



**Environmental Investigation Report**  
**Malabar Avenue Property (Tract 7305)**  
**Castro Valley, California**

Alameda County  
JUN 10 2003  
Environmental Health

*Prepared For:*

Delco Builders & Developers  
2552 Stanwell Drive, Suite 203  
Concord, California 94520

*Prepared By:*

Northgate Environmental Management, Incorporated  
3629 Grand Avenue  
Oakland, California 94610

June 4, 2003



***northgate  
environmental  
management, inc.***

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June 4, 2003

Mr. Phil Rowe  
Delco Builders and Developers  
2552 Stanwell Drive, Suite 203  
Concord, CA 94520

Re: Environmental Investigation Report  
Malabar Avenue Property (Tract 7305), Castro Valley, California  
*Project No: 1109.00*

Dear Mr. Rowe:

Northgate Environmental Management, Incorporated is pleased to present our Environmental Investigation Report for the above-referenced site. A copy of the report has been sent to Ms. Eva Chu of Alameda County Environmental Health on your behalf.

We appreciate the opportunity to provide service to you on this project and trust this report meets your needs at this time. Please don't hesitate to call if you have any questions or require additional information.

Sincerely,

Northgate Environmental Management, Inc.

A handwritten signature consisting of two stylized initials, 'D' and 'L', followed by a horizontal line.

Dennis Laduzinsky, C.E.G.  
Associate

Copies: Addressee (2)  
Eva Chu (ACEH - 1)

**Environmental Investigation Report  
Malabar Avenue Property  
(Tract 7305)  
Castro Valley, California**

June 4 2003

*Prepared For:*  
Delco Builders & Developers  
2552 Stanwell Drive, Suite 203  
Concord, California 95032

*Prepared By:*  
Northgate Environmental Management, Inc.  
3629 Grand Avenue  
Oakland, California 94610



Dennis Laduzinsky, C.E.G./R.E.A.  
Associate



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## **1.0 INTRODUCTION AND SCOPE OF SERVICES**

This report presents the results of an environmental investigation performed at 4605, 4611, and 4643 Malabar Avenue in Castro Valley, California. The site consists of an approximate 3.5-acre parcel also referred to as Tract 7305. A Site Location Map is shown on Figure 1 and a Site Plan is shown on Figure 2.

The purpose of the investigation has been to provide additional evaluation of potential environmental concerns related to a former underground fuel storage tank (UST) that was removed from the site in the 1960s, and possible historic pesticide use at the site, as outlined in an e-mail memorandum from Ms. Eva Chu of Alameda County Environmental Health (ACEH) to Mr. Ariu Levi and Ms. Donna Drogos of ACEH dated April 15, 2003. The investigation included the analysis of 16 shallow soil samples for the possible presence of pesticides, and analysis of four soil samples collected from two borings drilled in the vicinity of the former UST for the possible presence of petroleum hydrocarbons. The work was performed in general accordance with the *Work Plan for Environmental Investigation, Malabar Avenue Property (Tract 7305), Castro Valley, California*, dated May 8, 2003, as modified by the *Work Plan Approval* letter from Ms. Chu, dated May 13, 2003.

The scope of work for the investigation included the following services:

- Collecting soil samples from depths of one and three feet below the ground surface (bgs) from eight locations on the northern portion of the site, and analyzing the one-foot samples for organochlorine and organophosphorous pesticides;
- Collecting soil samples from a depth of about one foot bgs at eight locations on the southern and eastern portions of the site, and analyzing the samples for organophosphorous pesticides;
- Drilling two soil borings to depths of nine and 14 feet bgs in the vicinity of a former UST, and analyzing four soil samples for petroleum hydrocarbons as gasoline and diesel;
- Conducting a general reconnaissance of an area of the site reported to have contained a hand-dug well, in an attempt to identify the former well location; and
- Preparing this report.

## **2.0 BACKGROUND**

### **2.1 Site Location**

The site consists of an approximate 3.5-acre parcel located at 4605, 4611, and 4643 Malabar



Avenue in Castro Valley, California. The site is presently covered with a moderate growth of grass and weeds, and is developed with four vacant structures, generally located near the center of the property. The site is located in a residential neighborhood, and is bordered on the east, west, and south by single-family residences. The site is bordered on the north by Malabar Avenue, and partially bordered on the south by Seven Hills Road.

## 2.2 Previous Investigations

A previous environmental assessment performed at the site (*Phase I Environmental Site Assessment on Proposed Residential Development, 4605, 4611, and 4643 Malabar Avenue, Castro Valley, California* dated September 27, 2000, by Terrasearch, Inc.) indicates that the site was developed as a chicken farm from the early 1900s through the 1960s. Aerial photographs viewed during the investigation reportedly indicated that the southwestern and southeastern portions of the site were used for row crops beginning sometime between 1975 and 1981. The aerial photograph review indicated that agricultural land use ceased sometime prior to 1988. A UST was reportedly removed from the site sometime in the 1960s, and an old hand-dug well was reportedly filled-in in the 1960s. The Phase I investigation concluded that specific soil and groundwater testing should be performed in the area of the former UST. The report also recommended that soil testing be performed in the former agricultural land use area to evaluate potential soil quality impacts due to pesticides.

Terrasearch subsequently performed an additional investigation at the site in accordance with recommendations contained in the Phase I assessment. The investigation results are presented in a report titled *Surface and Subsurface Environmental Site Assessment on 4605, 4611 and 4643 Malabar Avenue, Castro Valley California* dated November 3, 2000. Terrasearch's investigation included collecting four soil samples within one foot of the ground surface from the southwest and southeast portions of the site (the former agricultural area observed on the historic aerial photographs), and analyzing the samples for organochlorine pesticides, arsenic, lead, and mercury. Terrasearch also drilled one soil boring in the vicinity of the former UST in an attempt to collect soil and groundwater samples for chemical analysis. However, the report indicates that the boring could not be drilled deeper than five feet due to hard rock encountered in the boring. One soil sample collected from a depth of four feet was analyzed for petroleum hydrocarbons as gasoline and diesel, purgeable aromatic compounds, MTBE, and lead. The previous sampling locations are shown on figure 2.

The shallow soil samples did not contain organochlorine pesticide compounds above the laboratory method reporting limits. Arsenic was measured in two of the samples at concentrations of 4.3 and 5.3 parts per million (ppm). Lead was present in all four samples, with concentrations ranging from 4.4 to 17 ppm. Mercury was detected in one sample, at a concentration of 0.096 ppm. Terrasearch concluded that the measured concentrations of metals were within the range of naturally occurring background levels. As organochlorine pesticides were not detected in the samples, the report concluded that the previous agricultural land use had not impacted shallow soil quality at the site.



The soil sample collected from a depth of four feet near the former UST did not contain hydrocarbon compounds above the laboratory method reporting limits. Based on these test results, Terrasearch concluded that no additional environmental assessment was required at the site.

ACEH subsequently requested that additional testing be performed to further evaluate the potential for impacts to soil and groundwater quality at the site related to the former UST and possible former agricultural land uses. ACEH also requested additional evaluation of the closure status of the former hand-dug well. The present investigation has been performed to address the ACEH requests.

### **3.0 INVESTIGATION METHODS AND RESULTS**

The investigation methods and results for each potential area of concern are described in the following sections.

#### **3.1 Former Agricultural Land Uses**

Soil samples were collected at depths of one and three feet bgs to evaluate the site for the presence of residual pesticide compounds related to possible historic agricultural land uses. Samples were collected from 16 locations at the site as shown on Figure 2. Samples were collected using a truck-mounted drill rig equipped with hollow-stem augers. The samples were collected by driving a standard penetration split-spoon sampler to the desired sampling depth. Upon removal from the borehole, the sampler was opened, and soil from the selected sample interval was manually transferred from the sampler to a laboratory-supplied sample jar. The sample was sealed with a Teflon-lined lid, labeled, and placed on ice in an ice chest. A chain-of-custody form was initiated in the field and accompanied the samples to the analytical laboratory.

Soil samples were selectively analyzed at STL of Pleasanton, California, for organochlorine and organophosphorous pesticides using EPA Methods 8081 and 8141, respectively. In accordance with Work Plan, as modified by ACEH, the samples collected from a depth of one-foot bgs on the northern portion of the parcel (samples labeled SS-A1 through A4, and SS-B1 through B4 on Figure 2) were analyzed for organochlorine and organophosphorous pesticides. Samples collected from the southern and eastern portions of the site (samples labeled SS-C1 through C4, and SS-D1 through D4 on Figure 2) were analyzed only for organophosphorous pesticides, as soil in these areas had been previously tested for organochlorine pesticides by Terrasearch.

The chemical test results are presented on Table 1, and the laboratory analytical reports are attached in Appendix A. As shown on Table 1, samples from the northern portion of the site did not contain organochlorine pesticides or organophosphorous pesticides at concentrations above the laboratory method reporting limits (MRLs). The samples collected from the southern and eastern portions of the site did not contain organophosphorous pesticides above the laboratory MRLs.



### **3.2 Former UST**

Soil borings were drilled at two locations in the general vicinity of the former UST, as identified in the field by Ms. Marie Alcorn, the owner of the site at the time the UST was removed. In accordance with procedures outlined in the Work Plan, we attempted to advance a boring to a depth of about 25 feet bgs at a location approximately 25 feet southwest of the former UST. However, due to the presence of hard siltstone and sandstone rock, the initial boring could not be advanced beyond a depth of about 14 feet bgs. During drilling, soil samples were collected at depths of four and nine feet bgs by driving a modified California Sampler equipped with thin brass liners, using a 140-pound hammer falling 30 inches. As shown on the boring logs attached in Appendix B, the blow counts required to drive the sampler were 50 for 3-inches at four feet, and 50 for 2-inches at nine feet. At a depth of 14 feet, the blow counts were 50 for 1-inch, and the boring was terminated due to hard drilling.

Because the boring could not be advanced beyond a depth of 14 feet, a second boring was advanced at the area identified by Ms. Alcorn as the location of the former UST. At this location, a shallow depression was present that could represent settlement that might occur in a loosely filled excavation. As shown on the boring log of boring NB-2, possible old fill material was encountered (including fragments of red clay pipe) to a depth of four feet, where siltstone bedrock was again encountered. Soil samples were collected at depths of four and nine feet, with blow counts of 50 for 3-inches and 50 for 4-inches, respectively, and the boring could not be advanced further due to the presence of bedrock. Groundwater was not encountered in the borings.

The bedrock samples were collected at depths of four and nine feet bgs in each boring by filling any open heads pave in the sample tube with Teflon film, and sealing the sample tube with Teflon-lined lids. The samples were labeled, stoned on ice in an ice chest, and transported to the laboratory under chain of custody control. Each sample was analyzed for petroleum hydrocarbons as gasoline and diesel using EPA Method 8015M, and for purgeable aromatic compounds (benzene, toluene, ethylbenzene, and xylenes, or BTEX) and methyl tert-Butyl Ether (MtBE) using EPA Method 8021. Laboratory analytical results are presented on Table 2 and the laboratory reports are attached in Appendix A. As shown on the table, none of the samples contained hydrocarbon compounds, with the exception of the nine-foot bgs sample from boring NB-1, which contained 2.6 ppm of a diesel-range hydrocarbon. However, it should be noted that the laboratory report indicates that the hydrocarbon does not match the laboratory's diesel standard. In our experience, it is not uncommon for low levels of diesel-range hydrocarbons to be present in soil samples related to naturally occurring organic materials or other sources. As we did not observe hydrocarbon odors or other indications of the presence of contamination on any of the samples or soil cuttings generated during the investigation, it is our opinion that the low level of diesel range hydrocarbons reported in the sample do not represent a significant environmental concern.



### **3.3 Hand Dug Well**

Information in the previous reports indicates that a hand-dug well was formerly located on the site. Our interview with Ms. Alcorn confirms that the old well was backfilled in the early 1960s. Ms. Alcorn generally recalls that the well was a brick-lined well, several feet in diameter, and was approximately 60 feet deep. Ms. Alcorn did not recall whether the well was filled with rock or dirt.

During our field investigation, we met with Mr. Jesse Glenn, a neighbor who said he grew corn and other crops on the site for approximately seven years in the 1980s. Mr. Glenn showed us an area on the site where he recalled that the old well was located. Northgate performed a general inspection of this area by probing the ground with a steel rod. This inspection revealed the presence of an approximate two-foot diameter circle of bricks located near the ground surface, at the approximate location shown on Figure 2. The interior of the circle was solid, and could not be probed with the steel rod, whereas most areas nearby could be penetrated to a depth of a foot or more with the steel probe. In our opinion, this ring of brick could potentially mark the location of the former hand dug well. We recommend that a geotechnical engineer examine this area during any future site grading activities. However, in our opinion, these type of old hand-dug wells are not generally amenable to pressure grouting as suggested in the ACEH memorandum.

## **4.0 CONCLUSIONS AND RECOMMENDATIONS**

This investigation was conducted to evaluate the site for the possible presence of residual pesticides in shallow soil related to previous agricultural land uses, and for the possible presence of petroleum hydrocarbons related to a UST that was removed from the site in the 1960s. The investigation consisted of analyzing 16 soil samples collected within one foot of the ground surface for organophosphorous and/or organochlorine pesticides, and analyzing four soil samples collected from two borings drilled in the vicinity of the former UST for petroleum hydrocarbons as gasoline and diesel. In addition, the investigation included the inspection of an area of the site reported to have contained an old, filled-in hand dug well.

As described in the report, none of the shallow soil samples were found to contain organochlorine or organophosphorous pesticides above the laboratory method reporting limits (MRLs). In our opinion, these results, along with the test results from previous investigations performed at the site, indicate that shallow soil at the site does not appear to have been impacted by possible historic agricultural land use.

Borings drilled in the vicinity of the former UST encountered hard sandstone and siltstone rock at a depth of about four feet below the ground surface (bgs), and could not be advanced beyond a depth of 14 feet bgs using a drill rig equipped with hollow-stem augers. Soil samples collected at depths of four and nine feet bgs from a boring drilled at the reported former UST location did not contain petroleum hydrocarbons as gasoline or diesel above the laboratory MRL. Samples collected at depths of four and nine feet bgs from a boring located about 25 feet southwest (downgradient) of the former UST did not contain hydrocarbons, except for 2.6-ppm total



petroleum hydrocarbons as diesel reported in the sample from nine feet bgs. Benzene, toluene, ethylbenzene, xylenes, or MtBE were not reported present in any of the samples above the laboratory MRLs. It should be noted that the laboratory report indicates that the diesel hydrocarbons reported in the sample did not match the laboratory's diesel standard. In addition, we did not observe indications of the possible presence of petroleum hydrocarbon contamination during the drilling and sampling program. In our experience, low levels of diesel-range hydrocarbons reported in soil samples can sometimes be related to the presence of naturally occurring organic material in soil or rock, or as an artifact of the drilling and sampling process. In our opinion, the low level of diesel range hydrocarbon reported in the one soil sample does not appear to represent a significant environmental concern.

Our site reconnaissance indicated the presence of an approximate 2-foot diameter circle of brick located at the ground surface on the southern portion of the site. This feature could potentially represent the former hand dug well that was reportedly filled in the 1960s. The circle is currently filled to the ground surface, and could not be penetrated with a hand driven steel probe. We recommend that this feature be evaluated by a geotechnical engineer during any site grading activities to assess potential geotechnical impacts to site development.

## 5.0 LIMITATIONS

The purpose of an environmental assessment is to reasonably evaluate the potential for or actual impact of past practices on a given site area. In performing an environmental assessment, it is understood that a balance must be struck between a reasonable inquiry into the environmental issues and an exhaustive analysis of each conceivable issue of potential concern. The following paragraphs discuss the assumptions and parameters under which such an assessment (which may include professional opinions) is conducted.

No investigation is thorough enough to absolutely rule out the presence of hazardous materials at a given site. If hazardous conditions have not been identified during the assessment, such a finding should not therefore be construed as a guarantee of the absence of such materials on the site, but rather as the result of the services performed within the scope, limitations, and cost of the work performed.

Environmental conditions may exist at the site that cannot be identified by visual observation. Where subsurface work was performed, our professional opinions are based in part on interpretation of data from discrete sampling locations that may not represent actual conditions at unsampled locations.

Except where there is express concern of our client, or where specific environmental contaminants have been previously reported by others, naturally occurring toxic substances, potential environmental contaminants inside buildings, or contaminant concentrations that are not of current environmental concern may not be reflected in this document.

Where the scope of services is limited to interview and/or review of readily available reports and literature, any conclusions, and/or recommendations are necessarily based largely on information



supplied by others, the accuracy or sufficiency of which may not be independently reviewed by us.

Any opinions and/or recommendations presented apply to site conditions existing at the time of performance of services. We are unable to report on, or accurately predict, generally unforeseeable events that may impact the site following performance of services, whether occurring naturally or caused by external forces. Therefore, we cannot assume responsibility of such events or their impact. We also cannot assume responsibility for changes in environmental standards, practices, or regulations.



**Table 1**  
**Soil Sample Analytical Results - Pesticides**  
 Malabar Avenue Property  
 Castro Valley, California

Sample Location	Sample Depth (ft)	Organochlorine Pesticides (EPA 8081)	Organophosphorous Pesticides (EPA 8141)
SS-A1	1	ND	<77 <i>µg/kg</i>
SS-A2	1	ND	<81
SS-A3	1	ND	<76
SS-A4	1	ND	<77
SS-B1	1	ND	<74
SS-B2	1	ND	<79
SS-B3	1	ND	<73
SS-B4	1	ND	<78
SS-C1	1	--	<75
SS-C2	1	--	<76
SS-C3	1	--	<77
SS-C4	1	--	<76
SS-D1	1	--	<77
SS-D2	1	--	<76
SS-D3	1	--	<78
SS-D4	1	--	<78

**NOTES**

ND: Not detected above the laboratory method reporting limit; limits vary with compound

<: Not detected at or above the indicated laboratory method reporting limit

--: Not Analyzed.

