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March 14, 2002
MFG Project No. 030013

Mr. Barney M. Chan
Hazardous Materials Specialist
Environmental Health Services
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

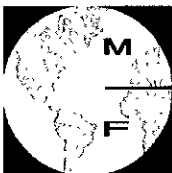
3/14/02

**Subject: Work Plan for Additional Groundwater Investigation
Avis Rent A Car Facility
1 Neil Armstrong Drive
Oakland, California 94621**

Dear Mr. Chan:

Enclosed please find a copy of the subject work plan. MFG, Inc. prepared this report on behalf of Avis Rent A Car System, Inc. in response to your January 18, 2002 letter requesting a work plan for the subject Site. The scope of the work plan is based on our understanding of Site conditions, discussions with you, Mr. Chuck Headlee of the California Regional Water Quality Control Board San Francisco Bay Region and on your February 26, 2002 letter summarizing a meeting attended by you, Mr. Headlee and Mr. Dale Klettke of the Port of Oakland.

Please review the work plan and call if you have any questions or require additional information.



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Christopher G. Spill
Geologist

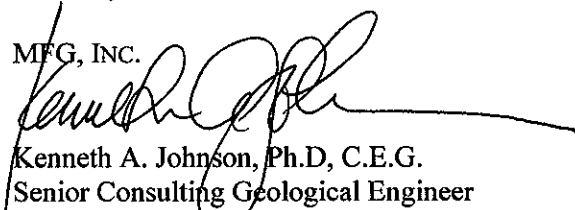
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Chris.Spill@mfgenv.com

Sincerely,

MFG, INC.


Kenneth A. Johnson, Ph.D, C.E.G.
Senior Consulting Geological Engineer

Enclosure

cc: Rose Pelino, Avis, w/ enclosure
Dale Klettke, Port of Oakland, w/ enclosure
Chuck Headlee, RWQCB

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**WORK PLAN
ADDITIONAL GROUNDWATER INVESTIGATION
AVIS FACILITY
OAKLAND INTERNATIONAL AIRPORT
1 NEIL ARMSTRONG WAY
OAKLAND, CALIFORNIA**

March 14, 2002

Prepared for:

AVIS RENT A CAR SYSTEM, INC.

6 Sylvan Way
Parsippany, New Jersey 07054

Prepared by:

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consulting scientists and engineers

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MFG Project 030013.3

INTRODUCTION

MFG, Inc. has prepared this Work Plan for additional groundwater investigation on behalf of Avis Rent A Car System, Inc. (Avis). The Site is located at 1 Neil Armstrong Way in Oakland, California, adjacent to the Oakland International Airport (Figure 1). The approach and methods outlined in this Work Plan are based on our knowledge of site conditions set forth in the Phase II investigation documented in MFG's February 15, 2001 letter report¹ prepared for Avis, on previous work performed by MFG to investigate and remediate a release from a former underground storage tank at the Site, and on discussions with Mr. Barney Chan of the Alameda County Health Care Services Agency, Department of Environmental Health, Hazardous Materials Division (ACHCSA) and Mr. Chuck Headlee of the Regional Water Quality Control Board San Francisco Bay Region (RWQCB). This Work Plan is prepared pursuant to a January 18, 2002 request by ACHCSA in a letter from Mr. Barney Chan to Ms. Rose Pelino of Avis, and a subsequent February 26, 2002 letter from ACHCSA to Avis.

BACKGROUND

The Site occupies approximately 2.1 acres on the southwestern corner of Neil Armstrong Way and Airport Road in Oakland, California. The Site serves as a drop-off and pick-up center for Avis rental cars. The Site property was reportedly leased by Avis in July 1970, and has since been used as a car rental facility. Prior to this, the land was undeveloped. The Site currently consists of a 1-story office building, service garage and car wash, a separate fueling and rental car cleaning area, a storage shed, a temporary storage trailer, an office trailer, and a guard shack. Much of the property is an asphalt-paved parking area for rental vehicles.

In 1989 two 10,000-gallon gasoline underground storage tanks (USTs) were removed from the south-central portion of the Site. In 1989 one 10,000-gallon double-walled gasoline UST, and one 550-gallon waste oil UST and associated lines were installed at the Site (Figure 2). In May 1990 MFG installed three groundwater monitoring wells at the Site. Well MW-1 was located on the south side of the excavation of the former USTs. Wells MW-2 and MW-3 were located along the southwestern property boundary (Figure 2).

