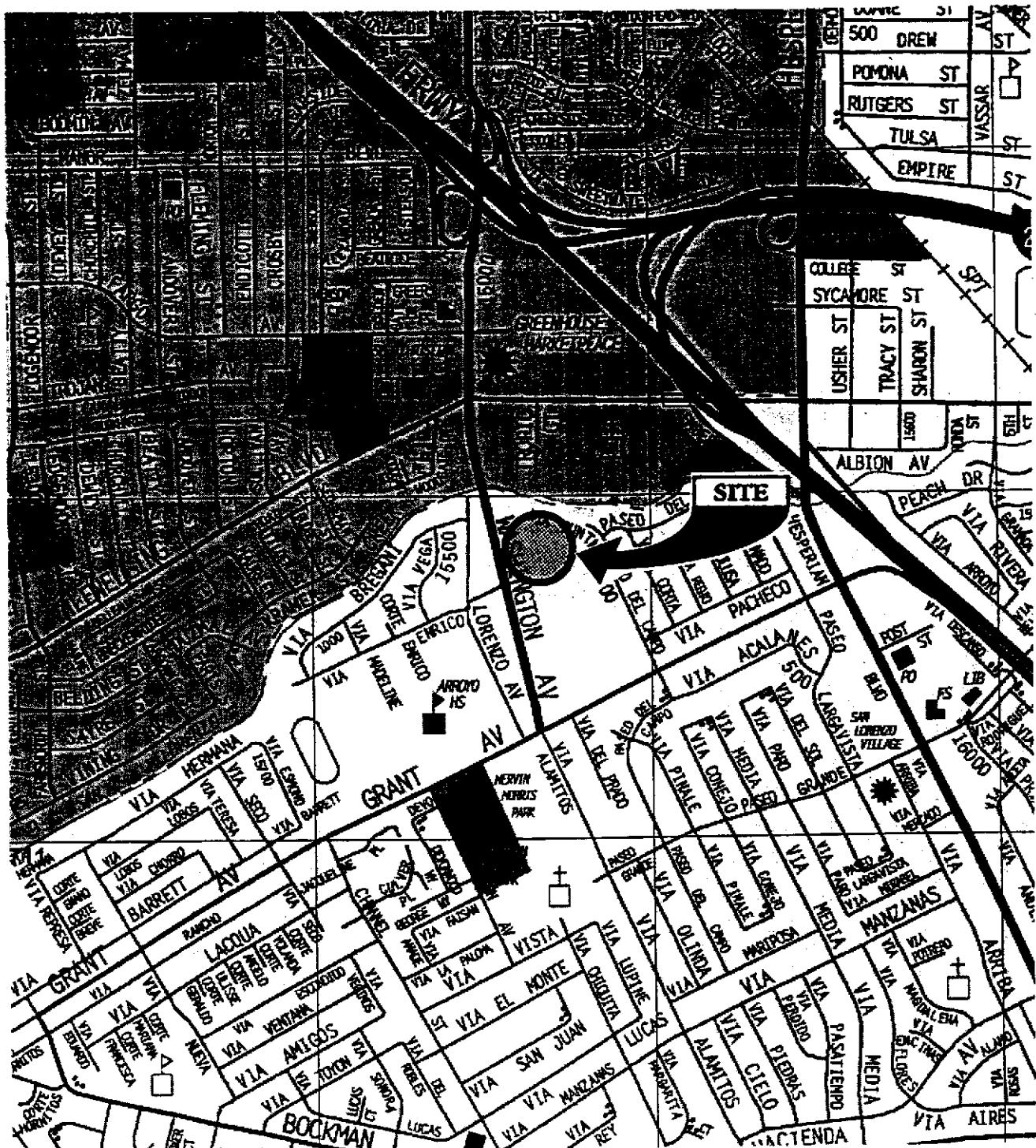
PML:jcm



Copies: Addressee (1)
Centex Homes (2)
Attn: Mr. Tom Schulz

Attachments Attachment A. Soil Sampling Protocol
Attachment B. Table B-1. Summary of Laboratory Analytical Data
Laboratory Analytical Reports

OAK, S:\Achieve\Project\1200\1124-2A.R1



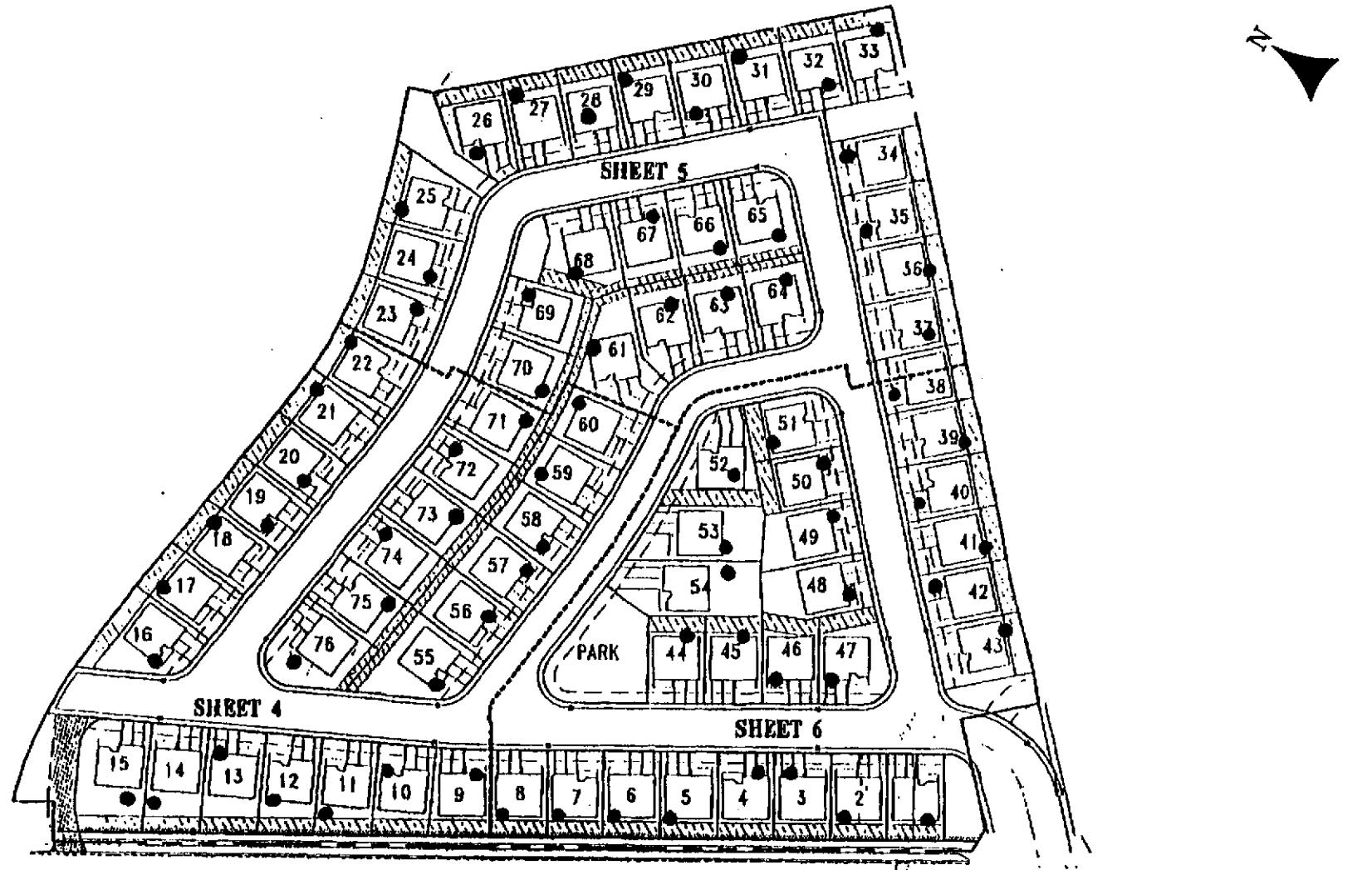
"Reproduced with permission granted by THOMAS BROS. MAP"

12/30/93

VICINITY MAP
WASHINGTON AVENUE
San Lorenzo, California

LOVNEY ASSOCIATES
Environmental/Geotechnical/Engineering Services

FIGURE 1
1124-2A



LEGEND

● — Approximate location of soil sample (October 1998)

0 120
Scale feet

12/98EB

SITE PLAN
WASHINGTON AVENUE
San Lorenzo, California

ATTACHMENT A
SOIL SAMPLING PROTOCOL

Each single-family residential lot was divided into four quadrants designated by numeric values ranging from 0 - 0.25, 0.26 - 0.5, 0.6 - 0.75, and 0.76 - 1.0. Using a random number function on a calculator, locations of the soil samples were determined for each individual lot. Following the initial round of soil mixing, the individual lot samples were composited by the laboratory so that a total of 19 four-point composite samples were analyzed for organochlorine pesticides, including DDT (EPA Test Method 8080). Soil samples collected following the second round of soil mixing were collected from lots 36, 39, and 46 using the same random location method described above.

Soil samples were collected using a hand operated slide-hammer. The soil samples were collected in brass liners, the ends covered in aluminum foil, taped, and capped with plastic end caps. The samples were then placed in a ice cooled chest for transport to the laboratory under chain of custody documentation. All soil sampling equipment was cleaned in a solution of tri-sodium phosphate and distilled water before use.

ATTACHMENT B
LABORATORY ANALYTICAL RESULTS

TABLE B-1. Analytical Results of Verification Soil Samples
 (concentrations in parts per million)

INITIAL ROUND OF COMPOSITE SOIL SAMPLING

EPA Method 8080 Analyte	Lots (1 - 4) 10/27/98	Lots (5 - 8) 10/27/98	Lots (9 - 12) 10/27/98	Lots (13 - 16) 10/27/98	Lots (17 - 20) 10/27/98	Lots (21 - 24) 10/27/98	Lots (25 - 27, Lot 68) 10/14/98	Lots (28 - 31) 10/14/98	Lots (32 - 35) 10/14/98	Lots (36 - 39) 10/14/98
Total DDT ¹	0.29	0.088	0.3668	0.109	0.110	0.083	0.482	<0.01	<0.01	0.43
Total BHC	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005	<0.005	<0.01
Dieldrin	0.01	<0.004	0.008	<0.004	0.0044	<0.004	0.023	<0.01	<0.01	<0.02
Chlordane	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.005	<0.005	0.041
Endrin	0.0084	0.038	0.021	0.011	0.081	0.0088	0.02	<0.01	<0.01	<0.02
All Other Analytes	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

< - Indicates analyte below method detection limit

ND = Not Detected (Below DRL)

Bolded results indicates composite samples with concentrations greater than 25% of clean-up goals (Table 1 and Table 2)

¹ = Total DDT is summation of 4,4'-DDD + 4,4'-DDE + 4,4'-DDT

EPA Method 8080 Analyte	Lots (40 - 43) 10/14/98	Lots (44,45, 54,57) 10/28/98	Lots (46 - 49) 10/28/98	Lots (50 - 53) 10/28/98	Lots (55,56, 58,59) 10/27/98	Lots (60 - 63) 10/27/98	Lots (64 - 67) 10/27/98	Lots (69 - 72) 10/27/98	Lots (73 - 76) 10/27/98
Total DDT ¹	0.181	0.404	0.033	0.097	0.097	0.034	0.082	0.1783	0.099
Total BHC	<0.005	<0.002	<0.002	0.0054	<0.002	<0.002	<0.002	0.0133	0.0056
Dieldrin	<0.01	0.0077	0.018	0.0043	0.0044	<0.004	<0.004	0.0063	<0.004
Chlordane	0.006	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017
Endrin	<0.01	0.037	0.011	0.014	0.0078	<0.004	0.0048	0.018	0.012
Aldrin	<0.005	<0.002	0.0054	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
All Other Analytes	ND	ND	ND	ND	ND	ND	ND	ND	ND

< - Indicates analyte below method detection limit

ND = Not Detected (Below DRL)

Bolded results indicates composite samples with concentrations greater than 25% of clean-up goals (Table 1 and Table 2)

¹ = Total DDT is summation of 4,4'-DDD + 4,4'-DDE + 4,4'-DDT

LABORATORY ANALYSIS OF INDIVIDUAL LOT SAMPLES

EPA Method 8080 Analyte	Lot 1 10/27/98	Lot 2 10/28/98	Lot 3 10/28/98	Lot 4 10/27/98	Lot 9 10/27/98	Lot 10 10/27/98	Lots 11 10/27/98	Lot 12 10/27/98	Lot 17 10/27/98
Total DDT ¹	0.074	0.126	0.1633	0.124	0.752	0.138	0.052	0.04	0.155
Total BHC	<0.002	0.006	<0.002	0.0056	<0.002	0.014	<0.002	<0.002	<0.002
Dieldrin	<0.004	0.0045	<0.004	0.0041	0.021	0.0041	<0.004	<0.004	0.0063
Chlordane	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017
Endrin	<0.004	0.072	0.0073	0.021	0.019	0.0061	0.0049	<0.004	0.014
Aldrin	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Endosulfan II	<0.004	<0.004	<0.004	<0.004	0.011	<0.004	<0.004	<0.004	<0.004
All Other Analytes	ND	ND	ND	ND	ND	ND	ND	ND	ND

< - Indicates analyte below method detection limit

ND = Not Detected (Below DRL)

Bolded results indicates composite samples with concentrations greater than the clean-up goals (Table 1 and Table 2)¹ = Total DDT is summation of 4,4'-DDD + 4,4'-DDE + 4,4'-DDT

EPA Method 8080 Analyte	Lot 18 10/27/98	Lot 19 10/27/98	Lot 20 10/27/98	Lot 25 10/27/98	Lot 26 10/27/98	Lot 27 10/27/98	Lots 36 10/14/98	Lots 37 10/14/98	Lot 38 10/14/98	Lot 39 10/14/98
Total DDT ¹	0.088	0.114	0.122	0.158	0.166	0.4565	1.93	0.15	0.077	2.3
Total BHC	0.0023	<0.002	0.0022	<0.002	0.0034	<0.002	<0.05	<0.005	<0.005	<0.05
Dieldrin	<0.004	0.0045	<0.004	0.011	0.0057	0.014	0.14	<0.01	<0.01	<0.1
Chlordane	<0.0017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.05	0.0052	<0.005	0.143
Endrin	0.0097	0.0062	0.011	0.011	0.156	0.014	<0.1	<0.01	<0.01	<0.1
Aldrin	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.05	<0.005	<0.005	<0.05
Endosulfan II	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.1	<0.01	<0.01	<0.1
All Other Analytes	ND	ND	ND	ND						

< - Indicates analyte below method detection limit

ND = Not Detected (Below DRL)

Bolded results indicates composite samples with concentrations greater than the clean-up goals (Table 1 and Table 2)¹ = Total DDT is summation of 4,4'-DDD + 4,4'-DDE + 4,4'-DDT

LABORATORY ANALYSIS OF INDIVIDUAL LOT SAMPLES (Continued)

EPA Method 8080 Analyte	Lots 44 10/28/98	Lot 45 10/28/98	Lot 46 10/28/98	Lot 47 10/28/98	Lot 48 10/28/98	Lot 49 10/28/98	Lot 54 10/28/98	Lot 57 10/28/98	Lot 68 10/27/98
Total DDT ³	0.307	0.167	0.213	0.051	0.062	0.144	0.131	0.139	0.1542
Total BHC	0.012	0.037	0.0037	0.0196	<0.002	<0.002	0.0048	<0.002	<0.002
Dieldrin	0.013	0.0075	0.056	<0.004	<0.004	0.0063	0.0053	<0.004	0.0047
Chlordane	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017
Endrin	0.027	0.014	0.022	0.066	0.0092	0.019	0.048	0.017	0.013
Aldrin	<0.002	<0.002	0.018	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Endosulfan II	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
All Other Analytes	ND	ND	ND	ND	ND	ND	ND	ND	ND

< - Indicates analyte below method detection limit

ND = Not Detected (Below DRL)

Bolded results indicates composite samples with concentrations greater than the clean-up goals (Table 1 and Table 2)¹ = Total DDT is summation of 4,4'-DDD + 4,4'-DDE + 4,4'-DDT

FINAL VERIFICATION SAMPLES

EPA Method 8080 Analyte	Lot 36 11/19/98	Lot 39 11/19/98	Lot 46 11/19/98
Total DDT ³	0.27	0.28	0.28
Total BHC	<0.005	<0.005	<0.005
Dieldrin	0.016	0.013	0.018
Chlordane	0.0146	0.0054	0.0073
Endrin	<0.01	<0.01	<0.01
Aldrin	<0.005	<0.005	<0.005
Endosulfan II	<0.01	<0.01	<0.01
Toxaphene	0.3	0.28	0.31
All Other Analytes	ND	ND	ND

< - Indicates analyte below method detection limit

ND = Not Detected (Below DRL)

³ = Total DDT is summation of 4,4'-DDD + 4,4'-DDE + 4,4'-DDT

Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

October 19, 1998

Peter Langtry
Lowney Associates
129 Filbert St.
Oakland, CA 94607

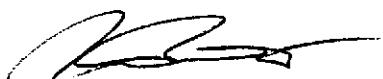
Subject: 4 Soil Samples
Lab #'s: E18543 through E18546
Project Name: 15550 Washington Avenue
Project Number: 1124-2A
Method(s): EPA 8080 - Pesticides
Subcontract Lab: Acculabs, Inc.

Dear Peter Langtry,

Chemical analysis on the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. USEPA protocols for sample storage and preservation were followed.

Entech Analytical Labs, Inc. is certified by the State of California (#2224). If you have any questions regarding procedures or results, please call me at 408-735-1550.

Sincerely,



Michelle L. Anderson
Lab Director



Acculabs Inc.

