ALLCAL PROPERTY SERVICES, INC.
ENVIRONMENTAL INVESTIGATIONS

April 9, 1999

REPORT OF PHASE II SOIL AND GROUNDWATER ASSESSMENT AND PROPOSED WORK PLAN FOR PHASE III FURTHER ASSESSMENT

Morris F. Donnelly
Jeffery W. Kerry
Kerry & Associates
151 Callan Avenue, Suite 202
San Leandro, CA 94577

RE: Palace Garage, 14336 Washington Avenue, San Leandro, CA 94587

Dear Messrs. Donnelly and Kerry:

Thank you for contracting with Allcal Property Services, Inc. (ALLCAL) to write this letter report of a soil and groundwater assessment (Phase II) at the above referenced property. The assessment was conducted according to a February 17, 1999, work plan approved by the Alameda County Health Care Services Agency (ACHCSA) in a February 26, 1999, letter (attached).

BACKGROUND

Tank Closure and Soil Remediation

Background information regarding tank closure and soil remediation is summarized from information provided by you (Client).

On February 11, 1991, an underground, 550-gallon, single-walled, steel, gasoline tank was removed by Verl's Construction, Inc. (Verl). The tank and its associated dispenser and piping were located at the northeast corner of the Palace Garage building [see attached SITE PLAN(s)]. Examination of the tank, after its removal, revealed four small holes at the top of the southerly end of the tank. **Two holes were pin size and the other two were about .25- and .5-inches in diameter.** The piping

appeared in good condition. Soil in the tank excavation contained gasoline contamination based on visual observations, the presence of odor, and head-space analysis using a photo-ionization detector (PID). One discrete soil sample (SS-1) was collected for chemical analysis from native soil directly below the tank at a depth of about 10 feet below grade. Results of chemical analyses detected total petroleum hydrocarbons as gasoline (TPHG) at a concentration of 19 parts per million (ppm).

Benzene, toluene, ethylbenzene, and xylenes (BTEX) were detected at concentrations of .21 ppm, .41 ppm, .043 ppm, and .14 ppm, respectively. Organic lead was detected at a concentration of 7 ppm.

On the day of the tank removal, additional soil excavation (overexcavation) was conducted to remove contaminated soil. It is reported (June 8, 1994, Kerry & Associates letter) that additional soil was removed to the depth that the on-site backhoe could reach, about 18 to 20 feet. A March 7, 1991, tank closure report prepared by Century West Engineering Corporation (Century West) included PID head-space measurements, from 5 to 12.5 feet deep, that were recorded during overexcavation activities. The head-space measurements showed increasing field vapors, from 170 ppm at 5 feet below grade to 880 ppm at 12.5 feet below grade. A February 25, 1991, letter from Verl indicates that soil samples from the bottom of the final excavation had vapor concentrations "substantially" lower than those shallower in the excavation; however, there is no documentation of these lower concentrations. One composite soil sample (SS-2.1, 2.2, and 2.3) was collected for chemical analysis from the stockpiled soil (resulting from tank removal and overexcavation activities) to assess disposal options. Results of chemical analyses detected concentrations of TPHG at 1,900 ppm. BTEX were detected at concentrations of 1.2 ppm, 14 ppm, 11 ppm, and 67 ppm, respectively. Organic lead was detected at a concentration of 9.9 ppm.

After conducting remedial overexcavation, the hole was lined with plastic and backfilled with pea gravel.

No groundwater was encountered during the tank removal or overexcavation activities.

The excavated soil was spread and aerated on site. After aeration, Century West sampled and characterized the soil for off-site disposal. Verl hauled and disposed of the soil to a landfill in Richmond, California.

Phase I Soil and Groundwater Assessment

On February 1, 1999, ALLCAL supervised the drilling of four soil borings to assess gasoline contamination in the vadose zone soil and groundwater in the area of the former tank. Chemical analytical results were evaluated with respect to the American Society of Testing and Materials' (ASTM) Standard for Risked Based Corrective Action (RBCA) ASTM E-1739-95. Analytical results suggested that vadose zone soil contamination by benzene may pose a cancer risk as leachate in the area of SB-1 [see attached SITE PLAN(s)], and groundwater contamination by benzene may pose a cancer risk in terms of vapor intrusion into buildings in the area of borings SB-1 and SB-2. Details of this investigation are documented in ALLCAL's February 17, 1999, **REPORT OF SOIL**

AND GROUNDWATER ASSESSMENT AND PROPOSED WORK PLAN FOR FURTHER ASSESSMENT.

Based on the above report/work plan, ALLCAL conducted a further soil and groundwater asessment which is discussed below.

SOIL AND GROUNDWATER ASSESSMENT PROCEDURES

As a further assessment of gasoline contamination of the vadose zone soil and groundwater, ALLCAL drilled three soil borings for the collection and analysis of soil and "grab" groundwater samples.

The following work was conducted:

- Submitted a February 17, 1999, report/work plan to the Client and ACHCSA for their comment and approval.
- Obtained a soil boring permit from the Alameda County Public Works Agency (ACPWA) and notified Underground Service Alert (USA).
- Drilled three exploratory soil borings and continuously logged the soil profile.
- Collected two soil and one "grab" groundwater samples from each boring for chemical analysis.
- Analyzed all soil and groundwater samples for TPHG, BTEX, and methyl tert-butyl ether (MTBE).
- Sealed all borings to ground surface with cement slurry capped by asphalt.
- Prepared this report/work plan.

Details of the above work are presented below.

Pre-field Activities

Prior to drilling soil borings, ALLCAL: (1) obtained approval of a February 17, 1999, report/work plan from the ACHCSA (see attached February 26, 1999, letter), (2) obtained a soil boring permit (attached) from the ACPWA, (3) visited the site to mark the locations of the proposed soil borings and notified USA, (4) subcontracted Fast-Tek Engineering Support Services (C57 License 589008), located in Point Richmond, California, to drill the soil borings, and (5) gave 48 hours notice to the ACHCSA prior to drilling the borings.

Locations of Soil Borings

On March 23, 1999, ALLCAL supervised the drilling of three soil borings (SB-5 through SB-7), at the approximate locations shown in the attached SITE PLAN(s), to further assess vadose zone soil and groundwater contamination by TPHG, BTEX, and MTBE. The boring locations were chosen based on drill rig accessibility and the estimated direction of regional groundwater flow (southwest to south-southwest).

