

WEST
ASSOCIATES
ENVIRONMENTAL ENGINEERS, INC.

ENVIRONMENTAL
PROTECTION
96 APR 24 PM 3:44

March 28, 1996

Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
Attn: Ms. Juliet Shin
Hazardous Materials Specialist

**SUBJECT: SUBMITTAL OF QUARTERLY GROUNDWATER MONITORING REPORT,
WEYERHAEUSER PAPER COMPANY, ALAMEDA CORRUGATED BOX FACILITY,
1801 HIBBARD STR., STID 1202**

Dear Ms. Shin,


West & Associates Environmental Engineers, Inc. respectfully submits the first quarter 1996 groundwater monitoring report for the Weyerhaeuser Paper Company, Alameda Corrugated Box Facility. The monitoring report is submitted in accordance with the interim groundwater monitoring plan proposed in our Site Investigation Report of January 1995.

Activity at the site has now shifted to remedial action. Pilot tests were performed on the existing air sparging/vapor extraction system between February 28 and March 19, 1996 to determine the most effective operating parameters. The findings of the pilot test will be presented in a report of findings (Air Sparging and Vapor Recovery System Test Report) to be completed early in April 1996.

At this time we request that groundwater samples be analyzed for TPH (M8015) and BTEX (602) only, on a quarterly basis and that select samples be analyzed by EPA methods 624 and 625 (naphthalene) on an annual basis. Details of this request are summarized in Section 5.1 of the attached groundwater monitoring report.

We look forward to your review of the attached reports. Should you require any additional information please contact me at (707) 451-1360.

Yours truly,


Brennan Mahoney APSS
Project Manager
West & Associates Environmental Engineers, Inc.
BGM/di

Enclosure: First Quarter 1996 WPC Alameda Groundwater Monitoring Report

cc: Ed Granados, Weyerhaeuser Office of the Environment, Tacoma
John Hipner, WPC Alameda

ENVIRONMENTAL
PROTECTION

96 APR 24 PM 3:44

**QUARTERLY GROUNDWATER MONITORING REPORT
FORMER UNDERGROUND TANK SITES
JANUARY - MARCH 1996**

**WEYERHAEUSER PAPER COMPANY
ALAMEDA CORRUGATED BOX FACILITY
1801 Hibbard Street
Alameda, California
STID 1202**

Submitted to:

**ALAMEDA COUNTY
HEALTH CARE SERVICES AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH
Alameda**

Prepared for:

**THE WEYERHAEUSER CORPORATION
OFFICE OF THE ENVIRONMENT
TOXIC/SOLID WASTE TEAM
Tacoma, Washington**

Prepared by:

**WEST & ASSOCIATES ENVIRONMENTAL ENGINEERS, INC.
Vacaville**

March 1996

EXECUTIVE SUMMARY

The Weyerhaeuser Paper Company (WPC) Alameda facility at 1801 Hibbard Str. is a corrugated box plant. The facility was originally constructed in 1946. Underground fuel tanks had been historically installed at the facility for vehicle, generator and boiler fuel storage. Both gasoline and diesel fuels were formerly stored underground. The last remaining underground tank was removed from the WPC site in January 1994.

The WPC facility is located on Alameda island in San Francisco Bay. The site is less than 0.25 miles west of the Oakland Inner Harbor. Site soils are predominantly sand with minor clay stringers. Unconfined groundwater is 3-6 feet below ground surface and tidally influenced.

There are two separate areas of groundwater monitoring at the WPC Alameda site. One monitoring well (MW-7) is located at the east end of the property adjacent to a former diesel tank installation. Seven monitoring wells are located near the west end of the property surrounding a former gasoline tank cluster. Monitoring wells MW-1 through MW-7 were installed by Soil Tech Engineers. Monitoring wells MW-9 through MW-12, MW-3B and MW-4B were installed by West & Associates.

Site investigation at the WPC Alameda facility was concluded in January 1995 with the submittal of a comprehensive report covering all work dating back to 1990. Activity at the site has now shifted to remedial action. In October and November of 1995 contaminated soil was excavated from the site around the former gasoline tank cluster and air sparging lines were installed in the open excavations prior to backfill. A pilot test was performed to evaluate the effectiveness of the newly installed sparging system. Based on results of the pilot test, continuous operation of the sparging system was initiated on March 29, 1996.

During the remedial excavation program monitoring wells MW-1, MW-2, MW-3, MW-4 and MW-9 were removed. In December 1995 two new wells MW-3B and MW-4B were installed in two locations within the newly backfilled excavation area, near the former locations of MW-3 and MW-4, respectively. A total of eight monitoring wells now exist at the site.

A groundwater monitoring program is in effect at the WPC Alameda site. Groundwater monitoring, which consists of depth to groundwater measurements and collection of groundwater samples for analysis, is conducted quarterly. Forth quarter groundwater monitoring activities were not conducted at the site due to conflicting soil excavation activities. First quarter groundwater monitoring activities for 1996 were conducted on February 7, 1996.

ACKNOWLEDGEMENTS

This report was prepared under authorization of the Weyerhaeuser Corporation, Office of the Environment, Toxic/Solid Waste Team, Tacoma, Washington. The Weyerhaeuser project officer is Mr. Ed Granados, mail stop CH 1K29, Tacoma, WA 98477; (206) 924-6511.

At the WPC plant, both Mr. John Hipner, Plant Engineer and Mr. Tom Muncell, Maintenance Manager, have environmental compliance responsibilities related to this project. The Alameda plant address is 1801 Hibbard Street, PO Drawer X, Alameda, CA 95601; (510) 814-1167.

The lead regulatory agency for the Weyerhaeuser Alameda plant is the Alameda County Health Care Agency, Department of Environmental Health. Ms. Juliet Shin, Hazardous Materials Specialist, is the staff person assigned. The Department of Environmental Health is located at 1131 Harbor Bay Parkway, Suite 250, Alameda, CA 94502-6577; (510) 567-6700.

In the preparation of this quarterly report reliance was made on past site work performed by Soil Tech Engineering, Inc. Mr. Frank Hamedi was the Soil Tech Engineering employee most closely associated with the Weyerhaeuser Alameda site. The address for Soil Tech Engineering is 298 Brokaw Road, Santa Clara, CA 95050; (408) 496-0265.

Analytical work performed for this quarters monitoring was sub-contracted to Pace Analytical in Petaluma. Pace is certified by the State Department of Health Services for the analyses performed.

This quarterly groundwater monitoring report was prepared by West & Associates Environmental Engineers, Inc. West & Associates is located at 490 Merchant St., Suite 104, Vacaville, CA 95688; mailing address, PO Box 5891, Vacaville 95696; (707) 451-1360. Principal authors are Mr. Brennan Mahoney APSS and Mr. Brian W. West PE. (Registered California Civil Engineer No. 32319 - expires 12/31/96).



TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
EXECUTIVE SUMMARY	i
ACKNOWLEDGEMENTS	ii
TABLE OF CONTENTS	iii
1.0 INTRODUCTION	1
1.1 Scope	1
1.2 Summarized Background	1
2.0 FLOATING PRODUCT	5
3.0 GROUNDWATER SAMPLING	5
3.1 Sampling Protocol	5
3.2 Sample Analyses	6
3.3 Conclusions	8
4.0 HYDROLOGIC MONITORING	8
4.1 Conclusions	9
5.0 SUMMARY	9
5.1 Recommended Monitoring Schedule	10
5.2 Remedial Status	10

APPENDICES

Purge Data Forms
Chain of Custody
Original Laboratory Report Forms
Manifest

1.0 INTRODUCTION

This quarter, groundwater monitoring was performed on February 7, 1996. During groundwater sampling activities, all eight of the existing monitoring wells were inspected for the presence of floating product, measured for depth to groundwater and samples collected for chemical analysis.

In the following Sections, monitoring procedures are described, monitoring data is summarized and a discussion of results is presented. Technical data is included in the appendix.

1.1 Scope

The scope of this project included performing quarterly groundwater monitoring at Weyerhaeuser Paper Company (WPC) Alameda property, 1801 Hibbard Str., in Alameda. Figure 1 illustrates the WPC Alameda regional setting. Figure 2 depicts the site location. Specific scope items include:

- Check eight existing monitoring wells for floating product
- Measure depth to groundwater in all monitoring wells
- Determine the groundwater gradient profile
- Collect groundwater samples from all eight monitoring wells
- Analyze groundwater samples for contaminants of interest
- Prepare a written report of findings
- Properly manage sampling residues

1.2 Summarized Background

The Weyerhaeuser Paper Company (WPC) Alameda facility located at 1801 Hibbard Str. manufactures corrugated cardboard boxes. The facility was originally constructed in 1946. Underground fuel tanks (UGT) had been historically installed at the facility for vehicle, generator and boiler fuel storage. Both gasoline and diesel fuels were formerly stored. The last remaining UGT was removed from the WPC site in January 1994.

At the end of 1990 the WPC facility was equipped with five underground fuel storage tanks. The five tanks were distributed in three separate installations located along the northwestern side of the facility.

In early 1991 Weyerhaeuser removed a cluster of three, 1,000 gallon gasoline tanks and one, 10,000 gallon diesel tank. Upon removal, the 10,000 gallon diesel tank installation was found to be virtually uncontaminated, however, significant soil and groundwater contamination was encountered at the gasoline tank cluster location.

The tank removal contractor performed overexcavation at the gasoline tank cluster location in an attempt to remediate soil contamination. Between February and April 1991 the tank excavation was enlarged from 460 ft² to 640 ft² and then to 930 ft².

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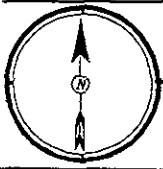
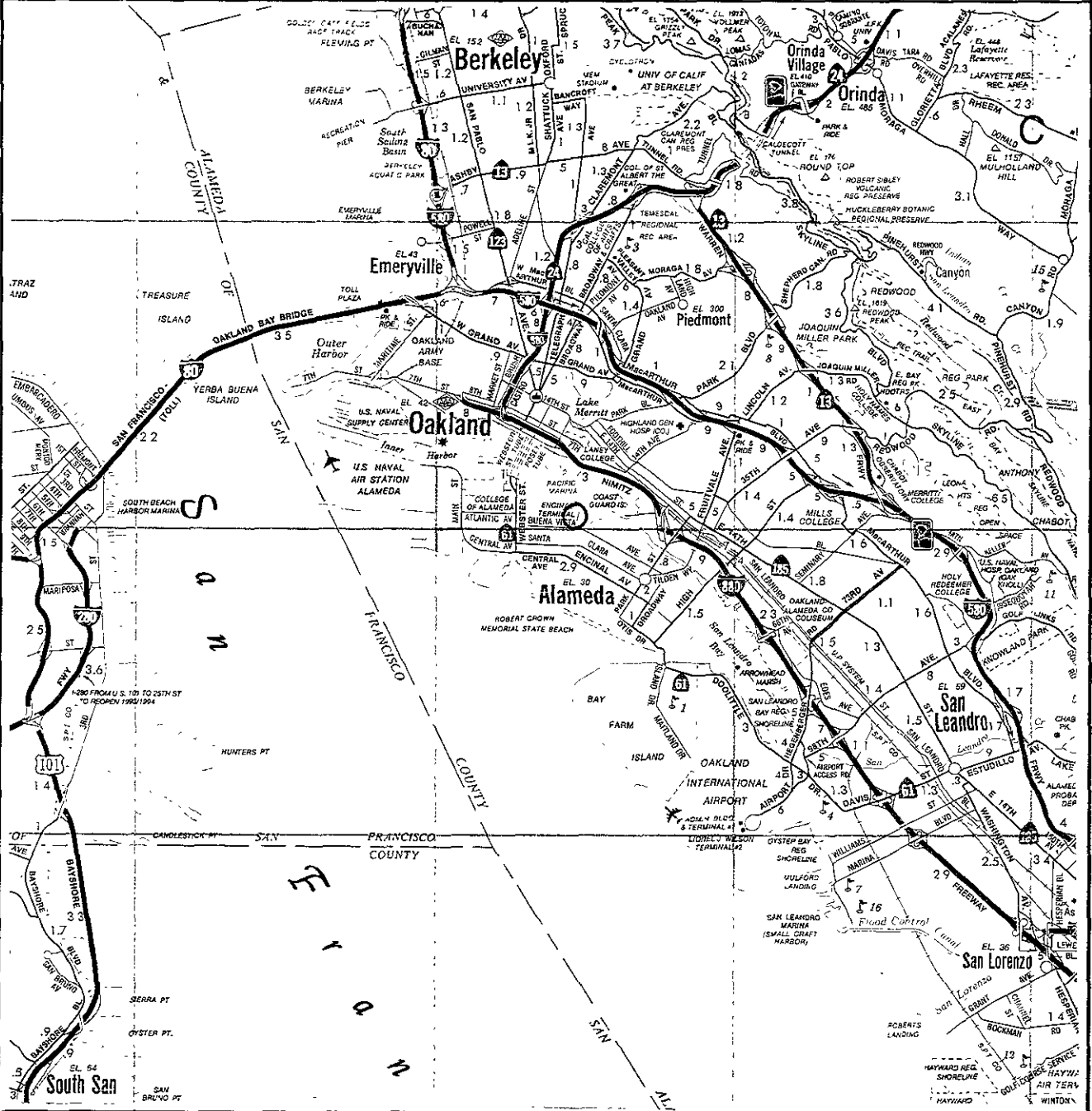
Project Name: Weyerhaeuser Paper Company - Alameda

Date: Jan. 1995

Location: 1801 Hibbard Str., Alameda, California 94501

Drawing By: BWW

Scale: 1" = 2.5 miles



LEGEND

Figure 1

WPC ALAMEDA FACILITY - REGIONAL SETTING

○ SITE LOCATION

WEST & ASSOCIATES ENVIRONMENTAL ENGINEERS, INC.

