March 16, 2000

Ms. eva chu
Alameda County Health Care Services Agency
Environmental Protection
1131 Harbor Bay Parkway
Alameda, CA 94502-6577

Re: Report of Groundwater Monitoring Well Installation, 1347 Park Street, Alameda, California

Dear Ms. chu:

ALLCAL Environmental (ALLCAL) is pleased to submit this report on behalf of Mr. Steve Simi (Client) for installing a groundwater monitoring well (MW-1) at the above referenced site. The Alameda County Health Care Services Agency (ACHCSA) requested this well in a December 13, 1999, letter.

The work documented in this report was conducted under a February 3, 2000, workplan prepared by ALLCAL and approved by the ACHCSA in a February 7, 2000, letter (attached).

BACKGROUND

A 1,500-gallon, heating oil, underground storage tank (UST) was removed from the site in November, 1995 (see attached SITE PLAN). On that date, soil samples collected from the sidewalls of the tank excavation, at a depth of about 11 feet, detected elevated diesel range hydrocarbons. A soil sample collected from the floor of the excavation, at a depth of about 14 feet, was non-detectable for hydrocarbons. In December, 1995, over-excavation was conducted, and a soil sample was collected from each sidewall at a depth of about 12 feet. Three of the four samples detected elevated diesel range hydrocarbons. The excavation was backfilled with clean imported fill material and re-surfaced to match the existing grade.

In September, 1998, GRIBI Associates conducted a soil and groundwater investigation to assess the extent of the contamination. Three borings (IB-1, IB-2, and IB-3) were hand-augered to depths ranging from 11.5 to 13 feet at locations southeast, west, and southwest of the former UST. Elevated petroleum hydrocarbons were detected in soil and groundwater samples collected from borings IB-1 and IB-2 (southeasterly and southwesterly of the former UST).

Based on results of the above soil and groundwater investigation, the ACHCSA requested that a groundwater monitoring well be installed southeasterly of the former UST to further evaluate groundwater quality beneath the site. The following documents well installation activities conducted

27973 HIGH COUNTRY DRIVE • HAYWARD,CA 94542-2530 • (510)581-2320 • FAX (510) 581-8490
e-mail • mrakovich@worldnet.att.net

by ALLCAL and results of groundwater chemical analyses.

WELL INSTALLATION

On February 25, 2000, ALLCAL installed groundwater monitoring well MW-1 at the subject site. The following work was conducted:

- Obtained a well installation permit from the Alameda County Public Works Agency (ACPWA).
- Obtained an excavation permit and parking control signs from the City of Alameda.
- Marked the location of the monitoring well with white paint, notified Underground Service Alert (USA), and gave the City of Alameda and the ACHCSA 48 hours' notice prior to installing the well.
- Installed a small diameter (1 inch) groundwater monitoring well (MW-1) immediately adjacent to former boring IB-1.
- Continuously collected soil samples to the total depth of the well (20 feet) for construction of a boring log and for design of the well.
- Developed, purged, and sampled groundwater from the well.
- Analyzed the groundwater sample for total petroleum hydrocarbons as gasoline, diesel, and motor oil (TPHG, TPHD, and TPHMO); benzene, toluene, ethylbenzene, and xylenes (BTEX); methyl tert-butyl ether (MTBE); and polynuclear aromatic hydrocarbons (PNAs). Prior to conducting TPHD and TPHMO analyses, the groundwater sample was prepared with a silica gel cleanup.
- Prepared this report.

Details of the above work are presented below.

Pre-drilling Activities:

Before commencing drilling activities, ALLCAL: (1) obtained a well installation permit (attached) from the ACPWA and an excavation permit (attached) with parking control signs from the City of Alameda, (2) visited the site to mark the proposed groundwater monitoring well location and contacted USA, and (3) gave 48 hours' notice to the City of Alameda and to the ACHCSA.

Well Location:

Per request of the ACHCSA in their December 13, 1999, letter, well MW-1 was installed near former boring IB-1 (see attached SITE PLAN).

Soil Boring Procedure:

Because of the high vehicular and pedestrian traffic at the project site (downtown Alameda), a 1-inch diameter groundwater monitoring well was installed. This size well installation utilized a small drill rig that minimally impacted all types of traffic and parking. Also, for future sampling events, the sampling time of the well will be significantly less than with the standard 2-inch diameter well, because of low purge volume, which also will minimize impact to traffic and parking.

An additional benefit to the installation of the 1-inch diameter well is that a minimum volume of solid and liquid wastes were generated for disposal, which is a cost savings to the Client.

