December 6, 1991

Mr. Dennis J. Byrne
Senior Hazardous Materials Specialist
Alameda County Health Agency
Division of Hazardous Materials
Department of Environmental Health
80 Swan Way, Room 200
Oakland, CA 94621

SUBJECT: Groundwater Monitoring Well Installation and Soil and Groundwater Sample Results for the Property at 914 - 916 San Pablo Avenue, Albany, California (Project No. 9124)

Aqua Terra Technologies
Consulting Engineers
& Scientists

2950 Buskirk Avenue
Suite 120
Walnut Creek, CA
94596-2079
FAX 934-0418
510 934-4884

Dear Mr. Byrne:

Aqua Terra Technologies, Inc. (ATT) presents the results from the groundwater and soils investigation performed at the subject property. ATT conducted the work in accordance with the workplan, dated August 22, 1990, submitted to Alameda County Health Care Services Agency, Environmental Health (ACEH).

Site Background

The site is located approximately one mile east of San Francisco Bay at 914 - 916 San Pablo Avenue in Albany, California (between Solano Avenue and Buchanan Street). A Chevrolet dealership was housed in the three onsite adjoining buildings. A site location map is provided on Plate 1 (Attachment A).

On March 20, 1989 Petroleum Engineering, Inc. (PE) removed two 550-gallon underground storage tanks. The tank, located beneath the sidewalk; between the buildings and San Pablo Avenue, held gasoline. The second tank, located

at the rear of the buildings in a parking area along Adams Street, held waste oil. Prior to the tank removal activities, on March 20, 1989, H&H Environmental Services vacuum-pumped 400 gallons of liquid from the tanks. The liquid was composed of approximately 95% water, 3% gasoline, and 2% oil. The tank locations are shown on Plate 2 (Attachment A).

Soil samples collected from the gasoline tank excavation indicated elevated concentrations of total petroleum hydrocarbons (ranging between 270 to 1,300

mg/Kg). PE covered the gasoline tank excavation with steel plates, and backfilled the waste oil excavation with pea gravel.

ACEH requested removal of additional petroleum hydrocarbon contaminated soil in the vicinity of the gasoline tank excavation and the installation of groundwater monitoring wells to determine groundwater quality, flow direction, and gradient.

ATT requested, in a January 29, 1991 letter to the ACEH that no additional soil be excavated because of 1) the presence of underground utility lines in the tank excavation and that 2) structural integrity of the building would be threatened. ATT received concurrence from ACEH in a February 6, 1991 letter (Attachment B). On June 4, 1991, PE backfilled the gasoline tank excavation using a mixture containing 95 percent sand and 5 percent concrete. ATT field personnel witnessed the backfilling. A vertical ten-inch diameter PVC conductor pipe was placed to the depth of the excavation to ensure that no underground utility would be encountered during monitoring well installation.

GROUNDWATER MONITORING WELLS

On July 24 and 25, 1991, ATT installed groundwater monitoring wells MW1, MW2, and MW3. Groundwater monitoring well locations are shown on Plate 2 (Attachment A). MW1 was located within the gasoline tank excavation; MW2 was located adjacent to the building's north property line; MW3 was located within ten feet of the waste oil tank excavation.

Approximately eight feet of fill material was encountered in borings MW1 and MW3. The fill material comprised of sand and clay and was underlain by an undetermined thickness of native sandy clay with occasional thin lenses of clean fine to medium grained sand. The total borings depth was approximately 30 feet. Groundwater was encountered in the borings at approximately fifteen feet below ground surface.

The groundwater monitoring wells were constructed in accordance with the protocol provided in Attachment C. All three groundwater monitoring wells

were constructed using seven to ten feet of solid casing in the upper portion of the wells and 20 feet of 0.01-inch slotted PVC casing. Boring logs and monitoring well construction details are provided in Attachment D.

Soil Samples

Soil samples were collected at five foot intervals beginning at ten feet below grade. The 10 foot soil samples from each well were submitted to a California Department of Health Services (DHS) certified laboratory for the analysis of total petroleum hydrocarbons (TPH) as gasoline, benzene, toluene, ethylbenzene, and total xylenes (BTEX). The soil sample collected from MW3 was also analyzed for total oil and grease (TOG).

No hydrocarbons were detected in the soil samples collected from MW2 or MW3. The TPH as gasoline concentration in the MW1 soil sample was 4 mg/Kg; BTX concentrations were reported at 0.31 mg/Kg, 0.14 mg/Kg, and 0.069 mg/Kg, respectively. No ethylbenzene was detected in the MW1 soil sample. A summary of soil sample analytical results are presented in Table 1, Attachment A. Copies of the laboratory reports, chain of custody, and sample collection forms are provided in Attachment E.

The soil generated during drilling was barreled separately (identified by monitoring well number) and left onsite. Each barrel was appropriately labelled.

Groundwater Samples

The groundwater monitoring wells were developed on July 31, 1991 and sampled on August 7, 1991 following the protocol detailed in Attachment C. Development and purge water were contained in labelled onsite barrels.

The groundwater samples were submitted to a DHS certified laboratory for the analysis of total petroleum hydrocarbons (TPH) as gasoline, benzene, toluene, ethylbenzene, and total xylenes (BTEX). The groundwater sample collected from MW3 was also analyzed for total oil and grease (TOG).

No chemicals were detected in the groundwater samples collected from MW2 or MW3. The TPH as gasoline concentration in MW1 was 110 ug/L; BTEX concentrations were 16 ug/L, 2.0 ug/L, 0.7 ug/L and 0.7 ug/L, respectively. A summary of groundwater sample analytical results are presented in Table 2, Attachment D. Copies of the laboratory reports, chain of custody, and sample collection forms are provided in Attachment E.

Based on groundwater elevations collected August 12, 1991, (Table 3 Attachment A), the groundwater flow direction was west-northwest and the gradient was 0.01 feet per foot. Plate 3 (Attachment A) is a groundwater contour map.

Conclusions and Recommendations

Based on correspondence with ACEH no further soil excavation is required. However, groundwater samples indicate that the groundwater in the vicinity of MW1 has been impacted by a petroleum hydrocarbon release. Because the source of hydrocarbons has been removed and additional soil removal cannot be accomplished, ATT recommends that the groundwater monitoring wells be sampled on a quarterly basis for one year to determine the extent of impact to groundwater.

If you have any questions or comments regarding the contents of this report please call.

Sincerely,

AQUA TERRA TECHNOLOGIES, INC.

Bruce Berman
Project Scientist

Eve Huggins
Hydrogeologist

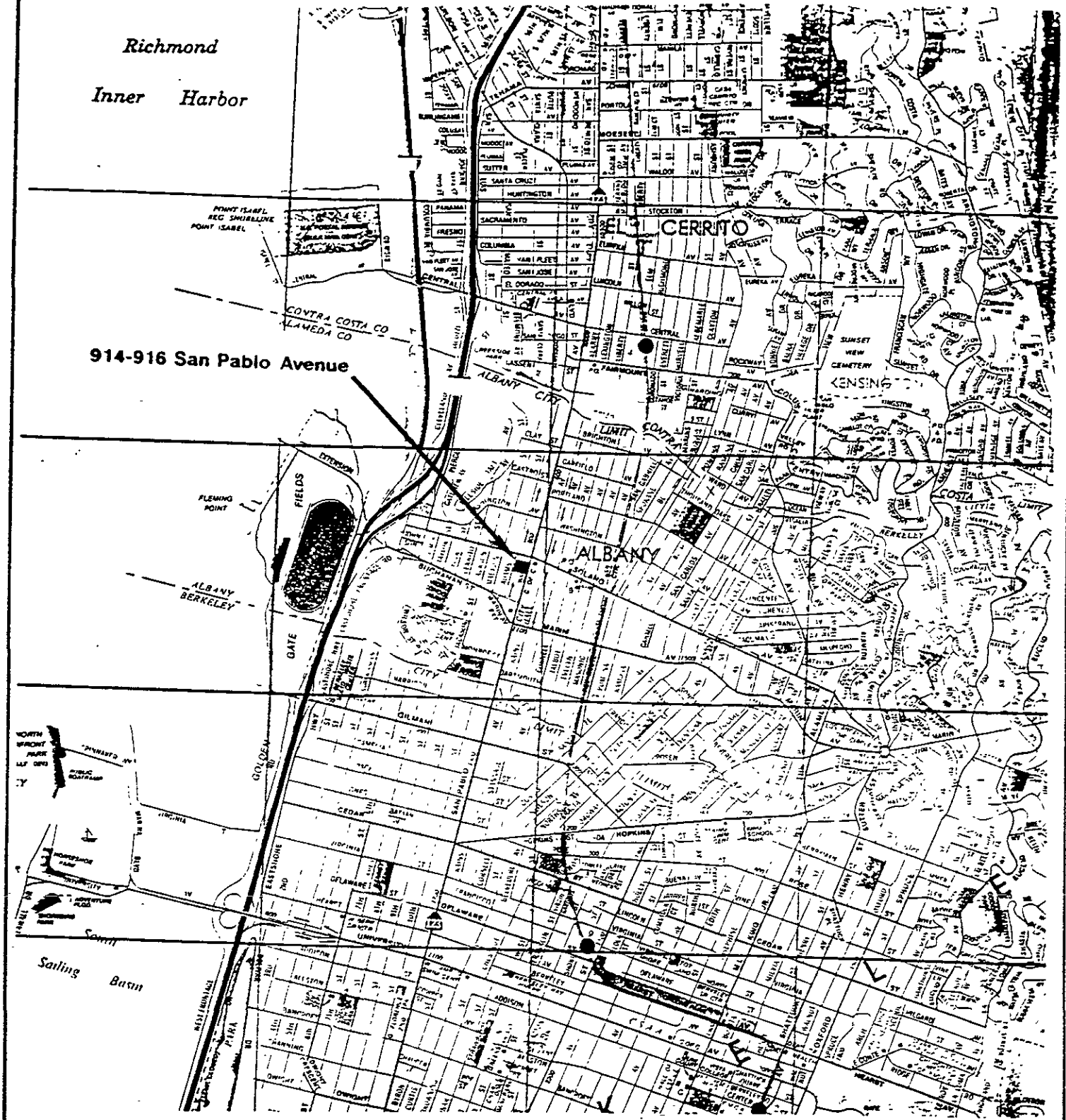
William E. Motzer, Ph.D., R.G.
Senior Hydrogeologist
California Registered Geologist #4202
(expires 6/30/92)