**TABLE 2**  
**Soil Sample Analytical Results - Petroleum Hydrocarbons**  
**Malabar Avenue Property**  
**Castro Valley, California**

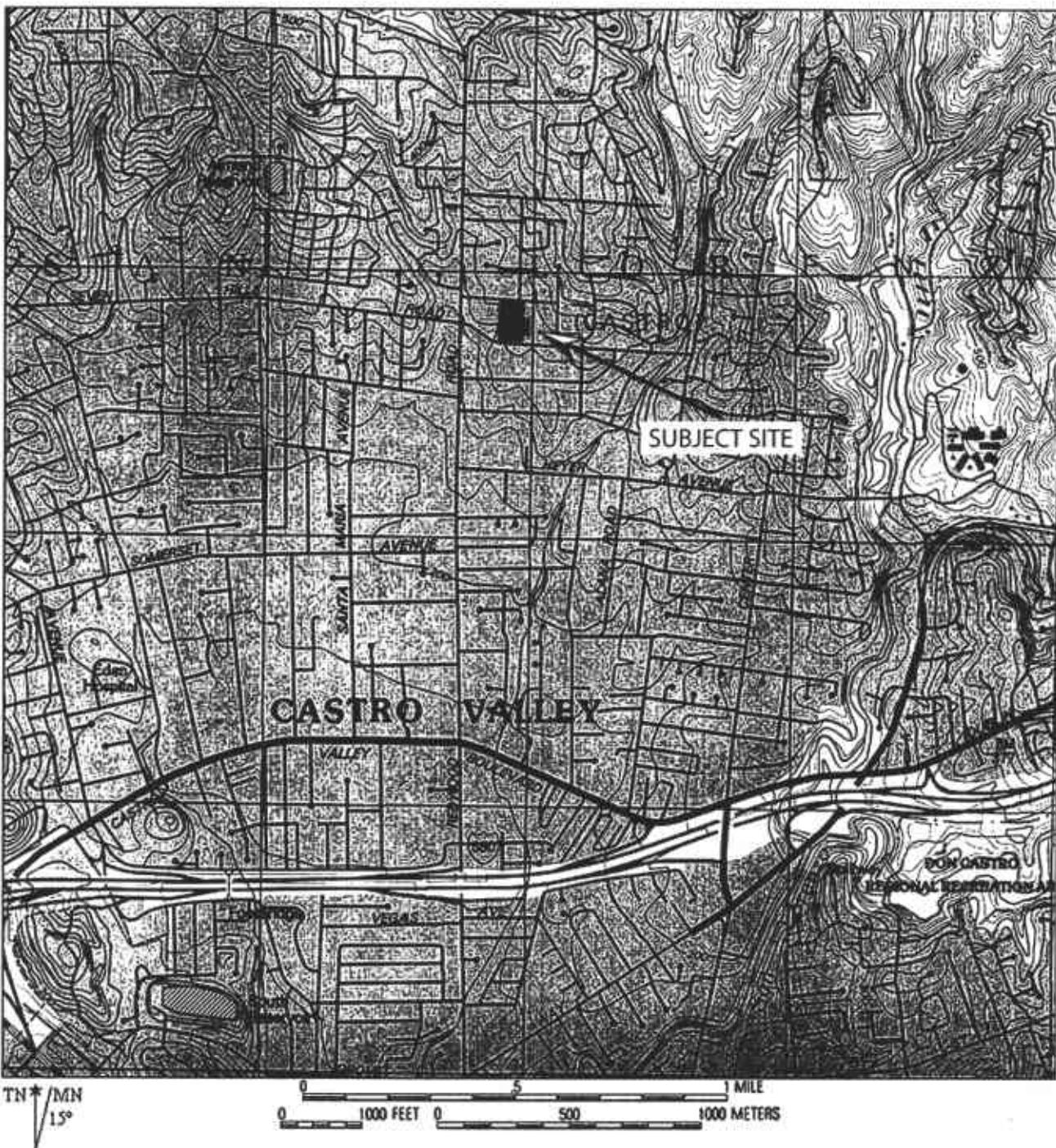
Analyte	Sample Location and Depth			
	NB1-4	NB1-9	NB2-4.25	NB2-9
TPH as Gasoline - EPA 8015M	<1.0	<1.0	<1.0	<1.0
TPH as Diesel - EPA 8015M	<1.0	2.6*	<1.0	<1.0
Purgeable Aromatics - EPA 8021				
Benzene	<0.005	<0.005	<0.005	<0.005
Toluene	<0.005	<0.005	<0.005	<0.005
Ethyl benzene	<0.005	<0.005	<0.005	<0.005
Xylenes	<0.005	<0.005	<0.005	<0.005
MTBE - EPA 8021	<0.005	<0.005	<0.005	<0.005

**NOTES**

Results reported in mg/kg (parts per million)

<: Not detected at or above the indicated laboratory method reporting limit

\*: Hydrocarbon does not match the laboratory standard

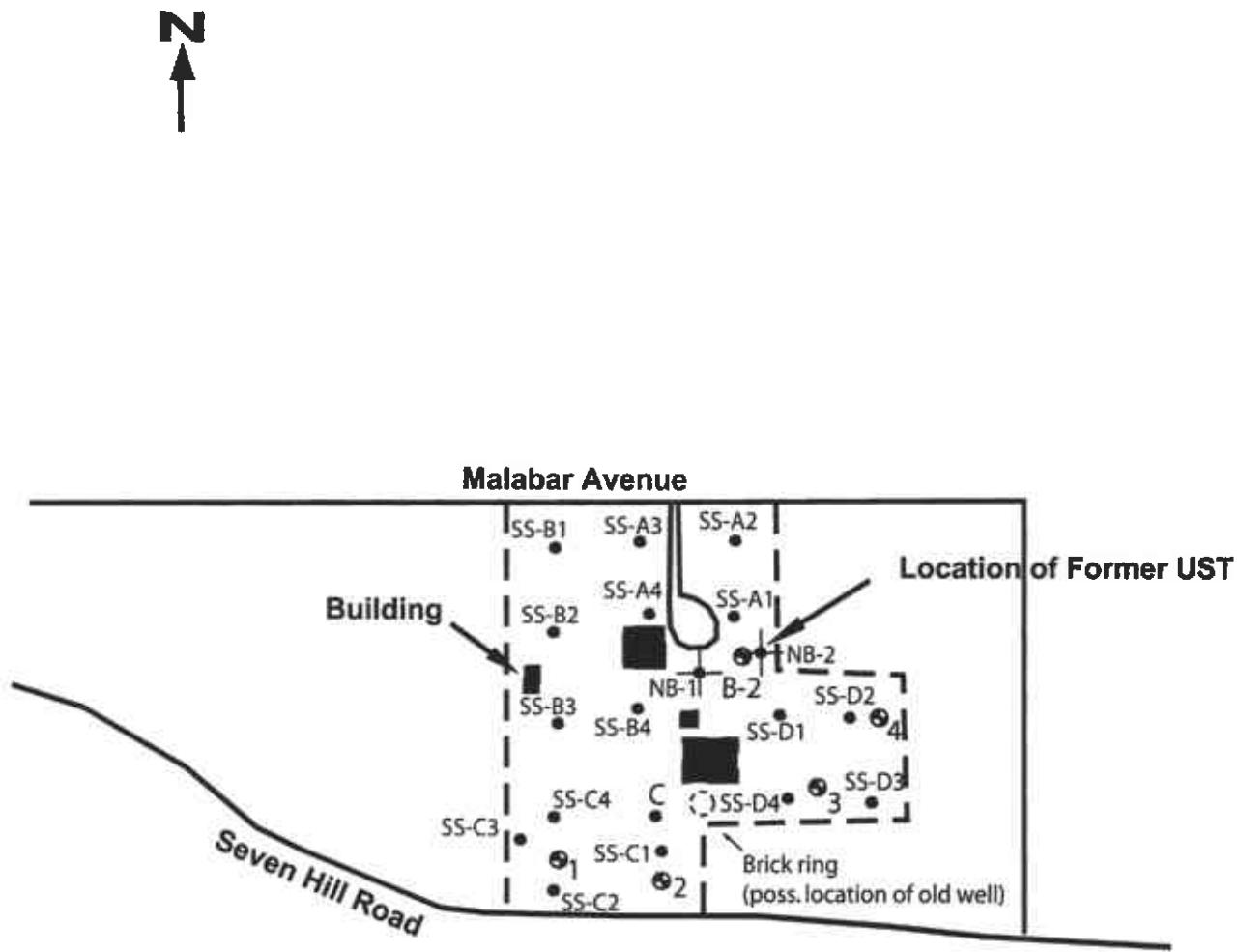


**FIGURE 1**  
**Site Location Map**



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management, inc**

Malebar Avenue Property  
Hayward, California  
June 2003  
Proj. No. 1109.00



- SS-A1 • Pesticide Sample Location
- ⊕ Boring at Former UST
- ◎ Previous Sample Location (Terrasearch)

-no scale -

Source: Terrasearch, 2000

**FIGURE 2**  
**Site Plan**



*northgate  
environmental  
management, inc*

Malabar Avenue Property  
Hayward, California  
June 2003  
Proj. No. 1109.00

Northgate Environmental, Oakland

May 28, 2003

3629 Grand Avenue  
Oakland, CA 94610

Attn.: Dennis Laduzinsky

Project#: 1109.00

Project: Malabar Ave.

Site: Castro Valley

Dear Mr. Laduzinsky

Attached is our report for your samples received on 05/19/2003 17:19

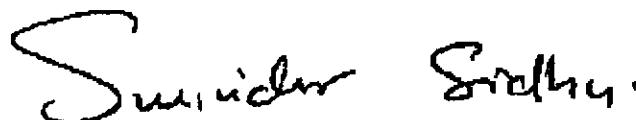
This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 07/03/2003 unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions,

You can also contact me via email. My email address is: ssidhu@stl-inc.com

Sincerely,



Surinder Sidhu  
Project Manager

**Organochlorine Pesticides Analysis**

Northgate Environmental, Oakland

Attn.: Dennis Laduzinsky

3629 Grand Avenue  
Oakland, CA 94610  
Phone: (510) 839-2939 Fax: (510) 839-4350Project: 1109.00  
Malabar Ave.

Received: 05/19/2003 17:19

Site: Castro Valley

**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
SS-A1-1	05/16/2003	Soil	1
SS-A2-1	05/16/2003	Soil	3
SS-A3-1	05/16/2003	Soil	5
SS-A4-1	05/16/2003	Soil	7
SS-B1-1	05/16/2003	Soil	9
SS-B2-1	05/16/2003	Soil	11
SS-B3-1	05/16/2003	Soil	13
SS-B4-1	05/16/2003	Soil	15

## Organochlorine Pesticides Analysis

Northgate Environmental, Oakland

Attn.: Dennis Laduzinsky

3629 Grand Avenue  
Oakland, CA 94610  
Phone: (510) 839-2939 Fax: (510) 839-4350

Project: 1109.00  
Malabar Ave.

Received: 05/19/2003 17:19

Site: Castro Valley

Prep(s):	3550/8081	Test(s):	8081
Sample ID:	SS-A1-1	Lab ID:	2003-05-0529 - 1
Sampled:	05/16/2003	Extracted:	5/20/2003 06:25
Matrix:	Soil	QC Batch#:	2003/05/20-01.13

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
Dieldrin	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
Endrin aldehyde	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
Endrin	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
Endrin ketone	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
Heptachlor	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
Heptachlor epoxide	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
4,4'-DDT	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
4,4'-DDE	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
4,4'-DDD	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
Endosulfan I	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
Endosulfan II	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
alpha-BHC	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
beta-BHC	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
delta-BHC	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
Endosulfan sulfate	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
4,4'-Methoxychlor	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
Toxaphene	ND	100	ug/Kg	1.00	05/21/2003 09:19	
Chlordane (Technical)	ND	50	ug/Kg	1.00	05/21/2003 09:19	
alpha-Chlordane	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
gamma-Chlordane	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
<b>Surrogates(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	68.4	50-125	%	1.00	05/21/2003 09:19	
Decachlorobiphenyl (Pest/8081)	73.1	46-142	%	1.00	05/21/2003 09:19	

## Organochlorine Pesticides Analysis

Northgate Environmental, Oakland

Attn.: Dennis Laduzinsky

3629 Grand Avenue  
Oakland, CA 94610  
Phone: (510) 839-2939 Fax: (510) 839-4350

Project: 1109.00  
Malabar Ave.

Received: 05/19/2003 17:19

Site: Castro Valley

Prep(s):	3550/8081	Test(s):	8081
Sample ID:	SS-A2-1	Lab ID:	2003-05-0529 - 3
Sampled:	05/16/2003	Extracted:	5/30/2003 07:25
Matrix:	Soil	QC Batch#:	2003/05/30-01.13

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
Die�drin	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
Endrin aldehyde	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
Endrin	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
Endrin ketone	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
Heptachlor	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
Heptachlor epoxide	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
4,4'-DDT	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
4,4'-DDE	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
4,4'-DDD	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
Endosulfan I	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
Endosulfan II	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
alpha-BHC	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
beta-BHC	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
delta-BHC	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
Endosulfan sulfate	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
4,4'-Methoxychlor	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
Toxaphene	ND	100	ug/Kg	1.00	05/30/2003 12:40	
Chlordane (Technical)	ND	50	ug/Kg	1.00	05/30/2003 12:40	
alpha-Chlordane	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
gamma-Chlordane	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
<i>Surrogates(s)</i>						
2,4,5,6-Tetrachloro-m-xylene	83.2	50-125	%	1.00	05/30/2003 12:40	
Decachlorobiphenyl (Pest/8081)	78.2	46-142	%	1.00	05/30/2003 12:40	

## Organochlorine Pesticides Analysis

Northgate Environmental, Oakland

Attn.: Dennis Laduzinsky

3629 Grand Avenue  
Oakland, CA 94610  
Phone: (510) 839-2939 Fax: (510) 839-4350

Project: 1109.00  
Malabar Ave.

Received: 05/19/2003 17:19

Site: Castro Valley

Prep(s):	3550/8081	Test(s):	8081
Sample ID:	SS-A3-1	Lab ID:	2003-05-0529 - 5
Sampled:	05/16/2003	Extracted:	5/20/2003 06:25
Matrix:	Soil	QC Batch#:	2003/05/20-01.13

Analysis Flag: Irn ( See Legend and Note Section )

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Aldrin	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
Dieldrin	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
Endrin aldehyde	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
Endrin	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
Endrin ketone	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
Heptachlor	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
Heptachlor epoxide	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
4,4'-DDT	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
4,4'-DDE	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
4,4'-DDD	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
Endosulfan I	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
Endosulfan II	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
alpha-BHC	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
beta-BHC	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
gamma-BHC (Lindane)	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
delta-BHC	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
Endosulfan sulfate	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
4,4'-Methoxychlor	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
Toxaphene	ND	200	ug/Kg	2.00	05/21/2003 10:21	
Chlordane (Technical)	ND	100	ug/Kg	2.00	05/21/2003 10:21	
alpha-Chlordane	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
gamma-Chlordane	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
<b>Surrogates(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	77.2	50-125	%	2.00	05/21/2003 10:21	
Decachlorobiphenyl (Pest/8081)	76.2	46-142	%	2.00	05/21/2003 10:21	

## Organochlorine Pesticides Analysis

Northgate Environmental, Oakland

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Project: 1109.00

Received: 05/19/2003 17:19

Malabar Ave.

Site: Castro Valley

Prep(s): 3550/8081

Test(s): 8081

Sample ID: SS-A4-1

Lab ID: 2003-05-0529 - 7

Sampled: 05/16/2003

Extracted: 5/20/2003 06:25

Matrix: Soil

QC Batch#: 2003/05/20-01.13

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
Dieldrin	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
Endrin aldehyde	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
Endrin	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
Endrin ketone	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
Heptachlor	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
Heptachlor epoxide	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
4,4'-DDT	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
4,4'-DDE	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
4,4'-DDD	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
Endosulfan I	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
Endosulfan II	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
alpha-BHC	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
beta-BHC	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
delta-BHC	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
Endosulfan sulfate	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
4,4'-Methoxychlor	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
Toxaphene	ND	100	ug/Kg	1.00	05/21/2003 12:25	
Chlordane (Technical)	ND	50	ug/Kg	1.00	05/21/2003 12:25	
alpha-Chlordane	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
gamma-Chlordane	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
<i>Surrogates(s)</i>						
2,4,5,6-Tetrachloro-m-xylene	75.6	50-125	%	1.00	05/21/2003 12:25	
Decachlorobiphenyl (Pest/8081)	76.1	46-142	%	1.00	05/21/2003 12:25	

## Organochlorine Pesticides Analysis

Northgate Environmental, Oakland

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Project: 1109.00  
Malabar Ave.