Formerly West Laboratory

Davis

1046 Olive Drive, Suite 2, Davis CA 95616 ■ 530-757-0920 ■ Fax 753-6091

Sample Log 19157
October 19, 1998

Michelle Anderson
Entech Analytical Labs, Inc.
525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

Subject : 4 Soil samples
Project Name : Lowney Associates
Project Number :

Dear Ms. Anderson,

Chemical analysis on the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. USEPA protocols for sample storage and preservation were followed.

Acculabs - Davis is certified by the State of Arizona (AZ0583) and the State of California (# 1346). If you have any questions regarding procedures or results, please call me at 530-757-0920.

Sincerely,

Tom Kwoka



Acculabs Inc.

Formerly West Laboratory

Davis

1046 Olive Drive, Suite 2, Davis CA 95616 ■ 530-757-0920 ■ Fax 753-6091

EPA 8081A

Sample Log 19157
October 19, 1998

Sample Name : E18543 (Lot 28, 29, 30, 31-0-.5)

Project Name	:	Lowney Associates	Date Analyzed	:	10/16/98
Project Number	:		Date Received	:	10/15/98
Sample Date	:	10/14/98	Dilution	:	1:1
Date Extracted	:	10/15/98	Sample Matrix	:	Soil
Extr. Method	:	EPA 3550	Lab Number	:	19157-01
QC Batch	:	PS981003			

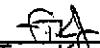
Parameter	MRL	Measured Conc.	Units
alpha-BHC	0.0050	<0.0050	mg/Kg
gamma-BHC	0.0050	<0.0050	mg/Kg
beta-BHC	0.0050	<0.0050	mg/Kg
Heptachlor	0.0050	<0.0050	mg/Kg
delta-BHC	0.0050	<0.0050	mg/Kg
Aldrin	0.0050	<0.0050	mg/Kg
Heptachlor Epoxide	0.0050	<0.0050	mg/Kg
gamma-Chlordane	0.0050	<0.0050	mg/Kg
Endosulfan 1	0.0050	<0.0050	mg/Kg
alpha-Chlordane	0.0050	<0.0050	mg/Kg
Dieldrin	0.010	<0.010	mg/Kg
DDE	0.010	<0.010	mg/Kg
Endrin	0.010	<0.010	mg/Kg
Endosulfan 2	0.010	<0.010	mg/Kg
DDD	0.010	<0.010	mg/Kg
Endrin Aldehyde	0.010	<0.010	mg/Kg
DDT	0.010	<0.010	mg/Kg
Endosulfan Sulfate	0.010	<0.010	mg/Kg
Methoxychlor	0.050	<0.050	mg/Kg
Chlordane Technical	0.10	<0.10	mg/Kg
Toxaphene	0.20	<0.20	mg/Kg
Tetrachloro-m-xylene (sur)	(60-138)	84	% Recovery
Decachlorobiphenyl (sur)	(54-166)	92	% Recovery

MRL = Method Reporting Limit

Conc. = Concentration

E = Concentration exceeded calibration range.

Approved By :


Tom Kwoka



Acculabs Inc.

Formerly West Laboratory

Davis

1046 Olive Drive, Suite 2, Davis CA 95616 ■ 530-757-0920 ■ Fax 753-6091

EPA 8081A

Sample Log 19157
October 19, 1998

Sample Name : E18544 (Lot 32, 33, 34, 35-0-5)

Project Name	: Lowney Associates	Date Analyzed	: 10/16/98
Project Number	:	Date Received	: 10/15/98
Sample Date	: 10/14/98	Dilution	: 1:1
Date Extracted	: 10/15/98	Sample Matrix	: Soil
Extr. Method	: EPA 3550	Lab Number	: 19157-02
QC Batch	: PS981003		

Parameter	MRL	Measured Conc.	Units
alpha-BHC	0.0050	<0.0050	mg/Kg
gamma-BHC	0.0050	<0.0050	mg/Kg
beta-BHC	0.0050	<0.0050	mg/Kg
Heptachlor	0.0050	<0.0050	mg/Kg
delta-BHC	0.0050	<0.0050	mg/Kg
Aldrin	0.0050	<0.0050	mg/Kg
Heptachlor Epoxide	0.0050	<0.0050	mg/Kg
gamma-Chlordane	0.0050	<0.0050	mg/Kg
Endosulfan 1	0.0050	<0.0050	mg/Kg
alpha-Chlordane	0.0050	<0.0050	mg/Kg
Dieldrin	0.010	<0.010	mg/Kg
DDE	0.010	<0.010	mg/Kg
Endrin	0.010	<0.010	mg/Kg
Endosulfan 2	0.010	<0.010	mg/Kg
DDD	0.010	<0.010	mg/Kg
Endrin Aldehyde	0.010	<0.010	mg/Kg
DDT	0.010	<0.010	mg/Kg
Endosulfan Sulfate	0.010	<0.010	mg/Kg
Methoxychlor	0.050	<0.050	mg/Kg
Chlordane Technical	0.10	<0.10	mg/Kg
Toxaphene	0.20	<0.20	mg/Kg
Tetrachloro-m-xylene (sur)	(60-138)	88	% Recovery
Decachlorobiphenyl (sur)	(54-166)	94	% Recovery

MRL = Method Reporting Limit

Conc. = Concentration

E = Concentration exceeded calibration range.

Approved By : 
Tom Kwoka



Acculabs Inc.

Formerly West Laboratory

Davis

1046 Olive Drive, Suite 2, Davis CA 95616 ■ 530-757-0920 ■ Fax 753-6091

EPA 8081A

Sample Log 19157
October 19, 1998

Sample Name : E18545 (Lot 36, 37, 38, 39-0-5)

Project Name	: Lowney Associates	Date Analyzed	: 10/16/98
Project Number	:	Date Received	: 10/15/98
Sample Date	: 10/14/98	Dilution	: 1:2
Date Extracted	: 10/15/98	Sample Matrix	: Soil
Extr. Method	: EPA 3550	Lab Number	: 19157-03
QC Batch	: PS981003		

Parameter	MRL	Measured Conc.	Units
alpha-BHC	0.010	< 0.010	mg/Kg
gamma-BHC	0.010	< 0.010	mg/Kg
beta-BHC	0.010	< 0.010	mg/Kg
Heptachlor	0.010	< 0.010	mg/Kg
delta-BHC	0.010	< 0.010	mg/Kg
Aldrin	0.010	< 0.010	mg/Kg
Heptachlor Epoxide	0.010	< 0.010	mg/Kg
gamma-Chlordane	0.010	0.014	mg/Kg
Endosulfan 1	0.010	< 0.010	mg/Kg
alpha-Chlordane	0.010	0.027	mg/Kg
Dieldrin	0.020	< 0.020	mg/Kg
DDE	0.020	0.23	mg/Kg
Endrin	0.020	< 0.020	mg/Kg
Endosulfan 2	0.020	< 0.020	mg/Kg
DDD	0.020	< 0.020	mg/Kg
Endrin Aldehyde	0.020	< 0.020	mg/Kg
DDT	0.020	0.20	mg/Kg
Endosulfan Sulfate	0.020	< 0.020	mg/Kg
Methoxychlor	0.10	< 0.10	mg/Kg
Chlordane Technical	0.20	< 0.20	mg/Kg
Toxaphene	0.40	< 0.40	mg/Kg
Tetrachloro-m-xylene (sur)	(60-138)	88	% Recovery
Decachlorobiphenyl (sur)	(54-166)	98	% Recovery

MRL = Method Reporting Limit

Conc. = Concentration

E = Concentration exceeded calibration range.

Approved By :

F.J.K.
Tom Kwoka



Acculabs Inc.

Formerly West Laboratory

Davis

1046 Olive Drive, Suite 2, Davis CA 95616 ■ 530-757-0920 ■ Fax 753-6091

EPA 8081A

Sample Log 19157
October 19, 1998

Sample Name : E18546 (Lot 40, 41, 42, 43-0-5)

Project Name	:	Lowney Associates	Date Analyzed	:	10/16/98
Project Number	:		Date Received	:	10/15/98
Sample Date	:	10/14/98	Dilution	:	1:1
Date Extracted	:	10/15/98	Sample Matrix	:	Soil
Extr. Method	:	EPA 3550	Lab Number	:	19157-04
QC Batch	:	PS981003			

Parameter	MRL	Measured Conc.	Units
alpha-BHC	0.0050	<0.0050	mg/Kg
gamma-BHC	0.0050	<0.0050	mg/Kg
beta-BHC	0.0050	<0.0050	mg/Kg
Heptachlor	0.0050	<0.0050	mg/Kg
delta-BHC	0.0050	<0.0050	mg/Kg
Aldrin	0.0050	<0.0050	mg/Kg
Heptachlor Epoxide	0.0050	<0.0050	mg/Kg
gamma-Chlordane	0.0050	<0.0050	mg/Kg
Endosulfan 1	0.0050	<0.0050	mg/Kg
alpha-Chlordane	0.0050	0.0060	mg/Kg
Dieldrin	0.010	<0.010	mg/Kg
DDE	0.010	0.091	mg/Kg
Endrin	0.010	<0.010	mg/Kg
Endosulfan 2	0.010	<0.010	mg/Kg
DDD	0.010	<0.010	mg/Kg
Endrin Aldehyde	0.010	<0.010	mg/Kg
DDT	0.010	0.090	mg/Kg
Endosulfan Sulfate	0.010	<0.010	mg/Kg
Methoxychlor	0.050	<0.050	mg/Kg
Chlordane Technical	0.10	<0.10	mg/Kg
Toxaphene	0.20	<0.20	mg/Kg
Tetrachloro-m-xylene (sur)	(60-138)	81	% Recovery
Decachlorobiphenyl (sur)	(54-166)	89	% Recovery

MRL = Method Reporting Limit

Conc. = Concentration

E = Concentration exceeded calibration range.

Approved By :

Tom Kwoka
Tom Kwoka

Acculabs Inc.

October 15, 1998

QC Report
Pesticides/PCB by EPA 8081A/8082

QC Batch PS981003

Matrix: Soil

Method Blank

Parameter	MRL (mg/Kg)	Measured Value (mg/Kg)
Aldrin	(.0050)	<.0050
alpha-BHC	(.0050)	<.0050
beta-BHC	(.0050)	<.0050
delta-BHC	(.0050)	<.0050
gamma-BHC	(.0050)	<.0050
Chlordane Technical	(0.10)	<0.10
gamma-Chlordane	(.0050)	<.0050
alpha-Chlordane	(.0050)	<.0050
4,4'-DDD	(0.010)	<0.010
4,4'-DDE	(0.010)	<0.010
4,4'-DDT	(0.010)	<0.010
Dieldrin	(0.010)	<0.010
Endosulfan 1	(.0050)	<.0050
Endosulfan 2	(0.010)	<0.010
Endosulfan Sulfate	(0.010)	<0.010
Endrin	(0.010)	<0.010
Endrin Aldehyde	(0.010)	<0.010
Heptachlor	(.0050)	<.0050
Heptachlor Epoxide	(.0050)	<.0050
Toxaphene	(0.20)	<0.20
PCB1016	(0.10)	<0.10
PCB1221	(0.20)	<0.20
PCB1232	(0.10)	<0.10
PCB1242	(0.10)	<0.10
PCB1248	(0.10)	<0.10
PCB1254	(0.10)	<0.10
PCB1260	(0.10)	<0.10


Tom Kwoka
Lab Director

Acculabs Inc.

October 15, 1998

QC Report
Pesticides/PCB by EPA 8081A/8082

QC Batch PS981003

Matrix: Soil

Spike and Spike Duplicate Results

Parameter	Matrix Spike (%Rec)	Matrix Spike Dup. (%Rec)	RPD %
gamma-BHC	97	100	3
Heptachlor	103	106	3
Aldrin	94	96	2
Dieldrin	99	101	2
Endrin	135	140	4
4,4'-DDT	96	97	1

Spiked sample ID 19140-01.

Laboratory Control Spike

Parameter	Laboratory Control Spike-(%Rec)
gamma-BHC	96
Heptachlor	99
Aldrin	94
Dieldrin	99
Endrin	139
4,4'-DDT	95
PCB 1016	90
PCB 1260	98

T.K.
Tom Kwoka
Lab Director

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Subcontract Chain of Custody

19157

RUSH

Subcontract Lab:	Date Sent:	Project Name:	Due Date:			
Acculabs- Davis	10/14/98	Lowney Associates	10/19/98			
Sample ID and Source	Matrix	Required Analysis	Date Taken	Time Taken	Containers	Pres?
E18543 (Lot 28-0-1/2, Lot 29-0-1/2, Lot 30-0-1/2, Lot 31-0-1/2)	Soil	8080 PESTICIDES	10/14/98		4 oz jar	01
E18544 (Lot 32-0-1/2, Lot 33-0-1/2, Lot 34-0-1/2, Lot 35-0-1/2)	Soil	8080 PESTICIDES	10/14/98		4 oz jar	02
E18545 (Lot 36-0-1/2, Lot 37-0-1/2, Lot 38-0-1/2, Lot 39-0-1/2)	Soil	8080 PESTICIDES	10/14/98		4 oz jar	03
E18546 (Lot 40-0-1/2, Lot 41-0-1/2, Lot 42-0-1/2, Lot 43-0-1/2)	Soil	8080 PESTICIDES	10/14/98		4 oz jar	04

Relinquished By:	Received By:	Date:	Time:
NNAW via Cal Onenight		10/14/98	6 pm
Relinquished By:	Received By:	Date:	Time:
Relinquished By:	Received By:	Date:	Time:
	SJ Wood	10/15/98	8:30

Notes: _____

LOWNEY ASSOCIATES
CHAIN OF CUSTODY RECORD

1/2

Send Results To:

Mountain View Office
405 Clyde Avenue
Mountain View, CA 94041
415-967-2365

Oakland Office
129 Filbert Street
Oakland, CA 94607
510-267-1970
 510-267-1972 (fax)

Fax Copy To:

415-967-2785 (fax)

Project Name:

15550 Washington Avenue

Job Number: 1124-2A

Report To: Peter Langtry

Sampler (print): John McCain

Sampler (signature): John McCain

QC Requirements:

Level A (standard) Level B Level C Level D

Turnaround Requirements

- 10 working days
- 5 working days
- 3 working days
- 48 hours
- 24 hours
- 2-3 hours (RUSH)

ANALYSES REQUESTED

Sample I.D.	Date	Time	Sample Matrix	# of Cont.	Laboratory I.D.	Analyses												Remarks
						PCP	TCE	TCDF	TCDD	TCDE	TCDF	TCDD	TCDF	TCDD	TCDF	TCDD	TCDF	
Lot 28 (0-1/2')	10-14-98		soil	1		X												
Lot 29 (0-1/2')					E18543	X												
Lot 30 (0-1/2')						X												
Lot 31 (0-1/2')						X												
Lot 32 (0-1/2')						X												
Lot 33 (0-1/2')					E18544	X												
Lot 34 (0-1/2')						X												
Lot 35 (0-1/2')						X												
Lot 36 (0-1/2')						X												
Lot 37 (0-1/2')					E18545	X												
Lot 38 (0-1/2')						X												
Lot 39 (0-1/2')						X												
Lot 40 (0-1/2')						X												
Lot 41 (0-1/2')	✓		✓	✓	E18546	X												

Relinquished By: John McCain Date: 10-14-98 Time: 1:58p

Relinquished By: Babak Minasaz Date: Time:

Relinquished By: Date: Time:

Received By: Babak Minasaz Date: 10-14-98 Time: 1:58p PM initials

Received By: Date: Time:

Lab of Record: BN TECH Temperature

Received by Lab: mztray Date: 10/14/98 Time: 3:20p

LOWNEY ASSOCIATES
CHAIN OF CUSTODY RECORD

2/2

Send Results To:

- Mountain View Office
405 Clyde Avenue
Mountain View, CA 94041
415-967-2365
- 415-967-2785 (fax)

Oakland Office
129 Filbert Street
Oakland, CA 94607
 510-267-1970
 510-267-1972 (fax)

Relinquished By: John Belai Date: 10-14-98 Time: 1:58 p

Received By: Babak Mijasazi Date: 10-14-98 Time: 1:58 A PM initials

Relinquished By: Babuji M. Jaiswal Date: _____ Time: _____

Received By: _____ **Date:** _____ **Time:** _____

BELONGED BY: _____ **DATE:** _____ **TIME:** _____

Lab of Record: BNTECH Temperature:

Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

November 2, 1998

Peter Langtry
Lowney Associates
129 Filbert St.
Oakland, CA 94607

Subject: 15 Soil Samples
Lab #'s: E19314 through E19328
Project Name: Washington Avenue
Project Number: 1124-2A
Method(s): EPA 8080 - Pesticides
Subcontract Lab(s): Advanced Technology Laboratories

Dear Peter Langtry,

Chemical analysis on the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. USEPA protocols for sample storage and preservation were followed.

Entech Analytical Labs, Inc. is certified by the State of California (#2224). If you have any questions regarding procedures or results, please call me at 408-735-1550.

Sincerely,



Michelle L. Anderson
Lab Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

November 2, 1998

Peter Langtry
Lowney Associates
129 Filbert St.
Oakland, CA 94607

Subject: 15 Soil Samples
Lab #'s: E19314 through E19328
Project Name: Washington Avenue
Project Number: 1124-2A
Method(s): EPA 8080 - Pesticides
Subcontract Lab(s): Advanced Technology Laboratories

Dear Peter Langtry,

Chemical analysis on the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. USEPA protocols for sample storage and preservation were followed.

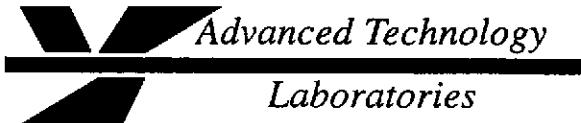
Entech Analytical Labs, Inc. is certified by the State of California (#2224). If you have any questions regarding procedures or results, please call me at 408-735-1550.

