

October 24, 1994
SCI 469.010

Mr. Robert Mibach
Peralta Community College District
333 East 8th Street
Oakland, California 94606

Hoist Removal Report
College of Alameda
Building B
555 Atlantic Avenue
Alameda, California

Dear Mr. Mibach:

This letter summarizes services provided by Subsurface Consultants, Inc. (SCI) during removal of three underground hydraulic hoists from the referenced site. Our services consisted of 1) observing the condition of the hoists upon removal, and 2) obtaining samples of soil and groundwater, if possible. The location of the site and hoists are shown on the Site Plan, Plate 1, and Study Area Plan, Plate 2.

Observation of Hoist Removal

The hoists were removed on August 23 and 24, 1994, by Ferris Hoist and Repair, Inc. (Ferris) a contractor retained by the Peralta Community College District. SCI was on-site intermittently during hoist removal activities to observe the physical condition of the cylinders and vaults.

Each hoist was comprised of a front and rear section, situated in a T-shaped configuration, as shown on plate 2. The front sections consisted of a hydraulic cylinder and an oil reserve tank contained in a structurally supported concrete vault. Each front cylinder measured approximately 7 feet 9 inches in length and 11 inches in diameter. The rear sections consisted of a hydraulic cylinder that was in contact with the surrounding soil. Each rear cylinder measured approximately 7 feet in length and 8 inches in diameter. A description of the conditions exposed during hoist removal are presented below.

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A. Hoist 1

Several inches of water with an oily sheen was observed in the concrete vault for the front cylinder. The water and system oil were removed from the front and rear cylinders, oil reserve tank and concrete vault, and transported by Evergreen Environmental Services to their TSD facility for recycling.

Upon removal, no visible holes or leaks were observed in the front cylinder or oil reserve tank. However, during removal of the rear cylinder, oil and water was observed streaming out of several corrosion holes. The holes measured approximately ¼ to ½ inch in diameter. Ferris personnel indicated that the rear cylinder had likely been replaced at least once, since it was not the same model as the other front cylinders and the rear cylinder of Hoist 2.

B. Hoist 2

Approximately 2.75 feet of oil was observed in the concrete vault for the front cylinder. The oil was removed from the front and rear cylinders, oil reserve tank and vault, and transported by Evergreen environmental Services to their TSD facility for recycling.

Upon removal of the front cylinder, a small leak was observed in the bottom seam. No visible holes or leaks were observed in the rear cylinder or oil reserve tank. The rear cylinder was wrapped for corrosion protection. The front and rear cylinders were the same model as the other front cylinders.

C. Hoist 3

No oil or other liquid was observed in the concrete vault housing the front cylinder. The system oil was handled as described for the other hoists. No leaks or holes were observed in either cylinder, or oil reserve tank. The rear cylinder was coated with an epoxy type resin for corrosion protection. Ferris personnel indicated that it appeared that the rear cylinder may have been replaced at least once, since it was a different model from the other front cylinders and the rear cylinder of Hoist 2.

D. Concrete Vault Cleaning and Backfilling

After removal of the front cylinders, oil reserve tanks, and the oily liquids, the vaults were steam-cleaned. The steam cleaning wastewater was handled as described for the hoists. After steam-cleaning, the vaults were still stained with oil. The concrete surfaces were corroded, however, no visible cracks (i.e., those larger than about 1/16 inch) were observed.

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Mr. Ray Razanno of Razanno & Associates, a structural engineering consultant, was retained by the District to observe backfilling of the vaults and sealing of the floor slab openings.

Sampling

The rear cylinders were surrounded by sand backfill. Upon removal of the cylinders, the holes immediately filled with sand, precluding sampling of the native soil below the cylinders without a drill rig. However, groundwater samples were obtained from two of the former hoist locations, Hoist 1 and 3, by pushing a 2" diameter slotted PVC casing into the sand backfill. A disposable bailer was used to extract samples from the PVC pipe. The water samples were placed in pre-cleaned glass sample bottles. We were not able to push the PVC casing in the area of Hoist 2, because of concrete debris within the sand backfill.

A sample of hydraulic oil from within one of the hoist systems was obtained for analysis to develop a standard by which to compare analytical results. The oil and water samples were placed in an ice filled cooler and remained refrigerated until delivery to the analytical laboratory.

Analytical Testing

The water and oil samples were transmitted to Curtis & Tompkins, Ltd., a laboratory certified by the State of California Department of Health Services. Chain-of-Custody documents accompanied the samples to the laboratory. The water samples were analyzed for Total Extractable Hydrocarbons (TEH, EPA method 3550/8015 modified). The results were quantified using the system oil standard.

The analytical data indicates that water in the areas of Hoists 1 and 3 contain elevated concentrations of TEH. The laboratory indicated that the sample chromatograms strongly resemble the system oil sample. Analytical test results are presented in Table 1. Analytical test reports and Chain-of-Custody records are attached.