In 1990, MFG performed a soil gas investigation at 12 locations near MW-1. Seven soil gas samples were collected in the immediate vicinity of MW-1; other points were located outside the limits of the former

¹ MFG, Inc., Phase II Investigation Report, Avis Rent A Car System, Inc. facility, 1 Neil Armstrong Way, Oakland International Airport, Oakland, California, February 15, 2001.

tank excavation and along the western property boundary. Soil gas samples were analyzed for total petroleum hydrocarbons (TPH) and benzene, toluene, ethylbenzene, and xylenes (BTEX). Significant levels of TPH and BTEX were detected in one soil gas sample collected from near MW-1. Other soil gas samples contained very low concentrations of TPH and BTEX. MFG concluded that soil contamination was localized in the vicinity of MW-1. Methyl tertiary butyl ether (MTBE) was not an analyte included in the routine analytical methods at that time.

Based on the soil gas results, approximately 50 cubic yards of soil were removed from an area located southeast of, and adjacent to, the former USTs. Excavation required the abandonment of MW-1, which was replaced by MW-1A. Groundwater samples collected in March 1991 from wells MW-2 and MW-3, and in April 1991 from MW-1A contained no detectable concentrations of TPH as gasoline (TPHg), BTEX, or polynuclear aromatic hydrocarbons (PNAs).

MFG continued to monitor groundwater at the Site on a quarterly basis from July 1991 to January 1994. In that period no detectable concentrations of TPHg, BTEX, or PNAs were detected in wells MW-2 and MW-3. In the final groundwater monitoring report, MFG indicated that the target gasoline constituents had not been detected in groundwater samples collected from MW-1A since February 1993. MFG recommended that the Site be certified for closure from the ACHCSA. A Remedial Action Completion Certification was issued by ACHCSA on August 18, 1994. The three monitoring wells were destroyed in accordance with existing regulations in May 1995.

During the period that MFG monitored groundwater at the Site, groundwater flow direction was generally to the east-southeast at a horizontal gradient of approximately 0.003.

A Phase II investigation was undertaken by Avis in October 2000 to assess environmental conditions at the Site in anticipation of terminating its lease for the property. This scope, methods and results of the Phase II investigation are documented in MFG's February 15, 2001 letter report. The primary elements of the investigation included collection of seven shallow groundwater grab samples for chemical analysis. Low concentrations of VOCs were detected in some samples of shallow groundwater. Methyl tertiary butyl ether (MTBE) was detected at concentrations up to 1,100 micrograms per liter ($\mu\text{g/L}$) in samples collected downgradient of the current and former USTs.

The Phase II investigation letter report was prepared and submitted to the City of Oakland Fire Service Agency with a recommendation that no further work needed to be performed. This recommendation was

based on the generally poor groundwater quality in the vicinity (specific conductance of up to 30,000 micromhos per centimeter) and the fact that groundwater concentrations detected in the study were below applicable City of Oakland and RWQCB risk-based screening levels.

Because MTBE was detected in the Phase II investigation but was not included as an analyte in the earlier groundwater monitoring analyses performed following the 1989 removal of the original gasoline USTs at the Site, it is not known whether the source of the MTBE was from the initial release (pre-1989) at the Site or from a subsequent release from the existing gasoline UST. Subsequently, the City of Oakland referred the case back to ACHCSA for consideration of reopening a UST investigation at the Site.

ACHCSA's January 18, 2002 letter requests a work plan for additional investigation to assess the extent of MTBE in shallow groundwater. In its February 26, 2002 letter, ACHCSA further suggests that the requested work plan include consideration of potential preferential pathways for MTBE migration posed by the presence of storm drain utility trench backfill. This work plan and the proposed work are intended to address these issues.

SCOPE OF WORK

MFG has developed this Work Plan to further assess the horizontal extent of petroleum hydrocarbons and MTBE in shallow groundwater at the Site. The goals of the investigation are to (1) collect groundwater samples (if groundwater is present) from within utility backfill at the Site to assess the potential for permeable backfill to act as a potential preferential pathway for migration of MTBE impacted groundwater, and (2) to collect further groundwater quality data to further assess the extent of groundwater impacted by MTBE beneath the Site.