Sincerely,



Michelle L. Anderson
Lab Director

RECEIVED
NOV 9 1998
LOWNEYOK



November 2, 1998

ELAP No.: 1838

Entech Analytical Labs, Inc.
525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

ATTN: Ms. Michelle Anderson

Client's Project: Lowney Associates
Lab No.: 30245-001/015

Gentlemen:

Enclosed are the results for sample(s) received by Advanced Technology Laboratories and tested for the parameters indicated in the enclosed chain of custody.

Thank you for the opportunity to service the needs of your company. Please feel free to call me at (562) 989 - 4045 if I can be of further assistance to your company.

Sincerely,

A handwritten signature in black ink, appearing to read "Cheryl".

Cheryl De Los Reyes
Technical Operations Manager
CDR/ra

Enclosures

This cover letter is an integral part of this analytical report.

This report pertains only to the samples investigated and does not necessarily apply to other apparently identical or similar materials. This report is submitted for the exclusive use of the client to whom it is addressed. Any reproduction of this report or use of this Laboratory's name for advertising or publicity purpose without authorization is prohibited.

Client: **Entech Analytical Labs, Inc.**
Attn: **Ms. Michelle Anderson**

Client's Project: **Lowney Associates** Lab No.: **30245-001**
Date Sampled: **10/27/98** Sample I.D.: **E19314(Lot1-Lot4)**
Date Received: **10/29/98** QC Batch No.: **H988080S352**
Matrix: **Soil** Extraction Date: **10/29/98**
Units: **ug\kg** Date Analyzed: **10/29/98**
Analyst Initials: **DT** Extraction Method: **3550**
Dilution Factor: **1**

EPA Method 8080

ANALYTE	DLR	Results	ANALYTE	DLR	Results
4,4'-DDD	4	ND	Endosulfan II	4	ND
4,4'-DDE	20	141*	Endosulfan Sulfate	4	ND
4,4'-DDT	20	149*	Endrin	4	8.4
Aldrin	2	ND	Endrin Aldehyde	4	ND
Alpha-BHC	2	ND	Heptachlor	2	ND
Beta-BHC	2	ND	Heptachlor Epoxide	2	ND
Delta-BHC	2	ND	Methoxychlor	17	ND
Gamma-BHC (Lindane)	2	ND	Chlordane	17	ND
Dieldrin	4	10	Toxaphene	170	ND
Endosulfan I	2	ND			

MDL = Method Detection Limit
ND = Not Detected (Below DLR).
DLR = MDL X Dilution Factor
NA = Not Analyzed
* = Dilution factor is 5.

Reviewed/Approved By: _____


Lee Ingvaldson
Department Supervisor

Date: 11/2/03

The cover letter is an integral part of this analytical report.

Client: Entech Analytical Labs, Inc.
Attn: Ms. Michelle Anderson

Client's Project: Lowney Associates **Lab No.:** 30245-002
Date Sampled: 10/27/98 **Sample I.D.:** E19315(Lot5-Lot8)
Date Received: 10/29/98 **QC Batch No.:** H988080S352
Matrix: Soil **Extraction Date:** 10/29/98
Units: ug/kg **Date Analyzed:** 10/29/98
Analyst Initials: DT **Extraction Method:** 3550
 Dilution Factor: 1

EPA Method 8080

ANALYTE	DLR	Results	ANALYTE	DLR	Results
4,4'-DDD	4	ND	Endosulfan II	4	ND
4,4'-DDE	4	42	Endosulfan Sulfate	4	ND
4,4'-DDT	4	46	Endrin	4	38
Aldrin	2	ND	Endrin Aldehyde	4	ND
Alpha-BHC	2	ND	Heptachlor	2	ND
Beta-BHC	2	ND	Heptachlor Epoxide	2	ND
Delta-BHC	2	ND	Methoxychlor	17	ND
Gamma-BHC (Lindane)	2	ND	Chlordane	17	ND
Dieldrin	4	ND	Toxaphene	170	ND
Endosulfan I	2	ND			

MDL = Method Detection Limit
ND = Not Detected (Below DLR).
DLR = MDL X Dilution Factor
NA = Not Analyzed

Reviewed/Approved By: _____


Lee Ingvaldson
Department Supervisor

Date: 11/2/98

The cover letter is an integral part of this analytical report.

Client: Entech Analytical Labs, Inc.
Attn: Ms. Michelle Anderson

Client's Project: Lowney Associates **Lab No.:** 30245-003
Date Sampled: 10/27/98 **Sample I.D.:** E19316(Lot9-Lot12)
Date Received: 10/29/98 **QC Batch No.:** H988080S352
Matrix: Soil **Extraction Date:** 10/29/98
Units: ug\kg **Date Analyzed:** 10/29/98
Analyst Initials: DT **Extraction Method:** 3550
 Dilution Factor: 1

EPA Method 8080

ANALYTE	DLR	Results	ANALYTE	DLR	Results
4,4'-DDD	4	4.8**	Endosulfan II	4	ND
4,4'-DDE	20	172*	Endosulfan Sulfate	4	ND
4,4'-DDT	20	190*	Endrin	4	21
Aldrin	2	ND	Endrin Aldehyde	4	ND
Alpha-BHC	2	ND	Heptachlor	2	ND
Beta-BHC	2	ND	Heptachlor Epoxide	2	ND
Delta-BHC	2	ND	Methoxychlor	17	ND
Gamma-BHC (Lindane)	2	ND	Chlordane	17	ND
Dieldrin	4	8.0	Toxaphene	170	ND
Endosulfan I	2	ND			

MDL = Method Detection Limit
ND = Not Detected (Below DLR).
DLR = MDL X Dilution Factor
NA = Not Analyzed
* = Dilution factor is 5.
** = Unable to confirm within 30%.

Reviewed/Approved By: _____


Lee Ingvaldson
Department Supervisor

Date: 11/2/98

The cover letter is an integral part of this analytical report.

Client: Entech Analytical Labs, Inc.
Attn: Ms. Michelle Anderson

Client's Project: Lowney Associates **Lab No.:** 30245-004
Date Sampled: 10/27/98 **Sample I.D.:** E19317(Lot13-Lot16)
Date Received: 10/29/98 **QC Batch No.:** H988080S352
Matrix: Soil **Extraction Date:** 10/29/98
Units: ug/kg **Date Analyzed:** 10/29/98
Analyst Initials: DT **Extraction Method:** 3550
 Dilution Factor: 1

EPA Method 8080

ANALYTE	DLR	Results	ANALYTE	DLR	Results
4,4'-DDD	4	ND	Endosulfan II	4	ND
4,4'-DDE	4	52	Endosulfan Sulfate	4	ND
4,4'-DDT	4	57	Endrin	4	11
Aldrin	2	ND	Endrin Aldehyde	4	ND
Alpha-BHC	2	ND	Heptachlor	2	ND
Beta-BHC	2	ND	Heptachlor Epoxide	2	ND
Delta-BHC	2	ND	Methoxychlor	17	ND
Gamma-BHC (Lindane)	2	ND	Chlordane	17	ND
Dieldrin	4	ND	Toxaphene	170	ND
Endosulfan I	2	ND			

MDL = Method Detection Limit
ND = Not Detected (Below DLR).
DLR = MDL X Dilution Factor
NA = Not Analyzed

Reviewed/Approved By: _____


Lee Ingvaldson
Department Supervisor

Date: 11/29/98

The cover letter is an integral part of this analytical report.

Client: Entech Analytical Labs, Inc.
Attn: Ms. Michelle Anderson

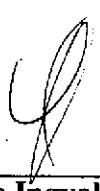
Client's Project: Lowney Associates Lab No.: 30245-005
Date Sampled: 10/27/98 Sample I.D.: E19318(Lot17-Lot20)
Date Received: 10/29/98 QC Batch No.: H988080S352
Matrix: Soil Extraction Date: 10/29/98
Units: ug/kg Date Analyzed: 10/29/98
Analyst Initials: DT Extraction Method: 3550
Dilution Factor: 1

EPA Method 8080

ANALYTE	DLR	Results	ANALYTE	DLR	Results
4,4'-DDD	4	ND	Endosulfan II	4	ND
4,4'-DDE	4	55	Endosulfan Sulfate	4	ND
4,4'-DDT	4	55	Endrin	4	81
Aldrin	2	ND	Endrin Aldehyde	4	ND
Alpha-BHC	2	ND	Heptachlor	2	ND
Beta-BHC	2	ND	Heptachlor Epoxide	2	ND
Delta-BHC	2	ND	Methoxychlor	17	ND
Gamma-BHC (Lindane)	2	ND	Chlordane	17	ND
Dieldrin	4	4.4	Toxaphene	170	ND
Endosulfan I	2	ND			

MDL = Method Detection Limit
ND = Not Detected (Below DLR).
DLR = MDL X Dilution Factor
NA = Not Analyzed

Reviewed/Approved By: _____


Lee Ingvaldson
Department Supervisor

Date: 11/2/98

The cover letter is an integral part of this analytical report.

Client: Entech Analytical Labs, Inc.
Attn: Ms. Michelle Anderson

Client's Project: Lowney Associates Lab No.: 30245-006
Date Sampled: 10/27/98 Sample I.D.: E19319(Lot21-Lot24)
Date Received: 10/29/98 QC Batch No.: H988080S352
Matrix: Soil Extraction Date: 10/29/98
Units: ug/kg Date Analyzed: 10/29/98
Analyst Initials: DT Extraction Method: 3550
Dilution Factor: 1

EPA Method 8080

ANALYEE	DLR	Results	ANALYEE	DLR	Results
4,4'-DDD	4	ND	Endosulfan II	4	ND
4,4'-DDE	4	44	Endosulfan Sulfate	4	ND
4,4'-DDT	4	39	Endrin	4	8.8
Aldrin	2	ND	Endrin Aldehyde	4	ND
Alpha-BHC	2	ND	Heptachlor	2	ND
Beta-BHC	2	ND	Heptachlor Epoxide	2	ND
Delta-BHC	2	ND	Methoxychlor	17	ND
Gamma-BHC (Lindane)	2	ND	Chlordane	17	ND
Dieldrin	4	ND	Toxaphene	170	ND
Endosulfan I	2	ND			

MDL = Method Detection Limit
ND = Not Detected (Below DLR).
DLR = MDL X Dilution Factor
NA = Not Analyzed

Reviewed/Approved By: _____


Lee Ingvaldson
Department Supervisor

Date: 11/2/98

The cover letter is an integral part of this analytical report.

Client: Entech Analytical Labs, Inc.
Attn: Ms. Michelle Anderson

Client's Project: Lowney Associates **Lab No.:** 30245-007
Date Sampled: 10/27/98 **Sample I.D.:** E19320(Lot25-27-Lot68)
Date Received: 10/29/98 **QC Batch No.:** H988080S352
Matrix: Soil **Extraction Date:** 10/29/98
Units: ug/kg **Date Analyzed:** 10/29/98
Analyst Initials: DT **Extraction Method:** 3550
 Dilution Factor: 1

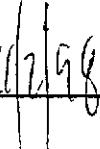
EPA Method 8080

ANALYTE	DLR	Results	ANALYTE	DLR	Results
4,4'-DDD	4	12**	Endosulfan II	4	ND
4,4'-DDE	20	242*	Endosulfan Sulfate	4	ND
4,4'-DDT	20	228*	Endrin	4	20
Aldrin	2	ND	Endrin Aldehyde	4	ND
Alpha-BHC	2	ND	Heptachlor	2	ND
Beta-BHC	2	ND	Heptachlor Epoxide	2	ND
Delta-BHC	2	ND	Methoxychlor	17	ND
Gamma-BHC (Lindane)	2	ND	Chlordane	17	ND
Dieldrin	4	23	Toxaphene	170	ND
Endosulfan I	2	ND			

MDL = Method Detection Limit
ND = Not Detected (Below DLR).
DLR = MDL X Dilution Factor
NA = Not Analyzed
* = Dilution factor is 5.
** = Unable to confirm within 30%.

Reviewed/Approved By: _____


Lee Ingvaldson
Department Supervisor


Date: 11/29/98

The cover letter is an integral part of this analytical report.

Client: Entech Analytical Labs, Inc.
Attn: Ms. Michelle Anderson

Client's Project: Lowney Associates **Lab No.:** 30245-008
Date Sampled: 10/28/98 **Sample I.D.:** E19321(Lot44,45,54,57)
Date Received: 10/29/98 **QC Batch No.:** H988080S352
Matrix: Soil **Extraction Date:** 10/29/98
Units: ug/kg **Date Analyzed:** 10/29/98
Analyst Initials: DT **Extraction Method:** 3550
 Dilution Factor: 1

EPA Method 8080

ANALYTE	DLR	Results	ANALYTE	DLR	Results
4,4'-DDD	4	20**	Endosulfan II	4	ND
4,4'-DDE	20	192*	Endosulfan Sulfate	4	ND
4,4'-DDT	20	192*	Endrin	4	37
Aldrin	2	ND	Endrin Aldehyde	4	ND
Alpha-BHC	2	ND	Heptachlor	2	ND
Beta-BHC	2	ND	Heptachlor Epoxide	2	ND
Delta-BHC	2	ND	Methoxychlor	17	ND
Gamma-BHC (Lindane)	2	ND	Chlordane	17	ND
Dieldrin	4	7.7	Toxaphene	170	ND
Endosulfan I	2	ND			

MDL = Method Detection Limit
ND = Not Detected (Below DLR).
DLR = MDL X Dilution Factor
NA = Not Analyzed
* = Dilution factor is 5.
** = Unable to confirm within 30%.

Reviewed/Approved By: _____


Lee Ingvaldson
Department Supervisor

Date: 11/2/98

The cover letter is an integral part of this analytical report.

Client: Entech Analytical Labs, Inc.
Attn: Ms. Michelle Anderson

Client's Project: Lowney Associates **Lab No.:** 30245-009
Date Sampled: 10/28/98 **Sample I.D.:** E19322(Lot46-Lot49)
Date Received: 10/29/98 **QC Batch No.:** H988080S352
Matrix: Soil **Extraction Date:** 10/29/98
Units: ug/kg **Date Analyzed:** 10/29/98
Analyst Initials: DT **Extraction Method:** 3550
 Dilution Factor: 1

EPA Method 8080

ANALYTE	DLR	Results	ANALYTE	DLR	Results
4,4'-DDD	4	ND	Endosulfan II	4	ND
4,4'-DDE	4	19	Endosulfan Sulfate	4	ND
4,4'-DDT	4	14	Endrin	4	11
Aldrin	2	5.4	Endrin Aldehyde	4	ND
Alpha-BHC	2	ND	Heptachlor	2	ND
Beta-BHC	2	ND	Heptachlor Epoxide	2	ND
Delta-BHC	2	ND	Methoxychlor	17	ND
Gamma-BHC (Lindane)	2	ND	Chlordane	17	ND
Dieldrin	4	18	Toxaphene	170	ND
Endosulfan I	2	ND			

MDL = Method Detection Limit
ND = Not Detected (Below DLR).
DLR = MDL X Dilution Factor
NA = Not Analyzed

Reviewed/Approved By: _____


Lee Ingvaldson
Department Supervisor

Date: 10/29/98

The cover letter is an integral part of this analytical report.

Client: Entech Analytical Labs, Inc.
Attn: Ms. Michelle Anderson

Client's Project: Lowney Associates **Lab No.:** 30245-010
Date Sampled: 10/28/98 **Sample I.D.:** E19323(Lot50-Lot53)
Date Received: 10/29/98 **QC Batch No.:** H988080S352
Matrix: Soil **Extraction Date:** 10/29/98
Units: ug/kg **Date Analyzed:** 10/29/98
Analyst Initials: DT **Extraction Method:** 3550
 Dilution Factor: 1

EPA Method 8080

ANALYTE	DLR	Results	ANALYTE	DLR	Results
4,4'-DDD	4	ND	Endosulfan II	4	ND
4,4'-DDE	4	46	Endosulfan Sulfate	4	ND
4,4'-DDT	4	51	Endrin	4	14
Aldrin	2	ND	Endrin Aldehyde	4	ND
Alpha-BHC	2	3.1	Heptachlor	2	ND
Beta-BHC	2	ND	Heptachlor Epoxide	2	ND
Delta-BHC	2	2.3	Methoxychlor	17	ND
Gamma-BHC (Lindane)	2	ND	Chlordane	17	ND
Dieldrin	4	4.3	Toxaphene	170	ND
Endosulfan I	2	ND			

MDL = Method Detection Limit
ND = Not Detected (Below DLR)
DLR = MDL X Dilution Factor
NA = Not Analyzed

Reviewed/Approved By: _____


Lee Ingvaldson
Department Supervisor

Date: 11/2/98

The cover letter is an integral part of this analytical report.

Client: **Entech Analytical Labs, Inc.**
Attn: **Ms. Michelle Anderson**

Client's Project: **Lowney Associates** Lab No.: **30245-012**
Date Sampled: **10/27/98** Sample I.D.: **E19325(Lot60-Lot63)**
Date Received: **10/29/98** QC Batch No.: **H988080S352**
Matrix: **Soil** Extraction Date: **10/29/98**
Units: **ug/kg** Date Analyzed: **10/29/98**
Analyst Initials: **DT** Extraction Method: **3550**
Dilution Factor: **1**

EPA Method 8080

ANALYTE	DLR	Results	ANALYTE	DLR	Results
4,4'-DDD	4	ND	Endosulfan II	4	ND
4,4'-DDE	4	18	Endosulfan Sulfate	4	ND
4,4'-DDT	4	16	Endrin	4	ND
Aldrin	2	ND	Endrin Aldehyde	4	ND
Alpha-BHC	2	ND	Heptachlor	2	ND
Beta-BHC	2	ND	Heptachlor Epoxide	2	ND
Delta-BHC	2	ND	Methoxychlor	17	ND
Gamma-BHC (Lindane)	2	ND	Chlordane	17	ND
Dieldrin	4	ND	Toxaphene	170	ND
Endosulfan I	2	ND			

MDL = Method Detection Limit
ND = Not Detected (Below DLR).
DLR = MDL X Dilution Factor
NA = Not Analyzed

Reviewed/Approved By: _____


Lee Ingvaldson
Department Supervisor

Date: 11/2/98

The cover letter is an integral part of this analytical report.

