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2087 APR 18 1989

CHEM HILL TRANSMITTAL

TO California Regional Water Quality Control Board
1111 Jackson St., Room 6000
Oakland, CA 94607

FROM Jeff Hegre
6425 Christie Ave.,
Ste 500
Emeryville, CA 94608

ATTN RE Longview Fibre, Oakland

DATE 04-10-89
PROJECT NUMBER SFD24103, C1

WE ARE SENDING YOU

8511

- ATTACHED UNDER SEPARATE COVER VIA
- SHOP DRAWINGS DOCUMENTS TRACINGS
- PRINTS SPECIFICATIONS CATALOGS
- COPY OF LETTER

| QUANTITY | DESCRIPTION |
|----------|---|
| 1 | Letter re: Groundwater Monitoring at the Oakland, California Facility |
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IF MATERIAL RECEIVED IS NOT AS LISTED, PLEASE NOTIFY US AT ONCE

REMARKS For your information.

COPY TO



Engineers
Planners
Economists
Scientists

April 6, 1989

SFO24103.C1

Mr. David N. Mendenhall
Water Quality Engineer
Longview Fibre Company
P.O. Box 639
Longview, Washington 98632

Dear David:

Subject: Groundwater Monitoring at the
Oakland, California Facility

The following table summarizes the results of the continuing groundwater monitoring program at Longview Fibre Company's Oakland, California facility. The monitoring well is located at the former site of the four underground diesel storage tanks that were removed in January of 1988.

Mr. David N. Mendenhall
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| <u>Parameter (Analytical Method)</u> | <u>Concentration 05-09-88 ug/l</u> | <u>Concentration 01-13-89 ug/l</u> |
|--|--|--|
| Volatile Aromatics (EPA Method 602) | | |
| Benzene | <1.0 | <1.0 |
| Toluene | <1.0 | <1.0 |
| Ethyl benzene | <1.0 | <1.0 |
| Xylene | <1.0 | <1.0 |
| Chlorobenzene | <1.0 | <1.0 |
| 1,4-Dichlorobenzene | <1.0 | <1.0 |
| 1,3-Dichlorobenzene | <1.0 | <1.0 |
| 1,2-Dichlorobenzene | <1.0 | <1.0 |
| Tertbutylmethylether | NA | <1.0 |
| Total Petroleum Hydrocarbons-Diesel | NA | <50 |
| Free Fuel Product Thickness On Water Table | None Visible | None Visible |

ug/l = Micrograms Per Liter.
NA = Not Analyzed.

Note: A "<" sign indicates that the compound was not detected in the sample. The numbers shown correspond to the method detection limit.

Attached for your information is a detailed description of the field procedures for the January sampling, as well as copies of the laboratory reports and chain-of-custody form. A complete copy of this report has been sent directly to Worth Cornelius in Oakland and to the Regional Water Quality Control Board and the Alameda County Environmental Health Department.

Mr. David N. Mendenhall
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Should you have any questions regarding this report, please
contact either Jack Payne at 503/224-9190 or me at 415/652-2426.

Sincerely,


Jeff Heglie, Hydrogeologist
Project Manager

SFR174/043

Enclosure

cc: Worth Cornelius, Longview Fibre Co., Oakland Facility

Jack Payne, CH2M HILL/PDX

California Regional Water Quality Control Board, San
Francisco Bay Region

Ariu Levi, Alameda County Division of Hazardous
Materials, Environmental Health Department

Attachment
SAMPLING AND ANALYSIS PROCEDURES

INTRODUCTION

Following the removal of four underground fuel storage tanks from the Longview Fibre Company's Oakland facility, CH2M HILL recommended that a monitoring well be installed and soil and water samples be collected and analyzed in accordance with guidelines issued by the California Regional Water Quality Control Board (RWQCB). A description of the field activities and a discussion of the results of the soil sampling and initial groundwater investigation are presented in CH2M HILL's July 1988 report "Monitoring Well Installation and Sampling, Longview Fibre Company, Oakland, California Facility." CH2M HILL's February 1988 report entitled "Report on the Removal of Underground Storage Tanks and Sump Closure, Longview Fibre Company, Oakland, California Facility" contains details of the underground storage tank removal and associated soil sampling.

BACKGROUND

Following removal of four underground diesel storage tanks from a portion of Longview Fibre's Oakland facility, CH2M HILL developed a remedial action plan and submitted it to the Alameda County Department of Environmental Health. The plan called for the installation of a down-gradient monitoring well and the collection and analysis of groundwater samples for volatile organic aromatics (EPA Method 602) and soil samples for total petroleum hydrocarbons-diesel (TPH-Diesel) (CH2M HILL, 1988).

