LAW OFFICES OF
PILLSBURY, MADISON & SUTRO
TEN ALMADEN BOULEVARD
SAN JOSE, CALIFORNIA 95113
TELEPHONE (408) 947-4000
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OTHER OFFICES
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LOS ANGELES, CALIFORNIA
SAN DIEGO, CALIFORNIA
WALNUT CREEK, CALIFORNIA
WASHINGTON, D.C.

WRITER'S DIRECT DIAL NUMBER

(408) 947-4044



May 9, 1990

Avis Rent A Car System, Inc. - Oakland Airport

Ms. Cynthia Chapman
Alameda County Department of
Environmental Health
Hazardous Material Program
80 Swan Way, Room 200
Oakland, California 94621

Dear Ms. Chapman:

The purpose of this letter is primarily to inform you of our progress with implementation of a ground water monitoring program and initiation of a bioremediation effort at the Avis Rent A Car System, Inc. (Avis) rental car facility at the Oakland Airport ("the Site"). In addition I will take this opportunity to respond to your questions regarding Dames & Moore's Preliminary Summary Report on the Site.

Status of Bioremediation at Site

On January 12, 1990 we addressed a letter to Ariu Levi of your office, and to Lester Feldman of the San Francisco Bay Regional Water Quality Control Board, describing our plan to use bioremediation for the soil which had been excavated from the location of the old tanks at the airport facility. The soil from the old tank excavation, unlike the soil from the excavation for the new tank, contained levels of petroleum hydrocarbons ranging from 270 to 1200 ppm. We enclosed with our January 12 letter OHM's process description of the combined bioremediation/vapor recovery system. Subsequently Ann Kuffner of Avis' consultant, O.H. Materials (OHM), described to you on the phone the operational details of the system.

As we stated in our January 12 letter, we had been advised that the Department of Health Services (DHS) would base its decision with respect to approving a bioremediation project on whether this particular soil "poses a substantial

present or potential hazard to human health or the environment" (Health & Saf. Code § 25117) and is, therefore, deemed to be a hazardous waste. Subsequent conversations between OHM and Ms. Corey Yup of DHS' Alternative Technologies Division confirmed our understanding that we should perform the waste characterization tests described in Article 11 of Title 22 of the California Code of Regulations pertinent to petroleum hydro-carbons -- the fish bioassay toxicity test, ignitability test, metals test and test for organic lead. Those tests were conducted and the results establish that the soil is not hazardous. Copies of those test results and a diagram showing the sampling locations are attached to this letter as Exhibits A & B respectively. Thus, according to DHS, it is unnecessary to secure any permits from DHS for bioremediation of the soil at the Site.

We have applied to the Bay Area Air Quality Management District (BAAQMD) for an authority to construct and a permit to operate. We understand that this is the only regulatory permission we need to proceed with this effort. If you believe our understanding is incorrect, please let me know immediately.

Status of Ground Water Monitoring at the Site

Avis has determined to retain the consulting firm of McCulley, Frick & Gilman, Inc. to implement a ground water monitoring program at the site. That program would be conducted in accordance with the Tri-Regional Recommendations for Initial Evaluation and Investigation of Underground Tanks, and with the approval of the Alameda County Department of Environmental Health. Enclosed as Exhibit C is a description of the scope of work to be undertaken by McCulley, Frick & Gilman. I do not believe there are any significant differences between this plan and the work plan submitted by Dames & Moore, which you approved earlier this year.

Answers to Questions Regarding Preliminary Summary Report

Listed below are questions you posed to Jim Ritchie of Dames & Moore concerning the Preliminary Summary Report and our responses to those questions.

Question 1: Who determined that no permit was necessary for aerating the new tank excavation soils?

Answer: Under Bay Area Air Quality Management District (BAAQMD) Regulation 8, Rule 40, § 8-40-301, only those soils with an organic content exceeding 50 ppm are considered to be "contaminated," and covered by those regulations. Dames & Moore ascertained that the organic content was less than 50 ppm.

Question 2: Were the stockpiled soils aerated and determined to be clean? If so, where are the verification results.

Answer: The stockpiled soils from the new tank excavation were aerated and all of the analytes were below method detection limits in laboratory analyses. The results were included in a report dated October 12, 1989, submitted to the Port of Oakland (with a copy to Ariu Levi) on October 13, 1989. Those same results were submitted again to the Port by letter dated December 14, 1989, with a copy to Ariu Levi.

Question 3: Please provide a map showing the stockpile locations and sample grid.

Answer: This information has already been submitted to your agency, by copy of a letter dated December 14, 1989 addressed to the Port. Another copy of those sampling locations is attached to this letter as Exhibit D.

Question 4: The laboratory noted that the soil samples submitted for compositing and analysis did not completely fill the sample containers. The head space present may have allowed the loss of volatile compounds from the samples.

Answer: While the actual head space in each sample cannot be measures or verified, nor can the amount of volatiles lost as result of head space be calculated, Dames and Moore field personnel have verified that each sample ring was packed as tightly as possible in the field.

Question 5: Please describe the aeration process.

Answer: Aeration took approximately two weeks. Prior to that time, the soils had been stockpiled for approximately four months. The soil was spread on unpaved ground with a backhoe and allowed to aerate. After one week, the soil was turned. Samples were collected after two weeks, tested, and no detectable levels of the analytes were present. During the aeration, the day time temperature was warm and windy (approximately 70 degrees Fahrenheit), and there was no rain.

Question 6: According to the EPA's Superfund Public Health Evaluation Manual, benzo(a)pyrene is known to cause cancer in animals. The evidence of human carcinogenicity due to benzo(a)pyrene is inadequate.

In the future, if you have any questions or comments about Avis' work at the Site, please contact me directly. Thank you very much for your assistance.

Very truly yours,

Beth Hamilton

Beth L. Hamilton

cc: Karl Westermann, Avis
Michelle Heffes, Port of Oakland
Lester Feldman, RWQCB
Ann Kuffner, OHM
Ed Conti, McCulley, Frick & Gilman

O.H. MATERIALS CORP.
APRIL 4, 1990

PROJECT: PILLSBURY MADISON SUTRO, OAKLAND AIRPORT (AVIS), PROJECT NUMBER: 7821

SAMPLE NUMBER: MB0657 thru MB0660

| Parameter | EPA Prep Method | Prep Date | EPA Analysis Method | Analysis Date |
|---|---|---|---|---|
| Total Lead | 3050 | 03-23-90 | 6010 | 03-23-90 |

| Parameter | EPA Prep Method | Prep Date | EPA Analysis Method | Analysis Date |
|---|---|---|---|---|
| Ignitability | NA | NA | 1010 | 04-02-90 |