The well was installed by FAST-TEK Engineering Support Services (C-57 license No. 589008) of Point Richmond, California. The first foot of the boring was drilled with an 8-inch diameter concrete corer to remove an asphalt street cover. The depth interval from 1 to 4.5 feet below grade was drilled to a 6-inch diameter by hand-auger. This size hole provided the annular thickness of sanitary seal required by the California Department of Water Resources. The remainder of the boring was drilled to a total depth of 20 feet below grade using 2-inch O.D., direct push, Geoprobe drill casing. This interval of the boring was sampled continuously as core into 1.75-inch I.D., polyethylene terephthalate glycol (PETG) liners in 3- and 4-foot depth intervals. The liner was contained within the 2.0-inch diameter drill casing. The drill casing and enclosed PETG liner, were hydraulically driven by drill rods in 3- and 4-foot depth intervals to the total depth of the boring. To minimize the potential for cross-contamination, the casing's drill shoe was cleaned with Alconox detergent and rinsed with distilled water prior to beginning the boring and between sampling events.

After driving each interval, the drill casing and enclosed liner were retrieved, and the soil core was examined for apparent contamination and construction of a soil boring log (attached). The soil was logged according to the Unified Soil Classification System, and the boring log was prepared by a California Registered Geologist.

Drill cuttings and rinsate were contained in 5-gallon steel pails and stored at property owned by the Client at 2630 Broadway in Oakland, California. The pails were labeled to show contents, date stored, suspected contaminant, company name, contact person, and telephone number.

Soil Sample Selection for Chemical Analyses:

Because vadose zone soil sampling was conducted in former boring IB-1, no soil samples were collected for chemical analyses.

Observations of Soil Profile and Depth of Groundwater:

The soil profile, beginning from immediately beneath the asphalt street cover to the total depth explored (20 feet), consisted of a reddish-brown, fine to medium-grained, clayey, silty, sand. At the depth of about 9 feet to the total depth explored, the sand was stained with apparent oil and had a hydrocarbon odor.

Groundwater was present in the boring at a depth of about 11 feet.

Well Installation and Development Procedures:

In preparation to construct the 1-inch well, a continuous 2.25-inch O.D. steel casing was inserted into the boring. Based on a depth to groundwater of about 11 feet, 14 feet of .010-slotted, 1-inch diameter, flush-threaded, schedule 40, polyvinyl chloride (PVC), machine-slotted screen was lowered in the casing. About 6 feet of 1-inch diameter, blank, PVC casing was threaded to the top of the screen to bring the top of the well to grade. The 14 feet of screen will allow for a water table fluctuation to within 6 feet below grade.

After placing the PVC screen and casing into the steel casing, the steel casing was removed and the annular space between the PVC and boring (about 0.4625 inches thick) was filled with natural sand pack and No. 2/12 filter sand to within 5 feet of grade (1 foot above the top of the screened interval). Approximately 1 foot of bentonite was placed above the sand pack, followed by a neat Portland Type II cement slurry seal to within about 8 inches of grade. The upper 8 inches of the well's construction consisted of a traffic-rated, bolt-locked, vault box set in concrete to protect the well. A water-tight locked well cap was installed on the well's casing.

Because of the high pedestrian and vehicular traffic and required parking control, the well was developed immediately after its construction. Development was conducted by removing water from the well with a peristaltic pump with intervening periods of surging with the pump's intake tubing. Based on a depth to groundwater of 11 feet, and a total well depth of 20 feet, the volume of water in the well was calculated to be 0.369 gallons. The well was developed until the water was observed to be free of sand, silt, and turbidity. A total of about 3 gallons of water was developed from the well, with the well going dry after about each gallon pumped. Development of the well took about one hour.

Development water was added to the containerized rinsate and stored as discussed above under *Soil Boring Procedure*.

Groundwater Sampling Procedure:

Well MW-1 was sampled on February 28, 2000.

Prior to sampling, the depth to groundwater from grade and total well depth were measured with an

electronic water level meter. These measurements were used to calculate the volume of water in the well and the minimum number of well volumes (three) to purge, prior to sampling. Depth to water was measured to be 8.75 feet below grade, and total well depth was measured to be 19.8 feet below grade. Water volume in the well's casing was calculated to be 0.45 gallons; the minimum purge volume was calculated to be 1.35 gallons.

The well was purged with a new, dedicated, polyethylene disposable bailer until the minimum purge volume was reached and until the parameters of temperature, pH, and electrical conductivity (measured with a Hydac meter) stabilized (see attached Records of Water Sampling). A total of 1.5 gallons of water was purged. Purge water was added to the containerized rinsate and development water and stored as discussed above under *Soil Boring Procedure*.

After purging, a groundwater sample was collected with the dedicated bailer and decanted into two, 40-milliliter, VOA bottles having Teflon-lined caps and septa, and two 1-liter amber bottles. The bottles were labeled to show site address, sample and sampler name, date and time sampled, and placed in an iced-cooler for delivery, under chain-of-custody (attached), to California Department of Health Services certified McCampbell Analytical Inc. (McCampbell) laboratory located in Pacheco, California. A trip blank sample was also stored as above and delivered to McCampbell for analysis as a test for cross-contamination during the collection of samples and during their analyses.