The subsequent May 1988 site investigation included the following field activities: installation and development of one shallow monitoring well, collection and analysis of one soil sample from the borehole during monitoring well construction and one sample of the drill cuttings, measurement of fuel product thickness in the well, and the collection and analysis of one groundwater sample after purging the well.

Results of the initial soil and groundwater analyses of May 1988 indicated that there were no detectable concentrations of volatile aromatic hydrocarbons in the groundwater in the immediate vicinity of the former diesel storage tanks, and less than 10 ppm of diesel fuel hydrocarbons in the soils. Quarterly groundwater sampling and analysis for volatile organic aromatics (EPA Method 602) and diesel (TPH-Diesel) was recommended to confirm the initial results.

FIELD METHODS

The quarterly monitoring program consists of measuring the fuel product thickness in the well, if any, and collecting and analyzing one groundwater sample after purging the well. The methods that have been followed are described in the following paragraphs.

EQUIPMENT DECONTAMINATION AND WASTE STORAGE

Prior to sampling, the teflon bailer and associated teflon spigot were washed with a detergent and water solution, rinsed in tap water, spray-rinsed with isopropanol, and rinsed with distilled water. The clear bailer and steel tape (for groundwater measurements), and the bailer and suction hose (for well development) were washed with the detergent and water solution and rinsed in tap water.

All groundwater produced during sampling was stored next to the well in barrels with lids secured by bolt rings.

SAMPLE PRESERVATION AND CHAIN-OF-CUSTODY PROCEDURES

Once filled, sample containers were labelled, sealed in a zip lock plastic bags, secured with custody seals, and placed in an ice-filled cooler. Chain-of-custody forms were generated for each shipment of samples, enclosed in zip lock plastic bags, and packed inside the cooler with the samples. A copy of the most recent chain-of-custody form is attached to this letter. Custody seals were affixed to the front and rear of the cooler's lid before shipment to the laboratory via an express courier service.

GROUNDWATER SAMPLING

Before collecting the groundwater sample on January 13, 1989, measurements were made of the water level and petroleum product thickness in the monitoring well. The water level was measured with a chalked steel tape graduated to 0.01 inches, and the product thickness was measured using a clear acrylic bailer.

Standing water was purged from the well by using a hand-powered suction pump and a plastic hose. Approximately 16 gallons (equal to about six casing volumes) were removed from the well. After purging the well, a water sample was collected with a teflon bailer for analysis for volatile organic aromatics (EPA Method 602) and total petroleum hydrocarbons-diesel (TPH-Diesel). Before filling the sample bottles, the initial three bailers full of water removed from the well were discarded in order to further rinse the teflon bailer. Three 40 milliliter VOA sample bottles and one 2.5-liter bottle were filled from the subsequent bailer

fulls of water. The VOA bottles were carefully filled to prevent any air bubbles from remaining in the container after sealing. All discarded groundwater was poured into the barrels containing well development water.

The water sample was analyzed for volatile organic compounds (EPA Method 602) and total petroleum hydrocarbons-diesel (TPH-Diesel) in accordance with and guidelines issued by the RWQCB (RWQCB, 1985). Analytical services for the water samples were provided by the CH2M HILL laboratory in Redding, California. Copies of the laboratory reports for the most recent sampling are attached to this letter.

REFERENCES

California Regional Water Quality Control Board (RWQCB), San Francisco Bay Region, 1985. Guidelines for Addressing Fuel Leaks, September.

CH2M HILL, 1988. Report on the Removal of Underground Storage Tanks and Sump Closure, Longview Fibre Company, Oakland, California Facility. Unpublished report prepared for Longview Fibre, February.

CH2M HILL, 1988. Monitoring Well Installation and Sampling, Longview Fibre Company, Oakland, California Facility. Unpublished report prepared for Longview Fibre, July.



CH2M HILL ENVIRONMENTAL LABORATORY
2218 RAILROAD AVENUE
REDDING, CA 96001 916-243-5831

REPORT TO: LONGVIEW FIBRE-MONITORING
CH2M HILL/SFO
SFO24103.C1
ATTENTION: JR HEGLIE/SFO
SAMPLE DESCRIPTION: WATER=LVF
DATE OF SAMPLE: 1-13-89

REFERENCE NUMBER: 22091
PAGE 1 OF 1
DATE: 1-23-89
PHONE:
SAMPLED BY: JR HEGLIE
DATE RECEIVED: 1-16-89
DATE ANALYZED: 1-18-89