BB/WEM:

Enclosures
cc: William R. Foley, Foley, McIntosh & Foley

ATTACHMENT A

Tables & Plates

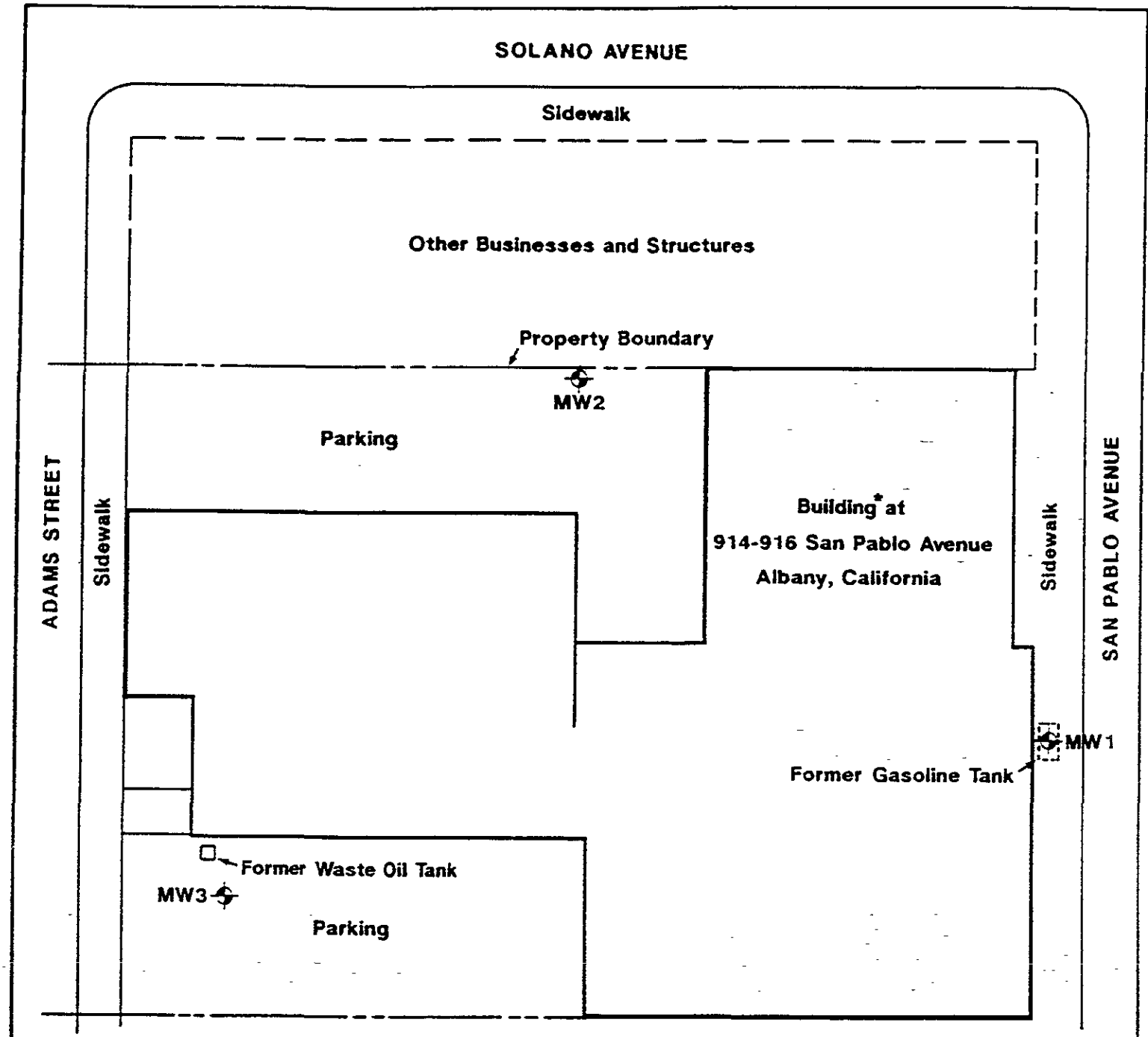


Site Location

ATT Aqua Terra Technologies
Consulting Engineers
& Scientists

J. Dibble

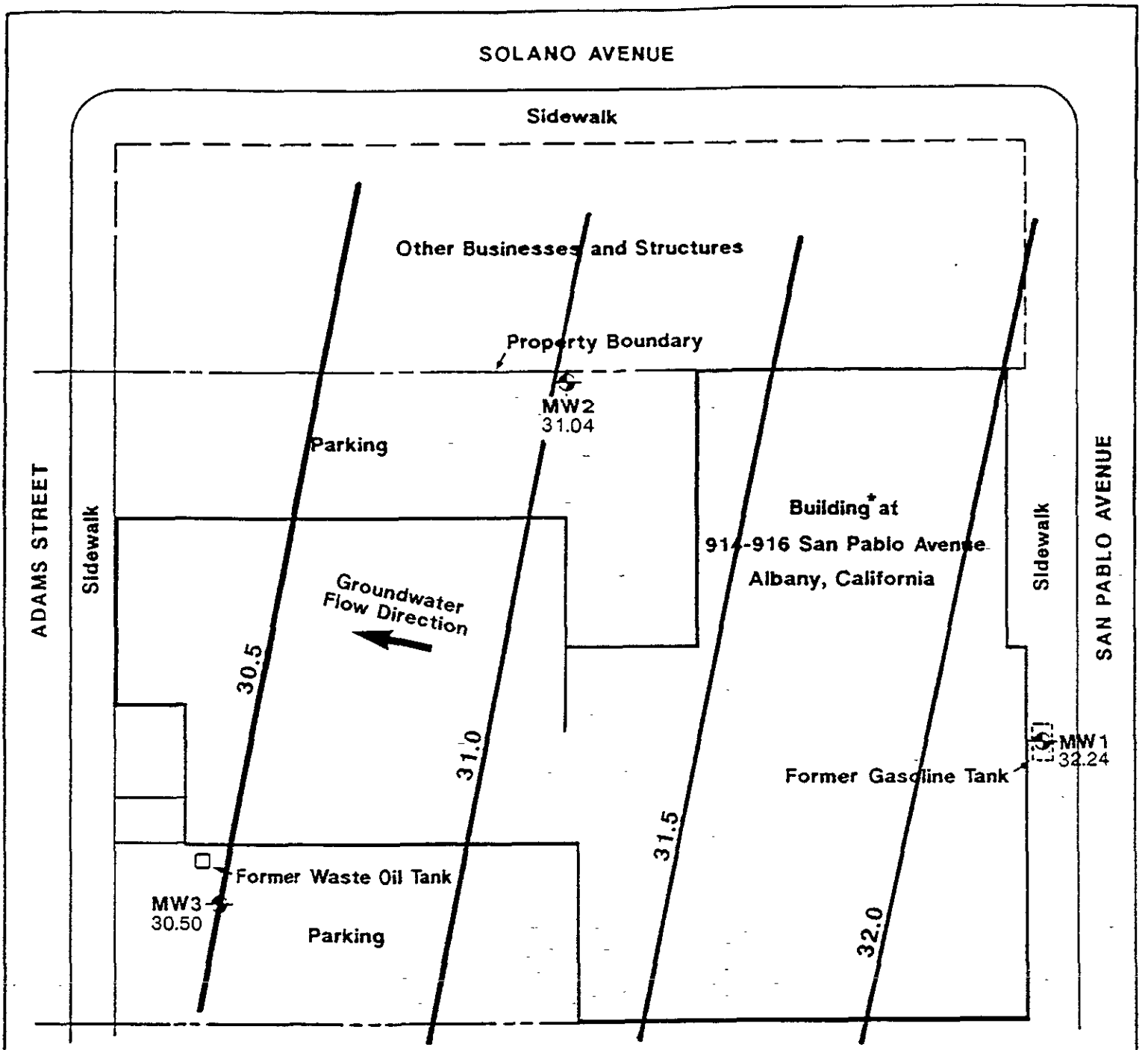
JOB NUMBER	DATE	PLATE
9124	9/91	1



Site Plan

ATT Aqua Terra Technologies Consulting Engineers & Scientists

J. Dibble		PLATE
JOB NUMBER	DATE	
9124	9/91	2



LEGEND

- Groundwater Monitoring Well
- * Building outline may be altered due to construction activities
- 32.0 Groundwater Elevation and Contour
- 30.50 Groundwater Elevation - measured relative to an arbitrary benchmark which was measured to mean sea level (MSL) by interpolation from the Oakland West, Calif. 7.5' Quandrangle topographic map (T.1N, R.5W)