PO Box 5891, Vacaville, California 95696

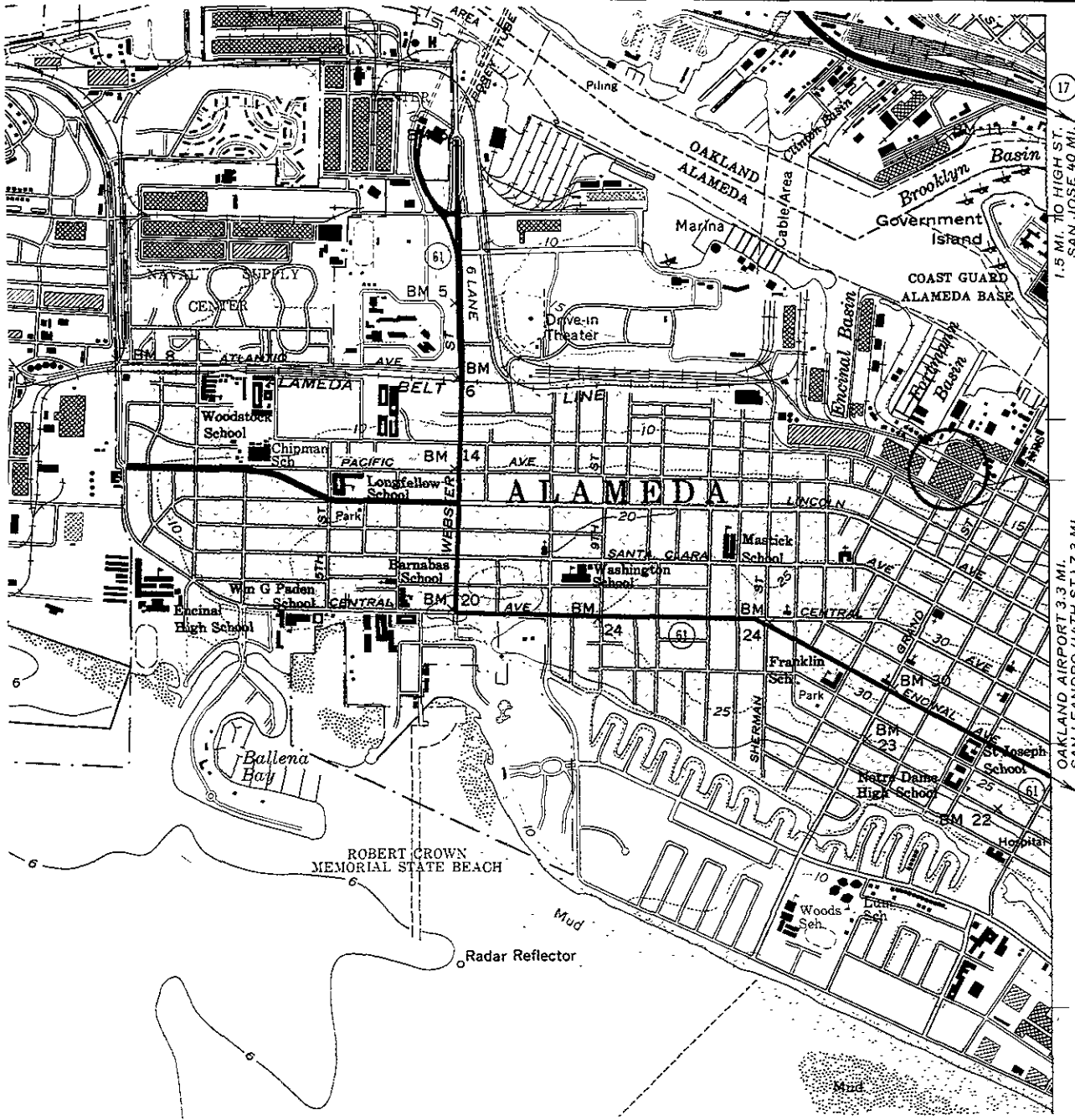
Project Name: Weyerhaeuser Paper Company - Alameda

Date: Jan. 1995

Location: 1801 Hibbard Str., Alameda, California 94501

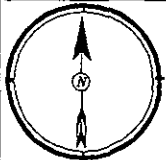
Drawing By: BWB

Scale: 1" = 0.4 Miles



1.5 MI. TO HIGH ST.
SAN JOSE 40 MI.

OAKLAND AIRPORT 3.3 MI.
SAN LEANDRO (14TH ST.) 7.3 MI.



LEGEND

Figure 2

WPC ALAMEDA FACILITY - SITE LOCATION

○ SITE LOCATION

WEST ASSOCIATES

Four soil samples were collected from the gasoline tank cluster pit sidewalls at the conclusion of overexcavation. Only one endpoint sidewall soil sample (Sample No. 11) was non-detectable for all tested chemical constituents. One of the sidewall soil samples (Sample No. 9) was found to contain only trace levels of toluene. The other two endpoint soil samples (Sample No.'s 8 & 10), were found to contain low levels of TPH and BTXE compounds.

During the time the gasoline tank cluster excavation was open, the standing groundwater level in the pit was observed to rise from greater than 8 feet to less than 4 feet below ground surface. As the pit water level rose, presumably overexcavation became more difficult. The file record indicates endpoint soil samples were collected from higher on the pit sidewalls as the water level rose.

Both the gasoline tank cluster and diesel tank excavations were backfilled with clean soil. Contaminated soil was transported to off-site disposal.

In December 1991 and again in April 1992, Soil Tech Engineering performed soils and groundwater investigations near the former gasoline tank cluster. A total of six groundwater monitoring wells were installed. Soil samples for laboratory analysis were collected during monitoring well installation. Between December 1991 and July 1993 Soil Tech performed groundwater monitoring on six occasions.

In December 1992, Soil Tech constructed one monitoring well (MW-7) adjacent to the former underground diesel tank, increasing the total number of site wells to seven. STE monitored MW-7 a total of 3 times.

Soil Tech's investigations revealed significant remaining soil contamination as well as widespread groundwater contamination in the vicinity of the former gasoline tank cluster. The six soil borings and monitoring wells completed by STE did not fully define the total extent of either soil or groundwater contamination around the former gasoline tank cluster.

In January 1994 the last remaining underground fuel storage tank, (20,000 gallon diesel) was removed from the WPC property. No evidence of any leakage from the diesel tank was encountered, however, soil contamination from the 1991 gasoline tank cluster was observed on the west sidewall of the diesel tank pit.

West & Associates Environmental Engineers submitted a proposed workplan for additional site investigation to the Alameda County Health Care Agency in November 1993. Site investigations were performed in January and February 1994. In May 1994 a supplemental workplan was submitted to conduct further investigation under the main plant building. In June 1994 an interim report of findings was submitted and in October 1994 clarifications to the May supplemental workplan were submitted to the County. Final site investigation field work took place in September and December 1994.

In October and November 1995 contaminated soil was excavated from the site around the former gasoline tank cluster and air sparging lines were installed in the open excavations prior to backfill. Some of the contaminated soil was aerated on site and reused as backfill material and some was transported to a local landfill for disposal.

During the remedial excavation program monitoring wells MW-1, MW-2, MW-3, MW-4 and MW-9 were removed. In December 1995 two new wells MW-3B and MW-4B were installed in two locations within the newly backfilled excavation area, near the former locations of MW-3 and MW-4, respectively. Subsequent to completion of a pilot test, operation of the groundwater sparging system was begun in late March 1996.

2.0 FLOATING PRODUCT

This quarter, each monitoring well was visually inspected for the presence of floating product. Prior to well purging, a column of groundwater was bailed from the water surface in a transparent bailer suitable for capture of light hydrocarbons.

No floating product or sheen was detected in any of the groundwater wells inspected this quarter. No floating product has been observed in any WPC Alameda wells on previous monitoring occasions.

3.0 GROUNDWATER SAMPLING

A quantity of groundwater is purged from each monitoring well prior to collecting a sample for chemical analysis. A description of equipment and procedures employed for groundwater purging and sample collection is presented in the following paragraphs.

3.1 Sampling Protocol

All the WPC Alameda monitoring wells are equipped with a 0.5 inch OD polyethylene tube extending the full depth of the well. Well purging is accomplished by attaching an Accuwell PTP-150 peristaltic pump at the well head to draw groundwater from the well. This procedure eliminates the need for any downhole equipment.

As groundwater is extracted from the well, 20ml samples are periodically collected for measurement of ph, temperature and conductivity using a Hydac instrument. Groundwater data is recorded on purge data forms (presented in the Appendix). At the conclusion of purging, the well is allowed to recharge to at least 80% of its initial water level prior to sample collection.

Purge water is contained in 55 gallon drums during the sampling process. At the conclusion of sampling, purge water drums are sealed, labeled and stored on-site in a secure area pending chemical analysis and arrangements for proper disposal.

Monitoring well purge water was removed from the site on February 23, 1996 by Allied Oil, San Jose, California. The purge water was transported to Americlean Inc., Silver Springs, Nevada for treatment and disposal. A copy of the Bill of Lading is presented in the Appendix.

Groundwater sample collection is performed by lowering a new, disposable, bailer into the well. Sample water is transferred to a laboratory supplied 40 ml VOA bottle containing a suitable preservative. The sample bottles are only opened during sample transfer, are completely filled and are not re-opened again by field personnel.

All samples are immediately labeled, sealed in zip lock bags and placed in a cooler containing crushed ice. The samples remain chilled, sealed and undisturbed during transport to the testing laboratory, usually within no more than 48 hours. All samples are entered on a chain of custody form which accompanies the sample set at all times.

Chemical analysis was performed by Pace Inc. located in Petaluma. Pace is certified by the Department of Health Services for the analyses performed.

Quality assurance and quality control measures include:

- Utilizing State WQCB approved sampling methods
- Assigning trained, experienced personnel for sample collection
- Utilizing laboratory supplied sample containers
- Employing extraction methods not requiring downhole equipment
- Using new, disposable bailers
- Sampling wells sequentially from cleanest to most contaminated
- Maintaining sample chain of custody documentation
- Keeping samples in a chilled state until laboratory delivery
- Storing suspected high concentration samples in a separate container
- Prompt delivery of the sample set to the testing laboratory
- Utilizing a DHS certified laboratory

3.2 Sample Analyses

Each groundwater sample except MW-7 was analyzed for Total Petroleum Hydrocarbons in the gasoline range (TPH-g). Groundwater from monitoring well MW-7 was analyzed for TPH in the diesel range. As per an Alameda County Health Care Services Agency request, groundwater samples were also analyzed for chlorinated hydrocarbons (EPA method 624) and MW-3B was sampled for naphthalene (EPA 625).

All analyses were performed using EPA approved test methods. Minimum detection limits for all analyses were within Tri-regional guidelines and are indicated on each original laboratory report form.