Received: 05/19/2003 17:19

Site: Castro Valley

---

Prep(s):	3550/8081	Test(s):	8081
Sample ID:	SS-B1-1	Lab ID:	2003-05-0529 - 9
Sampled:	05/16/2003	Extracted:	5/20/2003 06:25
Matrix:	Soil	QC Batch#:	2003/05/20-01.13

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
Dieldrin	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
Endrin aldehyde	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
Endrin	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
Endrin ketone	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
Heptachlor	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
Heptachlor epoxide	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
4,4'-DDT	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
4,4'-DDE	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
4,4'-DDD	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
Endosulfan I	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
Endosulfan II	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
alpha-BHC	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
beta-BHC	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
delta-BHC	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
Endosulfan sulfate	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
4,4'-Methoxychlor	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
Toxaphene	ND	100	ug/Kg	1.00	05/21/2003 10:52	
Chlordane (Technical)	ND	50	ug/Kg	1.00	05/21/2003 10:52	
alpha-Chlordane	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
gamma-Chlordane	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
<b>Surrogates(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	75.2	50-125	%	1.00	05/21/2003 10:52	
Decachlorobiphenyl (Pest/8081)	73.6	46-142	%	1.00	05/21/2003 10:52	

## Organochlorine Pesticides Analysis

Northgate Environmental, Oakland

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Project: 1109.00  
Malabar Ave.

Received: 05/19/2003 17:19

Site: Castro Valley

---

Prep(s):	3550/8081	Test(s):	8081
Sample ID:	SS-B2-1	Lab ID:	2003-05-0529 - 11
Sampled:	05/16/2003	Extracted:	5/20/2003 06:25
Matrix:	Soil	QC Batch#:	2003/05/20-01.13

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
Dieldrin	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
Endrin aldehyde	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
Endrin	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
Endrin ketone	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
Heptachlor	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
Heptachlor epoxide	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
4,4'-DDT	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
4,4'-DDE	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
4,4'-DDD	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
Endosulfan I	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
Endosulfan II	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
alpha-BHC	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
beta-BHC	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
delta-BHC	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
Endosulfan sulfate	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
4,4'-Methoxychlor	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
Toxaphene	ND	100	ug/Kg	1.00	05/21/2003 11:23	
Chlordane (Technical)	ND	50	ug/Kg	1.00	05/21/2003 11:23	
alpha-Chlordane	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
gamma-Chlordane	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
<b>Surrogates(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	81.4	50-125	%	1.00	05/21/2003 11:23	
Decachlorobiphenyl (Pest/8081)	84.1	46-142	%	1.00	05/21/2003 11:23	

## Organochlorine Pesticides Analysis

Northgate Environmental, Oakland

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Project: 1109.00  
Malabar Ave.

Received: 05/19/2003 17:19

Site: Castro Valley

Prep(s):	3550/8081	Test(s):	8081
Sample ID:	SS-B3-1	Lab ID:	2003-05-0529 - 13
Sampled:	05/16/2003	Extracted:	5/20/2003 06:25
Matrix:	Soil	QC Batch#:	2003/05/20-01.13

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
Dieldrin	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
Endrin aldehyde	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
Endrin	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
Endrin ketone	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
Heptachlor	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
Heptachlor epoxide	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
4,4'-DDT	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
4,4'-DDE	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
4,4'-DDD	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
Endosulfan I	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
Endosulfan II	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
alpha-BHC	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
beta-BHC	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
delta-BHC	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
Endosulfan sulfate	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
4,4'-Methoxychlor	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
Toxaphene	ND	100	ug/Kg	1.00	05/21/2003 11:54	
Chlordane (Technical)	ND	50	ug/Kg	1.00	05/21/2003 11:54	
alpha-Chlordane	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
gamma-Chlordane	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
<i>Surrogates(s)</i>						
2,4,5,6-Tetrachloro-m-xylene	74.7	50-125	%	1.00	05/21/2003 11:54	
Decachlorobiphenyl (Pest/8081)	82.3	46-142	%	1.00	05/21/2003 11:54	

## Organochlorine Pesticides Analysis

Northgate Environmental, Oakland

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Project: 1109.00  
Malabar Ave.

Received: 05/19/2003 17:19

Site: Castro Valley

---

Prep(s):	3550/8081	Test(s):	8081
Sample ID:	SS-B4-1	Lab ID:	2003-05-0529 - 15
Sampled:	05/16/2003	Extracted:	5/20/2003 06:25
Matrix:	Soil	QC Batch#:	2003/05/20-01.13

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
Dieldrin	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
Endrin aldehyde	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
Endrin	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
Endrin ketone	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
Heptachlor	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
Heptachlor epoxide	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
4,4'-DDT	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
4,4'-DDE	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
4,4'-DDD	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
Endosulfan I	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
Endosulfan II	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
alpha-BHC	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
beta-BHC	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
delta-BHC	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
Endosulfan sulfate	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
4,4'-Methoxychlor	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
Toxaphene	ND	100	ug/Kg	1.00	05/21/2003 12:56	
Chlordane (Technical)	ND	50	ug/Kg	1.00	05/21/2003 12:56	
alpha-Chlordane	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
gamma-Chlordane	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
<b>Surrogates(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	77.3	50-125	%	1.00	05/21/2003 12:56	
Decachlorobiphenyl (Pest/8081)	80.9	46-142	%	1.00	05/21/2003 12:56	

## Organochlorine Pesticides Analysis

Northgate Environmental, Oakland

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Oakland, CA 94610  
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Project: 1109.00  
Malabar Ave.

Received: 05/19/2003 17:19

Site: Castro Valley

## Batch QC Report

Prep(s): 3550/8081

Test(s): 8081

Method Blank

Soil

QC Batch # 2003/05/20-01.13

MB: 2003/05/20-01.13-001

Date Extracted: 05/20/2003 06:25

Compound	Conc.	RL	Unit	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	05/20/2003 15:04	
Dieldrin	ND	2.0	ug/Kg	05/20/2003 15:04	
Endrin aldehyde	ND	2.0	ug/Kg	05/20/2003 15:04	
Endrin	ND	2.0	ug/Kg	05/20/2003 15:04	
Endrin ketone	ND	2.0	ug/Kg	05/20/2003 15:04	
Heptachlor	ND	2.0	ug/Kg	05/20/2003 15:04	
Heptachlor epoxide	ND	2.0	ug/Kg	05/20/2003 15:04	
4,4'-DDT	ND	2.0	ug/Kg	05/20/2003 15:04	
4,4'-DDE	ND	2.0	ug/Kg	05/20/2003 15:04	
4,4'-DDD	ND	2.0	ug/Kg	05/20/2003 15:04	
Endosulfan I	ND	2.0	ug/Kg	05/20/2003 15:04	
Endosulfan II	ND	2.0	ug/Kg	05/20/2003 15:04	
alpha-BHC	ND	2.0	ug/Kg	05/20/2003 15:04	
beta-BHC	ND	2.0	ug/Kg	05/20/2003 15:04	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	05/20/2003 15:04	
delta-BHC	ND	2.0	ug/Kg	05/20/2003 15:04	
Endosulfan sulfate	ND	2.0	ug/Kg	05/20/2003 15:04	
4,4'-Methoxychlor	ND	2.0	ug/Kg	05/20/2003 15:04	
Toxaphene	ND	100	ug/Kg	05/20/2003 15:04	
Chlordane (Technical)	ND	50	ug/Kg	05/20/2003 15:04	
alpha-Chlordane	ND	2.0	ug/Kg	05/20/2003 15:04	
gamma-Chlordane	ND	2.0	ug/Kg	05/20/2003 15:04	
<b>Surrogates(s)</b>					
2,4,5,6-Tetrachloro-m-xylene	85.8	50-125	%	05/20/2003 15:04	
Decachlorobiphenyl (Pest/8081)	79.7	46-142	%	05/20/2003 15:04	

**Organochlorine Pesticides Analysis**

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Project: 1109.00  
Malabar Ave.

Received: 05/19/2003 17:19

Site: Castro Valley

---

**Batch QC Report**

---

Prep(s): 3550/8081

Test(s): 8081

**Laboratory Control Spike****Soil****QC Batch # 2003/05/20-01.13**

LCS      2003/05/20-01.13-002  
LCSD    2003/05/20-01.13-003

Extracted: 05/20/2003  
Extracted: 05/20/2003

Analyzed: 05/20/2003 15:35  
Analyzed: 05/20/2003 16:06

Compound	Conc. ug/Kg		Exp.Conc.	Recovery		RPD %	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		Rec.	RPD	LCS	LCSD
Aldrin	14.2	15.1	16.7	85.0	90.4	6.2	37-136	25		
Dieldrin	14.1	15.1	16.7	84.4	90.4	6.9	58-135	35		
Endrin	14.1	15.3	16.7	84.4	91.6	8.2	58-134	35		
Heptachlor	15.1	14.8	16.7	90.4	88.6	2.0	40-136	20		
4,4'-DDT	14.2	15.5	16.7	85.0	92.8	8.8	55-132	35		
gamma-BHC (Lindane)	14.2	15.0	16.7	85.0	89.8	5.5	37-137	35		
<b>Surrogates(s)</b>										
2,4,5,6-Tetrachloro-m-xylene	44.3	46.1	50	88.7	92.1		50-125	0		
Decachlorobiphenyl	41.7	45.9	50	83.5	91.7		46-142	0		

**Organochlorine Pesticides Analysis**

Northgate Environmental, Oakland

Attn.: Dennis Laduzinsky

3629 Grand Avenue  
Oakland, CA 94610  
Phone: (510) 839-2939 Fax: (510) 839-4350

Project: 1109.00  
Malabar Ave.

Received: 05/19/2003 17:19

Site: Castro Valley

---

**Legend and Notes**

---

**Analysis Flag**

Im

Reporting limits raised due to high level of non-target analyte materials.

**Organochlorine Pesticides Analysis**

Northgate Environmental, Oakland

Attn.: Dennis Laduzinsky

3629 Grand Avenue

Oakland, CA 94610

Phone: (510) 839-2939 Fax: (510) 839-4350

Project: 1109.00

Received: 05/19/2003 17:19

Malabar Ave.

Site: Castro Valley

**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
SS-A1-1	05/16/2003	Soil	1
SS-A2-1	05/16/2003	Soil	3
SS-A3-1	05/16/2003	Soil	5
SS-A4-1	05/16/2003	Soil	7
SS-B1-1	05/16/2003	Soil	9
SS-B2-1	05/16/2003	Soil	11
SS-B3-1	05/16/2003	Soil	13
SS-B4-1	05/16/2003	Soil	15

## Organochlorine Pesticides Analysis

Northgate Environmental, Oakland

Attn.: Dennis Laduzinsky

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Project: 1109.00  
Malabar Ave.

Received: 05/19/2003 17:19

Site: Castro Valley

Prep(s):	3550/8081	Test(s):	8081
Sample ID:	SS-A1-1	Lab ID:	2003-05-0529 - 1
Sampled:	05/16/2003	Extracted:	5/20/2003 06:25
Matrix:	Soil	QC Batch#:	2003/05/20-01.13

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
Dieldrin	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
Endrin aldehyde	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
Endrin	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
Endrin ketone	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
Heptachlor	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
Heptachlor epoxide	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
4,4'-DDT	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
4,4'-DDE	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
4,4'-DDD	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
Endosulfan I	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
Endosulfan II	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
alpha-BHC	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
beta-BHC	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
delta-BHC	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
Endosulfan sulfate	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
4,4'-Methoxychlor	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
Toxaphene	ND	100	ug/Kg	1.00	05/21/2003 09:19	
Chlordane (Technical)	ND	50	ug/Kg	1.00	05/21/2003 09:19	
alpha-Chlordane	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
gamma-Chlordane	ND	2.0	ug/Kg	1.00	05/21/2003 09:19	
<i>Surrogates(s)</i>						
2,4,5,6-Tetrachloro-m-xylene	68.4	50-125	%	1.00	05/21/2003 09:19	
Decachlorobiphenyl (Pest/8081)	73.1	46-142	%	1.00	05/21/2003 09:19	

## Organochlorine Pesticides Analysis

Northgate Environmental, Oakland

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Project: 1109.00  
Malabar Ave.

Received: 05/19/2003 17:19

Site: Castro Valley

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Prep(s):	3550/8081	Test(s):	8081
Sample ID:	SS-A2-1	Lab ID:	2003-05-0529 - 3
Sampled:	05/16/2003	Extracted:	5/30/2003 07:25
Matrix:	Soil	QC Batch#:	2003/05/30-01.13

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
Dieldrin	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
Endrin aldehyde	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
Endrin	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
Endrin ketone	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
Heptachlor	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
Heptachlor epoxide	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
4,4'-DDT	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
4,4'-DDE	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
4,4'-DDD	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
Endosulfan I	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
Endosulfan II	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
alpha-BHC	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
beta-BHC	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
delta-BHC	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
Endosulfan sulfate	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
4,4'-Methoxychlor	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
Toxaphene	ND	100	ug/Kg	1.00	05/30/2003 12:40	
Chlordane (Technical)	ND	50	ug/Kg	1.00	05/30/2003 12:40	
alpha-Chlordane	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
gamma-Chlordane	ND	2.0	ug/Kg	1.00	05/30/2003 12:40	
<i>Surrogates(s)</i>						
2,4,5,6-Tetrachloro-m-xylene	83.2	50-125	%	1.00	05/30/2003 12:40	
Decachlorobiphenyl (Pest/8081)	78.2	46-142	%	1.00	05/30/2003 12:40	

## Organochlorine Pesticides Analysis

Northgate Environmental, Oakland

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Project: 1109.00  
Malabar Ave.

Received: 05/19/2003 17:19

Site: Castro Valley

Prep(s): 3550/8081

Test(s): 8081

Sample ID: SS-A3-1

Lab ID: 2003-05-0529 - 5

Sampled: 05/16/2003

Extracted: 5/20/2003 06:25

Matrix: Soil

QC Batch#: 2003/05/20-01.13

Analysis Flag: Irn ( See Legend and Note Section )

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Aldrin	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
Dieldrin	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
Endrin aldehyde	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
Endrin	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
Endrin ketone	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
Heptachlor	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
Heptachlor epoxide	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
4,4'-DDT	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
4,4'-DDE	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
4,4'-DDD	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
Endosulfan I	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
Endosulfan II	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
alpha-BHC	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
beta-BHC	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
gamma-BHC (Lindane)	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
delta-BHC	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
Endosulfan sulfate	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
4,4'-Methoxychlor	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
Toxaphene	ND	200	ug/Kg	2.00	05/21/2003 10:21	
Chlordane (Technical)	ND	100	ug/Kg	2.00	05/21/2003 10:21	
alpha-Chlordane	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
gamma-Chlordane	ND	4.0	ug/Kg	2.00	05/21/2003 10:21	
<b>Surrogates(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	77.2	50-125	%	2.00	05/21/2003 10:21	
Decachlorobiphenyl (Pest/8081)	76.2	46-142	%	2.00	05/21/2003 10:21	

## Organochlorine Pesticides Analysis

Northgate Environmental, Oakland

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Project: 1109.00  
Malabar Ave.

Received: 05/19/2003 17:19

Site: Castro Valley

Prep(s):	3550/8081	Test(s):	8081
Sample ID:	SS-A4-1	Lab ID:	2003-05-0529 - 7
Sampled:	05/16/2003	Extracted:	5/20/2003 06:25
Matrix:	Soil	QC Batch#:	2003/05/20-01.13

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
Dieldrin	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
Endrin aldehyde	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
Endrin	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
Endrin ketone	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
Heptachlor	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
Heptachlor epoxide	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
4,4'-DDT	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
4,4'-DDE	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
4,4'-DDD	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
Endosulfan I	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
Endosulfan II	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
alpha-BHC	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
beta-BHC	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
delta-BHC	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
Endosulfan sulfate	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
4,4'-Methoxychlor	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
Toxaphene	ND	100	ug/Kg	1.00	05/21/2003 12:25	
Chlordane (Technical)	ND	50	ug/Kg	1.00	05/21/2003 12:25	
alpha-Chlordane	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
gamma-Chlordane	ND	2.0	ug/Kg	1.00	05/21/2003 12:25	
<b>Surrogates(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	75.6	50-125	%	1.00	05/21/2003 12:25	
Decachlorobiphenyl (Pest/8081)	76.1	46-142	%	1.00	05/21/2003 12:25	

## Organochlorine Pesticides Analysis

Northgate Environmental, Oakland

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Project: 1109.00  
Malabar Ave.

Received: 05/19/2003 17:19

Site: Castro Valley

Prep(s):	3550/8081	Test(s):	8081
Sample ID:	SS-B1-1	Lab ID:	2003-05-0529 - 9
Sampled:	05/16/2003	Extracted:	5/20/2003 06:25
Matrix:	Soil	QC Batch#:	2003/05/20-01.13

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
Dieldrin	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
Endrin aldehyde	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
Endrin	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
Endrin ketone	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
Heptachlor	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
Heptachlor epoxide	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
4,4'-DDT	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
4,4'-DDE	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
4,4'-DDD	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
Endosulfan I	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
Endosulfan II	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
alpha-BHC	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
beta-BHC	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
delta-BHC	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
Endosulfan sulfate	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
4,4'-Methoxychlor	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
Toxaphene	ND	100	ug/Kg	1.00	05/21/2003 10:52	
Chlordane (Technical)	ND	50	ug/Kg	1.00	05/21/2003 10:52	
alpha-Chlordane	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
gamma-Chlordane	ND	2.0	ug/Kg	1.00	05/21/2003 10:52	
<b>Surrogates(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	75.2	50-125	%	1.00	05/21/2003 10:52	
Decachlorobiphenyl (Pest/8081)	73.6	46-142	%	1.00	05/21/2003 10:52	

## Organochlorine Pesticides Analysis

Northgate Environmental, Oakland

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Project: 1109.00  
Malabar Ave.