0 30 60 90 feet
SCALE

N

Groundwater Contour Map
8/12/91

ATT Aqua Terra Technologies
Consulting Engineers
& Scientists

J. Dibble

JOB NUMBER	DATE	PLATE
9124	9/91	3

Table 1. Chemical Data Summary - Soil
J. Dibble Property
914 San Pablo Avenue
Albany, California

Sample No.	Sampling Date	Sample Depth[a] (feet)	TPH/g[b] (mg/Kg)[e]	B[c] (mg/Kg)	T[c] (mg/Kg)	E[c] (mg/Kg)	X[c] (mg/Kg)	TOG[d] (mg/Kg)
MW1-10	07/24/91	10	4	0.310	0.140	<0.0025	0.069	NA[f]
MW2-10	07/24/91	10	<1	<0.0025	<0.0025	<0.0025	<0.0025	NA
MW3-10	07/25/91	10	<1	<0.0025	<0.0025	<0.0025	<0.0025	<50

a. Depth of sample collection below grade
b. TPH/g = total petroleum hydrocarbons as gasoline
c. B = benzene, T = toluene, E = ethylbenzene, X = total xylenes
d. TOG = total oil and grease
e. mg/Kg = milligrams per kilograms, equal to parts per million (ppm)
f. NA = analysis not requested

Table 2. Chemical Data Summary - Ground Water
J. Dibble Property
914 San Pablo Avenue
Albany, California

Sample No.	Sampling Date	TPH/g[a] (μg/L)[d]	B[b]	T[b]	E[b]	X[b]	TOG[c] (μg/L)
			(μg/L)				
MW1	08/07/91	110	16	2.0	0.7	15	NA[e]
MW2	08/07/91	<50	<0.5	<0.5	<0.5	<0.5	NA
MW3	08/07/91	<50	<0.5	<0.5	<0.5	<0.5	<5000

a. TPH/g = total petroleum hydrocarbons as gasoline
b. B = benzene, T = toluene, E = ethylbenzene, X = total xylenes
c. TOG = total oil and grease
d. μg/L = micrograms per liter, equal to parts per billion (ppb)
e. NA = analysis not requested

Table 3. Groundwater Elevation Summary
J. Dibble Property
914 San Pablo Avenue
Albany, California

Well No.	TOC Elevation[a] (feet)	Date	Groundwater Depth[b] (feet)	Groundwater Elevation[c] (feet)
MW-1	42.61	08/07/91	10.49	32.12
		08/12/91	10.37	32.24
MW-2	42.73	08/07/91	11.64	31.09
		08/12/91	11.69	31.04
MW-3	39.44	08/07/91	8.94	30.50
		08/12/91	8.94	30.50

a. TOC = top of well casing, measured relative to an arbitrary bench mark which was measured to mean sea level (MSL) by interpolation from the Richmond, California 7.5' quadrangle topographic map (T.1N, R.5W).
b. Measured from TOC with an electronic well sounder.
c. Groundwater elevation is equal to the difference between TOC elevation and groundwater depth.

ATTACHMENT B

Alameda County Health Care Services Agency
Environmental Health Letter

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

DEPARTMENT OF ENVIRONMENTAL HEALTH
Hazardous Materials Program
80 Swan Way, Rm. 200
Oakland, CA 94621
(415)

6 February 1991

Josephine Dibble
c/o Foley, McIntosh & Foley
1225 Solano Avenue
Albany, CA 94706-1734

Subject: Amendment to workplan for 914 San Pablo Ave. Albany.

Dear Ms. Dibble:

This office has received a request from Aqua Terra Technologies dated 29 January 1991, to amend the environmental investigation taking place at the location listed above. Approval is granted to implement the changes described in the Aqua Terra proposal.

If you have any questions concerning this matter, please contact me at (415)271-4320.

Sincerely,

Dennis J. Byrne
Senior Hazardous Materials Specialist

cc: Lester Feldman, SFBRWQCB
Howard Hatayama, DOHS
Rafat Shahid, Assistant Director, Alameda County Department of Environmental Health.
Bruce Berman, Aqua Terra Technologies

ATTACHMENT B1

Soil & Groundwater Sample Collection & Handling Protocol

ATTACHMENT B1

SOIL & GROUNDWATER SAMPLE COLLECTION & HANDLING PROTOCOL

INTRODUCTION & PURPOSE

Because reliable and representative test results must be generated from soil and groundwater samples, it is essential to establish a sampling procedure which assures that all samples are:

- Collected by approved and repeatable methods
- Representative of the materials(s) at the desired location and depth
- Uncontaminated by container and sampling equipment

The following sampling protocol was designed to be a guide to the sampling and handling procedures for soil and groundwater samples. Based on conditions which may be encountered in the field, some modifications to this protocol may be required to fit the needs of an individual site.

SAMPLING PROCEDURES

Groundwater Sampling

Prior to collecting groundwater samples, monitoring wells were purged by bailing until pH, conductivity, and temperature levels stabilize. A minimum of four well casing volumes was purged from each well. Wells were purged and groundwater samples were obtained using a teflon bailer, or disposable polyethelene bailer, and nylon rope. New nylon rope is used for each well.

The appropriate number of sample containers and type were used for each sample collected, in accordance with the analytical laboratory requirements and EPA protocol. The bottles were filled using the bailer. All sample bottles were pre-cleaned by the supplier according to EPA protocols.

To prevent cross contamination of groundwater samples by the sampling equipment, all reusable equipment used in sampling was washed with a trisodium phosphate solution (TSP), triple rinsed with purified water, and

allowed to air dry prior to each use. A sample of the purified water was retained for analysis as part of sample quality assurance.

Soil Sampling

After the soil sampler was driven to the desired depth and the samples were retrieved, each end of the tube containing the soil sample retained for laboratory analysis was sealed with teflon sheeting, covered with plastic end caps, and sealed with PVC tape. All sample containers (tubes) were steamed cleaned (or washed with TSP, as above) and air dried prior to use. The soil sample recovered in the tube just above the sample retained for chemical analysis was examined in the field for visual and olfactory indications of chemical contamination and used for lithologic description.

The Unified Soil Classification System (USCS) was used to log and describe the soil by the onsite geologist. These logs also include details of the sampling process such as depth, apparent odors, discoloration, and any other factors which may be required to evaluate the presence of contamination at the site.

POST SAMPLING PROCEDURES

One field/travel blank consisting of one sample bottle filled with purified water accompanied soil and groundwater sample containers at all times, including during transport to and from the site. Purified water field/travel blanks were analyzed according to the appropriate EPA Methods corresponding to the soil/groundwater sample analyses.

Sample containers were labeled with sample number, project number, date, and the initials of the person collecting the sample. A separate sample collection record was maintained for each groundwater sample collected.

Soil and groundwater samples collected were analyzed by an analytical laboratory certified by the California Department of Health Services (DHS). Quality assurance documentation accompanied all analytical reports generated by the laboratory.

The samples were placed in a cooler with dry ice (for soil samples) or bagged ice (for water samples) immediately following collection, and remained in the cooler until refrigerated at the analytical laboratory. The samples were delivered to the laboratory direct by courier or overnight freight within 48 hours of time of collection. Appropriate chain of custody forms were used for all samples.

ATTACHMENT C

Drilling Procedures & Groundwater Monitoring Well Construction/Design

ATTACHMENT C

DRILLING PROCEDURES & GROUNDWATER MONITORING WELL CONSTRUCTION/DESIGN

DRILLING AND SAMPLING PROCEDURES

All borings for well construction were drilled using eight-inch diameter or larger hollow stem auger equipment. A California Registered Geologist or Professional Engineer directed or surpervised the collection of undisturbed samples of the soils encountered and the preparation of detailed logs for each boring.

Soil sampling was conducted using a modified California split-spoon sampler, a standard penetration sampler, or a five-foot continuous sampler. Samples were retained in two-inch to three-inch diameter, six-inch long, clean, brass or stainless steel tubes. The samples were retained for verification of soil classification and for chemical laboratory analytical testing, as appropriate. Teflon sheeting was placed between the soil sample and the cap, and the cap was sealed with PVC tape.

