



This Copy supplied to us by Plymouth group 7/26/90

1365 VANDER WAY SAN JOSE, CALIFORNIA 95112 (408) 297-6969 FAX (408) 297-7716

March 23, 1990
Project 4454/2

Mrs. Naoko Ward
The Plymouth Group
2047 Old Middlefield Road
Mountain View, California 94043

Subject: Stockpile Soil Sampling
Sunnyside Nursery
Hayward, California

Dear Mrs. Ward:

This letter summarizes the field work and laboratory results of Terratech's sampling of stockpiled soil from the diesel fuel tank removal at the Sunnyside Nursery site in Hayward, California.

On January 26, 1990 two underground fuel tanks (a 5000-gallon gasoline tank and a 4000-gallon diesel tank) were uncovered and removed from the subject property. Laboratory results for samples collected from the two stockpiles indicated that the soils (tank backfill materials) could be handled as "non-hazardous" since the concentrations of total petroleum hydrocarbons (TPH) were below 1000 parts per million (ppm). However, to qualify for Class III landfill disposal it was required that the diesel stockpile be aerated until the levels of total petroleum hydrocarbons (TPH) were below 100 ppm (see Terratech's letter of February 26, 1990). This soil was accordingly moved to an enclosed portion of the property to undergo the landfarming aeration.

As requested, on March 8, 1990 a member of our environmental staff collected four samples from the aerating soil. Unfortunately, since the interim weather had been generally cloudy and cool, it was apparent that little aeration had occurred.

All samples were collected a minimum of six inches below the exterior surface of the spread soil in clean, two-inch diameter brass liners. The samples were immediately sealed with foil and taped end caps, labeled and iced. The samples were kept refrigerated from the time of collection to the time of testing. Standard chain-of-custody procedures were followed to document sample collection, handling and analysis requests (see attached record).

Project 4454/2

March 23, 1990

These samples were submitted to Anamatrix, Inc., a State certified laboratory, for compositing and analysis of TPH as diesel and individual fuel constituents - benzene, toluene, ethylbenzene and xylenes (BTEX).

Laboratory results indicate that further aeration is required before TPH levels in the diesel soil stockpile will be below 100 ppm. The present concentration of TPH as diesel is 160 ppm with a trace amount of total xylenes (see attached lab report). This is a 20% decline from the initial 200 ppm. Additional discing and warmer weather will facilitate the aeration process.

We suggest contacting a licensed contractor to discuss and arrange special soil disposal if development constraints require action before TPH levels have dropped below 100 ppm. Per the request of the Hayward Fire Department, we understand that all tank backfill soils will be disposed of offsite.

Sincerely,

TERRATECH, INC.

Risa Sousa
for Thomas C. Morin

Reviewed by;

E. R. Lautenbach
Eric R. Lautenbach
CE 42437

Attachments (Chain of Custody Record and Laboratory Report)





TERRATECH

CHAIN OF CUSTODY RECORD

P.O. NO. 2961

TURNAROUND: NORMAL

PROJECT NUMBER: <u>4454/2</u>						Number of Containers	Analysis Required						REMARKS
SAMPLERS (signature): <u>T. Marni</u>							TPH as Gasoline	BTEX	TPH as Diesel				
Station Number	Date	Time	Comp.	Grab	Station Location							SAMPLE DEPTH	
AS-7a	3/9/90		X	X	DIESEL STOCKPILE	LINER	X	X				COMPOSITE	
AS-7b	↓		X	X	"	"	X	X					
AS-7c	↓		X	X	"	"	X	X					
AS-7d	↓		X	X	"	"	X	X					
Relinquished by(signature):			Date / Time		Received by (signature):		Relinquished by(signature):		Date / Time		Received by (signature):		
Company or Agency:					Company or Agency:		Company or Agency:				Company or Agency:		
Relinquished by(signature):			Date / Time		Received by (signature):		Relinquished by:		Date / Time		Received by (signature):		
Company or Agency:					Company or Agency:		Company or Agency:				Company or Agency:		
Relinquished by(signature):			Date / Time		Received for Laboratory by:		Date / Time		Remarks/Shipping Information				
<u>T. Marni</u> Company or Agency: TERRATECH, INC.			<u>3/9/90</u> <u>1600</u>		(signature) <u>[Signature]</u>		<u>3/9/90</u> <u>1600</u>		Send reports to: Eric Lautenbach 1365 VANDER WAY, SAN JOSE 95112				

ANAMETRIX INC

Environmental & Analytical Chemistry
1961 Concourse Drive, Suite E, San Jose, CA 95131
(408) 432-8192 • Fax (408) 432-8198

**REPORT**

Eric Lautenbach
Terratech, Inc.
1365 Vander Way
San Jose, CA 95112

March 21, 1990
Anamatrix W.O.#: 9003114
Date Received : 03/09/90
Purchase Order#: 2961

Dear Mr. Lautenbach:

Your samples have been received for analysis. The REPORT SUMMARY lists your sample identifications and the analytical methods you requested. The following sections are included in this report: RESULTS.

NOTE: Amounts reported are net values, i.e. corrected for method blank contamination.

If there is any more that we can do, please give us a call. Thank you for using ANAMETRIX, INC.

Sincerely,

A handwritten signature in cursive script that reads "Terry Cooke".

Terry Cooke
TPH Supervisor

TC/dm

REPORT SUMMARY
ANAMETRIX, INC. (408) 432-8192

Client : Terratech, Inc.
Address : 1365 Vander Way

Anamatrix W.O.#: 9003114
Date Received : 03/09/90
Purchase Order#: 2961
Project No. : 4454/2
Date Released : 03/21/90

City : San Jose, CA 95112
Attn. : Eric Lautenbach

Anamatrix I.D.	Sample I.D.	Matrix	Date Sampled	Method	Date Extract	Date Analyzed	Inst I.D.
----------------	-------------	--------	--------------	--------	--------------	---------------	-----------

RESULTS

9003114-01	S-7a,b,c,d	SOIL	03/08/90	TPH	03/13/90	03/15/90	N/A
------------	------------	------	----------	-----	----------	----------	-----

ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 4454/2 S-7a,b,c,d
 Matrix : SOIL
 Date sampled : 03/08/90
 Date anl.BTEX: 03/16/90
 Date ext.TPHd: 03/13/90
 Date anl.TPHd: 03/15/90

Anamatrix I.D. : 9003114-01
 Analyst : *DF*
 Supervisor : *Te*
 Date released : 03/21/90
 Date ext. TOG : N/A
 Date anl. TOG : N/A

CAS #	Compound Name	Reporting Limit (ug/kg)	Amount Found (ug/kg)
71-43-2	Benzene	5	ND
108-88-3	Toluene	5	ND
100-41-4	Ethylbenzene	5	ND
1330-20-7	Total Xylenes	5	7
	TPH as Diesel	10000	160000

ND - Not detected at or above the practical quantitation limit for the method.

TPHd - Total Petroleum Hydrocarbons as diesel is determined by GCFID following either EPA Method 3510 or 3550.

BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA 8020.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.