Received: 05/19/2003 17:19

Site: Castro Valley

---

Prep(s): 3550/8081 Test(s): 8081  
Sample ID: SS-B2-1 Lab ID: 2003-05-0529 - 11  
Sampled: 05/16/2003 Extracted: 5/20/2003 06:25  
Matrix: Soil QC Batch#: 2003/05/20-01.13

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
Dieldrin	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
Endrin aldehyde	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
Endrin	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
Endrin ketone	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
Heptachlor	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
Heptachlor epoxide	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
4,4'-DDT	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
4,4'-DDE	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
4,4'-DDD	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
Endosulfan I	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
Endosulfan II	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
alpha-BHC	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
beta-BHC	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
delta-BHC	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
Endosulfan sulfate	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
4,4'-Methoxychlor	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
Toxaphene	ND	100	ug/Kg	1.00	05/21/2003 11:23	
Chlordane (Technical)	ND	50	ug/Kg	1.00	05/21/2003 11:23	
alpha-Chlordane	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
gamma-Chlordane	ND	2.0	ug/Kg	1.00	05/21/2003 11:23	
<b>Surrogates(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	81.4	50-125	%	1.00	05/21/2003 11:23	
Decachlorobiphenyl (Pest/8081)	84.1	46-142	%	1.00	05/21/2003 11:23	

## Organochlorine Pesticides Analysis

Northgate Environmental, Oakland

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Project: 1109.00  
Malabar Ave.

Received: 05/19/2003 17:19

Site: Castro Valley

Prep(s):	3550/8081	Test(s):	8081
Sample ID:	SS-B3-1	Lab ID:	2003-05-0529 - 13
Sampled:	05/16/2003	Extracted:	5/20/2003 06:25
Matrix:	Soil	QC Batch#:	2003/05/20-01.13

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
Dieldrin	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
Endrin aldehyde	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
Endrin	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
Endrin ketone	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
Heptachlor	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
Heptachlor epoxide	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
4,4'-DDT	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
4,4'-DDE	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
4,4'-DDD	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
Endosulfan I	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
Endosulfan II	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
alpha-BHC	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
beta-BHC	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
delta-BHC	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
Endosulfan sulfate	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
4,4'-Methoxychlor	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
Toxaphene	ND	100	ug/Kg	1.00	05/21/2003 11:54	
Chlordane (Technical)	ND	50	ug/Kg	1.00	05/21/2003 11:54	
alpha-Chlordane	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
gamma-Chlordane	ND	2.0	ug/Kg	1.00	05/21/2003 11:54	
<b>Surrogates(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	74.7	50-125	%	1.00	05/21/2003 11:54	
Decachlorobiphenyl (Pest/8081)	82.3	46-142	%	1.00	05/21/2003 11:54	

**Organochlorine Pesticides Analysis**

Northgate Environmental, Oakland

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Project: 1109.00  
Malabar Ave.

Received: 05/19/2003 17:19

Site: Castro Valley

---

Prep(s):	3550/8081	Test(s):	8081
Sample ID:	SS-B4-1	Lab ID:	2003-05-0529 - 15
Sampled:	05/16/2003	Extracted:	5/20/2003 06:25
Matrix:	Soil	QC Batch#:	2003/05/20-01.13

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
Dieldrin	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
Endrin aldehyde	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
Endrin	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
Endrin ketone	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
Heptachlor	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
Heptachlor epoxide	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
4,4'-DDT	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
4,4'-DDE	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
4,4'-DDD	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
Endosulfan I	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
Endosulfan II	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
alpha-BHC	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
beta-BHC	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
delta-BHC	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
Endosulfan sulfate	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
4,4'-Methoxychlor	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
Toxaphene	ND	100	ug/Kg	1.00	05/21/2003 12:56	
Chlordane (Technical)	ND	50	ug/Kg	1.00	05/21/2003 12:56	
alpha-Chlordane	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
gamma-Chlordane	ND	2.0	ug/Kg	1.00	05/21/2003 12:56	
<b>Surrogates(s)</b>						
2,4,5,6-Tetrachloro-m-xylene	77.3	50-125	%	1.00	05/21/2003 12:56	
Decachlorobiphenyl (Pest/8081)	80.9	46-142	%	1.00	05/21/2003 12:56	

## Organochlorine Pesticides Analysis

Northgate Environmental, Oakland

Attn.: Dennis Laduzinsky

3629 Grand Avenue  
Oakland, CA 94610  
Phone: (510) 839-2939 Fax: (510) 839-4350

Project: 1109.00  
Malabar Ave.

Received: 05/19/2003 17:19

Site: Castro Valley

## Batch QC Report

Prep(s): 3550/8081

Test(s): 8081

Method Blank

Soil

QC Batch # 2003/05/20-01.13

MB: 2003/05/20-01.13-001

Date Extracted: 05/20/2003 06:25

Compound	Conc.	RL	Unit	Analyzed	Flag
Aldrin	ND	2.0	ug/Kg	05/20/2003 15:04	
Dieldrin	ND	2.0	ug/Kg	05/20/2003 15:04	
Endrin aldehyde	ND	2.0	ug/Kg	05/20/2003 15:04	
Endrin	ND	2.0	ug/Kg	05/20/2003 15:04	
Endrin ketone	ND	2.0	ug/Kg	05/20/2003 15:04	
Heptachlor	ND	2.0	ug/Kg	05/20/2003 15:04	
Heptachlor epoxide	ND	2.0	ug/Kg	05/20/2003 15:04	
4,4'-DDT	ND	2.0	ug/Kg	05/20/2003 15:04	
4,4'-DDE	ND	2.0	ug/Kg	05/20/2003 15:04	
4,4'-DDD	ND	2.0	ug/Kg	05/20/2003 15:04	
Endosulfan I	ND	2.0	ug/Kg	05/20/2003 15:04	
Endosulfan II	ND	2.0	ug/Kg	05/20/2003 15:04	
alpha-BHC	ND	2.0	ug/Kg	05/20/2003 15:04	
beta-BHC	ND	2.0	ug/Kg	05/20/2003 15:04	
gamma-BHC (Lindane)	ND	2.0	ug/Kg	05/20/2003 15:04	
delta-BHC	ND	2.0	ug/Kg	05/20/2003 15:04	
Endosulfan sulfate	ND	2.0	ug/Kg	05/20/2003 15:04	
4,4'-Methoxychlor	ND	2.0	ug/Kg	05/20/2003 15:04	
Toxaphene	ND	100	ug/Kg	05/20/2003 15:04	
Chlordane (Technical)	ND	50	ug/Kg	05/20/2003 15:04	
alpha-Chlordane	ND	2.0	ug/Kg	05/20/2003 15:04	
gamma-Chlordane	ND	2.0	ug/Kg	05/20/2003 15:04	
<i>Surrogates(s)</i>					
2,4,5,6-Tetrachloro-m-xylene	85.8	50-125	%	05/20/2003 15:04	
Decachlorobiphenyl (Pest/8081)	79.7	46-142	%	05/20/2003 15:04	

## Organochlorine Pesticides Analysis

Northgate Environmental, Oakland

Attn.: Dennis Laduzinsky

3629 Grand Avenue  
Oakland, CA 94610  
Phone: (510) 839-2939 Fax: (510) 839-4350

Project: 1109.00  
Malabar Ave.

Received: 05/19/2003 17:19

Site: Castro Valley

## Batch QC Report

Prep(s): 3550/8081

Test(s): 8081

## Laboratory Control Spike

## Soil

QC Batch # 2003/05/20-01.13

LCS 2003/05/20-01.13-002  
LCSD 2003/05/20-01.13-003

Extracted: 05/20/2003  
Extracted: 05/20/2003

Analyzed: 05/20/2003 15:35  
Analyzed: 05/20/2003 16:06

Compound	Conc. ug/Kg		Exp.Conc.	Recovery		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Aldrin	14.2	15.1	16.7	85.0	90.4	6.2	37-136	25		
Dieldrin	14.1	15.1	16.7	84.4	90.4	6.9	58-135	35		
Endrin	14.1	15.3	16.7	84.4	91.6	8.2	58-134	35		
Heptachlor	15.1	14.8	16.7	90.4	88.6	2.0	40-136	20		
4,4'-DDT	14.2	15.5	16.7	85.0	92.8	8.8	55-132	35		
gamma-BHC (Lindane)	14.2	15.0	16.7	85.0	89.8	5.5	37-137	35		
<i>Surrogates(s)</i>										
2,4,5,6-Tetrachloro-m-xylene	44.3	46.1	50	88.7	92.1		50-125	0		
Decachlorobiphenyl	41.7	45.9	50	83.5	91.7		46-142	0		

**Organochlorine Pesticides Analysis**

Northgate Environmental, Oakland

Attn.: Dennis Laduzinsky

3629 Grand Avenue  
Oakland, CA 94610  
Phone: (510) 839-2939 Fax: (510) 839-4350

Project: 1109.00  
Malabar Ave.

Received: 05/19/2003 17:19

Site: Castro Valley

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**Legend and Notes**

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**Analysis Flag**

Irn

Reporting limits raised due to high level of non-target analyte materials.

SEVERN  
TRENT

STL

SEVERN TRENT LABORATORIES  
ANALYTICAL REPORT

JOB NUMBER: 217626

Prepared For:

Severn Trent Laboratories  
1220 Quarry Lane  
Pleasanton, CA 94566-4756

Project: STL San Francisco

Attention: Surinder Sidhu

Date: 05/30/2003

Bonnie Stadelmann  
Signature

05/30/03  
Date

Name: Bonnie Stadelmann

STL Chicago  
2417 Bond Street  
University Park, IL 60466

Title: Project Manager

PHONE: (708) 534-5200  
FAX...: (708) 534-5211

E-Mail: bstadelmann@stl-inc.com

Severn Trent Laboratories, Inc.  
STL Chicago • 2417 Bond Street, University Park, IL 60466  
Tel 708 534 5200 Fax 708 534 5211 • [www.stl-inc.com](http://www.stl-inc.com)

STL Chicago  
Phosphorus Pesticide Case Narrative

STL San Francisco

2003-05-0529

Job #: 217626-1 through 16

Phosphorus Pesticides

1. STL Chicago uses the following Gas Chromatographic system for analysis of phosphorus pesticides:

ID#	INSTRUMENT	COLUMN TYPE	DETECTOR
19	Varian 3600	Rtx-5	FPD
20	Varian 3600	Rtx-35	FPD

2. These soil sample was extracted based on SW846 method 3550. The extracts were analyzed for Appendix IX phosphorus pesticides based on SW846 method 8141.
3. All required holding times were met for the extraction and analysis.
4. The method blank was below the reporting limits for all target compounds.
5. The surrogate compounds used for this analysis were Tributylphosphate (TBP) and Triphenylphosphate (TPP). All surrogate recoveries were within statistical control limits except 217626-10 (SS-C2-1), which had TBP with 33% recovery. Sample was re-analyzed with similar results and only the first analysis reported. Target compounds were not detected in these samples.
6. All blank spike and blank spike duplicate recoveries were within statistical control limits except All RPDs were <30%.
7. A matrix spike and a matrix spike duplicate were not performed on a sample from this SDG.
8. All initial and continuing standard calibrations associated with these samples were within method control limits for all target compounds.
9. Target compounds were not detected from the primary analysis. Therefore, a second column confirmation was not required.

Patti Gibson  
Patti Gibson  
Organics Section Manager

5/30/03  
Date

STL Chicago is part of Severn Trent Laboratories, Inc.

SAMPLE INFORMATION  
Date: 05/30/2003

Job Number.: 217626  
Customer...: Severn Trent Laboratories  
Attn.....: Surinder Sidhu

Project Number.....: 20002032  
Customer Project ID....: 2003-05-0529  
Project Description....: STL San Francisco

Laboratory Sample ID	Customer Sample ID	Sample Matrix	Date Sampled	Time Sampled	Date Received	Time Received
217626-1	SS-A1-1	Soil	05/16/2003	12:00	05/21/2003	09:55
217626-2	SS-A2-1	Soil	05/16/2003	12:00	05/21/2003	09:55
217626-3	SS-A3-1	Soil	05/16/2003	12:00	05/21/2003	09:55
217626-4	SS-A4-1	Soil	05/16/2003	12:00	05/21/2003	09:55
217626-5	SS-B1-1	Soil	05/16/2003	12:00	05/21/2003	09:55
217626-6	SS-B2-1	Soil	05/16/2003	12:00	05/21/2003	09:55
217626-7	SS-B3-1	Soil	05/16/2003	12:00	05/21/2003	09:55
217626-8	SS-B4-1	Soil	05/16/2003	12:00	05/21/2003	09:55
217626-9	SS-C1-1	Soil	05/16/2003	12:00	05/21/2003	09:55
217626-10	SS-C2-1	Soil	05/16/2003	12:00	05/21/2003	09:55
217626-11	SS-C3-1	Soil	05/16/2003	12:00	05/21/2003	09:55
217626-12	SS-C4-1	Soil	05/16/2003	12:00	05/21/2003	09:55
217626-13	SS-D1-1	Soil	05/16/2003	12:00	05/21/2003	09:55
217626-14	SS-D2-1	Soil	05/16/2003	12:00	05/21/2003	09:55
217626-15	SS-D3-1	Soil	05/16/2003	12:00	05/21/2003	09:55
217626-16	SS-D4-1	Soil	05/16/2003	12:00	05/21/2003	09:55

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LABORATORY TEST RESULTS

Job Number: 217626

Date: 05/30/2003

CUSTOMER: Severn Trent Laboratories

PROJECT: 2003-05-0529

ATTN: Surinder Sidhu

Customer Sample ID: SS-A1-1  
Date Sampled.....: 05/16/2003  
Time Sampled.....: 12:00  
Sample Matrix.....: Soil

Laboratory Sample ID: 217626-1  
Date Received.....: 05/21/2003  
Time Received.....: 09:55

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
Method	% Solids Determination % Solids, Solid % Moisture, Solid	85.8 14.2	0.10 0.10	% %	05/22/03 05/22/03	pfk pfk
8141A	Organophosphorus Pesticide Analysis o,o,o-TEPA, Solid* Phorate, Solid* Thionazin, Solid* Disulfoton, Solid* Sulfotep, Solid* Dimethoate, Solid* Methyl parathion, Solid* Parathion, Solid* Famphur, Solid*	ND ND ND ND ND ND ND ND ND	77 77 77 77 77 77 77 77 77	ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg	05/29/03 05/29/03 05/29/03 05/29/03 05/29/03 05/29/03 05/29/03 05/29/03 05/29/03	pjg pjg pjg pjg pjg pjg pjg pjg pjg

\* In Description = Dry Wgt.

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LABORATORY TEST RESULTS					
Job Number: 217626		Date: 05/30/2003			
CUSTOMER: Severn Trent Laboratories		PROJECT: 2003-05-0529		ATTN: Surinder Sidhu	
Customer Sample ID: SS-A2-1 Date Sampled.....: 05/16/2003 Time Sampled.....: 12:00 Sample Matrix.....: Soil			Laboratory Sample ID: 217626-2 Date Received.....: 05/21/2003 Time Received.....: 09:55		
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE
Method	% Solids Determination % Solids, Solid % Moisture, Solid	82.3 17.7	0.10 0.10	% %	05/22/03 05/22/03
8141A	Organophosphorus Pesticide Analysis o,o,o-TEPA, Solid* Phorate, Solid* Thionazin, Solid* Disulfoton, Solid* Sulfotep, Solid* Dimethoate, Solid* Methyl parathion, Solid* Parathion, Solid* Fanphur, Solid*	ND ND ND ND ND ND ND ND ND	81 81 81 81 81 81 81 81 81	ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg	05/29/03 05/29/03 05/29/03 05/29/03 05/29/03 05/29/03 05/29/03 05/29/03 05/29/03

\* In Description = Dry Wgt.

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LABORATORY TEST RESULTS								
Job Number: 217626					Date: 05/30/2003			
CUSTOMER: Severn Trent Laboratories		PROJECT: 2003-05-0529		ATTN: Surinder Sidhu				
Customer Sample ID: SS-A3-1 Date Sampled.....: 05/16/2003 Time Sampled.....: 12:00 Sample Matrix.....: Soil				Laboratory Sample ID: 217626-3 Date Received.....: 05/21/2003 Time Received.....: 09:55				
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH		
Method	% Solids Determination % Solids, Solid % Moisture, Solid	87.6 12.4	0.10 0.10	%	05/22/03 05/22/03	pfk pfk		
8141A	Organophosphorus Pesticide Analysis o,o,o-TEPA, Solid* Phorate, Solid* Thionazin, Solid* Disulfoton, Solid* Sulfotep, Solid* Dimethoate, Solid* Methyl parathion, Solid* Parathion, Solid* Famphur, Solid*	ND ND ND ND ND ND ND ND ND ND	76 76 76 76 76 76 76 76 76 76	ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg	05/29/03 05/29/03 05/29/03 05/29/03 05/29/03 05/29/03 05/29/03 05/29/03 05/29/03 05/29/03	pjg pjg pjg pjg pjg pjg pjg pjg pjg pjg		

\* In Description = Dry Wgt.

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LABORATORY TEST RESULTS						
Job Number: 217626		Date: 05/30/2003				
CUSTOMER: Severn Trent Laboratories		PROJECT: 2003-05-0529		ATTN: Surinder Sichu		
Customer Sample ID: SS-A4-1 Date Sampled.....: 05/16/2003 Time Sampled.....: 12:00 Sample Matrix.....: Soil				Laboratory Sample ID: 217626-4 Date Received.....: 05/21/2003 Time Received.....: 09:55		
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
Method	% Solids Determination % Solids, Solid % Moisture, Solid	87.0 13.0	0.10 0.10	%	05/22/03 05/22/03	pjk pjk
8141A	Organophosphorus Pesticide Analysis o,o,o-TEPA, Solid* Phorate, Solid* Thionazin, Solid* Disulfoton, Solid* Sulfotep, Solid* Dimethoate, Solid* Methyl parathion, Solid* Parathion, Solid* Famphur, Solid*	ND ND ND ND ND ND ND ND ND	77 77 77 77 77 77 77 77 77	ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg	05/29/03 05/29/03 05/29/03 05/29/03 05/29/03 05/29/03 05/29/03 05/29/03 05/29/03	pjk pjk pjk pjk pjk pjk pjk pjk pjk

\* In Description = Dry Wgt.