Client: Entech Analytical Labs, Inc.
Attn: Ms. Michelle Anderson

Client's Project: Lowney Associates Lab No.: 30245-013
Date Sampled: 10/27/98 Sample I.D.: E19326(Lot64-Lot67)
Date Received: 10/29/98 QC Batch No.: H988080S352
Matrix: Soil Extraction Date: 10/29/98
Units: ug/kg Date Analyzed: 10/29/98
Analyst Initials: DT Extraction Method: 3550
Dilution Factor: 1

EPA Method 8030

ANALYTE	DLR	Results	ANALYTE	DLR	Results
4,4'-DDD	4	ND	Endosulfan II	4	ND
4,4'-DDE	4	43	Endosulfan Sulfate	4	ND
4,4'-DDT	4	39	Endrin	4	4.8
Aldrin	2	ND	Endrin Aldehyde	4	ND
Alpha-BHC	2	ND	Heptachlor	2	ND
Beta-BHC	2	ND	Heptachlor Epoxide	2	ND
Delta-BHC	2	ND	Methoxychlor	17	ND
Gamma-BHC (Lindane)	2	ND	Chlordane	17	ND
Dieldrin	4	ND	Toxaphene	170	ND
Endosulfan I	2	ND			

MDL = Method Detection Limit
ND = Not Detected (Below DLR).
DLR = MDL X Dilution Factor
NA = Not Analyzed

Reviewed/Approved By: _____


Lee Ingvaldson
Department Supervisor

Date: 11/2/98

The cover letter is an integral part of this analytical report.

Client: Entech Analytical Labs, Inc.
Attn: Ms. Michelle Anderson

Client's Project: Lowney Associates **Lab No.:** 30245-014
Date Sampled: 10/27/98 **Sample I.D.:** E19327(Lot69-Lot72)
Date Received: 10/29/98 **QC Batch No.:** H988080S352
Matrix: Soil **Extraction Date:** 10/29/98
Units: ug/kg **Date Analyzed:** 10/29/98
Analyst Initials: DT **Extraction Method:** 3550
 Dilution Factor: 1

Date Amended: 11/02/98

EPA Method 8030

ANALYTE	DLR	Results	ANALYTE	DLR	Results
4,4'-DDD	4	4.3#	Endosulfan II	4	ND
4,4'-DDE	4	84	Endosulfan Sulfate	4	ND
4,4'-DDT	4	90	Endrin	4	18
Aldrin	2	ND	Endrin Aldehyde	4	ND
Alpha-BHC	2	2.8	Heptachlor	2	ND
Beta-BHC	2	ND	Heptachlor Epoxide	2	ND
Delta-BHC	2	8.4	Methoxychlor	17	ND
Gamma-BHC (Lindane)	2	2.1	Chlordane	17	ND
Dieldrin	4	6.3	Toxaphene	170	ND
Endosulfan I	2	ND			

MDL = Method Detection Limit

ND = Not Detected (Below DLR).

DLR = MDL X Dilution Factor

NA = Not Analyzed

= Unable to confirm within 30%.

Reviewed/Approved By: _____


Lee Ingvaldson
Department Supervisor

Date: 11/2/98

The cover letter is an integral part of this analytical report.

Client: **Entech Analytical Labs, Inc.**
Attn: **Ms. Michelle Anderson**

Client's Project: **Lowney Associates** Lab No.: **30245-015**
Date Sampled: **10/27/98** Sample I.D.: **E19328(Lot73-Lot76)**
Date Received: **10/29/98** QC Batch No.: **H988080S352**
Matrix: **Soil** Extraction Date: **10/29/98**
Units: **ug/kg** Date Analyzed: **10/29/98**
Analyst Initials: **DT** Extraction Method: **3550**
Dilution Factor: **1**

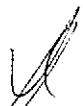
Date Amended: **11/02/98**

EPA Method 8080

ANALYTE	DLR	Results	ANALYTE	DLR	Results
4,4'-DDD	4	ND	Endosulfan II	4	ND
4,4'-DDE	4	49	Endosulfan Sulfate	4	ND
4,4'-DDT	4	50	Endrin	4	12
Aldrin	2	ND	Endrin Aldehyde	4	ND
Alpha-BHC	2	ND	Heptachlor	2	ND
Beta-BHC	2	ND	Heptachlor Epoxide	2	ND
Delta-BHC	2	5.6	Methoxychlor	17	ND
Gamma-BHC (Lindane)	2	ND	Chlordane	17	ND
Dieldrin	4	ND	Toxaphene	170	ND
Endosulfan I	2	ND			

MDL = Method Detection Limit
ND = Not Detected (Below DLR).
DLR = MDL X Dilution Factor
NA = Not Analyzed

Reviewed/Approved By: _____


Lee Ingvaldson
Department Supervisor

Date: 11/2/98

The cover letter is an integral part of this analytical report.

Client: Entech Analytical Labs, Inc.
Attn: Ms. Michelle Anderson

Client's Project: Lowney Associates **Lab No.:** Method Blank
Date Sampled: --- **Sample I.D.:** ---
Date Received: --- **QC Batch No.:** H988080S352
Matrix: Soil **Extraction Date:** 10/29/98
Units: ug/kg **Date Analyzed:** 10/29/98
Analyst Initials: DT **Extraction Method:** 3550
 Dilution Factor: 1

EPA Method 8080

ANALYTE	DLR	Results	ANALYTE	DLR	Results
4,4'-DDD	4	ND	Endosulfan II	4	ND
4,4'-DDE	4	ND	Endosulfan Sulfate	4	ND
4,4'-DDT	4	ND	Endrin	4	ND
Aldrin	2	ND	Endrin Aldehyde	4	ND
Alpha-BHC	2	ND	Heptachlor	2	ND
Beta-BHC	2	ND	Heptachlor Epoxide	2	ND
Delta-BHC	2	ND	Methoxychlor	17	ND
Gamma-BHC (Lindane)	2	ND	Chlordane	17	ND
Dieldrin	4	ND	Toxaphene	170	ND
Endosulfan I	2	ND			

MDL = Method Detection Limit
ND = Not Detected (Below DLR).
DLR = MDL X Dilution Factor
NA = Not Analyzed

Reviewed/Approved By: _____


Lee Ingvaldson
Department Supervisor

Date: 11/2/98

The cover letter is an integral part of this analytical report.

Spike Recovery and RPD Summary Report - SOIL (ug/kg)

Method : C:\HPCHEM\1\METHODS\PCBPEST1.M (Chemstation Integrator)
 Title : 8081 Pesticides Advanced Technology Laboratory
 Last Update : Wed Sep 30 12:48:09 1998
 Response via : Initial Calibration

Non-Spiked Sample: GB1029A.D

Spike
SampleSpike
Duplicate Sample

File ID : GMS1029A.D	GMD1029A.D
Sample : Blank MS E:10/29/98	Blank MSD E:10/29/98
Acq Time: 29 Oct 1998 5:24 pm	29 Oct 1998 5:59 pm

Compound	Sample	Spike	Spike	Dup	Spike	Dup	RPD	QC Limits	
	Conc	Added	Res	Res	%Rec	%Rec		RPD	% Rec
gamma-BHC	0.0	40	27	27	67	67	1	9	50-127
Heptachlor	0.0	40	24	24	61	60	0	12	35-136
Aldrin	0.0	40	27	27	67	67	0	15	47-143
Dieldrin	0.0	80	59	60	74	75	2	8	54-134
Endrin	0.0	80	68	69	85	86	1	16	61-138
4,4'-DDT	0.0	80	56	56	69	71	2	22	15-155

QC Batch # G988080S352

Reviewed/Approved By:


 Lee Ingvaldson
 Department Supervisor

Date: 11/2/98

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Subcontract Chain of Custody

By 1 pm

Subcontract Lab:		Date Sent:	Project Name:	Due Date:		
ATL		10/28/98	Lowney Associates	11/02/98		
Sample ID and Source	Matrix	Required Analysis	Date Taken	Time Taken	Containers	Pres?
E19314 (lot 1 - lot 4)	Soil	8080 PESTICIDES	10/27/98		4 oz jin	
E19315 (lot 5 - lot 8)						
E19316 (lot 9 - lot 12)						
E19317 (lot 13 - lot 16)						
E19318 (lot 17 - lot 20)				↓		
E19319 (lot 21 - lot 24)			10/27/98			
E19320 (lot 25-27, lot 68)			10/27/98			
E19321 (lot 44, 45, 54, 57)			10/28/98			
E19322 (lot 46 - lot 49)			10/28/98			
E19323 (lot 50 - lot 53)			↓			
E19324 (lot 55, 56, 58, 59)			10/27/98			
E19325 (lot 60 - lot 63)						
E19326 (lot 64 - lot 67)						
E19327 (lot 69 - lot 72)				↓		
E19328 (lot 73 - lot 76)	↓		↓			↓

Relinquished By:	Received By:	Date:	Time:
MAILED via Cal Onenight		10/28/98	6 pm
Relinquished By:	Received By:	Date:	Time:
	DUNE GALLAN	10-29-98	0830
Relinquished By:	Received By:	Date:	Time:

Notes: _____

LOWNEY ASSOCIATES
CHAIN OF CUSTODY RECORD

1/2

Send Results To:

Mountain View Office
 405 Clyde Avenue
 Mountain View, CA 94043
 415-967-2365

Oakland Office
 129 Filbert Street
 Oakland, CA 94607
 510-267-1970
 510-267-1972 (fax)

Fax Copy To:

415-967-2785 (fax)

Project Name:

Washington Avenue

Job Number: 1124-2A

Report To: Peter Hangry

Sampler (print): John McCain

Sampler (signature): John McCain

QC Requirements:

Level A (standard) Level B Level C Level D

Turnaround Requirements

- 10 working days
- 5 working days
- 3 working days
- 48 hours
- 24 hours
- 2-3 hours (RUSH)

ANALYSES REQUESTED

					Remarks
Sample I.D.	Date	Time	Sample Matrix	# of Cont.	Laboratory I.D.
Lot 1 → Lot 4	10-27-98		soil	1	E19314 X
Lot 5 → Lot 8					E19315 X
Lot 9 → Lot 12					E19316 X
Lot 13 → Lot 16					E19317 X
Lot 17 → Lot 20					E19318 X
Lot 21 → Lot 24					E19319 X
Lot 25, Lot 26, Lot 27, Lot 68	10-27-98				E19320 X
Lot 44, Lot 45, Lot 54, Lot 57	10-28-98				E19321 X
Lot 46 → Lot 49	10-28-98				E19322 X
Lot 50 → Lot 53	10-27-98				E19323 X
Lot 55, Lot 56, Lot 58, Lot 59	10-27-98				E19324 X
Lot 60 → Lot 63	10-27-98				E19325 X
Lot 64 → Lot 67					E19326 X
Lot 69 → Lot 72					E19327 X

RUSH

Relinquished By: John J. Li Date: 10-28-98 Time: 11:20

Received By: F. Jimenez Date: 10-28-98

Time: 11:20

PM initials

Relinquished By: F. Jimenez Date: Time:

Received By:

Date: Time:

Relinquished By: Date: Time:

Lab of Record:

ENTECH

Temperature

Received by Lab:

VTAZD

Date: 10/28/98 Time: 11:20

Chilled

LOWNEY ASSOCIATES
CHAIN OF CUSTODY RECORD

(2/2)

Send Results To:

Mountain View Office
 405 Clyde Avenue
 Mountain View, CA 94043
 415-967-2365

Oakland Office
 129 Filbert Street
 Oakland, CA 94607
 510-267-1970
 510-267-1972 (fax)

Fax Copy To:

415-967-2785 (fax)

Project Name:

Washington Avenue

Job Number:

1124-2A

Report To:

Peter Hartney

Sampler (print):

John McCain

Sampler (signature):

John McCain

QC Requirements:

Level A (standard) Level B Level C Level D

Turnaround Requirements

- 10 working days
- 5 working days
- 3 working days
- 48 hours
- 24 hours
- 2-3 hours (RUSH)

ANALYSES REQUESTED

*Organochlorine pesticides
 (DDT, DDE, DDT, HCH, HCB)*

Remarks

Sample I.D.	Date	Time	Sample Matrix	# of Cont.	Laboratory I.D.	
Lot 21 → Lot 24	10-27-98		Soil	1	E14328	X
Lot 17 → Lot 20					E19329	X
Lot 13 → Lot 16					E14330	X Cancel
Lot 9 → Lot 12					E19331	X
Lot 5 → Lot 8					E19332	X
Lot 1 → Lot 4	↓				E14333	X
Lot 73 → Lot 76	Soil	1			E19328	X

RUSH

Relinquished By: *John S. Cain*

Date: 10-28-98 Time: 11:20

Received By: *F. Jimenez*

Date: 10-28-98

Time: 11:20

PM initials

Relinquished By: *F. Jimenez*

Date: Time:

Received By:

Date:

Time:

Relinquished By:

Date: Time:

Lab of Record:

Temperature

chilled

Received by Lab: *BNTBCA*

VMRAW

Date: 10/28/98 Time: 12:25 pm

Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

October 26, 1998

Peter Langtry
Lowney Associates
129 Filbert St.
Oakland, CA 94607

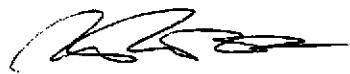
Subject: 4 Soil Samples
Lab #'s: E18735 through E18738
Project Name: 15550 Washington Avenue
Project Number: 1124-2A
Method(s): EPA 8080 - Pesticides
Subcontract Lab: Acculabs, Inc.

Dear Peter Langtry,

Chemical analysis on the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. USEPA protocols for sample storage and preservation were followed.

Entech Analytical Labs, Inc. is certified by the State of California (#2224). If you have any questions regarding procedures or results, please call me at 408-735-1550.

Sincerely,



Michelle L. Anderson
Lab Director



Acculabs Inc.

Formerly West Laboratory

Davis

1046 Olive Drive, Suite 2, Davis CA 95616 ■ 530-757-0920 ■ Fax 753-6091

Sample Log 19178
October 26, 1998

Michelle Anderson
Entech Analytical Labs, Inc.
525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

Subject : 4 Soil Samples
Project Name : Lowney Associates
Project Number :

Dear Ms. Anderson,

Chemical analysis on the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. USEPA protocols for sample storage and preservation were followed.

Acculabs - Davis is certified by the State of Arizona (AZ0583) and the State of California (# 1346). If you have any questions regarding procedures or results, please call me at 530-757-0920.

Sincerely,

Tom Kwoka



Acculabs Inc.

Formerly West Laboratory

Davis

1046 Olive Drive, Suite 2, Davis CA 95616 ■ 530-757-0920 ■ Fax 753-6091

EPA 8081A

Sample Log 19178
October 26, 1998

Sample Name : E18735 (LOT 36,0-1/2)

Project Name	:	Lowney Associates	Date Analyzed	:	10/23/98
Project Number	:		Date Received	:	10/20/98
Sample Date	:	10/14/98	Dilution	:	1:10
Date Extracted	:	10/22/98	Sample Matrix	:	Soil
Extr. Method	:	EPA 3550	Lab Number	:	19178-01
QC Batch	:	PS981004			

Parameter	MRL	Measured Conc.	Units
alpha-BHC	0.050	< 0.050	mg/Kg
gamma-BHC	0.050	< 0.050	mg/Kg
beta-BHC	0.050	< 0.050	mg/Kg
Heptachlor	0.050	< 0.050	mg/Kg
delta-BHC	0.050	< 0.050	mg/Kg
Aldrin	0.050	< 0.050	mg/Kg
Heptachlor Epoxide	0.050	< 0.050	mg/Kg
gamma-Chlordane	0.050	< 0.050	mg/Kg
Endosulfan 1	0.050	< 0.050	mg/Kg
alpha-Chlordane	0.050	< 0.050	mg/Kg
Dieldrin	0.10	0.14	mg/Kg
DDE	0.10	1.0	mg/Kg
Endrin	0.10	< 0.10	mg/Kg
Endosulfan 2	0.10	< 0.10	mg/Kg
DDD	0.10	< 0.10	mg/Kg
Endrin Aldehyde	0.10	< 0.10	mg/Kg
DDT	0.10	0.93	mg/Kg
Endosulfan Sulfate	0.10	< 0.10	mg/Kg
Methoxychlor	0.50	< 0.50	mg/Kg
Chlordane Technical	1.0	< 1.0	mg/Kg
Toxaphene	2.0	< 2.0	mg/Kg
Tetrachloro-m-xylene (sur)	(60-138)	84	% Recovery
Decachlorobiphenyl (sur)	(54-166)	100	% Recovery

MRL = Method Reporting Limit

Conc. = Concentration

E = Concentration exceeded calibration range.

Approved By :


Tom Kivoka



Acculabs Inc.