This quarters analytical results for TPH-g and BTXE contamination are presented in Table 1. Analysis of groundwater sample MW-7 detected 1.2 mg/l of TPH-d. Solvent contamination results are presented in Table 2. Results of semi-volatile (naphthalene) analysis are presented

in Table 3. Copies of original laboratory data sheets and chain of custody forms are presented in the appendix.

TABLE 1
PETROLEUM CONTAMINATION ANALYSES - GROUNDWATER
FEBRUARY 1996
All Values in ug/l

WELL ID	TPH (gas)	BENZENE	TOLUENE	XYLENES	ETHYL BENZENE
MW-3B	19,000	2,100	380	1,200	480
MW-4B	520	3	2.4	1.0	1.6
MW-5	120	7	ND	ND	ND
MW-6	60	0.84	ND	ND	ND
MW-10	78	ND	ND	ND	ND
MW-11	ND	ND	ND	ND	ND
MW-12	ND	0.86	0.98	ND	ND

TABLE 2
VOLATILE ORGANIC ANALYSIS - GROUNDWATER
FEBRUARY 1996

WELL IDENTIFICATION	COMPOUND	CONCENTRATION ug/l
MW-4B	1,1 DICHLOROETHANE	7.4
	1,2-DICHLOROETHANE	6.2

WELL IDENTIFICATION	COMPOUND	CONCENTRATION ug/l
MW-5	1,1-DICHOLORETHANE	31

WELL IDENTIFICATION	COMPOUND	CONCENTRATION ug/l
MW-6	1,1-DICHOLORETHANE	7.6

TABLE 3
SEMI-VOLATILE ORGANIC ANALYSIS - GROUNDWATER
FEBRUARY 1996

WELL IDENTIFICATION	COMPOUND	CONCENTRATION ug/l
MW-3B	NAPHTHALENE	130

ABBREVIATIONS

ug/l: Micrograms per liter

ND: Not Detected (See Appendix for minimum detection limits)

TPH: Total Petroleum Hydrocarbons

3.3 Conclusions

The spatial distribution of gasoline contamination has not appreciably changed from last quarter. The magnitude of gasoline contamination in samples collected this quarter has fluctuated within the range previously observed at the site.

Results of this quarters groundwater sample chemical analyses with respect to solvent contamination is consistent with previous monitoring cycles. The extent and magnitude of solvent contamination has not significantly changed since routine monitoring began in February 1994.

Detectable concentrations of TPH-diesel were found in monitoring well MW-7 this quarter. The concentration of TPH-d detected this quarter is similar to concentrations detected in previous quarters.

4.0 HYDROLOGIC MONITORING

Depth to groundwater (DTGW) was measured in all eight of the WPC Alameda monitoring wells on February 7, 1996 this quarter. DTGW was measured using a Solinst electronic sounding meter. Measurement accuracy was +/- 0.01 feet.

Table 4 presents depth to groundwater measurements (DTGW) and groundwater elevations (GW) as measured on February 7, 1996. The change in groundwater elevation in each well relative to most recent previous measurement (September 26, 1995) is also indicated in Table 4.

On March 19, 1996 the top of casing elevation of each monitoring well was re-surveyed by West & Associates due to the addition of the two newly installed monitoring wells, MW-3B and MW-4B. Top of casing elevations were calculated relative to mean sea level.

Figure 3 illustrates groundwater contours under the site extrapolated from the February 7, 1996 groundwater elevation data. The groundwater gradient direction measured this quarter has a northern orientation.

This groundwater gradient direction is consistent with previous groundwater gradient observations at the WPC site.

TABLE 4 - HYDROLOGIC MEASUREMENTS
February 7, 1996
(All measurements in feet)

WELL ID	TOC	DTGW	GWE	CHANGE ¹
MW-3B	9.81	4.90	4.91	NA
MW-4B	9.59	5.03	4.56	NA
MW-5	9.77	4.64	5.13	2.24
MW-6	10.04	5.38	4.66	2.21
MW-7	7.68	2.48	5.20	1.03
MW-10	9.37	4.89	4.48	1.37
MW-11	8.78	4.39	4.39	1.03
MW-12	12.32	6.70	5.62	2.2

ABBREVIATIONS

TOC: Top of Casing
DTGW: Depth to Groundwater
GWE: Groundwater Elevation
NA: Not Available

¹ Relative to last available DTGW measurement: September 26, 1995

4.1 Conclusions

Groundwater elevations were higher in all monitoring wells this quarter as compared to last quarter. The rise in groundwater elevations relative to last quarter is consistent with the seasonal fluctuation observed previously. The groundwater level measured this quarter is within the range previously recorded.

The groundwater gradient profile calculated this quarter is significantly different from those calculated previously. The gradient profile is obviously influenced by the gravel beds placed during the air sparging line construction project. The downgradient direction, roughly north, is basically unchanged from previous quarters.

5.0 SUMMARY

- All eight WPC groundwater wells were monitored on February 7, 1996.
- No floating product was observed in any groundwater well this quarter.
- The contaminant profile in groundwater has not significantly changed from previous quarters.

- Contaminant concentrations in groundwater have decreased in the areas around the former gasoline tank cluster since September 1995, with the exception of MW-10 which had an increase in TPH-G concentration from non-detectable in September 1995 to 78 ppb in February 1996.
- Groundwater levels have risen slightly under entire site as compared to the last quarter of monitoring (September 26, 1995).

5.1 Recommended Monitoring Schedule

At this time, in an effort to focus resources on remedial activities, West & Associates Environmental Engineers recommends that groundwater samples from all monitoring wells except MW-7 be analyzed for TPH as gasoline and benzene, toluene, ethylbenzene and xylenes (BTEX) by EPA methods (M)8015 and 602 respectively, on a quarterly basis. MW-7 should still be analyzed for TPH as diesel on a quarterly basis.

Quarterly analysis of select water samples by EPA methods 624 and 625 should be discontinued and should take place on an annual basis only. The results of these analyses have been relatively consistent from quarter to quarter and provide less pertinent information related to remedial activities currently on going at the site.

5.2 Remedial Status

Soil excavation activities were completed in the area of the former gasoline tank cluster in November 1995.

Construction of an air sparging/vapor extraction system was completed in February 1996.

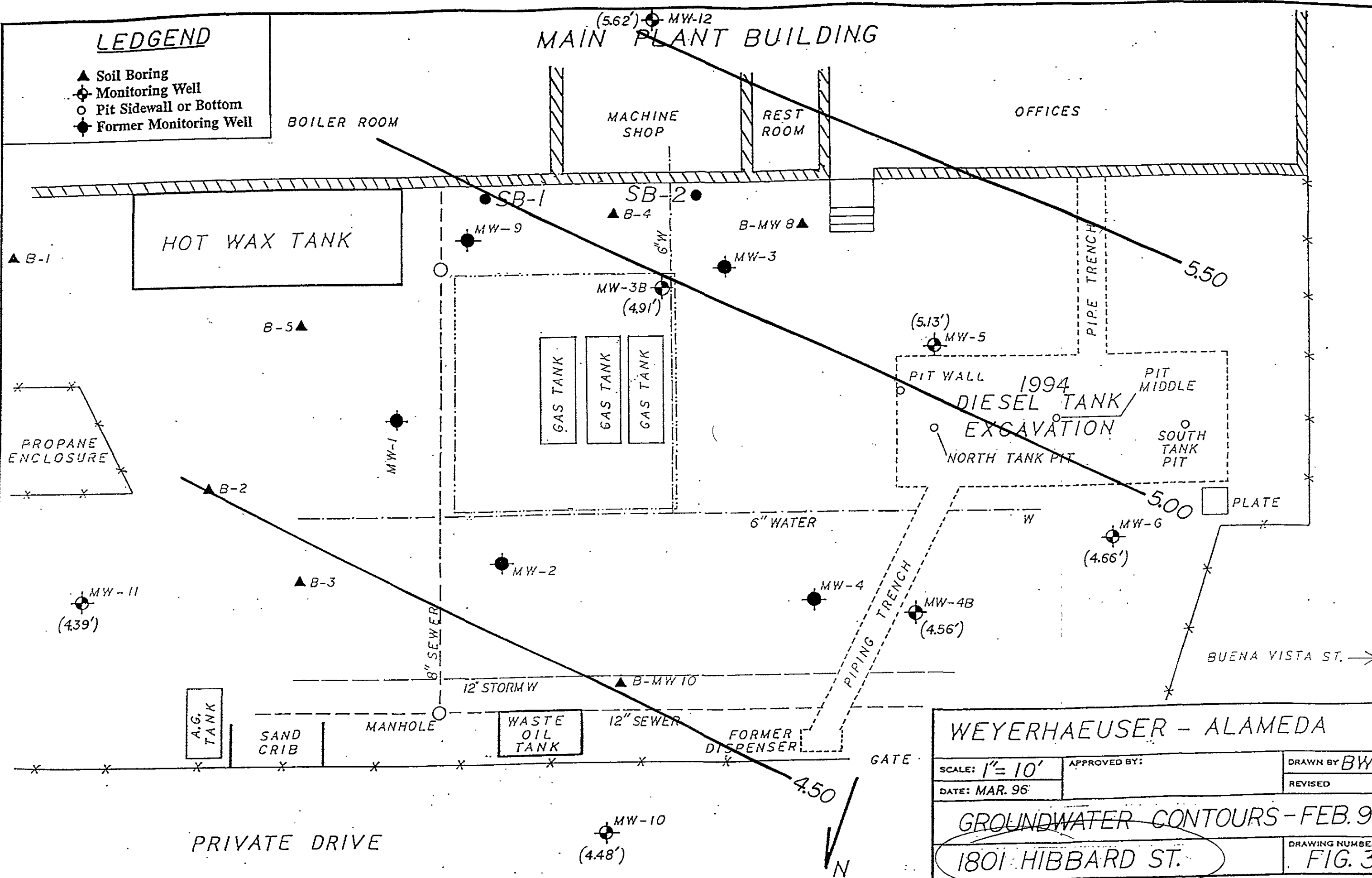
Pilot testing activities were completed on the newly installed air sparging/vapor extraction system on March 19, 1996. Findings of the pilot test are presented in the March 1996 Air Sparging and Vapor Extraction System Test Report prepared by West & Associates Environmental Engineers.

Full scale operation of the sparging system began at the end of March 1996 with clearance from the Bay Area Air Quality Management District.

LEDGEND

- ▲ Soil Boring
- ⊕ Monitoring Well
- Pit Sidewall or Bottom
- Former Monitoring Well

MAIN PLANT BUILDING



WEYERHAEUSER - ALAMEDA

SCALE: 1" = 10'	APPROVED BY:	DRAWN BY BWY
DATE: MAR. 96		REVISED
GROUNDWATER CONTOURS - FEB. 96		
1801 HIBBARD ST.		DRAWING NUMBER FIG. 3

WEST & ASSOCIATES ENGINEERS

GROUNDWATER SAMPLING - PURGE DATA FORM

Project: WEYERHAEUSER ALAMEDA

Location: WEST EDGE OF FORMER GAS UST CLUSTER

Monitoring Well ID: MW-3B ^{NEW WELL} Sampler: BWW-BGM

Date: 2-7-96 Time: ~~12:02~~ 1:02 AM (PM)

=====
 Floating Product: Y (N) Petroleum Sheen: Y (N)

ODOR / APPEARANCE: GAS ODOR / SILTY

16 4.90 (2") 4" = 1.8
 WELL DEPTH - DTGW x .17 .66 = WELL VOLUME (GALS)

PURGE MEASUREMENTS

TIME	PURGE VOLUME GALLONS	CUMULATIVE GALLONS	TEMP. °F	CONDUCT umhos x 100	PH
1:02 PM	0	0	63.2	11.94	5.94
1:05	2	2	63.5	12.17	5.92
1:07	2	4	63.8	11.84	5.91
1:10	2	6	63.8	11.92	5.93

REMARKS: _____

WEST & ASSOCIATES ENGINEERS

GROUNDWATER SAMPLING - PURGE DATA FORM

Project: WEYERHAEUSER ALAMEDA

Location: NW CORNER OF FORMER REMEDIAL EXC

Monitoring Well ID: MW-4B ^{NEW WELL} Sampler: BWW BGM

Date: 2-7-96 Time: 12:50 AM PM

Floating Product: Y N Petroleum Sheen: Y N

ODOR / APPEARANCE: NO APPARENT ODOR / SILTY

16 5.03 2" 4" 1.8
WELL DEPTH - DTGW x .17 .66 = WELL VOLUME (GALS)

PURGE MEASUREMENTS

TIME	PURGE VOLUME GALLONS	CUMULATIVE GALLONS	TEMP. °F	CONDUCT umhos x 100	PH
12:50	0	0	62.4	13.95	6.15
12:53	2	2	62.5	12.94	6.15
12:57	4 2	4	63.9	13.41	6.01
12:59	6 2	6	64.0	12.99	6.02

REMARKS: _____

WEST & ASSOCIATES ENGINEERS

GROUNDWATER SAMPLING - PURGE DATA FORM

Project: WEYERHAEUSER ALAMEDA

Location: SW CORNER OF FORMER REMEDIAL EXC.