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LABORATORY TEST RESULTS						
Job Number: 217626		Date: 05/30/2003				
CUSTOMER: Severn Trent Laboratories		PROJECT: 2003-05-0529		ATTN: Surinder Sidhu		
Customer Sample ID: SS-B1-1 Date Sampled.....: 05/16/2003 Time Sampled.....: 12:00 Sample Matrix.....: Soil				Laboratory Sample ID: 217626-5 Date Received.....: 05/21/2003 Time Received.....: 09:55		
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
Method	% Solids Determination % Solids, Solid % Moisture, Solid	88.2 11.8	0.10 0.10	%	05/22/03 05/22/03	pfk pfk
8141A	Organophosphorus Pesticide Analysis o,o,o-TEPA, Solid* Phorate, Solid* Thionazin, Solid* Disulfoton, Solid* Sulfotep, Solid* Dimethoate, Solid* Methyl parathion, Solid* Parathion, Solid* Famphur, Solid*	ND ND ND ND ND ND ND ND ND	74 74 74 74 74 74 74 74 74	ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg	05/29/03 05/29/03 05/29/03 05/29/03 05/29/03 05/29/03 05/29/03 05/29/03 05/29/03	pjg pjg pjg pjg pjg pjg pjg pjg pjg

\* In Description = Dry Wgt.

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LABORATORY TEST RESULTS						
Job Number: 217626		Date: 05/30/2003				
CUSTOMER: Severn Trent Laboratories		PROJECT #: 2003-05-0529		ATTN: Surinder Sidhu		
Customer Sample ID: SS-82-1 Date Sampled.....: 05/16/2003 Time Sampled.....: 12:00 Sample Matrix.....: Soil				Laboratory Sample ID: 217626-6 Date Received.....: 05/21/2003 Time Received.....: 09:55		
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
Method	X Solids Determination X Solids, Solid X Moisture, Solid	84.0 16.0	0.10 0.10	% %	05/22/03 05/22/03	pfk pfk
8141A	Organophosphorus Pesticide Analysis o,o,-TEPA, Solid* Phorate, Solid* Thionazin, Solid* Disulfoton, Solid* Sulfotep, Solid* Dimethoate, Solid* Methyl parathion, Solid* Parathion, Solid* Famphur, Solid*	ND ND ND ND ND ND ND ND ND	79 79 79 79 79 79 79 79 79	ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg	05/29/03 05/29/03 05/29/03 05/29/03 05/29/03 05/29/03 05/29/03 05/29/03 05/29/03	pjg pjg pjg pjg pjg pjg pjg pjg pjg

\* In Description = Dry Wgt.

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LABORATORY TEST RESULTS						
Job Number: 217626		Date: 05/30/2003				
CUSTOMER: Severn Trent Laboratories		PROJECT: 2003-05-0529	ATTN: Surinder Sidhu			
Customer Sample ID: SS-B3-1 Date Sampled.....: 05/16/2003 Time Sampled.....: 12:00 Sample Matrix.....: Soil					Laboratory Sample ID: 217626-7 Date Received.....: 05/21/2003 Time Received.....: 09:55	
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
Method	% Solids Determination % Solids, Solid % Moisture, Solid	88.8 11.2	0.10 0.10	%	05/22/03 05/22/03	pfk pfk
8141A	Organophosphorus Pesticide Analysis O,O,o-TEPA, Solid* Phorate, Solid* Thionazin, Solid* Disulfoton, Solid* Sulfotep, Solid* Dimethoate, Solid* Methyl parathion, Solid* Parathion, Solid* Famphur, Solid*	ND ND ND ND ND ND ND ND ND	73 73 73 73 73 73 73 73 73	ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg	05/29/03 05/29/03 05/29/03 05/29/03 05/29/03 05/29/03 05/29/03 05/29/03 05/29/03	pjg pjg pjg pjg pjg pjg pjg pjg pjg

\* In Description = Dry Wgt.

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LABORATORY TEST RESULTS						
Job Number: 217626		Date: 05/30/2003				
CUSTOMER: Severn Trent Laboratories		PROJECT: 2003-05-0529		ATTN: Surinder Sidhu		
Customer Sample ID: SS-B4-1 Date Sampled.....: 05/16/2003 Time Sampled.....: 12:00 Sample Matrix.....: Soil				Laboratory Sample ID: 217626-8 Date Received.....: 05/21/2003 Time Received.....: 09:55		
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
Method 8141A	% Solids Determination	84.9	0.10	%	05/22/03	pjk
	% Solids, Solid	15.1	0.10	%	05/22/03	pjk
	% Moisture, Solid					
	Organophosphorus Pesticide Analysis					
	o,o,o-TEPA, Solid*	ND	78	ug/Kg	05/30/03	pjg
	Phorate, Solid*	ND	78	ug/Kg	05/30/03	pjg
	Thionazin, Solid*	ND	78	ug/Kg	05/30/03	pjg
	Disulfoton, Solid*	ND	78	ug/Kg	05/30/03	pjg
	Sulfotep, Solid*	ND	78	ug/Kg	05/30/03	pjg
	Dimethoate, Solid*	ND	78	ug/Kg	05/30/03	pjg
	Methyl parathion, Solid*	ND	78	ug/Kg	05/30/03	pjg
	Parathion, Solid*	ND	78	ug/Kg	05/30/03	pjg
	Famphur, Solid*	ND	78	ug/Kg	05/30/03	pjg

\* In Description = Dry Wgt.

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LABORATORY TEST RESULTS						
Job Number: 217626		Date: 05/30/2003				
CUSTOMER: Severn Trent Laboratories		PROJECT: 2003-05-0529		ATTN: Surinder Sidhu		
Customer Sample ID: SS-C1-1 Date Sampled.....: 05/16/2003 Time Sampled.....: 12:00 Sample Matrix.....: Soil				Laboratory Sample ID: 217626-9 Date Received.....: 05/21/2003 Time Received.....: 09:55		
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
Method	% Solids Determination % Solids, Solid % Moisture, Solid	89.0 11.0	0.10 0.10	%	05/22/03 05/22/03	pfk pfk
8141A	Organophosphorus Pesticide Analysis o,o,o-TEPA, Solid* Phorate, Solid* Thionazin, Solid* Disulfoton, Solid* Sulfotep, Solid* Dimethoate, Solid* Methyl parathion, Solid* Parathion, Solid* Famphur, Solid*	ND ND ND ND ND ND ND ND ND ND	75 75 75 75 75 75 75 75 75 75	ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg	05/30/03 05/30/03 05/30/03 05/30/03 05/30/03 05/30/03 05/30/03 05/30/03 05/30/03 05/30/03	pjg pjg pjg pjg pjg pjg pjg pjg pjg pjg

\* In Description = Dry Wgt.

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LABORATORY TEST RESULTS						
Job Number: 217626		Date: 05/30/2003				
CUSTOMER: Severn Trent Laboratories		PROJECT: 2003-05-0529		ATTN: Surinder Sidhu		
Customer Sample ID: 98-C2-1 Date Sampled.....: 05/16/2003 Time Sampled.....: 12:00 Sample Matrix.....: Soil				Laboratory Sample ID: 217626-10 Date Received.....: 05/21/2003 Time Received.....: 09:55		
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
Method	% Solids Determination % Solids, Solid % Moisture, Solid	85.6 14.4	0.10 0.10	%	05/22/03 05/22/03	pfk pfk
8141A	Organophosphorus Pesticide Analysis o,o,o-TEPA, Solid* Phorate, Solid* Thionazin, Solid* Disulfoton, Solid* Sulfotep, Solid* Dimethoate, Solid* Methyl parathion, Solid* Parathion, Solid* Famphur, Solid*	ND ND ND ND ND ND ND ND ND	76 76 76 76 76 76 76 76 76	ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg	05/30/03 05/30/03 05/30/03 05/30/03 05/30/03 05/30/03 05/30/03 05/30/03 05/30/03	pjg pjg pjg pjg pjg pjg pjg pjg pjg

\* In Description = Dry Wgt.

STL Chicago is part of Severn Trent Laboratories, Inc.

LABORATORY TEST RESULTS						
Job Number: 217626		Date: 05/30/2003				
CUSTOMER: Severn Trent Laboratories		PROJECT: 2003-05-0529		ATTN: Surinder Sidhu		
Customer Sample ID: SS-C3-1 Date Sampled.....: 05/16/2003 Time Sampled.....: 12:00 Sample Matrix.....: Soil				Laboratory Sample ID: 217626-11 Date Received.....: 05/21/2003 Time Received.....: 09:55		
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
Method	% Solids Determination X Solids, Solid X Moisture, Solid	85.8 14.2	0.10 0.10	%	05/22/03 05/22/03	pfk pfk
8141A	Organophosphorus Pesticide Analysis o,o,o-TEPA, Solid* Phorate, Solid* Thionazin, Solid* Disulfoton, Solid* Sulfotep, Solid* Dimethoate, Solid* Methyl parathion, Solid* Parathion, Solid* Famphur, Solid*	ND ND ND ND ND ND ND ND ND	77 77 77 77 77 77 77 77 77	ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg	05/30/03 05/30/03 05/30/03 05/30/03 05/30/03 05/30/03 05/30/03 05/30/03 05/30/03	pjg pjg pjg pjg pjg pjg pjg pjg pjg

\* In Description = Dry Wgt.

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LABORATORY TEST RESULTS						Date: 05/30/2003		
Job Number: 217626		PROJECT: 2003-05-0529		ATTN: Surinder Sidhu				
Customer Sample ID: SS-C4-1 Date Sampled.....: 05/16/2003 Time Sampled.....: 12:00 Sample Matrix.....: Soil				Laboratory Sample ID: 217626-12 Date Received.....: 05/21/2003 Time Received.....: 09:55				
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH		
Method	% Solids Determination % Solids, Solid % Moisture, Solid	87.3 12.7	0.10 0.10	% %	05/22/03 05/22/03	pfk pfk		
8141A	Organophosphorus Pesticide Analysis o,o,o-TEPA, Solid* Phorate, Solid* Thionazin, Solid* Disulfoton, Solid* Sulfotep, Solid* Dimethoate, Solid* Methyl parathion, Solid* Parathion, Solid* Famphur, Solid*	ND ND ND ND ND ND ND ND ND	76 76 76 76 76 76 76 76 76	ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg	05/30/03 05/30/03 05/30/03 05/30/03 05/30/03 05/30/03 05/30/03 05/30/03 05/30/03	pjg pjg pjg pjg pjg pjg pjg pjg pjg		

\* In Description = Dry Wgt.

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LABORATORY TEST RESULTS						
Job Number: 217626		Date: 06/04/2003				
CUSTOMER: Severn Trent Laboratories		PROJECT: 2003-05-0529		ATTN: Surinder Sidhu		
Customer Sample ID: SS-D1-1 Date Sampled.....: 05/16/2003 Time Sampled.....: 12:00 Sample Matrix.....: Soil				Laboratory Sample ID: 217626-13 Date Received.....: 05/21/2003 Time Received.....: 09:55		
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
Method	% Solids Determination % Solids, Solid % Moisture, Solid	85.6 14.4	0.10 0.10	% %	05/22/03 05/22/03	pfk pfk
B141A	Organophosphorus Pesticide Analysis o,o,o-TEPA, Solid* Phorate, Solid* Thionazin, Solid* Disulfoton, Solid* Sulfotep, Solid* Dimethoate, Solid* Methyl parathion, Solid* Parathion, Solid* Famphur, Solid*	ND ND ND ND ND ND ND ND ND	77 77 77 77 77 77 77 77 77	ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg	05/30/03 05/30/03 05/30/03 05/30/03 05/30/03 05/30/03 05/30/03 05/30/03 05/30/03	pjg pjg pjg pjg pjg pjg pjg pjg pjg

\* In Description = Dry Wgt.

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LABORATORY TEST RESULTS						
Job Number: 217626		Date: 05/30/2003				
CUSTOMER: Severn Trent Laboratories		PROJECT: 2003-05-0529		ATTN: Surinder Sichu		
Customer Sample ID: SS-D2-1 Date Sampled.....: 05/16/2003 Time Sampled.....: 12:00 Sample Matrix.....: Soil				Laboratory Sample ID: 217626-14 Date Received.....: 05/21/2003 Time Received.....: 09:55		
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
Method	% Solids Determination % Solids, Solid % Moisture, Solid	87.3 12.7	0.10 0.10	% %	05/22/03 05/22/03	pfk pfk
8141A	Organophosphorus Pesticide Analysis o,o,o-TEPA, Solid* Phorate, Solid* Thionazin, Solid* Disulfoton, Solid* Sulfotep, Solid* Dimethoate, Solid* Methyl parathion, Solid* Parathion, Solid* Famphur, Solid*	ND ND ND ND ND ND ND ND ND	76 76 76 76 76 76 76 76 76	ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg	05/30/03 05/30/03 05/30/03 05/30/03 05/30/03 05/30/03 05/30/03 05/30/03 05/30/03	pjg pjg pjg pjg pjg pjg pjg pjg pjg

\* In Description = Dry Wgt.

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LABORATORY TEST RESULTS						
Job Number: 217626		Date: 05/30/2003				
CUSTOMER: Severn Trent Laboratories		PROJECT: 2003-05-0529		ATTN: Surinder Sichu		
Customer Sample ID: SS-D3-1 Date Sampled.....: 05/16/2003 Time Sampled.....: 12:00 Sample Matrix.....: Soil				Laboratory Sample ID: 217626-15 Date Received.....: 05/21/2003 Time Received.....: 09:55		
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
Method	% Solids Determination % Solids, Solid % Moisture, Solid	84.5 15.5	0.10 0.10	% %	05/22/03 05/22/03	pfk pfk
B141A	Organophosphorus Pesticide Analysis o,o,o-TEPA, Solid* Phorate, Solid* Thianazin, Solid* Disulfoton, Solid* Sulfotep, Solid* Dimethoate, Solid* Methyl parathion, Solid* Parathion, Solid* Famphur, Solid*	ND ND ND ND ND ND ND ND ND ND	78 78 78 78 78 78 78 78 78 78	ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg	05/30/03 05/30/03 05/30/03 05/30/03 05/30/03 05/30/03 05/30/03 05/30/03 05/30/03 05/30/03	pjg pjg pjg pjg pjg pjg pjg pjg pjg pjg

\* In Description = Dry Wgt.

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LABORATORY TEST RESULTS						
Job Number: 217626		Date: 05/30/2003				
CUSTOMER: Severn Trent Laboratories		PROJECT: 2003-05-0529		ATTN: Surinder Sidhu		
Customer Sample ID: SS-D4-1 Date Sampled.....: 05/16/2003 Time Sampled.....: 12:00 Sample Matrix.....: Soil					Laboratory Sample ID: 217626-16 Date Received.....: 05/21/2003 Time Received.....: 09:55	
TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	REPORTING LIMIT	UNITS	DATE	TECH
Method	% Solids Determination % Solids, Solid % Moisture, Solid	85.6 14.2	0.10 0.10	% %	05/22/03 05/22/03	pfk pfk
8141A	Organophosphorus Pesticide Analysis o,o,o-TEPA, Solid* Phorate, Solid* Thionazin, Solid* Disulfoton, Solid* Sulfotep, Solid* Dimethoate, Solid* Methyl parathion, Solid* Parathion, Solid* Famphur, Solid*	ND ND ND ND ND ND ND ND ND	78 78 78 78 78 78 78 78 78	ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg ug/Kg	05/30/03 05/30/03 05/30/03 05/30/03 05/30/03 05/30/03 05/30/03 05/30/03 05/30/03	pjg pjg pjg pjg pjg pjg pjg pjg pjg

\* In Description = Dry Wgt.