Soil borings SB-5 and SB-6 were drilled at locations estimated to be downgradient from the former underground tank and former boring SB-2 in which the highest concentration of benzene was detected in the groundwater. Borings SB-5 and SB-6 are about 40 and 20 feet, respectively, in the estimated downgradient direction from boring SB-2. Soil boring SB-7 was drilled at a location estimated to be cross-gradient to the direction of groundwater flow to assess the cross-gradient, lateral extent of potential soil and groundwater contamination. See the attached SITE PLANS for soil boring locations.

Soil and Groundwater Assessment Methodology

The following discusses soil boring and soil and groundwater sampling procedures. See Attachments A, B, and C for ALLCAL's sample handling procedures, quality assurance and quality control procedures, and waste handling and decontamination procedures.

Soil Boring and Soil and Groundwater Sampling Procedures

Soil borings SB-5 through SB-7 were continuously cored to a total depth of about 16 feet.

The borings were drilled with the Geoprobe System, small diameter (about 2-inch) drill casing, direct-push technology. Soil samples were continuously collected as core into a polyethylene terephthalate glycol (PETG) liner in 4-foot depth intervals. The liner was contained within the 2-inch drill casing. The drill casing and enclosed PETG liner, was pushed by drill rods in 4-foot depth intervals to the total depth of each boring. After driving each 4-foot interval, the drill casing and enclosed liner was retrieved and the soil core was examined for contamination, for selection of soil samples to be analyzed, and for construction of lithologic logs.

Two soil samples were selected from each boring at depths of about 10 to 10.5 feet and 15 to 15.5 feet, and preserved for chemical analysis; in boring SB-5, the upper sample was collected at the depth of 11.5 to 12 feet because apparent contamination was present at this depth. Soil samples were also selected at various depths for head-space analysis using a PID [see attached EXPLORATORY BORING LOG(s)]. Head-space analysis was conducted by placing a hand-full of soil in a quart-size plastic bag, sealing the bag air-tight, placing the bag in the sun, and allowing at least 15 minutes for gasoline vapors from the soil to volatilize into the head-space of the bag. The probe of the PID was then inserted into the head-space of the bag, while minimizing the entrance of fresh air, and the concentration of vapors was recorded in ppm.

To minimize the potential for cross-contamination, the drill casing was cleaned with Alconox detergent and rinsed with distilled water between sampling events and prior to beginning each boring.

"Grab" groundwater samples were collected by using a Geoprobe, stainless-steel, discrete water sampler. "Grab" samples were obtained in each boring by using an expendable drive point to drive the sampler from 16 to 20 feet in depth, then, about 4 feet of an internal screen was exposed to allow water to enter the sampler. **Water was collected from the sampler with a "mini" stainless-steel bailer.**

After all soil and groundwater samples were collected, each boring was sealed to within about 4 inches of grade with Portland Type II cement slurry; the remainder of the boring was sealed with asphalt.

A log of the soil profile was prepared for each boring (attached). The soil was logged according to the Unified Soil Classification System by a California Registered Geologist.

Drill cuttings are stored on site in two, labeled, 5-gallon pails. The labels show contents, date stored, suspected contaminant, expected date of removal, company name, contact person, and telephone number.

Sample Handling Methods

Soil samples selected for chemical analysis were preserved in PETG liners with no head-space by quickly covering the open ends with Teflon sheeting and capping them with plastic end-caps. The samples were labeled to show site name, project number, date, time, sample name, depth collected, and sampler name; sealed in quart-size plastic bags; and stored in an iced-cooler.

"Grab" groundwater samples were stored in laboratory provided, 40-milliliter, HCL-preserved VOAs having Teflon-lined plastic caps. Each sample was labeled and stored as above.

Chemical Analyses

All soil and groundwater samples were delivered under chain-of-custody to California Department of Health Services certified McCampbell Analytical Inc., located in Pacheco California, for chemical analysis for TPHG, BTEX, and MTBE by EPA Methods GCFID, 5030/8015 modified; 8020; and 8020; respectively.

RESULTS OF SOIL AND GROUNDWATER ASSESSMENT

Soil Profile and Occurrence of Groundwater

Below the surface cover of asphalt, concrete, and/or aggregate base material, the soil profile was

similar among the borings and those borings conducted earlier. In all borings, a clayey sand was encountered beneath the surface cover to a depth of about 2 feet. Beneath the clayey sand, a black clay interval was present in all borings to a depth ranging from 5 to 8 feet. In all borings, the black clay was underlain by a brown or dark brown clay to a depth ranging from 7 to 13 feet. The brown clay was underlain by green clay with a gasoline odor to a depth of about 14 feet. Below 14 feet to 16 feet, a green silt and/or gravelly sand was observed. The silt ranged from damp to wet and the sand was wet.

Depth to groundwater was estimated to be 15.5 feet below grade.

Results of Chemical Analyses

Soil Samples

In soil boring **SB-5, TPHG** was detected at the depths of 11.5 and **15 feet** at concentrations of 2.8 ppm and **1,900 ppm**, respectively; **benzene** was detected at concentrations of .092 ppm and **4.3 ppm**, respectively. The laboratory noted that the TPHG results were significant unmodified or weakly modified gasoline. The sample results are believed to be within the capillary fringe.

In soil boring **SB-6, TPHG** was detected at the depths of 10 and 15 feet at a concentrations of 880 ppm and **3,200 ppm**, respectivley; **benzene** was detected at concentrations of 3.5 ppm and **22 ppm**, respectively. The laboratory noted that the TPHG results were significant unmodified or weakly modified gasoline. The sample results are believed to be within the capillary fringe.

In soil boring **SB-7, TPHG and benzene were nondetectable.**

See the attached table for concentrations of other BTEX chemicals in the above soil borings.

The reader is referred to the attached EXPLORATORY BORING LOG(s) for results of head-space analyses.

No MTBE was detected in any of the soil samples.

Groundwater Samples

TPHG was detected in the "grab" groundwater samples of borings SB-5, SB-6, and SB-7 at concentrations of 91,000 parts per billion (ppb), 94,000 ppb, and 1,500 ppb, respectively. The laboratory noted that the water samples from borings SB-5 and SB-6 contained significantly unmodified or weakly modified gasoline and a lighter than water immiscible sheen. Additionally, the water sample from boring SB-5 contained greater than ~ 5 vol.% sediment. The laboratory noted that the water sample from boring SB-7 had significantly heavier gasoline range compounds and may be aged gasoline; this sample also had no recognizable pattern and contained greater than ~5 vol.% sediment.