Monitoring Well ID: MW-5 Sampler: BWW BGM

Date: 2-7-96 Time: 12:36 AM PM

=====
 Floating Product: Y (N) Petroleum Sheen: Y (N)

ODOR / APPEARANCE: NO GAS ODOR / CLEAR

17.50 4.64 (2") 4" 2.2
 WELL DEPTH - DTGW x .17 .66 = WELL VOLUME (GALS)

PURGE MEASUREMENTS

TIME	PURGE VOLUME GALLONS	CUMULATIVE GALLONS	TEMP. °F	CONDUCT umhos x 100	PII
12:36	0	0	63.7	8.70	6.84
12:40	2.5	2.5	62.1	8.74	6.75
12:45	2.5	5.0	63.0	8.69	6.59
12:48	2.5	7.5	63.2	8.57	6.56

REMARKS: _____

WEST & ASSOCIATES ENGINEERS

GROUNDWATER SAMPLING - PURGE DATA FORM

Project: WEYERHAEUSER ALAMEDA

Location: WEST END OF FORMER REMEDIAL EXC.

Monitoring Well ID: MW-6 Sampler: BWW - ~~BGM~~

Date: 2-7-96 Time: 12:23 ~~AM~~ PM

Floating Product: Y (N) Petroleum Sheen: Y (N)

ODOR / APPEARANCE: NO GAS ODOR / CLEAR

19.65 5.38 (2") 4" 2.4
WELL DEPTH - DTGW x .17 .66 = WELL VOLUME (GALS)

PURGE MEASUREMENTS

TIME	PURGE VOLUME GALLONS	CUMULATIVE GALLONS	TEMP. °F	CONDUCT umhos x 100	PH
12:23	0	0	63.6	5.83	8.44
12:26	2.5	2.5	63.0	4.94	7.99
12:30	2.5	5.0	64.1	5.93	7.63
12:33	2.5	7.5	64.0	6.18	7.52

REMARKS: _____

WEST & ASSOCIATES ENGINEERS

GROUNDWATER SAMPLING - PURGE DATA FORM

Project: WEYERHAEUSER ALAMEDA

Location: EAST END OF WPC FACILITY

Monitoring Well ID: MW-7 Sampler: BWW - (BGM)

Date: 2-7-95 Time: 10:50 (AM) PM

=====

Floating Product: Y (N) Petroleum Sheen: Y (N)

ODOR / APPEARANCE: FAINT HC ODOR / CLEAR - YELLOW TINT

17.86 2.48 (2") 4" 2.6
WELL DEPTH - DTGW x .17 .66 = WELL VOLUME (GALS)

=====

PURGE MEASUREMENTS

TIME	PURGE VOLUME GALLONS	CUMULATIVE GALLONS	TEMP. °F	CONDUCT umhos x 100	PH
10:50	0	0	60.4	16.80	7.25
11:00	2.5	2.5	59.8	15.16	6.89
11:04	2.5	5	59.8	16.68	6.43
11:08	3	8	59.8	16.39	6.40

REMARKS: _____

WEST & ASSOCIATES ENGINEERS

GROUNDWATER SAMPLING - PURGE DATA FORM

Project: WEYERHAEUSER ALAMEDA

Location: N END OF SITE

Monitoring Well ID: MW-10 Sampler: BWW (B6m)

Date: 2-7-96 Time: 1:20 AM (PM)

Floating Product: Y (N) Petroleum Sheen: Y (N)

ODOR / APPEARANCE: NO GAS ODOR / CLEAR

17.05 4.89 2" (4") 8.0
WELL DEPTH - DTGW x .17 .66 = WELL VOLUME (GALS)

PURGE MEASUREMENTS

TIME	PURGE VOLUME GALLONS	CUMULATIVE GALLONS	TEMP. °F	CONDUCT umhos x 100	PH
1:20	0	0	63.8	4.93	6.25
1:25	8	8	63.3	4.73	6.29
1:35	8	16	63.2	4.74	6.19
1:48	8	24	63.1	4.46	6.18

REMARKS: _____

WEST & ASSOCIATES ENGINEERS

GROUNDWATER SAMPLING - PURGE DATA FORM

Project: WEYERHAEUSER ALAMEDA

Location: EAST OF FORMER REMEDIAL EXCAVATION

Monitoring Well ID: MW-11 Sampler: BWW - (BGM)

Date: 2-7-96 Time: 1:58 AM (PM)

=====
 Floating Product: Y (N) Petroleum Sheen: Y (N)

ODOR / APPEARANCE: NO GAS ODOR / CLEAR

18.40 4.39 2" (4") 9.2
 WELL DEPTH - DTGW x .17 .66 = WELL VOLUME (GALS)

PURGE MEASUREMENTS

TIME	PURGE VOLUME GALLONS	CUMULATIVE GALLONS	TEMP. °F	CONDUCT umhos x 100	PH
1:58	0	0	63.7	7.22	6.03
2:10	10	10	62.7	7.12	6.10
2:35	10	20	62.9	6.84	6.32
2:45	10	30	62.9	6.71	6.28

PLANT FIRE DRILL

REMARKS: _____

WEST & ASSOCIATES ENGINEERS

GROUNDWATER SAMPLING - PURGE DATA FORM

Project: WEYERHAEUSER ALAMEDA

Location: INSIDE METAL SHOP - SOUTH OF REM. EXC.

Monitoring Well ID: MW-12 Sampler: BWW-BGM

Date: 2-7-96 Time: 2:50 AM PM

=====

Floating Product: Y N Petroleum Sheen: Y N

ODOR / APPEARANCE: NO GAS ODOR / CLEAR

15.90 - 6.70 2" 4" 6
 WELL DEPTH - DTGW x .17 .66 = WELL VOLUME (GALS)

=====

PURGE MEASUREMENTS

TIME	PURGE VOLUME GALLONS	CUMULATIVE GALLONS	TEMP. °F	CONDUCT umhos x 100	PH
2:50	0	0	63.7	5.62	6.43
2:56	6	6	63.9	5.52	6.05
3:03	6	12	64.2	6.63	6.04
3:10	6	18	64.3	7.88	6.01

REMARKS: _____

ALTERNATE STRAIGHT BILL OF LADING—SHORT FORM

Shipper No. _____

Shipping Order Copy

Carrier No. 2477

ALLEN OIL & SUMMING
(Name of Carrier)

Date 2/23/96

TO: Consignee <u>AMERICLEAN INC</u>	FROM: Shipper <u>WENGERHAUSER</u>
Street <u>2510 ALMOND DR</u>	Street <u>1801 HUBBARD ST</u>
Destination <u>SILVER SPRING NV</u> Zip Code <u>89429</u>	Origin <u>ACADIEVA CA</u> Zip Code <u>94008</u>
Route: _____	Vehicle No. _____

No. Shipping Units	Kind of Packaging, Description of Articles Special Marks and Exceptions	Weight (Subject to Correction)	RATE	CHARGES
<u>100</u>	<u>COAL WASTE PURGE WATER NON FLAMMABLES</u>			

REMIT C.O.D. TO: ADDRESS	COD Amt: \$	C.O.D. FEE: PREPAID <input type="checkbox"/> \$ COLLECT <input type="checkbox"/> \$	TOTAL \$ CHARGES:
--------------------------	-------------	-------------------------------------------------------------------------------------------	----------------------

<p>Note—Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.</p> <p>The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding \$ _____ per _____</p>	<p>Subject to Section 7 of the conditions, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement.</p> <p>The carrier shall not make delivery of this shipment without payment of freight and all other charges.</p> <p>(Signature of Consignor)</p>	<p>FREIGHT CHARGES</p> <p>Check Appropriate Box:</p> <p><input type="checkbox"/> Freight prepaid <input type="checkbox"/> Collect</p>
------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------

RECEIVED, subject to the classifications and lawfully filed tariffs in effect on the date of the issue of this Bill of Lading, the property described above in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated above which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed as to each carrier of all or any of, said property over all or any portion of said route to destination and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the bill of lading terms and conditions in the governing classification on the date of shipment.

Shipper hereby certifies that he is familiar with all the bill of lading terms and conditions in the governing classification and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

SHIPPER <u>WENGERHAUSER</u>	CARRIER <u>ALLEN OIL & SUMMING</u>
PER _____	PER _____ DATE <u>2/23/96</u>



ENVIRONMENTAL LABORATORIES

Page 1 of 1

301806

CHAIN-OF-CUSTODY RECORD Analytical Request

Client WEST & ASSOCIATES
Address P.O. BOX 5891 VACAVILLE, CA 95696
Phone (707) 451-1360

Report To: WEST & ASSOC
Bill To: SAME
P.O. # / Billing Reference WPC
Project Name / No. WPC - ALAMEDA
Pace Client No.
Pace Project Manager RMC
Pace Project No. 705007
Requested Due Date:

Sampled By (PRINT): BRENNAN MAHONEY
Date Sampled 2-7-96

Table with columns: NO. OF CONTAINERS, PRESERVATIVES (UNPRESERVED, H2SO4, HNO3, VOA, HCL, h.t.c.), ANALYSES REQUEST (TPH-GAS, EPA 8240, TPH-DIESEL, NAPHTHALENE, EPA GAS)

Main data table with columns: ITEM NO., SAMPLE DESCRIPTION, TIME, MATRIX, PACE NO., NO. OF CONTAINERS, PRESERVATIVES, ANALYSES REQUEST, REMARKS

Table with columns: COOLER NOS., BAILERS, SHIPMENT METHOD (OUT/DATE, RETURNED/DATE), ITEM NUMBER, RELINQUISHED BY / AFFILIATION, ACCEPTED BY / AFFILIATION, DATE, TIME

Additional Comments

Handwritten signatures and notes: 1-8 Brennan Mahoney, E. Olson / PASI, 2/8/96 2:30 PM

Pace Analytical

Pace Analytical Services, Inc.
1455 McDowell Blvd. North, Suite D
Petaluma, CA 94954
Tel: 707-792-1865
Fax: 707-792-0342