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LABORATORY CHRONICLE					
Job Number: 217626			Date: 05/30/2003		
CUSTOMER: Severn Trent Laboratories		PROJECT: 2003-05-0529		ATTN: Surinder Sidhu	
Lab ID: 217626-1	Client ID: SS-A1-1		Date Recvd: 05/21/2003	Sample Date: 05/16/2003	
METHOD	DESCRIPTION		RUN#	BATCH# PREP BT #(S)	DATE/TIME ANALYZED DILUTION
Method	% Solids Determination		1	84590	05/22/2003 1410
3550B	Extraction Ultrasonic (Pest.Phos.)		1	85158	05/28/2003 1545
8141A	Organophosphorus Pesticide Analysis		1	85443 85158	05/29/2003 2044 1.000000
Lab ID: 217626-2	Client ID: SS-A2-1		Date Recvd: 05/21/2003	Sample Date: 05/16/2003	
METHOD	DESCRIPTION		RUN#	BATCH# PREP BT #(S)	DATE/TIME ANALYZED DILUTION
Method	% Solids Determination		1	84590	05/22/2003 1410
3550B	Extraction Ultrasonic (Pest.Phos.)		1	85158	05/28/2003 1545
8141A	Organophosphorus Pesticide Analysis		1	85443 85158	05/29/2003 2109 1.000000
Lab ID: 217626-3	Client ID: SS-A3-1		Date Recvd: 05/21/2003	Sample Date: 05/16/2003	
METHOD	DESCRIPTION		RUN#	BATCH# PREP BT #(S)	DATE/TIME ANALYZED DILUTION
Method	% Solids Determination		1	84590	05/22/2003 1410
3550B	Extraction Ultrasonic (Pest.Phos.)		1	85158	05/28/2003 1545
8141A	Organophosphorus Pesticide Analysis		1	85443 85158	05/29/2003 2135 1.000000
Lab ID: 217626-4	Client ID: SS-A4-1		Date Recvd: 05/21/2003	Sample Date: 05/16/2003	
METHOD	DESCRIPTION		RUN#	BATCH# PREP BT #(S)	DATE/TIME ANALYZED DILUTION
Method	% Solids Determination		1	84590	05/22/2003 1410
3550B	Extraction Ultrasonic (Pest.Phos.)		1	85158	05/28/2003 1545
8141A	Organophosphorus Pesticide Analysis		1	85443 85158	05/29/2003 2200 1.000000
Lab ID: 217626-5	Client ID: SS-B1-1		Date Recvd: 05/21/2003	Sample Date: 05/16/2003	
METHOD	DESCRIPTION		RUN#	BATCH# PREP BT #(S)	DATE/TIME ANALYZED DILUTION
Method	% Solids Determination		1	84590	05/22/2003 1410
3550B	Extraction Ultrasonic (Pest.Phos.)		1	85158	05/28/2003 1545
8141A	Organophosphorus Pesticide Analysis		1	85443 85158	05/29/2003 2225 1.000000
Lab ID: 217626-6	Client ID: SS-B2-1		Date Recvd: 05/21/2003	Sample Date: 05/16/2003	
METHOD	DESCRIPTION		RUN#	BATCH# PREP BT #(S)	DATE/TIME ANALYZED DILUTION
Method	% Solids Determination		1	84590	05/22/2003 1410
3550B	Extraction Ultrasonic (Pest.Phos.)		1	85158	05/28/2003 1545
8141A	Organophosphorus Pesticide Analysis		1	85443 85158	05/29/2003 2250 1.000000
Lab ID: 217626-7	Client ID: SS-B3-1		Date Recvd: 05/21/2003	Sample Date: 05/16/2003	
METHOD	DESCRIPTION		RUN#	BATCH# PREP BT #(S)	DATE/TIME ANALYZED DILUTION
Method	% Solids Determination		1	84590	05/22/2003 1410
3550B	Extraction Ultrasonic (Pest.Phos.)		1	85158	05/28/2003 1545
8141A	Organophosphorus Pesticide Analysis		1	85443 85158	05/29/2003 2316 1.000000
Lab ID: 217626-8	Client ID: SS-B4-1		Date Recvd: 05/21/2003	Sample Date: 05/16/2003	
METHOD	DESCRIPTION		RUN#	BATCH# PREP BT #(S)	DATE/TIME ANALYZED DILUTION
Method	% Solids Determination		1	84590	05/22/2003 1410
3550B	Extraction Ultrasonic (Pest.Phos.)		1	85158	05/28/2003 1545
8141A	Organophosphorus Pesticide Analysis		1	85443 85158	05/30/2003 0006 1.000000
Lab ID: 217626-9	Client ID: SS-C1-1		Date Recvd: 05/21/2003	Sample Date: 05/16/2003	
METHOD	DESCRIPTION		RUN#	BATCH# PREP BT #(S)	DATE/TIME ANALYZED DILUTION
Method	% Solids Determination		1	84590	05/22/2003 1410
3550B	Extraction Ultrasonic (Pest.Phos.)		1	85158	05/28/2003 1545
8141A	Organophosphorus Pesticide Analysis		1	85443 85158	05/30/2003 0031 1.000000
Lab ID: 217626-10	Client ID: SS-C2-1		Date Recvd: 05/21/2003	Sample Date: 05/16/2003	
METHOD	DESCRIPTION		RUN#	BATCH# PREP BT #(S)	DATE/TIME ANALYZED DILUTION
Method	% Solids Determination		1	84590	05/22/2003 1410

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LABORATORY CHRONICLE					
Job Number: 217626			Date: 05/30/2003		
CUSTOMER: Severn Trent Laboratories		PROJECT: 2003-05-0529		ATTN: Surinder Sidhu	
Lab ID: 217626-10	Client ID: SS-C2-1		Date Recvd: 05/21/2003	Sample Date: 05/16/2003	
METHOD	DESCRIPTION		RUN#	BATCH# PREP BT #(S)	DATE/TIME ANALYZED DILUTION
3550B	Extraction Ultrasonic (Pest.Phos.)		1	85158	05/28/2003 1545
8141A	Organophosphorus Pesticide Analysis		1	85443 85158	05/30/2003 0057 1.000000
Lab ID: 217626-11	Client ID: SS-C3-1		Date Recvd: 05/21/2003	Sample Date: 05/16/2003	
METHOD	DESCRIPTION		RUN#	BATCH# PREP BT #(S)	DATE/TIME ANALYZED DILUTION
Method	% Solids Determination		1	84590	05/22/2003 1410
3550B	Extraction Ultrasonic (Pest.Phos.)		1	85158	05/28/2003 1545
8141A	Organophosphorus Pesticide Analysis		1	85443 85158	05/30/2003 0122 1.000000
Lab ID: 217626-12	Client ID: SS-C4-1		Date Recvd: 05/21/2003	Sample Date: 05/16/2003	
METHOD	DESCRIPTION		RUN#	BATCH# PREP BT #(S)	DATE/TIME ANALYZED DILUTION
Method	% Solids Determination		1	84590	05/22/2003 1410
3550B	Extraction Ultrasonic (Pest.Phos.)		1	85158	05/28/2003 1545
8141A	Organophosphorus Pesticide Analysis		1	85443 85158	05/30/2003 0147 1.000000
Lab ID: 217626-13	Client ID: SS-D1-1		Date Recvd: 05/21/2003	Sample Date: 05/16/2003	
METHOD	DESCRIPTION		RUN#	BATCH# PREP BT #(S)	DATE/TIME ANALYZED DILUTION
Method	% Solids Determination		1	84590	05/22/2003 1410
3550B	Extraction Ultrasonic (Pest.Phos.)		1	85158	05/28/2003 1545
8141A	Organophosphorus Pesticide Analysis		1	85443 85158	05/30/2003 0212 1.000000
Lab ID: 217626-14	Client ID: SS-D2-1		Date Recvd: 05/21/2003	Sample Date: 05/16/2003	
METHOD	DESCRIPTION		RUN#	BATCH# PREP BT #(S)	DATE/TIME ANALYZED DILUTION
Method	% Solids Determination		1	84590	05/22/2003 1410
3550B	Extraction Ultrasonic (Pest.Phos.)		1	85158	05/28/2003 1545
8141A	Organophosphorus Pesticide Analysis		1	85443 85158	05/30/2003 0238 1.000000
Lab ID: 217626-15	Client ID: SS-D3-1		Date Recvd: 05/21/2003	Sample Date: 05/16/2003	
METHOD	DESCRIPTION		RUN#	BATCH# PREP BT #(S)	DATE/TIME ANALYZED DILUTION
Method	% Solids Determination		1	84590	05/22/2003 1410
3550B	Extraction Ultrasonic (Pest.Phos.)		1	85158	05/28/2003 1545
8141A	Organophosphorus Pesticide Analysis		1	85443 85158	05/30/2003 0303 1.000000
Lab ID: 217626-16	Client ID: SS-D4-1		Date Recvd: 05/21/2003	Sample Date: 05/16/2003	
METHOD	DESCRIPTION		RUN#	BATCH# PREP BT #(S)	DATE/TIME ANALYZED DILUTION
Method	% Solids Determination		1	84590	05/22/2003 1410
3550B	Extraction Ultrasonic (Pest.Phos.)		1	85158	05/28/2003 1545
8141A	Organophosphorus Pesticide Analysis		1	85443 85158	05/30/2003 0328 1.000000

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S U R R O G A T E   R E C O V E R I E S   R E P O R T

Job Number.: 217626

Report Date.: 05/30/2003

CUSTOMER: Severn Trent Laboratories

PROJECT: 2003-05-0529

ATTN: Surinder Sidhu

Method.....: Organophosphorus Pesticide Analysis  
Method Code...: 8141

Test Matrix...: Solid  
Batch(s).....: 85443

Prep Batch.: 85158

Lab ID	DT	Sample ID	Date	TBPBOS	TPHPHO
LCD			05/29/2003	88	101
LCS			05/29/2003	89	95
MB			05/29/2003	80	99
217626- 1	1	SS-A1-1	05/29/2003	76	96
217626- 2	2	SS-A2-1	05/29/2003	78	87
217626- 3	3	SS-A3-1	05/29/2003	83	91
217626- 4	4	SS-A4-1	05/29/2003	85	93
217626- 5	5	SS-B1-1	05/29/2003	87	94
217626- 6	6	SS-B2-1	05/29/2003	85	91
217626- 7	7	SS-B3-1	05/29/2003	86	85
217626- 8	8	SS-B4-1	05/30/2003	86	92
217626- 9	9	SS-C1-1	05/30/2003	82	69
217626- 10	10	SS-C2-1	05/30/2003	33*	34
217626- 11	11	SS-C3-1	05/30/2003	95	52
217626- 12	12	SS-C4-1	05/30/2003	91	61
217626- 13	13	SS-D1-1	05/30/2003	86	88
217626- 14	14	SS-D2-1	05/30/2003	83	87
217626- 15	15	SS-D3-1	05/30/2003	87	61
217626- 16	16	SS-D4-1	05/30/2003	100	62

Test	Test Description	Limits
TBPBOS	Tributylphosphate	47 - 123
TPHPHO	Triphenylphosphate	20 - 115

QUALITY CONTROL RESULTS					
Job Number.: 217626		Report Date.: 05/30/2003			
CUSTOMER: Severn Trent Laboratories		PROJECT: 2003-05-0529		ATTN: Surinder Sidhu	
QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date Time
Test Method.....: 8141A Method Description.: Organophosphorus Pesticide Analysis		Equipment Code....: INST1920 Batch.....: 85443		Analyst...: pig	
LCD	Laboratory Control Sample Duplicate	003DWLPPOA	85158 -003		05/29/2003 2019
Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value QC Calc. * Limits F
o,o,o-TEPA, Solid	ug/Kg	638.846	667.766	667.700	2.000 U 96 4 R 30 X 64-109
Phorate, Solid	ug/Kg	621.626	646.779	668.800	2.000 U 93 4 R 30 X 58-106
Thionazin, Solid	ug/Kg	603.296	634.296	668.000	2.000 U 90 4 R 30 X 72-113
Disulfoton, Solid	ug/Kg	565.629	590.359	668.100	2.000 U 85 5 R 30 X 20-133
Sulfotep, Solid	ug/Kg	641.573	671.029	668.800	2.000 U 96 4 R 30 X 70-123
Dimethoate, Solid	ug/Kg	506.589	481.610	669.300	2.000 U 76 4 R 30 X 57-118
Methyl parathion, Solid	ug/Kg	659.669	672.469	668.100	2.000 U 99 2 R 30 X 64-113
Parathion, Solid	ug/Kg	641.996	635.633	668.900	2.000 U 96 1 R 30 X 67-111
Famphur, Solid	ug/Kg	644.223	607.413	668.000	2.000 U 96 6 R 30 X 63-109

QUALITY CONTROL RESULTS									
Job Number.: 217626			Report Date.: 05/30/2003						
CUSTOMER: Severn Trent Laboratories		PROJECT: 2003-05-0529		ATTN:					
QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time			
Test Method.....: B141A	Equipment Code....: INST1920			Analyst...: pjk					
Method Description.: Organophosphorus Pesticide Analysis	Batch.....: 85443								
LCS	Laboratory Control Sample	003DWLPPDA	65158 -002		05/29/2003	1954			
Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	*	Limits	F
o,o,o-TEPA, Solid	ug/Kg	667.766		667.700	2.000	U 100	%	64-109	
Phorate, Solid	ug/Kg	646.779		668.800	2.000	U 97	%	58-106	
Thiomazin, Solid	ug/Kg	634.296		668.000	2.000	U 95	%	72-113	
Disulfoton, Solid	ug/Kg	590.359		668.100	2.000	U 88	%	20-133	
Sulfotep, Solid	ug/Kg	671.029		668.800	2.000	U 100	%	70-123	
Dimethoate, Solid	ug/Kg	481.610		669.300	2.000	U 72	%	57-118	
Methyl parathion, Solid	ug/Kg	672.469		668.100	2.000	U 101	%	64-113	
Parathion, Solid	ug/Kg	635.633		668.900	2.000	U 95	%	67-111	
Famphur, Solid	ug/Kg	607.413		668.000	2.000	U 91	%	63-109	

QUALITY CONTROL RESULTS								
Job Number.: 217626			Report Date.: 05/30/2003					
CUSTOMER: Severn Trent Laboratories		PROJECT: 2003-05-0529	ATTN:					
QC Type	Description	Reag. Code	Lab ID	Dilution Factor	Date	Time		
Test Method.....: 8141A Method Description.: Organophosphorus Pesticide Analysis		Equipment Code....: INST1920 Batch.....: 85443		Analyst...: pjj				
NB	Method: Blank			85158-001		05/29/2003 1928		
Parameter/Test Description	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc.	* Limits	F
o,o,o-TEPA, Solid	ug/Kg	2.000	U					
Phorate, Solid	ug/Kg	2.000	U					
Thionezin, Solid	ug/Kg	2.000	U					
Disulfoton, Solid	ug/Kg	2.000	U					
Sulfotep, Solid	ug/Kg	2.000	U					
Dimethoate, Solid	ug/Kg	2.000	U					
Methyl parathion, Solid	ug/Kg	2.000	U					
Parathion, Solid	ug/Kg	2.000	U					
Famphur, Solid	ug/Kg	2.000	U					

Job Number.: 217626

## QUALITY CONTROL RESULTS

Report Date.: 05/30/2003

CUSTOMER: Severn Trent Laboratories

PROJECT: 2003-05-0529

ATTN: Surinder Sidhu

Test Method.....: Method  
Method Description.: % Solids Determination  
Parameter.....: % Solids

Batch.....: 84590  
Equipment Code.....

Analyst...: pfk  
Test Code.: XSOLID

QC	Lab ID	Reagent	Units	QC Result	QC Result	True Value	Orig. Value	QC Calc. F *	Limits	Date	Time
MB	84590-001	%		0.1000 U						05/22/2003	1410

## QUALITY ASSURANCE METHODS

### REFERENCES AND NOTES

Report Date: 05/30/2003

#### REPORT COMMENTS

- 1) All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.
- 2) Soil, sediment and sludge sample results are reported on a "dry weight" basis except when analyzed for landfill disposal or incineration parameters. All other solid matrix samples are reported on an "as received" basis unless noted differently.
- 3) Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.
- 4) The test results for the noted analytical method(s) meet the requirements of NELAC. Lab Cert. ID# 100201
- 5) Arizona Environmental Laboratory License number A20603.
- 6) According to 40CFR Part 136.3, pH, Chlorine Residual and Dissolved Oxygen analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field (e.g. pH Field) they were not analyzed immediately, but as soon as possible on laboratory receipt.

#### Glossary of flags, qualifiers and abbreviations (any number of which may appear in the report)

(Inorganic Qualifiers (Q-Column))

- U Analyte was not detected at or above the stated limit.
- < Not detected at or above the reporting limit.
- J Result is less than the RL, but greater than or equal to the method detection limit.
- B Result is less than the CRDL/RL, but greater than or equal to the IDL/MDL.
- S Result was determined by the Method of Standard Additions.
- F AFCEE: Result is less than the RL, but greater than or equal to the method detection limit.

Inorganic Flags (Flag Column)

- ICV,CCV,ICB,CCB,ISA,ISB,CRI,CRA,MRL: Instrument related QC exceed the upper or lower control limits.
- \* LCS, LCD, MD: Batch QC exceeds the upper or lower control limits.
- + MSA correlation coefficient is less than 0.995.
- 4 MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
- E SD: Serial dilution exceeds the control limits.
- H MB, EB1, EB2, EB3: Batch QC is greater than reporting limit or had a negative instrument reading lower than the absolute value of the reporting limit.
- N MS, MSD: Spike recovery exceeds the upper or lower control limits.
- W AS(GFAA) Post-digestion spike was outside 85-115% control limits.

Organic Qualifiers (Q - Column)

- U Analyte was not detected at or above the stated limit.
- ND Compound not detected.
- J Result is an estimated value below the reporting limit or a tentatively identified compound (TIC).
- Q Result was qualitatively confirmed, but not quantified.
- C Pesticide identification was confirmed by GC/MS.
- Y The chromatographic response resembles a typical fuel pattern.
- Z The chromatographic response does not resemble a typical fuel pattern.
- E Result exceeded calibration range, secondary dilution required.
- F AFCEE:Result is an estimated value below the reporting limit or a tentatively identified compound (TIC)

Organic Flags (Flags Column)

- B MB: Batch QC is greater than reporting limit.
- \* LCS, LCD, ELC, ELD, CV, MS, MSD, Surrogate: Batch QC exceeds the upper or lower control limits.
- EB1, EB2, EB3, MLE: Batch QC is greater than reporting Limit
- A Concentration exceeds the instrument calibration range
- D Concentration is below the method Reporting Limit (RL)
- B Compound was found in the blank and sample.
- D Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at a dilution will be flagged with a D.
- H Alternate peak selection upon analytical review
- I Indicates the presence of an interference, recovery is not calculated.
- M Manually integrated compound.

## QUALITY ASSURANCE METHODS

## REFERENCES AND NOTES

Report Date: 05/30/2003

P The lower of the two values is reported when the % difference between the results of two GC columns is greater than 25%.