Conclusions

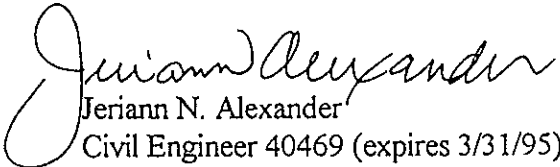
Based on our observations it is apparent that groundwater has been impacted by releases from at least two of the cylinders. The extent of contamination is unknown. However, it is likely that the oil range contamination detected by the groundwater monitoring program for the former tank area situated adjacent to the west of Building B is associated with these releases. We judge that the regulatory agencies will likely require monitoring well(s) to determine the lateral extent of groundwater contamination. We recommend that this report be transmitted to the Alameda County Health Care Services Agency.


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If you have any questions, please call.

Yours very truly,

Subsurface Consultants, Inc.


Jeriann N. Alexander
Civil Engineer 40469 (expires 3/31/95)


R. William Rudolph
Geotechnical Engineer 741 (expires 12/31/96)

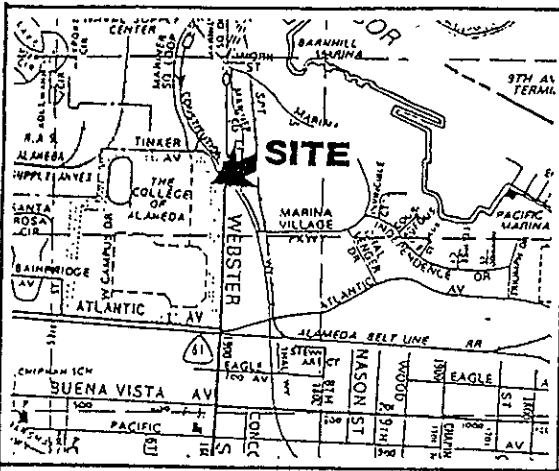
MW:JNA:RWR:clh

Attachments: Plate 1 - Site Plan
Plate 2 - Study Area Plan
Table 1 - Petroleum Hydrocarbon Concentrations in Groundwater
Analytical Test Report

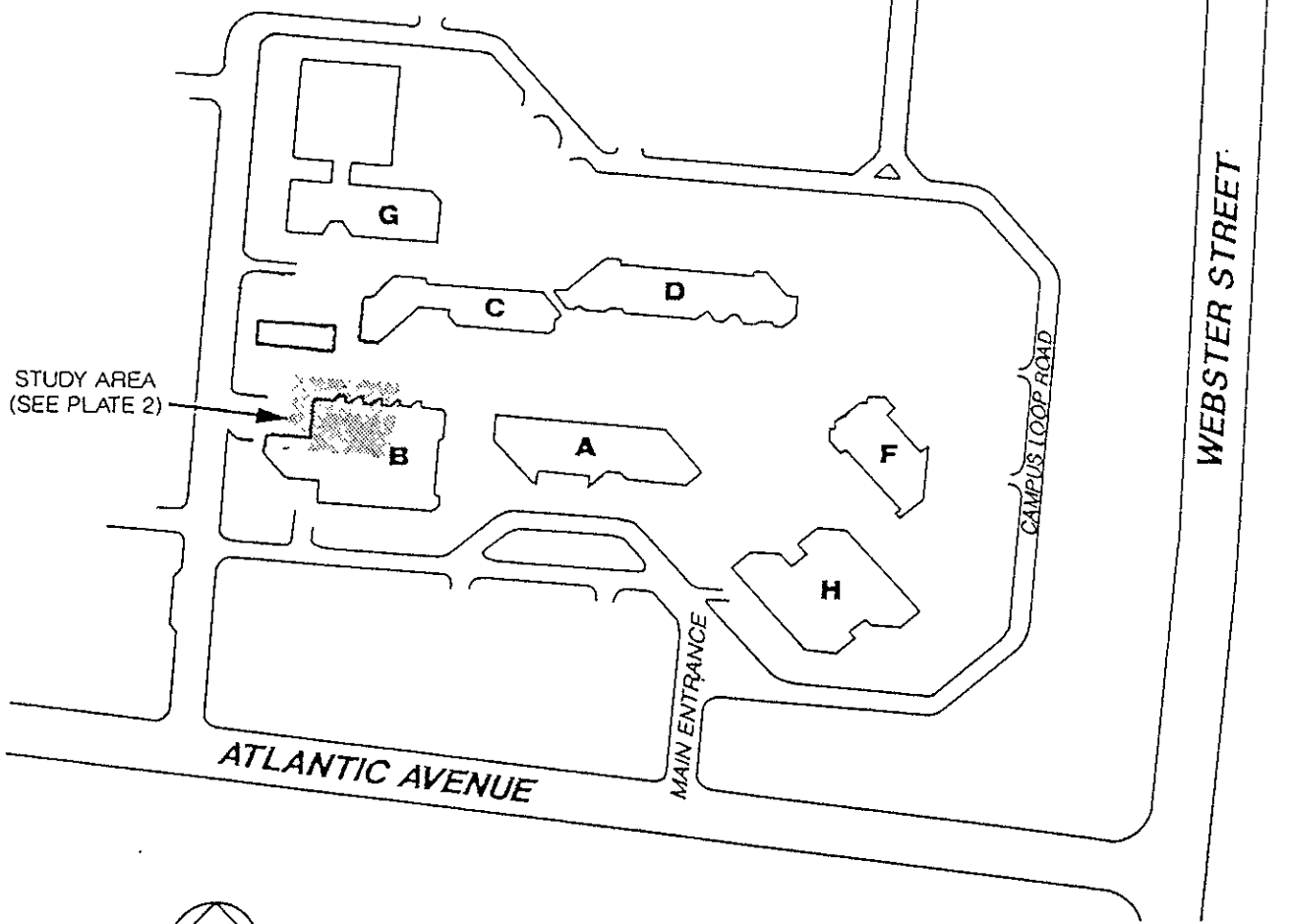
Table 1
PETROLEUM HYDROCARBON CONCENTRATION IN GROUNDWATER