The groundwater and trip blank samples were analyzed for TPHG, BTEX, and MTBE by EPA Method GCFID(5030)/modified 8015, EPA Method 8020, and EPA Method 8020, respectively. Additionally, the groundwater sample was analyzed for TPHD and TPHMO by EPA Method GCFIF(3550)/modified 8015 and PNAs by EPA Method 8270. Before analysis for TPHD and TPHMO, the groundwater sample was prepared by silica gel cleanup.

Results of Chemical Analyses:

TPHG, benzene, toluene, ethylbenzene, and xylenes were detected at concentrations of 570 parts per billion (ppb), 2.3 ppb, 2.4 ppb, 2.1 ppb, and 20 ppb, respectively. The laboratory noted that the chromatogram for the TPHG indicated heavier gasoline range compounds are significant (aged gasoline?) and that lighter than water immiscible sheen was present. No MTBE was detected.

TPHD and TPHMO were detected at concentrations of 130,000 ppb and 10,000 ppb, respectively. The laboratory noted that the chromatogram for the TPHD indicated diesel and oil range compounds were significant (the diesel range had no recognizable pattern) and a lighter than water immiscible sheen was present.

Results of PNA analyses detected only naphthalene, which was detected at a concentration of 70 ppb.

Results of chemical analyses for the trip blank sample was nondetectable.

Detailed results of chemical analyses are included in the attached certified analytical report from McCampbell.

Department of Water Resources Form 188:

A Department of Water resources Form 188 (attached) has been prepared and mailed to the ACPWA for their use.

If you have any questions regarding the above report, please contact me at (510) 581-2320.

Sincerely,

John V. Mrakovich

John V. Mrakovich, Ph.D.
Registered Geologist Number 4665

REGISTERED GEOLOGIST
JOHN V. MRAKOVICH
4665
EXP. 4/02
STATE OF CALIFORNIA

cc: Steve Simi
COCHRAN & CELLI INC.
3330 Broadway
Oakland, CA 94611

StID 5511

February 7, 2000

Mr. Steve Simi
Cochran & Celli
3330 Broadway
Oakland, CA 94611

RE: Work Plan Approval for 1347 Park Street, Alameda, CA

Dear Mr. Simi:

I have completed review of AllCal Environmental's February 2000 *Workplan for Groundwater Monitoring Well Installation* prepared for the above referenced site. The proposal to install a one-inch diameter groundwater monitoring well immediately adjacent to former boring IB-1 is acceptable. Groundwater will be analyzed for TPHg, TPHd, TPHmo, BTEX, MTBE, and PNAs. Please direct the laboratory to prepare groundwater samples with a silica gel cleanup prior to TPHd and TPHmo analyses.