Formerly West Laboratory

Davis

1046 Olive Drive, Suite 2, Davis CA 95616 ■ 530-757-0920 ■ Fax 753-6091

EPA 8081A

Sample Log 19178
October 26, 1998

Sample Name : E18736 (LOT 37,0-1/2)

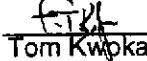
Project Name	:	Lowney Associates	Date Analyzed	:	10/22/98
Project Number	:		Date Received	:	10/20/98
Sample Date	:	10/14/98	Dilution	:	1:1
Date Extracted	:	10/22/98	Sample Matrix	:	Soil
Extr. Method	:	EPA 3550	Lab Number	:	19178-02
QC Batch	:	PS981004			

Parameter	MRL	Measured Conc.	Units
alpha-BHC	0.0050	<0.0050	mg/Kg
gamma-BHC	0.0050	<0.0050	mg/Kg
beta-BHC	0.0050	<0.0050	mg/Kg
Heptachlor	0.0050	<0.0050	mg/Kg
delta-BHC	0.0050	<0.0050	mg/Kg
Aldrin	0.0050	<0.0050	mg/Kg
Heptachlor Epoxide	0.0050	<0.0050	mg/Kg
gamma-Chlordane	0.0050	<0.0050	mg/Kg
Endosulfan 1	0.0050	<0.0050	mg/Kg
alpha-Chlordane	0.0050	0.0052	mg/Kg
Dieldrin	0.010	<0.010	mg/Kg
DDE	0.010	0.096	mg/Kg
Endrin	0.010	<0.010	mg/Kg
Endosulfan 2	0.010	<0.010	mg/Kg
DDD	0.010	<0.010	mg/Kg
Endrin Aldehyde	0.010	<0.010	mg/Kg
DDT	0.010	0.054	mg/Kg
Endosulfan Sulfate	0.010	<0.010	mg/Kg
Methoxychlor	0.050	<0.050	mg/Kg
Chlordane Technical	0.10	<0.10	mg/Kg
Toxaphene	0.20	<0.20	mg/Kg
Tetrachloro-m-xylene (sur)	(60-138)	90	% Recovery
Decachlorobiphenyl (sur)	(54-166)	105	% Recovery

MRL = Method Reporting Limit

Conc. = Concentration

E = Concentration exceeded calibration range.

Approved By : 
Tom Kupka



Acculabs Inc.

Formerly West Laboratory

Davis

1046 Olive Drive, Suite 2, Davis CA 95616 ■ 530-757-0920 ■ Fax 753-6091

EPA 8081A

Sample Log 19178
October 26, 1998

Sample Name : E18737 (LOT 38,0-1/2)

Project Name	:	Lowney Associates	Date Analyzed	:	10/22/98
Project Number	:		Date Received	:	10/20/98
Sample Date	:	10/14/98	Dilution	:	1:1
Date Extracted	:	10/22/98	Sample Matrix	:	Soil
Extr. Method	:	EPA 3550	Lab Number	:	19178-03
QC Batch	:	PS981004			

Parameter	MRL	Measured Conc.	Units
alpha-BHC	0.0050	<0.0050	mg/Kg
gamma-BHC	0.0050	<0.0050	mg/Kg
beta-BHC	0.0050	<0.0050	mg/Kg
Heptachlor	0.0050	<0.0050	mg/Kg
delta-BHC	0.0050	<0.0050	mg/Kg
Aldrin	0.0050	<0.0050	mg/Kg
Heptachlor Epoxide	0.0050	<0.0050	mg/Kg
gamma-Chlordane	0.0050	<0.0050	mg/Kg
Endosulfan 1	0.0050	<0.0050	mg/Kg
alpha-Chlordane	0.0050	<0.0050	mg/Kg
Dieldrin	0.010	<0.010	mg/Kg
DDE	0.010	0.042	mg/Kg
Endrin	0.010	<0.010	mg/Kg
Endosulfan 2	0.010	<0.010	mg/Kg
DDD	0.010	<0.010	mg/Kg
Endrin Aldehyde	0.010	<0.010	mg/Kg
DDT	0.010	0.035	mg/Kg
Endosulfan Sulfate	0.010	<0.010	mg/Kg
Methoxychlor	0.050	<0.050	mg/Kg
Chlordane Technical	0.10	<0.10	mg/Kg
Toxaphene	0.20	<0.20	mg/Kg
Tetrachloro-m-xylene (sur)	(60-138)	92	% Recovery
Decachlorobiphenyl (sur)	(54-166)	97	% Recovery

MRL = Method Reporting Limit

Conc. = Concentration

E = Concentration exceeded calibration range.

Approved By : F.W.K.
Tom Kwoka



Acculabs Inc.

Formerly West Laboratory

Davis

1046 Olive Drive, Suite 2, Davis CA 95616 ■ 530-757-0920 ■ Fax 753-6091

EPA 8081A

Sample Log 19178
October 26, 1998

Sample Name : E18738 (LOT 39,0-1/2)

Project Name	: Lowney Associates	Date Analyzed	: 10/23/98
Project Number	:	Date Received	: 10/20/98
Sample Date	: 10/14/98	Dilution	: 1:10
Date Extracted	: 10/22/98	Sample Matrix	: Soil
Extr. Method	: EPA 3550	Lab Number	: 19178-04
QC Batch	: PS981004		

Parameter	MRL	Measured Conc.	Units
alpha-BHC	0.050	< 0.050	mg/Kg
gamma-BHC	0.050	< 0.050	mg/Kg
beta-BHC	0.050	< 0.050	mg/Kg
Heptachlor	0.050	< 0.050	mg/Kg
delta-BHC	0.050	< 0.050	mg/Kg
Aldrin	0.050	< 0.050	mg/Kg
Heptachlor Epoxide	0.050	< 0.050	mg/Kg
gamma-Chlordane	0.050	0.071	mg/Kg
Endosulfan 1	0.050	< 0.050	mg/Kg
alpha-Chlordane	0.050	0.072	mg/Kg
Dieldrin	0.10	< 0.10	mg/Kg
DDE	0.10	1.2	mg/Kg
Endrin	0.10	< 0.10	mg/Kg
Endosulfan 2	0.10	< 0.10	mg/Kg
DDD	0.10	< 0.10	mg/Kg
Endrin Aldehyde	0.10	< 0.10	mg/Kg
DDT	0.10	1.1	mg/Kg
Endosulfan Sulfate	0.10	< 0.10	mg/Kg
Methoxychlor	0.50	< 0.50	mg/Kg
Chlordane Technical	1.0	< 1.0	mg/Kg
Toxaphene	2.0	< 2.0	mg/Kg
Tetrachloro-m-xylene (sur)	(60-138)	97	% Recovery
Decachlorobiphenyl (sur)	(54-166)	110	% Recovery

MRL = Method Reporting Limit

Conc. = Concentration

E = Concentration exceeded calibration range.

Approved By :


Tom Kwoka

Acculabs Inc.

October 26, 1998

QC Report
Pesticides/PCB by EPA 8081A/8082

QC Batch PS981004

Matrix: Soil

Method Blank

Parameter	MRL (mg/Kg)	Measured Value (mg/Kg)
Aldrin	(.0050)	<.0050
alpha-BHC	(.0050)	<.0050
beta-BHC	(.0050)	<.0050
delta-BHC	(.0050)	<.0050
gamma-BHC	(.0050)	<.0050
Chlordane Technical	(0.10)	<0.10
gamma-Chlordane	(.0050)	<.0050
alpha-Chlordane	(.0050)	<.0050
4,4'-DDD	(0.010)	<0.010
4,4'-DDE	(0.010)	<0.010
4,4'-DDT	(0.010)	<0.010
Dieldrin	(0.010)	<0.010
Endosulfan 1	(.0050)	<.0050
Endosulfan 2	(0.010)	<0.010
Endosulfan Sulfate	(0.010)	<0.010
Endrin	(0.010)	<0.010
Endrin Aldehyde	(0.010)	<0.010
Heptachlor	(.0050)	<.0050
Heptachlor Epoxide	(.0050)	<.0050
Toxaphene	(0.20)	<0.20
PCB1016	(0.10)	<0.10
PCB1221	(0.10)	<0.10
PCB1232	(0.10)	<0.10
PCB1242	(0.10)	<0.10
PCB1248	(0.10)	<0.10
PCB1254	(0.10)	<0.10
PCB1260	(0.10)	<0.10

T.K.
Tom Kwoka
Lab Director

Acculabs Inc.

October 26, 1998

QC Report
Pesticides/PCB by EPA 8081A/8082

QC Batch PS981004

Matrix: Soil

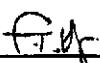
Spike and Spike Duplicate Results

Parameter	Matrix Spike (%Rec)	Matrix Spike Dup. (%Rec)	RPD %
gamma-BHC	88	87	1
Heptachlor	89	88	1
Aldrin	86	84	2
Dieldrin	NC	NC	NC
Endrin	NC	NC	NC
4,4'-DDT	NC	NC	NC

NC: Not Calculated due to interference from toxaphene. LCS is within acceptable limits. Spiked sample ID 19178-01.

Laboratory Control Spike

Parameter	Laboratory Control Spike-(%Rec)
gamma-BHC	80
Heptachlor	80
Aldrin	77
Dieldrin	83
Endrin	83
4,4'-DDT	74
PCB 1016	77
PCB 1260	82


Tom Kwoka
Lab Director

Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Subcontract Chain of Custody

19178

Relinquished By:	Received By:	Date:	Time:
VTRW via Cal Overnight		10/19/98	6pm
Relinquished By:	Received By:	Date:	Time:
Relinquished By:	Received By: <i>Sgt Ward</i>	Date: 10/20/98	Time: 425

LOWNEY ASSOCIATES
CHAIN OF CUSTODY RECORD

1/2

Send Results To:

Mountain View Office
 405 Clyde Avenue
 Mountain View, CA 94013
 415-967-2365

Oakland Office
 129 Filbert Street
 Oakland, CA 94607
 510-267-1970

415-967-2785 (fax)

510-267-1972 (fax)

Project Name:

15550 Washington Avenue

Job Number:

1124-2A

Report To:

Peter Langtry

Sampler (print):

John McCain

Sampler (signature):

John Tulin

QC Requirements:

Level A (standard) Level B Level C Level D

Turnaround Requirements

- 10 working days
- 5 working days
- 3 working days
- 48 hours
- 24 hours
- 2-3 hours (RUSH)

ANALYSES REQUESTED

Sample I.D.	Date	Time	Sample Matrix	# of Cont.	Laboratory I.D.	Analyses Requested										Remarks
						Organochlorine Pesticides	Pesticide Residues	PCP								
ot 28 (0-1/2')	10-14-98		Soil	1	E18543	X										
ot 29 (0-1/2')						X										
ot 30 (0-1/2')						X										
ot 31 (0-1/2')						X										
ot 32 (0-1/2')						X										
ot 33 (0-1/2')						E18544	X									
ot 34 (0-1/2')						X										
ot 35 (0-1/2')						X										
ot 36 (0-1/2')						X										E18735
ot 37 (0-1/2')						X										E18736
ot 38 (0-1/2')						X										E18737
ot 39 (0-1/2')						X										E18738
ot 40 (0-1/2')						X										
ot 41 (0-1/2')	✓	✓	✓	✓	E18546	X										

linquished By: John Tulin Date: 10-14-98 Time: 1:58p

linquished By: Babak Minasaz Date: Time:

linquished By: Date: Time:

Received By: Babak Minasaz Date: 10-14-98 Time: 1:58p PM initials

Received By: Date: Time:

Lab of Record: BN TOCH Date: 10/14/98 Time: 3:20p

Received by Lab: n/a Date: 10/14/98 Time: 3:20p

Temperature

Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

November 6, 1998

Peter Langtry
Lowney Associates
129 Filbert St.
Oakland, CA 94607

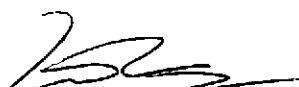
Subject: 24 Soil Samples
Lab #'s: E19646-E19669
Project Name: Washington Avenue
Project Number: 1124-2A
Method(s): EPA 8080 - Pesticides
Subcontract Lab: Advanced Technology Laboratories

Dear Peter Langtry,

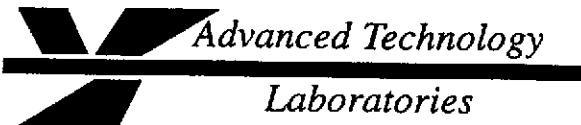
Chemical analysis on the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. USEPA protocols for sample storage and preservation were followed.

Entech Analytical Labs, Inc. is certified by the State of California (#2224). If you have any questions regarding procedures or results, please call me at 408-735-1550.

Sincerely,



Michelle L. Anderson
Lab Director



November 6, 1998

ELAP No.: 1838

Entech Analytical Labs, Inc.
525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

ATTN: Ms. Michelle Anderson

Client's Project: Lowney Associates
Lab No.: 30373-001/024

Gentlemen:

Enclosed are the results for sample(s) received by Advanced Technology Laboratories and tested for the parameters indicated in the enclosed chain of custody.

Thank you for the opportunity to service the needs of your company. Please feel free to call me at (562) 989 - 4045 if I can be of further assistance to your company.

Sincerely,

A handwritten signature in black ink, appearing to read "Cheryl De Los Reyes".

Cheryl De Los Reyes
Technical Operations Manager
CDR/ms

Enclosures

This cover letter is an integral part of this analytical report.

This report pertains only to the samples investigated and does not necessarily apply to other apparently identical or similar materials. This report is submitted for the exclusive use of the client to whom it is addressed. Any reproduction of this report or use of this Laboratory's name for advertising or publicity purpose without authorization is prohibited.

Client: Entech Analytical Labs, Inc.
Attn: Ms. Michelle Anderson

Client's Project: Lowney Associates **Lab No.:** 30373-001
Date Sampled: 10/27/98 **Sample I.D.:** E19646 (Lot 1)
Date Received: 11/04/98 **QC Batch No.:** G988080S357
Matrix: Soil **Extraction Date:** 11/04/98
Units: ug/kg **Date Analyzed:** 11/04/98
Analyst Initials: DT **Extraction Method:** EPA 3550
 Dilution Factor: 1

EPA Method 3080

ANALYTE	DLR	Result	ANALYTE	DLR	Result
4,4'-DDD	4	ND	Endosulfan II	4	ND
4,4'-DDE	4	36	Endosulfan Sulfate	4	ND
4,4'-DDT	4	38	Endrin	4	ND
Aldrin	2	ND	Endrin Aldehyde	4	ND
Alpha-BHC	2	ND	Heptachlor	2	ND
Beta-BHC	2	ND	Heptachlor Epoxide	2	ND
Delta-BHC	2	ND	Methoxychlor	17	ND
Gamma-BHC (Lindane)	2	ND	Chlordane	17	ND
Dieldrin	4	ND	Toxaphene	170	ND
Endosulfan I	2	ND			

MDL = Method Detection Limit

ND = Not Detected (Below DLR).

DLR = MDL X Dilution Factor

NA = Not Analyzed

Reviewed/Approved By: _____


Lee Ingvaldson
Department Supervisor

Date: 11/6/98

The cover letter is an integral part of this analytical report.

Client: Entech Analytical Labs, Inc.
Attn: Ms. Michelle Anderson

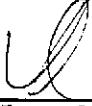
Client's Project: Lowney Associates **Lab No.:** 30373-002
Date Sampled: 10/27/98 **Sample I.D.:** E19647 (Lot 2)
Date Received: 11/04/98 **QC Batch No.:** G988080S357
Matrix: Soil **Extraction Date:** 11/04/98
Units: ug/kg **Date Analyzed:** 11/04/98
Analyst Initials: DT **Extraction Method:** EPA 3550
Dilution Factor: 1

EPA Method 3080

ANALYTE	DLR	Results	ANALYTE	DLR	Results
4,4'-DDD	4	ND	Endosulfan II	4	ND
4,4'-DDE	4	57	Endosulfan Sulfate	4	ND
4,4'-DDT	4	69	Endrin	4	72
Aldrin	2	ND	Endrin Aldehyde	4	ND
Alpha-BHC	2	ND	Heptachlor	2	ND
Beta-BHC	2	ND	Heptachlor Epoxide	2	ND
Delta-BHC	2	6.0	Methoxychlor	17	ND
Gamma-BHC (Lindane)	2	ND	Chlordane	17	ND
Dieldrin	4	4.5	Toxaphene	170	ND
Endosulfan I	2	ND			

MDL = Method Detection Limit
ND = Not Detected (Below DLR).
DLR = MDL X Dilution Factor
NA = Not Analyzed

Reviewed/Approved By: _____


Lee Ingvaldson
Department Supervisor

Date: 11/6/98

The cover letter is an integral part of this analytical report.

Client: Entech Analytical Labs, Inc.
Attn: Ms. Michelle Anderson

Client's Project: Lowney Associates Lab No.: 30373-003
Date Sampled: 10/27/98 Sample I.D.: E19648 (Lot 3)
Date Received: 11/04/98 QC Batch No.: G988080S357
Matrix: Soil Extraction Date: 11/04/98
Units: ug/kg Date Analyzed: 11/04/98
Analyst Initials: DT Extraction Method: EPA 3550
Dilution Factor: 1

EPA Method 3080

ANALYTE	DLR	Results	ANALYTE	DLR	Results
4,4'-DDD	4	5.3*	Endosulfan II	4	ND
4,4'-DDE	4	82	Endosulfan Sulfate	4	ND
4,4'-DDT	4	76	Endrin	4	7.3
Aldrin	2	ND	Endrin Aldehyde	4	ND
Alpha-BHC	2	ND	Heptachlor	2	ND
Beta-BHC	2	ND	Heptachlor Epoxide	2	ND
Delta-BHC	2	ND	Methoxychlor	17	ND
Gamma-BHC (Lindane)	2	ND	Chlordane	17	ND
Dieldrin	4	ND	Toxaphene	170	ND
Endosulfan I	2	ND			

* = Unable to confirm within 30%.

MDL = Method Detection Limit

ND = Not Detected (Below DLR).

DLR = MDL X Dilution Factor

NA = Not Analyzed

Reviewed/Approved By: Lee Ingvaldson

Lee Ingvaldson
Department Supervisor

Date: 11/6/98

The cover letter is an integral part of this analytical report.