| | <u>TEH</u> <u>(mg/l)</u> |
|---------|-----------------------------|
| Hoist 1 | 1,700 |
| Hoist 3 | 400 |

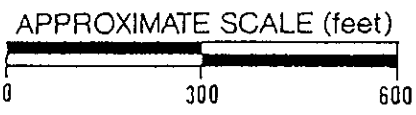
TEH = Total extractable hydrocarbons, quantified using the hydraulic oil standard provided .



VICINITY MAP



STUDY AREA (SEE PLATE 2)



SITE PLAN

COLLEGE OF ALAMEDA - ALAMEDA, CA

PLATE

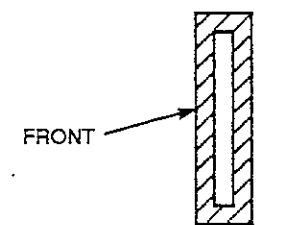
Subsurface Consultants

JOB NUMBER
469.010

DATE
9/21/94

APPROVED
UW

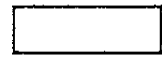
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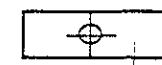
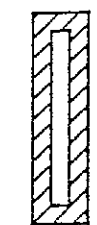
FRONT

REAR



HOIST 1

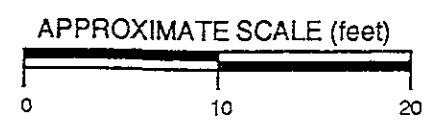


HOIST 2



HOIST 3

| | |
|---|---------------------------------------|
|  | CONCRETE VAULT |
|  | LOCATION OF "GRAB" GROUNDWATER SAMPLE |



STUDY AREA PLAN

| | | | |
|------------------------|---------------------------------|-----------------|-------------------|
| Subsurface Consultants | COLLEGE OF ALAMEDA - ALAMEDA CA | | PLATE 2 |
| | JOB NUMBER 469 010 | DATE 9/21 94 | |



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

2323 Fifth Street, Berkeley, CA 94710. Phone (510) 486-0900

A N A L Y T I C A L R E P O R T

Prepared for:

Subsurface Consultants

171 12th Street

Suite 201

Oakland, CA 94608

Date: 13-SEP-94

Lab Job Number: 117071

Project ID: 469.010

Location: College of Alameda

Reviewed by:

May Plesan

Reviewed by:

John O'Brien

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LABORATORY NUMBER: 117071
CLIENT: SUBSURFACE CONSULTANTS
PROJECT ID: 469.010
LOCATION: COLLEGE OF ALAMEDA

DATE SAMPLED: 08/24/94
DATE RECEIVED: 08/25/94
DATE EXTRACTED: 08/29/94
DATE ANALYZED: 09/10/94
DATE REPORTED: 09/13/94

Extractable Petroleum Hydrocarbons in Aqueous Solutions
California DOHS Method
LUFT Manual October 1989

| LAB ID | CLIENT ID | OIL (mg/L) | REPORTING LIMIT (mg/L) |
|---------------|-----------|---------------|------------------------------|
| 117071-1 | HOIST 1 | 1,700* | 130 |
| 117071-2 | HOIST 3 | 440* | 130 |
| 117071-METHOD | BLANK | ND | 1.3 |

* Sample results quantitated using response of oil standard provided by client. Sample chromatograms closely resemble standard provided.

ND = Not detected at or above reporting limit. Reporting limit applies to all analytes.

QA/QC SUMMARY:

| | |
|-------------|----|
| RPD, % | 10 |
| RECOVERY, % | 94 |