Where access limitations did not allow drilling with truck mounted equipment, either a trailer mounted drilling rig, portable power driven, or manually operated soil sampling equipment was utilized. If soil samples were to be retained for analysis, they were collected in clean brass tubes fitted within a thin walled drive sampler. The soil samples were capped and sealed as described above.

All down hole sampling, drilling, and well construction equipment and materials, including augers, casing, and screens were steam cleaned prior to their initial use. The sampling equipment was cleaned prior to each assembly by washing with a trisodium phosphate solution (TSP), rinsing with purified water, and allowing to air dry. The auger flights, drill bit, and sampler were steam cleaned at each boring location.

MONITORING WELL CONSTRUCTION

Monitoring wells were constructed in accordance with applicable local water district or California Department of Water Resources guidelines. The specific completion details for each well were determined in the field at the time of drilling by a California Registered
Geologist or Professional Engineer experienced in groundwater monitoring system design and installation.

Monitoring wells consist of two or four-inch diameter, Schedule 40 PVC casing and screens with flush, threaded joints. No PVC glue was used. The screened sections are machine slotted with either 0.010-inch (0.255 mm) or 0.020-inch (0.51 mm) openings. The smaller slot size was used where the wells are screened within fine-grained sandy soils, and the larger slots were used where coarse sand or gravels are encountered. The slotted sections were fitted with a slip-on cap and placed opposite the water-bearing strata in the boring. The blank pipe was connected to the perforated pipe and extends to just below the ground surface.

The annulus between the side of the borehole and the slotted section was filled with a clean sand pack to variable depths, but not less than one or two feet above the perforated pipe. The annulus was packed with either Lonestar No. 1/20 (where 0.010-inch slotted pipe is used) or No. 3 (where 0.020-inch slotted pipe is used), or equivalent, washed sand filter material. The gradation of the filter material is summarized below:

U.S. Sieve No.	Opening (mm)	Percent Passing (No. 3)	Percent Passing (No. 1/20)
6	3.35	100	
8	2.36	99 - 100	
12	1.70	62 - 78	
16	1.18	15 - 33	100
20	0.85	0 - 8	90 - 100
30	0.60	0 - 4	14 - 40
40	0.425		0 - 5

A seal of bentonite pellets approximately 0.5 to 1.0 foot thick was placed above the sand pack to reduce the risk of grout penetration into the sand. The bentonite pellets were hydrated with purified water to form a tight plug. A cement/bentonite grout was be placed above the bentonite plug to a depth of approximately 0.5 to 2.0 feet below the ground surface. The grout was pumped into the boreholes using a tremie pipe when it was required by local guidelines or regulations. A flush mounted traffic box or aboveground security enclosure was set in concrete above the cement/bentonite mixture.

At most sites in sedimentary formations, it is not practical to "rationally design" a filter pack based on sieve analyses. From experience, Lonestar No.

1/20 or No. 3 washed sand as a filter material was selected for use in wells. The 0.010-inch and 0.020-inch slot sizes were selected to retain 100 percent of the filter material.

The completed wells were enclosed in a traffic rated enclosure placed flush with grade or in an above-ground metal enclosure, and were fitted with a locking cap. Well head elevations were determined by a level survey, and well coordinates were determined by a traverse survey. The level/traverse survey was referenced to a bench mark of known or assigned elevation, and known coordinates. Once water levels stabilized, water levels in all wells were measured.

After the wells had been completed, they were developed by pumping and surging to clean and stabilize the soils around the screens. A manually operated, positive displacement surge pump and teflon bailer, surge block, and/or centrifugal pump was used for development. A minimum of 10 well casing volumes of water was removed during development; however, development continued until turbidity or sediment content had stabilized. All development equipment was steam cleaned or triple rinsed in a solution of purified water and tri-sodium phosphate (TSP) prior to its initial use in each well. A well development record was maintained which included 1) a description of development water characteristics at frequent intervals, 2) the quantity of water removed during development, and 3) flow rates during development.

Soil cuttings generated during drilling were stored in 55-gallon drums or wrapped in plastic sheeting, and water generated during well development and sampling was retained in secured 55-gallon drums until chemical analytical data from samples were received.

ATTACHMENT D

Monitoring Well, Boring Logs and Construction Details

ATT

AQUA TERRA TECHNOLOGIES INC.

Log of Exploratory Boring

Project: Dibble/Foley Job No.: 9124

Location: 914-916 San Pablo Ave., Albany, CA Date: 7/24/91

Boring No.: MW1 Driller: Gregg Drilling Page 1 of 2

Logged by: BB Proj. Mgr. WEM Surface Elev. :

Penetration (Blows/ 6")	Depth (feet)	U.S.C.S. Soil Class.	Field Description	Remarks
	0	Backfill	0'-7' Sand backfill material	
	7	CL	7'-13' Sandy clay; light olive brown (2.5Y 5/4); 10% to 30% very fine to fine sand; minor rust staining; minor blue-green aged hydrocarbon discoloring (horizonal streaks); very stiff; damp (no hydrocarbon discoloring below 13')	
9,13,15	10			10' sample, slight hydrocarbon odor (no odor below 13', below 10' sampler was driven for lithologic description only)
	13	CL-SC	13'-30' Sandy clay to clayey sand; yellowish brown (10YR 5/4); 10% to 70% very fine to fine sand in a clay matrix with occasional thin lenses (<6-inches) of clean fine sand; minor component of fine to medium gravel (quartz, white, dark colors, angular); little or no iron staining below 18'; damp to moist.	
5,7,12	15			
	17			

AQUA TERRA TECHNOLOGIES INC.

Field Drilling and Sampling Log

Job No: 9124

Penetration (Blows/ 6")	Depth (feet)	U.S.C.S. Soil Class.	MW1 Field Description	Remarks
	17			
	18			
	19	CL-		
	20	SC		
4,7,11	21			
	22			
	23			23' First water (very slow producing)
	24			
	25			25' Material slipped out of sampler, saturated, not recovered
4,11,11	26			
	27			
	28			
	29			
	30		B.O.H. @ 30'	
	31			
	32			
	33			
	34			
	35			
	36			
	37			
	38			
	39			

ATT

AQUA TERRA TECHNOLOGIES INC.

Log of Exploratory Boring

Project: Dibble/Foley Job No.: 9124

Location: 914-916 San Pablo Ave., Albany, CA Date: 7/24/91

Boring No.: MW2 Driller: Gregg Drilling Page 1 of 2

Logged by: BB Proj. Mgr. WEM Surface Elev. :

Penetration (Blows/ 6")	Depth (feet)	U.S.C.S. Soil Class.	Field Description	Remarks
	0	Asphalt	0'-0.5' Asphalt and gravel base	
	1	Fill	0.5'-1.5' Fill, black silty clay	
	2		1.5'-8' Sandy Clay; olive brown (2.5Y 4/4); 10% to 30% very fine sand; stiff to very stiff; damp	
	3			
	4	CL		
	5			
	6			
	7			
	8		8'-28' Sandy clay to clayey sand; yellowish brown (10YR 5/4); 10% to 60% very fine to fine sand in a clay matrix with occasional thin lenses (<6-inch) of clean fine to medium sand; major iron staining; damp to moist	
	9			
	10			
7,8,17	11	CL-SC		10' Sample (below 10', sampler was driven for lithologic description only)
	12			
	13			
	14			
	15			
	16			
4,5,11	17			

AQUA TERRA TECHNOLOGIES INC.

ATT

Field Drilling and Sampling Log

Job No: 9124

Penetration (Blows/ 6")	Depth (feet)	U.S.C.S. Soil Class.	MW2 Field Description	Remarks
	17			
	18			
	19			19' First water
	20			
4,7,14	21	CL-SC		
	22			
	23			
	24			
	25			
	26			
	27			
	28		B.O.H. @ 28'	
	29			
	30			
	31			
	32			
	33			
	34			
	35			
	36			
	37			
	38			
	39			

ATT

AQUA TERRA TECHNOLOGIES INC.

Log of Exploratory Boring

Project: Dibble/Foley Job No.: 9124

Location: 914-916 San Pablo Ave., Albany, CA Date: 7/25/91

Boring No.: MW3 Driller: Gregg Drilling Page 1 of 2

Logged by: BB Proj. Mgr. WEM Surface Elev. :

Penetration (Blows/ 6")	Depth (feet)	U.S.C.S. Soil Class.	Field Description	Remarks
	0	Fill	0'-8' Backfill material; native soil, engineered gravel, plastic sheeting, debris (probably tank backfill)	
	1			
	2			
	3			
	4			
	5			
	6			
	7			
	8	CL	8'-14' Sandy clay; light olive brown (2.5Y 5/4); 10% to 30% very fine to fine sand; very stiff; minor iron staining (gradational increase in iron staining); damp.	
	9			
	10			
11,23,24	11			10' Sample (below 10', sampler was driven for lithologic description only)
	12			
	13			
	14	CL-SC	14'-27' Sandy clay to clayey sand; pale olive (5Y 6/3); 10% to 60% very fine to fine sand in a clay matrix with occasional thin lenses (<6-inch) of clean fine to medium sand (lenses moist to saturated);	
	15			15' First water
5,8,12	16			
	17			

AQUA TERRA TECHNOLOGIES INC.

