THE PLYMOUTH GROUP

April 16, 1990

Pam Evans

Alameda County Department of Environmental Health

FAX: 568-3706

Re: Sunnyside Commons II project

Dear Pam:

I am faxing over the Environmental/Toxics Investigation of the Sunnyside Commons II project prepared by Terratech, Inc. You should already have a copy of this, but I thought I would send it over just in case. Hugh Murphy of the Hayward Fire Department has requested a meeting with The Plymouth Group, Terratech, and the Alameda County Department of Environmental Health. Are you available tomorrow (Tuesday) morning at 9:30 A.M. to meet at the City of Hayward to discuss the Sunnyside Commons II project? Please call me at (415) 691-4314. Thank you.

Sincerely,

THE PLYMOUTH GROUP

Millie Allred

Millie Allred
Assistant Project Manager

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Mountain View, CA 94043-1316
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ENVIRONMENTAL/TOXICS INVESTIGATION
SUNNYSIDE COMMONS II
HAYWARD, CALIFORNIA

PROJECT 4454/3

FOR

THE PLYMOUTH GROUP
2047 OLD MIDDLEFIELD WAY
MOUNTAIN VIEW, CALIFORNIA 94043

BY

TERRATECH, INC.
1365 VANDER WAY
SAN JOSE, CALIFORNIA 95112

FEBRUARY 16, 1990

February 16, 1990
Project 4454/3

Ms. Naoko Ward
The Plymouth Group
2047 Old Middlefield Way
Mountain View, CA 94043

Subject: Environmental Investigation
Sunnyside Commons II
Hayward, California

Dear Ms. Ward:

This report describes the work performed for, and the findings, conclusions and recommendations of Terratech's recent environmental investigation of the Sunnyside Commons II site. The property consists of two lots (lots 2 and 3) located on Mohr Avenue, between Occidental Road and Laguna Drive in Hayward, California (see Figure 1). These lots are bordered by the Sunnyside Nursery to the north, east and south. The Plymouth Group plans to include this 1-acre area in their single-family home development project for the Sunnyside Nursery property.

The objective of this investigation was to analyze the shallow soil in several areas for the presence of pesticides. The depth and general quality of a ground water supply well onsite was also evaluated.

BACKGROUND

Previous work on the neighboring property (Sunnyside Nursery) has included a Phase I environmental/toxics investigation (see Terratech report, Project 4454, "Phase I Environmental/Toxics Investigation, ...", dated February 1989), supplemental test results, and a Closure Plan (see Terratech report, Project 4454/2, "Closure Plan for Mitigating Agricultural Hazards, ...", dated June 16, 1989). Based upon the findings of our investigations, a Health Risk Asssessment was prepared by Environmental Risk Sciences, Inc. for the proposed residential development.

Based upon information provided by Sunnyside Nursery and the property owners, past site use of the two subject lots has apparently consisted of only residential and light agricultural use. Based on a 1964 plot plan, it appears that the eastern (back) portion of the southern lot was used by the Sunnyside Nursery, but not as a greenhouse area.

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SUMMARY OF WORK PERFORMED

The following work was performed for this investigation:

1. Collected four near-surface soil samples (HS-1 thru HS-4) from locations on the subject property that appeared to have the highest potential for contamination based on our site inspection. Two samples were collected from each location, at depth intervals of 12-18" and from 36-42". Sampling locations are shown on Figure 1.

   The soil samples were collected by driving pre-cleaned two-inch diameter brass liners into the bottoms of pre-dug access holes. Upon retrieval, the liners were immediately sealed with foil and taped end caps, labeled and iced. The samples were transported to Anametrix, a state-certified laboratory in San Jose, following standard chain-of-custody procedures.

2. Instructed Anametrix to analyze the 12-18" interval samples (HS-1 thru HS-4) for chlorinated pesticides (EPA Method 8080) and carbamate pesticides (EPA Method 632). The deeper (36-42") samples were refrigerated pending results of the shallow soil sample analyses. Upon identification that sample HS-4 contained levels of pesticides higher than the other three samples, we instructed Anametrix to analyze the deeper (HS-4B) sample from this location.

3. Collected a grab sample of ground water from the inactive, shallow supply well (SW-1) with a Teflon bailer. Instructed Anametrix to analyze this water sample for chlorinated pesticides, carbamate pesticides, and volatile organics (EPA Method 8240).

4. Contacted Hayward Public Works regarding records on the shallow well described above.

5. Evaluated the information collected and prepared this report describing the work performed and our findings and conclusions.

