

CONSULTING GROUND-WATER
GEOLOGISTS AND ENGINEERS
ROUX ASSOCIATES



1340 ARNOLD DRIVE
SUITE 231
MARTINEZ, CALIFORNIA 94553 415 370-2275 FAX # 415 370-2235

February 16, 1990

STP 2/68

Mr. James Deblock
Pfizer Pigments Inc.
P.O. Box 8215
4650 Shellmound Street
Emeryville, CA 94662-0905

GROUND-WATER MONITORING
PFIZER PIGMENTS PLANT, EMERYVILLE, CA

Dear Jim:

This letter report presents the results of the third ground-water monitoring and sampling for solvents and total oil and grease at the Pfizer Plant, 4650 Shellmound Street, Emeryville, California (Site, Figure 1). Ground-water samples were previously collected on April 18, 1989 and July 7, 1989.

Ground-water sampling at the site is performed to monitor low concentrations of solvents in ground water within the area of a removed underground waste oil and solvent storage tank. A site investigation to assess soil and ground-water contamination from a removed underground waste oil tank was completed in August, 1988. The location of soil borings and monitoring wells drilled during the investigation are found in Figure 2. The results of the site investigation are contained within a report submitted by Roux Associates (Roux) on August 12, 1988, entitled, "Underground Storage Tank Investigation". Based on the findings of the site investigation, ground-water monitoring for solvents in wells RW-2, RW-3, and RW-4 was recommended. Monitoring well RW-4 is within the former tank pit and wells RW-2 and RW-3 are downgradient from the former tank pit. The Alameda County Department of Environmental Health approved quarterly ground-water monitoring of these three wells for solvents and total oil and grease in correspondence dated April 3, 1989. Following the return of results from the July 7, 1989 sampling, semi-annual monitoring was approved by the Alameda County Department of Environmental Health in correspondence dated September 13, 1989 to Pfizer Pigments Inc.

The third set of ground-water samples was collected from monitoring wells RW-2 and RW-3 on January 22, 1990. Ground-water samples could not be collected from monitoring well RW-4 due to the presence of free product (diesel fuel) in RW-4. Investigation and remediation of the diesel fuel

contamination discovered in RW-4 is currently underway.

Prior to sampling in wells RW-2 and RW-3, five casing volumes of water were purged from each well to remove stagnant water from the well casing. Water samples were collected in dedicated plastic bailers and transferred into 40ml VOA glass vials and 500ml amber glass bottles provided by Curtis & Tompkins laboratory. The samples were immediately placed in an ice chest and transported to the laboratory. A Chain-of-Custody was maintained from sample collection through delivery to the laboratory. Chain-of-Custody documents are included in Attachment A.

Ground-water samples were analyzed by Curtis and Tompkins Laboratory for volatile organic compounds by EPA Method 624 and for total oil and grease by EPA Method SMWW 503E. Water analyses for this most recent sampling and from the two previous samplings are presented in Table 1. Laboratory reports are found in Attachment A.

DISCUSSION OF RESULTS

Volatile organic compounds were not detected in wells RW-2 and RW-3 except for trace (2.5 ppb) amounts of 1,2-dichloroethane in RW-3. These wells have had not detectable levels of solvents for all three samplings performed by Roux Associates.

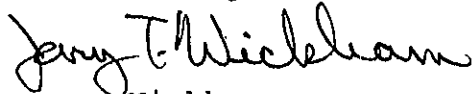
The absence of detectable levels of volatile organic compounds in the downgradient monitoring wells RW-2 and RW-3 indicates that solvents have not migrated away from the former waste oil tank pit.

Should you have any questions or comments on these results, please contact me at (415) 370-2275.

Sincerely,
ROUX ASSOCIATES WEST, INC.