Benzene was detected in the **"grab" groundwater** samples of borings **SB-5 and SB-6** at concentrations of **3,800 ppb and 5,900 ppb.** No benzene was detected in the SB-7 water sample.

See the attached table for concentrations of other BTEX chemicals in the above water samples. No MTBE was detected in any of the water samples.

CONCLUSIONS

The following discussion of the site's potential risk or no risk to human health and the environment is based on detected concentrations of benzene in the soil and groundwater and the ASTM Standard for RBCA.

Vadose Zone Soil

Because of the distance of soil borings SB-5 and SB-6 from the presently assumed source of gasoline contamination (the Palace Garage UST), the contamination detected in the shallow soil samples is believed be the result of the vertical movement of the groundwater table in response to changes in recharge. The vertical movement of the groundwater table is believed to have allowed dissolved and/or floating gasoline chemicals to partition onto the soil at a depth as shallow as about 9 feet. The shallow soil samples are probably best characterized as being in the capillary fringe. This interpretation represents a change in ALLCAL's conclusions since the February 17, 1999, report.

Visual, odor, and PID analyses suggest that the vadose zone (above the capillary fringe) presents no health hazards to humans or the environment with respect to gasoline contamination.

Groundwater

For the following discussion, the reader is referred to the attached SITE PLAN(s) for TPHG and benzene isoconcentration maps.

Since groundwater at the site is not used as drinking water, the potential health hazard for groundwater ingestion is not considered here.

With respect to the ASTM RBCA Tier 1 Risk-Based Screening Level Look-Up Table, benzene concentrations in the water samples from borings SB-1, SB-2, SB-5, and SB-6 exceed the target level cancer risk of 1 in 100,000 (214 ppb) in a commercial/industrial setting and when the contamination is evaluated in terms of vapor intrusion from groundwater to buildings.

Because of the potential health hazard of the groundwater detected at the site, ALLCAL recommends additional soil borings to further assess the extent of gasoline contamination. The attached SITE PLAN(s) illustrating **TPHG and benzene plume concentrations suggest that the higher concentrations of dissolved gasoline constituents may be migrating under the neighboring building northerly of the Palace Garage. There is also a suggestion that high contaminant concentrations may exist beneath the driveway and the Palace Garage building toward Washington Avenue.** Based on these indications and the further need to delineate the edges of the plume, ALLCAL is proposing a Phase III site assessment. A proposed work plan follows.

PROPOSED WORK PLAN FOR FURTHER SITE ASSESSMENT

Because the above Phase II soil and groundwater assessment has detected the highest concentrations of TPHG and benzene to date, ALLCAL is proposing a Phase III soil and groundwater assessment consisting of three additional soil borings for the collection of soil and "grab" groundwater samples.

Proposed Locations of Soil Borings

The locations of the borings are proposed to be in southerly and southwesterly directions from the former underground tank location, since significant groundwater contamination was detected in borings SB-5 and SB-6. Proposed boring locations are shown in the attached SITE PLAN(s).

Proposed Soil and Groundwater Assessment Methodology

ALLCAL proposes to collect, handle, and analyze soil and groundwater samples as described in the previously approved January 20, 1999, work plan, with the exception that "grab" groundwater samples will be collected with a "mini" stainless-steel bailer.

One soil sample is proposed to be collected from each boring at a depth about 1 to 2 feet above groundwater. Additional soil samples will be collected where apparent significant contamination is present in any of the borings.

Permits and Site Health and Safety Plan

A soil boring permit will be obtained from the ACPWA and all work will be conducted under ALLCAL's previously approved SITE HEALTH AND SAFETY PLAN.

Report

ALLCAL will document the work conducted and analytical results in a report. The report will include: copies of all permits required to conduct the work, a site plan showing locations of the soil borings, graphic boring logs, results of chemical analyses, and copies of certified analytical reports with chains-of-custody.

Time Schedule

ALLCAL proposes to conduct the above scope of work within four weeks of obtaining approval of the above work plan from the Client and the ACHCSA and on obtaining contractual agreement with the Client.

LIMITATIONS

This report is based on laboratory analyses of soil and groundwater samples. The chemical analytical results for the samples are considered applicable to that horizontal and vertical location

from which they were collected. The conclusions contained herein are based on field observations, analytical data, and professional judgement which is in accordance with current standards of professional practice.

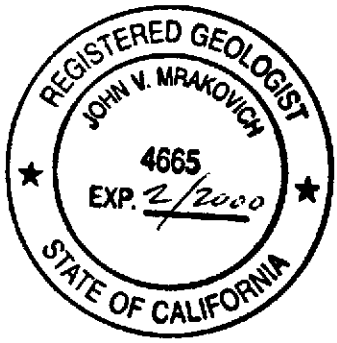
Representations made of soil and groundwater conditions between sample locations are extrapolations based on professional opinions and judgements and accepted industry practice. No warranty is expressed or implied. The extent of testing and data collection directly affects the statistical confidence level of all work performed. As a practical matter, to reach or even approach a 100 percent statistical level would be prohibitively expensive.

The findings and conclusions of this report are valid as of the present time; however, the passing of time could change the conditions of the subsurface due to natural processes or the influence of man. Accordingly, the findings of this report may be invalidated, wholly or partly, by changes beyond ALLCAL's control. Therefore, this report should not be relied upon after an extended period of time without being reviewed by a Civil Engineer or Registered Geologist.

If you have any questions, please call me at (510) 581-2320.

Sincerely,

John V. Mrakovich, Ph.D.
Registered Geologist No. 4665



ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700

February 26, 1999

STID 2355

Morris F. Donnelly
Jeffrey W. Kerry
Kerry & Associates
151 Callahan Avenue, Ste. 202
San Leandro, CA 94577

RE: Palace Garage, 14336 Washington Avenue, San Leandro

Dear Messrs. Donnelly and Kerry:

Thank you for our receipt of the February 17, 1999 All Cal Property Service, Inc. (All Cal) report for the initial stage of the environmental investigation at your site. This report also encloses a work plan proposing an additional phase of investigation.

All Cal reports that up to 69,000 micrograms per liter (ug/l) total petroleum hydrocarbons as gasoline (TPH-G) and 670-ug/l benzene, among other fuel constituents, were identified in sampled ground water encountered beneath the site. In addition, up to 4700 parts per million (ppm) TPH-G and 12 ppm benzene, among others, were also identified in soil samples collected at a depth of 15 – 15.5' in boring SB-1. SB-1 was advanced through the area of the former fuel dispenser.