All sampling equipment was cleaned prior to use. Samples were kept iced or refrigerated for preservation from the time of collection to the time of testing.

FINDINGS

Site Conditions

Our field inspection revealed the northern lot was mostly open, grass-covered areas with several trees. No indications of past nursery related use, surface dumping, or hazardous materials storage was observed.

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Inspection of the southern lot revealed several storage sheds and piles of soil, wood, plant matter, and empty containers - including a few 5-gallon cans with pesticide labels. No other signs of hazardous materials storage were observed.

A supply well approximately eight inches in diameter, was discovered in the southeast corner of the southern lot. The well is open at the top and is set within a concrete and brick sump structure. The well does not appear to have been used in some time. The depth to ground water was measured at 14.5 feet below ground surface, with the bottom of the well sounded to be approximately 22 feet deep.

Analytical Results

Table 1 presents a summary of the analytical results for this investigation. Low levels (less than 0.1 parts per million (ppm) total) of DDT-based pesticides were found in soil samples HS-1 and HS-2. Soil sample HS-3 had 1.4 ppm of the poly-chlorinated biphenyl (PCB) Aroclor 1254. Higher levels (0.8 ppm total) of the DDT group of pesticides (DDD, DDE and DDT) were found in sample HS-4. The followup testing of sample HS-4B found about 0.3 ppm of DDD+DDE+DDT. The State threshold concentrations for toxicity classification are 50 ppm for PCBs and 1 ppm for DDD+DDE+DDT.

No detectable levels of Carbamates (EPA 632) were found in the four shallow soil samples analyzed.

The ground water analysis results showed trace concentrations (less than 0.02 ppm) of the Endosulfan group of pesticides - Endosulfan I, Endosulfan II and Endosulfan sulfate. No detectable amounts of PCBs, DDT group pesticides, carbamate pesticides, or volatile organics were found.

CONCLUSIONS AND RECOMMENDATIONS

Although, the soil analysis showed detectable amounts of several pesticides, all levels were below California State Toxic Thresholds. We believe the detected PCB is most likely related to an old pesticide formulation. The presence of DDT and its degradation products (DDD and DDE) is quite common for any property within an area of historic agricultural activities, such as the San Francisco Bay area. Based on the ERS Risk Assessment for the Sunnyside Nursery, we do not believe the soil concentrations found in the two subject lots warrant mitigation measures.

The trace amounts of Endosulfan found in the open, inactive well are most likely due to plant spraying activities at the Sunnyside Nursery. The nursery uses some Endosulfan-based pesticides and these materials were identified in greenhouse soils. Based on the low concentrations found and relatively low persistence of Endosulfan, we do not believe this ground

water findings represents a significant concern. However, this well should not be considered a source of potable water and should be properly closed as soon as possible.

LIMITATIONS

This report and the work associated with it have been provided in accordance with the general principles and practices currently employed in the environmental consulting profession. This is in lieu of all other warranties, express or implied.

Subsurface exploration of any site is necessarily confined to selected locations and conditions may vary somewhat between and around these locations. Should varied conditions come to light during project development, additional exploration, sampling and testing may be required.

Any person concerned with this project who observes conditions or features of the site or its surrounding areas which are different from those described in this report, should report them immediately to this office for evaluation.

Report prepared by,

TERRATECH, INC.