Client: **Entech Analytical Labs, Inc.**
Attn: **Ms. Michelle Anderson**

Client's Project: **Lowney Associates** Lab No.: **30373-004**
Date Sampled: **10/27/98** Sample I.D.: **E19649 (Lot 4)**
Date Received: **11/04/98** QC Batch No.: **G988080S357**
Matrix: **Soil** Extraction Date: **11/04/98**
Units: **ug/kg** Date Analyzed: **11/04/98**
Analyst Initials: **DT** Extraction Method: **EPA 3550**
Dilution Factor: **1**

EPA Method 3080

ANALYTE	DLR	Results	ANALYTE	BLR	Results
4,4'-DDD	4	ND	Endosulfan II	4	ND
4,4'-DDE	4	68	Endosulfan Sulfate	4	ND
4,4'-DDT	4	56	Endrin	4	21
Aldrin	2	ND	Endrin Aldehyde	4	ND
Alpha-BHC	2	ND	Heptachlor	2	ND
Beta-BHC	2	ND	Heptachlor Epoxide	2	ND
Delta-BHC	2	5.6	Methoxychlor	17	ND
Gamma-BHC (Lindane)	2	ND	Chlordane	17	ND
Dieldrin	4	4.1	Toxaphene	170	ND
Endosulfan I	2	ND			

MDL = Method Detection Limit

ND = Not Detected (Below DLR).

DLR = MDL X Dilution Factor

NA = Not Analyzed

Reviewed/Approved By: _____


Lee Ingvaldsen
Department Supervisor

Date: 11/6/98

The cover letter is an integral part of this analytical report.

Client: Entech Analytical Labs, Inc.
Attn: Ms. Michelle Anderson

Client's Project: Lowney Associates **Lab No.:** 30373-005
Date Sampled: 10/27/98 **Sample I.D.:** E19650 (Lot 9)
Date Received: 11/04/98 **QC Batch No.:** G988080S357
Matrix: Soil **Extraction Date:** 11/04/98
Units: ug/kg **Date Analyzed:** 11/04/98
Analyst Initials: DT **Extraction Method:** EPA 3550
Dilution Factor: 1

EPA Method 3080

ANALYTE	DLR	Results	ANALYTE	DLR	Results
4,4'-DDD	4	12#	Endosulfan II	4	11
4,4'-DDE	20	350*	Endosulfan Sulfate	4	ND
4,4'-DDT	20	390*	Endrin	4	19
Aldrin	2	ND	Endrin Aldehyde	4	ND
Alpha-BHC	2	ND	Heptachlor	2	ND
Beta-BHC	2	ND	Heptachlor Epoxide	2	ND
Delta-BHC	2	ND	Methoxychlor	17	ND
Gamma-BHC (Lindane)	2	ND	Chlordane	17	ND
Dieldrin	4	21	Toxaphene	170	ND
Endosulfan I	2	ND			

|# = Unable to confirm within 30%.
* = Dilution Factor is 5.

MDL = Method Detection Limit
ND = Not Detected (Below DLR).
DLR = MDL X Dilution Factor
NA = Not Analyzed

Reviewed/Approved By: _____

Lee Ingvaldson
Department Supervisor

Date: 11/04/98

The cover letter is an integral part of this analytical report.

Client: Entech Analytical Labs, Inc.
Attn: Ms. Michelle Anderson

Client's Project: Lowney Associates **Lab No.:** 30373-006
Date Sampled: 10/27/98 **Sample I.D.:** E19651 (Lot 10)
Date Received: 11/04/98 **QC Batch No.:** G988080S357
Matrix: Soil **Extraction Date:** 11/04/98
Units: ug/kg **Date Analyzed:** 11/04/98
Analyst Initials: DT **Extraction Method:** EPA 3550
 Dilution Factor: 1

EPA Method 8030

ANALYTE	DLR	Results	ANALYTE	DLR	Results
4,4'-DDD	4	ND	Endosulfan II	4	ND
4,4'-DDE	4	68	Endosulfan Sulfate	4	ND
4,4'-DDT	4	70	Endrin	4	6.1
Aldrin	2	ND	Endrin Aldehyde	4	ND
Alpha-BHC	2	ND	Heptachlor	2	ND
Beta-BHC	2	ND	Heptachlor Epoxide	2	ND
Delta-BHC	2	ND	Methoxychlor	17	ND
Gamma-BHC (Lindane)	2	14	Chlordane	17	ND
Dieldrin	4	4.1	Toxaphene	170	ND
Endosulfan I	2	ND			

MDL = Method Detection Limit
ND = Not Detected (Below DLR).
DLR = MDL X Dilution Factor
NA = Not Analyzed

Reviewed/Approved By: 

Date: 11/6/98

Lee Ingvaldson
Department Supervisor

The cover letter is an integral part of this analytical report.

Client: **Entech Analytical Labs, Inc.**
Attn: **Ms. Michelle Anderson**

Client's Project: **Lowney Associates** Lab No.: **30373-007**
Date Sampled: **10/27/98** Sample I.D.: **E19652 (Lot 11)**
Date Received: **11/04/98** QC Batch No.: **G988080S357**
Matrix: **Soil** Extraction Date: **11/04/98**
Units: **ug/kg** Date Analyzed: **11/04/98**
Analyst Initials: **DT** Extraction Method: **EPA 3550**
Dilution Factor: **1**

EPA Method 3080

ANALYTE	DLR	Results	ANALYTE	DLR	Results
4,4'-DDD	4	ND	Endosulfan II	4	ND
4,4'-DDE	4	25	Endosulfan Sulfate	4	ND
4,4'-DDT	4	27	Endrin	4	4.9
Aldrin	2	ND	Endrin Aldehyde	4	ND
Alpha-BHC	2	ND	Heptachlor	2	ND
Beta-BHC	2	ND	Heptachlor Epoxide	2	ND
Delta-BHC	2	ND	Methoxychlor	17	ND
Gamma-BHC (Lindane)	2	ND	Chlordane	17	ND
Dieldrin	4	ND	Toxaphene	170	ND
Endosulfan I	2	ND			

MDL = Method Detection Limit

ND = Not Detected (Below DLR).

DLR = MDL X Dilution Factor

NA = Not Analyzed

Reviewed/Approved By:


Lee Ingvaldson
Department Supervisor

Date: 11/6/98

The cover letter is an integral part of this analytical report.

Client: **Entech Analytical Labs, Inc.**
Attn: **Ms. Michelle Anderson**

Client's Project: **Lowney Associates** Lab No.: **30373-008**
Date Sampled: **10/27/98** Sample I.D.: **E19653 (Lot 12)**
Date Received: **11/04/98** QC Batch No.: **G988080S357**
Matrix: **Soil** Extraction Date: **11/04/98**
Units: **ug/kg** Date Analyzed: **11/04/98**
Analyst Initials: **DT** Extraction Method: **EPA 3550**
Dilution Factor: **1**

EPA Method 8080

ANALYTE	DLR	Results	ANALYTE	DLR	Results
4,4'-DDD	4	ND	Endosulfan II	4	ND
4,4'-DDE	4	18	Endosulfan Sulfate	4	ND
4,4'-DDT	4	22	Endrin	4	ND
Aldrin	2	ND	Endrin Aldehyde	4	ND
Alpha-BHC	2	ND	Heptachlor	2	ND
Beta-BHC	2	ND	Heptachlor Epoxide	2	ND
Delta-BHC	2	ND	Methoxychlor	17	ND
Gamma-BHC (Lindane)	2	ND	Chlordane	17	ND
Dieldrin	4	ND	Toxaphene	170	ND
Endosulfan I	2	ND			

MDL = Method Detection Limit

ND = Not Detected (Below DLR).

DLR = MDL X Dilution Factor

NA = Not Analyzed

Reviewed/Approved By: _____


Lee Ingvaldson
Department Supervisor

Date: 11/10/98

The cover letter is an integral part of this analytical report.

Client: Entech Analytical Labs, Inc.
Attn: Ms. Michelle Anderson

Client's Project: Lowney Associates **Lab No.:** 30373-009
Date Sampled: 10/27/98 **Sample I.D.:** E19654 (Lot 17)
Date Received: 11/04/98 **QC Batch No.:** G988080S357
Matrix: Soil **Extraction Date:** 11/04/98
Units: ug/kg **Date Analyzed:** 11/04/98
Analyst Initials: DT **Extraction Method:** EPA 3550
Dilution Factor: 1

EPA Method 3080

ANALYTE	DLR	Results	ANALYTE	DLR	Results
4,4'-DDD	4	ND	Endosulfan II	4	ND
4,4'-DDE	4	81	Endosulfan Sulfate	4	ND
4,4'-DDT	4	74	Endrin	4	14
Aldrin	2	ND	Endrin Aldehyde	4	ND
Alpha-BHC	2	ND	Heptachlor	2	ND
Beta-BHC	2	ND	Heptachlor Epoxide	2	ND
Delta-BHC	2	ND	Methoxychlor	17	ND
Gamma-BHC (Lindane)	2	ND	Chlordane	17	ND
Dieldrin	4	6.3	Toxaphene	170	ND
Endosulfan I	2	ND			

MDL = Method Detection Limit
ND = Not Detected (Below DLR).
DLR = MDL X Dilution Factor
NA = Not Analyzed

Reviewed/Approved By: _____


Lee Ingvaldson
Department Supervisor

Date: 11/6/98

The cover letter is an integral part of this analytical report.

Client: **Entech Analytical Labs, Inc.**
Attn: **Ms. Michelle Anderson**

Client's Project: **Lowney Associates** **Lab No.:** **30373-010**
Date Sampled: **10/27/98** **Sample I.D.:** **E19655 (Lot 18)**
Date Received: **11/04/98** **QC Batch No.:** **G988080S357**
Matrix: **Soil** **Extraction Date:** **11/04/98**
Units: **ug/kg** **Date Analyzed:** **11/04/98**
Analyst Initials: **DT** **Extraction Method:** **EPA 3550**
 Dilution Factor: **1**

EPA Method 3080

ANALYTE	DLR	Results	ANALYTE	DLR	Results
4,4'-DDD	4	ND	Endosulfan II	4	ND
4,4'-DDE	4	41	Endosulfan Sulfate	4	ND
4,4'-DDT	4	47	Endrin	4	9.7
Aldrin	2	ND	Endrin Aldehyde	4	ND
Alpha-BHC	2	ND	Heptachlor	2	ND
Beta-BHC	2	ND	Heptachlor Epoxide	2	ND
Delta-BHC	2	2.3	Methoxychlor	17	ND
Gamma-BHC (Lindane)	2	ND	Chlordane	17	ND
Dieldrin	4	ND	Toxaphene	170	ND
Endosulfan I	2	ND			

MDL = Method Detection Limit
ND = Not Detected (Below DLR).
DLR = MDL X Dilution Factor
NA = Not Analyzed

Reviewed/Approved By: _____


Lee Ingvaldson
Department Supervisor

Date: 11/6/98

The cover letter is an integral part of this analytical report.

Client: Entech Analytical Labs, Inc.
Attn: Ms. Michelle Anderson

Client's Project: Lowney Associates **Lab No.:** 30373-011
Date Sampled: 10/27/98 **Sample I.D.:** E19656 (Lot 19)
Date Received: 11/04/98 **QC Batch No.:** G988080S357
Matrix: Soil **Extraction Date:** 11/04/98
Units: ug/kg **Date Analyzed:** 11/04/98
Analyst Initials: DT **Extraction Method:** EPA 3550
Dilution Factor: 1

EPA Method 8080

ANALYTE	DLR	Results	ANALYTE	DLR	Results
4,4'-DDD	4	ND	Endosulfan II	4	ND
4,4'-DDE	4	54	Endosulfan Sulfate	4	ND
4,4'-DDT	4	60	Endrin	4	62
Aldrin	2	ND	Endrin Aldehyde	4	ND
Alpha-BHC	2	ND	Heptachlor	2	ND
Beta-BHC	2	ND	Heptachlor Epoxide	2	ND
Delta-BHC	2	ND	Methoxychlor	17	ND
Gamma-BHC (Lindane)	2	ND	Chlordane	17	ND
Dieldrin	4	4.5	Toxaphene	170	ND
Endosulfan I	2	ND			

MDL = Method Detection Limit
ND = Not Detected (Below DLR).
DLR = MDL X Dilution Factor
NA = Not Analyzed

Reviewed/Approved By: _____


Lee Ingvaldson
Department Supervisor

Date: 11/6/98

The cover letter is an integral part of this analytical report.

Client: Entech Analytical Labs, Inc.
Attn: Ms. Michelle Anderson

Client's Project: Lowney Associates **Lab No.:** 30373-012
Date Sampled: 10/27/98 **Sample I.D.:** E19657 (Lot 20)
Date Received: 11/04/98 **QC Batch No.:** G988080S357
Matrix: Soil **Extraction Date:** 11/04/98
Units: ug/kg **Date Analyzed:** 11/04/98
Analyst Initials: DT **Extraction Method:** EPA 3550
Dilution Factor: 1

EPA Method 3080

ANALYTE	DLR	Results	ANALYTE	DLR	Results
4,4'-DDD	4	ND	Endosulfan II	4	ND
4,4'-DDE	4	61	Endosulfan Sulfate	4	ND
4,4'-DDT	4	61	Endrin	4	11
Aldrin	2	ND	Endrin Aldehyde	4	ND
Alpha-BHC	2	ND	Heptachlor	2	ND
Beta-BHC	2	ND	Heptachlor Epoxide	2	ND
Delta-BHC	2	2.2	Methoxychlor	17	ND
Gamma-BHC (Lindane)	2	ND	Chlordane	17	ND
Dieldrin	4	ND	Toxaphene	170	ND
Endosulfan I	2	ND			

MDL = Method Detection Limit
ND = Not Detected (Below DLR).
DLR = MDL X Dilution Factor
NA = Not Analyzed

Reviewed/Approved By: _____


Lee Ingvaldsen
Department Supervisor

Date: 11/6/98

The cover letter is an integral part of this analytical report.

Client: **Entech Analytical Labs, Inc.**
Attn: **Ms. Michelle Anderson**

Client's Project: **Lowney Associates** Lab No.: **30373-013**
Date Sampled: **10/27/98** Sample I.D.: **E19658 (Lot 25)**
Date Received: **11/04/98** QC Batch No.: **G988080S357**
Matrix: **Soil** Extraction Date: **11/04/98**
Units: **ug/kg** Date Analyzed: **11/04/98**
Analyst Initials: **DT** Extraction Method: **EPA 3550**
Dilution Factor: **1**

EPA Method 3080

ANALYTE	DLR	Results	ANALYTE	DLR	Results
4,4'-DDD	4	ND	Endosulfan II	4	ND
4,4'-DDE	4	78	Endosulfan Sulfate	4	ND
4,4'-DDT	4	80	Endrin	4	11
Aldrin	2	ND	Endrin Aldehyde	4	ND
Alpha-BHC	2	ND	Heptachlor	2	ND
Beta-BHC	2	ND	Heptachlor Epoxide	2	ND
Delta-BHC	2	ND	Methoxychlor	17	ND
Gamma-BHC (Lindane)	2	ND	Chlordane	17	ND
Dieldrin	4	11	Toxaphene	170	ND
Endosulfan I	2	ND			

MDL = Method Detection Limit
ND = Not Detected (Below DLR).
DLR = MDL X Dilution Factor
NA = Not Analyzed

Reviewed/Approved By: _____


Lee Ingvaldson
Department Supervisor

Date: 11/6/98

The cover letter is an integral part of this analytical report.

Client: Entech Analytical Labs, Inc.
Attn: Ms. Michelle Anderson

Client's Project: Lowney Associates **Lab No.:** 30373-014
Date Sampled: 10/27/98 **Sample I.D.:** E19659 (Lot 26)
Date Received: 11/04/98 **QC Batch No.:** G988080S357
Matrix: Soil **Extraction Date:** 11/04/98
Units: ug/kg **Date Analyzed:** 11/04/98
Analyst Initials: DT **Extraction Method:** EPA 3550
 Dilution Factor: 1

EPA Method 3080

ANALYTE	DLR	Results	ANALYTE	DLR	Results
4,4'-DDD	4	ND	Endosulfan II	4	ND
4,4'-DDE	4	76	Endosulfan Sulfate	4	ND
4,4'-DDT	4	90	Endrin	40	156*
Aldrin	2	ND	Endrin Aldehyde	4	ND
Alpha-BHC	2	ND	Heptachlor	2	ND
Beta-BHC	2	ND	Heptachlor Epoxide	2	ND
Delta-BHC	2	3.4	Methoxychlor	17	ND
Gamma-BHC (Lindane)	2	ND	Chlordane	17	ND
Dieldrin	4	5.7	Toxaphene	170	ND
Endosulfan I	2	ND			

* = Dilution Factor is 10.

MDL = Method Detection Limit
ND = Not Detected (Below DLR).
DLR = MDL X Dilution Factor
NA = Not Analyzed

Reviewed/Approved By: _____


Lee Ingvaldson
Department Supervisor

Date: 11/6/98

The cover letter is an integral part of this analytical report.

Client: Entech Analytical Labs, Inc.
Attn: Ms. Michelle Anderson

Client's Project: Lowney Associates **Lab No.:** 30373-015
Date Sampled: 10/27/98 **Sample I.D.:** E19660 (Lot 27)
Date Received: 11/04/98 **QC Batch No.:** G988080S357
Matrix: Soil **Extraction Date:** 11/04/98
Units: ug/kg **Date Analyzed:** 11/04/98
Analyst Initials: DT **Extraction Method:** EPA 3550
 Dilution Factor: 1

EPA Method 8080

ANALYTE	DLR	Results	ANALYTE	DLR	Results
4,4'-DDD	4	6.5	Endosulfan II	4	ND
4,4'-DDE	40	221*	Endosulfan Sulfate	4	ND
4,4'-DDT	40	229*	Endrin	4	14
Aldrin	2	ND	Endrin Aldehyde	4	ND
Alpha-BHC	2	ND	Heptachlor	2	ND
Beta-BHC	2	ND	Heptachlor Epoxide	2	ND
Delta-BHC	2	ND	Methoxychlor	17	ND
Gamma-BHC (Lindane)	2	ND	Chlordane	17	ND
Dieldrin	4	14	Toxaphene	170	ND
Endosulfan I	2	ND			

* = Dilution Factor is 10.