All Cal correctly concludes that further assessment work is required to reasonably define the extent of the release from the former tanks at this site. A phased approach will be necessary. The enclosed work plan scope appears to adequately address this issue. Therefore, the All Cal work plan is accepted as submitted for the next phase of this investigation.

Please call me at (510) 567-6783 when fieldwork has been scheduled.

Sincerely,

Scott O. Seery, CHMM
Hazardous Materials Specialist

cc: Chuck Headlee, RWQCB
Mike Bakaldin, San Leandro Hazardous Materials Program
Bob Chambers, Alameda County District Attorney's Office
John Mrakovich, All Cal Property Services, Inc.
27973 High Country Dr., Hayward, CA 94542-2530

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
951 TURNER COURT, SUITE 300, HAYWARD, CA 94545-2651
PHONE (510) 670-5675 ANDREAS GODFREY FAX (510) 670-5262
(510) 670-5248 ALVIN KAN

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 14332 WASHINGTON AVE. SAN LEANDRO, CA 94577

California Coordinates Source _____ ft. Accuracy ± ___ ft.
CCN _____ ft. CCE _____ ft.
APN _____

CLIENT
Name JEFFREY KEARY
Address 151 CALLAN AVE. # 202 Phone 510 483 4211
City SAN LEANDRO, CA Zip 94577

APPLICANT
Name JOHN MRAKOVICH
Company ALEA PROPERTY SVC, LLC Fax 510 581 8492
Address 2993 HILL COUNTRY DR. Phone 510 581 2320
City HAYWARD, CA Zip 94542

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	☐	General	☐
Water Supply	☐	Contamination	☒
Monitoring	☐	Well Destruction	☐

PROPOSED WATER SUPPLY WELL USE

New Domestic	☐	Replacement Domestic	☐
Municipal	☐	Irrigation	☐
Industrial	☐	Other _____	☐

DRILLING METHOD:
Mud Rotary ☐ Air Rotary ☐ Auger ☐
Cable ☐ Other ☒ GEOPROBE

DRILLER'S LICENSE NO. C57 624461

WELL PROJECTS
Drill Hole Diameter _____ in. Maximum
Casing Diameter _____ in. Depth _____ ft.
Surface Seal Depth _____ ft. Number _____

GEOTECHNICAL PROJECTS
Number of Borings 3 Maximum
Hole Diameter 2 in. Depth 25 ft.

ESTIMATED STARTING DATE 3/23/99
ESTIMATED COMPLETION DATE 3/23/99

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE John Mrakovich DATE 3/15/99

FOR OFFICE USE

PERMIT NUMBER 99WR 108
WELL NUMBER _____
APN _____

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
(1.) A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
(2.) Submit to ACPWA within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
(3.) Permit is void if project not begun within 90 days of approval date.

B. WATER SUPPLY WELLS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

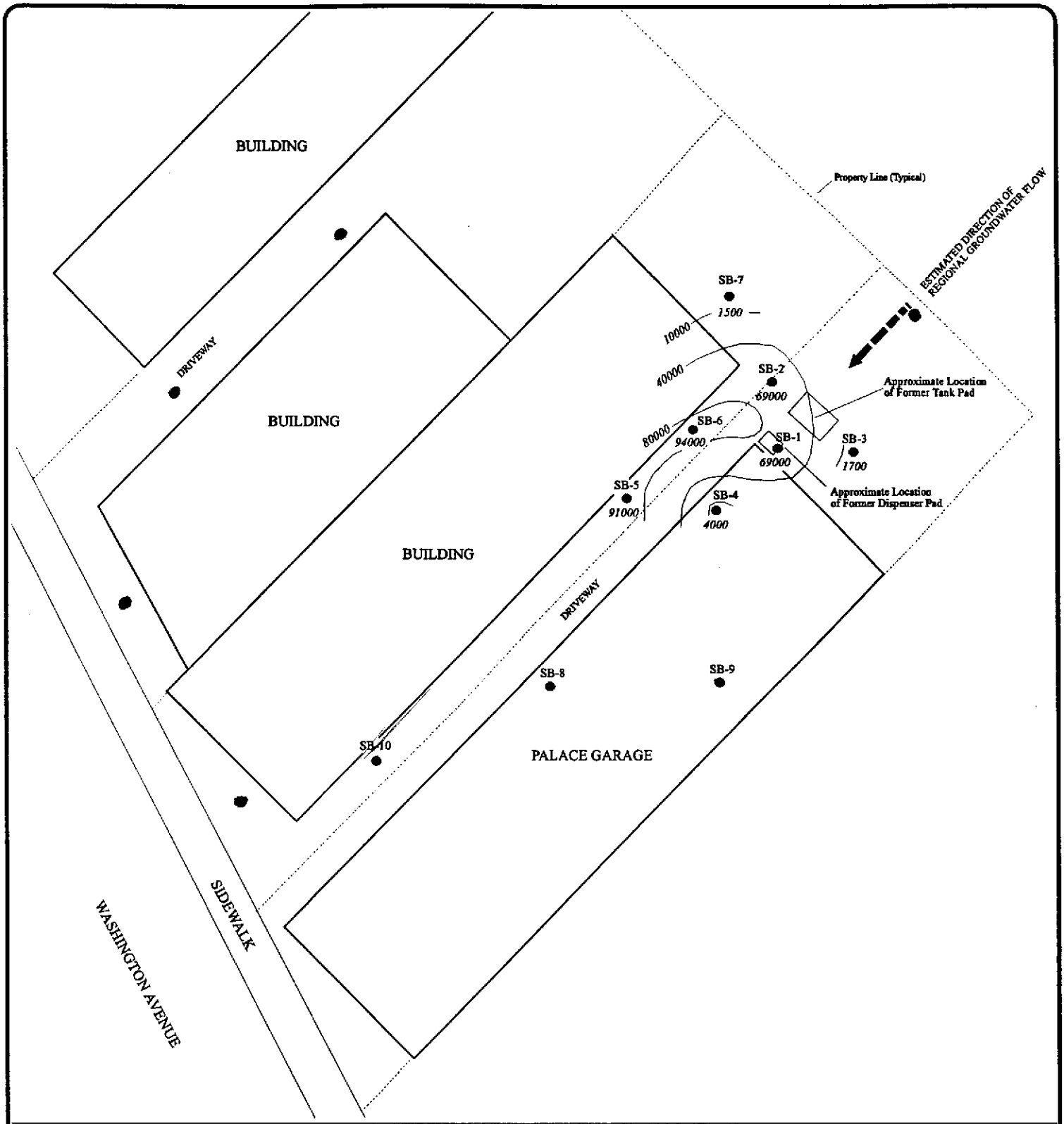
(D.) GEOTECHNICAL
Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