SAMPLE NUMBER: MB0657

TOTAL VOLATILE HYDROCARBONS

Date Extracted: 03-21-90
Date Analyzed: 03-28-90
QC Batch Number: 90-0594

SAMPLE NUMBER: MB0658 thru MB0660

TOTAL VOLATILE HYDROCARBONS

Date Extracted: 03-21-90
Date Analyzed: 03-29-90
QC Batch Number: 90-0594

rm

APR 4, 1990

# TABLE 1: QUANTITATIVE RESULTS

## CAC TOTAL METALS (ZR33)

*Chain of Custody Data Required for ETC Data Management Summary Reports*

| ETC Sample No. | Company | Facility | Sample Point | Date | Joblink |
|---|---|---|---|---|---|
| MB0657 | OHM-SAN LEANDRO | 7821 | S PMS-1 | 900315 | 802640 |

| Compound | Results | | | | |
|---|---|---|---|---|---|
| | Sample Concen. mg/kg | Report DL mg/kg | Blank Concen. mg/kg | Batch # | |
| Lead, Total | ND | 10 | ND | QI900599 | |

APR 3, 1990

# TABLE 1: QUANTITATIVE RESULTS

## CONVENTIONALS (ZR55)

*Chain of Custody Data Required for ETC Data Management Summary Reports*

| ETC Sample No. | Company | Facility | Sample Point | Date | Joblink |
|---|---|---|---|---|---|
| MB0657 | OHM-SAN LEANDRO | 7821 | S PMS-1 | 900315 | 802640 |

| Compound | Results | | | | |
|---|---|---|---|---|---|
| | Sample Concen. Deg. C | Report DL Deg. C | Blank Concen. Deg. C | Batch # | |
| Ignitability | > 95 | - | 0 | QRZ00192 | |

APR 4, 1990

# TABLE 1: QUANTATIVE RESULTS

## CALIFORNIA "LUFT" ORGANICS (ZR62)

*Chain of Custody Data Required for ETC Data Management Summary Reports*

| ETC Sample No. | Company | Facility | Sample Point | Date | Joblink |
|---|---|---|---|---|---|
| MB0657 | OHM-SAN LEANDRO | 7821 | S PMS-1 | 900315 | 802640 |

| Compound | Results | | | |
|---|---|---|---|---|
| | Sample Concen. mg/kg | Report DL mg/kg | Blank Concen. mg/kg. | Batch # |
| Benzene | ND | .010 | ND | Q900594 |
| Ethylbenzene | .722 | .010 | ND | Q900594 |
| Toluene | ND | .010 | ND | Q900594 |
| m-Xylene | ND | .010 | ND | Q900594 |
| o-Xylene | ND | .010 | ND | Q900594 |
| p-Xylene | ND | .010 | ND | Q900594 |
| Petroleum Hydrocarbons(light) | 2000 | 2 | ND | Q900594 |

APR 4, 1990

# TABLE 1: QUANTITATIVE RESULTS

## CAC TOTAL METALS (ZR33)

*Chain of Custody Data Required for ETC Data Management Summary Reports*

| ETC Sample No. | Company | Facility | Sample Point | Date | Joblink |
|---|---|---|---|---|---|
| MB0658 | OHM-SAN LEANDRO | 7821 | S PMS-2 | 900315 | 802640 |

| Compound | Results | | | | |
|---|---|---|---|---|---|
| | Sample Concen. mg/kg | Report DL mg/kg | Blank Concen. mg/kg | Batch # | |
| Lead, Total | 19 | 10 | ND | QI900599 | |

APR 3, 1990

# TABLE 1: QUANTITATIVE RESULTS

## CONVENTIONALS (ZR55)

*Chain of Custody Data Required for ETC Data Management Summary Reports*

| ETC Sample No. | Company | Facility | Sample Point | Date | Joblink |
|---|---|---|---|---|---|
| MB0658 | OHM-SAN LEANDRO | 7821 | S PMS-2 | 900315 | 802640 |

| Compound | Results | | | | |
|---|---|---|---|---|---|
| | Sample Concen. Deg. C | Report DL Deg. C | Blank Concen. Deg. C | Batch # | |
| Ignitability | > 95 | - | 0 | QRZ00192 | |

APR 4, 1990

# TABLE 1: QUANTATIVE RESULTS

## CALIFORNIA "LUFT" ORGANICS (ZR62)

*Chain of Custody Data Required for ETC Data Management Summary Reports*

| ETC Sample No. | Company | Facility | Sample Point | Date | Joblink |
|---|---|---|---|---|---|
| MB0658 | OHM-SAN LEANDRO | 7821 | S PMS-2 | 900315 | 802640 |

| Compound | Results | | | |
|---|---|---|---|---|
| | Sample Concen. mg/kg | Report DL mg/kg | Blank Concen. mg/kg | Batch # |
| Benzene | ND | .104 | ND | Q900594 |
| Ethylbenzene | ND | .104 | ND | Q900594 |
| Toluene | ND | .104 | ND | Q900594 |
| m-Xylene | ND | .104 | ND | Q900594 |
| o-Xylene | ND | .104 | ND | Q900594 |
| p-Xylene | ND | .104 | ND | Q900594 |
| Petroleum Hydrocarbons(light) | 530 | 2 | ND | Q900594 |

APR 4, 1990

# TABLE 1: QUANTITATIVE RESULTS

## CAC TOTAL METALS (ZR33)

*Chain of Custody Data Required for ETC Data Management Summary Reports*

| ETC Sample No. | Company | Facility | Sample Point | Date | Joblink |
|---|---|---|---|---|---|
| MB0659 | OHM-SAN LEANDRO | 7821 | S PMS-3 | 900315 | 802640 |

| Compound | Results | | | | |
|---|---|---|---|---|---|
| | Sample Concen. mg/kg | Report DL mg/kg | Blank Concen. mg/kg | Batch # | |
| Lead, Total | 19 | 10 | ND | QI900599 | |

APR 3, 1990

# TABLE 1: QUANTITATIVE RESULTS

## CONVENTIONALS (ZR55)

*Chain of Custody Data Required for ETC Data Management Summary Reports*

| ETC Sample No. | Company | Facility | Sample Point | Date | Joblink |
|---|---|---|---|---|---|
| MB0659 | OHM-SAN LEANDRO | 7821 | S PMS-3 | 900315 | 802640 |

| Compound | Results | | | | |
|---|---|---|---|---|---|
| | Sample Concen. Deg. C | Report DL Deg. C | Blank Concen. Deg. C | Batch # | |
| Ignitability | > 95 | - | 0 | QRZ00192 | |