## Abbreviations

AS	Post Digestion Spike (GFAA Samples - See Note 1 below)
Batch	Designation given to identify a specific extraction, digestion, preparation set, or analysis set
CAP	Capillary Column CCB Continuing Calibration Blank
CCV	Continuing Calibration Verification
CF	Confirmation analysis of original
C1	Confirmation analysis of A1 or D1
C2	Confirmation analysis of A2 or D2
C3	Confirmation analysis of A3 or D3
CRA	Low Level Standard Check - GFAA; Mercury
CR1	Low Level Standard Check - ICP
CV	Calibration Verification Standard
Dil Fac	Dilution Factor - Secondary dilution analysis
D1	Dilution 1
D2	Dilution 2
D3	Dilution 3
DLFac	Detection Limit Factor
DSH	Distilled Standard - High Level
DSL	Distilled Standard - Low Level
DSM	Distilled Standard - Medium Level
EB1	Extraction Blank 1
EB2	Extraction Blank 2
EB3	DI Blank
ELC	Method Extracted LCS
ELD	Method Extracted LCD
ICAL	Initial calibration
ICB	Initial Calibration Blank
ICV	Initial Calibration Verification
IDL	Instrument Detection Limit
ISA	Interference Check Sample A - ICAP
ISB	Interference Check Sample B - ICAP
Job No.	The first six digits of the sample ID which refers to a specific client, project and sample group Lab ID An 8 number unique laboratory identification
LCD	Laboratory Control Standard Duplicate
LCS	Laboratory Control Standard with reagent grade water or a matrix free from the analyte of interest
MB	Method Blank or (PB) Preparation Blank
MD	Method Duplicate
MDL	Method Detection Limit
MLE	Medium Level Extraction Blank
MRL	Method Reporting Limit Standard
MSA	Method of Standard Additions
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ND	Not Detected
PREPF	Preparation factor used by the Laboratory's Information Management System (LIMS)
PDS	Post Digestion Spike (ICAP)
RA	Re-analysis of original
A1	Re-analysis of D1
A2	Re-analysis of D2
A3	Re-analysis of D3
RD	Re-extraction of dilution
RE	Re-extraction of original
RC	Re-extraction Confirmation
RL	Reporting Limit
RPD	Relative Percent Difference of duplicate (unrounded) analyses
RRF	Relative Response Factor

QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Report Date: 05/30/2003

RT      Retention Time  
RTW     Retention Time Window Sample ID A 9 digit number unique for each sample, the first six digits are referred as the job number  
SCB     Seeded Control Blank  
SD      Serial Dilution (Calculated when sample concentration exceeds 50 times the MDL)  
UCB     Unseeded Control Blank  
SSV     Second Source Verification Standard  
SLCS    Solid Laboratory Control Standard(LCS)  
PHC     pH Calibration Check LCSF pH Laboratory Control Sample  
LCDP    pH Laboratory Control Sample Duplicate  
MDPH    pH Sample Duplicate  
MDFP    Flashpoint Sample Duplicate  
LCFP    Flashpoint LCS  
G1      Gelex Check Standard Range 0-1  
G2      Gelex Check Standard Range 1-10  
G3      Gelex Check Standard Range 10-100  
G4      Gelex Check Standard Range 100-1000

Note 1: The Post Spike Designation on Batch QC for GFAA is designated with an "S" added to the current abbreviation used. EX. LCS S=LCS Post Spike (GFAA); MSS=MS Post Spike (GFAA)

Note 2: The MD calculates an absolute difference (A) when the sample concentration is less than 5 times the reporting limit. The control limit is represented as +/- the RL.

From:  
**STL San Francisco (CL)**  
 1220 Quarry Lane  
 Pleasanton, CA 94566-4758

To:  
 [REDACTED]  
 2417 Bond Street  
 University Park, IL 60466

217626

Project Manager: Surinder Sidhu  
 Phone: Ext: (925) 484-1096  
 Fax: (925) 484-1096  
 Email: ssidhu@stl-inc.com

Phone: (708) 534-5200 Ext: 156  
 Fax: (708) 534-5211  
 Contact: Bonnie Stedelmann  
 Phone: (708) 534-5200 Ext: 156

CL Submission #: **2003-05-0529**Project #: **1109.00**

CL PO #:

Project Name: Malabar Ave.

Client Sample ID	CL#	Sampled	Matrix	Method	TAT
Analysis					
SS-A1-1	001	05/16/2003	Soil		
Subcontract - 8140 Organo-Phosphorus Pesticides			8140	5 Day	
SS-A2-1	003	05/16/2003	Soil		
Subcontract - 8140 Organo-Phosphorus Pesticides			8140	5 Day	
SS-A3-1	005	05/16/2003	Soil		
Subcontract - 8140 Organo-Phosphorus Pesticides			8140	5 Day	
SS-A4-1	007	05/16/2003	Soil		
Subcontract - 8140 Organo-Phosphorus Pesticides			8140	5 Day	
SS-B1-1	009	05/16/2003	Soil		
Subcontract - 8140 Organo-Phosphorus Pesticides			8140	5 Day	
SS-B2-1	011	05/16/2003	Soil		
Subcontract - 8140 Organo-Phosphorus Pesticides			8140	5 Day	
SS-B3-1	013	05/16/2003	Soil		
Subcontract - 8140 Organo-Phosphorus Pesticides			8140	5 Day	

RELINQUISHED BY: <i>Nounak</i> 1215 Signature <i>Nounak</i> Time Printed Name <i>STL-SF</i> Date Company	RELINQUISHED BY: Signature Printed Name Company	RELINQUISHED BY: Signature Printed Name Company
RECEIVED BY: <i>Xt</i> 0955 Signature Printed Name Company	RECEIVED BY: Signature Printed Name Company	RECEIVED BY: Signature Printed Name Company

From:  
**STL San Francisco (CL)**  
 1220 Quarry Lane  
 Pleasanton, CA 94566-4756

To:  
**STL Chicago**  
 2417 Bond Street  
 University Park, IL 60466

217626

Project Manager: Surinder Sidhu Ext: Phone: (708) 534-5200 Ext: 156  
 Phone: (708) 534-5211  
 Fax: (925) 484-1096 Contact: Bonnie Stadelmann  
 Email: ssidhu@stl-inc.com Phone: (708) 534-5200 Ext: 156

CL Submission #: **2003-05-0529** Project #: **1109.00**  
 CL PO #: Project Name: Malabar Ave.

Line #	Client Sample ID	Analysis	CL#	Sampled		Matrix	Method	TAT
				Date	Time			
8	SS-B4-1	Subcontract - 8140 Organophosphorus Pesticides	015	05/16/2003		Soil	8140	5 Day
9	SS-C1-1	Subcontract - 8140 Organophosphorus Pesticides	017	05/16/2003		Soil	8140	5 Day
10	SS-C2-1	Subcontract - 8140 Organophosphorus Pesticides	018	05/16/2003		Soil	8140	5 Day
11	SS-C3-1	Subcontract - 8140 Organophosphorus Pesticides	019	05/16/2003		Soil	8140	5 Day
12	SS-C4-1	Subcontract - 8140 Organophosphorus Pesticides	020	05/16/2003		Soil	8140	5 Day
13	SS-D1-1	Subcontract - 8140 Organophosphorus Pesticides	021	05/16/2003		Soil	8140	5 Day
14	SS-D2-1	Subcontract - 8140 Organophosphorus Pesticides	022	05/16/2003		Soil	8140	5 Day

RELINQUISHED BY: <i>Mounak</i> Signature <i>Mounak</i> Printed Name <i>SZL SF</i> Company	1. RELINQUISHED BY: Signature Printed Name Company	2. RELINQUISHED BY: Signature Printed Name Company
RECEIVED BY: <i>JL</i> Signature <i>CA55</i> Printed Name <i>5/21/03</i> Company	1. RECEIVED BY: Signature Printed Name Company	2. RECEIVED BY: Signature Printed Name Company

## Chain of Custody 2003-05-0529-1

Date Shipped: 05/20/2003-  
217626

**From:**  
**STL San Francisco (CL)**  
 1220 Quarry Lane  
 Pleasanton, CA 94566-4756

**To:**  
**STL Chicago**  
 2417 Bond Street  
 University Park, IL 60466

**Project Manager:** Surinder Sidhu      **Phone:** (708) 534-5200      **Ext:** 156  
**Phone:** (708) 534-5211  
**Fax:** (925) 484-1096      **Contact:** Bonnie Stadelmann  
**Email:** ssidhu@stl-inc.com      **Phone:** (708) 534-5200      **Ext:** 156

CL Submission #: **2003-05-0529**Project #: **1109.00**

CL PO #:

Project Name: Malabar Ave.

Client Sample ID Analysis	CL#	Sampled	Matrix	Method	TAT
SS-D3-1 Subcontract - 8140 Organophosphorus Pesticides	023	05/16/2003	Soil	8140	5 Day
SS-D4-1 Subcontract - 8140 Organophosphorus Pesticides	024	05/16/2003	Soil	8140	5 Day

PLEASE INCLUDE QC WITH FAXED AND HARD-COPY RESULTS

RELINQUISHED BY:  1215	1. RELINQUISHED BY:  Signature _____ Time _____ Printed Name _____ Date _____ Company _____	2. RELINQUISHED BY:  Signature _____ Time _____ Printed Name _____ Date _____ Company _____	3. RELINQUISHED BY:  Signature _____ Time _____ Printed Name _____ Date _____ Company _____
RECEIVED BY:  0955	1. RECEIVED BY:  Signature _____ Time _____ Printed Name _____ Date _____ Company _____	2. RECEIVED BY:  Signature _____ Time _____ Printed Name _____ Date _____ Company _____	3. RECEIVED BY:  Signature _____ Time _____ Printed Name _____ Date _____ Company _____

RELINQUISHED BY:  Signature _____ Time _____ Printed Name _____ Date _____ Company _____	2. RELINQUISHED BY:  Signature _____ Time _____ Printed Name _____ Date _____ Company _____
RECEIVED BY:  Signature _____ Time _____ Printed Name _____ Date _____ Company _____	2. RECEIVED BY:  Signature _____ Time _____ Printed Name _____ Date _____ Company _____

3. RELINQUISHED BY:  Signature _____ Time _____ Printed Name _____ Date _____ Company _____
3. RECEIVED BY:  Signature _____ Time _____ Printed Name _____ Date _____ Company _____

**Diesel**

Northgate Environmental, Oakland

Attn.: Dennis Laduzinsky

3629 Grand Avenue  
Oakland, CA 94610  
Phone: (510) 839-2939 Fax: (510) 839-4350

Project: 1109.00  
Malabar Ave.

Received: 05/19/2003 17:19

Site: Castro Valley

**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
NB-1-4	05/16/2003	Soil	25
NB-1-9	05/16/2003	Soil	26
NB-2-4.25	05/16/2003	Soil	27
NB-2-9	05/16/2003	Soil	28

**Diesel**

Northgate Environmental, Oakland

Attn.: Dennis Laduzinsky

3629 Grand Avenue  
Oakland, CA 94610  
Phone: (510) 839-2939 Fax: (510) 839-4350Project: 1109.00  
Malabar Ave.

Received: 05/19/2003 17:19

Site: Castro Valley

---

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	<b>NB-1-4</b>	Lab ID:	2003-05-0529 - 25
Sampled:	05/16/2003	Extracted:	5/20/2003 16:50
Matrix:	Soil	QC Batch#:	2003/05/20-07.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	1.0	mg/Kg	1.00	05/21/2003 10:20	
<b>Surrogates(s)</b>						
o-Terphenyl	83.3	60-130	%	1.00	05/21/2003 10:20	

**Diesel**

Northgate Environmental, Oakland

Attn.: Dennis Laduzinsky

3629 Grand Avenue  
Oakland, CA 94610  
Phone: (510) 839-2939 Fax: (510) 839-4350Project: 1109.00  
Malabar Ave.

Received: 05/19/2003 17:19

Site: Castro Valley

---

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	NB-1-9	Lab ID:	2003-05-0529 - 26
Sampled:	05/16/2003	Extracted:	5/20/2003 16:50
Matrix:	Soil	QC Batch#:	2003/05/20-07.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	2.6	1.0	mg/Kg	1.00	05/21/2003 11:00	ndp
<b>Surrogates(s)</b>						
o-Terphenyl	82.7	60-130	%	1.00	05/21/2003 11:00	

## Diesel

Northgate Environmental, Oakland

Attn.: Dennis Laduzinsky

3629 Grand Avenue  
Oakland, CA 94610  
Phone: (510) 839-2939 Fax: (510) 839-4350

Project: 1109.00  
Malabar Ave.

Received: 05/19/2003 17:19

Site: Castro Valley

---

Prep(s):	3550/8015M	Test(s):	8015M
Sample ID:	NB-2-4.25	Lab ID:	2003-05-0529 - 27
Sampled:	05/16/2003	Extracted:	5/20/2003 16:50
Matrix:	Soil	QC Batch#:	2003/05/20-07.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	1.0	mg/Kg	1.00	05/24/2003 01:59	
<b>Surrogates(s)</b>						
o-Terphenyl	84.3	60-130	%	1.00	05/24/2003 01:59	

## Diesel

Northgate Environmental, Oakland

Attn.: Dennis Laduzinsky

3629 Grand Avenue  
Oakland, CA 94610  
Phone: (510) 839-2939 Fax: (510) 839-4350

Project: 1109.00  
Malabar Ave.

Received: 05/19/2003 17:19

Site: Castro Valley

---

Prep(s): 3550/8015M                          Test(s): 8015M  
Sample ID: NB-2-9                              Lab ID: 2003-05-0529 - 28  
Sampled: 05/16/2003                            Extracted: 5/20/2003 16:50  
Matrix: Soil                                       QC Batch#: 2003/05/20-07.10

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Diesel	ND	1.0	mg/Kg	1.00	05/21/2003 11:41	
<b>Surrogates(s)</b>						
o-Terphenyl	87.2	60-130	%	1.00	05/21/2003 11:41	

**Diesel**

Northgate Environmental, Oakland

Attn.: Dennis Laduzinsky

3629 Grand Avenue  
Oakland, CA 94610  
Phone: (510) 839-2939 Fax: (510) 839-4350

Project: 1109.00  
Malabar Ave.

Received: 05/19/2003 17:19

Site: Castro Valley

---

**Batch QC Report**

---

Prep(s): 3550/8015M

Test(s): 8015M

Method Blank

Soil

QC Batch # 2003/05/20-07.10

MB: 2003/05/20-07.10-003

Date Extracted: 05/20/2003 16:50

Compound	Conc.	RL	Unit	Analyzed	Flag
Diesel	ND	1	mg/Kg	05/21/2003 06:44	
Surrogates(s) o-Terphenyl	94.3	60-130	%	05/21/2003 06:44	

**Diesel**

Northgate Environmental, Oakland

Attn.: Dennis Laduzinsky

3629 Grand Avenue  
Oakland, CA 94610  
Phone: (510) 839-2939 Fax: (510) 839-4350

Project: 1109.00  
Malabar Ave.

Received: 05/19/2003 17:19

Site: Castro Valley

---

**Batch QC Report**

---

Prep(s): 3550/8015M

Test(s): 8015M

**Laboratory Control Spike****Soil****QC Batch # 2003/05/20-07.10**

LCS 2003/05/20-07.10-001  
LCSD 2003/05/20-07.10-002

Extracted: 05/20/2003

Analyzed: 05/21/2003 05:30

Extracted: 05/20/2003

Analyzed: 05/21/2003 06:07

Compound	Conc. mg/Kg		Exp.Conc.	Recovery		RPD %	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		Rec.	RPD	LCS	LCSD
Diesel	39.4	39.5	41.7	94.5	95.0	0.5	60-130	25		
<i>Surrogates(s)</i> o-Terphenyl	20.8	21.0	20.0	103.9	104.8		60-130	0		

Diesel

Northgate Environmental, Oakland

Attn.: Dennis Laduzinsky

3629 Grand Avenue  
Oakland, CA 94610  
Phone: (510) 839-2939 Fax: (510) 839-4350

Project: 1109.00  
Malabar Ave.

Received: 05/19/2003 17:19

Site: Castro Valley

---

Legend and Notes

---

**Result Flag**

ndp

Hydrocarbon reported does not match the pattern of our Diesel standard

05/27/2003 15:24

Severn Trent Laboratories, Inc.

STL San Francisco \* 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 \* [www.stl-inc.com](http://www.stl-inc.com) \* CA DHS ELAP# 2496

**Gas/BTEX Compounds by 8015M/8021**

Northgate Environmental, Oakland

Attn.: Dennis Laduzinsky

3629 Grand Avenue  
Oakland, CA 94610  
Phone: (510) 839-2939 Fax: (510) 839-4350Project: 1109.00  
Malabar Ave.

Received: 05/19/2003 17:19

Site: Castro Valley

**Samples Reported**

Sample Name	Date Sampled	Matrix	Lab #
NB-1-4	05/16/2003	Soil	25
NB-1-9	05/16/2003	Soil	26
NB-2-4.25	05/16/2003	Soil	27
NB-2-9	05/16/2003	Soil	28

## Gas/BTEX Compounds by 8015M/8021

Northgate Environmental, Oakland

Attn.: Dennis Laduzinsky

3629 Grand Avenue  
Oakland, CA 94610  
Phone: (510) 839-2939 Fax: (510) 839-4350

Project: 1109.00  
Malabar Ave.