TASK 1: PRE-FIELD ACTIVITIES

Prior to mobilizing for field work MFG will visit the Site to mark the proposed boring locations; contact Underground Service Alert; and update the Site-specific health and safety plan (HASP) to govern the work being conducted. Permits will be obtained from the Alameda County Public Works Agency. A private utility locator will be used to clear individual boring locations for on-site utilities that are beyond the scope of the USA notification.

The HASP will include information on the anticipated chemicals of concern and about mitigating personnel exposures. It will include a map of the route to the nearest hospital that accepts emergency cases and will be signed by all personnel involved with the project.

TASK 2: GROUNDWATER QUALITY INVESTIGATION

To meet the goals of this proposed investigation, MFG will advance soil borings using direct-push techniques and/or hand auger methods for the purpose of collecting groundwater samples for chemical analysis. We propose to collect samples from the approximate locations shown on Figure 2. Proposed sample locations B8 through B11 are designed to collect groundwater samples within utility backfill to assess the potential for preferential pathways of groundwater migration. We propose that borings at these sample locations will be advanced using hand auger techniques to attempt to minimize the potential for damage to the existing storm drains. Proposed sample locations B12 through B14 are intended to provide additional groundwater quality data to assess the extent of shallow groundwater impacted by MTBE. Borings at these sample locations will be advanced using direct-push techniques.

An MFG field engineer/scientist will be present at the Site to observe the drilling operations, log the borings, and assist in obtaining groundwater samples. The borings will be logged in general accordance with the Unified Soil Classification System. The downhole drilling equipment will be steam cleaned or washed in a non-ionic detergent, rinsed with tap water and then distilled water, before reuse in another boring. Wash water and soil cuttings from the drilling operation will be contained in appropriate containers, labeled and left on site for later disposal pending analytical results.

Soil quality will be screened with a photoionization detector to assess the presence of volatile organic compounds in the soil, however this work plan does not include collection of soil samples for chemical

analysis. Samples for screening will be selected based on a visual examination of the cuttings or core, or if no distinguishing features are observed, at 5-foot intervals.

One grab groundwater sample will be collected from each proposed boring, provided that adequate volumes of groundwater are present. A slotted PVC screen (temporary well) will be installed in each boring, and water samples will be obtained using a small diameter disposable bailer. Following collection of the grab groundwater samples in each location, the temporary casing will be removed and the boring will be backfilled with a cement-bentonite slurry. Groundwater sampling will be performed using the appropriate MFG standard protocols for obtaining samples for chemical analysis. All samples will be transported under chain-of-custody procedures to an analytical laboratory certified by the California Department of Health Services.

Chemical Analysis

Groundwater samples collected during the investigation will be analyzed for VOCs using EPA Method 8260 and for purgeable total petroleum hydrocarbons as gasoline (TPHg). Quality control samples will include 1 field duplicate and 1 trip blank.