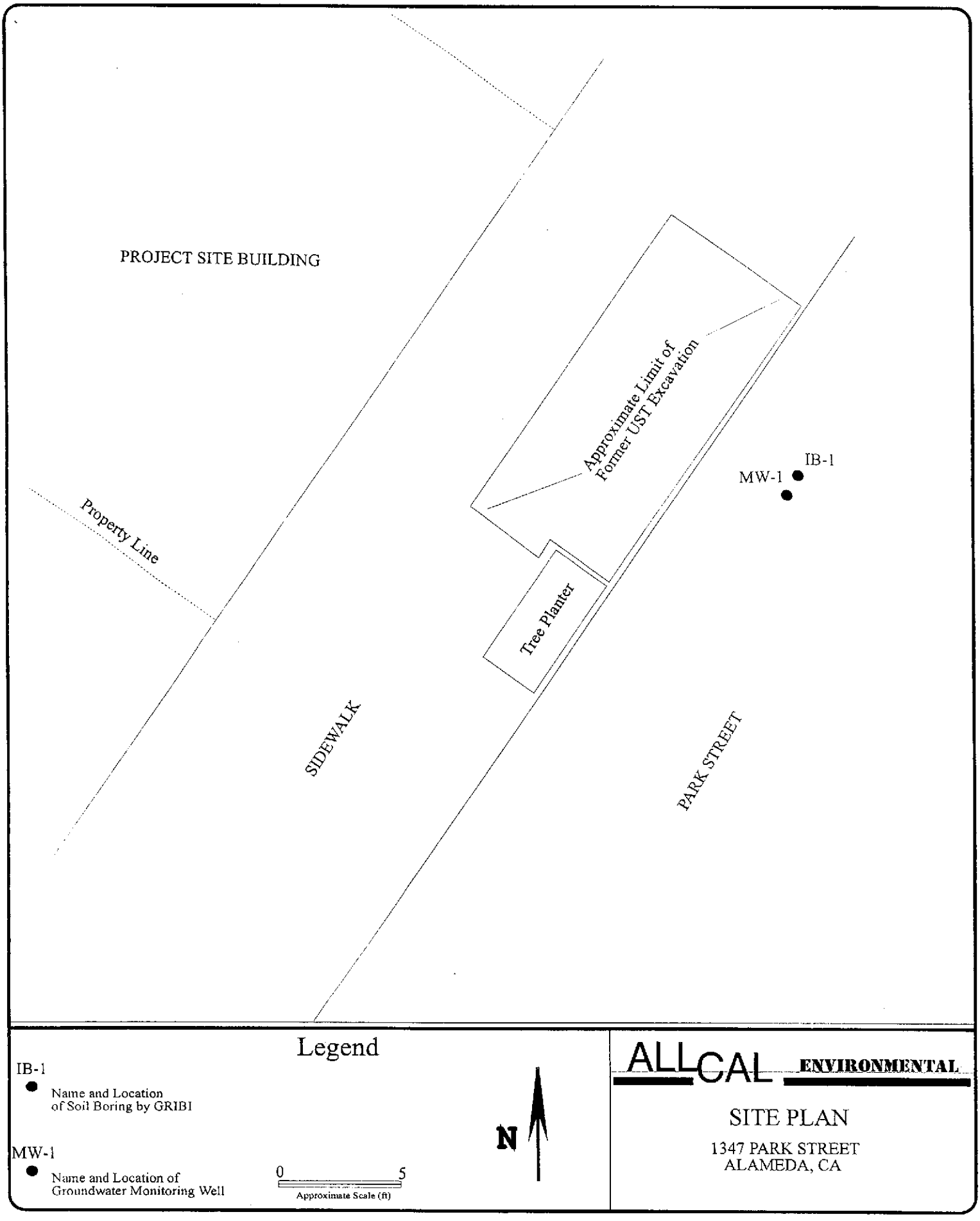
Field work should commence within 45 days of the date of this letter. Please inform this office at least 72 hours prior to the start of field activities. If you have any questions, I can be reached at (510) 567-6762.

eva chu
Hazardous Materials Specialist

email: John Mrakovich (mrakovich@worldnet.att.net)

c: James Russi, 428 Yorkshire Road, Alameda, CA 94501

simi-5


PROJECT SITE BUILDING
Approximate Limit of Former UST Excavation
IB-1
MW-1
Property Line
Tree Planter
SIDEWALK
PARK STREET
Legend
IB-1
Name and Location of Soil Boring by GRIBI
MW-1
Name and Location of Groundwater Monitoring Well
0
5
Approximate Scale (ft)
N
ALLCAL ENVIRONMENTAL
SITE PLAN
1347 PARK STREET
ALAMEDA, CA

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
951 TURNER COURT, SUITE 300, HAYWARD, CA 94545-2651
PHONE (510) 670-5575 ANDREAS GODFREY FAX (510) 670-5262
(510) 670-5248 ALVIN KAN

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 1347 PARK STREET
ALAMEDA, CA

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

CLIENT
Name STEVE SIMI
Address 3330 BROADWAY Phone 510 5?? 2013
City OAKLAND, CA Zip 94611

APPLICANT
Name ALLCAL ENVIRONMENTAL
Fax 510 581 8490
Address 27473 HIGH COUNTRY DR Phone 510 581 2?20
City HAYWARD, CA Zip 94542

TYPE OF PROJECT
Well Construction: Cathodic Protection ☐; Water Supply ☐; Monitoring ☒
Geotechnical Investigation: General ☐; Contamination ☐; Well Destruction ☐

PROPOSED WATER SUPPLY WELL USE
New Domestic ☐; Municipal ☐; Industrial ☐; Replacement Domestic ☐; Irrigation ☐; Other ______ ☐

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

DRILLER'S LICENSE NO. C57 589008

WELL PROJECTS
Drill Hole Diameter 2 in. Maximum
Casing Diameter 1 in. Depth 22 ft.
Surface Seal Depth 5 ft. Number 1

GEOTECHNICAL PROJECTS
Number of Borings ______ Maximum
Hole Diameter ______ in. Depth ______ ft.