DATE: 02/21/96
PAGE: 1

West & Associates
490 Merchant St. Ste.104
Vacaville, CA 95688

PACE Project Number: 705007
Client Project ID: WPC - Alameda

Attn: Mr. Brian West
Phone: (707)451-1360

PACE Sample No: 70507694
Client Sample ID: MW-5

Date Collected: 02/07/96
Date Received: 02/08/96

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
GC -- Volatiles								
GAS/BTEX by CA LUFT, Water								
Gasoline	120	ug/L	50	02/13/96	CA LUFT	WAS		
Benzene	7	ug/L	0.5	02/13/96	CA LUFT	WAS	71-43-2	
Toluene	ND	ug/L	0.5	02/13/96	CA LUFT	WAS	108-88-3	
Ethylbenzene	ND	ug/L	0.5	02/13/96	CA LUFT	WAS	100-41-4	
Xylene (Total)	ND	ug/L	1	02/13/96	CA LUFT	WAS	1330-20-7	
Methyl-tert-butyl Ether	6.9	ug/L	5	02/13/96	CA LUFT	WAS	1634-04-4	
a,a,a-Trifluorotoluene (S)	103	%		02/13/96	CA LUFT	WAS	2164-17-2	
4-Bromofluorobenzene (S)	101	%		02/13/96	CA LUFT	WAS	460-00-4	
GC/MS -- VOA								
Volatile GC/MS by 624								
Chloromethane	ND	ug/L	5	02/12/96	EPA 624	AM	74-87-3	
Vinyl Chloride	ND	ug/L	5	02/12/96	EPA 624	AM	75-01-4	
Bromomethane	ND	ug/L	5	02/12/96	EPA 624	AM	74-83-9	
Chloroethane	ND	ug/L	5	02/12/96	EPA 624	AM	75-00-3	
1,1-Dichloroethene	ND	ug/L	5	02/12/96	EPA 624	AM	75-35-4	
Methylene Chloride	ND	ug/L	5	02/12/96	EPA 624	AM	75-09-2	
Trichlorofluoromethane	ND	ug/L	5	02/12/96	EPA 624	AM	75-69-4	
trans-1,2-Dichloroethene	ND	ug/L	5	02/12/96	EPA 624	AM	156-60-5	
1,1-Dichloroethane	31	ug/L	5	02/12/96	EPA 624	AM	75-34-3	
Chloroform	ND	ug/L	5	02/12/96	EPA 624	AM	67-66-3	
1,1,1-Trichloroethane	ND	ug/L	5	02/12/96	EPA 624	AM	71-55-6	
1,2-Dichloroethane	ND	ug/L	5	02/12/96	EPA 624	AM	107-06-2	
Carbon Tetrachloride	ND	ug/L	5	02/12/96	EPA 624	AM	56-23-5	
Benzene	ND	ug/L	5	02/12/96	EPA 624	AM	71-43-2	
1,2-Dichloropropane	ND	ug/L	6	02/12/96	EPA 624	AM	78-87-5	
Trichloroethene	ND	ug/L	5	02/12/96	EPA 624	AM	79-01-6	
Bromodichloromethane	ND	ug/L	5	02/12/96	EPA 624	AM	75-27-4	
2-Chloroethyl Vinyl Ether	ND	ug/L	5	02/12/96	EPA 624	AM	110-75-8	
trans-1,3-Dichloropropene	ND	ug/L	5	02/12/96	EPA 624	AM	10061-02-6	

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 PAGE: 2

PACE Project Number: 705007
 Client Project ID: WPC - Alameda

PACE Sample No: 70507694 Date Collected: 02/07/96
 Client Sample ID: MW-5 Date Received: 02/08/96

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
Toluene	ND	ug/L	6	02/12/96	EPA 624	AM	108-88-3	
cis-1,3-Dichloropropene	ND	ug/L	5	02/12/96	EPA 624	AM	10061-01-5	
1,1,2-Trichloroethane	ND	ug/L	5	02/12/96	EPA 624	AM	79-00-5	
Dibromochloromethane	ND	ug/L	5	02/12/96	EPA 624	AM	124-48-1	
Tetrachloroethene	ND	ug/L	5	02/12/96	EPA 624	AM	127-18-4	
Chlorobenzene	ND	ug/L	6	02/12/96	EPA 624	AM	108-90-7	
Ethylbenzene	ND	ug/L	7.2	02/12/96	EPA 624	AM	100-41-4	
Bromoform	ND	ug/L	5	02/12/96	EPA 624	AM	75-25-2	
1,1,2,2-Tetrachloroethane	ND	ug/L	6.9	02/12/96	EPA 624	AM	79-34-5	
1,3-Dichlorobenzene	ND	ug/L	5	02/12/96	EPA 624	AM	541-73-1	
1,2-Dichlorobenzene	ND	ug/L	5	02/12/96	EPA 624	AM	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	5	02/12/96	EPA 624	AM	106-46-7	
1,2-Dichloroethane-d4 (S)	102	%		02/12/96	EPA 624	AM	17060-07-0	
Toluene-d8 (S)	106	%		02/12/96	EPA 624	AM	2037-26-5	
4-Bromofluorobenzene (S)	106	%		02/12/96	EPA 624	AM	460-00-4	

PACE Sample No: 70507702 Date Collected: 02/07/96
 Client Sample ID: MW-6 Date Received: 02/08/96

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
GC -- Volatiles								
GAS/BTEX by CA LUFT, Water								
Gasoline	60	ug/L	50	02/13/96	CA LUFT	WAS		
Benzene	0.84	ug/L	0.5	02/13/96	CA LUFT	WAS	71-43-2	
Toluene	ND	ug/L	0.5	02/13/96	CA LUFT	WAS	108-88-3	
Ethylbenzene	ND	ug/L	0.5	02/13/96	CA LUFT	WAS	100-41-4	
Xylene (Total)	ND	ug/L	1	02/13/96	CA LUFT	WAS	1330-20-7	
Methyl-tert-butyl Ether	ND	ug/L	5	02/13/96	CA LUFT	WAS	1634-04-4	
a,a,a-Trifluorotoluene (S)	95	%		02/13/96	CA LUFT	WAS	2164-17-2	
4-Bromofluorobenzene (S)	104	%		02/13/96	CA LUFT	WAS	460-00-4	
GC/MS -- VOA								
Volatile GC/MS by 624								
Chloromethane	ND	ug/L	5	02/12/96	EPA 624	AM	74-87-3	
Vinyl Chloride	ND	ug/L	5	02/12/96	EPA 624	AM	75-01-4	
Bromomethane	ND	ug/L	5	02/12/96	EPA 624	AM	74-83-9	
Chloroethane	ND	ug/L	5	02/12/96	EPA 624	AM	75-00-3	
1,1-Dichloroethene	ND	ug/L	5	02/12/96	EPA 624	AM	75-35-4	
Methylene Chloride	ND	ug/L	5	02/12/96	EPA 624	AM	75-09-2	

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DATE: 02/21/96
 PAGE: 3

PACE Project Number: 705007
 Client Project ID: WPC - Alameda

PACE Sample No: 70507702 Date Collected: 02/07/96
 Client Sample ID: MW-6 Date Received: 02/08/96

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
Trichlorofluoromethane	ND	ug/L	5	02/12/96	EPA 624	AM	75-69-4	
trans-1,2-Dichloroethene	ND	ug/L	5	02/12/96	EPA 624	AM	156-60-5	
1,1-Dichloroethane	7.6	ug/L	5	02/12/96	EPA 624	AM	75-34-3	
Chloroform	ND	ug/L	5	02/12/96	EPA 624	AM	67-66-3	
1,1,1-Trichloroethane	ND	ug/L	5	02/12/96	EPA 624	AM	71-55-6	
1,2-Dichloroethane	ND	ug/L	5	02/12/96	EPA 624	AM	107-06-2	
Carbon Tetrachloride	ND	ug/L	5	02/12/96	EPA 624	AM	56-23-5	
Benzene	ND	ug/L	5	02/12/96	EPA 624	AM	71-43-2	
1,2-Dichloropropane	ND	ug/L	6	02/12/96	EPA 624	AM	78-87-5	
Trichloroethene	ND	ug/L	5	02/12/96	EPA 624	AM	79-01-6	
Bromodichloromethane	ND	ug/L	5	02/12/96	EPA 624	AM	75-27-4	
2-Chloroethyl Vinyl Ether	ND	ug/L	5	02/12/96	EPA 624	AM	110-75-8	
trans-1,3-Dichloropropene	ND	ug/L	5	02/12/96	EPA 624	AM	10061-02-6	
Toluene	ND	ug/L	6	02/12/96	EPA 624	AM	108-88-3	
cis-1,3-Dichloropropene	ND	ug/L	5	02/12/96	EPA 624	AM	10061-01-5	
1,1,2-Trichloroethane	ND	ug/L	5	02/12/96	EPA 624	AM	79-00-5	
Dibromochloromethane	ND	ug/L	5	02/12/96	EPA 624	AM	124-48-1	
Tetrachloroethene	ND	ug/L	5	02/12/96	EPA 624	AM	127-18-4	
Chlorobenzene	ND	ug/L	6	02/12/96	EPA 624	AM	108-90-7	
Ethylbenzene	ND	ug/L	7.2	02/12/96	EPA 624	AM	100-41-4	
Bromoform	ND	ug/L	5	02/12/96	EPA 624	AM	75-25-2	
1,1,2,2-Tetrachloroethane	ND	ug/L	6.9	02/12/96	EPA 624	AM	79-34-5	
1,3-Dichlorobenzene	ND	ug/L	5	02/12/96	EPA 624	AM	541-73-1	
1,2-Dichlorobenzene	ND	ug/L	5	02/12/96	EPA 624	AM	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	5	02/12/96	EPA 624	AM	106-46-7	
1,2-Dichloroethane-d4 (S)	97	%		02/12/96	EPA 624	AM	17060-07-0	
Toluene-d8 (S)	99	%		02/12/96	EPA 624	AM	2037-26-5	
4-Bromofluorobenzene (S)	100	%		02/12/96	EPA 624	AM	460-00-4	

PACE Sample No: 70507710 Date Collected: 02/07/96
 Client Sample ID: MW-7 Date Received: 02/08/96

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
GC								
TPH in Water by 8015 Modified								
Diesel Fuel	1.2	mg/L	0.05	02/19/96	TPH by EPA 8015M	DLL		
n-Pentacosane (S)	60	%		02/19/96	TPH by EPA 8015M	DLL	629-99-2	1,2
Date Extracted				02/15/96				

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DATE: 02/21/96
PAGE: 4

PACE Project Number: 705007
Client Project ID: WPC - Alameda

PACE Sample No: 70507728
Client Sample ID: MW-10

Date Collected: 02/07/96
Date Received: 02/08/96

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
GC -- Volatiles								
GAS/BTEX by CA LUFT, Water								
Gasoline	78	ug/L	50	02/13/96	CA LUFT	WAS		3
Benzene	ND	ug/L	0.5	02/13/96	CA LUFT	WAS	71-43-2	
Toluene	ND	ug/L	0.5	02/13/96	CA LUFT	WAS	108-88-3	
Ethylbenzene	ND	ug/L	0.5	02/13/96	CA LUFT	WAS	100-41-4	
Xylene (Total)	ND	ug/L	1	02/13/96	CA LUFT	WAS	1330-20-7	
Methyl-tert-butyl Ether	ND	ug/L	5	02/13/96	CA LUFT	WAS	1634-04-4	
a,a,a-Trifluorotoluene (S)	101	%		02/13/96	CA LUFT	WAS	2164-17-2	
4-Bromofluorobenzene (S)	99	%		02/13/96	CA LUFT	WAS	460-00-4	
C/MS -- VOA								
Volatile GC/MS by 624								
Chloromethane	ND	ug/L	5	02/12/96	EPA 624	AM	74-87-3	
Vinyl Chloride	ND	ug/L	5	02/12/96	EPA 624	AM	75-01-4	
Bromomethane	ND	ug/L	5	02/12/96	EPA 624	AM	74-83-9	
Chloroethane	ND	ug/L	5	02/12/96	EPA 624	AM	75-00-3	
1,1-Dichloroethene	ND	ug/L	5	02/12/96	EPA 624	AM	75-35-4	
Methylene Chloride	ND	ug/L	5	02/12/96	EPA 624	AM	75-09-2	
Trichlorofluoromethane	ND	ug/L	5	02/12/96	EPA 624	AM	75-69-4	
trans-1,2-Dichloroethene	ND	ug/L	5	02/12/96	EPA 624	AM	156-60-5	
1,1-Dichloroethane	ND	ug/L	5	02/12/96	EPA 624	AM	75-34-3	
Chloroform	ND	ug/L	5	02/12/96	EPA 624	AM	67-66-3	
1,1,1-Trichloroethane	ND	ug/L	5	02/12/96	EPA 624	AM	71-55-6	
1,2-Dichloroethane	ND	ug/L	5	02/12/96	EPA 624	AM	107-06-2	
Carbon Tetrachloride	ND	ug/L	5	02/12/96	EPA 624	AM	56-23-5	
Benzene	ND	ug/L	5	02/12/96	EPA 624	AM	71-43-2	
1,2-Dichloropropane	ND	ug/L	6	02/12/96	EPA 624	AM	78-87-5	
Trichloroethene	ND	ug/L	5	02/12/96	EPA 624	AM	79-01-6	
Bromodichloromethane	ND	ug/L	5	02/12/96	EPA 624	AM	75-27-4	
2-Chloroethyl Vinyl Ether	ND	ug/L	5	02/12/96	EPA 624	AM	110-75-8	
trans-1,3-Dichloropropene	ND	ug/L	5	02/12/96	EPA 624	AM	10061-02-6	
Toluene	ND	ug/L	6	02/12/96	EPA 624	AM	108-88-3	
cis-1,3-Dichloropropene	ND	ug/L	5	02/12/96	EPA 624	AM	10061-01-5	
1,1,2-Trichloroethane	ND	ug/L	5	02/12/96	EPA 624	AM	79-00-5	
Dibromochloromethane	ND	ug/L	5	02/12/96	EPA 624	AM	124-48-1	
Tetrachloroethene	ND	ug/L	5	02/12/96	EPA 624	AM	127-18-4	
Chlorobenzene	ND	ug/L	6	02/12/96	EPA 624	AM	108-90-7	
Ethylbenzene	ND	ug/L	7.2	02/12/96	EPA 624	AM	100-41-4	
Bromoform	ND	ug/L	5	02/12/96	EPA 624	AM	75-25-2	
1,1,2,2-Tetrachloroethane	ND	ug/L	6.9	02/12/96	EPA 624	AM	79-34-5	