TASK 3: DATA ANALYSIS AND REPORT PREPARATION

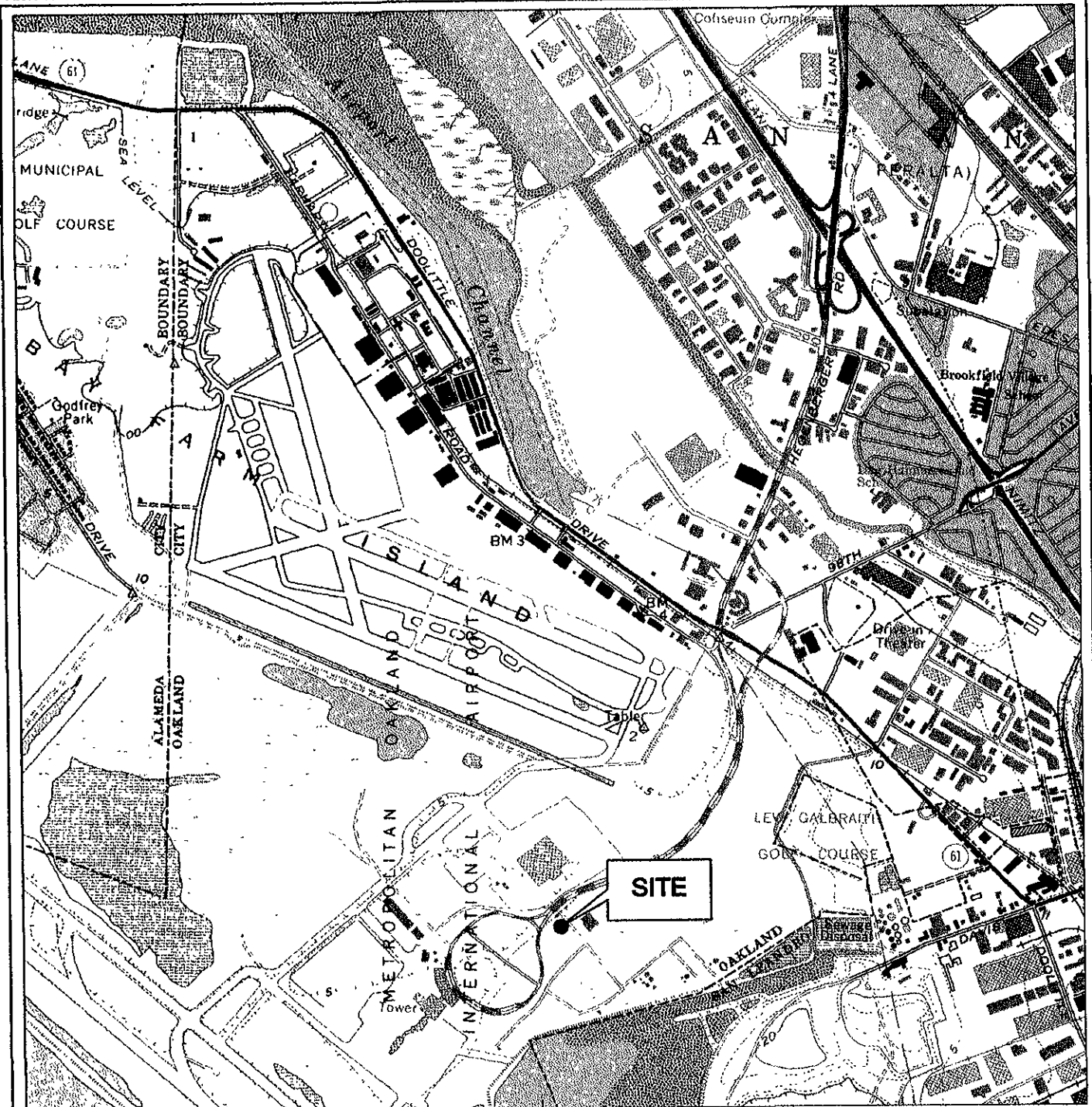
The field and laboratory data will be reviewed and presented in boring logs and summary tables that will be included in a report. The investigation report will include the following:

- narrative describing the scope of work, details of the field investigation and laboratory analysis, and sample results;
- vicinity map;
- site plan showing the locations of the borings and selected laboratory results;
- table summarizing the analytical results;
- boring logs
- laboratory reports; and
- photographs

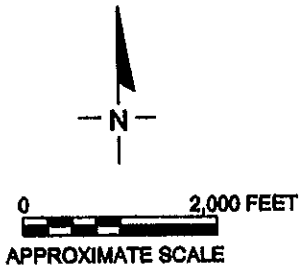
SCHEDULE

Work on the project will be conducted concurrently with work to remove the existing USTs. We anticipate that this will occur in the Summer of 2002. Laboratory analysis of groundwater samples will be performed on a standard turnaround (approximately 3 weeks). A final report can be completed within about 2 weeks of receiving the final analytical laboratory reports.