ESTIMATED STARTING DATE 2/24/00
ESTIMATED COMPLETION DATE 2/24/00

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

APPLICANT'S SIGNATURE John Maddox(?) DATE 2/9/00

FOR OFFICE USE

PERMIT NUMBER W00-070
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 Frank Codd(?) DATE 2-9-00

BUILDING SERVICES
CITY OF ALAMEDA

City of Alameda
2263 Santa Clara Avenue, Room 190
Alameda, CA 94501
(510) 748-4530

Submit in Triplicate

RIGHT-OF-WAY PERMIT APPLICATION

_____________ SERVICE NUMBER DATE FEB 15 ~~1999~~ 2000

Application is hereby made to occupy or perform work in the public right-of-way on the NORTHWEST side of PARK Ave./(St.) 4 feet SOUTHEAST Of CURB

House No. 1347 Owner STEVE SIMI

For the purpose of INSTALLING A 1-INCH GROUNDWATER MONITORING WELL

Name of Applicant FAST-TEK Address 247 B TEWKSBURY AVE City/State PT. RICHMOND CA

Contractor's License No. 589008 A, B, C-57, HAZ City Business License No. ________ Phone Number 510 232-2728 EXT 224 / 510 581-2320 - CALL THIS # FIRST

INDICATE LOCATION BELOW OR ATTACH SEPARATE SHEET SHOWING LOCATION

PLEASE NOTE THE FOLLOWING:

1. Urban runoff program requires that no contaminants, including dirt, enter the storm drain system. Contractor is required to protect inlets. ***Failure to comply is subject to $200/day fine.***
2. 48 hour advance notice is required for inspection. Contact: Engineering Division, Construction Inspection office at 748-4518. Required Inspections: Trenching, backfill, concrete, traffic/pedestrian detours, urban runoff, final inspection. ***Failure to obtain inspection prior to work may result in rejection of said work.***
3. All striping, painted graphics and pavement markers damaged or destroyed by street excavation work must be restored by the permittee.
4. All construction within the Public Right-of-Way must have barricades with flashers for night time protection.
5. All work involved is to be done in accordance with standard City of Alameda specifications and City of Alameda practices, all to the satisfaction of the City Engineer. Standard details are attached. Inspection charges shall be paid to the City monthly.
6. Processing time for routine permits is 5 days. Permits requiring extensive research may require up to 15 days.
7. ***FAILURE TO OBTAIN INSPECTIONS PRIOR TO COMPLETION OF WORK IS SUBJECT TO ADDITIONAL INSPECTION COSTS AT A RATE OF $32.70 PER HOUR.***

Acceptance of this permit constitutes acceptance of the conditions included.

[signature] Date 2/15/00
APPLICANT SIGNATURE

SPECIAL CONDITIONS

- ☐ NO OPEN TRENCH CUTTING
- ☐ STATE PERMIT REQUIRED
- ☐ ADDITIONAL SETS OF PLANS AND SPECIFICATIONS TO THE ENGINEERING DIVISION PRIOR TO CONSTRUCTION # ____ OF SETS
- ☐ OTHER ________________

RECEIVED DATE 2-15-00 SIGNED [signature] PERMIT NO. EX00-0009
APPROVED DATE 2/17/00 SIGNED [signature]
FINAL DATE 2-22-00 SIGNED [signature]

BUILDING SERVICES
CITY OF ALAMEDA

City of Alameda
2263 Santa Clara Avenue, Room 190
Alameda, CA 94501
(510) 748-4530

Submit in Triplicate

RIGHT-OF-WAY PERMIT APPLICATION

_____ SERVICE NUMBER DATE FEB 15 ~~1999~~ 2000

Application is hereby made to occupy or perform work in the public right-of-way on the NORTHWEST side of PARK Ave./(St.) 4 feet SOUTHEAST Of CURB

House No. 1347 Owner STEVE SIMI

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Contractor's License No. 589008 A,B,C-57,HAZ City Business License No. _____ Phone Number 510 232-2728 EXT 224

INDICATE LOCATION BELOW OR ATTACH SEPARATE SHEET SHOWING LOCATION

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3. All striping, painted graphics and pavement markers damaged or destroyed by street excavation work must be restored by the permittee.
4. All construction within the Public Right-of-Way must have barricades with flashers for night time protection.
5. All work involved is to be done in accordance with standard City of Alameda specifications and City of Alameda practices, all to the satisfaction of the City Engineer. Standard details are attached. Inspection charges shall be paid to the City monthly.
6. Processing time for routine permits is 5 days. Permits requiring extensive research may require up to 15 days.
7. *FAILURE TO OBTAIN INSPECTIONS PRIOR TO COMPLETION OF WORK IS SUBJECT TO ADDITIONAL INSPECTION COSTS AT A RATE OF $32.70 PER HOUR.*

Acceptance of this permit constitutes acceptance of the conditions included.