APR 4, 1990

# TABLE 1: QUANTATIVE RESULTS

## CALIFORNIA "LUFT" ORGANICS (ZR62)

*Chain of Custody Data Required for ETC Data Management Summary Reports*

| ETC Sample No. | Company | Facility | Sample Point | Date | Joblink |
|---|---|---|---|---|---|
| MB0659 | OHM-SAN LEANDRO | 7821 | S PMS-3 | 900315 | 802640 |

| Compound | Results | | | |
|---|---|---|---|---|
| | Sample Concen. mg/kg | Report DL mg/kg | Blank Concen. mg/kg | Batch # |
| Benzene | ND | .104 | ND | Q900594 |
| Ethylbenzene | ND | .104 | ND | Q900594 |
| Toluene | ND | .104 | ND | Q900594 |
| m-Xylene | ND | .104 | ND | Q900594 |
| o-Xylene | ND | .104 | ND | Q900594 |
| p-Xylene | ND | .104 | ND | Q900594 |
| Petroleum Hydrocarbons(light) | 250 | 2 | ND | Q900594 |

APR 4, 1990

# TABLE 1: QUANTITATIVE RESULTS

## CAC TOTAL METALS (ZR33)

*Chain of Custody Data Required for ETC Data Management Summary Reports*

| ETC Sample No. | Company | Facility | Sample Point | Date | Joblink |
|---|---|---|---|---|---|
| MB0660 | OHM-SAN LEANDRO | 7821 | S PMS-4 | 900315 | 802640 |

| Compound | Results | | | | |
|---|---|---|---|---|---|
| | Sample Concen. mg/kg | Report DL mg/kg | Blank Concen. mg/kg | Batch # | |
| Lead, Total | 14 | 10 | ND | QI900599 | |

# TABLE 1: QUANTITATIVE RESULTS

APR 3, 1990

## CONVENTIONALS (ZR55)

*Chain of Custody Data Required for ETC Data Management Summary Reports*

| ETC Sample No. | Company | Facility | Sample Point | Date | Joblink |
|---|---|---|---|---|---|
| MB0660 | OHM-SAN LEANDRO | 7821 | S PMS-4 | 900315 | 802640 |

| Compound | Results | | | | |
|---|---|---|---|---|---|
| | Sample Concen. Deg. C | Report DL Deg. C | Blank Concen. Deg. C | Batch # | |
| Ignitability | > 95 | - | 0 | QRZ00192 | |

APR 4, 1990

# TABLE 1: QUANTATIVE RESULTS

## CALIFORNIA "LUFT" ORGANICS (ZR62)

*Chain of Custody Data Required for ETC Data Management Summary Reports*

| ETC Sample No. | Company | Facility | Sample Point | Date | Joblink |
|---|---|---|---|---|---|
| MB0660 | OHM-SAN LEANDRO | 7821 | S PMS-4 | 900315 | 802640 |

| Compound | Results | | | |
|---|---|---|---|---|
| | Sample Concen. mg/kg | Report DL mg/kg | Blank Concen. mg/kg | Batch # |
| Benzene | ND | .104 | ND | Q900594 |
| Ethylbenzene | ND | .104 | ND | Q900594 |
| Toluene | ND | .104 | ND | Q900594 |
| m-Xylene | ND | .104 | ND | Q900594 |
| o-Xylene | ND | .104 | ND | Q900594 |
| p-Xylene | ND | .104 | ND | Q900594 |
| Petroleum Hydrocarbons(light) | 950 | 2 | ND | Q900594 |

# TABLE 1: QUALITY ASSURANCE DATA

## CAC TOTAL METALS (ZR33)

APR 4, 1990

*Chain of Custody Data Required for ETC Data Management Summary Reports*

See Below

*ETC Batch No.*

| Compound | QC Blank and Spiked Data | | | QC Matrix Spike | | | QC Duplicate | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Blank Concen. mg/kg | Concen. Added mg/kg | % Recov | Unspiked Sample mg/kg | Concen. Added mg/kg | % Recov | First mg/kg | Second mg/kg | RPD | Batch # |
| Lead, Total | ND | 100 | 107 | 87.4 | 100 | 105 | 192 | 216 | 12 | QI900599 |

# TABLE 1: QUALITY ASSURANCE DATA

APR 3, 1990

## CONVENTIONALS (ZR55)

*Chain of Custody Data Required for ETC Data Management Summary Reports*

See Below

*ETC Batch No.*

| *Compound* | *QC Blank and Spiked Data* | | | *QC Matrix Spike* | | | *QC Duplicate* | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | *Blank Concen, Deg. C* | *Concen. Added Deg. C* | *% Recov* | *Unspiked Sample Deg. C* | *Concen. Added Deg. C* | *% Recov* | *First Deg. C* | *Second Deg. C* | *RPD* | *Batch #* |
| Ignitability | 0 | 25 | 108 | - | - | - | 55 | 54 | 2 | QRZ00192 |

APR 4, 1990

# TABLE 1: QUALITY ASSURANCE DATA

## TOTAL VOLATILE HYDROCARBONS: LOW BOILING FRACTION (ZR35)

*Chain of Custody Data Required for ETC Data Management Summary Reports*

See Below

*ETC Batch No.*

| Compound | QC Blank and Spiked Data | | | QC Matrix Spike | | | QC Duplicate | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Blank Concen. mg/kg | Concen. Added mg/kg | % Recov | Unspiked Sample mg/kg | Concen. Added mg/kg | % Recov | First mg/kg | Second mg/kg | RPD | Batch # |
| Petroleum Hydrocarbons(light) | ND | 42 | 90 | 3 | 420 | 90 | .38 | .39 | 3 | Q900594 |

OHM

# CHAIN-OF-CUSTODY RECORD

Form 0019
Field Technical Services
Rev. 03/88

No. 54951

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

| | |
|---|---|
| PROJECT NAME: Pillsbury Madison Sutro | PROJECT LOCATION: Oakland Avis Airport |
| PROJ. NO.: 7821 | PROJECT CONTACT: Ann Kuffner/D. Borlongan |
| PROJECT TELEPHONE NO.: (415) 256-7187 | |
| CLIENT'S REPRESENTATIVE: Beth Hamilton | PROJECT MANAGER/SUPERVISOR: Ann Kuffner |

| ITEM NO. | SAMPLE NUMBER | DATE | TIME | COMP | GRAB | SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE) | NUMBER OF CONTAINERS |
|---|---|---|---|---|---|---|---|
| 1 | PMS-1 | 3/15/90 | 1200 | X | | composite 1 MB0657 | (4) |
| 2 | PMS-2 | 3/15/90 | 1220 | X | | composite 2 MB0658 | |
| 3 | PMS-3 | 3/15/90 | 1240 | X | | composite 3 MB0659 | |
| 4 | PMS-4 | 3/15/90 | 1300 | X | | composite 4 MB0660 | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |

ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS)

Each sample to be analyzed for:

(1) BTEX & Gasoline

(2) Lead

(3) Ignitability

REMARKS

| TRANSFER NUMBER | ITEM NUMBER | TRANSFERS RELINQUISHED BY | TRANSFERS ACCEPTED BY (VIA VPS) | DATE | TIME |
|---|---|---|---|---|---|
| 1 | PMS-1 | D. Borlongan | | 4/03/90 | 1030 |
| 2 | PMS-2 | D. Borlongan | | | |
| 3 | PMS-3 | D. Borlongan | | | |
| 4 | PMS-4 | D. Borlongan | | | |