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DATE: 02/21/96
 PAGE: 5

PACE Project Number: 705007
 Client Project ID: WPC - Alameda

PACE Sample No: 70507728
 Client Sample ID: MW-10

Date Collected: 02/07/96
 Date Received: 02/08/96

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
1,3-Dichlorobenzene	ND	ug/L	5	02/12/96	EPA 624	AM	541-73-1	
1,2-Dichlorobenzene	ND	ug/L	5	02/12/96	EPA 624	AM	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	5	02/12/96	EPA 624	AM	106-46-7	
1,2-Dichloroethane-d4 (S)	108	%		02/12/96	EPA 624	AM	17060-07-0	
Toluene-d8 (S)	108	%		02/12/96	EPA 624	AM	2037-26-5	
4-Bromofluorobenzene (S)	105	%		02/12/96	EPA 624	AM	460-00-4	

PACE Sample No: 70507736
 Client Sample ID: MW-11

Date Collected: 02/07/96
 Date Received: 02/08/96

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
GC -- Volatiles								
GAS/BTEX by CA LUFT, Water								
Gasoline	ND	ug/L	50	02/13/96	CA LUFT	WAS		
Benzene	ND	ug/L	0.5	02/13/96	CA LUFT	WAS	71-43-2	
Toluene	ND	ug/L	0.5	02/13/96	CA LUFT	WAS	108-88-3	
Ethylbenzene	ND	ug/L	0.5	02/13/96	CA LUFT	WAS	100-41-4	
Xylene (Total)	ND	ug/L	1	02/13/96	CA LUFT	WAS	1330-20-7	
Methyl-tert-butyl Ether	ND	ug/L	5	02/13/96	CA LUFT	WAS	1634-04-4	
a,a,a-Trifluorotoluene (S)	101	%		02/13/96	CA LUFT	WAS	2164-17-2	
4-Bromofluorobenzene (S)	102	%		02/13/96	CA LUFT	WAS	460-00-4	

C/MS -- VCA

Volatile GC/MS by 624

Chloromethane	ND	ug/L	5	02/12/96	EPA 624	AM	74-87-3	
Vinyl Chloride	ND	ug/L	5	02/12/96	EPA 624	AM	75-01-4	
Bromomethane	ND	ug/L	5	02/12/96	EPA 624	AM	74-83-9	
Chloroethane	ND	ug/L	5	02/12/96	EPA 624	AM	75-00-3	
1,1-Dichloroethene	ND	ug/L	5	02/12/96	EPA 624	AM	75-35-4	
Methylene Chloride	ND	ug/L	5	02/12/96	EPA 624	AM	75-09-2	
Trichlorofluoromethane	ND	ug/L	5	02/12/96	EPA 624	AM	75-69-4	
trans-1,2-Dichloroethene	ND	ug/L	5	02/12/96	EPA 624	AM	156-60-5	
1,1-Dichloroethane	ND	ug/L	5	02/12/96	EPA 624	AM	75-34-3	
Chloroform	ND	ug/L	5	02/12/96	EPA 624	AM	67-66-3	
1,1,1-Trichloroethane	ND	ug/L	5	02/12/96	EPA 624	AM	71-55-6	
1,2-Dichloroethane	ND	ug/L	5	02/12/96	EPA 624	AM	107-06-2	
Carbon Tetrachloride	ND	ug/L	5	02/12/96	EPA 624	AM	56-23-5	
Benzene	ND	ug/L	5	02/12/96	EPA 624	AM	71-43-2	
1,2-Dichloropropane	ND	ug/L	6	02/12/96	EPA 624	AM	78-87-5	

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 PAGE: 6

PACE Project Number: 705007
 Client Project ID: WPC - Alameda

PACE Sample No: 70507736
 Client Sample ID: MW-11

Date Collected: 02/07/96
 Date Received: 02/08/96

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
Trichloroethene	ND	ug/L	5	02/12/96	EPA 624	AM	79-01-6	
Bromodichloromethane	ND	ug/L	5	02/12/96	EPA 624	AM	75-27-4	
2-Chloroethyl Vinyl Ether	ND	ug/L	5	02/12/96	EPA 624	AM	110-75-8	
trans-1,3-Dichloropropene	ND	ug/L	5	02/12/96	EPA 624	AM	10061-02-6	
Toluene	ND	ug/L	6	02/12/96	EPA 624	AM	108-88-3	
cis-1,3-Dichloropropene	ND	ug/L	5	02/12/96	EPA 624	AM	10061-01-5	
1,1,2-Trichloroethane	ND	ug/L	5	02/12/96	EPA 624	AM	79-00-5	
Dibromochloromethane	ND	ug/L	5	02/12/96	EPA 624	AM	124-48-1	
Tetrachloroethene	ND	ug/L	5	02/12/96	EPA 624	AM	127-18-4	
Chlorobenzene	ND	ug/L	6	02/12/96	EPA 624	AM	108-90-7	
Ethylbenzene	ND	ug/L	7.2	02/12/96	EPA 624	AM	100-41-4	
Bromoform	ND	ug/L	5	02/12/96	EPA 624	AM	75-25-2	
1,1,2,2-Tetrachloroethane	ND	ug/L	6.9	02/12/96	EPA 624	AM	79-34-5	
1,3-Dichlorobenzene	ND	ug/L	5	02/12/96	EPA 624	AM	541-73-1	
1,2-Dichlorobenzene	ND	ug/L	5	02/12/96	EPA 624	AM	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	5	02/12/96	EPA 624	AM	106-46-7	
1,2-Dichloroethane-d4 (S)	102	%		02/12/96	EPA 624	AM	17060-07-0	
Toluene-d8 (S)	102	%		02/12/96	EPA 624	AM	2037-26-5	
4-Bromofluorobenzene (S)	99	%		02/12/96	EPA 624	AM	460-00-4	

PACE Sample No: 70507744
 Client Sample ID: MW-12

Date Collected: 02/07/96
 Date Received: 02/08/96

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
GC -- Volatiles								
GAS/BTEX by CA LUFT, Water								
Gasoline	ND	ug/L	50	02/13/96	CA LUFT	WAS		
Benzene	0.86	ug/L	0.5	02/13/96	CA LUFT	WAS	71-43-2	
Toluene	0.98	ug/L	0.5	02/13/96	CA LUFT	WAS	108-88-3	
Ethylbenzene	ND	ug/L	0.5	02/13/96	CA LUFT	WAS	100-41-4	
Xylene (Total)	ND	ug/L	1	02/13/96	CA LUFT	WAS	1330-20-7	
Methyl-tert-butyl Ether	ND	ug/L	5	02/13/96	CA LUFT	WAS	1634-04-4	
a,a,a-Trifluorotoluene (S)	98	%		02/13/96	CA LUFT	WAS	2164-17-2	
4-Bromofluorobenzene (S)	103	%		02/13/96	CA LUFT	WAS	460-00-4	
C/MS -- VOA								
Volatile GC/MS by 624								
Chloromethane	ND	ug/L	5	02/12/96	EPA 624	AM	74-87-3	
Vinyl Chloride	ND	ug/L	5	02/12/96	EPA 624	AM	75-01-4	

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 PAGE: 7

PACE Project Number: 705007
 Client Project ID: WPC - Alameda

PACE Sample No: 70507744 Date Collected: 02/07/96
 Client Sample ID: MW-12 Date Received: 02/08/96

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
Bromomethane	ND	ug/L	5	02/12/96	EPA 624	AM	74-83-9	
Chloroethane	ND	ug/L	5	02/12/96	EPA 624	AM	75-00-3	
1,1-Dichloroethene	ND	ug/L	5	02/12/96	EPA 624	AM	75-35-4	
Methylene Chloride	ND	ug/L	5	02/12/96	EPA 624	AM	75-09-2	
Trichlorofluoromethane	ND	ug/L	5	02/12/96	EPA 624	AM	75-69-4	
trans-1,2-Dichloroethene	ND	ug/L	5	02/12/96	EPA 624	AM	156-60-5	
1,1-Dichloroethane	ND	ug/L	5	02/12/96	EPA 624	AM	75-34-3	
Chloroform	ND	ug/L	5	02/12/96	EPA 624	AM	67-66-3	
1,1,1-Trichloroethane	ND	ug/L	5	02/12/96	EPA 624	AM	71-55-6	
1,2-Dichloroethane	ND	ug/L	5	02/12/96	EPA 624	AM	107-06-2	
Carbon Tetrachloride	ND	ug/L	5	02/12/96	EPA 624	AM	56-23-5	
Benzene	ND	ug/L	5	02/12/96	EPA 624	AM	71-43-2	
1,2-Dichloropropane	ND	ug/L	6	02/12/96	EPA 624	AM	78-87-5	
Trichloroethene	ND	ug/L	5	02/12/96	EPA 624	AM	79-01-6	
Bromodichloromethane	ND	ug/L	5	02/12/96	EPA 624	AM	75-27-4	
2-Chloroethyl Vinyl Ether	ND	ug/L	5	02/12/96	EPA 624	AM	110-75-8	
trans-1,3-Dichloropropene	ND	ug/L	5	02/12/96	EPA 624	AM	10061-02-6	
Toluene	ND	ug/L	6	02/12/96	EPA 624	AM	108-88-3	
cis-1,3-Dichloropropene	ND	ug/L	5	02/12/96	EPA 624	AM	10061-01-5	
1,1,2-Trichloroethane	ND	ug/L	5	02/12/96	EPA 624	AM	79-00-5	
Dibromochloromethane	ND	ug/L	5	02/12/96	EPA 624	AM	124-48-1	
Tetrachloroethene	ND	ug/L	5	02/12/96	EPA 624	AM	127-18-4	
Chlorobenzene	ND	ug/L	6	02/12/96	EPA 624	AM	108-90-7	
Ethylbenzene	ND	ug/L	7.2	02/12/96	EPA 624	AM	100-41-4	
Bromoform	ND	ug/L	5	02/12/96	EPA 624	AM	75-25-2	
1,1,2,2-Tetrachloroethane	ND	ug/L	6.9	02/12/96	EPA 624	AM	79-34-5	
1,3-Dichlorobenzene	ND	ug/L	5	02/12/96	EPA 624	AM	541-73-1	
1,2-Dichlorobenzene	ND	ug/L	5	02/12/96	EPA 624	AM	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	5	02/12/96	EPA 624	AM	106-46-7	
1,2-Dichloroethane-d4 (S)	108	%		02/12/96	EPA 624	AM	17060-07-0	
Toluene-d8 (S)	107	%		02/12/96	EPA 624	AM	2037-26-5	
4-Bromofluorobenzene (S)	106	%		02/12/96	EPA 624	AM	460-00-4	

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*Why send him
detection limits?
4/11/96 Ron Chiu
PACE
for more accurate
results; to save
equipment.*

*stated that die
has labels*

DATE: 02/21/96
PAGE: 8

PACE Project Number: 705007
Client Project ID: WPC - Alameda

PACE Sample No: 70507751
Client Sample ID: MW-3B
Date Collected: 02/07/96
Date Received: 02/08/96