Gregory Murphy
Staff Geologist



Jerry Wickham
CA Reg. Geologist No. 3766
CA CEG 1177

04728/3qtgwmon

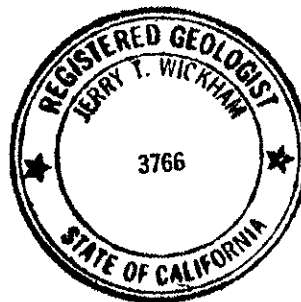
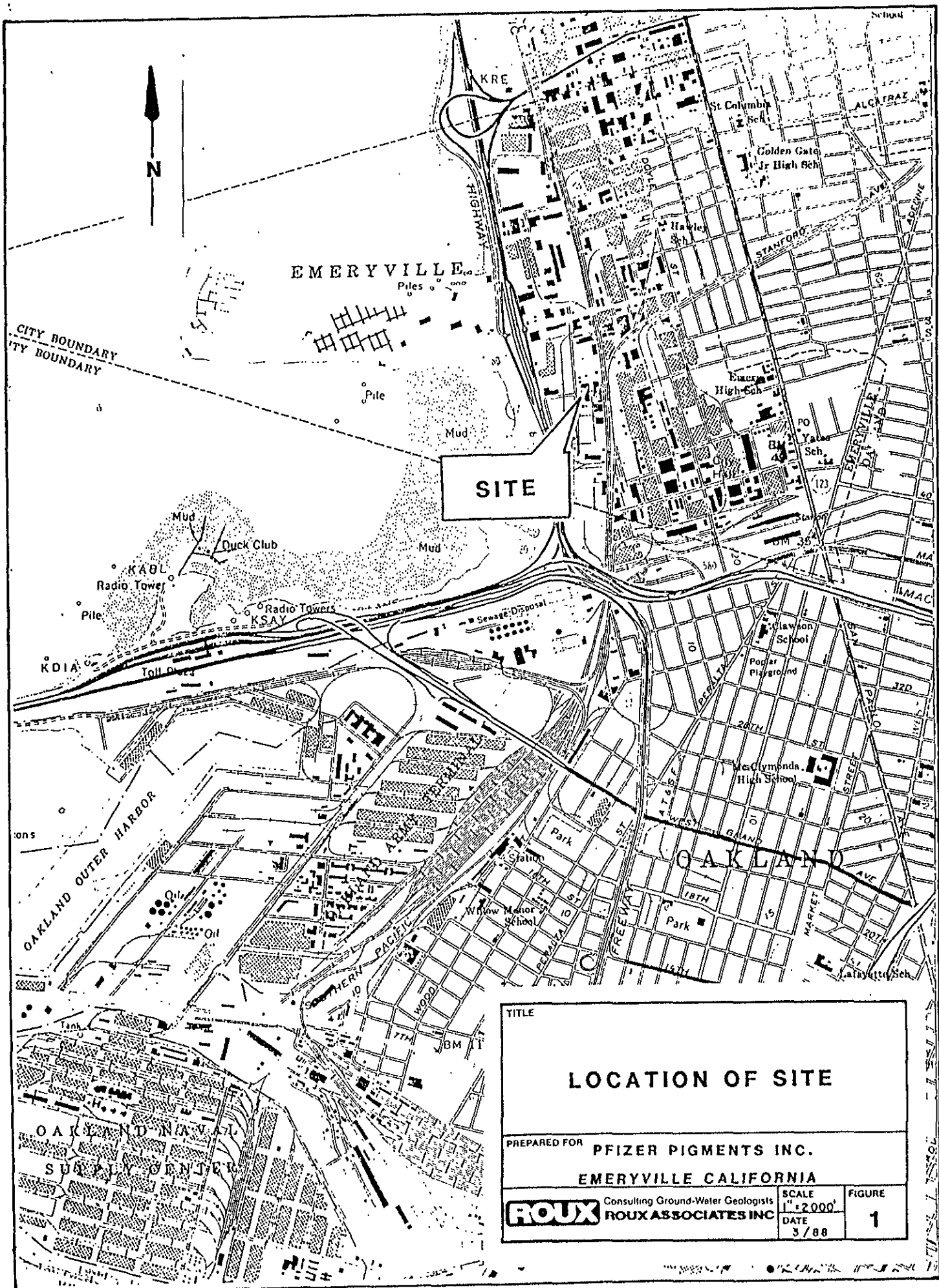