REMARKS
Do the analyses requested above
* If you have questions call: Ann Kuffner (415) 256-7187 call for job number

SAMPLER'S SIGNATURE: D. Borlongan

A Subsidiary of Environmental Treatment and Technologies Corp.
The Environmental Services Company

LAB COPY

# TABLE 1: QUALITY ASSURANCE DATA

MAR 29, 1990

## CALIFORNIA "LUFT" ORGANICS (ZR62)

*Chain of Custody Data Required for ETC Data Management Summary Reports*

See Below

*ETC Batch No.*

| Compound | QC Blank and Spiked Data | | | QC Matrix Spike | | | QC Duplicate | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Blank Concen. mg/kg | Concen. Added mg/kg | % Recov | Unspiked Sample mg/kg | Concen. Added mg/kg | % Recov | First mg/kg | Second mg/kg | RPD | Batch # |
| Benzene | ND | 1.04 | 98 | ND | 1.04 | 97 | 1.01 | .957 | 5 | Q900594 |
| Ethylbenzene | ND | 1.04 | 95 | ND | 1.04 | 99 | 1.04 | 1.12 | 7 | Q900594 |
| Toluene | ND | 1.04 | 95 | .053 | 1.04 | 98 | 1.08 | 1.00 | 8 | Q900594 |
| m-Xylene | ND | 1.04 | 95 | ND | 1.04 | 93 | .971 | .921 | 5 | Q900594 |
| o-Xylene | ND | 1.04 | 93 | ND | 1.04 | 94 | .977 | 1.01 | 4 | Q900594 |
| p-Xylene | ND | 1.04 | 95 | ND | 1.04 | 91 | .953 | .860 | 10 | Q900594 |

ATT

April 9, 1990

Ms. Ann Kuffner
O.H. Materials Corporation
2950 Buskirk Avenue
Suite 315
Walnut Creek, CA 94596

Subject: Hazardous Waste Toxicity Test Results of Composite Soil Sample 8589 (PMS-C1) for Project No. 54952-Avis.

Dear Mr. Kuffner:

This report presents the toxicity test results for fathead minnow (**Pimephales promelas**) exposed to concentrations of a composite soil sample provided by you for Aqua Terra Technologies (ATT Job #6007).

Aqua Terra Technologies
Aquatic Bioassay
Laboratory

2950 Buskirk Avenue
Suite 120
Walnut Creek, CA
94596
415 934-4884
FAX 934-0418

**METHODS**

The test was conducted according to Aqua Terra Technologies (ATT) hazardous waste aquatic toxicity test protocol based on "Standard Methods for the Examination of Water and Wastewater", 16th Edition, American Public Health Association, 1986, and certified by the State of California Department of Health Services. Dilution water consisted of carbon filtered, dechlorinated, tap water that was adjusted to a hardness of 40-48 mg/L using deionized water. The soil sample was tested at three concentrations, 250 mg/L, 500 mg/L, and 750 mg/L. The soil sample was thoroughly mixed into dilution water using a wrist action shaker. All sample treatments and a dilution water control were run in duplicate with 10 fish per three liter tank and a total of 20 fish per treatment.

Temperature was controlled at 20 $\pm$ 2°C and photoperiod regulated at approximately 16-hours light and 8-hours dark. Fish were acclimated in the test laboratory for 21 days prior to their use in the test.

Fish mortality, temperature, ph, and dissolved oxygen concentration were monitored during the 96-hour test. Water alkalinity and hardness were measured for dilution water and the highest treatment concentration at the beginning of the test.

**TEST RESULTS**

No fish mortality occurred in the dilution water control or in any sample treatment concentrations for composite soil Sample #8589 (PMS-C1).

EXHIBIT A

No signs of stress were observed in any of the exposed fish. The raw test data are summarized in the attached data sheets.

Test results indicate that the 96-hour LC50 value for the composite soil Sample #8589 (PMS-C1) (#54952-Avis) is greater than 500 mg/L (>750 mg/L). The composite soil sample #8589 (PMS-C1) (ATT Job #54952-Avis), therefore, does not meet the acute aquatic toxicity test criteria (96-hour LC50 $\leq$ 500 mg/L) for identification of a material as hazardous, according to the specification in the California Administration Code, Title 22, Division 4, Article 11, Section 66696.

Should any questions arise as to test procedures or results, do not hesitate to call.

Very truly yours,

AQUA TERRA TECHNOLOGIES, INC.

William E. Foster, M.S.
Laboratory Manager
Aquatic Biologist

William Foster for T.C.

Terrance E. Carter
Laboratory Director

TEC/WEF:mp
Enclosures

6006/040990/ak/rpt

STATIC ACUTE BIOASSAY
(Hazardous Waste Test)

Aqua Terra Technologies
2950 Buskirk Avenue
Walnut Creek, CA 94596
(415) 934-4884

CLIENT: O.H. Materials Corporation (pg. 1 of 2) ATTENTION: Ms. Kuffner

SAMPLE ID#: 8589 SAMPLE DESCRIPTION: Control (C-1, C-2) TESTING DATES: 03/19/90 to 03/23/90
CLIENT ID#: PMS-C1 (54952-Avis)

| | | | RD 3/19/90 1500 INITIAL | | | | | | RD 3/20/90 1530 24-HOUR | | | | RD 3/21/90 1530 48-HOUR | | | | RD 3/22/90 1500 72-HOUR | | | | PW 3/23/90 1500 96-HOUR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TEST CONC 100% | Alk mg/L | Hard mg/L | Live | pH | DO mg/L | Temp oC | Live | pH | DO mg/L | Temp oC | Live | pH | DO mg/L | Temp oC | Live | pH | DO mg/L | Temp oC | Live | pH | DO mg/L | Temp oC |
| C-1 | 30 | 45 | 10 | 7.4 | 7.1 | 20 | 10 | 7.3 | 8.7 | 20 | 10 | 7.4 | 8.7 | 20 | 10 | 7.3 | 8.7 | 20 | 10 | 7.2 | 8.6 | 20 |
| C-2 | 30 | 45 | 10 | 7.5 | 7.1 | 20 | 10 | 7.3 | 8.8 | 20 | 10 | 7.4 | 8.8 | 20 | 10 | 7.3 | 8.7 | 20 | 10 | 7.3 | 8.8 | 20 |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | |

Test Species fathead minnow Avg Length 24.4 mm SL Max Length 34.0 mm SL Min Length 18.0 mm SL
Source of Test Species Thomas Fish Company Avg Wt 0.212 g Max Wt 0.56 g Min Wt 0.07 g
Species Density 10/tank 20/treatment Control & Dilution Water dechlorinated tap Test Soln Vol 3 L Depth 17 cm Aeration Bubble
Acclimation Tank % Dead 0 Accl. Tank Water dechlorinated tap Accl. Period days Accl. Temp. 20 +/- 2°C
TECHNICIAN(S): RD, PW, BE (Initials Only)