John V. Mackenzie Date 2/15/00
APPLICANT SIGNATURE

SPECIAL CONDITIONS

- ☐ NO OPEN TRENCH CUTTING
- ☐ STATE PERMIT REQUIRED
- ☐ ADDITIONAL SETS OF PLANS AND SPECIFICATIONS TO THE ENGINEERING DIVISION PRIOR TO CONSTRUCTION
  # ____ OF SETS
- ☐ OTHER _____

RECEIVED DATE 2-15-00 SIGNED Paul S. Moore PERMIT NO. EX00-0009
APPROVED DATE 2/17/00 SIGNED _____
FINAL DATE 2-22-00 SIGNED Paul S. Moore

950 West Mall Square, #110
Alameda Point
Alameda, CA 94501

CITY OF ALAMEDA

Public Works Department

(510) 749-5840
Fax (510) 749-5867

Printed: *02-22-2000*

Right-of-Way Permit

Permit #
EX00-0009

Applicant	Contractor Information	Owner Information
FAST-TEK/JOHN MRAKOVICH RUSSI JAMES F & ARLEEN M TRS 247 TEWKSBURY AVE #B PT RICHMOND, CA 94801 510-581-2320	FAST-TEK 247 TEWKSBURY AVE #B PT RICHMOND, CA 94801	 428 YORKSHIRE RD ALAMEDA CA 94501

Project Information

RTOFWAY - Right-of-Way Permit - ***APPROVED***
Sub-Type:

Applied: **02/15/2000**
Finaled:

Issued: **02/22/2000**
Expires: **02/21/2001**
Valuation: **$35.00**

Job Address: **1347 PARK ST**
Suite / Unit:
Work Description: **INSTALL 1-INCH GROUNDWATER MONITORING WELL**

Parcel Number: **071 020400904**

Total Fees:	$35.00
Total Payments:	$35.00
BALANCE DUE	**$0.00**

Payments Made:
Total Payment: **$.00**

RECEIPT

Payee:

Receipt #:

Current Payment Made to the Following Items:

Payments Made for this Receipt:

Type	Method	Description	Amount

Account Summary for Fees and Payments:

Item#	Description	Account Code	Tot Fee	Paid	Prev. Pmts	Cur. Pmts
250	Permit Filing Fees	4520-37450 (1050)	20.00	20.00	20.00	.00
620	Microfiche / Scanning	99409-37900 (1464)	15.00	15.00	15.00	.00

**** See application for additional requirements ****

INSPECTIONS **510-749-5840**

NOTE: All construction within the public right of way must have barricades with flashers for night time protection.

This is to certify that the above work has been completed to my satisfaction and approval.

2-28-00
Date

Inspector

EXPLORATORY BORING LOG/ WELL CONSTRUCTION DETAIL

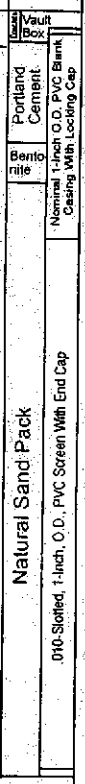
Project Number: 146
Project Name: 1347 PARK STREET
ALAMEDA, CA

Boring Number: MW-1
Page Number: 1 OF 1

By: ALLCAL ENVIRONMENTAL Date: 2/25/00 Surface Elevation: NA

RECOVERY (ft./ft.)	VAPORS (ppm)	PENETRATION (blows/ft.)	GROUND-WATER LEVEL	DEPTH (ft.)	SAMPLES	SOIL TYPE	DESCRIPTION
1/1							ASPHALT
4/4				5			SAND (SP): reddish brown, fine to medium-grained, silty, clayey, damp, no odor.
4/4							
4/4			▼	10		SP	@ 9 -20 ft.: stained with oil odor. @ 11 ft.: saturated.
4/4				15			
3/3				20			Total depth of boring (well) 20 feet.
				25			
				30			BORING DETAIL: 0-1 ft.: drilled by 8-inch O.D. concrete corer. 1-4.5 ft.: hand-augered to 6-inch daimeter. 4.5-20 ft.: drilled with 2-inch O.D. Macro Core Geoprobe System. Well constructed in 2.25-inch O.D. casing. Boring continuously logged.
				35			

WELL DETAIL



RECORD OF WATER SAMPLING

PROJECT NO.: 146 DATE: 2/28/00

PROJECT NAME: 1347 PARK STREET

PROJECT LOCATION: ALAMEDA, CA

SAMPLER: ALCAL ENVIRONMENTAL

ANALYSES: TPHG, BTEX, TPHD, TPHMO, PNA, MTBE

WELL NO.: MW-1

WELL DIAMETER: 1"

TOC ELEV: NA

LOCK NO.: DOLPHIN

WELL DEPTH (from construction detail): 19.8'

WELL DEPTH (measured): 19.8 SOFT BOTTOM?: NO

DEPTH TO WATER: 8.75 TIME: 9:15

PRESSURE (circle one)?: YES OR (NO)

IF YES, WAS PRESSURE (circle one): POSITIVE OR NEGATIVE?