FIGURES



SOURCE: USGS 7.5 MINUTE QUADRANGLE
 SAN LEANDRO, CALIFORNIA
 PHOTOREVISED 1980

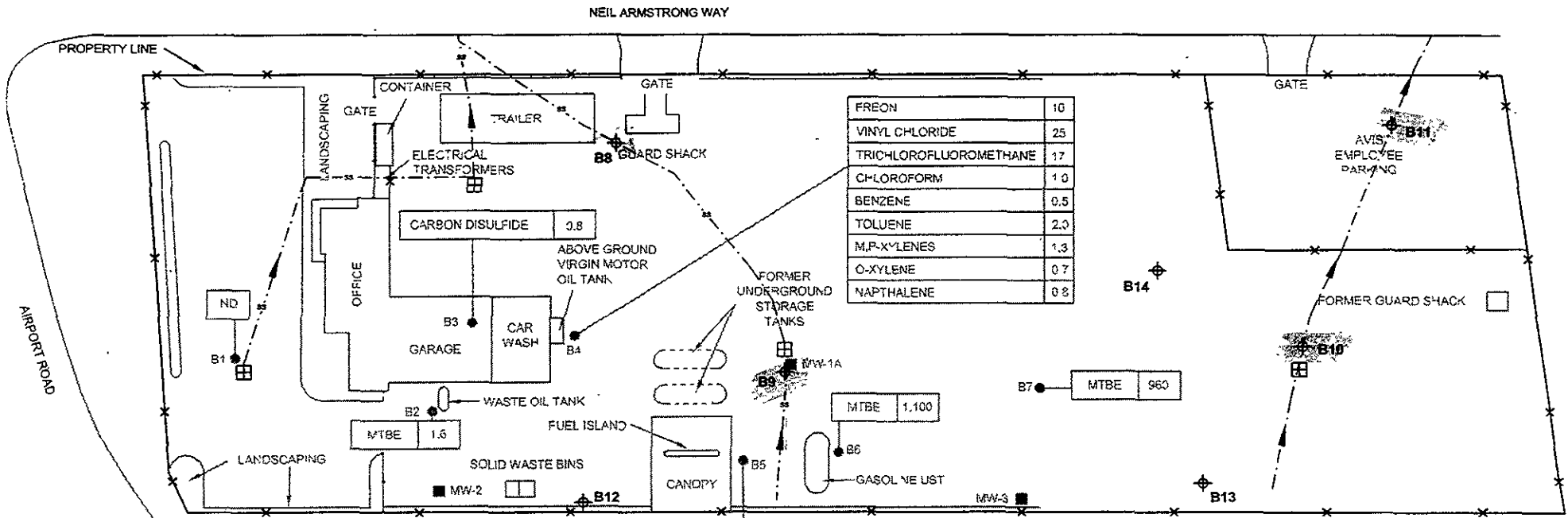


SITE LOCATION MAP

**Avis Rent A Car System, Inc. Facility
 Oakland International Airport
 Oakland, California**

PROJECT NO. 030013	BY: N. JOHNSON	FIGURE 1
DATE: 11/20/00	CHECKED: <i>NJK</i>	

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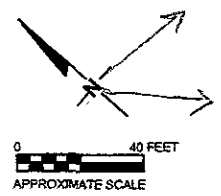


FREON	10
VINYL CHLORIDE	25
TRICHLOROFLUOROMETHANE	17
CI-LOROFORM	1.0
BENZENE	0.5
TOLUENE	2.0
M,P-XYLENES	1.3
O-XYLENE	0.7
NAPTHALENE	0.8

MTBE	410
M,P-XYLENES	12
O-XYLENE	4.6
1,3,5-TRIMETHYLBENZENE	3.4
1,2,4-TRIMETHYLBENZENE	11
NAPTHALENE	4.1
TPHg	220

EXPLANATION

- FENCE
- BLOCK WALL
- PREVIOUS GROUNDWATER SAMPLE LOCATION
- FORMER WELL LOCATIONS
- METHYL TERTIARY-BUTYL ETHER
- PROPOSED GROUNDWATER SAMPLE LOCATION
- CATCH BASIN
- APPROXIMATE STORM SEWER ALIGNMENT



PROPOSED GROUNDWATER SAMPLING LOCATIONS

Avis Rent A Car System, Inc. Facility
Oakland International Airport
Oakland, California

Project No. 030013	By: M. Matthews	Figure 2
Date: 3/13/02	Checked: K. Johnson	

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NOTE: BASE MAP ADAPTED FROM A CONSTRUCTION DRAWING PROVIDED BY AVIS RENT A CAR SYSTEM, INC.