Field Drilling and Sampling Log

Job No: 9124

Penetration (Blows/ 6")	Depth (feet)	U.S.C.S. Soil Class.	MW3 Field Description	Remarks
	17			
	18	CL-SC	iron staining; minor component of fine gravel (varying composition, poorly graded); moist	
	19			
	20			
8,12,14	21			
	22			
	23			
	24			
	25			
	26			
	27		B.O.H. @ 27'	
	28			
	29			
	30			
	31			
	32			
	33			
	34			
	35			
	36			
	37			
	38			
	39			

MW1
Well Designation:

Site Location:
914-916 San Pablo Ave., Albany, CA.

Date Installed: 7-24-91

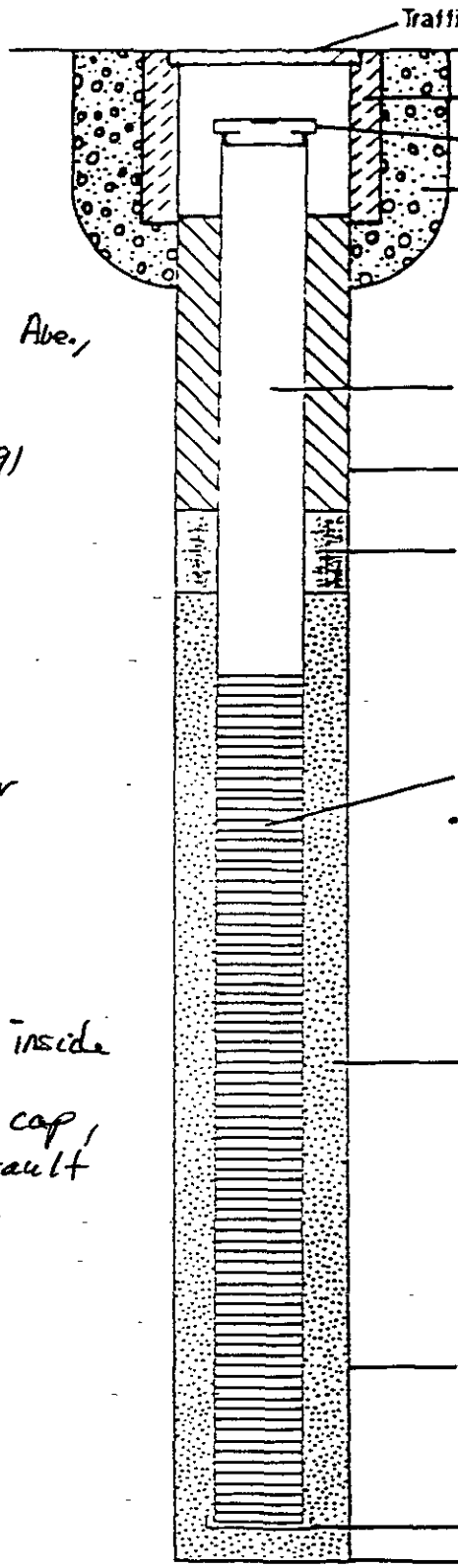
Drilling Company:
Gregg Drilling

Driller: Chris

Drilling Method:
Hollow-stem auger

Logged By: BB

Notes:
locking steel cover inside vault box, secures access to locking cap, steel cover and vault box are set in concrete.



Not to Scale

Groundwater Monitoring Well Construction Details

ATT Aqua Terra Technologies Consulting Engineers & Scientists

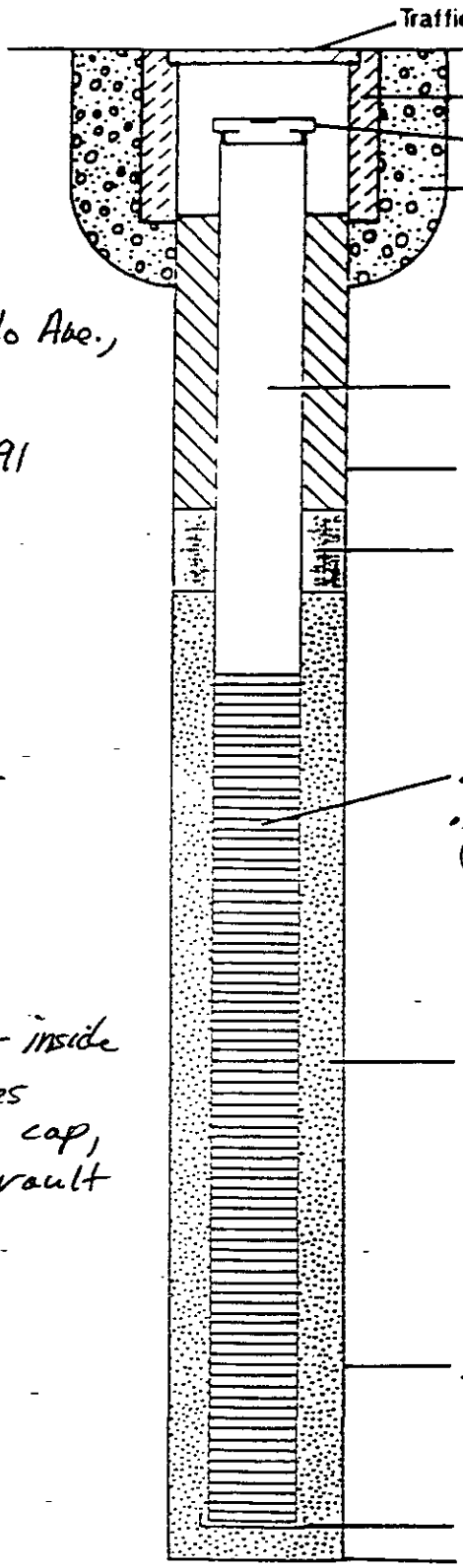
Dibble/Foley

JOB NUMBER 9124

DATE

PLATE

MW2
Well Designation:



Site Location:
914-916 San Pablo Ave.,
Albany, CA.

Date Installed: 7-24-91

Drilling Company:
Gregg Drilling

Driller: Chris

Drilling Method:
Hollow-stem auger

Logged By: BB

Notes:
locking steel cover inside vault box, secures access to locking cap, steel cover and vault box are set in concrete

Not to Scale

Groundwater Monitoring Well Construction Details

ATT Aqua Terra Technologies
Consulting Engineers
& Scientists

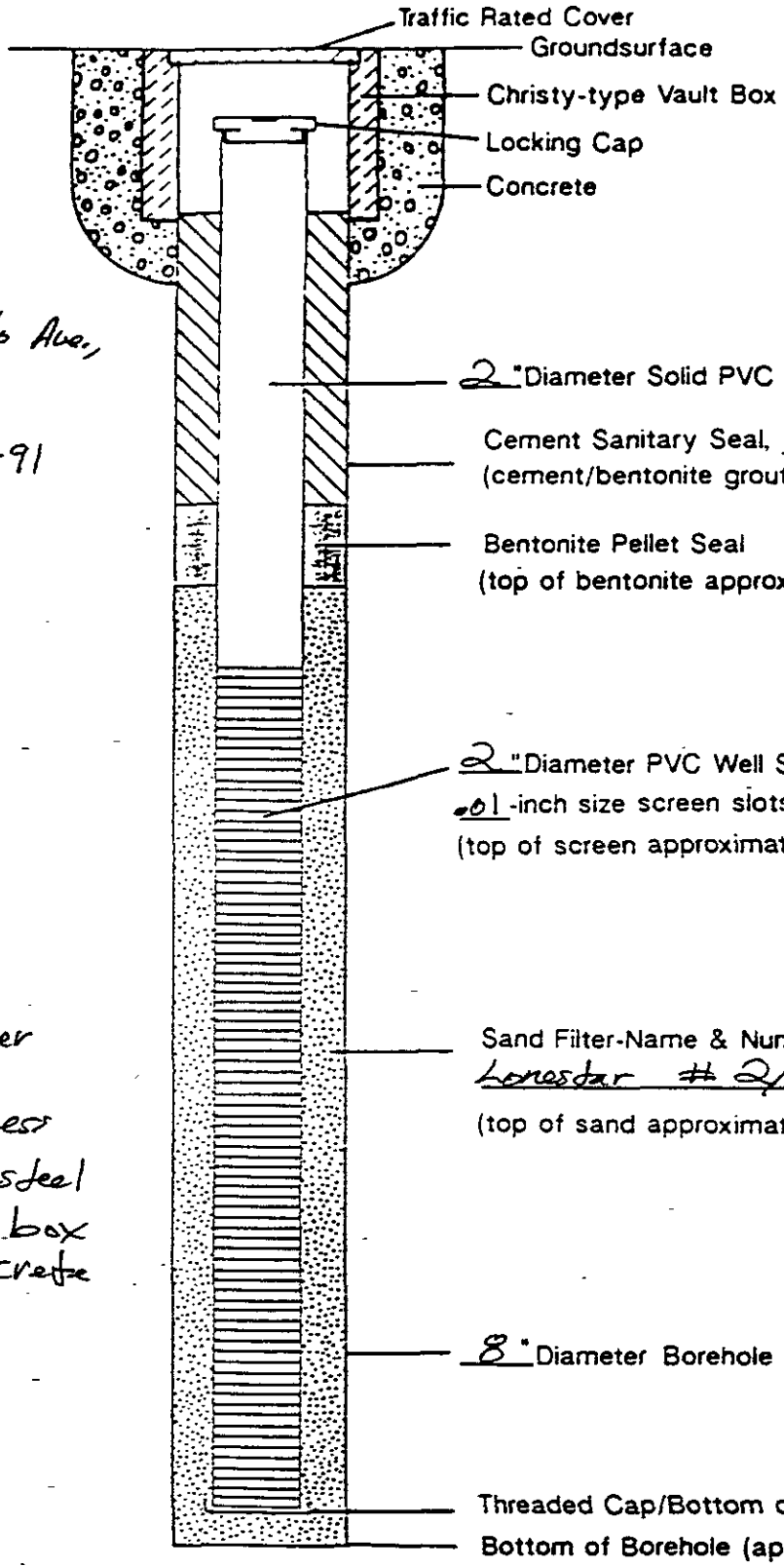
Dibble/Foley

JOB NUMBER 9124

DATE

PLATE

MW3
Well Designation:



Site Location:
914-916 San Pablo Ave,
Albany, CA.