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
GC -- Volatiles								
GAS/BTEX by CA LUFT, Water								
Gasoline	19000	ug/L	1000	02/14/96	CA LUFT	WAS		
Benzene	2100	ug/L	10	02/14/96	CA LUFT	WAS	71-43-2	
Toluene	380	ug/L	10	02/14/96	CA LUFT	WAS	108-88-3	
Ethylbenzene	480	ug/L	10	02/14/96	CA LUFT	WAS	100-41-4	
Xylene (Total)	1200	ug/L	20	02/14/96	CA LUFT	WAS	1330-20-7	
Methyl-tert-butyl Ether	360	ug/L	100	02/14/96	CA LUFT	WAS	1634-04-4	
a,a,a-Trifluorotoluene (S)	128	%		02/14/96	CA LUFT	WAS	2164-17-2	
4-Bromofluorobenzene (S)	107	%		02/14/96	CA LUFT	WAS	460-00-4	
GC/MS -- VOA								
Volatile GC/MS by 624								
Chloromethane	ND	ug/L	120	02/12/96	EPA 624	AM	74-87-3	
Vinyl Chloride	ND	ug/L	120	02/12/96	EPA 624	AM	75-01-4	
Bromomethane	ND	ug/L	120	02/12/96	EPA 624	AM	74-83-9	
Chloroethane	ND	ug/L	120	02/12/96	EPA 624	AM	75-00-3	
1,1-Dichloroethene	ND	ug/L	120	02/12/96	EPA 624	AM	75-35-4	
Methylene Chloride	ND	ug/L	120	02/12/96	EPA 624	AM	75-09-2	
Trichlorofluoromethane	ND	ug/L	120	02/12/96	EPA 624	AM	75-69-4	
trans-1,2-Dichloroethene	ND	ug/L	120	02/12/96	EPA 624	AM	156-60-5	
1,1-Dichloroethane	ND	ug/L	120	02/12/96	EPA 624	AM	75-34-3	
Chloroform	ND	ug/L	120	02/12/96	EPA 624	AM	67-66-3	
1,1,1-Trichloroethane	ND	ug/L	120	02/12/96	EPA 624	AM	71-55-6	
1,2-Dichloroethane	ND	ug/L	120	02/12/96	EPA 624	AM	107-06-2	
Carbon Tetrachloride	ND	ug/L	120	02/12/96	EPA 624	AM	56-23-5	
Benzene	1700	ug/L	120	02/12/96	EPA 624	AM	71-43-2	
1,2-Dichloropropane	ND	ug/L	150	02/12/96	EPA 624	AM	78-87-5	
Trichloroethene	ND	ug/L	120	02/12/96	EPA 624	AM	79-01-6	
Bromodichloromethane	ND	ug/L	120	02/12/96	EPA 624	AM	75-27-4	
2-Chloroethyl Vinyl Ether	ND	ug/L	120	02/12/96	EPA 624	AM	110-75-8	
trans-1,3-Dichloropropene	ND	ug/L	120	02/12/96	EPA 624	AM	10061-02-6	
Toluene	300	ug/L	150	02/12/96	EPA 624	AM	108-88-3	
cis-1,3-Dichloropropene	ND	ug/L	120	02/12/96	EPA 624	AM	10061-01-5	
1,1,2-Trichloroethane	ND	ug/L	120	02/12/96	EPA 624	AM	79-00-5	
Dibromochloromethane	ND	ug/L	120	02/12/96	EPA 624	AM	124-48-1	
Tetrachloroethene	ND	ug/L	120	02/12/96	EPA 624	AM	127-18-4	
Chlorobenzene	ND	ug/L	150	02/12/96	EPA 624	AM	108-90-7	
Ethylbenzene	370	ug/L	180	02/12/96	EPA 624	AM	100-41-4	
Bromoform	ND	ug/L	120	02/12/96	EPA 624	AM	75-25-2	
1,1,2,2-Tetrachloroethane	ND	ug/L	170	02/12/96	EPA 624	AM	79-34-5	

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 PAGE: 9

PACE Project Number: 705007
 Client Project ID: WPC - Alameda

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
PACE Sample No: 70507751				Date Collected: 02/07/96				
Client Sample ID: MW-38				Date Received: 02/08/96				
1,3-Dichlorobenzene	ND	ug/L	120	02/12/96	EPA 624	AM	541-73-1	
1,2-Dichlorobenzene	ND	ug/L	120	02/12/96	EPA 624	AM	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	120	02/12/96	EPA 624	AM	106-46-7	
1,2-Dichloroethane-d4 (S)	110	%		02/12/96	EPA 624	AM	17060-07-0	
Toluene-d8 (S)	103	%		02/12/96	EPA 624	AM	2037-26-5	
4-Bromofluorobenzene (S)	103	%		02/12/96	EPA 624	AM	460-00-4	
GC/MS -- Semi-VOA								
Extractables in Water by 625								
Naphthalene	130	ug/L	5	02/15/96	EPA 625	WSN	91-20-3	4
Nitrobenzene-d5 (S)	70	%		02/15/96	EPA 625	WSN	4165-60-0	
2-Fluorobiphenyl (S)	57	%		02/15/96	EPA 625	WSN	321-60-8	
Terphenyl-d14 (S)	32	%		02/15/96	EPA 625	WSN	1718-51-0	
Date Extracted				02/15/96				

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
PACE Sample No: 70507769				Date Collected: 02/07/96				
Client Sample ID: MW-4B				Date Received: 02/08/96				
GC -- Volatiles								
GAS/BTEX by CA LUFT, Water								
Gasoline	520	ug/L	50	02/15/96	CA LUFT	WAS		
Benzene	3	ug/L	0.5	02/15/96	CA LUFT	WAS	71-43-2	
Toluene	2.4	ug/L	0.5	02/15/96	CA LUFT	WAS	108-88-3	
Ethylbenzene	1.6	ug/L	0.5	02/15/96	CA LUFT	WAS	100-41-4	
Xylene (Total)	1	ug/L	1	02/15/96	CA LUFT	WAS	1330-20-7	
Methyl-tert-butyl Ether	8.3	ug/L	5	02/15/96	CA LUFT	WAS	1634-04-4	
a,a,a-Trifluorotoluene (S)	104	%		02/15/96	CA LUFT	WAS	2164-17-2	
4-Bromofluorobenzene (S)	102	%		02/15/96	CA LUFT	WAS	460-00-4	
GC/MS -- VOA								
Volatile GC/MS by 624								
Chloromethane	ND	ug/L	5	02/12/96	EPA 624	AM	74-87-3	
Vinyl Chloride	ND	ug/L	5	02/12/96	EPA 624	AM	75-01-4	
Bromomethane	ND	ug/L	5	02/12/96	EPA 624	AM	74-83-9	
Chloroethane	ND	ug/L	5	02/12/96	EPA 624	AM	75-00-3	
1,1-Dichloroethene	ND	ug/L	5	02/12/96	EPA 624	AM	75-35-4	
Methylene Chloride	ND	ug/L	5	02/12/96	EPA 624	AM	75-09-2	
Trichlorofluoromethane	ND	ug/L	5	02/12/96	EPA 624	AM	75-69-4	
trans-1,2-Dichloroethene	ND	ug/L	5	02/12/96	EPA 624	AM	156-60-5	

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PAGE: 10

PACE Project Number: 705007
Client Project ID: WPC - Alameda

PACE Sample No: 70507769
Client Sample ID: MW-4B

Date Collected: 02/07/96
Date Received: 02/08/96

Parameters	Results	Units	PRL	Analyzed	Method	Analyst	CAS#	Footnotes
1,1-Dichloroethane	7.4	ug/L	5	02/12/96	EPA 624	AM	75-34-3	
Chloroform	ND	ug/L	5	02/12/96	EPA 624	AM	67-66-3	
1,1,1-Trichloroethane	ND	ug/L	5	02/12/96	EPA 624	AM	71-55-6	
1,2-Dichloroethane	6.2	ug/L	5	02/12/96	EPA 624	AM	107-06-2	
Carbon Tetrachloride	ND	ug/L	5	02/12/96	EPA 624	AM	56-23-5	
Benzene	ND	ug/L	5	02/12/96	EPA 624	AM	71-43-2	
1,2-Dichloropropane	ND	ug/L	6	02/12/96	EPA 624	AM	78-87-5	
Trichloroethene	ND	ug/L	5	02/12/96	EPA 624	AM	79-01-6	
Bromodichloromethane	ND	ug/L	5	02/12/96	EPA 624	AM	75-27-4	
2-Chloroethyl Vinyl Ether	ND	ug/L	5	02/12/96	EPA 624	AM	110-75-8	
trans-1,3-Dichloropropene	ND	ug/L	5	02/12/96	EPA 624	AM	10061-02-6	
Toluene	ND	ug/L	6	02/12/96	EPA 624	AM	108-88-3	
cis-1,3-Dichloropropene	ND	ug/L	5	02/12/96	EPA 624	AM	10061-01-5	
1,1,2-Trichloroethane	ND	ug/L	5	02/12/96	EPA 624	AM	79-00-5	
Dibromochloromethane	ND	ug/L	5	02/12/96	EPA 624	AM	124-48-1	
Tetrachloroethene	ND	ug/L	5	02/12/96	EPA 624	AM	127-18-4	
Chlorobenzene	ND	ug/L	6	02/12/96	EPA 624	AM	108-90-7	
Ethylbenzene	ND	ug/L	7.2	02/12/96	EPA 624	AM	100-41-4	
Bromoform	ND	ug/L	5	02/12/96	EPA 624	AM	75-25-2	
1,1,2,2-Tetrachloroethane	ND	ug/L	6.9	02/12/96	EPA 624	AM	79-34-5	
1,3-Dichlorobenzene	ND	ug/L	5	02/12/96	EPA 624	AM	541-73-1	
1,2-Dichlorobenzene	ND	ug/L	5	02/12/96	EPA 624	AM	95-50-1	
1,4-Dichlorobenzene	ND	ug/L	5	02/12/96	EPA 624	AM	106-46-7	
1,2-Dichloroethane-d4 (S)	111	%		02/12/96	EPA 624	AM	17060-07-0	
Toluene-d8 (S)	105	%		02/12/96	EPA 624	AM	2037-26-5	
4-Bromofluorobenzene (S)	104	%		02/12/96	EPA 624	AM	460-00-4	

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PAGE: 11

PACE Project Number: 705007
Client Project ID: WPC - Alameda

PARAMETER FOOTNOTES

D Not Detected
C Not Calculable
PRL PACE Reporting Limit
(S) Surrogate
[1] Surrogate result is outside of QC limits
[2] Confirmed by second analysis.
[3] Hydrocarbons present do not match profile of laboratory standard.
[4] Extraction conducted in excess of EPA recommended holding time.

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QUALITY CONTROL DATA

DATE: 02/21/96
PAGE: 12

West & Associates
490 Merchant St. Ste.104
Vacaville, CA 95688

PACE Project Number: 705007
Client Project ID: WPC - Alameda

Attn: Mr. Brian West
Phone: (707)451-1360

QC Batch ID: 12202 QC Batch Method: EPA 624 Date of Batch: 02/09/96
Associated PACE Samples: 70507694 70507702 70507728 70507736 70507744
 70507751 70507769

METHOD BLANK: 70508874
Associated PACE Samples:

Parameter	70507694	70507702 Method Blank Result	70507728 PRL	70507736	70507744	70507751	70507769	Footnotes
Chloromethane	ug/L	ND	5					
Vinyl Chloride	ug/L	ND	5					
Bromomethane	ug/L	ND	5					
Chloroethane	ug/L	ND	5					
1,1-Dichloroethene	ug/L	ND	5					
Methylene Chloride	ug/L	ND	5					
Trichlorofluoromethane	ug/L	ND	5					
trans-1,2-Dichloroethene	ug/L	ND	5					
1,1-Dichloroethane	ug/L	ND	5					
Chloroform	ug/L	ND	5					
1,1,1-Trichloroethane	ug/L	ND	5					
1,2-Dichloroethane	ug/L	ND	5					
Carbon Tetrachloride	ug/L	ND	5					
Benzene	ug/L	ND	5					
1,2-Dichloropropane	ug/L	ND	6					
Trichloroethene	ug/L	ND	5					
Bromodichloromethane	ug/L	ND	5					
2-Chloroethyl Vinyl Ether	ug/L	ND	5					
trans-1,3-Dichloropropene	ug/L	ND	5					
Toluene	ug/L	ND	6					
cis-1,3-Dichloropropene	ug/L	ND	5					
1,1,2-Trichloroethane	ug/L	ND	5					
Dibromochloromethane	ug/L	ND	5					
Tetrachloroethene	ug/L	ND	5					
Chlorobenzene	ug/L	ND	6					



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QUALITY CONTROL DATA

DATE: 02/21/96
PAGE: 13

PACE Project Number: 705007
Client Project ID: WPC - Alameda

METHOD BLANK: 70508874
Associated PACE Samples:

Parameter	Units	70507694	70507702	70507728	70507736	70507744	70507751	70507769
			Method Blank Result	PRL	Footnotes			
Ethylbenzene	ug/L		ND	7.2				
Bromoform	ug/L		ND	5				
1,1,2,2-Tetrachloroethane	ug/L		ND	6.9				
1,3-Dichlorobenzene	ug/L		ND	5				
1,2-Dichlorobenzene	ug/L		ND	5				
1,4-Dichlorobenzene	ug/L		ND	5				
1,2-Dichloroethane-d4 (S)	%		103					
Toluene-d8 (S)	%		104					
4-Bromofluorobenzene (S)	%		104					

MATRIX SPIKE: 70508882

Parameter	Units	70504097	Spike Conc.	Matrix	Spike % Rec	Footnotes
				Spike Result		
Chloromethane	ug/L	ND	20	27	137	
Vinyl Chloride	ug/L	ND	20	24	122	
Bromomethane	ug/L	ND	20	26	130	
Chloroethane	ug/L	ND	20	24	120	
1,1-Dichloroethene	ug/L	ND	20	22	111	
Methylene Chloride	ug/L	ND	20	22	109	
Trichlorofluoromethane	ug/L	ND	20	24	119	
trans-1,2-Dichloroethene	ug/L	ND	20	21	107	
1,1-Dichloroethane	ug/L	ND	20	22	110	
Chloroform	ug/L	28	20	51	113	
1,1,1-Trichloroethane	ug/L	ND	20	21	107	
1,2-Dichloroethane	ug/L	ND	20	22	111	
Carbon Tetrachloride	ug/L	ND	20	21	107	
Benzene	ug/L	ND	20	22	112	
1,2-Dichloropropane	ug/L	ND	20	22	109	
Trichloroethene	ug/L	ND	20	21	106	
Bromodichloromethane	ug/L	ND	20	24	108	
2-Chloroethyl Vinyl Ether	ug/L	ND	20	ND	0	
trans-1,3-Dichloropropene	ug/L	ND	20	22	109	
Toluene	ug/L	ND	20	23	113	
cis-1,3-Dichloropropene	ug/L	ND	20	22	108	

$$\frac{51-28}{20} = \frac{23 \times 5}{20} = 115$$

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QUALITY CONTROL DATA

DATE: 02/21/96
 PAGE: 14

PACE Project Number: 705007
 Client Project ID: WPC - Alameda

MATRIX SPIKE: 70508882

Parameter	Units	70504097	Spike Conc.	Matrix Spike Result	Spike % Rec	Footnotes
1,1,2-Trichloroethane	ug/L	ND	20	22	111	
Dibromochloromethane	ug/L	ND	20	21	106	
Tetrachloroethene	ug/L	ND	20	21	106	
Chlorobenzene	ug/L	ND	20	21	106	
Ethylbenzene	ug/L	ND	20	22	108	
Bromoform	ug/L	ND	20	20	101	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	22	108	
1,3-Dichlorobenzene	ug/L	ND	20	19	93	
1,2-Dichlorobenzene	ug/L	ND	20	18	93	
1,4-Dichlorobenzene	ug/L	ND	20	18	93	
1,2-Dichloroethane-d4 (S)					107	
Toluene-d8 (S)					104	
4-Bromofluorobenzene (S)					102	

LABORATORY CONTROL SAMPLE: 70508890

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Chloromethane	ug/L	20	21	107	
Vinyl Chloride	ug/L	20	22	113	
Bromomethane	ug/L	20	26	130	
Chloroethane	ug/L	20	23	114	
1,1-Dichloroethene	ug/L	20	21	106	
Methylene Chloride	ug/L	20	21	103	
Trichlorofluoromethane	ug/L	20	22	111	
trans-1,2-Dichloroethene	ug/L	20	20	102	
1,1-Dichloroethane	ug/L	20	21	105	
Chloroform	ug/L	20	21	104	
1,1,1-Trichloroethane	ug/L	20	20	102	
1,2-Dichloroethane	ug/L	20	21	105	
Carbon Tetrachloride	ug/L	20	20	101	
Benzene	ug/L	20	21	106	
1,2-Dichloropropane	ug/L	20	21	104	
Trichloroethene	ug/L	20	21	104	
Bromodichloromethane	ug/L	20	20	102	
2-Chloroethyl Vinyl Ether	ug/L	20	28	142	
trans-1,3-Dichloropropene	ug/L	20	21	105	
Toluene	ug/L	20	21	105	
cis-1,3-Dichloropropene	ug/L	20	21	103	
1,1,2-Trichloroethane	ug/L	20	21	104	

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QUALITY CONTROL DATA

DATE: 02/21/96
PAGE: 15

PACE Project Number: 705007
Client Project ID: WPC - Alameda

LABORATORY CONTROL SAMPLE: 70508890

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Dibromochloromethane	ug/L	20	20	98	
Tetrachloroethene	ug/L	20	20	101	
Chlorobenzene	ug/L	20	21	104	
Ethylbenzene	ug/L	20	20	102	
Bromoform	ug/L	20	18	92	
1,1,2,2-Tetrachloroethane	ug/L	20	20	100	
1,3-Dichlorobenzene	ug/L	20	20	98	
1,2-Dichlorobenzene	ug/L	20	20	99	
1,4-Dichlorobenzene	ug/L	20	20	99	
1,2-Dichloroethane-d4 (S)				101	
Toluene-d8 (S)				102	
4-Bromofluorobenzene (S)				102	



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QUALITY CONTROL DATA

DATE: 02/21/96
 PAGE: 16

West & Associates
 490 Merchant St. Ste.104
 Vacaville, CA 95688

PACE Project Number: 705007
 Client Project ID: WPC - Alameda

Attn: Mr. Brian West
 Phone: (707)451-1360

QC Batch ID: 12248 QC Batch Method: CA LUFT Date of Batch: 02/12/96
 Associated PACE Samples: 70507694 70507702 70507728 70507736 70507744
 70507751

METHOD BLANK: 70510490
 Associated PACE Samples:

	70507694	70507702	70507728	70507736	70507744
		Method Blank Result	PRL	Footnotes	
Parameter	Units				
Gasoline	ug/L	ND	50		
Benzene	ug/L	ND	0.5		
Toluene	ug/L	ND	0.5		
Ethylbenzene	ug/L	ND	0.5		
Xylene (Total)	ug/L	ND	1		
Methyl-tert-butyl Ether	ug/L	ND	5		
a,a,a-Trifluorotoluene (S)	%	100			
4-Bromofluorobenzene (S)	%	100			

METHOD BLANK: 70512710
 Associated PACE Samples:

	70507751	Method Blank Result	PRL	Footnotes	
Parameter	Units				
Gasoline	ug/L	ND	50		
Benzene	ug/L	ND	0.5		
Toluene	ug/L	ND	0.5		
Ethylbenzene	ug/L	ND	0.5		
Xylene (Total)	ug/L	ND	1		
Methyl-tert-butyl Ether	ug/L	ND	5		
a,a,a-Trifluorotoluene (S)	%	103			
4-Bromofluorobenzene (S)	%	98			

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QUALITY CONTROL DATA

DATE: 02/21/96
PAGE: 17

PACE Project Number: 705007
Client Project ID: WPC - Alameda

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 70511704 70511712									
Parameter	Units	70505094	Spike Conc.	Matrix Spike Result	Spike % Rec	Matrix Sp. Dup. Result	Spike Dup % Rec	RPD	Footnotes
Gasoline	ug/L	ND	1000	970	97	1100	107	10	

LABORATORY CONTROL SAMPLE & LCSD: 70511720 70511738									
Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	LCSD Result	Spike Dup % Rec	RPD	Footnotes	
Gasoline	ug/L	1000	1100	108	1100	111	3		

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QUALITY CONTROL DATA

DATE: 02/21/96
PAGE: 18

West & Associates
490 Merchant St. Ste.104
Vacaville, CA 95688

PACE Project Number: 705007
Client Project ID: WPC - Alameda

Attn: Mr. Brian West
Phone: (707)451-1360

QC Batch ID: 12356
Associated PACE Samples: 70507751

QC Batch Method: EPA 625 CLLE

Date of Batch: 02/15/96

METHOD BLANK: 70514377
Associated PACE Samples:

70507751

Parameter	Units	Method Blank Result	PRL	Footnotes
Naphthalene	ug/L	ND	5	
Nitrobenzene-d5 (S)	%	88		
2-Fluorobiphenyl (S)	%	81		
Terphenyl-d14 (S)	%	63		

LABORATORY CONTROL SAMPLE: 70514385

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Naphthalene	ug/L	100	84	85	
Nitrobenzene-d5 (S)				82	
2-Fluorobiphenyl (S)				85	
Terphenyl-d14 (S)				86	

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QUALITY CONTROL DATA

DATE: 02/21/96
 PAGE: 19

West & Associates
 490 Merchant St. Ste.104
 Vacaville, CA 95688

PACE Project Number: 705007
 Client Project ID: WPC - Alameda

Attn: Mr. Brian West
 Phone: (707)451-1360

QC Batch ID: 12371
 Associated PACE Samples: 70507769

QC Batch Method: CA LUFT

Date of Batch: 02/15/96

METHOD BLANK: 70514963
 Associated PACE Samples:

70507769

Parameter	Units	Method Blank Result	PRL	Footnotes
Gasoline	ug/L	ND	50	
Benzene	ug/L	ND	0.5	
Toluene	ug/L	ND	0.5	
Ethylbenzene	ug/L	ND	0.5	
Xylene (Total)	ug/L	ND	1	
Methyl-tert-butyl Ether	ug/L	ND	5	
a,a,a-Trifluorotoluene (S)	%	87		
4-Bromofluorobenzene (S)	%	97		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 70514997 70515002

Parameter	Units	70507769	Spike Conc.	Matrix Spike Result	Spike % Rec	Matrix Sp. Dup. Result	Spike Dup % Rec	RPD	Footnotes
Benzene	ug/L	3	100	120	117	110	111	5	
Toluene	ug/L	2.4	100	120	116	110	111	4	
Ethylbenzene	ug/L	1.6	100	110	112	110	108	4	
Xylene (Total)	ug/L	1	300	340	114	330	111	3	
a,a,a-Trifluorotoluene (S)					98		98		
4-Bromofluorobenzene (S)					108		108		

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QUALITY CONTROL DATA

DATE: 02/21/96
PAGE: 20

PACE Project Number: 705007
Client Project ID: WPC - Alameda

LABORATORY CONTROL SAMPLE: 70514971

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	Footnotes
Benzene	ug/L	100	120	118	
Toluene	ug/L	100	110	114	
Ethylbenzene	ug/L	100	110	109	
Xylene (Total)	ug/L	300	330	111	
a,a,a-Trifluorotoluene (S)				102	
4-Bromofluorobenzene (S)				104	

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QUALITY CONTROL DATA

DATE: 02/21/96
PAGE: 21

West & Associates
490 Merchant St. Ste.104
Vacaville, CA 95688

PACE Project Number: 705007
Client Project ID: WPC - Alameda

Attn: Mr. Brian West
Phone: (707)451-1360

QC Batch ID: 12386
Associated PACE Samples: 70507710

QC Batch Method: EPA 3520

Date of Batch: 02/15/96

METHOD BLANK: 70515218
Associated PACE Samples:

70507710

Parameter	Units	Method Blank Result	PRL	Footnotes
Diesel Fuel	mg/L	ND	0.05	
n-Pentacosane (S)	%	100		

LABORATORY CONTROL SAMPLE & LCSD: 70515226

70515234

Parameter	Units	Spike Conc.	LCS Result	Spike % Rec	LCSD Result	Spike Dup % Rec	RPD	Footnotes
Diesel Fuel	mg/L	1	0.58	58	1	100	53	1,2
n-Pentacosane (S)				92		98		

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PAGE: 22

PACE Project Number: 705007
Client Project ID: WPC - Alameda

QUALITY CONTROL DATA PARAMETER FOOTNOTES

The Quality Control Sample Final Results listed above have been rounded to reflect an appropriate number of significant figures. Consistent with EPA guidelines unrounded concentrations have been used to calculate % Rec and RPD values.

ND Not Detected
NC Not Calculable
PRL PACE Reporting Limit
RPD Relative Percent Difference
{S} Surrogate
[1] Spiked sample recovery is not within control limits.
[2] Confirmed by second analysis.

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