E. R. Lautenbach

Eric R. Lautenbach
CE 42437

Project 4454/3

February 16, 1990

TABLE 1

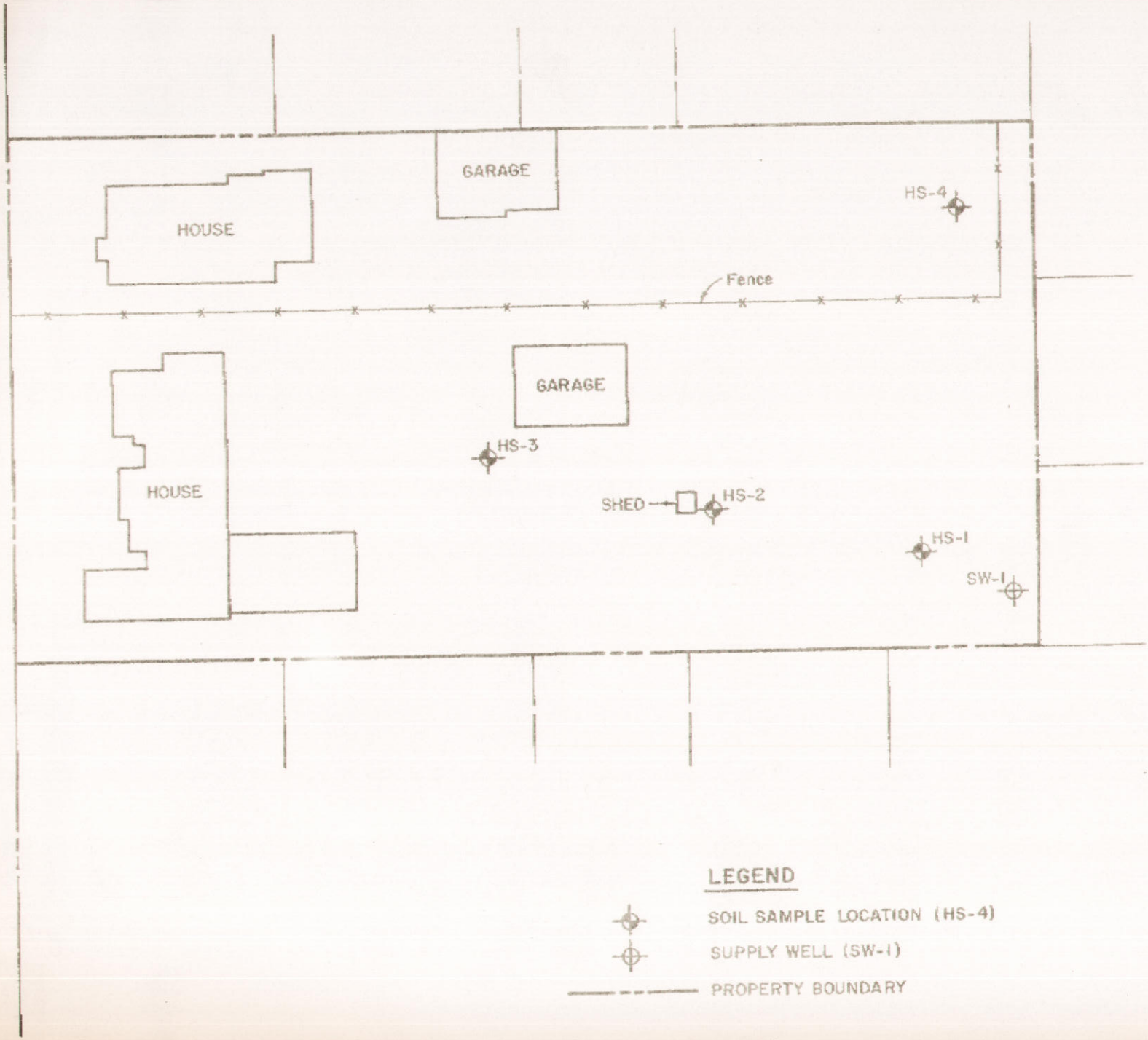
SUMMARY OF ANALYTICAL RESULTS

SUNNYSIDE COMMONS II

(results in parts per million - ppm)

CONTAMINANT	SAMPLING LOCATION AND DEPTH					
	HS-1 (12-18")	HS-2 (12-18")	HS-3 (12-18")	HS-4 (12-18")	HS-4B (36-42")	SW-1 * (-15')
CHLORINATED PESTICIDES						
DDD	< 0.016	0.018	< 0.016	0.040	0.041	< 0.0005
DDE	0.019	0.023	< 0.016	0.40	0.17	< 0.0005
DDT	< 0.016	0.019	< 0.016	0.36	0.12	< 0.0005
ENDOSULFAN I	< 0.008	< 0.008	< 0.008	< 0.008	< 0.008	0.005
ENDOSULFAN II	< 0.016	< 0.016	< 0.016	< 0.016	< 0.016	0.0045
ENDOSULFAN SUL.	< 0.016	< 0.016	< 0.016	< 0.016	< 0.016	0.0051
others	N.D.	N.D.	**	N.D.	N.D.	N.D.
CARBAMATE PESTICIDES	N.D.	N.D.	N.D.	N.D.	---	N.D.
VOLATILE ORGANICS	---	---	---	---	---	N.D.

NOTES: * - Grab sample of ground water from inactive well; all other samples are of soil.
** - 1.4 parts per million of Aroclor (PCBs) detected
N.D. - Not Detected; see laboratory reports for detection limits


GARAGE
HOUSE
HS-4
Fence
GARAGE
HS-3
HOUSE
SHED
HS-2
HS-1
SW-1
DRIVE
MOHR
N
LEGEND
SOIL SAMPLE LOCATION (HS-4)
SUPPLY WELL (SW-1)
PROPERTY BOUNDARY
0
40
Scale i