E. CATHODIC
Fill hole above anode zone with concrete placed by tremie.

F. WELL DESTRUCTION
See attached.

G. SPECIAL CONDITIONS

APPROVED Andreas Godfrey DATE 3/19/99



Legend

SB-8 ○ Proposed Name and Location of Soil Boring

SB-1 ● 1500 Name and Location of Soil Boring with TPHG Concentration in ppb

40000 TPHG Isoconcentration Contour (ppb)

Contour Interval Variable

0 30

Approximate Scale (ft)

N

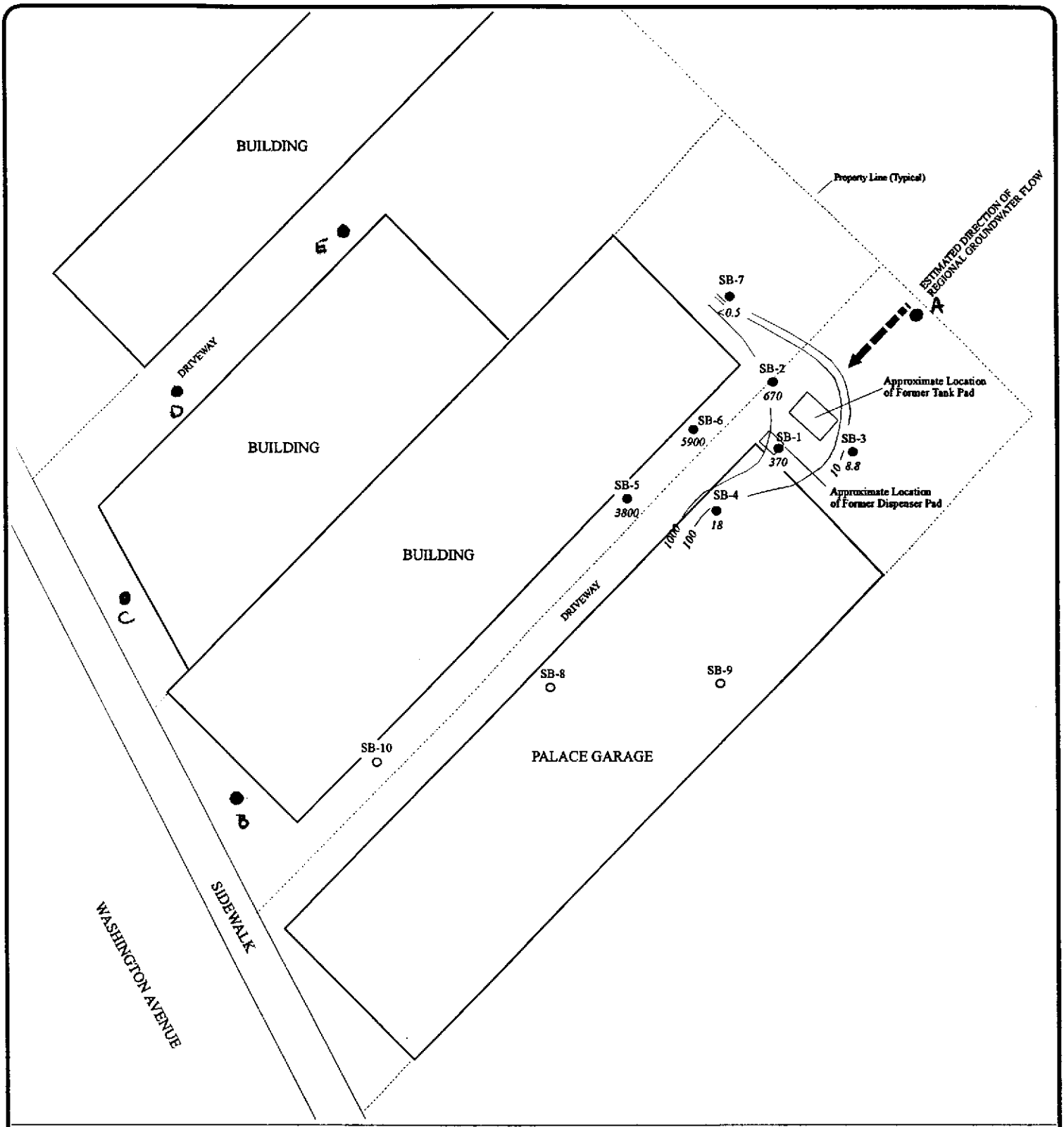
ALLCAL PROPERTY SERVICES

SITE PLAN

PALACE GARAGE

ESTIMATED TPHG ISOCONCENTRATION MAP

14336 WASHINGTON AVENUE
SAN LEANDRO, CA 94577



Legend

SB-8 ○ Proposed Name and Location of Soil Boring

SB-1 ● 1500 Name and Location of Soil Boring with Benzene Concentration in ppb

1000 Benzene Isoconcentration Contour (ppb)

Logarithmic Contour Interval Beginning with 10 ppb

0 30

Approximate Scale (ft)

N

ALLCAL PROPERTY SERVICES

SITE PLAN

PALACE GARAGE

ESTIMATED BENZENE ISOCONCENTRATION MAP

14336 WASHINGTON AVENUE
SAN LEANDRO, CA 94577

EXPLORATORY BORING LOG

Project Number: 135

Boring Number: SB-5

Project Name: 14336 Washington Avenue
San Leandro, CA 94578

Page Number: 1 of 1

By: ALLCAL PROPERTY SERVICES, INC

Date: 3/23/99

Surface Elevation: NA

RECOVERY (in/in.)	VAPORS (ppm)	PENETRATION (blows/ft.)	GROUND-WATER LEVEL	DEPTH (ft.)	SAMPLES ANALYZED	SOIL TYPE	DESCRIPTION
						SC	0 - .33 FT.: ASPHALT UNDERLAIN BY AGGREGATE BASE MATERIAL
48/48	0						.33 - 2.0 FT.: CLAYEY SAND (SC), LIGHT BROWN, FINE TO MEDIUM-GRAINED, GRAVELLY, DAMP, NO ODOR.
				5		CL	2.0 - 8.0 FT.: CLAY (CL), BLACK, SANDY, FIRM, DAMP, NO ODOR.
48/48	0						
48/48	11.5			10		CL	8.0 - 12.0 FT.: CLAY (CL), DARK BROWN, SANDY, FIRM, ORGANIC MATERIAL, DAMP, NO ODOR.
						CL	12.0 - 13.0 FT.: CLAY (CL), BROWN, SANDY, FIRM, DAMP, GASOLINE ODOR @ 13 FEET.
						CL	
48/48			▼	15		ML	13.0 - 14.0 FT.: CLAY (CL), GREEN, SANDY, FIRM, DAMP, GASOLINE ODOR.
						SP	14.0 - 15.0 FT.: CLAYEY SILT (ML), GREEN, DAMP TO MOIST, GASOLINE ODOR.
							15.0 - 16.0 FT.: GRAVELLY SAND (SP), GREEN, MEDIUM TO COARSE-GRAINED, WET, GASOLINE ODOR.
							CONTINUOUSLY CORED TO 16 FT. DISCRETE WATER SAMPLER PUSHED TO 20 FEET WITH 4 FEET OF SCREEN EXPOSED.
				20			