Date Installed: 7-25-91

Drilling Company:
Gregg Drilling

Driller: Chris

Drilling Method:
Hollow-stem auger

Logged By: B.B.

Notes:
locking steel cover inside vault box, ~~secure~~ secures access to locking cap, steel cover and vault box are set in concrete

Not to Scale

Groundwater Monitoring Well Construction Details

ATT Aqua Terra Technologies
Consulting Engineers
& Scientists

Dibble / Foley

JOB NUMBER 9124

DATE

PLATE

ATT

WELL DEVELOPMENT RECORD

Date: 7 - 31 - 91 Well I.D.: MW1 Project No.: 9124

Project Name: J. DIBBLE Project Manager: _____

Site location/address: SAN PABLO AVE

Pre-development data

W.L. (1/100'): 10.45 /Time: 16:00 B.O.W. (1/2): 29.0

W.L. method: ✓ electric well sounder, ____ other/_____

Calculated purge volume (minimum 10 casing volumes): 32 gallons

Floating product: Y / (N) (if yes, record thickness here: _____)

Sheen: Y / (N) Odor: Y / (N) Vapor:_____ ppm / % LEL

Water description: ____ clear, ____ slightly cloudy, ____ moderate sediment (color: _____),

✓ very muddy (color: BROWN)

Development data

Development method: ✓ hand pump, ____ bailer, ____ other/_____

Development began: date 7 - 31 - 91 time 16:30

Purge Volume	Time	Temp.	pH	Cond.	Turb.	Yield (GPM)
FIRST: 11	16:45	190	7.51	1820 us	BROWN	
SECOND: 22	16:50	190	7.41	1530 us	BROWN	
THIRD: 33	17:00	190	7.40	1270 us	BROWN	

Development ended: date 7 - 31 - 91 time 17:00

Total water removed during development: 33 gallons

Purged water discharged to; ✓ drums, ____ tank truck, ____ other/_____

Post development data

W.L. (1/100'): 19.10 /time: 17:20 B.O.W. (1/2): 29

Floating product: Y / (N) (if yes, record thickness here: _____)

Sheen: (Y) / N Odor: Y / (N) Vapor: _____ ppm / % LEL

Water description: ____ clear, ____ slightly cloudy, ____ moderate sediment (color: _____),

✓ very muddy (color: BROWN)

Notes: _____

Developed by (signature): _____

WELLDVRD.PM3

ATT

WELL DEVELOPMENT RECORD

Date: 7 - 31 - 91 Well I.D.: MW 2 Project No.: 924

Project Name: J DIBBLE Project Manager: _____

Site location/address: SOLANO AVE

Pre-development data

W.L. (1/100'): 1160 /Time: 15:00 B.O.W. (1/2): 270

W.L. method: ✓ electric well sounder, ____ other/_____

Calculated purge volume (minimum 10 casing volumes): 26 gallons

Floating product: Y / (N) (if yes, record thickness here: _____)

Sheen: Y / (N) Odor: Y / (N) Vapor: _____ ppm / % LEL

Water description: ____ clear, ____ slightly cloudy, ____ moderate sediment (color: _____),

✓ very muddy (color: BROWN)

Development data

Development method: ✓ hand pump, ____ bailer, ____ other/_____

Development began: date 7 - 31 - 91 time 15:05

Purge Volume	Time	Temp.	pH	Cond.	Turb.	Yield (GPM)
FIRST: 9	15:10	19°	7.33	1230 uS	BROWN	
SECOND: 18	15:19	19°	7.12	1140 uS	BROWN	
THIRD: 27	15:30	19°	7.04	1080 uS	BROWN	

Development ended: date 7 - 31 - 91 time 15:30

Total water removed during development: 27 gallons

Purged water discharged to; ✓ drums, ____ tank truck, ____ other/_____

Post development data

W.L. (1/100'): 1200 /time: 15:45 B.O.W. (1/2): 27.0

Floating product: Y / N (if yes, record thickness here: _____)

Sheen: (Y) / N Odor: Y / (N) Vapor: _____ ppm / % LEL

Water description: ____ clear, ____ slightly cloudy, ____ moderate sediment (color: _____),

✓ very muddy (color: BROWN)

Notes: _____

Developed by (signature): _____

WELLDVRD.PM3

ATT

WELL DEVELOPMENT RECORD

Date: 7 - 31 - 91 Well I.D.: MW 3 Project No.: 7124

Project Name: DOBLE Project Manager: _____

Site location/address: ADAMS STREET

Pre-development data

W.L. (1/100'): 890 /Time: 13:01 B.O.W. (1/2): 25'

W.L. method: ✓ electric well sounder, ____ other/ _____

Calculated purge volume (minimum 10 casing volumes): 27 gallons

Floating product: Y / N (if yes, record thickness here: _____)

Sheen: Y / (N) Odor: Y / N Vapor: 3.0 ppm / % LEL

Water description: ____ clear, ____ slightly cloudy, ✓ moderate sediment (color: BROWN),

____ very muddy (color: _____)

Development data

Development method: ✓ hand pump, ____ bailer, ____ other/ _____

Development began: date 7 - 31 - 91 time 13:10

	Purge Volume	Time	Temp.	pH	Cond.	Turb.	Yield (GPM)
FIRST:	9	13:56	20°	6.95	0870	DARK	____
SECOND:	18	14:05	20°	6.96	0760	DARK	____
THIRD:	27	14:10	20°	6.97	0740	DARK	____
	____	____	____	____	____	____	____

Development ended: date 7 - 31 - 91 time 14:15

Total water removed during development: 27 gallons

Purged water discharged to; ✓ drums, ____ tank truck, ____ other/ _____

Post development data

W.L. (1/100'): 900 /time: 15:55 B.O.W. (1/2): 25'

Floating product: Y / (N) (if yes, record thickness here: _____)

Sheen: Y / (N) Odor: Y / (N) Vapor: _____ ppm / % LEL

Water description: ____ clear, ____ slightly cloudy, ____ moderate sediment (color: _____),

✓ very muddy (color: BROWN)

Notes: STARTED PURGING AT 13:01 STOPPED AT 13:28 FOR RECHARGE

" " " 13:45

Developed by (signature): Nick Waldin

WELLDVRD.PM3

ATTACHMENT E

Laboratory Reports
Chain of Custody
Sample Collection Forms

NATIONAL
ENVIRONMENTAL
TESTING, INC.

NET Pacific, Inc.
435 Tesconi Circle
Santa Rosa, CA 95401
Tel: (707) 526-7200
Fax: (707) 526-9623

Bruce Berman
Aqua Terra Technology
2950 Buskirk Ave., Ste 120
Walnut Creek, CA 94596

Date: 08-26-91
NET Client Acct. No: 435
NET Pacific Log No: 9178
Received: 08-10-91 0900

Client Reference Information

Job: 9124

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Approved by:

Jules Skamarack
Laboratory Manager

Enclosure(s)

Ref: Job: 9124

SAMPLE DESCRIPTION: MW-1 08-07-91 1032
LAB Job No: (-94313)

Parameter	Method	Reporting Limit	Results	Units
PETROLEUM HYDROCARBONS			--	
VOLATILE (WATER)			--	
DILUTION FACTOR *			1	
DATE ANALYZED			08-15-91	
METHOD GC FID/5030			--	
as Gasoline		0.05	0.11	mg/L
METHOD 602			--	
DILUTION FACTOR *			1	
DATE ANALYZED			08-15-91	
Benzene		0.5	16	ug/L
Ethylbenzene		0.5	0.7	ug/L
Toluene		0.5	2.0	ug/L
Xylenes, total		0.5	15	ug/L

Ref: Job: 9124

SAMPLE DESCRIPTION: MW-2 08-07-91 1150
LAB Job No: (-94314)