TEST METHODS: EPA-602-8020
EXTRACTION METHOD: EPA 5030

| CONSTITUENT | METHOD | | DETECT |
|----------------------|----------|-------|--------|
| | GW-GW-02 | BLANK | LIMIT |
| Benzene | <1 | <1 | 1 |
| Toluene | <1 | <1 | 1 |
| Ethyl benzene | <1 | <1 | 1 |
| Xylene | <1 | <1 | 1 |
| Chlorobenzene | <1 | <1 | 1 |
| 1,4-Dichlorobenzene | <1 | <1 | 1 |
| 1,3-Dichlorobenzene | <1 | <1 | 1 |
| 1,2-Dichlorobenzene | <1 | <1 | 1 |
| tertbutylmethylether | <1 | <1 | 1 |

COMMENTS: Results are in micrograms per liter.

The information shown on this sheet is test data only and no interpretation is intended or implied.

ANALYST:

APPROVED:



CH2M HILL ENVIRONMENTAL LABORATORY
2218 RAILROAD AVENUE
REDDING, CA 96001 916-243-5831

REPORT TO: LONGVIEW FIBRE-MONITORING
CH2M HILL/SFO
SFO24103.C1
ATTENTION: JR. HEGLIE/SFO
SAMPLE DESCRIPTION: WATER-LVF
DATE OF SAMPLE: 1-13-89

REFERENCE NUMBER: 22091
PAGE 1A OF 1
DATE: 2-27-89
PHONE:
SAMPLED BY: JR HEGLIE
DATE RECEIVED: 1-16-89

| TEST | GW-GW- 02 | UNITS | DETECTION LIMIT | DATE ANALYZED | METHOD NUMBER |
|-----------------------------------|--------------|-------|--------------------|------------------|------------------|
| TOTAL FUEL HYDROCARBONS DIESEL | <50 | ug/l | 50 | 2-21-89 | CA LUFT |

COMMENTS: ug/l = micrograms per liter

The information shown on this sheet is test data only and
no analysis or interpretation is intended or implied.

APPROVED BY: Bennett J. Tyson

CHAIN OF CUSTODY RECORD

| | | | | | | | | | | | | | |
|--|------------------|---|------|--|--------------------|-----------|----------------|--|-------------------------------------|----------------------------------|-----------|---|--|
| PROJECT NUMBER SFO 24103.C1 | | PROJECT NAME Longview Fibre-Monitoring | | | ANALYSES REQUESTED | | | | | | | FOR LAB USE ONLY | |
| CLIENT NAME Longview Fibre Company | | REPORT TO: JR Henlie/SFO | | | COPY TO: JRH/SFO | | | NUMBER OF CONTAINERS Vials (EPA 602) for B,T,X,E 40ml TFFH-Diesel 2.5L | | LAB # _____ | | PROJ # _____ | |
| REQUESTED COMPLETION DATE 012389 | | LABORATORY BDD | | | ACK _____ | | VERIFIED _____ | | | DATE INVOICED _____ | | NO. OF SAMPLES _____ pg _____ of _____ | |
| STA NO | DATE | TIME | COMP | GRAB | SAMPLE DESCRIPTION | | | | | | | | DISPOSITION: D R _____ DATE _____ |
| GW 0113 | 12:24 | | | | LVF-GW-GW-02 Water | 3 | X | X | | | | | REMARKS BTXE = Benzene, toluene, xylene, ethylbenzene |
| GW 0113 | 12:24 | | | | | | | | | | | | |
| SAMPLED BY AND TITLE (SIGNATURE) 1 <i>JR Henlie</i> | | DATE/TIME 011589 12:24 | | RELINQUISHED BY (SIGNATURE) 2 _____ | | | DATE/TIME | | RECEIVED BY: (SIGNATURE) 3 _____ | | DATE/TIME | | |
| RELINQUISHED BY: (SIGNATURE) 4 _____ | | DATE/TIME | | RECEIVED BY: (SIGNATURE) 5 _____ | | DATE/TIME | | RELINQUISHED BY: (SIGNATURE) 6 _____ | | DATE/TIME | | RECEIVED BY LAB: (SIGNATURE) 7 _____ | |
| REMARKS _____ | | | | SAMPLING PROGRAM SDWA <input type="checkbox"/> NPDES <input type="checkbox"/> RCRA <input type="checkbox"/> OTHER _____ (SPECIFY) | | | | SAMPLE SHIPPED VIA <input type="checkbox"/> UPS <input checked="" type="checkbox"/> BUS <input type="checkbox"/> FED-EX <input type="checkbox"/> HAND OTHER _____ | | AIR BUS BILL NUMBER 654 465 4 | | | |