REMARKS:

96 hr LC50 n/a
95% Confidence Limits n/a

Percent Survival 100%

LABORATORY MANAGER: William E. Foster
William E. Foster, M.S

L&SURIPG.TEM

STATIC ACUTE BIOASSAY
(Hazardous Waste Test)

Aqua Terra Technologie
2950 Buskirk Avenu
Walnut Creek, CA 9459
(415) 934-488

CLIENT: O.H. Materials Corporation (pg. 2 of 2) ATTENTION: Ms. Kuffner

SAMPLE ID#: 8589 SAMPLE DESCRIPTION: Composite Soil TESTING DATES: 03/19/90 to 03/23/90
CLIENT ID#: PMS-C1

| | | | RD 1500 3/19/90 INITIAL | | | | RD 1530 3/20/90 24-HOUR | | | | RD 1530 3/21/90 48-HOUR | | | | RD 1500 3/22/90 72-HOUR | | | | PW 1500 3/23/90 96-HOUR | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TEST CONC 100% | Alk mg/L | Hard mg/L | Live | pH | DO mg/L | Temp oC | Live | pH | DO mg/L | Temp oC | Live | pH | DO mg/L | Temp oC | Live | pH | DO mg/L | Temp oC | Live | pH | DO mg/L | Temp oC |
| 250 A | | | 10 | 7.4 | 7.3 | 20 | 10 | 7.2 | 8.3 | 20 | 10 | 7.4 | 8.3 | 20 | 10 | 7.3 | 8.2 | 20 | 10 | 7.1 | 8.9 | 20 |
| 250 B | | | 10 | 7.5 | 7.1 | 20 | 10 | 7.3 | 8.7 | 20 | 10 | 7.5 | 8.6 | 20 | 10 | 7.3 | 8.5 | 20 | 10 | 7.4 | 9.0 | 20 |
| 500 A | | | 10 | 7.5 | 6.9 | 20 | 10 | 7.2 | 8.3 | 20 | 10 | 7.5 | 8.8 | 20 | 10 | 7.3 | 8.7 | 20 | 10 | 7.3 | 8.8 | 20 |
| 500 B | | | 10 | 7.5 | 7.1 | 20 | 10 | 7.3 | 8.6 | 20 | 10 | 7.5 | 8.8 | 20 | 10 | 7.3 | 8.8 | 20 | 10 | 7.6 | 9.0 | 20 |
| 750 A | 40 | 65 | 10 | 7.5 | 7.0 | 20 | 10 | 7.3 | 8.8 | 20 | 10 | 7.5 | 8.8 | 20 | 10 | 7.4 | 8.8 | 20 | 10 | 7.6 | 8.9 | 20 |
| 750 B | 40 | 65 | 10 | 7.5 | 7.1 | 20 | 10 | 7.3 | 8.7 | 20 | 10 | 7.5 | 8.8 | 20 | 10 | 7.3 | 8.8 | 20 | 10 | 7.5 | 8.6 | 20 |

Test Species fathead minnow Avg Length 24.4 mm SL Max Length 34.0 mm SL Min Length 18.0 mm SL

Source of Test Species Thomas Fish Company Avg Wt 0.212 g Max Wt 0.56 g Min Wt 0.07 g

Species Density 10/tank 20/treatment Control & Dilution Water dechlorinated tap Test Soln Vol 3 L Depth 17 cm Aeration Bubble

Acclimation Tank % Dead 0 Accl. Tank Water dechlorinated tap Accl. Period 21 days Accl. Temp. 20 +/- 2°C

REMARKS:

TECHNICIAN(S): PWRDBK
(Initials Only)

96 hr LC50 > 750 mg/L

95% Confidence Limits n/a

LABORATORY MANAGER: William Foster
William E. Foster, M.S

Percent Survival 100% in all treatments

L&SURIPG.TEM

ATT

# FISH BIOASSAY MEASUREMENTS

## Fathead Minnow

For: O.H. Materials: Ms. Kuffner

Sample ID#: 8589 Sample Conc. Composite Soil

Client ID#: PMS-C1

(#54952-Avis)

| | | | |
|---|---|---|---|
| Average Length: | 24.4 mm SL | Average Weight: | 0.212 g |
| Standard D. (s): | 5.60 mm SL | Standard D.(s): | 0.1774 g |
| Maximum Length: | 34.0 mm SL | Maximum Weight: | 0.56 g |
| Minimum Length: | 18.0 mm SL | Minimum Weight: | 0.07 g |

| | Fish Length (mm SL) | | Fish Weight (g) |
|---|---|---|---|
| 1. | 28.0 | 1. | 0.19 |
| 2. | 34.0 | 2. | 0.56 |
| 3. | 24.0 | 3. | 0.18 |
| 4. | 18.0 | 4. | 0.07 |
| 5. | 21.0 | 5. | 0.14 |
| 6. | 19.0 | 6. | 0.09 |
| 7. | 21.0 | 7. | 0.10 |
| 8. | 20.0 | 8. | 0.11 |
| 9. | 27.0 | 9. | 0.16 |
| 10. | 32.0 | 10. | 0.52 |

TECHNICIAN: RE, BT

LABORATORY MANAGER: William Foster

William E. Foster, M.S.

Aquatic Biologist

OHM

# CHAIN-OF-CUSTODY RECORD

Form 0019
Field Technical Services
Rev. 03/88

707-544-5520

No. 54952

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME: Pillsbury Madison Sutro
PROJECT LOCATION: Avis - Oakland Airport
PROJ. NO.:
PROJECT CONTACT: Ann Kuffner / D. Borlongan
PROJECT TELEPHONE NO.: (415) 256-7187
CLIENT'S REPRESENTATIVE: Beth Hamilton
PROJECT MANAGER/SUPERVISOR: Ann Kuffner

| ITEM NO. | SAMPLE NUMBER | DATE | TIME | COMP | GRAB | SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE) | NUMBER OF CONTAINERS | ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS) * Biomay | REMARKS |
|---|---|---|---|---|---|---|---|---|---|
| 1 | PMS-C 1 | 3/15/90 | 1320 | X | | Composite of Composites | 1 | X | * one Hazardous Waste 96-hr Static Toxicity Test w/ Fathead Minnows |
| 2 | | | | | | | | | |
| 3 | | | | | | | | | |
| 4 | | | | | | | | | |
| 5 | | | | | | | | | |
| 6 | | | | | | | | | |
| 7 | | | | | | | | | |
| 8 | | | | | | | | | |
| 9 | | | | | | | | | |
| 10 | | | | | | | | | |