Remarks: BORING CONTINUOUSLY CORED WITH 2.0 - INCH O. D., DIRECT-PUSH, GEOPROBE SYSTEM. SAMPLES COLLECTED IN 1.75- BY 48 - INCH PETG LINER. BORING SEALED TO GROUND SURFACE WITH NEAT PORTLAND TYPE II CEMENT.

EXPLORATORY BORING LOG

Project Number: 135

Boring Number: SB-6

Project Name: 14336 Washington Avenue
San Leandro, CA 94578

Page Number: 1 of 1

By: ALLCAL PROPERTY SERVICES, INC

Date: 3/23/99

Surface Elevation: NA

RECOVERY (in/in.)	VAPORS (ppm)	PENETRATION (blows/ft.)	GROUND-WATER LEVEL	DEPTH (ft.)	SAMPLES ANALYZED	SOIL TYPE	DESCRIPTION
						SC	0 - .33 FT.: ASPHALT UNDERLAIN BY AGGREGATE BASE MATERIAL
48/48	0					CL	.33 - 2.0 FT.: GRAVELLY, CLAYEY SAND (SC), LIGHT BROWN, FINE TO MEDIUM-GRAINED, GRAVEL TO 1-INCH DIAMETER, DAMP, NO ODOR.
				5			2.0 - 6.0 FT.: CLAY (CL), BLACK, SANDY, STIFF, ROOTLETS, DAMP, NO ODOR.
48/48	0						6.0 - 14.0 FT.: CLAY (CL), BROWN, SANDY, STIFF, ORGANIC MATERIAL, DAMP, NO ODOR.
				10		CL	@ 9.0 - 14.0 FT.: GREEN STAINING.
48/48	181						
48/48			▼	15		ML	14.0 - 16.0 FT.: CLAYEY SILT (ML), GREEN-BROWN, DAMP TO MOIST, GASOLINE ODOR.
							CONTINUOUSLY CORED TO 16 FT. DISCRETE WATER SAMPLER PUSHED TO 20 FEET WITH 4 FEET OF SCREEN EXPOSED.
				20			

Remarks: BORING CONTINUOUSLY CORED WITH 2.0 - INCH O. D., DIRECT-PUSH, GEOPROBE SYSTEM. SAMPLES COLLECTED IN 1.75- BY 48 - INCH PETG LINER. BORING SEALED TO GROUND SURFACE WITH NEAT PORTLAND TYPE II CEMENT.

EXPLORATORY BORING LOG

Project Number: 135

Boring Number: SB-7

Project Name: 14336 Washington Avenue
San Leandro, CA 94578

Page Number: 1 of 1

By: ALLCAL PROPERTY SERVICES, INC

Date: 3/23/99

Surface Elevation: NA

RECOVERY (in/in.)	VAPORS (ppm)	PENETRATION (blows/ft.)	GROUND-WATER LEVEL	DEPTH (ft.)	SAMPLES ANALYZED	SOIL TYPE	DESCRIPTION
						SC	0 - .33 FT.: ASPHALT UNDERLAIN BY AGGREGATE BASE MATERIAL
48/48	0					CL	.33 - 2.0 FT.: GRAVELLY, CLAYEY SAND (SC), LIGHT BROWN, FINE TO MEDIUM-GRAINED, GRAVEL TO 1-INCH DIAMETER, DAMP TO MOIST, NO ODOR.
				5			2.0 - 5.0 FT.: CLAY (CL), BLACK, SANDY, FIRM, DAMP, NO ODOR.
48/48	0					CL	5.0 - 7.0 FT.: CLAY (CL), BROWN, SANDY, FIRM, DAMP, NO ODOR.
48/48	2.4			10		CL	7.0 - 14.0 FT.: CLAY (CL), GREEN, SANDY, FIRM, DAMP, GASOLINE ODOR.
48/48			▼	15		ML	14.0 - 16.0 FT.: SILT (ML), GREEN, CLAYEY, MOIST TO WET, GASOLINE ODOR.
							CONTINUOUSLY CORED TO 16 FT. DISCRETE WATER SAMPLER PUSHED TO 20 FEET WITH 4 FEET OF SCREEN EXPOSED.
				20			

Remarks: BORING CONTINUOUSLY CORED WITH 2.0 - INCH O. D., DIRECT-PUSH, GEOPROBE SYSTEM. SAMPLES COLLECTED IN 1.75- BY 48 - INCH PETG LINER. BORING SEALED TO GROUND SURFACE WITH NEAT PORTLAND TYPE II CEMENT.

TABLE

SUMMARY OF SOIL AND GROUNDWATER CHEMICAL ANALYSES

Soil Boring	Matrix	Depth (ft)	TPHG	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE
SB-1	soil[1]	10-10.5	440b	0.51	2.6	8.1	47	<0.5
SB-1	soil	15-15.5	4700a	12	21	88	480	<10
SB-2	soil	10-10.5	<1.0	0.016	0.012	<0.005	0.016	<0.05
SB-2	soil	15-15.5	790a	0.64	4.8	5.3	18	<0.5
SB-3	soil	10-10.5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05
SB-3	soil	15-15.5	<1.0	<0.005	0.021	<0.005	0.010	<0.05
SB-4	soil	11.5-12	<1.0	<0.005	0.010	<0.005	0.007	<0.05
SB-4	soil	15-15.5	35bj	0.029	0.32	0.13	0.22	<0.05
SB-5	soil	11.5-12	2.8a	0.092	0.023	0.064	0.11	<0.05
SB-5	soil	15-15.5	1900a	4.3	14	35	170	<10
SB-6	soil	10-10.5	880a	3.5	16	18	89	<1
SB-6	soil	15-15.5	3200a	22	160	89	460	<10
SB-7	soil	10-10.5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05
SB-7	soil	15-15.5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05
SB-1	water[2]	17-21	69000ah	370	6200	3500	15000	<200
SB-2	water	17-21	69000ah	670	760	2700	8600	<400
SB-3	water	17-21	1700a	8.8	28	52	160	<5.0
SB-4	water	17-21	4000a	18	170	120	480	<10.0
SB-5	water	16-20	91000ahi	3800	4300	4600	21000	<200
SB-6	water	16-20	94000ah	5900	10000	5000	25000	<900
SB-7	water	16-20	1500bji	<0.5	0.89	3.6	1.1	<10