Received: 05/19/2003 17:19

Site: Castro Valley

Prep(s):	5035 5035	Test(s):	8015M 8021B
Sample ID:	NB-1-4	Lab ID:	2003-05-0529 - 25
Sampled:	05/16/2003	Extracted:	5/22/2003 13:12
Matrix:	Soil	QC Batch#:	2003/05/22-01.02

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	1.00	05/22/2003 13:12	
Benzene	ND	0.0050	mg/Kg	1.00	05/22/2003 13:12	
Toluene	ND	0.0050	mg/Kg	1.00	05/22/2003 13:12	
Ethyl benzene	ND	0.0050	mg/Kg	1.00	05/22/2003 13:12	
Xylene(s)	ND	0.0050	mg/Kg	1.00	05/22/2003 13:12	
MTBE	ND	0.0050	mg/Kg	1.00	05/22/2003 13:12	
<b>Surrogates(s)</b>						
Trifluorotoluene	90.3	53-125	%	1.00	05/22/2003 13:12	
4-Bromofluorobenzene-FID	87.9	58-124	%	1.00	05/22/2003 13:12	

## Gas/BTEX Compounds by 8015M/8021

Northgate Environmental, Oakland

Attn.: Dennis Laduzinsky

3629 Grand Avenue  
Oakland, CA 94610  
Phone: (510) 839-2939 Fax: (510) 839-4350

Project: 1109.00  
Malabar Ave.

Received: 05/19/2003 17:19

Site: Castro Valley

---

Prep(s):	5035 5035	Test(s):	8015M 8021B
Sample ID:	NB-1-9	Lab ID:	2003-05-0529 - 26
Sampled:	05/16/2003	Extracted:	5/22/2003 15:49
Matrix:	Soil	QC Batch#:	2003/05/22-01.02

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	1.00	05/22/2003 15:49	
Benzene	ND	0.0050	mg/Kg	1.00	05/22/2003 15:49	
Toluene	ND	0.0050	mg/Kg	1.00	05/22/2003 15:49	
Ethyl benzene	ND	0.0050	mg/Kg	1.00	05/22/2003 15:49	
Xylene(s)	ND	0.0050	mg/Kg	1.00	05/22/2003 15:49	
MTBE	ND	0.0050	mg/Kg	1.00	05/22/2003 15:49	
<i>Surrogates(s)</i>						
Trifluorotoluene	96.3	53-125	%	1.00	05/22/2003 15:49	
4-Bromofluorobenzene-FID	87.7	58-124	%	1.00	05/22/2003 15:49	

## Gas/BTEX Compounds by 8015M/8021

Northgate Environmental, Oakland

Attn.: Dennis Laduzinsky

3629 Grand Avenue  
Oakland, CA 94610  
Phone: (510) 839-2939 Fax: (510) 839-4350

Project: 1109.00  
Malabar Ave.

Received: 05/19/2003 17:19

Site: Castro Valley

---

Prep(s):	5035 5035	Test(s):	8015M 8021B
Sample ID:	NB-2-4.25	Lab ID:	2003-05-0529 - 27
Sampled:	05/16/2003	Extracted:	5/23/2003 11:05
Matrix:	Soil	QC Batch#:	2003/05/23-01.02

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	1.00	05/23/2003 11:05	
Benzene	ND	0.0050	mg/Kg	1.00	05/23/2003 11:05	
Toluene	ND	0.0050	mg/Kg	1.00	05/23/2003 11:05	
Ethyl benzene	ND	0.0050	mg/Kg	1.00	05/23/2003 11:05	
Xylene(s)	ND	0.0050	mg/Kg	1.00	05/23/2003 11:05	
MTBE	ND	0.0050	mg/Kg	1.00	05/23/2003 11:05	
<b>Surrogates(s)</b>						
Trifluorotoluene	84.1	53-125	%	1.00	05/23/2003 11:05	
4-Bromofluorobenzene-FID	84.7	58-124	%	1.00	05/23/2003 11:05	

## **Gas/BTEX Compounds by 8015M/8021**

**Northgate Environmental, Oakland**

Attn.: Dennis Laduzinsky

3629 Grand Avenue  
Oakland, CA 94610  
Phone: (510) 839-2939 Fax: (510) 839-4350

Project: 1109.00

### **Malabar Ave.**

Received: 05/19/2003 17:19

Site: Castro Valley

Prep(s): 5035  
5035

Test(s): 8015M  
8021B

Sample ID: NB-2-9

Lab ID: 2003-05-0529 - 28

Sampled: 05/16/2003

Extracted: 5/22/2003 16:45

**Matrix:** Soj

QC Batch#: 2003/05/22-01.02

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	1.00	05/22/2003 16:45	
Benzene	ND	0.0050	mg/Kg	1.00	05/22/2003 16:45	
Toluene	ND	0.0050	mg/Kg	1.00	05/22/2003 16:45	
Ethyl benzene	ND	0.0050	mg/Kg	1.00	05/22/2003 16:45	
Xylene(s)	ND	0.0050	mg/Kg	1.00	05/22/2003 16:45	
MTBE	ND	0.0050	mg/Kg	1.00	05/22/2003 16:45	
<b>Surrogates(s)</b>						
Trifluorotoluene	79.4	53-125	%	1.00	05/22/2003 16:45	
4-Bromofluorobenzene-FID	76.2	58-124	%	1.00	05/22/2003 16:45	

**Gas/BTEX Compounds by 8015M/8021**

Northgate Environmental, Oakland

Attn.: Dennis Laduzinsky

3629 Grand Avenue  
Oakland, CA 94610

Phone: (510) 839-2939 Fax: (510) 839-4350

Project: 1109.00

Received: 05/19/2003 17:19

Malabar Ave.

Site: Castro Valley

**Batch QC Report**

Prep(s): 5035

Test(s): 8015M

Method Blank

Soil

QC Batch # 2003/05/22-01.02

MB: 2003/05/22-01.02-003

Date Extracted: 05/22/2003 08:24

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	05/22/2003 08:24	
Benzene	ND	0.0050	mg/Kg	05/22/2003 08:24	
Toluene	ND	0.0050	mg/Kg	05/22/2003 08:24	
Ethyl benzene	ND	0.0050	mg/Kg	05/22/2003 08:24	
Xylene(s)	ND	0.0050	mg/Kg	05/22/2003 08:24	
MTBE	ND	0.0050	mg/Kg	05/22/2003 08:24	
<b>Surrogates(s)</b>					
Trifluorotoluene	93.1	53-125	%	05/22/2003 08:24	
4-Bromofluorobenzene-FID	97.0	58-124	%	05/22/2003 08:24	

## Gas/BTEX Compounds by 8015M/8021

Northgate Environmental, Oakland

Attn.: Dennis Laduzinsky

3629 Grand Avenue  
Oakland, CA 94610  
Phone: (510) 839-2939 Fax: (510) 839-4350

Project: 1109.00  
Malabar Ave.

Received: 05/19/2003 17:19

Site: Castro Valley

## Batch QC Report

Prep(s): 5035

Test(s): 8015M

Method Blank

Soil

QC Batch # 2003/05/23-01.02

MB: 2003/05/23-01.02-003

Date Extracted: 05/23/2003 08:31

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	05/23/2003 08:31	
Benzene	ND	0.0050	mg/Kg	05/23/2003 08:31	
Toluene	ND	0.0050	mg/Kg	05/23/2003 08:31	
Ethyl benzene	ND	0.0050	mg/Kg	05/23/2003 08:31	
Xylene(s)	ND	0.0050	mg/Kg	05/23/2003 08:31	
MTBE	ND	0.0050	mg/Kg	05/23/2003 08:31	
<i>Surrogates(s)</i>					
Trifluorotoluene	84.5	53-125	%	05/23/2003 08:31	
4-Bromofluorobenzene-FID	92.4	58-124	%	05/23/2003 08:31	

## Gas/BTEX Compounds by 8015M/8021

Northgate Environmental, Oakland

Attn.: Dennis Laduzinsky

3629 Grand Avenue  
Oakland, CA 94610  
Phone: (510) 839-2939 Fax: (510) 839-4350

Project: 1109.00  
Malabar Ave.

Received: 05/19/2003 17:19

Site: Castro Valley

## Batch QC Report

Prep(s): 5035

Test(s): 8021B

## Laboratory Control Spike

## Soil

QC Batch # 2003/05/22-01.02

LCS 2003/05/22-01.02-004

Extracted: 05/22/2003

Analyzed: 05/22/2003 08:52

LCSD 2003/05/22-01.02-005

Extracted: 05/22/2003

Analyzed: 05/22/2003 09:19

Compound	Conc. mg/Kg		Exp.Conc.	Recovery		RPD %	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		Rec.	RPD	LCS	LCSD
Benzene	0.0990	0.0944	0.1000	99.0	94.4	4.8	77-123	35		
Toluene	0.0990	0.0931	0.1000	99.0	93.1	6.1	78-122	35		
Ethyl benzene	0.0996	0.0944	0.1000	99.6	94.4	5.4	70-130	35		
Xylene(s)	0.304	0.290	0.300	101.3	96.7	4.6	75-125	35		
<b>Surrogates(s)</b>										
Trifluorotoluene	492	448	500	98.4	89.6		53-125			

**Gas/BTEX Compounds by 8015M/8021**

Northgate Environmental, Oakland

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Oakland, CA 94610  
Phone: (510) 839-2939 Fax: (510) 839-4350

Project: 1109.00  
Malabar Ave.

Received: 05/19/2003 17:19

Site: Castro Valley

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**Batch QC Report**

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Prep(s): 5035

Test(s): 8015M

**Laboratory Control Spike****Soil****QC Batch # 2003/05/22-01.02**

LCS 2003/05/22-01.02-006  
LCSD 2003/05/22-01.02-007

Extracted: 05/22/2003  
Extracted: 05/22/2003

Analyzed: 05/22/2003 09:47  
Analyzed: 05/22/2003 10:15

Compound	Conc. mg/Kg		Exp.Conc.	Recovery		RPD %	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		Rec.	RPD	LCS	LCSD
Gasoline	0.483	0.476	0.500	96.6	95.2	1.5	75-125	35		
<b>Surrogates(s)</b> 4-Bromofluorobenzene-FID	500	489	500	100.0	97.8		58-124			

**Gas/BTEX Compounds by 8015M/8021**

Northgate Environmental, Oakland

Attn.: Dennis Laduzinsky

3629 Grand Avenue  
Oakland, CA 94610  
Phone: (510) 839-2939 Fax: (510) 839-4350

Project: 1109.00  
Malabar Ave.

Received: 05/19/2003 17:19

Site: Castro Valley

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**Batch QC Report**

---

Prep(s): 5035

Test(s): 8021B

**Laboratory Control Spike****Soil****QC Batch # 2003/05/23-01.02**

LCS 2003/05/23-01.02-004  
LCSD 2003/05/23-01.02-005

Extracted: 05/23/2003  
Extracted: 05/23/2003

Analyzed: 05/23/2003 08:58  
Analyzed: 05/23/2003 09:26

Compound	Conc.		Exp.Conc.	Recovery		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Benzene	0.0928	0.0940	0.1000	92.8	94.0	1.3	77-123	35		
Toluene	0.0920	0.0938	0.1000	92.0	93.8	1.9	78-122	35		
Ethyl benzene	0.0926	0.0949	0.1000	92.6	94.9	2.5	70-130	35		
Xylene(s)	0.291	0.290	0.300	97.0	96.7	0.3	75-125	35		
<b>Surrogates(s)</b>										
Trifluorotoluene	447	454	500	89.4	90.8		53-125			

**Gas/BTEX Compounds by 8015M/8021**

Northgate Environmental, Oakland

Attn.: Dennis Laduzinsky

3629 Grand Avenue  
Oakland, CA 94610  
Phone: (510) 839-2939 Fax: (510) 839-4350Project: 1109.00  
Malabar Ave.

Received: 05/19/2003 17:19

Site: Castro Valley

**Batch QC Report**

Prep(s): 5035

Test(s): 8015M

**Laboratory Control Spike****Soil****QC Batch # 2003/05/23-01.02**LCS 2003/05/23-01.02-006  
LCSD 2003/05/23-01.02-007Extracted: 05/23/2003  
Extracted: 05/23/2003Analyzed: 05/23/2003 09:54  
Analyzed: 05/23/2003 10:22

Compound	Conc. mg/Kg		Exp.Conc.	Recovery		RPD %	Ctrl.Limits %	Flags			
	LCS	LCSD		LCS	LCSD			Rec.	RPD	LCS	LCSD
Gasoline	0.464	0.454	0.500	92.8	90.8	2.2	75-125	35			
<b>Surrogates(s)</b> 4-Bromofluorobenzene-FID	496	474	500	99.2	94.8		58-124				



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## **CHAIN OF CUSTODY / ANALYSES REQUEST FORM**

74362

2003-05-0529

Project No.: 1109.00	Project Location: CASTRO VALLEY	Date: 5/16/03	Serial No.:						
Project Name: MALABAR AVE	Field Logbook No.:								
Sampler (Signature) JWC	ANALYSES								
Samples					HOLD		RUSH		
Sample No.	Date	Time	Lab Sample No.	No. of Containers	Sample Type				REMARKS
SS-A1-1	5/16			1	Soil	X	X		
SS-A1-3								X	
SS-A2-1						X	X		
SS-A2-3								X	
SS-A3-1						X	X		
SS-A3-3								X	
SS-A4-1						X	X		
SS-A4-3								X	4.8%
SS-B1-1						X	X		
SS-B1-3								X	
SS-B2-1						X	X		
SS-B2-3								X	
SS-B3-1						X	X		
SS-B3-3				-				X	
Relinquished by: (Signature) JWC	Date 5/19/03	Time 13:00	Received By: (Signature) B. Horst	Date 5/19/03	Time 13:00				
Relinquished by: (Signature) JWC	Date 5/19/03	Time 17:19	Received By: (Signature)	Date	Time				
Relinquished by: (Signature)	Date	Time	Received By: (Signature) Nounak.	Date 5/19/03	Time 17:19				
Method of Shipment:	Date	Time	Lab Comments: Nounak.						
Sample Collector: Northgate Environmental Management, Inc. 3629 Grand Avenue Oakland, California 94610 (510) 839-0688	Analytical Laboratory:								



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CHAIN OF CUSTODY ANALYSES REQUEST FORM

743682

DSW

2003-05-0529

Project No.: 1109 CC	Project Location: CASTRO VALLEY	Date: 3/16/03	Serial No.:											
Project Name: MALABAR AVE	Field Logbook No.:													
Sampler (Signature)	ANALYSES													
Samples			SAMPLERS	HOLD	RUSH	REMARKS								
Sample No.	Date	Time	Lab Sample No.	No. of Containers	Sample Type	TEST								
SS-B4-1	5/16			1	SOIL	X	X							
SS-B4-3				1										
SS-C1-1				1			X							
SS-C2-1				1			X							
SS-C3-1				1			X							
SS-C4-1				1			X							
SS-D1-1				1			X							
SS-D2-1				1			X							
SS-D3-1				1			X							
SS-D4-1				1			X							
NB-1-4				1		X	X							
NB-1-9				1		X	X							
NB-2-4.25				1		X	X							
NB-2-4				1		X	X							
Relinquished by: (Signature)	Date 5/15	Time	Received By: (Signature)				Date 5/19/03	Time 1310						
Relinquished by: (Signature)	Date 5/19/03	Time 1714	Received By: (Signature)				Date	Time						
Relinquished by: (Signature)	Date	Time	Received By: (Signature)				Date 5/19/03	Time 1719						
Method of Shipment:			Date	Time	Lab Comments:									
Sample Collector: Northgate Environmental Management, Inc. 3629 Grand Avenue Oakland, California 94610 (510) 839 0688			Analytical Laboratory: 4.8%											

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management, inc.**

3629 Grand Ave  
Oakland CA 94610  
Telephone: (510) 839 0688  
Fax: (510) 839 4350

## **BORING NUMBER NB-1**

PAGE 1 OF 1

PROJECT NAME	Malabar Avenue		BORING LOCATION	-25' SW of former UST	
PROJECT NUMBER	1109.00		PROJECT LOCATION	Castro Valley, California	
DATE STARTED	5/16/03	COMPLETED	5/16/03	GROUND ELEVATION	HOLE SIZE
DRILLING CONTRACTOR	HEW drilling		AGENCY	8"	
DRILLING METHOD	CME 45 Hollow Stem Auger		GROUND WATER LEVELS:		
LOGGED BY	JWO	CHECKED BY	DML	AT TIME OF DRILLING	—
SURFACE CONDITIONS			AT END OF DRILLING	—	
			AFTER DRILLING	—	

DEPTH (ft)	SAMPLE TYPE NUMBER	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION		PID (ppm)
1				Sandy silt, dark brown, damp, no odor		
2		ML			2.0	
3				Sandy silt to silty sand, brown moist, no odor		
4					3.5	
4.5	NB- 1-4		xxxx	Weathered siltstone, light brown, dry, no odor [@ 4' blow counts 50/3"]		1
5			xxxx	Same to 9'		
6			xxxx			
7			xxxx			
8			xxxx			
9			xxxx			
9.0	NB- 1-9		xxxx	Same , color grading to brown dry, no odor very hard drilling, drilled to refusal at 14'		1
10			xxxx			
11			xxxx			
12			xxxx			
13			xxxx			
14			xxxx			
			14.0		Bottom of hole at 14.0 feet.	

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3629 Grand Ave  
Oakland CA 94610  
Telephone: (510) 839 0688  
Fax: (510) 839 4350

## **BORING NUMBER NB-2**

PAGE 1 OF 1

PROJECT NAME	Malabar Avenue		BORING LOCATION	Sunken area at former UST location	
PROJECT NUMBER	1109.00		PROJECT LOCATION	Castro Valley, California	
DATE STARTED	5/16/03	COMPLETED	5/16/03	GROUND ELEVATION	HOLE SIZE
DRILLING CONTRACTOR	HEW drilling	AGENCY			8"
DRILLING METHOD	CME 45 Hollow Stem Auger		GROUND WATER LEVELS:		
LOGGED BY	JWO	CHECKED BY	DML	AT TIME OF DRILLING	—
SURFACE CONDITIONS			AT END OF DRILLING	—	
			AFTER DRILLING	—	