ATT Lab # 8589 BP

| TRANSFER NUMBER | ITEM NUMBER | TRANSFERS RELINQUISHED BY | TRANSFERS ACCEPTED BY | DATE | TIME |
|---|---|---|---|---|---|
| 1 | PMS-C1 | D. Borlongan | Bill Forte, ATT Lab ** | 3/19/90 | 1130 |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |

REMARKS: Fish Bioassay Toxicity Test - suspected contaminant - gasoline

SAMPLER'S SIGNATURE: Dan Borlongan

** AquaTella Technologies, Bioassay LAB

A Subsidiary of Environmental Treatment and Technologies Corp.
The Environmental Services Company

LAB COPY

OHM Corporation

# COMPUTATION SHEET

Form No. 0048
Midwest Tech. Servs.
Rev. 06/89

Page _____ of _____

| Proj. No. | Client | Location | Subject |
|---|---|---|---|
| J7821 | PILLS., MADISON, SUTRO | OAKLAND AIRPORT AVIS CAR RENTAL | CONTAMINATED DIRT |

| Preparer's Initials | Date | Reviewer's Initials | Date | Approver's Initials | Date |
|---|---|---|---|---|---|
| D. B. | 5-8-90 | | | | |

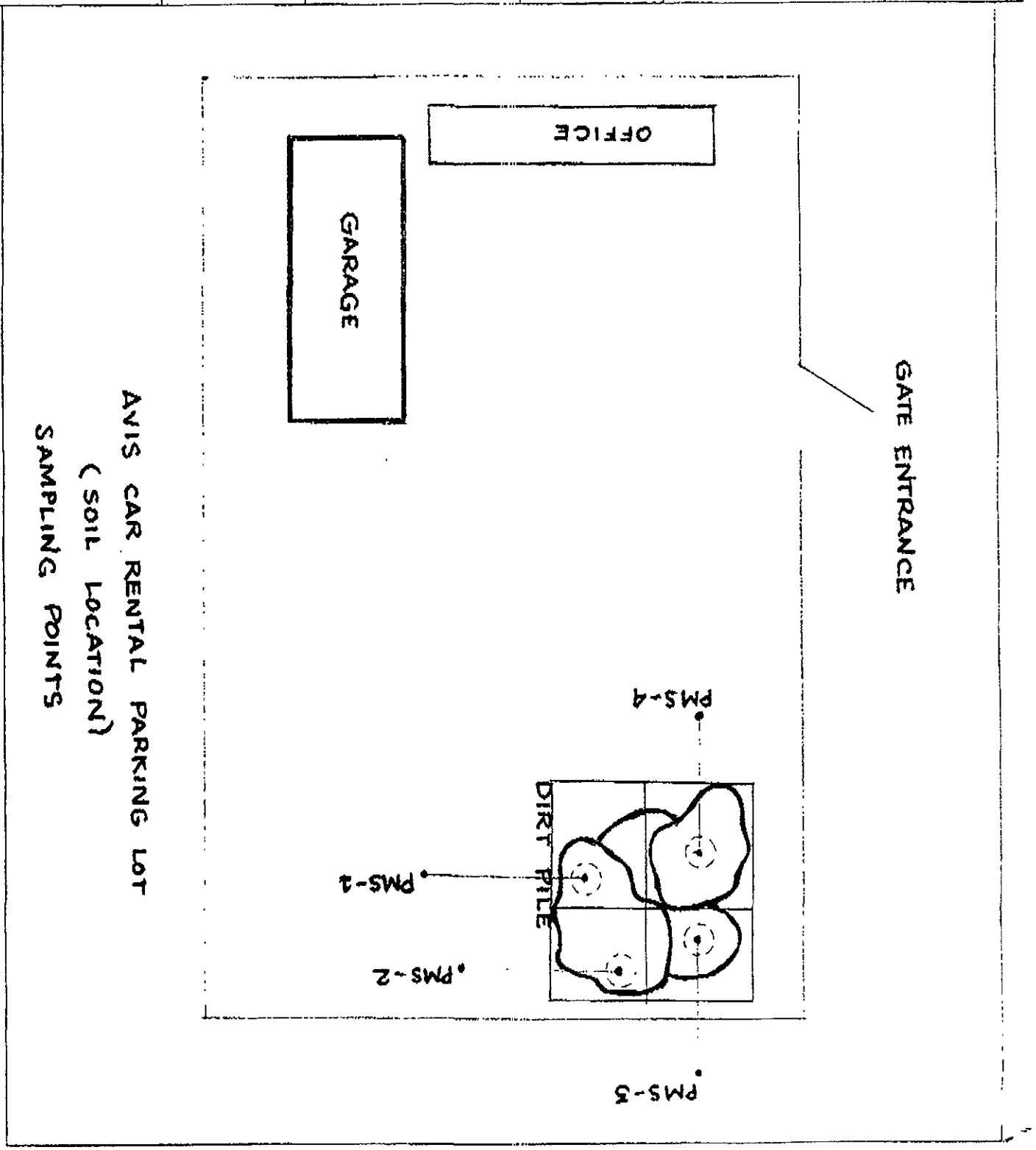



EXHIBIT B

# SCOPE OF WORK

## GROUNDWATER MONITORING PROGRAM FOR AVIS RENT A CAR SYSTEM, INC. RENTAL CAR FACILITY OAKLAND AIRPORT

SCOPE OF WORK

Monitoring Well Installation and Soil Sampling

MFG will install three ground-water monitoring wells at the Avis facility. In accordance with the Regional Board Staff Recommendations for Initial Evaluation and Investigation of Underground Tanks, Tri-Regional Recommendations (June 2, 1988, revised November 9, 1989), MFG will install one of the three wells within 10 feet of the former tank locations in the anticipated downgradient direction.

Propose 3 wells

Prior to drilling, MFG will obtain the necessary well construction permits from the Zone 7 - Alameda County Flood Control & Water Conservation District. MFG will also coordinate with Underground Service Alert (USA) to check the vicinity of the proposed well locations for underground utilities.

The exploratory borings for the wells will be drilled using the hollow-stem auger method. The borings will be advanced at least 10 feet into surface soils and five feet into Bay Mud to evaluate the thickness of the low permeability (Bay Mud) layer. The anticipated maximum total depth of the borings is approximately 15 feet below ground level (BGL). Soil samples will be collected for field description and chemical analysis near the surface, at five-foot intervals within the unsaturated zone and at changes in lithology within the unsaturated zone. Since we expect the depth to ground water at the site to be about 10 feet BGL, we anticipate collecting two or three soil samples per boring. Soil samples will be collected in brass liners inserted into a drive sampler. The procedures used for supervision of the exploratory borings and for the collection and preservation of soil samples will be in accordance with MFG's written Standard Operating Procedures (SOP's).

Soil samples will be examined in the field for lithologic classification, relative moisture content, relative permeability and indications of contamination. A lithologic log will be prepared for each boring.