MDL = Method Detection Limit
ND = Not Detected (Below DLR).
DLR = MDL X Dilution Factor
NA = Not Analyzed

Reviewed/Approved By: _____


Lee Ingvaldson
Department Supervisor

Date: 11/16/98

The cover letter is an integral part of this analytical report.

Client: Entech Analytical Labs, Inc.
Attn: Ms. Michelle Anderson

Client's Project: Lowney Associates **Lab No.:** 30373-016
Date Sampled: 10/27/98 **Sample I.D.:** E19661 (Lot 68)
Date Received: 11/04/98 **QC Batch No.:** G988080S357
Matrix: Soil **Extraction Date:** 11/04/98
Units: ug/kg **Date Analyzed:** 11/04/98
Analyst Initials: DT **Extraction Method:** EPA 3550
 Dilution Factor: 1

EPA Method 8080

ANALYTE	DLR	Results	ANALYTE	DLR	Results
4,4'-DDD	4	4.2#	Endosulfan II	4	ND
4,4'-DDE	4	70	Endosulfan Sulfate	4	ND
4,4'-DDT	4	80	Endrin	4	13
Aldrin	2	ND	Endrin Aldehyde	4	ND
Alpha-BHC	2	ND	Heptachlor	2	ND
Beta-BHC	2	ND	Heptachlor Epoxide	2	ND
Delta-BHC	2	ND	Methoxychlor	17	ND
Gamma-BHC (Lindane)	2	ND	Chlordane	17	ND
Dieldrin	4	4.7	Toxaphene	170	ND
Endosulfan I	2	ND			

= Unable to confirm within 30%.

MDL = Method Detection Limit
ND = Not Detected (Below DLR).
DLR = MDL X Dilution Factor
NA = Not Analyzed

Reviewed/Approved By: _____


Lee Ingvaldson
Department Supervisor

Date: 11/16/98

The cover letter is an integral part of this analytical report.

Client: **Entech Analytical Labs, Inc.**
Attn: **Ms. Michelle Anderson**

Client's Project: **Lowney Associates** Lab No.: **30373-017**
Date Sampled: **10/28/98** Sample I.D.: **E19662 (Lot 44)**
Date Received: **11/04/98** QC Batch No.: **G988080S357**
Matrix: **Soil** Extraction Date: **11/04/98**
Units: **ug/kg** Date Analyzed: **11/04/98**
Analyst Initials: **DT** Extraction Method: **EPA 3550**
Date Amended: **11/06/98** Dilution Factor: **1**

EPA Method 8080

ANALYTE	DLR	Results	ANALYTE	DLR	Results
4,4'-DDD	4	ND	Endosulfan II	4	ND
4,4'-DDE	40	140*	Endosulfan Sulfate	4	ND
4,4'-DDT	40	167*	Endrin	4	27
Aldrin	2	ND	Endrin Aldehyde	4	ND
Alpha-BHC	2	2.8	Heptachlor	2	ND
Beta-BHC	2	ND	Heptachlor Epoxide	2	ND
Delta-BHC	2	9.2	Methoxychlor	17	ND
Gamma-BHC (Lindane)	2	ND	Chlordane	17	ND
Dieldrin	4	13	Toxaphene	170	ND
Endosulfan I	2	ND			

* = Dilution Factor is 10.

MDL = Method Detection Limit
ND = Not Detected (Below DLR).
DLR = MDL X Dilution Factor
NA = Not Analyzed

Reviewed/Approved By: _____


Lee Ingvaldson
Department Supervisor

Date: 11/6/98

The cover letter is an integral part of this analytical report.

Client: Entech Analytical Labs, Inc.
Attn: Ms. Michelle Anderson

Client's Project: Lowney Associates **Lab No.:** 30373-018
Date Sampled: 10/28/98 **Sample I.D.:** E19663 (Lot 45)
Date Received: 11/04/98 **QC Batch No.:** G988080S357
Matrix: Soil **Extraction Date:** 11/04/98
Units: ug/kg **Date Analyzed:** 11/04/98
Analyst Initials: DT **Extraction Method:** EPA 3550
Date Amended: 11/06/98 **Dilution Factor:** 1

EPA Method 8080

ANALYTE	DLR	Results	ANALYTE	DLR	Results
4,4'-DDD	4	ND	Endosulfan II	4	ND
4,4'-DDE	4	81	Endosulfan Sulfate	4	ND
4,4'-DDT	4	86	Endrin	4	14
Aldrin	2	ND	Endrin Aldehyde	4	ND
Alpha-BHC	2	22	Heptachlor	2	ND
Beta-BHC	2	ND	Heptachlor Epoxide	2	ND
Delta-BHC	2	15	Methoxychlor	17	ND
Gamma-BHC (Lindane)	2	ND	Chlordane	17	ND
Dieldrin	4	7.5	Toxaphene	170	ND
Endosulfan I	2	ND			

MDL = Method Detection Limit

ND = Not Detected (Below DLR).

DLR = MDL X Dilution Factor

NA = Not Analyzed

Reviewed/Approved By: _____


Lee Ingvaldson
Department Supervisor

Date: 11/16/98

The cover letter is an integral part of this analytical report.

Client: Entech Analytical Labs, Inc.
Attn: Ms. Michelle Anderson

Client's Project: Lowney Associates **Lab No.:** 30373-019
Date Sampled: 10/28/98 **Sample I.D.:** E19664 (Lot 54)
Date Received: 11/04/98 **QC Batch No.:** G988080S357
Matrix: Soil **Extraction Date:** 11/04/98
Units: ug/kg **Date Analyzed:** 11/04/98
Analyst Initials: DT **Extraction Method:** EPA 3550
Date Amended: 11/06/98 **Dilution Factor:** 1

EPA Method 8080

ANALYTE	DLR	Results	ANALYTE	DLR	Results
4,4'-DDD	4	ND	Endosulfan II	4	ND
4,4'-DDE	4	66	Endosulfan Sulfate	4	ND
4,4'-DDT	4	65	Endrin	4	48
Aldrin	2	ND	Endrin Aldehyde	4	ND
Alpha-BHC	2	ND	Heptachlor	2	ND
Beta-BHC	2	ND	Heptachlor Epoxide	2	ND
Delta-BHC	2	4.8	Methoxychlor	17	ND
Gamma-BHC (Lindane)	2	ND	Chlordane	17	ND
Dieldrin	4	5.3	Toxaphene	170	ND
Endosulfan I	2	ND			

MDL = Method Detection Limit
ND = Not Detected (Below DLR).
DLR = MDL X Dilution Factor
NA = Not Analyzed

Reviewed/Approved By: _____


Lee Ingvaldson
Department Supervisor

Date: 11/6/98

The cover letter is an integral part of this analytical report.

Client: Entech Analytical Labs, Inc.
Attn: Ms. Michelle Anderson

Client's Project: Lowney Associates **Lab No.:** 30373-021
Date Sampled: 10/28/98 **Sample I.D.:** E19666 (Lot 46)
Date Received: 11/04/98 **QC Batch No.:** G988080S358
Matrix: Soil **Extraction Date:** 11/04/98
Units: ug/kg **Date Analyzed:** 11/04/98
Analyst Initials: DT **Extraction Method:** EPA 3550
Date Amended: 11/06/98 **Dilution Factor:** 1

EPA Method 8080

ANALYTE	DLR	Results	ANALYTE	DLR	Results
4,4'-DDD	4	ND	Endosulfan II	4	ND
4,4'-DDE	40	121*	Endosulfan Sulfate	4	ND
4,4'-DDT	40	92*	Endrin	4	22
Aldrin	2	18	Endrin Aldehyde	4	ND
Alpha-BHC	2	ND	Heptachlor	2	ND
Beta-BHC	2	ND	Heptachlor Epoxide	2	ND
Delta-BHC	2	3.7	Methoxychlor	17	ND
Gamma-BHC (Lindane)	2	ND	Chlordane	17	ND
Dieldrin	4	56	Toxaphene	170	ND
Endosulfan I	2	ND			

* = Dilution Factor is 10.

MDL = Method Detection Limit
ND = Not Detected (Below DLR).
DLR = MDL X Dilution Factor
NA = Not Analyzed

Reviewed/Approved By: _____


Lee Ingvaldson
Department Supervisor

Date: 11/6/98

The cover letter is an integral part of this analytical report.

Client: Entech Analytical Labs, Inc.
Attn: Ms. Michelle Anderson

Client's Project: Lowney Associates **Lab No.:** 30373-022
Date Sampled: 10/28/98 **Sample I.D.:** E19667 (Lot 47)
Date Received: 11/04/98 **QC Batch No.:** G988080S358
Matrix: Soil **Extraction Date:** 11/04/98
Units: ug/kg **Date Analyzed:** 11/04/98
Analyst Initials: DT **Extraction Method:** EPA 3550
Date Amended: 11/06/98 **Dilution Factor:** 1

EPA Method 8080

ANALYTE	DLR	Results	ANALYTE	DLR	Results
4,4'-DDD	4	ND	Endosulfan II	4	ND
4,4'-DDE	4	26	Endosulfan Sulfate	4	ND
4,4'-DDT	4	25	Endrin	4	66
Aldrin	2	ND	Endrin Aldehyde	4	ND
Alpha-BHC	2	5.6	Heptachlor	2	ND
Beta-BHC	2	ND	Heptachlor Epoxide	2	ND
Delta-BHC	2	14	Methoxychlor	17	ND
Gamma-BHC (Lindane)	2	ND	Chlordane	17	ND
Dieldrin	4	ND	Toxaphene	170	ND
Endosulfan I	2	ND			

MDL = Method Detection Limit
ND = Not Detected (Below DLR).
DLR = MDL X Dilution Factor
NA = Not Analyzed

Reviewed/Approved By: _____


Lee Ingvaldson
Department Supervisor

Date: 11/16/98

The cover letter is an integral part of this analytical report.

Client: Entech Analytical Labs, Inc.
Attn: Ms. Michelle Anderson

Client's Project: Lowney Associates **Lab No.:** 30373-023
Date Sampled: 10/28/98 **Sample I.D.:** E19668 (Lot 48)
Date Received: 11/04/98 **QC Batch No.:** G988080S358
Matrix: Soil **Extraction Date:** 11/04/98
Units: ug/kg **Date Analyzed:** 11/04/98
Analyst Initials: DT **Extraction Method:** EPA 3550
Date Amended: 11/06/98 **Dilution Factor:** 1

EPA Method 3080

ANALYTE	DLR	Results	ANALYTE	DLR	Results
4,4'-DDD	4	ND	Endosulfan II	4	ND
4,4'-DDE	4	33	Endosulfan Sulfate	4	ND
4,4'-DDT	4	29	Endrin	4	9.2
Aldrin	2	ND	Endrin Aldehyde	4	ND
Alpha-BHC	2	ND	Heptachlor	2	ND
Beta-BHC	2	ND	Heptachlor Epoxide	2	ND
Delta-BHC	2	ND	Methoxychlor	17	ND
Gamma-BHC (Lindane)	2	ND	Chlordane	17	ND
Dieldrin	4	ND	Toxaphene	170	ND
Endosulfan I	2	ND			

MDL = Method Detection Limit
ND = Not Detected (Below DLR).
DLR = MDL X Dilution Factor
NA = Not Analyzed

Reviewed/Approved By: _____


Lee Ingvaldson
Department Supervisor

Date: 11/6/98

The cover letter is an integral part of this analytical report.

Client: Entech Analytical Labs, Inc.
Attn: Ms. Michelle Anderson

Client's Project: Lowney Associates **Lab No.:** 30373-024
Date Sampled: 10/28/98 **Sample I.D.:** E19669 (Lot 49)
Date Received: 11/04/98 **QC Batch No.:** G988080S358
Matrix: Soil **Extraction Date:** 11/04/98
Units: ug/kg **Date Analyzed:** 11/04/98
Analyst Initials: DT **Extraction Method:** EPA 3550
Date Amended: 11/06/98 **Dilution Factor:** 1

EPA Method 8080

ANALYTE	DLR	Results	ANALYTE	DLR	Results
4,4'-DDD	4	ND	Endosulfan II	4	ND
4,4'-DDE	4	77	Endosulfan Sulfate	4	ND
4,4'-DDT	4	67	Endrin	4	19
Aldrin	2	ND	Endrin Aldehyde	4	ND
Alpha-BHC	2	ND	Heptachlor	2	ND
Beta-BHC	2	ND	Heptachlor Epoxide	2	ND
Delta-BHC	2	ND	Methoxychlor	17	ND
Gamma-BHC (Lindane)	2	ND	Chlordane	17	ND
Dieldrin	4	6.3	Toxaphene	170	ND
Endosulfan I	2	ND			

MDL = Method Detection Limit
ND = Not Detected (Below DLR).
DLR = MDL X Dilution Factor
NA = Not Analyzed

Reviewed/Approved By: _____


Lee Ingvaldson
Department Supervisor

Date: 11/6/98

The cover letter is an integral part of this analytical report.

Client: Entech Analytical Labs, Inc.
Attn: Ms. Michelle Anderson

Client's Project: Lowney Associates **Lab No.:** Method Blank
Date Sampled: ----- **Sample I.D.:** -----
Date Received: ----- **QC Batch No.:** G988080S357
Matrix: Soil **Extraction Date:** 11/04/98
Units: ug/kg **Date Analyzed:** 11/04/98
Analyst Initials: DT **Extraction Method:** EPA 3550
 Dilution Factor: 1

EPA Method 8080

ANALYTE	DLR	Results	ANALYTE	DLR	Results
4,4'-DDD	4	ND	Endosulfan II	4	ND
4,4'-DDE	4	ND	Endosulfan Sulfate	4	ND
4,4'-DDT	4	ND	Endrin	4	ND
Aldrin	2	ND	Endrin Aldehyde	4	ND
Alpha-BHC	2	ND	Heptachlor	2	ND
Beta-BHC	2	ND	Heptachlor Epoxide	2	ND
Delta-BHC	2	ND	Methoxychlor	17	ND
Gamma-BHC (Lindane)	2	ND	Chlordane	17	ND
Dieldrin	4	ND	Toxaphene	170	ND
Endosulfan I	2	ND			

MDL = Method Detection Limit

ND = Not Detected (Below DLR).

DLR = MDL X Dilution Factor

NA = Not Analyzed

Reviewed/Approved By: _____


Lee Ingvaldson
Department Supervisor

Date: 11/06/98

The cover letter is an integral part of this analytical report.

Spike Recovery and RPD Summary Report - SOIL (ug/kg)

Method : C:\HPCHEM\1\METHODS\PCBPEST1.M (Chemstation Integrator)
 Title : 8081 Pesticides Advanced Technology Laboratory
 Last Update : Wed Sep 30 12:48:09 1998
 Response via : Initial Calibration

Non-Spiked Sample: GB1104A.D

Spike
Sample

Spike
Duplicate Sample

File ID : GMS1104A.D
 Sample : Blank MS E:11/04/98
 Acq Time: 4 Nov 1998 12:32 pm

GMD1104A.D
 Blank MSD E:11/04/98
 4 Nov 1998 1:08 pm

Compound	Sample	Spike Conc	Spike Added	Dup Res	Spike %Rec	Dup %Rec	RPD	QC Limits
							RPD	% Rec
gamma-BHC	0.0	40	28	29	71	72	1	9 50-127
Heptachlor	0.0	40	28	28	69	70	1	12 35-136
Aldrin	0.0	40	35	35	87	86	0	15 47-143
Dieldrin	0.0	80	64	65	80	81	1	8 54-134
Endrin	0.0	80	73	72	91	91	0	16 61-138
4,4'-DDT	0.0	80	59	60	74	74	1	22 15-155

QC Batch #:G988080S357

Reviewed and Approved by:

Date:

11/6/98

Lee Ingvaldson
Organics Supervisor

Spike Recovery and RPD Summary Report - SOIL (ug/kg)

Method : C:\HPCHEM\1\METHODS\PCBPEST1.M (Chemstation Integrator)
 Title : 8081 Pesticides Advanced Technology Laboratory
 Last Update : Wed Sep 30 12:48:09 1998
 Response via : Initial Calibration

Non-Spiked Sample: GB1104B.D

Spike Sample	Spike Duplicate Sample
File ID : GMS1104B.D	GMD1104B.D
Sample : Blamk MS E:11/04/98	Blamk MSD E:11/04/98
Acq Time: 4 Nov 1998 2:19 pm	4 Nov 1998 2:55 pm

Compound	Sample	Spike Conc	Spike Added	Dup Res	Spike %Rec	Dup %Rec	RPD	QC RPD	Limits % Rec
	Conc	Added	Res	%Rec	%Rec	RPD	% Rec		
gamma-BHC	0.0	40	29	29	72	72	0	9	50-127
Heptachlor	0.0	40	28	28	71	71	1	12	35-136
Aldrin	0.0	40	36	36	90	90	0	15	47-143
Dieldrin	0.0	80	65	66	82	83	1	8	54-134
Endrin	0.0	80	73	73	91	92	1	16	61-138
4,4'-DDT	0.0	80	61	61	76	76	0	22	15-155

QC Batch #:G988080S358

Reviewed and approved by: Lee Ingvaldson Date: 11/6/98
 Lee Ingvaldson
 Organics Supervisor