Phase I

Phase II

[1] Contaminant concentrations for soil reported in parts per million (ppm). [2] Contaminant concentrations for water reported in parts per billion (ppb). a) Unmodified or weakly modified gasoline is significant. b) Heavier gasoline range compounds are significant (aged gasoline?). h) Higher than water immiscible sheen is present. i) liquid sample contains greater than~5 vol.% sediment. j) No recognizable pattern.

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
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ALLCAL Property Services 27973 High Country Drive Hayward, CA 94542-2530	Client Project ID: #135; 14336 Washington Ave.	Date Sampled: 03/23/99
		Date Received: 03/23/99
	Client Contact: John Mrakovich	Date Extracted: 03/23/99
	Client P.O:	Date Analyzed: 03/23/99

03/30/99

Dear John:

Enclosed are:

1). the results of **9** samples from your **#135; 14336 Washington Ave.** project,

2). a QC report for the above samples

3). a copy of the chain of custody, and

4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Edward Hamilton, Lab Director

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ALLCAL Property Services 27973 High Country Drive Hayward, CA 94542-2530	Client Project ID: #135; 14336 Washington Ave.	Date Sampled: 03/23/99
		Date Received: 03/23/99
	Client Contact: John Mrakovich	Date Extracted: 03/23/99
	Client P.O:	Date Analyzed: 03/25-03/29/99

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)+	MTBE	Benzene	Toluene	Ethylben-zene	Xylenes	% Rec. Surr.
05716	SB7-10-10.5	S	ND	ND	ND	ND	ND	ND	104
05717	SB7-15-15.5	S	ND	ND	ND	ND	ND	ND	100
05718	SB-7W	W	1500,b,j,i	ND<10	ND	0.89	3.6	1.1	112
05719	SB6-10-10.5	S	880,a	ND<1	3.5	16	18	89	---#
05720	SB6-15-15.5	S	3200,a	ND<10	22	160	89	460	---#
05721	SB-6W	W	94,000,a,h	ND<900	5900	10,000	5000	25,000	95
05722	SB5-11.5-12	S	2.8,a	ND	0.092	0.023	0.064	0.11	98
05723	SB5-15-15.5	S	1900,a	ND<10	4.3	14	35	170	101
05724	SB-5W	W	91,000,a,h,i	ND<200	3800	4300	4600	21,000	103
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

cluttered chromatogram; sample peak coelutes with surrogate peak

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
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Tele: 925-798-1620 Fax: 925-798-1622

QC REPORT FOR HYDROCARBON ANALYSES

Date: 03/25/99 Matrix: WATER

Analyte	Concentration (ug/L) Sample (#05350)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.0	103.1	105.6	100.0	103.1	105.6	2.4
Benzene	0.0	9.6	9.8	10.0	96.0	98.0	2.1
Toluene	0.0	9.9	10.1	10.0	99.0	101.0	2.0
Ethyl Benzene	0.0	10.1	10.4	10.0	101.0	104.0	2.9
Xylenes	0.0	29.9	30.5	30.0	99.7	101.7	2.0
TPH(diesel)	0.0	8049	8167	7500	107	109	1.5
TRPH (oil & grease)	0	26200	26900	23700	111	114	2.6

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

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QC REPORT FOR HYDROCARBON ANALYSES

Date: 03/25/99 Matrix: SOIL

Analyte	Concentration (mg/kg) Sample (#01929)	MS	MSD	Amount Spiked	% Recovery MS	MSD	RPD
TPH (gas)	0.000	1.919	1.858	2.03	95	92	3.2
Benzene	0.000	0.206	0.192	0.2	103	96	7.0
Toluene	0.000	0.210	0.196	0.2	105	98	6.9
Ethylbenzene	0.000	0.208	0.194	0.2	104	97	7.0
Xylenes	0.000	0.634	0.612	0.6	106	102	3.5
TPH(diesel)	0	308	309	300	103	103	0.3
TRPH (oil and grease)	0.0	24.6	22.9	20.8	118	110	7.2

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

ALLCAL PROPERTY SERVICES
ENVIRONMENTAL INVESTIGATIONS
27973 HIGH COUNTRY DRIVE
HAYWARD, CA 94542-2530
FAX (510) 581-8490
Ph (510) 581-2320

LAB: MCCAMPBELL

TURNAROUND: NORMAL

P.O. #: NA

PAGE 1 OF 1

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CHAIN OF CUSTODY

PROJECT NO.	SITE NAME & ADDRESS
135	14336 WASHINGTON AVE. SAN LEANDRO, CA

SAMPLER NAME, ADDRESS AND TELEPHONE NUMBER: JOHN MRAKOVICH

	ID NO.	DATE	TIME	SOIL	WATER	SAMPLING LOCATION	(1) TYPE OF CONTAINER	TOTAL LIGHT HC	AROMATIC HC (BTX)	TOTAL HEAVY HC	OIL & GREASE	VOC SCAN (624's)	OTHER	REMARKS
	SB-7-10.0-10.5	3/23/99	9:25	X		SB-7	PETG LINER	X	X					05716
	SB-7-15.0-15.5		9:35	X			↓							05717
9	SB-7W		9:45		X	↓	2-40ML VOA							05718
	SB-6-10.0-10.5		10:30	X		SB-6	PETG LINER							05719
	SB-6-15.0-15.5		10:37	X			↓							05720
12	SB-6W		10:55		X	↓	2-40ML VOA							05721
	SB-5-11.5-12.0		11:30	X		SB-5	PETG LINER							05722
	SB-5-15.0-15.5		11:35	X			↓							05723
5	SB-5W	↓	11:50		X	↓	2-40ML VOA	↓	↓					05724

Relinquished by : (Signature)	Date / Time	Received by : (Signature)	Relinquished by : (Signature)	Date / Time	Received by : (Signature)
D. Mrakovich	3/23/99 3:07	Angel Butts	Angel Butts	3/23 4:50	
Relinquished by : (Signature)	Date / Time	Received by : (Signature)	Relinquished by : (Signature)	Date / Time	Received by : (Signature)
Relinquished by : (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
			3/23/99 4:50		

ICE/ ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓

PRESERVATION APPROPRIATE ✓ CONTAINERS ✓

VOAS	O&G	METALS	OTHER
✓			

DATE: 3/23/99

ATTACHMENT A

SAMPLE HANDLING PROCEDURES

Soil and groundwater samples will be packaged carefully to avoid breakage or contamination and will be delivered to the laboratory in an iced-cooler. Sample bottle/sleeve lids will not be mixed. All sample lids will stay with the original containers.