Following drilling and soil sampling, MFG will install a ground-water monitoring well in each of the three soil borings discussed above. The wells will be constructed using four-inch diameter, PVC unperforated and slotted casing. The wells will be completed below grade in a well box for security.

EXHIBIT C

Following installation, MFG will develop the monitoring wells using a positive displacement pump and/or bailer. During development, the temperature, pH and specific conductance of the discharged ground water will be measured periodically. Well development will continue until these water quality parameters are relatively stable and the ground water removed from the wells is relatively free from sediment. The field procedures used for monitoring well construction and development, and documentation of these activities, will be in accordance with MFG's written SOP's.

Ground-Water Sampling

MFG will collect ground-water samples from the three monitoring wells installed on site. Prior to sampling, MFG will use a clear acrylic bailer to check for the presence of a non-aqueous phase layer (NAPL) or sheen that may be floating on the ground water in the wells. The field procedures used to evaluate the presence of NAPL's will be in accordance with MFG's written SOP's.

MFG will then purge the wells in which a NAPL was not detected and collect ground-water samples from these wells. If indications of gasoline contamination were identified during drilling, wells expected to have lower concentrations of gasoline components will be sampled before wells expected to have greater concentrations. This procedure minimizes the potential for cross-contamination. Field water quality parameters (pH, temperature and specific conductance) will be measured periodically during purging and upon collection of the ground-water samples. MFG will use the specific conductance measurements to evaluate the salinity of the ground water at the site. The samples will be transferred to containers provided by the laboratory. The field procedures used for purging the wells, measuring water quality parameters during purging, collecting the ground-water samples and cleaning equipment will be in accordance with MFG's written SOP's.

Chemical Analysis

The soil and ground-water samples collected at the Avis facility will be submitted to a State-certified analytical laboratory to analyze for purgeable total petroleum hydrocarbons (TPH) as gasoline (EPA Method 5030/modified EPA Method 8015) and benzene, toluene, total xylenes and ethylbenzene (BTX&E) (EPA Method 8020). In accordance with the protocol for EPA Method 8020, the ground-water samples will be acidified in the field with hydrochloric acid for preservation. The ground-water samples will also be analyzed for polynuclear aromatic hydrocarbons (PNA's) (EPA Method 8270), ethylene dibromide (EDB) (DHS AB 1803), and organic lead (DHS Method, LUFT Manual). The chemical analyses will be performed in the standard (10-day) turnaround time. A chain-of-custody record will be completed for the samples and will accompany the samples until receipt by the laboratory.

Disposal of Cuttings and Ground Water

Cuttings generated during drilling and ground water discharged from the wells during development and sampling will be placed in 55-gallon drums that will be labelled and temporarily stored on site. MFG will evaluate the treatment and/or disposal options for the cuttings and water after the soil and ground-water analytical results have been reviewed. If the soil cuttings are found to contain gasoline components, the soil cuttings may be incorporated into the soil treatment system currently underway on site. If the ground water removed from the wells is found to contain gasoline components, it may be incorporated into an on-site ground-water treatment system, if appropriate.

Water-Level Elevations and Hydraulic Gradient

The elevations of the three wells installed on site will be measured by a licensed land surveyor. Prior to performing the survey, MFG will mark a "measuring point" (generally the north side of the top of the well casing) on each well. The licensed land surveyor will measure the elevations of both the rim of the of the protective well box and the measuring point for each well. MFG will then measure the depth to ground water below the surveyed measuring points in the three wells. The field

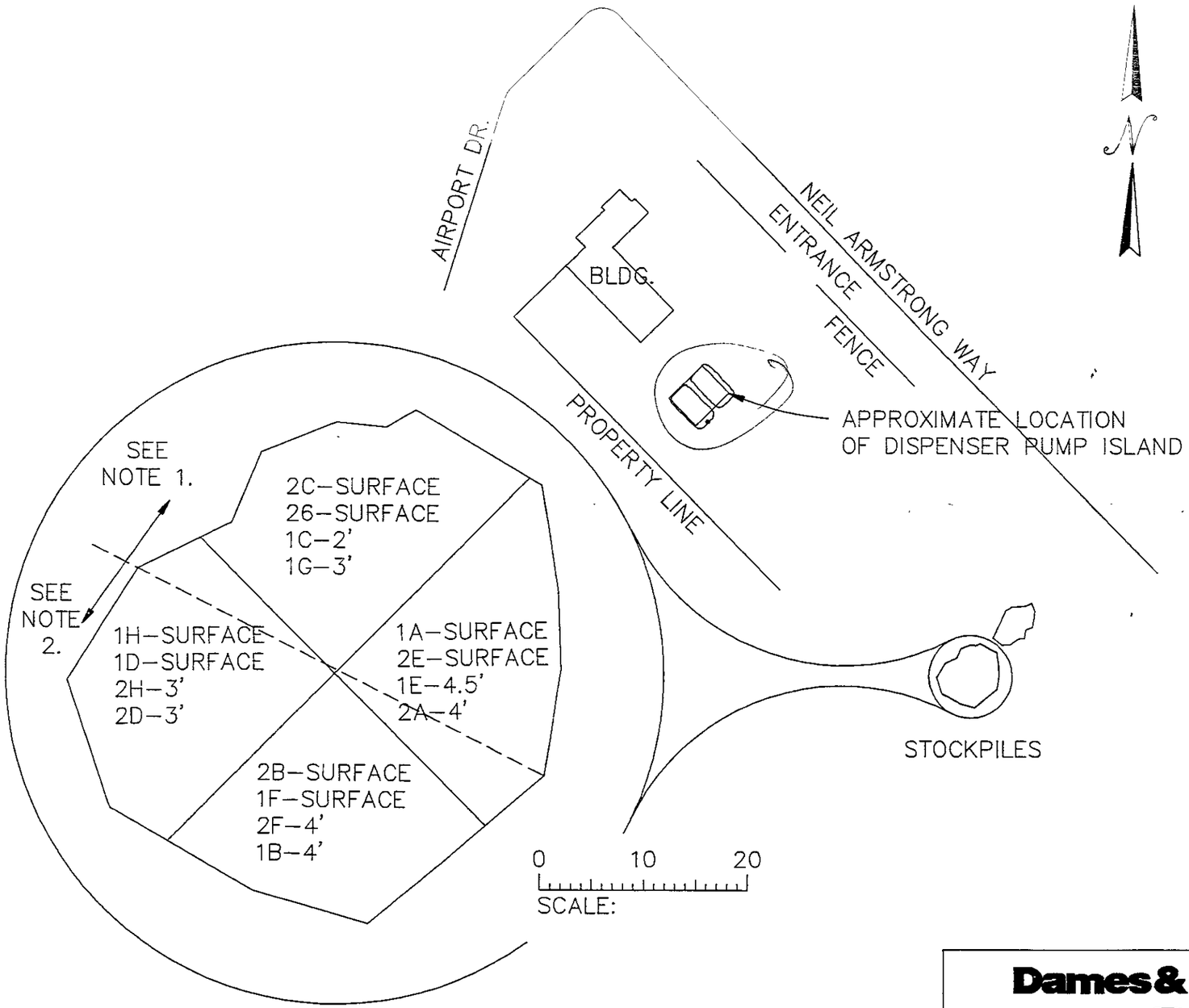
procedures used to perform the water level measurements will be in accordance with MFG's written SOP's.