TABLE 1. WATER ANALYSES

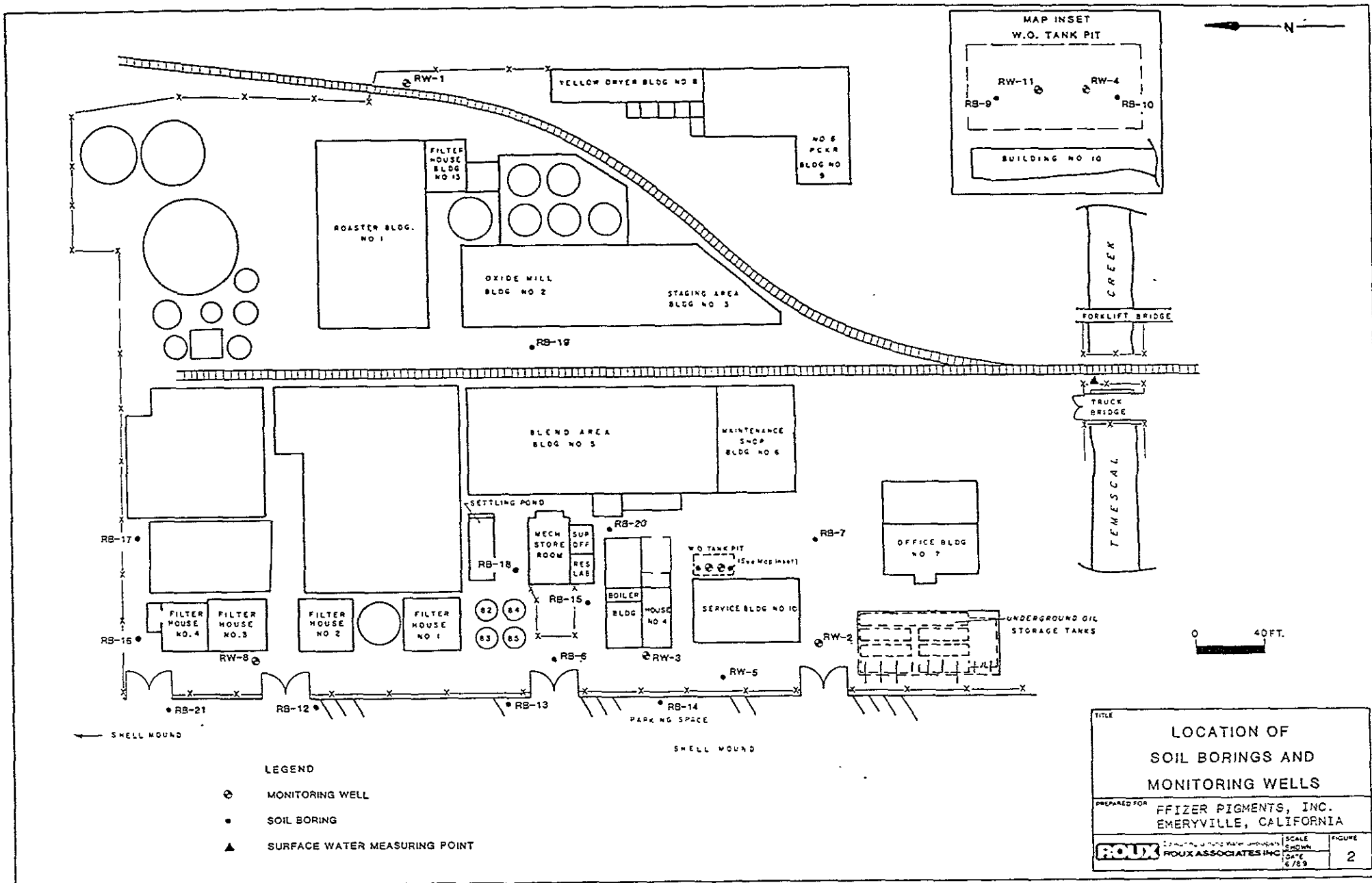
Well	Date Sampled	Oil and Grease SMWW503E (ppm)	Volatile Organic Compounds EPA 624 (ppb)	Standard Plate Count (per ml at 35c)
RW-2	3-9-88	ND	-	-
RW-2	3-28-88	-	ND	-
RW-2	4-18-89	ND	ND	-
RW-2	7-7-89	ND	ND	11,000
RW-2	1-22-90	ND	ND	-
RW-3	3-9-88	ND	ND	-
RW-3	3-28-88	-	ND	-
RW-3	6-6-88	ND	-	-
RW-3	4-18-89	ND	ND	-
RW-3	7-7-89	ND	ND	5,300
RW-3	1-22-90	ND	ND	-
			(Trace 1,2-dichloroethane)	
RW-4	3-9-88	ND	C=6,800 D=8,220 E=44,240	
RW-4	4-18-89	ND	E=4,100	
RW-4	7-7-89	ND	E=3,300 F=10	23,000