WATER VOLUME IN WELL: 0.45 GAL

[2-INCH CASING = 0.16 GAL/FT] [4-INCH CASING = 0.65 GAL/FT]

[6-INCH CASING = 1.47 GAL/FT] [1 GAL = 3.78 L]

1-INCH CASING = 0.041 GAL/FT

LOCATION MAP

CALCULATED PURGE VOL. (GAL): 1.35 (OZ.): 173 ACTUAL PURGE VOL. (GAL): 1.5 (OZ): 192

PURGE METHOD: DISPOSABLE BAILER SAMPLE METHOD: DISPOSABLE BAILER

FIELD MEASUREMENTS

Time	Depth to Water (FT)	Vol (OZ)	Temp (Deg. F)	pH	EC x1000	Clarity	Turbidity (NTU)	Remarks
9:36		16	64.5	8.20	.51			TURBID, ODOR, SHEEN
9:45		64	65.8	7.73	.52			
9:50		96	65.2	7.77	.49			
9:56		128	64.8	7.60	.49			
10:00		144	64.8	7.52	.47			
10:05		160	64.5	7.46	.46			
10:07		176	64.5	7.42	.46			
10:10		192	64.5	7.42	.46			
Sample @ 10:25								

SIGNATURE: Jon Murchison

WATER VOL. IN DRUM:

NEED NEW DRUM?:

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
http://www.mccampbell.com E-mail: main@mccampbell.com

ALLCAL Environmental 27973 High Country Drive Hayward, CA 94542-2530	Client Project ID: #146	Date Sampled: 02/28/2000
		Date Received: 02/29/2000
	Client Contact: John Mrakovich	Date Extracted: 02/29/2000
	Client P.O:	Date Analyzed: 02/29/2000

03/06/2000

Dear John:

Enclosed are:

1). the results of **2** samples from your **#146** 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

McCAMPBELL ANALYTICAL INC.
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ALLCAL Environmental	Client Project ID: #146	Date Sampled: 02/28/2000
27973 High Country Drive		Date Received: 02/29/2000
Hayward, CA 94542-2530	Client Contact: John Mrakovich	Date Extracted: 02/29-03/01/00
	Client P.O:	Date Analyzed: 02/29-03/01/00

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	% Recovery Surrogate
31929	MW-1	W	570,b,h	ND	2.3	2.4	2.1	20	101
31930	TRIP BLANK	W	ND	ND	ND	ND	ND	ND	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

[e] 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

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ALLCAL Environmental	Client Project ID: #146	Date Sampled: 02/28/2000
27973 High Country Drive		Date Received: 02/29/2000
Hayward, CA 94542-2530	Client Contact: John Mrakovich	Date Extracted: 02/29/2000
	Client P.O:	Date Analyzed: 02/29/2000

Diesel Range (C10-C23) and Oil-Range (C18+) Extractable Hydrocarbons as Diesel and Motor Oil with Silica Gel Clean-Up*

EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

Lab ID	Client ID	Matrix	TPH(d)+	TPH(mo)+	% Recovery Surrogate
31929	MW-1	W	130,000,b,g,h	10,000	119
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	250 ug/L	
		S	1.0 mg/kg	5.0 mg/kg	

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

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+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 diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) medium boiling point pattern that does not match diesel (?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment.

DHS Certification No. 1644

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ALLCAL Environmental	Client Project ID: #146	Date Sampled: 02/28/2000
27973 High Country Drive		Date Received: 02/29/2000
Hayward, CA 94542-2530	Client Contact: John Mrakovich	Date Extracted: 03/03/2000
	Client P.O:	Date Analyzed: 03/06/2000

Polynuclear Aromatic Hydrocarbons (PAH / PNA) by GC-MS

EPA methods 625 (modified 610) and 3510 or 8270 (modified 8100) and 3550

Lab ID	31929					Reporting Limit	
Client ID	MW-1					S	W, STLC TCLP
Matrix	W						
Compound	Concentration*					mg/kg	ug/L
Acenaphthene	ND<50					0.33	10
Acenaphthylne	ND<50					0.33	10
Anthracene	ND<50					0.33	10
Benzo(a)anthracene	ND<50					0.33	10
Benzo(b)fluoranthene	ND<50					0.33	10
Benzo(k)fluoranthene	ND<50					0.33	10
Benzo(g,h,i)perylene	ND<50					0.33	10
Benzo(a)pyrene	ND<50					0.33	10
Chrysene	ND<50					0.33	10
Dibenzo(a,h)anthracene	ND<50					0.33	10
Fluoranthene	ND<50					0.33	10
Fluorene	ND<50					0.33	10
Indeno(1,2,3-cd)pyrene	ND<50					0.33	10
Naphthalene	70					0.33	10
Phenanthrene	ND<50					0.33	10
Pyrene	ND<50					0.33	10
% Recovery Surrogate 1	72						
% Recovery Surrogate 2	99						
Comments	j,h						

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

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

surrogate diluted out of range or surrogate coelutes with another peak

(h) a lighter than water immiscible sheen is present; (i) liquid sample that contains >~5 vol. % sediment; (j) sample diluted due to high organic content.