Samples will be stored in iced-coolers to maintain custody, control temperature, and prevent breakage during transportation to the laboratory. Ice, blue ice, or dry ice will be used to cool samples during transport to the laboratory. Water samples will be cooled with crushed ice.

Each sample will be identified by affixing a label on the container(s). This label will contain the site identification, sample identification number, date and time of sample collection, and the collector's initials.

Soil samples collected in brass or stainless-steel tubes or PETG liners will be preserved by covering the ends with Teflon tape and capping with plastic end-caps. The tubes and liners will be labeled, sealed in quart-size bags, and placed in an iced-cooler for transport to the laboratory.

All groundwater sample containers will be precleaned and will be obtained from a State Department of Health Services certified analytical laboratory.

A chain-of-custody form will be completed for all samples and accompany the sample cooler to the laboratory. All sample transfers will be documented in the chain-of-custody. All field personnel are personally responsible for sample collection and the care and custody of collected samples until the samples are transferred or properly dispatched.

The custody record will be completed by the field technician or professional who has been designated as being responsible for sample shipment to the appropriate laboratory. The custody record will include the following information: site identification, name of person collecting the sample(s), date and time sample(s) were collected, type of sampling conducted (composite/grab), location of sampling station, number and type of containers used, and signature of the person relinquishing samples to another person with the date and time of transfer noted.

ATTACHMENT B

QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES

The overall objectives of the field sampling program include generation of reliable data that will support development of a remedial action plan. Sample quality will be checked by the use of proper sampling, handling, and testing methods. Additional sample quality control methods may include the use of background samples, equipment rinsate samples, and trip and field blanks. Chain-of-custody forms, use of a qualified laboratory, acceptable detection limits, and proper sample preservation and holding times also provide assurance of accurate analytical data.

A quality assurance and quality control (QA/QC) program may be conducted in the field to ensure that all samples collected and field measurements taken are representative of actual field and environmental conditions and that data obtained are accurate and reproducible. These activities and laboratory QA/QC procedures are described below.

Field Samples: Additional samples may be taken in the field to evaluate both sampling and analytical methods. Three basic categories of QA/QC samples that may be collected are trip blanks, field blanks, and duplicate samples.

Trip blanks are a check for cross-contamination during sample collection, shipment, and laboratory analysis. They are water samples that remain with the collected samples during transportation and are analyzed along with the field samples to check for residual contamination. Analytically confirmed organic-free water will be used for organic parameters and deionized water for metal parameters. Blanks will be prepared by the laboratory supplying the sample containers. The blanks will be numbered, packaged, and sealed in the same manner as the other samples. One trip blank will be used for each sample set of less than 20 samples. At least 5% blanks will be used for sets greater than 20 samples. The trip blank is not to be opened by either the sample collectors or the handlers.

The field blank is a water sample that is taken into the field and is opened and exposed at the sampling point to detect contamination from air exposure. The water sample is poured into appropriate containers to simulate actual sampling conditions. Contamination due to air exposure can vary considerably from site to site.

The laboratory will not be informed about the presence of trip and field blanks, and false identifying numbers will be put on the labels.

Duplicate samples are identical sample pairs (collected in the same place and at the same time), placed in identical containers. For soils, adjacent sample liners will be analyzed. For the purpose of data reporting, one is arbitrarily designated the sample, and the other is designated as a duplicate sample. Both sets of results are reported to give an indication of the precision of sampling and analytical methods.

The laboratory's precision will be assessed without the laboratory's knowledge by labeling one of the duplicates with false identifying information. Data quality will be evaluated on the basis of the duplicate results.

Laboratory QA/QC: Execution of a strict QA/QC program is an essential ingredient in high-quality analytical results. By using accredited laboratory techniques and analytical procedures, estimates of the experimental values can be very close to the actual value of the environmental sample. The experimental value is monitored for its precision and accuracy by performing QC tests designed to measure the amount of random and systematic errors and to signal when correction of these errors is needed.

The QA/QC program describes methods for performing QC tests. These methods involve analyzing method blanks, calibration standards, check standards (both independent and the United States Environmental Protection Agency-certified standards), duplicates, replicates, and sample spikes. Internal QC also requires adherence to written methods, procedural documentation, and the observance of good laboratory practices.

ATTACHMENT C

WASTE HANDLING AND DECONTAMINATION PROCEDURES

Decontamination: Any drilling, sampling, or field equipment that comes into contact with soil or groundwater will be decontaminated prior to its use at the site and after each incident of contact with the soil or groundwater being investigated. Decontamination is essential to obtain samples that are representative of environmental conditions and to accurately characterize the extent of soil and groundwater contamination. Hollow-stem auger flights, the drill bit, and all other soil boring devices will be steam-cleaned between the drilling of each boring.

All sample equipment, including the split-spoon sampler and brass or stainless-steel tubes, will be cleaned by washing with trisodium phosphate or Alconox type detergent, followed by rinsing with tap water. Where required by specific regulatory guidelines, a nonphosphate detergent will be used.

Waste Handling: Waste materials generated during site characterization activities will be handled and stored as hazardous waste and will be stored on site in appropriately labeled containers. Waste materials anticipated include: excavated soil, drill cuttings, development and purge water, water generated during aquifer testing, water generated during decontamination, and used personnel protection equipment such as gloves and Tyvek. The site owner will be responsible for providing the storage containers and will be responsible for the disposal of the waste materials. Drill cuttings from individual borings will be stored separately in drums or covered by plastic sheeting, and the appropriate disposal procedure will be determined by the site owner following receipt of the soil sample analytical results. Storage containers will be labeled to show material stored, known or suspected contaminant, date stored, expected removal date, company name, contact, and telephone number.