MFG will calculate the elevation of the ground-water surface in each well based on the surveyed elevations and measured water level in each well. We will prepare a potentiometric surface map showing the elevation contours of the ground-water surface at the time of the water level measurements and the interpreted direction of ground-water flow.

Report Preparation

MFG will prepare a final report that documents the methods used, data collected and findings of the investigation and presents recommendations for additional investigation and/or remediation, if necessary. The report will include tables and figures as necessary for clarity of presentation. The figures will include boring logs and well construction details for the three monitoring wells and a potentiometric surface map showing the interpreted direction of ground-water movement. Field data (well elevations, water levels, etc.), chain-of-custody records, and copies of the laboratory analysis reports will be included.

The final report will also include a proposed ground-water monitoring program for the site. The proposed suite of chemical analyses and the monitoring interval will be based on our evaluation of the data collected during this investigation.




SCALE: 0 100

MAP REF: THOMAS BROTHERS
ALAMEDA COUNTY
P.22 C–7
BLAINE TECH SERVICES, INC.

NOTES:
1. ASSUMED SAMPLING LOCATION OF BLAINE SAMPLE 16A–D
2. ASSUMED SAMPLING LOCATION OF BLAINE SAMPLE 17A–D

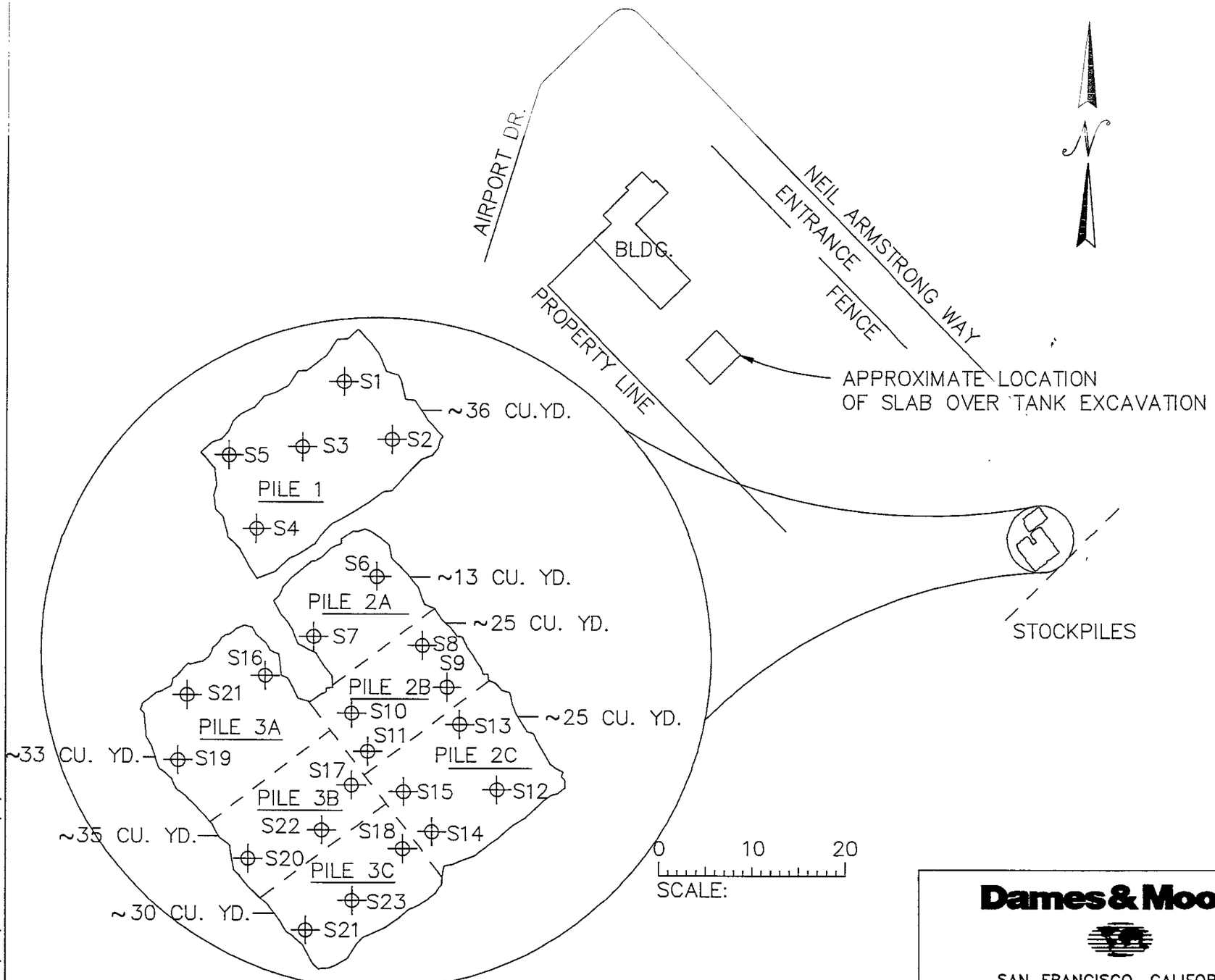
Dames & Moore
SAN FRANCISCO, CALIFORNIA
JOB NO. 14205–021–038

# STOCKPILE SAMPLING LOCATIONS PRIOR TO BACKFILL

AVIS SERVICE CENTER
OAKLAND INTERNATIONAL AIRPORT
OAKLAND, CALIFORNIA

ACADDWGS\AVIS\SITE2 REV B 12/14/89

EXHIBIT D




SCALE: 0 100

MAP REF: THOMAS BROTHERS
ALAMEDA COUNTY
P.22 C–7
BLAINE TECH SERVICES, INC.

KEY: ⊕ SAMPLE LOCATION AND SAMPLE IDENTIFICATION NUMBER

NOTES:
1. APPROXIMATE VOLUME OF STOCKPILE SECTIONS AS NOTED.
2. PILE 3A–3C IS ASSUMED SAMPLING LOCATION FOR BLAINE SAMPLE 15A–D

Dames & Moore
SAN FRANCISCO, CALIFORNIA
JOB NO. 14205–021–038

# STOCKPILE SAMPLING LOCATIONS SUBSEQUENT TO BACKFILL

AVIS SERVICE CENTER
OAKLAND INTERNATIONAL AIRPORT
OAKLAND, CALIFORNIA

EXHIBIT D

ACADDWGS\AVIS\SITE4.DWG REV B 12/14/89 LT