Parameter	Method	Reporting Limit	Results	Units
PETROLEUM HYDROCARBONS			--	
VOLATILE (WATER)			--	
DILUTION FACTOR *			1	
DATE ANALYZED			08-14-91	
METHOD GC-FID/5030			--	
as Gasoline		0.05	ND	mg/L
METHOD 602			--	
DILUTION FACTOR *			1	
DATE ANALYZED			08-14-91	
Benzene		0.5	ND	ug/L
Ethylbenzene		0.5	ND	ug/L
Toluene		0.5	ND	ug/L
Xylenes, total		0.5	ND	ug/L

Ref: Job: 9124

SAMPLE DESCRIPTION: F.B. 08-07-91 1005
LAB Job No: (-94315)

Parameter	Method	Reporting Limit	Results	Units
PETROLEUM HYDROCARBONS			--	
VOLATILE (WATER)			--	
DILUTION FACTOR *			1	
DATE ANALYZED			08-14-91	
METHOD GC FID/5030			--	
as Gasoline		0.05	ND	mg/L
METHOD 602			--	
DILUTION FACTOR *			1	
DATE ANALYZED			08-14-91	
Benzene		0.5	ND	ug/L
Ethylbenzene		0.5	ND	ug/L
Toluene		0.5	1.1	ug/L
Xylenes, total		0.5	ND	ug/L

NET Pacific, Inc

Client Acct: 435
Client Name: Aqua Terra Technology
NET Log No: 9178

Date: 08-26-91
Page: 5

Ref: Job: 9124

SAMPLE DESCRIPTION: MW-3 08-07-91 1105
LAB Job No: (-94316)

Parameter	Method	Reporting Limit	Results	Units
Oil & Grease(Total)	EPA9070	5	ND	mg/L
PETROLEUM HYDROCARBONS			--	
VOLATILE (WATER)			--	
DILUTION FACTOR *			1	
DATE ANALYZED			08-14-91	
METHOD GC FID/5030			--	
as Gasoline		0.05	ND	mg/L
METHOD 602			--	
DILUTION FACTOR *			1	
DATE ANALYZED			08-14-91	
Benzene		0.5	ND	ug/L
Ethylbenzene		0.5	ND	ug/L
Toluene		0.5	ND	ug/L
Xylenes, total		0.5	ND	ug/L

Ref: Job: 9124

QUALITY CONTROL DATA

Parameter	Reporting Limits	Units	Cal Verf Stand % Recovery	Blank Data	Spike % Recovery	Duplicate Spike % Recovery	RPD
Gasoline	0.05	mg/L	100	ND	100	113	12
Benzene	0.5	ug/L	95	ND	99	111	11
Toluene	0.5	ug/L	92	ND	100	106	6.0
Gasoline	0.05	mg/L	97	ND	92	89	3.3
Benzene	0.5	ug/L	78	ND	95	94	1.1
Toluene	0.5	ug/L	92	ND	96	94	2.1

COMMENT: Blank Results were ND on other analytes tested.

QUALITY CONTROL DATA

Parameter	Reporting Limits	Units	Cal Verf Stand % Recovery	Blank Data	Spike % Recovery	Duplicate Spike % Recovery	RPD
O & G(Total)	5	mg/L	105	ND	98	101	3.2

NET Pacific, Inc.

KEY TO ABBREVIATIONS and METHOD REFERENCES

<	:	Less than; When appearing in results column indicates analyte not detected at the value following. This datum supercedes the listed Reporting Limit.
*	:	Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated Reporting Limits by the dilution factor (but do not multiply reported values).
ICVS	:	Initial Calibration Verification Standard (External Standard).
mean	:	Average; sum of measurements divided by number of measurements.
mg/Kg (ppm)	:	Concentration in units of milligrams of analyte per kilogram of sample (parts per million).
mg/L	:	Concentration in units of milligrams of analyte per liter of sample.
mL/L/hr	:	Milliliters per liter per hour.
MPN/100 mL	:	Most probable number of bacteria per one hundred milliliters of sample
N/A	:	Not applicable.
NA	:	Not analyzed.
ND	:	Not detected; the analyte concentration is less than applicable listed reporting limit.
NTU	:	Nephelometric turbidity units.
RPD	:	Relative percent difference, 100 [Value 1 - Value 2]/mean value.
SNA	:	Standard not available.
ug/Kg (ppb)	:	Concentration in units of micrograms of analyte per kilogram of sample (parts per billion).
ug/L	:	Concentration in units of micrograms of analyte per liter of sample.
umhos/cm	:	Micromhos per centimeter.

Method References

Methods 100 through 493: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, rev. 1983.

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

SM: see "Standard Methods for the Examination of Water & Wastewater, 17th Edition, APHA, 1989.

Aqua Terra Technologies, Inc.
2950 Buskirk Avenue, Ste. 120
Walnut Creek, CA 94596
Tel. (415) 934-4884
Fax. (415) 934-0418

CHAIN OF SAMPLE CUSTODY RECORD

(original document, please return)

9178 ATT

Page 1 of 1

Sampled By: DAVID BOARDLEY
Signature:
Results To Be Sent To: BRUCE BERMAN
Results Needed By: STANDARD TURNAROUND
Fax Results ASAP ☑

Date Sampled: 8-7-91
ATT Job #: 9124
Lab Name: NET PACIFIC
Contact: KELLY
Phone #: (707) 526 7200
Lab Job #:

Sample Collection				Sample Preservation				Sample Containers				Analysis/EPA Method No.						
Sample I.D.	Time (24 hr)	Matrix (e.g. Water, Soil)	Number of Containers	Ice	HCL	Dry Ice		40 mL VOA	1 L Amber			BTEX	TPH D	TPH G	TOG			Remarks
MW1	10:32	WATER	3	✓	✓			3				✓		✓				
MW2	11:50	"	3	✓	✓			3				✓		✓				
MW3	11:05	"	5	✓	✓			3	2			✓		✓	✓			
FB	10:05	"	3	✓	✓			3				✓		✓				

CUSTODY SEALED 8/9/91 @ 1:30 PM

Notes:

Relinquished by/ Company Affiliation	Date	Time	Received by: Company Affiliation	Date	Time
	8-9-91	12:27		8/9/91	12:27 PM
	8/9/91		(VIA NCS)		
				8/10/91	0900

NATIONAL
ENVIRONMENTAL
TESTING, INC.

NET Pacific, Inc.
435 Tesconi Circle
Santa Rosa, CA 95401
Tel: (707) 526-7200
Fax: (707) 526-9623

Bruce Berman
Aqua Terra Tech., Inc.
2950 Buskirk Ave., Ste 120
Walnut Creek, CA 94596

Date: 08-12-91
NET Client Acct No: 435.2
NET Pacific Log No: 8905
Received: 07-30-91 0800

Client Reference Information

Job: 9124

Sample analysis in support of the project referenced above has been completed and results are presented on following pages. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Approved by:

Jules Skamarack
Laboratory Manager

JS:rct
Enclosure(s)

NET Pacific, Inc

Client No: 435.2 Date: 08-12-91
Client Name: Aqua Terra Tech., Inc.
NET Log No: 8905 Page: 2

Ref: Job: 9124

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results MW1-10 07-24-91 0845 93094	 MW2-10 07-24-91 1230 93095	Units
PETROLEUM HYDROCARBONS	LUFTG		--	--	
VOLATILE (SOIL)	LUFTG		--	--	
DILUTION FACTOR *	LUFTG		1	1	
DATE ANALYZED	LUFTG		08-01-91	08-01-91	
METHOD GC FID/5030	LUFTG		--	--	
as Gasoline		1	4.0	ND	mg/Kg
METHOD 8020			--	--	
DILUTION FACTOR *			10	1	
DATE ANALYZED			08-02-91	08-01-91	
Benzene		2.5	310	ND	ug/Kg
Ethylbenzene		2.5	ND	ND	ug/Kg
Toluene		2.5	140	ND	ug/Kg
Xylenes, total		2.5	69	ND	ug/Kg

NET Pacific, Inc

Client No: 435.2 Date: 08-12-91
Client Name: Aqua Terra Tech., Inc.
NET Log No: 8905 Page: 3

Ref: Job: 9124

Parameter	Method	Reporting Limit	Descriptor, Lab No. and Results MW3-10 07-25-91 0905 93096	Units
Oil & Grease(Total)	EPA9071	50	ND	mg/Kg
PETROLEUM HYDROCARBONS	LUFTG		--	
VOLATILE (SOIL)	LUFTG		--	
DILUTION FACTOR *	LUFTG		1	
DATE ANALYZED	LUFTG		08-01-91	
METHOD GC FID/5030	LUFTG		--	
as Gasoline		1	ND	mg/Kg
METHOD 8020			--	
DILUTION FACTOR *			1	
DATE ANALYZED			08-01-91	
Benzene		2.5	ND	ug/Kg
Ethylbenzene		2.5	ND	ug/Kg
Toluene		2.5	ND	ug/Kg
Xylenes, total		2.5	ND	ug/Kg

Ref: Job: 9124

QUALITY CONTROL DATA

Parameter	Reporting Limits	Units	Cal Verf Stand % Recovery	Blank Data	Spike % Recovery	Duplicate Spike % Recovery	RPD
Gasoline	1	mg/Kg	97	ND	83	99	18
Benzene	2.5	ug/Kg	104	ND	82	101	10
Toluene	2.5	ug/Kg	105	ND	90	101	12
Benzene	2.5	ug/Kg	109	ND	95	92	3.2
Toluene	2.5	ug/Kg	106	ND	94	92	2.2
O&G(Total)	50	mg/Kg	100	ND	93	90	3.2

COMMENT: Blank Results were ND on other analytes tested.