- = Not Analyzed
 ND = None Detected
 A = Naphthalene
 B = 2-methylnaphthalene
 C = Acetone
 D = 2-butanone, (MEK)
 E = 4-methyl-2-pentanone, (MIBK)
 F = Total xylenes



SITE

TITLE	
LOCATION OF SITE	
PREPARED FOR PFIZER PIGMENTS INC.	
EMERYVILLE CALIFORNIA	
ROUX Consulting Ground-Water Geologists ROUX ASSOCIATES INC	SCALE 1" = 2000'
	DATE 3/88
FIGURE	1



- LEGEND**
- ⊙ MONITORING WELL
 - SOIL BORING
 - ▲ SURFACE WATER MEASURING POINT

TITLE		
LOCATION OF SOIL BORINGS AND MONITORING WELLS		
PREPARED FOR FFIZER PIGMENTS, INC. EMERYVILLE, CALIFORNIA		
ROUX	SCALE	FIGURE
	1" = 40 FT.	2
ROUX ASSOCIATES INC.		DATE
16789		

ATTACHMENT A



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

2323 Fifth Street, Berkeley, CA 94710, Phone (415) 486-0900

RECEIVED 1/22/90
DATE RECEIVED: 01/22/90
DATE REPORTED: 02/01/90
PAGE 1 OF 4

LAB NUMBER: 19386

CLIENT: ROUX ASSOCIATES

REPORT ON: 2 WATER SAMPLES

PROJECT #: 04728W
LOCATION: PFIZER, EMERYVILLE

RESULTS: SEE ATTACHED

M. S. Prieta

QA/QC Officer
A. S. [Signature]