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Subcontract Chain of Custody

BY 10 AM

Subcontract Lab:	Date Sent:	Project Name:	Due Date:			
Sample ID and Source	Matrix	Required Analysis	Date Taken	Time Taken	Containers	Pres?
ATL	11/03/98	Lowney Associates	11/06/98			
E19646 (Lot 1)	SOIL	8080 PESTICIDES	10/27/98		4 oz jar	
E19647 (Lot 2)						
E19648 (Lot 3)						
E19649 (Lot 4)						
E19650 (Lot 9)						
E19651 (Lot 10)						
E19652 (Lot 11)						
E19653 (Lot 12)						
E19654 (Lot 17)						
E19655 (Lot 18)						
E19656 (Lot 19)						
E19657 (Lot 20)						
E19658 (Lot 25)						
E19659 (Lot 26)						
E19660 (Lot 27)						
E19661 (Lot 68)				↓		
E19662 (Lot 44)			10/28/98			
E19663 (Lot 45)	↓	↓	↓	+	↓	

Relinquished By:	Received By:	Date:	Time:
VIA FAX via Cal Onenight		11/3/98	6pm
Relinquished By:	Received By:	Date:	Time:
Diane Malvan		11-4-98	0900

Notes: _____

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Subcontract Chain of Custody

By 10 AM

Relinquished By:	Received By:	Date:	Time:
Mario via Cal	Onenight	11/3/98	6 pm
Relinquished By:	Received By:	Date:	Time:
	Diane Galvan	11-4-98	0900
Relinquished By:	Received By:	Date:	Time:

Notes: _____

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Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • Telephone: (408) 735-1550 (800) 287-1799 • Fax: (408) 735-1554

Chain of Custody/Analysis Work Order

Washington Avenue
Project ID: *JOB # 1124-2A*

Client: Lowney Assoc
 Address: 129 Filbert Street
Oakland, CA 94607
 Contact: _____
 Telephone #: 510-267-1970
 Date Received: '
 Turn Around: 3 DAY TAT

Purchase Order #: _____

Sampler/Company:	Telephone #:
Special Instructions/Comments <i>These samples previously run as composite Refer to E19314, 16, 18, 20, 21 & 22</i>	

LAB USE ONLY

Samples arrived chilled and intact:

Yes No

Notes: _____

Sample Information

Requested Analysis

Lab #	Sample ID	Grab/ Composite	Matrix	Date Collected	Time Collected	Pres.	Sample Container	1	2	3	4	5	6	7	8	9	10	11	12	
E19646	LOT 1		Soil	10/27/98																
E19647	LOT 2																			
E19648	LOT 3																			
E19649	LOT 4																			
E19650	LOT 9																			
E19651	LOT 10																			
E19652	LOT 11																			
E19653	LOT 12			↓	↓			↓												
Relinq. By:				Received By: <i>via World Courier VRAW</i>					Date	10/28/98			Time		<i>12:25 pm</i>					
Relinq. By:				Received By:					Date				Time							
Relinq/By:				Received By:					Date				Time							

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • Telephone: (408) 735-1550 (800) 287-1799 • Fax: (408) 735-1554

Chain of Custody/Analysis Work Order

Job # 1124-2A

Client: Lowney

Address: _____

Contact: _____

Telephone #: _____

Date Received: _____

Turn Around: _____

Project ID: _____

Purchase Order #: _____

Sampler/Company:	Telephone #:
------------------	--------------

Special Instructions/Comments

*These samples previously run
as 4:1 composites
refer to E19314, 16, 18, 20, 21 & 22*

LAB USE ONLY

Samples arrived chilled and intact:

Yes No

Notes: _____

Sample Information

Requested Analysis

Lab #	Sample ID	Grab/ Composite	Matrix	Date Collected	Time Collected	Pres.	Sample Container	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
E19654	LOT 17		Soil	10/27/98																				
E19655	LOT 18																							
E19656	LOT 19																							
E19657	LOT 20																							
E19658	LOT 25			10/27/98																				
E19659	LOT 26																							
E19660	LOT 27																							
E19661	LOT 68																							
Relinq. By:				Received By: <i>VIA World Courier VRARO</i>				Date	10/28/98				Time <i>12:25 pm</i>											
Relinq. By:				Received By:				Date					Time											
Relinq/ By:				Received By:				Date					Time											

3 of 3

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • Telephone: (408) 735-1550 (800) 287-1799 • Fax: (408) 735-1554

Chain of Custody/Analysis Work Order

Job # 1124-2A

Client: Towney

Project ID: _____

Address: _____

Purchase Order #: _____

Contact: _____

Sampler/Company: _____ Telephone #: _____

Telephone #: _____

Special Instructions/Comments

*These samples previously
run as 4:1 composites
Refer to E19314, 16, 18, 20, 21 + 22*

Date Received: _____

Turn Around: _____

LAB USE ONLY

Samples arrived chilled and intact:

Yes

No

Notes: _____

Sample Information							Requested Analysis						
Lab #	Sample ID	Grab/ Composite	Matrix	Date Collected	Time Collected	Pres.	Sample Container	1	2	3	4	5	6
E19662	LOT 44		Soil	10/28/98									
E19663	LOT 45												
E19664	LOT 54												
E19665	LOT 57												
E19666	LOT 46												
E19667	LOT 47												
E19668	LOT 48												
E19669	LOT 49												
Relinq. By:				Received By: <i>via World Courier VTKAZO</i>				Date 10/28/98	Time 12:35 pm				
Relinq. By:				Received By:				Date	Time				
Relinq/ By:				Received By:				Date	Time				

LOWNEYASSOCIATES
CHAIN OF CUSTODY RECORD

(1/2)

Serial Serials To:

Mountain View Office
405 Clyde Avenue
Mountain View, CA 94031
415-967-3345
 415-967-2785 (fax)

Oakland Office
129 Filbert Street
Oakland, CA 94607
510-267-1970
510-267-1972 (fax)

Fax Copy To:

Project Name:
Washington Avenue

Job Number: 1124-2A

Report To: Peter Hanafey

Sampler (initials): John McCain

Supplier (signature): John Tolai

Turnaround Requirements

- 10 working days
- 5 working days
- 3 working days
- 48 hours
- 24 hours
- 2-3 hours (RUSH)

Level A (standard) Level B Level C Level D

Sample I.D.	Date	Time	Sample Matrix	# of Cont.	Laboratory I.D.	Comments
Lot 1 → Lot 4	10-27-98	5:01		1	E19314	X E19616 - 49
Lot 5 → Lot 8					E19315	X
Lot 9 → Lot 62					E19316	X E19650 - 53
Lot 13 → Lot 16					E19317	X
Lot 17 → Lot 20					E19318	X E19654 - 57
Lot 21 → Lot 24		↓			E19319	X
Lot 25, Lot 26, Lot 27, Lot 28	10-27-98				E19320	X E19658 - 61
Lot 44, Lot 45, Lot 50, Lot 51	10-28-98				E19321	X E19662 - 65
Lot 46 → Lot 49	10-28-98				E19322	X E19666 - 69
Lot 50 → Lot 53	✓				E19323	X
Lot 55, Lot 58, Lot 59, Lot 51	10-27-98				E19324	X
Lot 40 → Lot 63	10-27-98				E19325	X
Lot 64 → Lot 67					E19326	X
Lot 69 → Lot 71	✓			↓	E19327	X

RUSH

Remarks

Relinquished By: <u>John Tolai</u>	Date: 10-28-98	Time: 11:20	Received By: <u>F. Jimenez</u>	Date: 10-28-98	Time: 11:20	IN Initials
Relinquished By: <u>F. Jimenez</u>	Date:	Time:	Received By:	Date:	Time:	
Relinquished By:	Date:	Time:	Lab of Analysis:	<u>ENTECH</u>		Temperature Chilled

11/03/98 10:35 FAX 5109389359
11/02/1998 17:00 LOWNEY ASSOC.
TX/RX NO. 1878 ENTECH ANALYT LABS

PAGE 18 002

Entech Analytical Labs, Inc.

CA ELAP# 2224

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

November 24, 1998

Peter Langtry
Lowney Associates
129 Filbert St.
Oakland, CA 94607

Subject: 3 Soil Samples
Lab #'s: E20830 - E20832
Project Name: Washington Avenue
Project Number: 1124-2A
Method(s): EPA 8080 - Pesticides
Subcontract Lab: Acculabs, Inc.

Dear Peter Langtry,

Chemical analysis on the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. USEPA protocols for sample storage and preservation were followed.

Entech Analytical Labs, Inc. is certified by the State of California (#2224). If you have any questions regarding procedures or results, please call me at 408-735-1550.

Sincerely,



Michelle L. Anderson
Lab Director



Acculabs Inc.

Davis

1046 Olive Drive, Suite 2, Davis CA 95616 ■ 530-757-0920 ■ Fax 753-6091

Sample Log 19294
November 24, 1998

Michelle Anderson
Entech Analytical Labs, Inc.
525 Del Rey Avenue, Suite E
Sunnyvale, CA 94086

Subject : 3 Soil samples
Project Name : Lowney Associates
Project Number :

Dear Ms. Anderson,

Chemical analysis on the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. USEPA protocols for sample storage and preservation were followed.

Acculabs - Davis is certified by the State of Arizona (AZ0583) and the State of California (# I-2330). If you have any questions regarding procedures or results, please call me at 530-757-0920.

Sincerely,

Troy D. Juryn Jr.

Tom Kwoka



Acculabs Inc.

Davis

1046 Olive Drive, Suite 2, Davis CA 95616 ■ 530-757-0920 ■ Fax 753-6091

Sample Log 19294

November 24, 1998

EPA 8081A

Sample Name : E20830 (LOT 36)

Project Name	:	Lowney Associates	Date Analyzed	:	11/20/98
Project Number	:		Date Received	:	11/20/98
Sample Date	:	11/19/98	Dilution	:	1:1
Date Extracted	:	11/20/98	Sample Matrix	:	Soil
Extr. Method	:	EPA 3550	Lab Number	:	19294-01
QC Batch	:	PS981104			

Parameter	MRL	Measured Conc.	Units
alpha-BHC	0.0050	<0.0050	mg/Kg
gamma-BHC	0.0050	<0.0050	mg/Kg
beta-BHC	0.0050	<0.0050	mg/Kg
Heptachlor	0.0050	<0.0050	mg/Kg
delta-BHC	0.0050	<0.0050	mg/Kg
Aldrin	0.0050	<0.0050	mg/Kg
Heptachlor Epoxide	0.0050	<0.0050	mg/Kg
gamma-Chlordanne	0.0050	0.0085	mg/Kg
Endosulfan 1	0.0050	<0.0050	mg/Kg
alpha-Chlordanne	0.0050	0.0061	mg/Kg
Dieldrin	0.010	0.016	mg/Kg
DDE	0.010	0.14	mg/Kg
Endrin	0.010	<0.010	mg/Kg
Endosulfan 2	0.010	<0.010	mg/Kg
DDD	0.010	<0.010	mg/Kg
Endrin Aldehyde	0.010	<0.010	mg/Kg
DDT	0.010	0.13	mg/Kg
Endosulfan Sulfate	0.010	<0.010	mg/Kg
Methoxychlor	0.050	<0.050	mg/Kg
Chlordanne Technical	0.10	<0.10	mg/Kg
Toxaphene	0.20	0.30	mg/Kg
Tetrachloro-m-xylene (sur)	(60-138)	90	% Recovery
Decachlorobiphenyl (sur)	(54-166)	89	% Recovery

MRL = Method Reporting Limit

Conc. = Concentration

E = Concentration exceeded calibration range.

Approved By :

pmf
Tom Kwoka



Acculabs Inc.

Davis

1046 Olive Drive, Suite 2, Davis CA 95616 ■ 530-757-0920 ■ Fax 753-6091

EPA 8081A

Sample Log 19294
November 24, 1998

Sample Name : E20831 (LOT 39)

Project Name	:	Lowney Associates	Date Analyzed	:	11/20/98
Project Number	:		Date Received	:	11/20/98
Sample Date	:	11/19/98	Dilution	:	1:1
Date Extracted	:	11/20/98	Sample Matrix	:	Soil
Extr. Method	:	EPA 3550	Lab Number	:	19294-02
QC Batch	:	PS981104			

Parameter	MRL	Measured Conc.	Units
alpha-BHC	0.0050	<0.0050	mg/Kg
gamma-BHC	0.0050	<0.0050	mg/Kg
beta-BHC	0.0050	<0.0050	mg/Kg
Heptachlor	0.0050	<0.0050	mg/Kg
delta-BHC	0.0050	<0.0050	mg/Kg
Aldrin	0.0050	<0.0050	mg/Kg
Heptachlor Epoxide	0.0050	<0.0050	mg/Kg
gamma-Chlordane	0.0050	0.0064	mg/Kg
Endosulfan 1	0.0050	<0.0050	mg/Kg
alpha-Chlordane	0.0050	<0.0050	mg/Kg
Dieldrin	0.010	0.013	mg/Kg
DDE	0.010	0.14	mg/Kg
Endrin	0.010	<0.010	mg/Kg
Endosulfan 2	0.010	<0.010	mg/Kg
DDD	0.010	<0.010	mg/Kg
Endrin Aldehyde	0.010	<0.010	mg/Kg
DDT	0.010	0.14	mg/Kg
Endosulfan Sulfate	0.010	<0.010	mg/Kg
Methoxychlor	0.050	<0.050	mg/Kg
Chlordane Technical	0.10	<0.10	mg/Kg
Toxaphene	0.20	0.28	mg/Kg
Tetrachloro-m-xylene (sur)	(60-138)	92	% Recovery
Decachlorobiphenyl (sur)	(54-166)	93	% Recovery

MRL = Method Reporting Limit

Conc. = Concentration

E = Concentration exceeded calibration range.

Approved By :

pk
Tom Kwoka



Acculabs Inc.

Davis

1046 Olive Drive, Suite 2, Davis CA 95616 ■ 530-757-0920 ■ Fax 753-6091

EPA 8081A

Sample Log 19294
November 24, 1998

Sample Name : E20832 (LOT 46)

Project Name	:	Lowney Associates	Date Analyzed	:	11/20/98
Project Number	:		Date Received	:	11/20/98
Sample Date	:	11/19/98	Dilution	:	1:1
Date Extracted	:	11/20/98	Sample Matrix	:	Soil
Extr. Method	:	EPA 3550	Lab Number	:	19294-03
QC Batch	:	PS981104			

Parameter	MRL	Measured Conc.	Units
alpha-BHC	0.0050	<0.0050	mg/Kg
gamma-BHC	0.0050	<0.0050	mg/Kg
beta-BHC	0.0050	<0.0050	mg/Kg
Heptachlor	0.0050	<0.0050	mg/Kg
delta-BHC	0.0050	<0.0050	mg/Kg
Aldrin	0.0050	<0.0050	mg/Kg
Heptachlor Epoxide	0.0050	<0.0050	mg/Kg
gamma-Chlordane	0.0050	0.0073	mg/Kg
Endosulfan 1	0.0050	<0.0050	mg/Kg
alpha-Chlordane	0.0050	<0.0050	mg/Kg
Dieldrin	0.010	0.018	mg/Kg
DDE	0.010	0.13	mg/Kg
Endrin	0.010	<0.010	mg/Kg
Endosulfan 2	0.010	<0.010	mg/Kg
DDD	0.010	<0.010	mg/Kg
Endrin Aldehyde	0.010	<0.010	mg/Kg
DDT	0.010	0.15	mg/Kg
Endosulfan Sulfate	0.010	<0.010	mg/Kg
Methoxychlor	0.050	<0.050	mg/Kg
Chlordane Technical	0.10	<0.10	mg/Kg
Toxaphene	0.20	0.31	mg/Kg
Tetrachloro-m-xylene (sur)	(60-138)	91	% Recovery
Decachlorobiphenyl (sur)	(54-166)	91	% Recovery

MRL = Method Reporting Limit

Conc. = Concentration

E = Concentration exceeded calibration range.

Approved By : *TK*
Tom Kwoka

Acculabs Inc.

November 20, 1998

QC Report
Pesticides/PCB by EPA 8081A/8082

QC Batch PS981104

Matrix: Soil

Spike and Spike Duplicate Results

Parameter	Matrix Spike (%Rec)	Matrix Spike Dup. (%Rec)	RPD %
gamma-BHC	84	84	0
Heptachlor	83	84	1
Aldrin	79	79	0
Dieldrin	97	109	12
Endrin	91	99	8
4,4'-DDT	120	160	28

Spiked sample ID 19284-01.

Laboratory Control Spike

Parameter	Laboratory Control Spike-(%Rec)
gamma-BHC	86
Heptachlor	84
Aldrin	81
Dieldrin	87
Endrin	85
4,4'-DDT	78

mf

Tom Kwoka
Lab Director

Entech Analytical Labs, Inc.

525 Del Rey Avenue, Suite E • Sunnyvale, CA 94086 • (408) 735-1550 • Fax (408) 735-1554

Subcontract Chain of Custody

19294

Relinquished By:	Received By:	Date:	Time:
	<i>Virginia via Cal Overnight</i>	<i>11/19/98</i>	<i>6pm</i>
Relinquished By:	Received By:	Date:	Time:
Relinquished By:	Received By:	Date:	Time:
	<i>Sgt. Wood</i>	<i>11/20/98</i>	<i>840</i>

Notes:

LOWNEY ASSOCIATES
CHAIN OF CUSTODY RECORD

[Send Results To...](#)

- Mountain View Office**
405-Clyde Avenue
Mountain View, CA 94043
415-967-2365
- 415-967-2785 (fax)

A Oakland Office
129 Filbert Street
Oakland, CA 94607
510-267-1970
B 510-267-1972 (fax)