NET Pacific, Inc.

KEY TO ABBREVIATIONS and METHOD REFERENCES

<	:	Less than; When appearing in results column indicates analyte not detected at the value following. This datum supercedes the listed Reporting Limit.
*	:	Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated Reporting Limits by the dilution factor (but do not multiply reported values).
ICVS	:	Initial Calibration Verification Standard (External Standard).
mean	:	Average; sum of measurements divided by number of measurements.
mg/Kg (ppm)	:	Concentration in units of milligrams of analyte per kilogram of sample (parts per million).
mg/L	:	Concentration in units of milligrams of analyte per liter of sample.
mL/L/hr	:	Milliliters per liter per hour.
MPN/100 mL	:	Most probable number of bacteria per one hundred milliliters of sample
N/A	:	Not applicable.
NA	:	Not analyzed.
ND	:	Not detected; the analyte concentration is less than applicable listed reporting limit.
NTU	:	Nephelometric turbidity units.
RPD	:	Relative percent difference, 100 [Value 1 - Value 2]/mean value.
SNA	:	Standard not available.
ug/Kg (ppb)	:	Concentration in units of micrograms of analyte per kilogram of sample (parts per billion).
ug/L	:	Concentration in units of micrograms of analyte per liter of sample.
umhos/cm	:	Micromhos per centimeter.

Method References

Methods 100 through 493: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, rev. 1983.

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

SM: see "Standard Methods for the Examination of Water & Wastewater, 17th Edition, APHA, 1989.

SAMPLE COLLECTION RECORD - MONITOR WELL

ATT

Date: 8-7-91 Sample I.D.: FB Job No.: 9124

Site Location: 914-916 San Pablo Ave

No. of Containers : 3 /(check one): ___Well Samples;

___Duplicates from well_____; ___Travel Blanks;

✓Field Blanks; ___Other (explain)/_____

W.L.(1/100'):_____ Time :_____ B.O.W.(1/2'):_____

Method:___Electric Well Sounder; ___Other/_____

Con./pH meter calibrated: Y / N Well Loc. Map: Y / N

Calculated Purge Volume (4 casing volumes):_____ gallons

Purging Method: ___Disposable Bailer; ___Teflon Bailer;

___Other/_____

Time Start Purging (24 hr):_____, Product: Y / N
Sheen: Y / N , Odor: Y / N , Vapor:____ ppm / %LEL

Turbidity:_____, Color:_____

Time Stop Purging (24 hr):_____, Product: Y / N
Sheen: Y / N , Odor: Y / N , Vapor:____ ppm / %LEL

Turbidity:_____, Color:_____

	Temp.	pH	Cond.	Purge Vol.	Time
First :					
Second:					
Final :					

Sample Collection Time (24 hr): 10:05

Notes: SAMPLE COLLECTED FROM PRE CLEANED DISPOSABLE BAILER

Collected By (signature): [signature]

SAMPLE COLLECTION RECORD - MONITOR WELL

ATT

Date: 8-7-91 Sample I.D.: MW1 Job No.: 9124

Site Location: 914-916 San Pablo Ave

No. of Containers : 3 /(check one): X Well Samples;

___Duplicates from well_____; ___Travel Blanks;

___Field Blanks; ___Other (explain)/_____

W.L.(1/100'): 10.49 Time : 10:00 B.O.W.(1/2'): 29.5'

Method: X Electric Well Sounder; ___Other/_____

Con./pH meter calibrated: (Y) / N Well Loc. Map: (Y) / N

Calculated Purge Volume (4 casing volumes): 11 gallons

Purging Method: X Disposable Bailer; ___Teflon Bailer;

___Other/_____

Time Start Purging (24 hr): 10:10, Product: Y / (N)
Sheen: Y / (N), Odor: Y / (N), Vapor:___ ppm / %LEL

Turbidity: None, Color: None

Time Stop Purging (24 hr): 10:30, Product: Y / (N)
Sheen: Y / (N), Odor: Y / (N), Vapor:___ ppm / %LEL

Turbidity: Light, Color: Brown

	Temp.	pH	Cond.	Purge Vol.	Time
First :	19.5°	6.91	1170 µS	4	10:17
Second:	19.5°	7.02	1190 µS	8	10:24
Final :	19.5°	7.00	1120 µS	11	10:30

Sample Collection Time (24 hr): 10:32

Notes:_____

_____

_____

Collected By (signature): [signature]

SAMPLE COLLECTION RECORD - MONITOR WELL

Date: 8-7-91 Sample I.D.: MW2 Job No.: 9124

Site Location: 914, 916 San Pablo Ave

No. of Containers : 3 /(check one): ✓ Well Samples;

___ Duplicates from well _____; ___ Travel Blanks;

___ Field Blanks; ___ Other (explain)/_____

W.L.(1/100'): 11.64 Time : 11:20 B.O.W.(1/2'): 22.0'

Method: ✓ Electric Well Sounder; ___ Other/_____

Con./pH meter calibrated: (Y) / N Well Loc. Map: (Y) / N

Calculated Purge Volume (4 casing volumes): 9.8 gallons

Purging Method: ✓ Disposable Bailer; ___ Teflon Bailer;

___ Other/_____

Time Start Purging (24 hr): 11:32, Product: Y / (N)
Sheen: Y / (N), Odor: Y / (N), Vapor: ___ ppm / %LEL

Turbidity: ~, Color: ~

Time Stop Purging (24 hr): 11:47, Product: Y / (N)
Sheen: Y / (N), Odor: Y / (N), Vapor: ___ ppm / %LEL

Turbidity: MED., Color: Brown

	Temp.	pH	Cond.	Purge Vol.	Time
First :	19°C	7.05	1050 µs	3	11:36
Second:	19°C	7.01	1070 µs	6	11:42
Final :	19°C	6.86	1020 µs	10	11:47

Sample Collection Time (24 hr): 11:50

Notes: _____

_____

_____

Collected By (signature): _____

SAMPLE COLLECTION RECORD - MONITOR WELL

ATT

Date: 8-7-91 Sample I.D.: MW3 Job No.: 9124

Site Location: 914, 916 SAN PABLO AVE

No. of Containers : 5 /(check one): X Well Samples;

___Duplicates from well_____; ___Travel Blanks;

___Field Blanks; ___Other (explain)/_____

W.L.(1/100'): 8.94 Time : 10:44 B.O.W.(1/2'): 25'

Method: X Electric Well Sounder; ___Other/_____

Con./pH meter calibrated: (Y)/ N Well Loc. Map: (Y)/ N

Calculated Purge Volume (4 casing volumes): 10 gallons

Purging Method: X Disposable Bailer; ___Teflon Bailer;

___Other/_____

Time Start Purging (24 hr): 10:50, Product: Y / (N)
Sheen: Y / (N), Odor: Y / (N), Vapor:____ ppm / %LEL

Turbidity: LIGHT, Color: LIGHT BROWN

Time Stop Purging (24 hr): 11:04, Product: Y / (N)
Sheen: Y / (N), Odor: Y / (N), Vapor:____ ppm / %LEL

Turbidity: MEDIUM, Color: BROWN

	Temp.	pH	Cond.	Purge Vol.	Time
First :	19°	6.85	0780	3	10:54
Second:	19°	6.92	0750	6	10:59
Final :	19°	6.88	0730	10	11:04

Sample Collection Time (24 hr): 11:05

Notes:_____

_____

_____

Collected By (signature): [signature]

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

DEPARTMENT OF ENVIRONMENTAL HEALTH
Hazardous Materials Program
80 Swan Way, Rm. 200
Oakland, CA 94621
(415)

1 November 1990

Josephine Dibble
c/o Foley, McIntosh & Foley
1225 Solano Avenue
Albany, CA 94706-1734

Subject: Ground water investigation of 914 San Pablo Avenue, Albany.

Dear Ms. Dibble:

Thank you for the proposal submitted to this office concerning the excavation of contaminated soil and the installation of ground water monitoring wells at the site listed above. This proposal, prepared by Aqua Terra Technologies Incorporated and dated the 22nd of August 1990, has been reviewed by the agency. Approval is given for the implementation of this project.

Please ensure that all of the analytical data derived from this investigation is communicated to this office for review and inclusion into our records. The need for any further action at this site will be based upon the results of this study.

If you have any questions concerning this matter, please contact me at (415)271-4320.

Sincerely,

Dennis J. Byrne

Dennis J. Byrne
Hazardous Materials Specialist

cc: Steve Luquire, SFBRWQCB
Rafat Shahid, Assistant Director, Alameda County Department of Environmental Health.
William Motzer, Aqua Terra Technologies