Laboratory Director

LAB NUMBER: 19386
 CLIENT: ROUX ASSOCIATES
 PROJECT # : 04728W
 LOCATION: PFIZER, EMERYVILLE

DATE RECEIVED: 01/22/90
 DATE ANALYZED: 01/25/90
 DATE REPORTED: 02/01/90
 PAGE 2 OF 4

ANALYSIS: OIL AND GREASE
 METHOD: SMWW 503E

LAB ID	SAMPLE ID	RESULT	UNITS	DETECTION LIMIT
19386-1	RW - 2	ND	mg / L	20
19386-2	RW - 3	ND	mg / L	20

ND = NOT DETECTED

QA/QC SUMMARY

RPD, %	11
RECOVERY, %	86



LABORATORY NUMBER: 19386-1
 CLIENT: ROUX ASSOCIATES
 JOB #: 04728W
 LOCATION: PFIZER, EMERYVILLE
 SAMPLE ID: RW-2

DATE RECEIVED: 01/22/90
 DATE ANALYZED: 01/26/90
 DATE REPORTED: 02/01/90
 PAGE 3 OF 4

EPA METHOD 624: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Detection Limit ug/L
chloromethane	ND	10
bromomethane	ND	10
vinyl chloride	ND	10
chloroethane	ND	10
methylene chloride	ND	5
trichlorofluoromethane	ND	5
1,1-dichloroethene	ND	5
1,1-dichloroethane	ND	5
trans-1,2-dichloroethene	ND	5
chloroform	ND	5
1,2-dichloroethane	ND	5
1,1,1-trichloroethane	ND	5
carbon tetrachloride	ND	5
bromodichloromethane	ND	5
1,2-dichloropropane	ND	5
cis-1,3-dichloropropene	ND	5
trichloroethylene	ND	5
dibromochloromethane	ND	5
1,1,2-trichloroethane	ND	5
benzene	ND	5
trans-1,3-dichloropropene	ND	5
2-chloroethylvinyl ether	ND	10
bromoform	ND	5
1,1,2,2-tetrachloroethane	ND	5
tetrachloroethylene	ND	5
toluene	ND	5
chlorobenzene	ND	5
ethyl benzene	ND	5

Non-Priority Hazardous Pollutant Substances List Compounds

acetone	ND	10
carbon disulfide	ND	5
2-butanone	ND	10
vinyl acetate	ND	10
2-hexanone	ND	10
4-methyl-2-pentanone	ND	10
styrene	ND	5
total xylenes	ND	5

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	107%
Toluene-d8	103%
Bromofluorobenzene	101%



LABORATORY NUMBER: 19386-2
 CLIENT: ROUX ASSOCIATES
 JOB #: 04728W
 LOCATION: PFIZER, EMERYVILLE
 SAMPLE ID: RW-3

DATE RECEIVED: 01/22/90
 DATE ANALYZED: 01/26/90
 DATE REPORTED: 02/01/90
 PAGE 4 OF 4

EPA METHOD 624: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Detection Limit ug/L
chloromethane	ND	10
bromomethane	ND	10
vinyl chloride	ND	10
chloroethane	ND	10
methylene chloride	ND	5
trichlorofluoromethane	ND	5
1,1-dichloroethene	ND	5
1,1-dichloroethane	ND	5
1,2-dichloroethene (total)	TRACE (2.5)	5
chloroform	ND	5
1,2-dichloroethane	ND	5
1,1,1-trichloroethane	ND	5
carbon tetrachloride	ND	5
bromodichloromethane	ND	5
1,2-dichloropropane	ND	5
cis-1,3-dichloropropene	ND	5
trichloroethylene	ND	5
dibromochloromethane	ND	5
1,1,2-trichloroethane	ND	5
benzene	ND	5
trans-1,3-dichloropropene	ND	5
2-chloroethylvinyl ether	ND	10
bromoform	ND	5
1,1,2,2-tetrachloroethane	ND	5
tetrachloroethylene	ND	5
toluene	ND	5
chlorobenzene	ND	5
ethyl benzene	ND	5

Non-Priority Hazardous Pollutant Substances List Compounds

acetone	ND	10
carbon disulfide	ND	5
2-butanone	ND	10
vinyl acetate	ND	10
2-hexanone	ND	10
4-methyl-2-pentanone	ND	10
styrene	ND	5
total xylenes	ND	5

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	107%
Toluene-d8	104%
Bromofluorobenzene	101%

19386

ROUX ASSOCIATES

CHAIN OF CUSTODY RECORD

Project No. 04728W

Project Title Pfizer Emeryville

Sample Source Monitoring Wells

Collectors Name Jerry T. Wickham Jerry T. Wickham
print signature

Field Information _____

Method Of Shipping Hand Deliver

Relinquished By:
sign Jerry T. Wickham
for Roux
Date/Time 1-22-90
1450 5:05 1/22/90

Received By:
sign Curtis Tompkins
for Curtis Tompkins
Date/Time 5:05 1/22/90

Sample Designation	Sample Location	Date	Time	Analyte	No. Of Containers
RW-2		1-22-90	1600	EPA 624 Oil & Grease 503E	2 VOA 1 Amber L
RW-3		1-22-90	1625	EPA 624 Oil & Grease 503E	2 VOA 1 Amber L

Comments: Standard Turnaround

Roux Associates
1340 Arund Dr. Ste. 231
Martinez, CA 94553
(415) 370-2275