DHS Certification No. 1644

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QC REPORT

Date: 02/29/00 Matrix: Water

Extraction: N/A

Compound	Concentration: ug/L				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	
SampleID: 22900				Instrument: GC-3			
Surrogate1	0.000	109.0	100.0	100.00	109	100	8.6
Xylenes	0.000	302.0	308.0	300.00	101	103	2.0
Ethyl Benzene	0.000	100.0	102.0	100.00	100	102	2.0
Toluene	0.000	103.0	104.0	100.00	103	104	1.0
Benzene	0.000	107.0	108.0	100.00	107	108	0.9
MTBE	0.000	89.0	80.0	100.00	89	80	10.7
GAS	0.000	966.9	984.7	1000.00	97	98	1.8
SampleID: 22400				Instrument: GC-11 A			
Surrogate1	0.000	117.0	107.0	100.00	117	107	8.9
TPH (diesel)	0.000	312.0	298.0	300.00	104	99	4.6

$$\%\ \text{Recovery} = \frac{(MS - Sample)}{AmountSpiked} \cdot 100$$

$$\text{RPD} = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation

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QC REPORT

SVOCs (EPA 8270/625/525)

Date: 03/06/00-03/07/00 Matrix: Water

Extraction: N/A

Compound	Concentration: ug/L				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	
SampleID: 30973				Instrument: GC-8			
Pyrene	0.000	670.0	790.0	1000.00	67	79	16.4
Pentachlorophenol	0.000	510.0	510.0	1000.00	51	51	0.0
2,4-Dinitrotoluene	0.000	560.0	580.0	1000.00	56	58	3.5
Acenaphtene	0.000	450.0	450.0	1000.00	45	45	0.0
4-Nitrophenol	0.000	610.0	710.0	1000.00	61	71	15.2
4-Chloro-3-metylphenol	0.000	610.0	530.0	1000.00	61	53	14.0
1,2,4-trichlorobenzene	0.000	600.0	660.0	1000.00	60	66	9.5
N-nitroso-di-n-propyl	0.000	510.0	470.0	1000.00	51	47	8.2
1,4-Dichlorobenzene	0.000	570.0	630.0	1000.00	57	63	10.0
2-Chlorophenol	0.000	450.0	440.0	1000.00	45	44	2.2
Phenol	0.000	510.0	480.0	1000.00	51	48	6.1

$$\%\ \text{Recovery} = \frac{(MS - Sample)}{AmountSpiked} \cdot 100$$

$$\text{RPD} = \frac{(MS - MSD)}{(MS + MSD)} \cdot 200$$

RPD means Relative Percent Deviation

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CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HOUR ☐ 48 HOUR ☒ 5 DAY

Report To: JOHN MRAKOVICH Bill To: SAME
Company: ALLCAL ENVIRONMENTAL
27973 HIGH COUNTRY DR.
HAYWARD, CA 94542
Tele: (510) 581 2320 Fax: (510) 581 8490
Project #: 146 Project Name: NA
Project Location: 1347 PARK ST. ALAMEDA, CA
Sampler Signature: John Mrakovich

SAMPLE ID	LOCATION	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED Ice	METHOD PRESERVED HCl	METHOD PRESERVED HNO_3	METHOD PRESERVED Other	BTEX & TPH as Gas (602/8020 + 8015)/ MTBE	TPH as Diesel (8015)	Total Petroleum Oil & Grease (5520 E&F/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 601 / 8010	BTEX ONLY (EPA 602 / 8020)	EPA 608 / 8080	EPA 608 / 8080 PCB's ONLY	EPA 624 / 8240 / 8260	EPA 625 / 8270	PAH's / PNA's by EPA 625 / 8270 / 8310	CAM-17 Metals	LUFT 5 Metals	Lead (7240/7421/239.2/6010)	RCI	Other: TPH AS MOTOR OIL	Comments
MW-1	MW-1	2/28/00	10:25	4	2-VOA 2-L	X					X	X			X	X									X					X	31929
TRIP BLANK	—	"	"	1	VOA	X					X				X																31930

VOAS | O&G | METALS | OTHER
PRESERVATION ✓
APPROPRIATE
CONTAINERS ✓

CE/ ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓

Relinquished By:	Date:	Time:	Received By:
J. Mrakovich	2/28/00	1:55	
B. Butler	2/29	12:10	Nina AButler
Relinquished By:	Date:	Time:	Received By:

Remarks: SILICA GEL CLEANUP FOR TPHD & TPHMO.

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED