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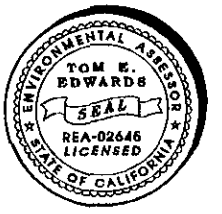
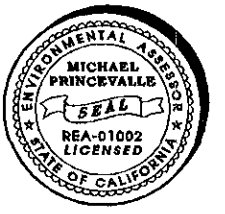
PRELIMINARY SUBSURFACE SOIL INVESTIGATION REPORT AND WORKPLAN AMENDMENT

7400 Amador Valley Road
Dublin, California

Jan 1993

MANAGEMENT AND CONSULTING





California Registered Environmental Assessors
California Certified Engineering Geologist
Oregon Registered Engineering Geologist
Oregon Registered UST Soil Cleanup Supervisors

"An Environmental Management Company"

PRELIMINARY SUBSURFACE SOIL INVESTIGATION REPORT AND WORK PLAN AMENDMENT

for

FORMER DUTCH PRIDE DAIRY

at

7400 Amador Valley Boulevard
Dublin, California

Job: 10-7192

January 26, 1993

prepared for

Jeanne and Richard Dodge
1120 Walker Avenue
Walnut Creek, California 94596

prepared by

TMC ENVIRONMENTAL, Inc.
13685 San Pablo Avenue
San Pablo, California

CERTIFICATION

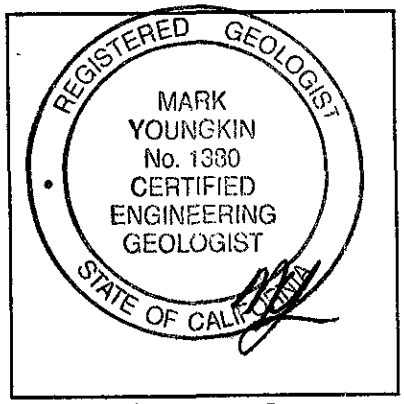
I supervised the preparation of the Preliminary Subsurface Soil Investigation Report and Work Plan Amendment, dated January 26, 1993, for Mr. and Mrs. Richard Dodge, for the property located at 7400 Amador Valley Road, in the city of Dublin, Alameda County, California. The investigation used techniques and standards of care common to the consulting geologic profession in California. My certification as an engineering geologist by the State of California, Board of Registration for Geologists and Geophysicists, license number EG-1380, expires on June 30, 1994. This license is active and currently in good standing with the Board of Registration.

Certifying Professional:

TMC Environmental, Inc.
Vice President

Mark T. Youngkin
Certified Engineering Geologist No. EG-1380

Dated Jan 27, 1993



Geologist Seal

This document, signed and stamped with seal, follows section 7835 of the Geologist and Geophysicists Act, Business and Professionals Code, State of California and the requirements of the California Regional Water Quality Control Board, San Francisco Bay Region.

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FORMER DUTCH PRIDE DAIRY
at
7400 Amador Valley Boulevard
Dublin, California

1.0 INTRODUCTION

TMC ENVIRONMENTAL (TMC)) is presenting this report to Jeanne and Richard Dodge, for a property located at 7400 Amador Valley Boulevard, in Dublin, California, hereafter referred to as the "site" in this work plan; see Plate 1, Site Location Map.

2.0 GENERAL SITE INFORMATION

2.1 SITE LOCATION

The site is situated approximately 150 feet south west of the Amador Valley Boulevard and Village Parkway intersection (approximately 200 feet east of Highway 680), and is located at the following address:

7400 Amador Valley Boulevard
City of Dublin
County of Alameda
State of California
APN 9412101-4

2.2 SITE OWNERS/CONTACT PEOPLE

Current site owners and contact people for this site are:

Jeanne or Richard Dodge
1120 Walker Avenue
Walnut Creek, California
(510) 939-5330 (Business phone)

2.3 CONSULTANT OF RECORD

TMC is the environmental consultant that wrote this report and is the consultant of record. The **TMC** contact people are:

Mr. Tom Edwards, President
Mr. Michael Princevalle, Project Manager
TMC Environmental, Inc.
13908 San Pablo Avenue, Suite 101
San Pablo, California 94806
(510) 232-8366

2.4 LEAD IMPLEMENTING AGENCY

The lead implementing agency authorized by the California Regional Water Quality Control Board to oversee this site is:

Alameda County Department of
Environmental Health (ACDEH)
80 Swan Way, Room 200
Oakland, California
(510) 271-4320

Contact: Eva Chu

2.5 CHIEF STATE AGENCY

The chief State agency for soil and groundwater investigation at this site is the San Francisco Regional Water Quality Control Board (RWQCB), located at:

Underground Tank Section
2101 Webster Street, Suite 500
Oakland, California
(510) 464-1255

2.6 SITE AND VICINITY DESCRIPTION

The area surrounding the site is used for retail and commercial businesses. Amador Valley Boulevard borders the northern portion of the site. An Oil Changers facility borders the eastern limits of the site, with an asphalt-paved alley way located at the southern site limits. A retail "strip mall" and associated asphalt-paved parking lot borders the site's western limits. A retail gasoline station is also located approximately 150 north east of the site; across Amador Valley Boulevard.

The site is currently vacant and mostly unpaved. One ground water monitoring well is located on the site.
There was no obvious evidence of surface staining or any other evidence of chemical contamination at the site.

A cursory review of properties in the immediate area surrounding the site revealed the presence of street-grade well covers in the parking lot west of the site, in the alley way south of the site, and around the perimeter of the neighboring Oil Changers; see Plate 2, Dodge Property. There was no evidence of surfical chemical residues migrating onto or off of the subject site. There was no evidence of domestic wells on the site or neighboring properties. Public utilities appear to service the general area.

3.0 SITE BACKGROUND

3.1 PREVIOUS SITE USE

Reportedly, the site is the location of a former convenience store, named Dutch Pride Dairy (DPD). The dates of the operation by DPD are not known. The current site owners purchased the site in 1979.

Reportedly, two 10,000 gallon underground fuel tanks were installed on the site approximately 15 years ago by DPD. The tanks were used to store fuel for retail sale. The current site owners reportedly believe that the tanks were not permitted by applicable agencies for installation or operation. The current site owners have

no knowledge of leak detection devices for the former tanks, or previous knowledge of unauthorized discharges from the tanks.

3.2 PREVIOUS SITE WORK

Reports presented to and reviewed by **TMC** included information on the removal of the underground gasoline storage tanks, limited excavation of soils found to be contaminated with gasoline, chemical analysis results of soil samples recovered from the tank removal and soil excavation, the installation of a ground water monitoring well, chemical analysis results of ground water samples recovered from the monitoring well installed at the site, and a partial report of groundwater work performed at the Oil Changers site (adjacent to the subject site). Reports pertinent to the site and reviewed by **TMC** are:

1) Summary Report for Tank Removal at 7400 Amador Valley Blvd, dated February 14, 1990, and

2) Excavation, Soil Sample Collection and Monitoring Well Installation, dated January 23, 1991.

Both reports were written by Aqua Terra Technologies (ATT), located in Walnut Creek, California. Information in these reports is summarized within the **TMC** document Preliminary Subsurface Soil Investigation Work Plan, dated November 20, 1992.

Reports reviews by **TMC** reveal that two underground storage tanks were removed from the site on January 11, 1991, by ATT. DPD provided for the tank removal. Reportedly, holes were visually observed in both tanks. Additionally, stained soil were found surrounding the tanks. Free water was encountered in the tank excavation during the tank removal at approximately 8 to 9 feet below grade.

Both water and soil samples were recovered from the tank excavation. The water sample is indicated below in Table 1, Summary Results of ATT Tank Excavation Samples, as PS1. It is the understanding of **TMC** that prior to collecting a water

sample, the water in the pit was first evacuated. A water sample (PS1) was recovered from water that flowed back into the pit.

Tank excavation soil samples are indicated as SS1, SS2, SS3, and SS4. Reportedly, these four samples were recovered from approximately one foot above the water encountered in the tank pit. A soil sample recovered from the former pump island is indicated as SS5. Approximate sample locations are indicated on Plate 2. The samples were submitted to Anametrix, Inc., for chemical analysis.

TABLE 1

SUMMARY RESULTS OF ATT TANK EXCAVATION SAMPLES

SAMPLE ID.	*SAMPLE DATE*	*SAMPLE MATRIX*	*TPH GAS ug/Kg*	*BENZENE ug/Kg*	*TOLUENE ug/Kg*	*ETHYL BENZENE ug/Kg*	*TOTAL XYLENES ug/Kg*
SS1	01-11-90	SOIL	56000	ND (500)	1200	1000	6600
SS2	01-11-90	SOIL	1900000	ND (5000)	20000	31000	150000
SS3	01-11-90	SOIL	1300000	ND (5000)	8200	24000	80000
SS4	01-11-90	SOIL	600000	ND (5000)	ND (5000)	9800	18000
SS5	01-11-90	SOIL	ND(1000)	19	15	14	34
PS1	01-12-90	WATER	92000 (ug/l)	3000 (ug/l)	9000 (ug/l)	1300 (ug/l)	13000 (ug/l)

ND = Analyte below laboratory detection limits
( ) = Laboratory detection limits

Chemical analysis results reveal detectable levels of gasoline, benzene, toluene, ethyl benzene, and total xylenes (BTEX) in the tank excavation soil and groundwater.

On June 13, 1990, contaminated soils surrounding the former tanks were further excavated. Upon completion of the soil excavation activities, four soil samples were recovered from the excavation. The samples are indicated as NE Corner 12', SE Corner, SE Corner 12', and Center Wall in Table 2, Summary Results of ATT Soil Excavation Samples, and on Plate 2.

TABLE 2
SUMMARY RESULTS OF ATT SOIL EXCAVATION SAMPLES
Sampled June 13, 1990

SAMPLE ID.	*SAMPLE DEPTH (Feet)*	*TPH GAS mg/Kg*	*BENZENE ug/Kg*	*TOLUENE ug/Kg*	*ETHYL BENZENE ug/Kg*	*TOTAL XYLENES ug/Kg*
NE CORNER 12'	12	49	0.23	1.0	0.83	2.7
SE CORNER 12'	12	790	ND (5)	ND (5)	10	33
SE CORNER	8.5	570	ND (5000)	ND (5)	11	29
CENTER WALL	12	900	7.4	9.4	19	76

ND = Analyte below laboratory detection limits
( ) = Laboratory detection limits

It is the understanding of **TMC** that the contaminated soils excavated from the tank pit area were stockpiled on site, aerated, sampled, and subsequently disposed of. Reportedly, on June 14, 1990, the excavation was backfilled with clean materials and compacted to grade.

The ATT reports also indicate that a ground water monitoring well was installed at the site, near the location of the former tanks and soil excavation. Apparently, a previously existing monitoring well (MW-10) was located near the former tanks and was destroyed, prior to the soil excavation activities. The new well, installed by ATT (indicated as MW-13), was constructed to replace the destroyed well. Monitoring well MW-13 was installed on December 5, 1990, approximately 3 feet southeast of former MW-10; see Plate 2. The well is constructed of four-inch I.D., schedule-40 PVC materials. Information in the ATT reports indicate that soils encountered in the well boring had detectable levels of gasoline and BTEX.

Well MW-13 was subsequently developed and sampled. During the December 12, 1990, ground water was measured in the well at a depth of 9.68 feet below surface grade (BSG). Ground water sample results are summarized below in Table 3, Summary of Monitoring Well MW-13 Sample Chemical Analysis Results.

TABLE 3
SUMMARY OF MONITORING WELL MW-13
GROUND WATER SAMPLE CHEMICAL ANALYSIS RESULTS
(Data Provided by Ms. Eva Chu and Mr. Richard Dodge)

SAMPLE DATE	*TPH GAS ug/L*	*BENZENE ug/L*	*TOLUENE ug/L*	*ETHYL BENZENE ug/L*	*TOTAL XYLENES ug/L*
12-12-90	190	37	8.7	5.7	20
02-11-91	1,500	290	98	28	120
05-06-91	1,100	430	30	41	130
08-28-91	1,000	350	6.4	44	43
11-13-91	680	320	5.6	38	17
02-25-92	780	260	3.5	26	15
05-12-92	660	210	3.5	26	5.8
08-12-92	400	140	9.6	21	23
11-10-92	60	220	2.9	23	11

3.3 NEIGHBORING SITE WORK

The existing Oil Changers facility (bordering the site's eastern limits) was formerly a Shell gasoline station. It is the understanding of **TMC** that an unauthorized discharge of petroleum hydrocarbons to the ground water had occurred at that site. A soil/ground water contamination investigation and remediation study is being performed at that site. Several ground water monitoring wells are present in the vicinity of the subject site and surrounding properties. In August 1989, Shell performed a ground water pumping/recovery test on recovery well RW-1 (see Plate 2). This work was performed by Ensco Environmental Services, Inc.

3.4 ESTIMATED DIRECTION OF GROUND WATER FLOW

Ground water elevation data from ATT reports and from Ms. Eva Chu (see Attachment 1, Ground Water Elevation Data), it appears that ground water flowed North $\pm$ 120° east to North 140° east. Ground water elevation data also reveal

that ground water elevation levels in monitoring well MW13 (on site) were considerably lower than neighboring wells. The reason for this discrepancy is not known. Apparently, data from this well was excluded in contouring ground water. If MW-13 ground water levels are included in the ground water contouring, data indicates that ground water flow can be in a westerly direction, from the Oil Changers site toward the subject site.

4.0 SUBSURFACE SOIL INVESTIGATION

4.1 PURPOSE OF WORK

The work presented in this report was performed to begin investigating the extent of petroleum hydrocarbons in the subsurface soils surrounding the former fuel tanks and the subsequent soil excavation.

The tasks performed in this report agree with the recent guidelines recommended by the enforcing agency, the Alameda County Department of Environmental Health (ACDEH) and the chief state agency, the Bay Area Regional Water Quality Control Board located in Oakland, California. The investigation, reporting guidelines and reclamation are available through these agencies.

4.2 SCOPE OF WORK

The following tasks were performed at the site to investigate for the extent of subsurface petroleum (gasoline) soil contamination at the site:

- Completion and submission of a Work Plan to the ACDEH.
- Completion and submission of applicable soil boring permits to applicable agencies (i.e. Zone 7 Flood Control).
- Contacting Underground Service Alert (USA) to outline the location of underground utilities around the perimeter of the site.

- Drilling of 7 soil borings in the vicinity of two former underground gasoline storage tanks. The approximate locations of the soil borings are indicated on as B-1 through B-7 on Plate 2.

- Collection of soil samples from each soil boring for chemical analysis.

- Recovering "grab" ground water samples from two of the soil borings for chemical analysis.

- Logging the materials encountered in each boring during the drilling and sampling activities.

- Submission of samples to Curtis and Tompkins, Ltd., located in Berkeley, California, for chemical analysis. Samples were chemically analyzed for Total Volatile Hydrocarbons as Gasoline (TVH Gas), with Benzene, Toluene, Ethyl Benzene and Total Xylene (BTEX) distinction.

- Preparation of this report presenting the findings of the work.

4.3 SOIL BORING AND SAMPLING

On December 16, 1992, the field work (soil boring and sampling) was performed on the site. **TMC** was on site to direct the soil boring and sampling activities. Additionally, Ms. Eva Chu was on site to witness a portion of the field work.

Soil boring, sampling, and chemical analysis procedures are presented in the **TMC** document Preliminary Subsurface Soil Investigation Work Plan, dated November 20, 1992 (mentioned above in this report). Boring and soil sampling procedures followed guidelines recommended by the California Regional Water Quality Control Board, and the ACDEH for investigating fuel leak cases. All work was performed under the supervision of a State-certified engineering geologist.

Soil borings were drilled with truck-mounted drilling equipment. Hollow-stem augering equipment was used to drill and facilitate sampling of the borings. A State-licensed drilling contractor, KL Drilling (of Alameda, California), performed the drilling services.

Five soil borings (B-1, B-2, B-3, B-4 and B-5) were drilled in the vicinity of two former underground gasoline storage tanks. While visiting the site, Ms. Chu requested an additional two borings (B-6 and B-7) to be drilled and soil sampled. Soil boring locations are indicated on Plate 2.

4.4 SOIL SAMPLING

In each soil boring, soil samples were recovered from relatively undisturbed soils in advance of the drilling auger. Samples were recovered using a California Modified split-spoon sampler (2" diameter by 2' in length). Using truck-mounted equipment, the sampler was driven into the soils with a 140-pound hammer. Soils were continuously sampled (at 2-foot intervals) starting at approximately 3½ to 4 feet below grade.

Soil samples were collected from each boring at various depths, such as from soils that appeared to be stained or odorous, or at soil lithologic changes. Additionally, samples were screened using a petroleum vapor field detection instrument. Geological logs were maintained of the soils encountered and the sample depths in each borehole. Descriptions of the soils encountered in all borings are found in Attachment 2, Logs of Borings. Soil sample depths are also presented on the bore logs. Soil samples are designated as B-1-1, B-1-2 B-1-3, etc. in Attachment 2 and Attachment 3, Laboratory Results and Sample Chain of Custody.

All soil samples were recovered from the borings were placed in a cooler box (with ice) and transported to the laboratory for chemical analysis. Selected soil samples were designated for chemical analysis. Generally, samples with relatively high petroleum vapor readings and/or samples recovered at or near lithologic changes were chemically analyzed.

4.5 "GRAB" GROUND WATER SAMPLING

Upon completion of the soil boring/sampling activities, time was allotted ($\pm$ 3 to 4 hours) to allow free ground water to recover into the bore holes for sampling. Measurable ground

water was found in borings B-2 and B-4. In these borings, depth to ground water was measured at approximately 11 feet below grade.

Using dedicated clean, disposable bailers, ground water was withdrawn from the B-2 and B-4 bore holes. The water was examined for floating petroleum product or sheen. No sheen was observed in water recovered from either boring, however, a petroleum-like odor was noticed in water recovered from B-2. Both water samples were relatively clear and free of soil sediment.

Prior to collecting water samples from these two borings, approximately 5 gallons of water was evacuated from each boring. This was performed using the above-mentioned bailers. Water recovered from the borings appeared clear. Water recovered for chemical analysis was placed in 40-millimeter VOC vials, sealed, and transported, in a cooler box (with ice) to the laboratory.

4.6 SOIL LITHOLOGY OF STUDY AREA

Soils encountered during the drilling and sampling activities were visually examined in the field. The following is a generalization of the materials encountered in the borings. In all the borings, dark brown to black clay materials were encountered in the in the top 3½ to 4 feet of the soil profile. A layer of gravelly, medium to fine sand was encountered from approximately 3½ to 4 feet, down to approximately 7½ to 8 feet. These materials were primarily brown to gray-brown in color. Petroleum-like odors were also encountered in soils recovered from this soil layer. Below this layer, dark brown to black clay/silty clays continued down to approximately 14 to 15 feet below grade, the bottom limits of the borings. Lithology of the study area is presented Attachment 2, and Plate 3, Cross-section A - A' and Plate 4, Cross-section B - B'.

Once sampling of the borings was complete, the borings were backfilled to grade with neat cement.

4.7 CHEMICAL ANALYSIS RESULTS OF SOIL AND GROUND WATER SAMPLES

All samples recovered were transported and submitted to Curtis & Tompkins, Ltd. (C&T) for chemical analysis. Selected samples were chemically analyzed for total volatile hydrocarbons (TVH) as Gasoline with benzene, toluene, ethylbenzene, total xylenes (BTEX).

All sampling, handling, and storage was conducted according to Environmental Protection Agency and Regional Water Quality Control Board guidelines for the investigation of suspected underground storage tank leaks.

Chemical analysis of the soil samples are presented below in Table 4, Chemical Analysis Results of Soil Boring Samples for TVH Gas and BTEX Soil Analysis. Certified analytical reports and chain-of-custody forms are included in Attachment 3. Chemical analysis of the two "grab" ground water samples are presented in Table 5, Chemical Analysis of "Grab" Ground Water Samples for TVH Gas and BTEX, and also in Attachment 3.

TABLE 4
CHEMICAL ANALYSIS RESULTS OF SOIL BORING SAMPLES FOR TVH GAS AND BTEX (December 16, 1992)

Sample Number	*Sample Depth (Feet)*	*TVH as Gasoline (mg/Kg)*	*Benzene (ug/Kg)*	*Toluene (ug/Kg)*	*Ethyl Benzene (ug/Kg)*	*Total Xylenes (ug/Kg)*
B-1-1	5-5½	1	19	<5	<5	<5
B-1-2	6½-7	NA	NA	NA	NA	NA
B-1-3	8-8½	NA	NA	NA	NA	NA
B-1-4	9½-10	<1	<5	<5	<5	<5
B-1-5	11-11½	NA	NA	NA	NA	NA
B-1-6	12½-13	NA	NA	NA	NA	NA
B-1-7	14-14½	NA	NA	NA	NA	NA
B-2-1	5-5½	NA	NA	NA	NA	NA
B-2-2	7-7½	3	960	74	310	550
B-2-3	9-9½	300	1,700	2,000	5,100	19,000

Sample Number	*Sample Depth (Feet)*	*TVH as Gasoline (mg/Kg)*	*Benzene (ug/Kg)*	*Toluene (ug/Kg)*	*Ethyl Benzene (ug/Kg)*	*Total Xylenes (ug/Kg)*
B-2-4	11-11½	320	1,900	3,400	2,800	15,000
B-2-5	13-13½	NA	NA	NA	NA	NA
B-2-6	14½-15	<1	6	<5	<5	<5
B-3-1	5½-6	NA	NA	NA	NA	NA
B-3-2	7-7½	2	260	<5	59	45
B-3-3	9½-10	200	<600	<600	3,000	<600
B-3-4	13-13½	300	<800	<800	9,500	<800
B-4-1	5½-6	NA	NA	NA	NA	NA
B-4-2	7½-8	<1	<5	<5	<5	<5
B-4-3	9½-10	<1	<5	<5	<5	<5
B-4-4	11½-12	NA	NA	NA	NA	NA
B-4-5	13½-14	NA	NA	NA	NA	NA
B-5-1	5½-6	NS	NS	NS	NS	NS
B-6-1	5½-6	17	520	500	330	1,100
B-7-1	5½-6	NA	NA	NA	NA	NA
B-7-2	7½-8	200	1,300	2,500	2,300	9,400
B-7-3	9½-10	300	1,200	5,600	4,600	23,000
B-7-4	11½-12	NA	NA	NA	NA	NA
B-7-5	13½-14	<1	6	6	<5	9

NA = NOT ANALYZED ( ) = REPORTING LIMIT

TABLE 5
CHEMICAL ANALYSIS RESULTS OF "GRAB" GROUND WATER SAMPLES FOR TVH GAS AND BTEX (December 16, 1992)

Sample Number	*TVH as Gasoline (ug/Kg)*	*Benzene (ug/Kg)*	*Toluene (ug/Kg)*	*Ethyl Benzene (ug/Kg)*	*Total Xylenes (ug/Kg)*
B-2	8,900	830	370	290	690
B-4	<50	<0.5	<0.5	<0.5	0.6

NA = NOT ANALYZED ( ) = REPORTING LIMIT

5.0 CONCLUSIONS

The results of the December 16, 1992, subsurface soil samples reveal the presence of gasoline and BTEX beyond the limits of the former excavation. The majority of the gasoline and BTEX materials appear to be located along the eastern portion of the site and near the vicinity of the former tanks, and at the 7½ to 13½-foot depths. The lateral extent of soil gasoline and BTEX materials is not completely defined. However, the highest levels are along the site's northeastern and eastern limits, particularly in the vicinity of former tanks, and appear to be extending in a southeasterly direction along the property's eastern boundary.

The Additional borings are recommended to further investigate the lateral and vertical extent of the gasoline and/or BTEX materials in the subsurface soils.

Need boring + GW grab sample at oil changer site

Subsurface soils of the site are primarily stiff, clays/silty clays. A sandy layer exists beneath the clay/silty clay soil layer. The coarser materials commence at approximately 3½ to 4 feet below grade. The thickness of this stratum varies, but generally continues down to approximately 8 feet below grade. This stratum appears to be a water-bearing zone, and may be a pathway to allow the lateral migration of contaminants beneath the site. Beneath this coarser stratum, are stiff clay/silty clays.

Ground water was measured in two of the borings. The depth of ground water was approximately 11 feet below grade. Ground water samples were recovered from the two borings and submitted for chemical analysis.

Information from the ACDEH and ATT reports (reviewed by **TMC**) and data generated during this investigation (eg. chemical analysis of "grab" ground water samples) reveal the presence of gasoline and BTEX in the ground water beneath the site. The extent of gasoline and/or BTEX materials in the ground water is not known. The installation (and sampling) of additional ground water monitoring wells at the site is necessary to define the extent of these petroleum constituents in the site's ground water.

Ground water elevation data reveals variability in ground water flow direction at the site and neighboring properties. Reliable ground water elevation data is an essential part in investigating and/or defining ground water and soil contamination. With the addition of ground water monitoring wells on the site, re-surveying existing wells, and collecting dependable ground water elevation data will be beneficial in evaluating ground water flow at the site.

6.0 WORK PLAN AMENDMENT

6.1 INTRODUCTION

TMC is presenting this amendment to the **TMC** document, Preliminary Subsurface Soil Investigation Work Plan, dated November 20, 1992. Information enclosed in this Work Plan Amendment addresses issues (i.e. additional soil borings, monitoring wells, etc.) discussed at the January 8, 1993, meeting with Eva Chu, of the Alameda County Department of Environmental Health, **TMC**, and Mr. Richard Dodge (current owner of the site).

TMC proposes to amend the scope of work indicated in the November 21, 1992, work plan document by drilling seven soil borings, recovering soil samples from the borings for chemical analysis, installing ground water monitoring wells in three of the borings, developing and sampling the wells, submitting the samples for chemical analysis, and writing a report of the field activities and results.

6.2 SCOPE OF PROPOSED ADDITIONAL WORK

To address the issues discussed at the above-mentioned meeting, **TMC** proposes the following additional scope of work:

- Complete and submit a soil boring/monitoring well permit to Alameda County Flood Control District, Zone 7.

- Drill seven (7) soil borings at the site. Proposed boring locations are indicated on Plate 2 as "Proposed Boring" as ●. Three soil samples will be recovered from each boring. Soil sampling will be terminated at 15 feet below grade. A maximum of two samples will be selected from each boring for chemical analysis.

- Install ground water monitoring wells in three of the above-mentioned boring boreholes. The proposed wells are indicated on Plate 2, as "Proposed Well" as ⊕.

- Develop, purge and sample the newly-installed ground water wells.

- Submit the selected soil samples and ground water samples to a laboratory for chemical analysis. Samples will be chemically analyzed for the target pollutants: total volatile hydrocarbons (TVH) as gasoline with benzene, toluene, ethylbenzene, total xylene (BTEX).

- Survey and gauge the newly-installed wells and, if possible, currently existing monitoring wells MW-2, MW-4, and MW-13.

- Write a report of field activities and results.

6.3 WELL CONSTRUCTION

Ground water monitoring wells will be installed for the following purposes:

- To investigate the lateral and vertical extent of ground water gasoline and BTEX materials at the site. One well will be placed in an estimated up-gradient direction from the former tank location (near the westerly limits of the site), with two wells placed in an estimated down-gradient direction from the former tank location; see Plate 2.

- Evaluate ground water quality; to determine the direction of ground water flow; to evaluate the hydrogeologic characteristics of the aquifers and aquitards.

The proposed monitoring wells will be constructed as follows:

- Each well boring will be advanced until a water-saturated zone is encountered. The boring will end a maximum of 10 feet below the depth at which the saturated zone is first encountered or 5 feet into a perching clay aquitard layer. Only one water bearing zone will be penetrated by the well. If applicable, separate wells will be used to sample different aquifers. Well design will be location-specific and based upon lithologic logs and sieve analysis of representative aquifer material.

- A 2-inch ID, National Sanitation Foundation (NSF) specified, Schedule 40 PVC blank, well screen, and casing will be used. Well screen will be machined slot. Well sections will be flush-threaded and screwed together without the use of cement. A threaded end cap will be used at the bottom of the well. An optional one to five foot blank silt trap may be placed at the bottom of the well screen. Prior to installation, all casing and screens will be decontaminated with clean soapy water and rinsed with clean water and observed for damage. Soil particle sieve analysis was used to verify the well design. Soil particle size analysis indicates that the majority of the soil particles in the formation ($\pm$ 90%) are 0.0020 inches or less in diameter. A well slot size of 0.010-inch and a filter sand size of #2/#16 or #2/#20 will be selected to be compatible with screened formations and well screen size. (Standard sizing methodologies, Driscoll, F.G., 1988, Groundwater and Wells, 2nd edition, Johnson Division, St.Paul, Minnesota, were considered in selecting well design. However, for formations containing appreciable silt and clay-sized particles, standard methodologies may not be applicable. In these cases, best geologic judgement was also used to minimize ground water turbidity and provide for collection of representative ground water samples.)

- No screen section will be of such length as to provide unnecessary interconnection between two or more permeable zones, and in no case will the screened interval for a well exceed 10 feet in length. Well screen will commence at approximately 5 feet below grade and continue down to approximately 15 feet below grade.

- Where unconfined, the slotted pipe will extend two-five feet above the water surface to form a sensing zone for detection of floating product. The annulus of the perforated section will be packed with clean filter pack material for the length of the saturated zone and 1 to 3 feet above the top of the screen. Filter pack material will be commercially prepared pre-mixed, pre-washed, Lonestar sand or equivalent. About one foot of bentonite slurry or pellets will be placed on top of the sand envelope pack, upon which will be placed a class-A cement or cement - non polymer bentonite annular seal to the surface.

- Once the bentonite seal has hydrated for at least 30 minutes, the annular space above the seal will be filled with a non polymer bentonite/cement grout. A maximum of five percent non polymer bentonite will be added to the grout to

keep cement particles in suspension and reduce shrinking and the heat at which cement cures. The bentonite/cement grout mixture will use no more than 8 gallons of potable water per one 94-pound bag of Portland cement. At the maximum, 5 percent non polymer bentonite (about 4 pounds of bentonite) shall be added to the cement.

- The top of the wellhead will be finished with a concrete surface pad to slope water away.

- The top of the well casing will be locked to prevent contamination and tampering. Above-grade or at-grade well completion will depend upon the final well location and traffic conditions. Above grade completion will require an eight (8)-inch diameter locking, steel protective casing set into a concrete pad. At-grade completion will require a Christy, or equivalent, traffic box and a concrete pad. The wellhead will be protected with a watertight cap. New wells will be numbered and well locations and well head elevations will be surveyed.

6.4 WELL DEVELOPMENT

- Wells will be developed prior to placement of the cement sanitary seal, or 72 hours following placement of the cement seal. The wells will be developed to remove fines from the boring hole and to establish hydraulic continuity between the filter pack and the formation.

- Equipment inserted into the well during development will be decontaminated by washing or steam cleaning before and after its use.

- Wells will be developed until the water is visually free of fine-grained sediments or until field measurements of pH, electrical conductivity, and temperature stabilize. At least ten well volumes of water will be removed during development of the well.

- Development of wells screened in sand-size or coarser formations will be accomplished by surging and evacuating the water and sediment by pumping or bailing

intermittently. Wells screened in predominantly fine grained, unconsolidated material will be developed by bailing without purging.

6.5 GROUND WATER SAMPLE COLLECTION

- No groundwater sampling will begin until 48 hours following well development. Before purging, the water level elevation will be measured with an electric sounder, pressure transducer, or a marked steel tape to the nearest 0.01 foot. The reference elevation for each well will be the north side of the top of the well casing. Successive water level measurements will be taken until measurements agree within 0.02 feet.

- A clear, dedicated, disposable PVC bailer will used to observe the presence and thickness of immiscible layers or free product present on the water surface. If free petroleum product is observed, the thickness of the free product will be measured in the bailer, and also using a oil-water interface probe in subsequent sampling intervals.

- A minimum of 4 well volumes of stale water will be purged from each well before the collection of the sample. The water parameters of temperature, conductivity, pH, and turbidity will be monitored with field instrument probes from grab samples recovered at regular intervals to verify stabilization. Well stabilization is defined when three consecutive water parameter measurements vary by no more than 10 percent.

- Ground water samples to be analyzed for volatile compounds will be recovered from the monitoring wells using a clear Teflon sampling bailer equipped with a stopcock sampling attachment. A field log will be maintained of purging and sampling procedures.

- All water retained for chemical analysis will be placed in clean Teflon screw-cap 40 ml. VOC vials for the TVH as gasoline and BTEX samples. The vials and bottles will be topped-off to avoid air space, and screw-cap sealed. All full 40 ml VOA vials will be inverted to look for air bubbles, and sampled again if air

bubbles are observed in the vial. Sample containers will be provided by the laboratory performing the chemical analysis.

- One trip blank or equipment blank will be taken for each set of water samples collected. The water sample trip blank would be provided by the environmental laboratory. Deionized water provided by the laboratory will be poured into the bailer, then the sample containers to provide an equipment blank.

- All chemical sampling, handling, and storage will be conducted according to Environmental Protection Agency and Regional Water Quality Control Board guidelines for the investigation of suspected underground storage tank leaks.

- The samples will be delivered to the laboratory within one day of its acquisition. Samples will be placed in a cooler box with ice or refrigerated to 4 degrees Celsius, or cooler, continuously during storage and transport to the laboratory.

- Unless otherwise requested by the laboratory, no preservatives will be added to the sample unless provided with the sample bottles. The sealed sample will only be opened by laboratory personnel who will do the chemical analysis. The samples will analyzed within 7-14 days from their collection date depending on EPA quality control criteria appropriate for each analysis method.

6.6 CHEMICAL ANALYSIS

All soil and ground water samples will be chemically analyzed for EPA 8015/8020 (TVH Gas, with BTEX distinction).

6.7 LABORATORY CERTIFICATION

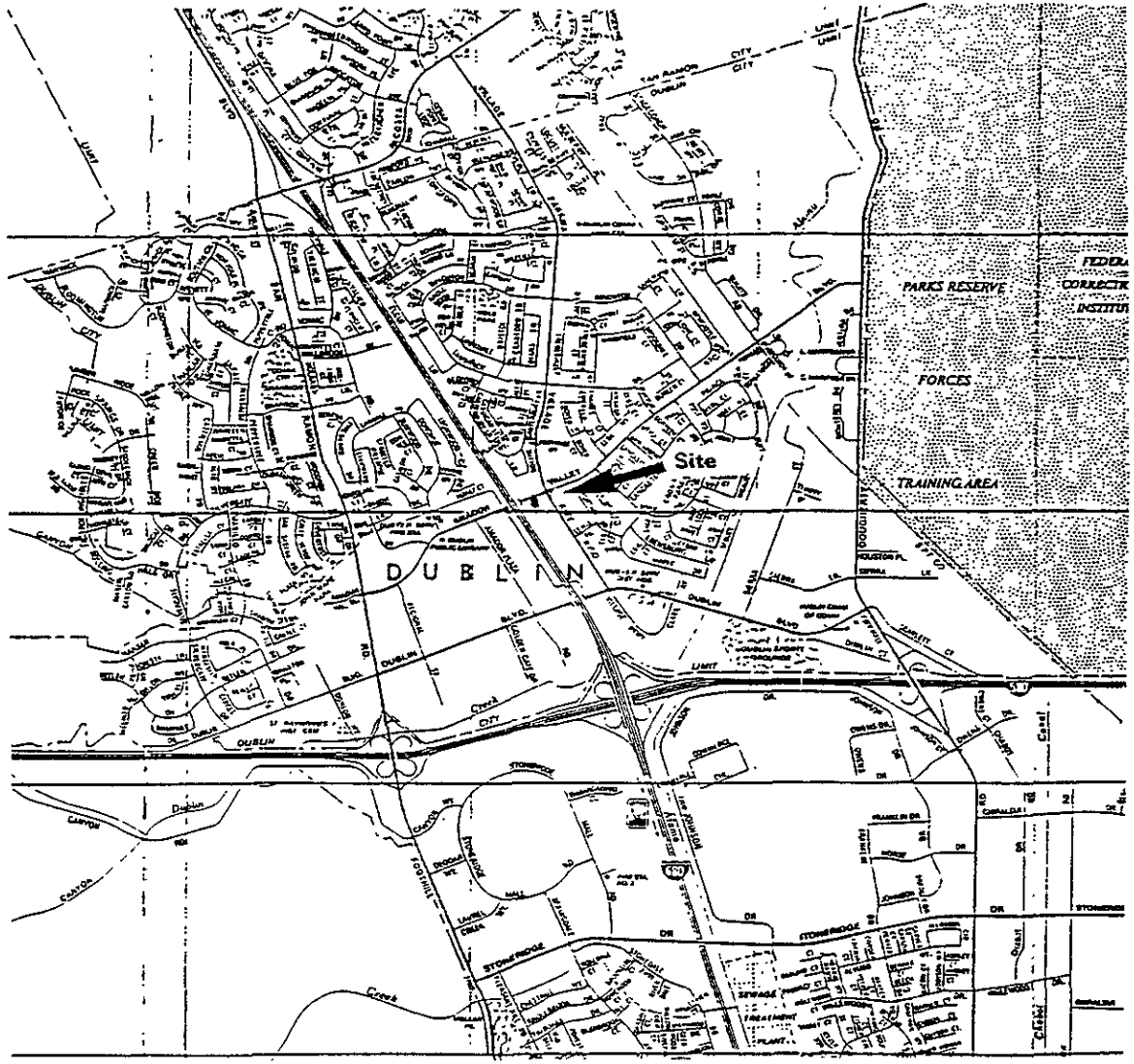
All soil and water samples will be analyzed by a California Department of Health Services certified laboratory. The laboratory will have the appropriate certification for each analysis performed from the appropriate administrations listed below:

1. Hazardous Materials Laboratory Certification Program:

California Department of Health Services
Hazardous Materials Laboratory
2151 Berkeley Way, Room 234
Berkeley, CA 94704
(415) 540-3003

2. Drinking Water Laboratory Certification:

California Department of Health Services
Sanitation and Radiation Laboratory
2151 Berkeley Way, Room 465
Berkeley, CA 94704
(415) 540-2201



BASE PLATE FROM ATT, 1/91

0 1/2 1 mile
SCALE

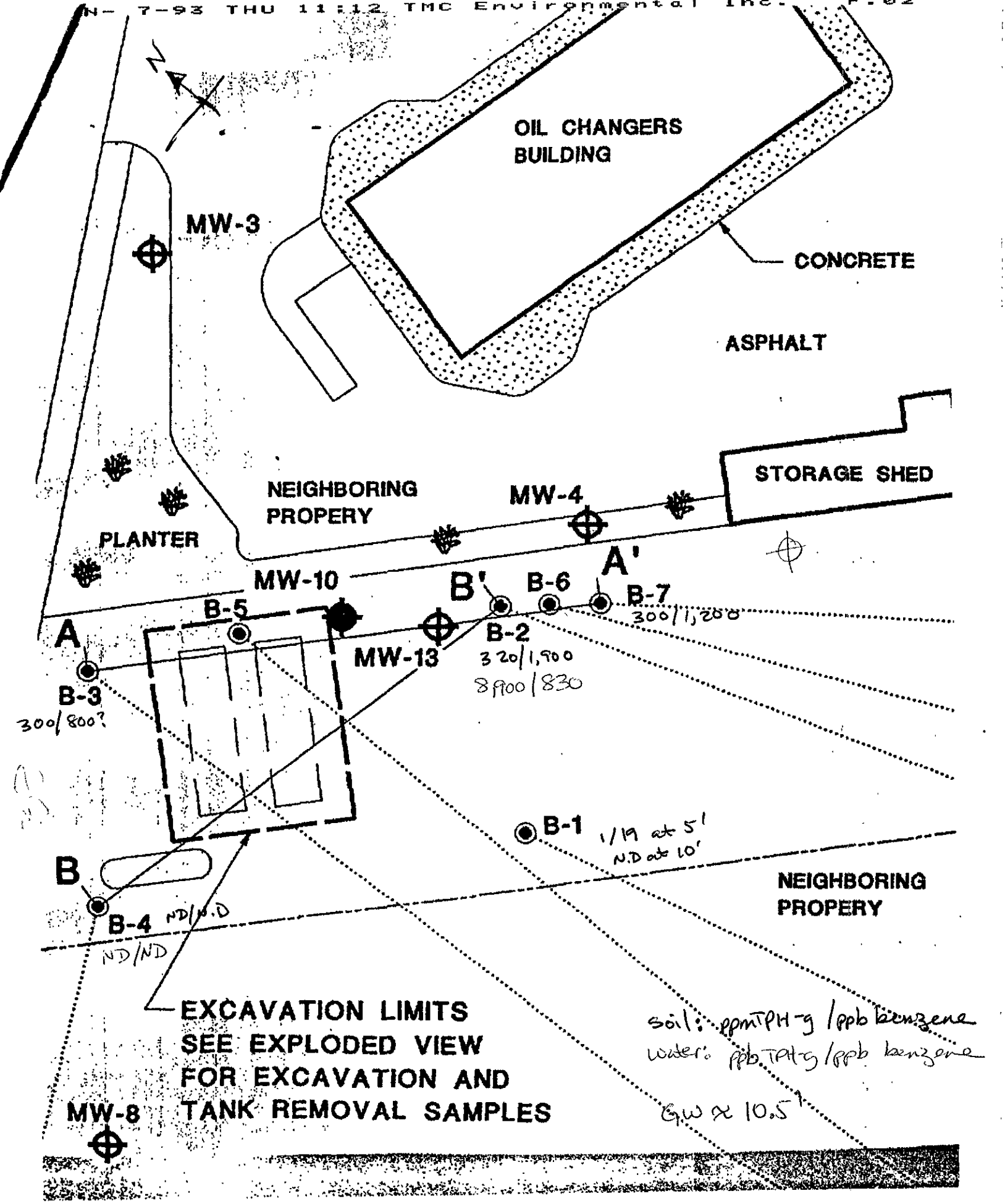
TMC ENVIRONMENTAL, INC

SCALE:	APPROVED BY:	DRAWN BY
DATE:		REVISED

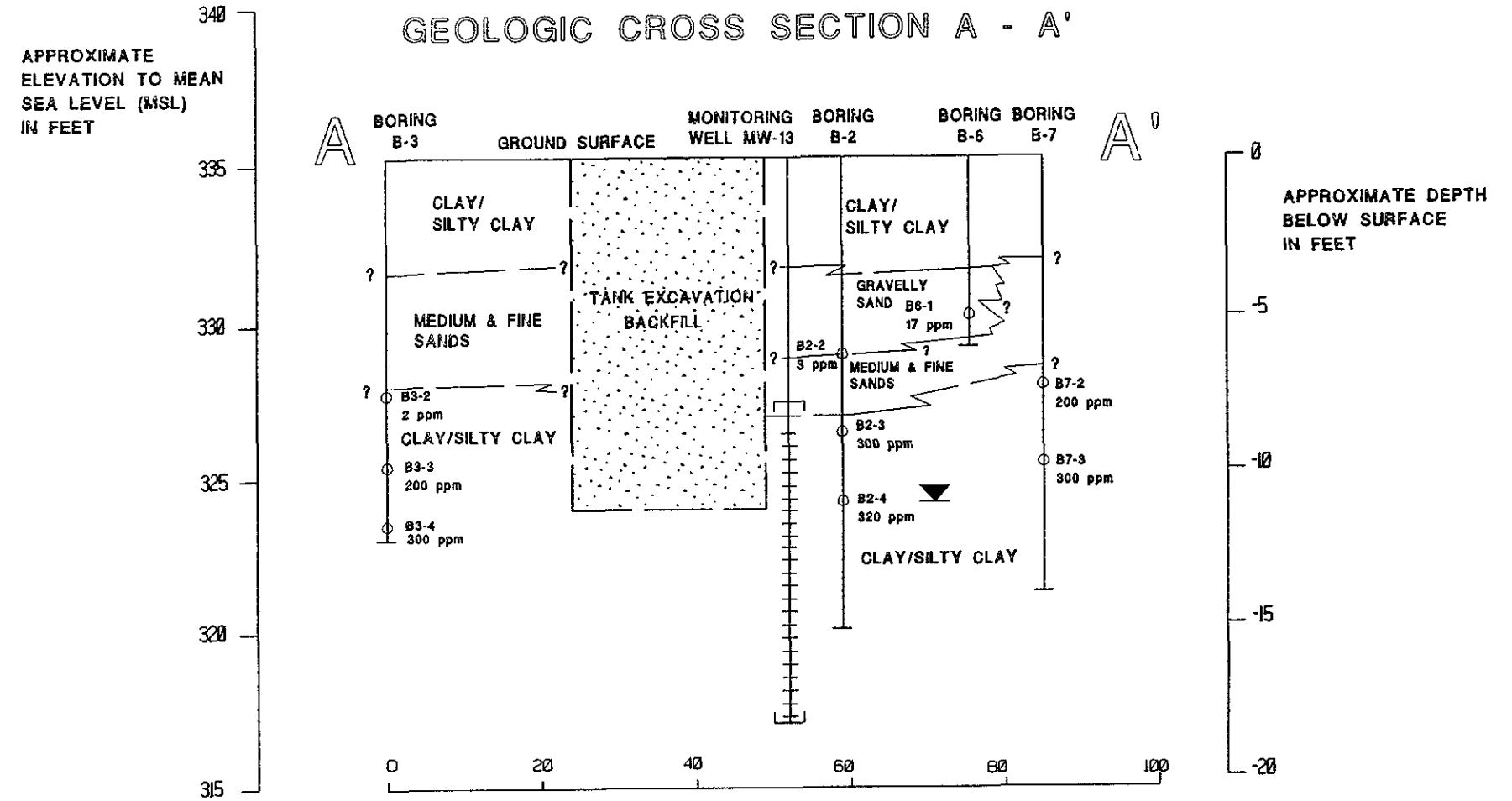
SITE LOCATION MAP

7400 Amador Valley Boulevard
Dublin, CA

Job: 10-7192	DRAWING NUMBER Plate 1


N
OIL CHANGERS BUILDING
MW-3
CONCRETE
ASPHALT
STORAGE SHED
NEIGHBORING PROPERY
MW-4
PLANTER
A'
MW-10
B'
B-6
B-7
300/1,200
B-5
A
B-2
320/1,900
8,900/830
MW-13
B-3
300/800?
B-1
1/19 at 5'
N.D at 10'
B
B-4
ND/N.D
ND/ND
NEIGHBORING PROPERY
EXCAVATION LIMITS
SEE EXPLODED VIEW
FOR EXCAVATION AND
TANK REMOVAL SAMPLES
soil: ppm TPH-g / ppb benzene
water: ppb TPH-g / ppb benzene
G.W @ 10.5'
MW-8

GEOLOGIC CROSS SECTION A - A'



○ SOIL SAMPLES CHEMICALLY ANALYZED

CROSS SECTION VIEW LOOKING NORTHEAST

HORIZONTAL SCALE = 4 X VERTICAL SCALE

EXPLANATION

WELL SAND PACK — SLOTTED WELL SCREEN

INITIAL WATER LEVEL — STABILIZED WATER LEVEL

GEOLOGIC CROSS SECTION A - A'

DODGE PROPERTY

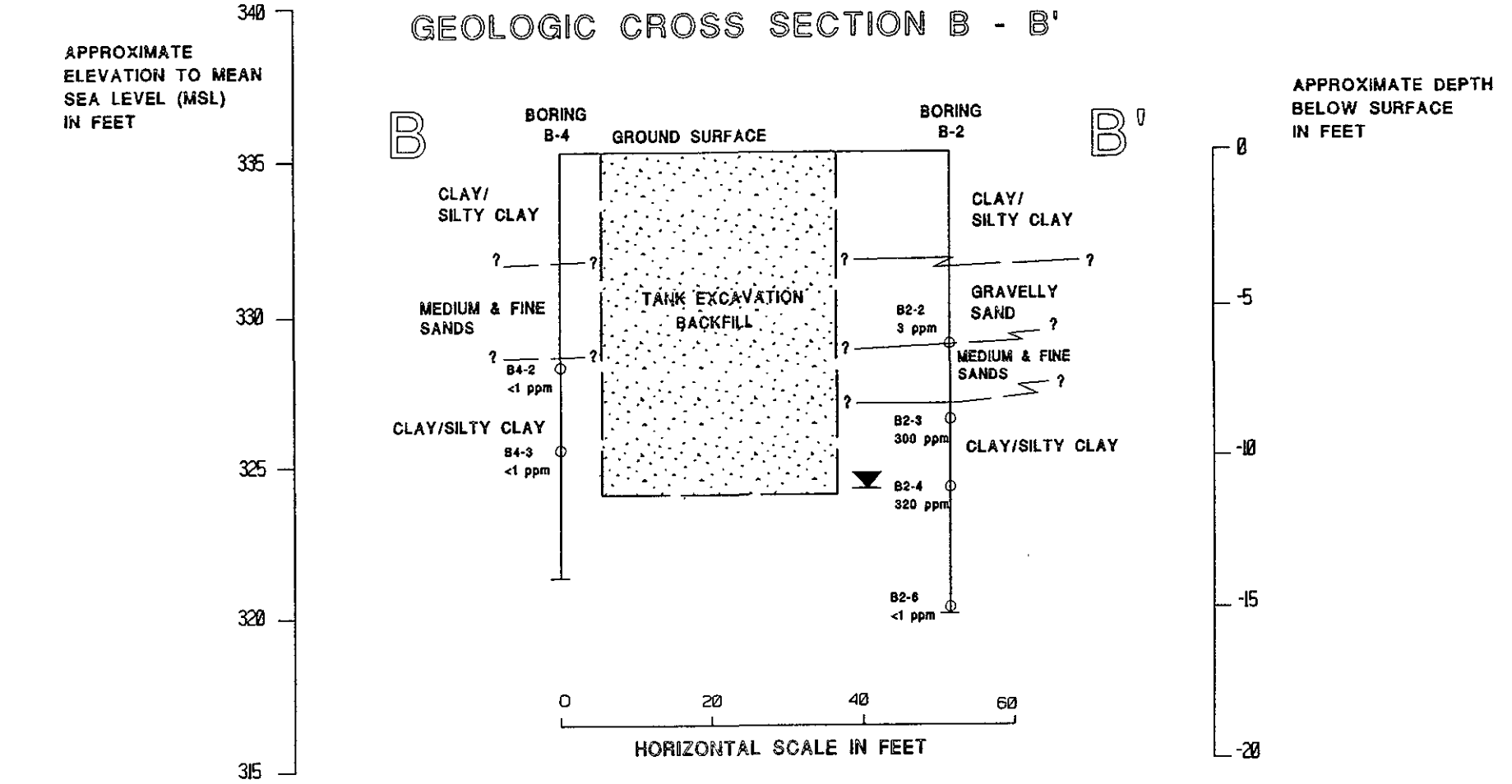
7400 AMADOR VALLEY BLVD

DUBLIN, CALIFORNIA

TMC Environmental, Inc.

PLATE 3

GEOLOGIC CROSS SECTION B - B'



○ SOIL SAMPLES CHEMICALLY ANALYZED

CROSS SECTION VIEW LOOKING NORTH

HORIZONTAL SCALE = 4 X VERTICAL SCALE

EXPLANATION

WELL SAND PACK — SLOTTED WELL SCREEN

INITIAL WATER LEVEL — STABILIZED WATER LEVEL

GEOLOGIC CROSS SECTION B - B'

DODGE PROPERTY

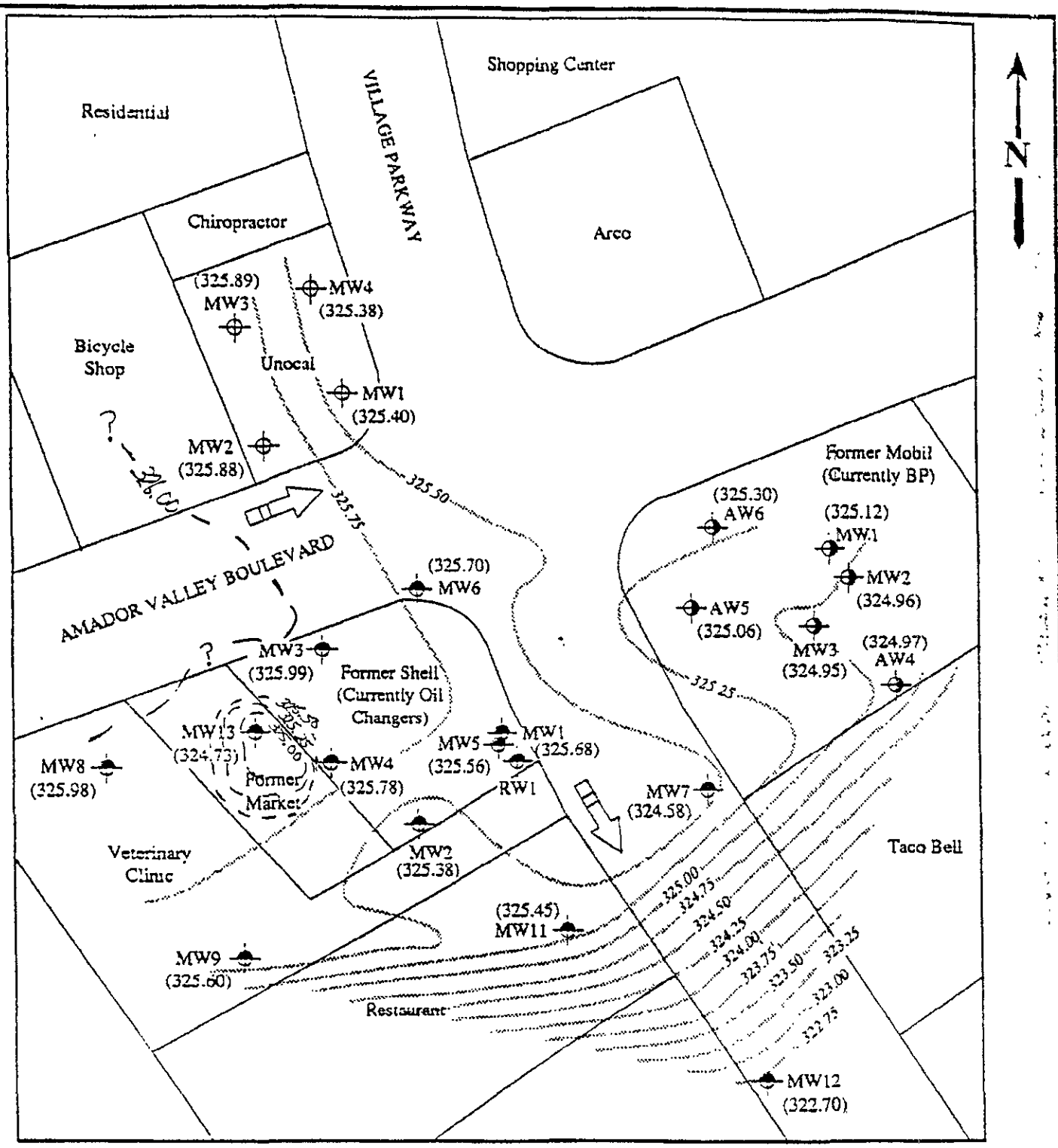
7400 AMADOR VALLEY BLVD

DUBLIN, CALIFORNIA

TMC Environmental, Inc.

PLATE 4

ATTACHMENT 1
GROUND WATER ELEVATION DATA



LEGEND

- Monitoring well (Unocal)
- Monitoring well (BP)
- Monitoring well (Shell)
- ( ) Ground water elevation in feet above Mean Sea Level
- Contours of Ground water elevation
- Direction of ground water flow

0 100 200

Approx. scale feet

POTENTIOMETRIC SURFACE MAP FOR THE AUGUST 12, 1992 MONITORING EVENT

KAPREALIAN ENGINEERING

UNOCAL SERVICE STATION #5366
7375 AMADOR VALLEY BLVD.
DUBLIN, CA

FIGURE
1

Dodge

NOV-17-1992 12:13 FROM ALCO HAZMAT TO 2325133 P.01

Post-it brand fax transmittal memo 7671 | # of pages > 3

To Tom Edwards	From Eva Chu
Co.	Co. Alameda Co. HazMat
Dept.	Phone # 271-4530
Fax # 232-5133	Fax # 569-4757

KEI-P88-0205.QR17
September 24, 1992

TABLE 1

SUMMARY OF MONITORING DATA

Well No.	Ground Water Elevation (feet)	Depth to Water (feet)	Product Thickness (feet)	Sheen	Water Purged (gallons)
(Monitored and Sampled on August 12, 1992)					
MW1	325.40	11.32	0	No	9
MW2*	325.88	11.48	0	--	0
MW3*	325.89	11.64	0	--	0
MW4*	325.38	11.62	0	--	0
(Monitored on July 29, 1992)					
MW1	325.41	11.31	0	--	55
(Monitored on June 22, 1992)					
MW1	325.79	10.93	0	--	55
MW2	326.29	11.07	0	--	0
MW3	326.28	11.25	0	--	0
MW4	325.73	11.27	0	--	0

Well #	Surface Elevation** (feet)
MW1	336.72
MW2	337.36
MW3	337.53
MW4	337.00

-- Sheen determination was not performed.

* Monitored only.

** Elevations of the tops of the well covers have been surveyed relative to Mean Sea Level.

[illegible] 7375 Amador Valley Blvd. [illegible]

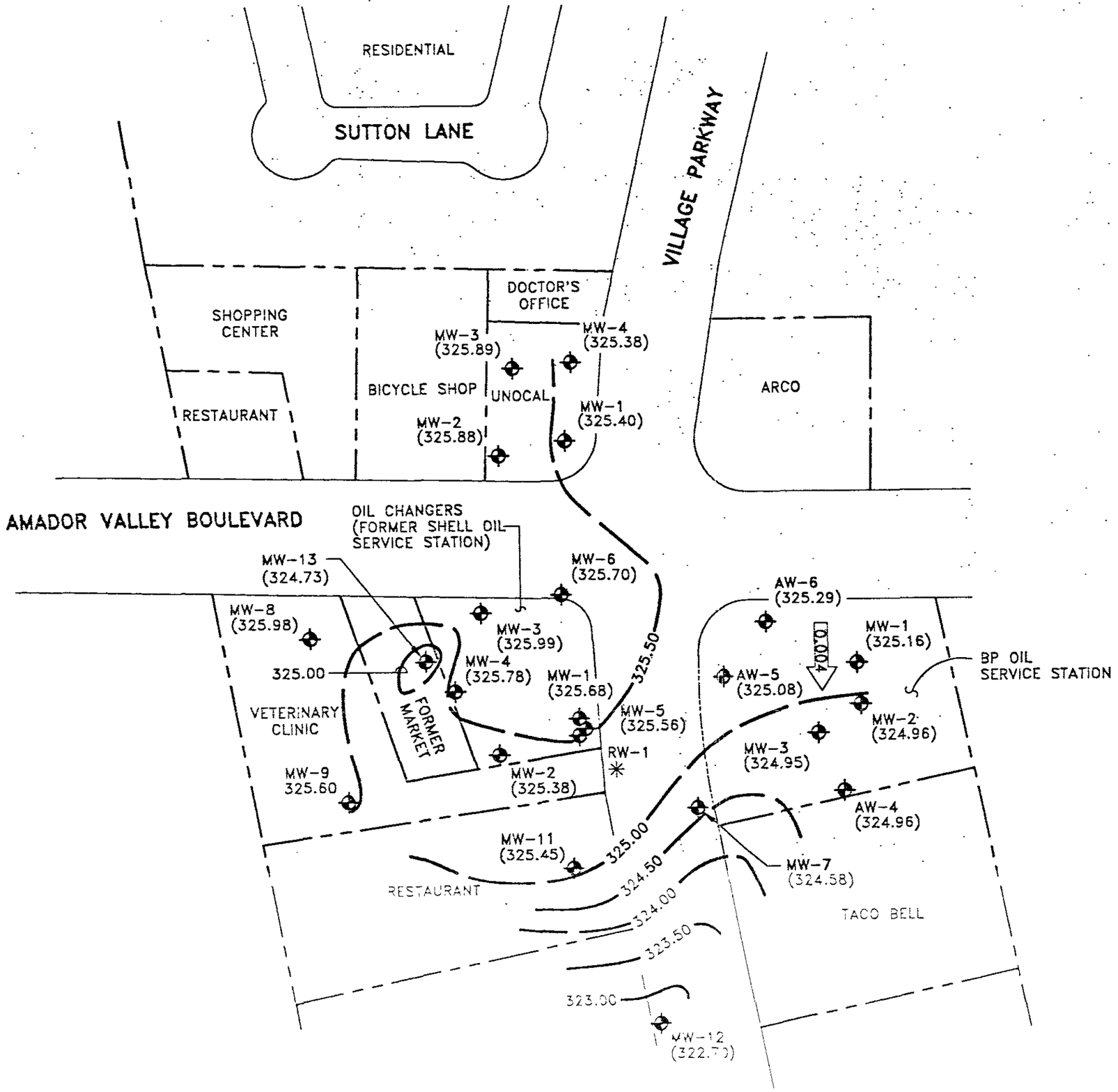
KEI-P88-0205.QR17
September 24, 1992

TABLE 2

SUMMARY OF MONITORING DATA

(BP Service Station)

Well No.	Ground Water Elevation (feet)	Depth to Water (feet)	Top of Casing Elevation (feet)
(BP Service Station Wells Monitored by Alisto Engineering Group on August 12, 1992)			
MW1	325.12	10.05	335.17
MW2	324.96	9.62	334.58
MW3	324.95	10.18	335.13
AW4	324.97	8.45	333.42
AW5	325.06	9.73	334.79
AW6	325.30	9.61	334.91
(Former Shell Service Station Wells Monitored by Emcon on August 12, 1992)			
MW1	325.68	9.15	334.83
MW2	325.38	11.58	336.96
MW3	325.99	10.94	336.93
MW4	325.78	11.36	337.14
MW5	325.56	9.40	334.96
MW6	325.70	9.72	335.42
MW7	324.58	8.65	333.23
MW8	325.98	9.82	335.80
MW9	325.60	8.97	334.57
MW11	325.45	8.75	334.20
MW12	322.70	9.83	332.53
MW13	324.73	10.91	335.64



N

0 30 60

SCALE IN FEET

LEGEND:

- ⌖ GROUNDWATER MONITORING WELL
- (324.96) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
- 325.00 GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL – 0.50 FOOT)
- 0.004 CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT
- ✳ GROUNDWATER ELEVATION NOT AVAILABLE

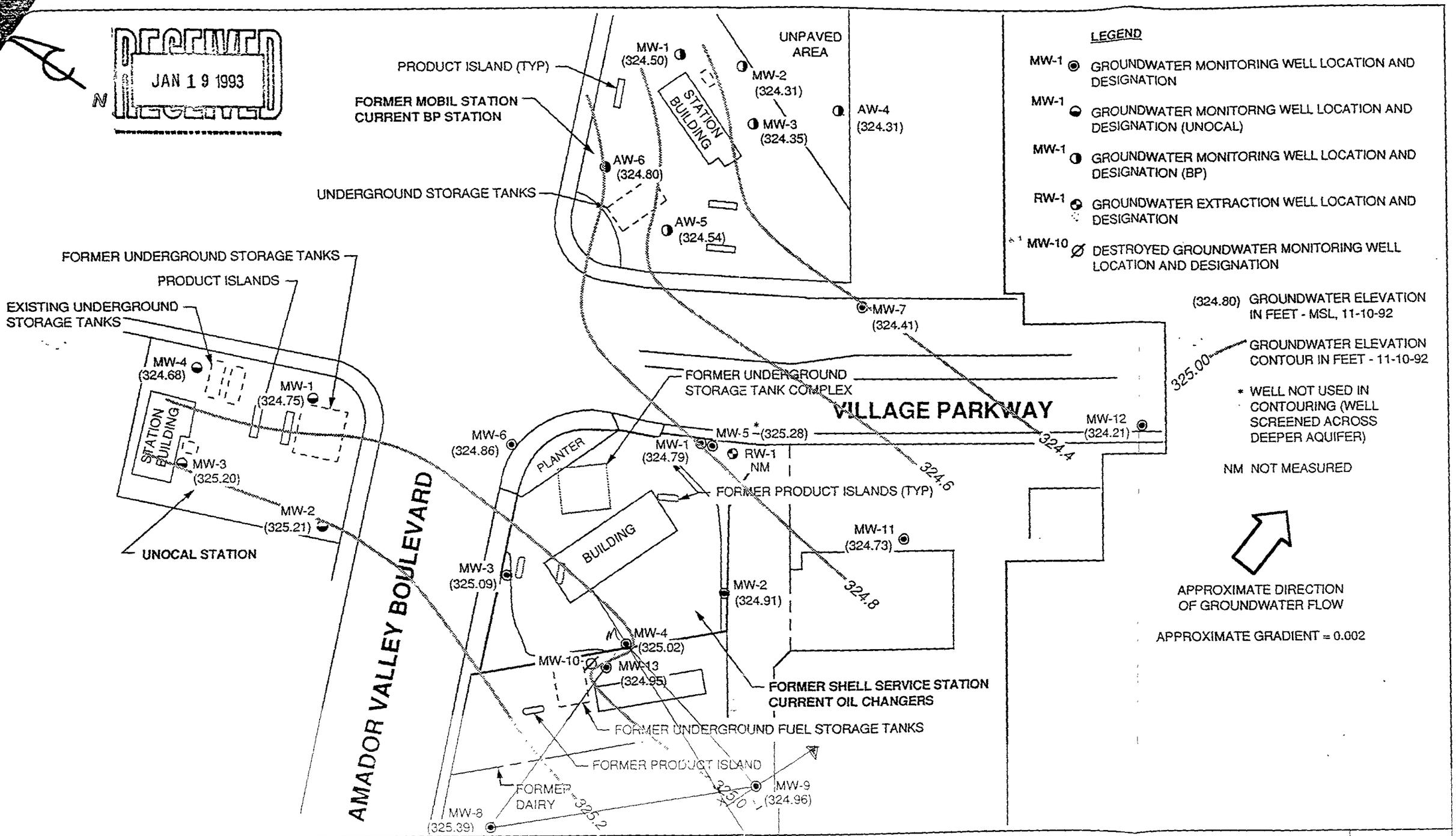
FIGURE 2

POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP (AUGUST 12, 1992)

BP OIL SERVICE STATION NO. 11116
7197 VILLAGE PARKWAY
DUBLIN, CALIFORNIA

PROJECT NO. 10-017

ALISTO ENGINEERING GROUP
CONCORD, CALIFORNIA



PACIFIC ENVIRONMENTAL GROUP, INC.

SCALE
0 60 120 FEET

FORMER SHELL SERVICE STATION
7194 Amador Valley Boulevard at Village Parkway
Dublin, California

GROUNDWATER ELEVATION CONTOUR MAP

FIGURE
2
PROJECT
305-87.01

12/31/92

ATTACHMENT 2
LOGS OF BORINGS

KEY TO ENVIRONMENTAL BORING LOGS

SOIL TYPE CLASSIFICATION CHART FOR ENVIRONMENTAL INVESTIGATION			
MAJOR DIVISIONS		SYMBOLS	TYPICAL NAMES
COARSE GRAINED SOILS	GRAVELS More than 1/2 coarse soil greater than # 4 sieve	GW	Well graded gravels-sand, no fines
		GP	Poorly graded gravels-sands, no fines
		GC	Gravels-sand-silt-clay mixtures
	SANDS More than 1/2 of soil greater than # 200 sieve	SW	Well graded sands, little or no fines
		SP	Poorly graded sands, little-no fines
		SC	Sand-silt-clay mixtures
FINE GRAINED SOILS	SILTS & CLAYS More than 1/2 of soil less than # 200 sieve	C	Inorganic clay-silt mixture of any plasticity, silt, mud, silty clay
		CS	Inorganic clay-silt-fine sand mixture of any plasticity, sandy clay
		O	Organic clay-silt-fine sand mixtures of any plasticity
HIGHY ORGANIC SOILS		PT	Peat and other highly organic soils
ARTIFICIAL FILL		AF	Imported fill material placed by man
Modified for environmental use from the USCS Unified Soil Classification System			

Examples: CS CLAY, sandy; brown, moist, stiff, orange mottling, root holes, green stain
SC SAND, clayey; brown, wet, loose, fine grained, round pebbles, green stain

GRAIN SIZE CLASSIFICATION CHART									
U.S. seive	200	40	10	4	3/4"	3"	12"		
mm	0.07	0.4	2	4.7	19	76	305	mm	
CLAY & SILT	SAND			GRAVEL		COBBLE GRAVEL	BOULDER GRAVEL		
	FINE	MEDIUM	COARSE	FINE	COARSE				

MOISTURE CONDITION (increasing moisture ------)				
DRY	DAMP	MOIST	WET	FREE-WATER

DEFINITION OF ABBREVIATIONS AND TERMS	
RECOVERY	Recovery fraction (inches): length of sample over length of sampler- 18/18
MODE	SP- push sampler; HS- hand sampler; CA- California sampler- 2" sample liners CM- California modified sampler- 2½ sample liners; SS- Shelby tube sample STP- Standard pin, 1½" sample liners; DC- Diamond core rock sample
VAPOR ppm	Instrument abbreviations: HD- hydrocarbon detector, OVA- organic vapor analyzer, PID- photo ionization detector, COT- coloimetric tubes
REFUSAL - Boring or sampling stopped by material too hard for equipment. TERMINATED - Boring stopped because sufficient information was obtained. ABANDONED - Boring stopped because of difficulties explained on log.	

RELATIVE SOIL DENSITY AND CONSISTENCY						
SAND AND GRAVEL	BLOWS PER FOOT:	0-4	4-10	10-30	30-50	>50
	RELATIVE DENSITY:	Very loose	loose	medium dense	dense	very dense
SILT AND CLAY	BLOWS PER FOOT:	0-2	2-4	4-8	8-15	15-30	>30
	CONSISTENCY:	very soft	soft	firm	stiff	very stiff	hard

STANDING WATER LEVEL SYMBOLS	
SYMBOL ON LOG	DESCRIPTION
	Time of preliminary water level measurement during drilling. Time of final water level measurement at conclusion of drilling.

******* IMPORTANT NOTICE *******

LIMITATIONS APPLY TO THIS LOG THAT ARE UNIQUE TO ENVIRONMENTAL INVESTIGATIONS. THE BORING LOGS, CROSS SECTIONS, AND MAPS OF SUBSURFACE CONDITIONS APPLY ONLY AT THE SPECIFIC LOCATION AND TIME INDICATED. LOGS, CROSS SECTIONS, AND MAPS ARE NOT WARRANTED TO BE REPRESENTATIVE OF CONDITIONS AT OTHER LOCATIONS AND TIMES. THE FOLLOWING LIMITATIONS APPLY TO ALL BORING LOGS, CROSS SECTIONS, AND MAPS.

SUBSURFACE LOG, CROSS SECTION, AND MAP LIMITATIONS

The boring logs, cross sections, and maps are intended solely for use in environmental investigation. The data in these logs, cross sections, and maps is prohibited from use in other geologic, geotechnical, soil, foundation, fault, and landslide studies or designs. The methods used to acquire the data in these logs, cross sections, and maps are insufficient for these other purposes. The property lines shown on maps, figures, plates, and cross sections with boring locations, are not warranted to be accurate. These property lines are inadequate for purposes of future engineering design and construction. The accurate location of wells are only shown on plans surveyed and drawn by a licensed surveyor.

The techniques and methods used to construct the boring logs, cross sections, and maps have been modified specifically for use in environmental chemical investigation. Accordingly, variations in the techniques commonly used in other geologic, geotechnical, soil, foundation, fault, and landslide studies have been made in these boring logs, cross sections, and maps to acquire information applicable to chemical investigations.

Chemical data, environmental conditions, odors, vapor readings, staining, etc. are transient and temporary features that change considerably with time. These features as shown on the boring logs, cross sections, and maps are not warranted at other locations or times. The descriptions as shown, refer only to the depth interval of the sample collected for inspection or laboratory analyses. No interpretation or extrapolation of data between sampling intervals is implied by the boring logs, cross sections, and maps.

Chemical investigations are designed only for the target chemical compounds of concern to the study or investigation. Other unknown or non targeted chemicals may exist within the soil that are beyond the scope of this specific study or investigation. The information in the boring logs, cross sections, and maps is provided to client in order that client may make a more informed decision as to the subsurface environmental condtions in the study area. No warranty is implied or stated that the samples, borings, wells, study area, site, or property is or is not free of environmental damage or impairment.

SUBSURFACE LOG OF BORING NUMBER B-1

PROJECT NAME: RICHARD & JEANNE DODGE	**PROJECT #:** 10-7192	**SHEET** 1 **OF** 1
LOCATION: 7400 AMADOR VALLEY BOULEVARD, DUBLIN	**DATE:** 12-16-1992	
DRILLER: K L DRILLING	**LICENSE #:** 596309	
DRILL METHOD: 8" HOLLOW STEM	**SAMPLE METHOD:** SPLIT SPOON; 2"X18";CONTINOUS 4-15'; 140# @ 30"	
AGENCY: ZONE 7 & ALAMEDA COUNTY HEALTH DEPT	**INSPECTOR:** N/A	**BORING DIA:** 8"
LOGGER: MICHAEL PRINCEVALLE	**AGENCY PERMIT NO. :** 92646	**TOTAL DEPTH:** 14 1/2'

*** NOTICE - CONDITIONS APPLY TO THIS LOG - SEE EXPLANATION OF LIMITATIONS ***

SAMPLE NUMBER	SAMPLE DEPTH	% REC	BLOW	VAPOR PPM	MODE	DEPTH FEET	USCS	DESCRIPTION	STAIN/ OTHER
						0		GRAVEL SURFACE	
						1			
						2			
						3			
						4	CH	CLAY; Dark Brown; Moist ; Firm-Very Firm; Wire in sampler.	No
						5	SC		Yes
B-1-1	5-5 1/2'	80%	20			6		Fine SAND with Fines; Dark Brown & Dark Gray-Brown; Moist; Firm; wire in sampler; Few rootlets	
B-1-2	6 1/2-7'	75%	20			7	SP		Yes
						8		Fine SAND with few fines; Brown & Gray-Brown; Very Moist; Friable	
B-1-3	7-8 1/2'	75%	22			9	CH		Slt
B-1-4	9 1/2-10'	75%	12	800		10		CLAY, Dark Brown-Black; Moist; Very Firm; Few rootlets	No
						11	CH	Same as above	Slt
B-1-5	11-11 1/2'	75%	8	600		12		CLAY; Dark brown-black, some gray mottles; Moist; Very Firm; Few rootlets	No
B-1-6	12 1/2-13'	80%	8	600		13	CH	Clay, Dark Brown-black; Moist Very Firm; Few rootlets and pockets of tan colored, coarse materials	
						14			
B-1--7	14-14 1/2'	80%	6	< 1		15	CH	Same as above; Bottom of Bore Hole	No
						16			

THIS LOG OF SUBSUFACE CONDITIONS APPLIES TO THE SPECIFIC LOCATION AND DATE INDICATED. THIS LOG IS NOT WARRENTED TO REPRESENT CONDITIONS AT OTHER LOCATIONS OR OTHER DATES.

SUBSURFACE LOG OF BORING NUMBER B-2

PROJECT NAME: RICHARD & JEANNE DODGE	**PROJECT #:** 10-7192	**SHEET** 1 **OF** 1
LOCATION: 7400 AMADOR VALLEY BOULEVARD, DUBLIN	**DATE:** 12-16-1992	
DRILLER: K L DRILLING	**LICENSE #:** 596309	
DRILL METHOD: 8"O.D. HOLLOW STEM; CME 45	**SAMPLE METHOD:** SPLIT SPOON; 2"X2'; CONTINOUS 4-15'; 140LBS @ 30"	
AGENCY: ZONE 7&ALAMEDA COUNTY HEALTH DEPT	**INSPECTOR:** N/A	**BORING DIA:** 8"
LOGGER: MICHAEL PRINCEVALLE	**AGENCY PERMIT NO. :** 92646	**TOTAL DEPTH:** 15'

*** NOTICE - CONDITIONS APPLY TO THIS LOG - SEE EXPLANATION OF LIMITATIOINS ***

SAMPLE NUMBER	SAMPLE DEPTH	% REC	BLOW	VAPOR PPM	MODE	DEPTH FEET	USCS	DESCRIPTION	STAIN/ OTHER
						0		GRAVEL SURFACE	
						1			
						2			
						3	CH	CLAY; Brown-Dark Brown; Moist; Very Firm ; Some rootlets	No
						4			
						5	GW	Gravelley SAND; Brown & Gray Brown; Moist; Very Friable; Some rootles	Yes
B-2-1	5-5 1/2'	100%	18	400		6			
B-2-2	7-7 1/2'	80%	16	1500		7	SC	Fine SAND with fines; Brown to Gray Brown; Moist; Friable to Firm; Some rootlets	Yes
						8			
B-2-3	9-9 1/2'	80%	22	10000+		9	CL	CLAY/SILT; Brown & Gray Brown; Moist; Firm; Some rootlets	Yes
						10			
B-2-4	11-11 1/2'	75%	12	10000+		11	CL	Same as above; Free water @ +or- 11'	Yes
						12			
B-2-5	13-13 1/2'	100%	12	600		13	CL	Same as above	Yes
B-2-6	14 1/2-15'	100%	10	< 1		14	CL	Same as above ,with pockets of tan ,coarse materials; Bottom of Bore Hole	No
						15			
						16			

THIS LOG OF SUBSURFACE CONDITIONS APPLIES TO THE SPECIFIC LOCATION AND DATE INDICATED. THIS LOG IS NOT WARRENTED TO REPRESENT CONDITIONS AT OTHER LOCATIONS OR OTHER DATES.

SUBSURFACE LOG OF BORING NUMBER B-3

PROJECT NAME: RICHARD & JEANNE DODGE	**PROJECT #:** 10-7192	**SHEET** 1 **OF** 1
LOCATION: 7400 AMADOR VALLEY BOULEVAED, DUBLIN	**DATE:** 12-16-1992	
DRILLER: K L DRILLING	**LICENSE #:** 596309	
DRILL METHOD: 8" O,.D. HOLLOW STEM; CME 45	**SAMPLE METHOD:** SPLIT SPOON; 2" X 2'; CONTINOUS 4-14'; 140LBS @ 30"	
AGENCY: ZONE 7 & ALAMEDA COUNTY HEALTH DEPT	**INSPECTOR:**	**BORING DIA:** 8"
LOGGER: MICHAEL PRINCEVALLE	**AGENCY PERMIT NO. :** 92646	**TOTAL DEPTH:** 14'

***NOTICE - CONDITIONS APPLY TO THIS LOG - SEE EXPLANATION OF LIMITATIOINS ***

SAMPLE NUMBER	SAMPLE DEPTH	% REC	BLOW	VAPOR PPM	MODE	DEPTH FEET	USCS	DESCRIPTION	STAIN/ OTHER
						0		0-6" ASPHALT & BASEROCK	
						1			
						2			
						3	CH	CLAY; Brown - Dark Brown; Moist, Very firm	No
						4			
B-3-1	5 1/2-6'	80%	20	400		5	SC	Fine SAND, with fines; Dark Brown & Gray Brown; Moist; Firm	Yes
						6	SC	Fine & Medium SAND with fines; Dark Brown & Gray Brown; Very Firm	Yes
B-3-2	7-7 1/2'	80%	26	400		7			
						8	CH/ CL	CLAY; Dark Brown; Moist; Very Firm	Slt
B-3-3	9 1/2-10'	80%	12	3000		9		Same as above	Slt
						10			
B-3-4	11 1/2-12'	100%	6	5000		11	CH	CLAY; Dark Brown-Black; Moist; Very Firm to stiff; Some pockets of tan coarse materials	Yes
						12			
B-3-5	13 -13 1/2'	100%	12			13	CH	Same as above; Bottom of Bore Hole No odor 13'-14'	Slt
						14			
						15			
						16			

THIS LOG OF SUBSUFACE CONDITIONS APPLIES TO THE SPECIFIC LOCATION AND DATE INDICATED. THIS LOG IS NOT WARRENTED TO REPRESENT CONDITIONS AT OTHER LOCATIONS OR OTHER DATES.

SUBSURFACE LOG OF BORING NUMBER B-4

PROJECT NAME: RICHARD & JEANNE DODGE	**PROJECT #:** 10-7192	**SHEET** 1 **OF** 1
LOCATION: 7400 AMADOR VALLEY BOULEVARD, DUBLIN	**DATE:** 12-16-1992	
DRILLER: K L DRILLING	**LICENSE #:** 596309	
DRILL METHOD: 8" O.D. HOLLOW STEM	**SAMPLE METHOD:** SPLIT SPOON; 2'X2" 'CONTINOUS 4-14'; 140# @ 30"	
AGENCY: ZONE 7 & ALAMEDA COUNTY HEALTH DEPT	**INSPECTOR:** N/A	**BORING DIA:** ~ 8"
LOGGER: MICHAEL PRINCEVALLE	**AGENCY PERMIT NO. :** 92646	**TOTAL DEPTH:** 14'

*** NOTICE - CONDITIONS APPLY TO THIS LOG - SEE EXPLANATION OF LIMITATIONS ***

SAMPLE NUMBER	SAMPLE DEPTH	% REC	BLOW	VAPOR PPM	MODE	DEPTH FEET	USCS	DESCRIPTION	STAIN/ OTHER
						0		0-6" ASPHALT & BASEROCK	
						1			
						2			
						3	CH	CLAY; Brown - Dark Brown; Moist; Very Firm	No
						4			
B-4-1	5 1/2-6'	100%	12	400		5	SC	Fine SAND; some fines; Dark Brown to Gray Brown; Moist; Firm; Some rootlets	Slt
						6			
B-4-2	7 1/2-8'	100%	16	400		7	CH	CLAY; Dark Brown to Black; Moist; Stiff; Many rootlets	No
						8			
B-4-3	9 1/2-10'	100%	22	300		9	CH	CLAY; Dark Brown to Black; Moist; Stiff; some rootlets & pockets of brown, coarse material	No
						10			
B-4-4	11 1/2-12'	80%	18	< 1		11	CH	Same as above; more striations of fine sand; Occasional, faint orange mottles; Free water @ + or - 11'	No
						12			
B-4-5	13 1/2-14'		14	< 1		13	CH	Same as above; Bottom of Bore Hole	No
						14			
						15			
						16			

THIS LOG OF SUBSURFACE CONDITIONS APPLIES TO THE SPECIFIC LOCATION AND DATE INDICATED. THIS LOG IS NOT WARRENTED TO REPRESENT CONDITIONS AT OTHER LOCATIONS OR OTHER DATES.

SUBSURFACE LOG OF BORING NUMBER B-5

PROJECT NAME: RICHARD & JEANNE DODGE	**PROJECT #:** 10-7192	**SHEET** 1 **OF** 1
LOCATION: 7400 AMADOR VALLEY BOULEVARD, DUBLIN	**DATE:** 12-16-1992	
DRILLER: K L DRILLING	**LICENSE #:** 596309	
DRILL METHOD: 8" O.D. HOLLOW STEM	**SAMPLE METHOD:** SPLIT SPOON; 2'X2" CONTINOUS SAMPLING 4-14'; 140#@30	
AGENCY: ZONE 7 & ALAMEDA COUNTY HEALTH DEPT	**INSPECTOR:** EVA CHU	**BORING DIA:** 8"
LOGGER: MICHAEL PRINCEVALLE	**AGENCY PERMIT NO. :** 92646	**TOTAL DEPTH:** ~ 8"

*** NOTICE - CONDITIONS APPLY TO THIS LOG - SEE EXPLANATION OF LIMITATIOINS ***

SAMPLE NUMBER	SAMPLE DEPTH	% REC	BLOW	VAPOR PPM	MODE	DEPTH FEET	USCS	DESCRIPTION	STAIN/ OTHER
						0		GRAVEL SURFACE	
						1			
						2			
						3			
						4			
						5	GU	GRAVEL; no odor. Abandoned Bore Hole per Eva Chu, Alameda County Health Dept.	
B-5-1	5 1/2-6'	75%	4			6			
						7			
						8			
						9			
						10			
						11			
						12			
						13			
						14			
						15			
						16			

THIS LOG OF SUBSUFACE CONDITIONS APPLIES TO THE SPECIFIC LOCATION AND DATE INDICATED. THIS LOG IS NOT WARRENTED TO REPRESENT CONDITIONS AT OTHER LOCATIONS OR OTHER DATES.

SUBSURFACE LOG OF BORING NUMBER B-6

PROJECT NAME: RICHARD & JEANINE DODGE	**PROJECT #:** 10-7192	**SHEET** 1 **OF** 1
LOCATION: 7400 AMADOR VALLEY BOULEVARD, DUBLIN	**DATE:** 12-16-1992	
DRILLER: K L DRILLING	**LICENSE #:** 596309	
DRILL METHOD: 8" O.D. HOLLOW STEM	**SAMPLE METHOD:** SPLIT SPOON; 2'X2" CONTINOUS SAMPLING 4-14'; 140#@30	
AGENCY: ZONE 7 & ALAMEDA COUNTY HEALTH DEPT	**INSPECTOR:** EVA CHU	**BORING DIA:** 8"
LOGGER: MICHAEL PRINCEVALLE	**AGENCY PERMIT NO. :** 92646	**TOTAL DEPTH:** 6'

*** NOTICE - CONDITIONS APPLY TO THIS LOG - SEE EXPLANATION OF LIMITATIOINS ***

SAMPLE NUMBER	SAMPLE DEPTH	% REC	BLOW	VAPOR PPM	MODE	DEPTH FEET	USCS	DESCRIPTION	STAIN/ OTHER
						0		SOIL SURFACE	
						1			
						2	CH	CLAY; Brown - Dark Brown; Moist; Very Firm	No
						3			
						4			
						5	SC	Fine & Medium SAND; Brown to Gray Brown; Moist; Friable; Still in contamination; moved further from tank excavation, per Eva Chu, Alameda County Health Dept.	Yes
B-6-1	5 1/2-6'	100%	18	10,000+		6			
						7			
						8			
						9			
						10			
						11			
						12			
						13			
						14			
						15			
						16			

THIS LOG OF SUBSUFACE CONDITIONS APPLIES TO THE SPECIFIC LOCATION AND DATE INDICATED. THIS LOG IS NOT WARRENTED TO REPRESENT CONDITIONS AT OTHER LOCATIONS OR OTHER DATES.

SUBSURFACE LOG OF BORING NUMBER B-7

PROJECT NAME: RICHARD & JEANNE DODGE	**PROJECT #:** 10-7192	**SHEET** 1 **OF** 1
LOCATION: 7400 AMADOR VALLEY BOULEVARD, DUBLIN	**DATE:** 12-16-1992	
DRILLER: K L DRILLING	**LICENSE #:** 596309	
DRILL METHOD: 8" O.D. HOLLOW STEM	**SAMPLE METHOD:** SPLIT SPOON; 2'X2" CONTINOUS SAMPLING 4-14'; 140#@30	
AGENCY: ZONE 7 & ALAMEDA COUNTY HEALTH DEPT	**INSPECTOR:** N/A	**BORING DIA:** 8"
LOGGER: MICHAEL PRINCEVALLE	**AGENCY PERMIT NO. :** 92646	**TOTAL DEPTH:** 14'

*** NOTICE - CONDITIONS APPLY TO THIS LOG - SEE EXPLANATION OF LIMITATIONS ***

SAMPLE NUMBER	SAMPLE DEPTH	% REC	BLOW	VAPOR PPM	MODE	DEPTH FEET	USCS	DESCRIPTION	STAIN/ OTHER
						0		SOIL SURFACE	
						1			
						2	CH	CLAY; Brown - Dark Brown; Moist; Very Firm	No
						3			
						4	SC	Very Fine SAND with fines; Gray; Moist; Firm; some rootlets	Yes
						5			
B-7-1	5 1/2-6'	80%	16	500					
						6	SC	Medium SAND; Gray; Moist; Very Friable; Some rootlets	Yes
B-7-2	7 1/2-8'	100%	22	1500		7	CL	CLAY; Dark Brown to Black; Moist; Stiff; Some rootlets	Slt
						8			
B-7-3	9 1/2-10'	100%	22	4000		9	CL	CLAY; Dark Brown to Black; Moist; Stiff; Pockets of tan, coarse material; Some rootlets	Yes
						10			
B-7-4	11 1/2-12	90%	14	900		11	CL	Same as above	Yes
						12			
B-7-5	13 1/2-14'	90%	12	300		13	CL	Same as above; Bottom of BoreHole	No
						14			
						15			
						16			

THIS LOG OF SUBSUFACE CONDITIONS APPLIES TO THE SPECIFIC LOCATION AND DATE INDICATED. THIS LOG IS NOT WARRENTED TO REPRESENT CONDITIONS AT OTHER LOCATIONS OR OTHER DATES.

ATTACHMENT 3
LABORATORY RESULTS AND SAMPLE CHAIN OF CUSTODY

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

DATE RECEIVED: 12/17/93
DATE REQUESTED:01/12/93
DATE REPORTED: 01/20/93

LABORATORY NUMBER: 109736

CLIENT: TMC ENVIRONMENTAL, INC.

PROJECT ID: 107192

LOCATION: DODGE

RESULTS: SEE ATTACHED

Reviewed by

Reviewed by

Curtis & Tompkins, Ltd

LABORATORY NUMBER: 109736
CLIENT: TMC ENVIRONMENTAL
PROJECT ID: 107192
LOCATION: DODGE

DATE SAMPLED: 12/16/92
DATE RECEIVED: 12/17/93
DATE REQUESTED: 01/12/93
DATE ANALYZED: 01/18/93
DATE REPORTED: 01/19/93

ANALYSIS: ORGANIC LEAD
ANALYSIS METHOD: CA DHS METHOD, LUFT MANUAL OCT 1989

LAB ID	CLIENT ID	RESULT	UNITS	REPORTING LIMIT
109736-1	B7-3	ND	mg/Kg	0.50
109736-2	B2-4	ND	mg/Kg	0.50

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

RPD, %	2
RECOVERY, %	106

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 109736-004
CLIENT: TMC ENVIRONMENTAL, INC.
PROJECT ID: 107192
LOCATION: DODGE
SAMPLE ID: COMPOSITE B1-7,B2-6,B4-5

DATE SAMPLED: 12/16/92
DATE RECEIVED: 12/17/92
DATE REQUESTED: 01/12/93
DATE ANALYZED: 01/14/93
DATE REPORTED: 01/20/93

==========

ANALYSIS: PARTICLE SIZE DISTRIBUTION BY WEIGHT
ANALYSIS METHOD: ASTM D422

==========

Weight of sample analyzed: 84.1 g

SIEVE # (Tyler Sieve Units)	MASS RETAINED (g)	DISTRIBUTION (%)
1 "	0.0	0.0
3/4 "	0.0	0.0
1/2 "	0.0	0.0
3/8 "	0.0	0.0
4	0.0	0.0
8	0.0	0.0
16	0.1	0.1
30	0.3	0.4
50	0.5	0.6
80	0.8	1.0
100	0.6	0.7
200	6.4	7.6
PAN	75.4	89.7

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 109736-003
CLIENT: TMC ENVIRONMENTAL, INC.
PROJECT ID: 107192
LOCATION: DODGE
SAMPLE ID: COMPOSITE B1-4,B2-1,B7-2

DATE SAMPLED: 12/16/92
DATE RECEIVED: 12/17/92
DATE REQUESTED: 01/12/93
DATE ANALYZED: 01/14/93
DATE REPORTED: 01/20/93

==========

ANALYSIS: PARTICLE SIZE DISTRIBUTION BY WEIGHT
ANALYSIS METHOD: ASTM D422

==========

Weight of sample analyzed: 104.2 g

SIEVE # (Tyler Sieve Units)	MASS RETAINED (g)	DISTRIBUTION (%)
1 "	0.0	0.0
3/4 "	0.0	0.0
1/2 "	1.6	1.5
3/8 "	0.0	0.0
4	1.8	1.7
8	0.7	0.7
16	0.3	0.3
30	0.3	0.3
50	0.4	0.4
80	0.6	0.6
100	0.3	0.3
200	1.5	1.4
PAN	96.7	92.8

Curtis & Tompkins, Ltd.

VERBAL ADDITIONS/CANCELLATIONS TO ANALYSIS REQUEST SHEET

Client: TMC Environmental Date: 01/12/93

Requested By: Michael Princevalle Time: _____ AM 1:45 PM

Recorded By: TKM

Current Lab ID (Previous Lab ID)	Client ID	Circle Matrix	Specify add or cancel	Analysis	Due Date
109736-1 (109564-26)	B7-3	water (soil) waste oil other	ADD	Organic Pb	
109736-2 (109564-10)	B2-4	water (soil) waste oil other	ADD	Organic Pb	
109736-3 (109564-3,7,25)	B1-4 B2-1 B7-2	water (soil) waste oil other	ADD	Composite & analyze for particle size	
109736-4 (109564-6,12,22)	B1-7 B2-6 B4-5	water (soil) waste oil other	ADD	Composite & analyze for particle size	
( )		water soil waste oil other			
( )		water soil waste oil other			

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

DATE RECEIVED: 12/17/92
DATE REPORTED: 01/05/93

LABORATORY NUMBER: 109564

CLIENT: TMC ENVIRONMENTAL, INC.

PROJECT ID: 107192

LOCATION: DODGE

RESULTS: SEE ATTACHED

Reviewed by

Teresa K Morrison
Reviewed by

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 109564
CLIENT: TMC ENVIRONMENTAL, INC
PROJECT ID: 107192
LOCATION: DODGE

DATE SAMPLED: 12/16/92
DATE RECEIVED: 12/17/92
DATE ANALYZED: 12/27,28/92
DATE REPORTED: 01/05/93

Total Volatile Hydrocarbons with BTXE in Soils & Wastes
TVH by California DOHS Method/LUFT Manual October 1989
BTXE by EPA 5030/8020

LAB ID	SAMPLE ID	TVH AS GASOLINE (mg/Kg)	BENZENE (ug/Kg)	TOLUENE (ug/Kg)	ETHYL BENZENE (ug/Kg)	TOTAL XYLENES (ug/Kg)
109564-3	B1-4	ND(1)	ND(5)	ND(5)	ND(5)	ND(5)
109564-14	B3-2	2	260	ND(5)	59	45
109564-20	B4-3	ND(1)	ND(5)	5	ND(5)	ND(5)

ND = Not detected at or above reporting limit; Reporting limit indicated in parentheses.

QA/QC SUMMARY: GC10

RPD, %	9
RECOVERY, %	96

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 109564
CLIENT: TMC ENVIRONMENTAL, INC
PROJECT ID: 107192
LOCATION: DODGE

DATE SAMPLED: 12/16/92
DATE RECEIVED: 12/17/92
DATE ANALYZED: 12/28,29/92
DATE REPORTED: 01/05/93

Total Volatile Hydrocarbons with BTXE in Soils & Wastes
TVH by California DOHS Method/LUFT Manual October 1989
BTXE by EPA 5030/8020

LAB ID	SAMPLE ID	TVH AS GASOLINE (mg/Kg)	BENZENE (ug/Kg)	TOLUENE (ug/Kg)	ETHYL BENZENE (ug/Kg)	TOTAL XYLENES (ug/Kg)
109564-9	B2-3	300	1,700	2,000	5,100	19,000
109564-16	B3-4	300	ND(800)	ND(800)	9,500	ND(800)
109564-26	B7-3	300	1,200	5,600	4,600	23,000

ND = Not detected at or above reporting limit; Reporting limit indicated in parentheses.

QA/QC SUMMARY: GC10

RPD, %	5
RECOVERY, %	100

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 109564
CLIENT: TMC ENVIRONMENTAL, INC
PROJECT ID: 107192
LOCATION: DODGE

DATE SAMPLED: 12/16/92
DATE RECEIVED: 12/17/92
DATE ANALYZED: 12/30/92
DATE REPORTED: 01/05/93

Total Volatile Hydrocarbons as Gasoline in Soils & Wastes
California DOHS Method
LUFT Manual October 1989

LAB ID	CLIENT ID	TVH AS GASOLINE (mg/Kg)	REPORTING LIMIT (mg/Kg)
109564-1	B1-1	1	1
109564-8	B2-2	3	1
109564-12	B2-6	ND	1
109564-19	B4-2	ND	1
109564-23	B6-1	17	2
109564-28	B7-5	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY: GC10

RPD, %	2
RECOVERY, %	94

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 109564
CLIENT: TMC ENVIRONMENTAL, INC
PROJECT ID: 107192
LOCATION: DODGE

DATE SAMPLED: 12/16/92
DATE RECEIVED: 12/17/92
DATE ANALYZED: 12/30/92
DATE REPORTED: 01/05/93

Total Volatile Hydrocarbons as Gasoline in Soils & Wastes
California DOHS Method
LUFT Manual October 1989

LAB ID	CLIENT ID	TVH AS GASOLINE (mg/Kg)	REPORTING LIMIT (mg/Kg)
109564-10	B2-4	320	8
109564-15	B3-3	200	8
109564-25	B7-2	200	8

ND = Not detected at or above reporting limit.

QA/QC SUMMARY: GC07

RPD, %	4
RECOVERY, %	112

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 109564
CLIENT: TMC ENVIRONMENTAL, INC.
PROJECT ID: 107192
LOCATION: DODGE

DATE SAMPLED: 12/16/92
DATE RECEIVED: 12/17/92
DATE ANALYZED: 12/30,31/92
DATE REPORTED: 01/05/93

Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 8020
Extraction by EPA 5030 Purge and Trap

LAB ID	SAMPLE ID	BENZENE (ug/Kg)	TOLUENE (ug/Kg)	ETHYL BENZENE (ug/Kg)	TOTAL XYLENES (ug/Kg)	REPORTING LIMIT * (ug/Kg)
109564-1	B1-1	19	ND	ND	ND	5
109564-8	B2-2	960	74	310	550	50
109564-10**	B2-4	1,900	3,400	2,800	15,000	600
109564-12	B2-6	6	ND	ND	8	5
109564-15**	B3-3	ND	ND	3,000	ND	600
109564-19	B4-2	ND	ND	ND	ND	5
109564-23	B6-1	520	500	330	1,100	50
109564-25**	B7-2	1,300	2,500	2,300	9,400	400
109564-28	B7-5	6	6	ND	9	5

ND = Not detected at or above reporting limit.
* Reporting Limit applies to all analytes.

** Analyzed by EPA method 8240.

QA/QC SUMMARY: MATRIX SPIKE RECOVERIES

Benzene	73
Toluene	76

TMC ENVIRONMENTAL, INC.
13908 San Pablo Avenue, Suite 101
San Pablo, California 94806
(415) 232-8366 / FAX 232-5133

CHAIN OF CUSTODY RECORD
ANALYSIS REQUEST FORM

Project No. 10792	Project Name: DODGE	Project Contact: MICHAEL PRINCEVALLE	Page 1 of 3
Project Address: 7400 AMADOR VALLEY BLVD. DOUBLIN CA.			Turnaround Time: 5 days
Sampler: Marc Edwards	Laboratory Name: CURTIS & TOMPKINS		Lab No: 159

LAB ID NO.	DATE	TIME	SOIL	WATER	SAMPLE LABEL	TPH-GAS BTEX	TPH-DIESEL BTEX	ORGANIC LEAD				REMARKS ADDITIONAL ANALYSIS
109564 -1	12-16-92	0836	X		B1-1	X						~~Hold~~ ✓
	12-16-92		X		B1-2	X						Sample not recovered
-2	12-16-92	0850	X		B1-3	X						Hold
-3	12-16-92	0858	X		B1-4	X						✓
-4	12-16-92	0904	X		B1-5	X						Hold
-5	12-16-92	0915	X		B1-6	X						Hold
-6	12-16-92	0925	X		B1-7	X						Hold ?
-7	12-16-92	0950	X		B2-1	X						Hold
-8	12-16-92	0954	X		B2-2	X						✓
-9	12-16-92	0956	X		B2-3	X						✓

Relinquished By: (Signature) [signature]	Date: 12-17-92 Time: 4:00p	Received By: (Signature) [signature]	Date: 12-17-92 Time: 4:00p
Relinquished By: (Signature) [signature]	Date: 12-17-92 Time: 4:00pm	Received By: (Signature) [signature]	Date: 12-17-92 Time: 1600
Relinquished By: (Signature)	Date: Time:	Received By: (Signature)	Date: Time:

Note: All samples were sealed with duct tape
NJWilson 12/18/92

TMC ENVIRONMENTAL, INC.
13908 San Pablo Avenue, Suite 101
San Pablo, California 94806
(415) 232-8366 / FAX 232-5133

CHAIN OF CUSTODY RECORD
ANALYSIS REQUEST FORM

Project No. 107192	Project Name: DODGE	Project Contact: MICHAEL PINKEVALLE	Page 2 of 3
Project Address: 7400 AMADOR VALLEY BLVD. DOUBLIN CA.			Turnaround Time: 5 days
Sampler: MARC EDWARDS	Laboratory Name: CURTIS & TOMPKINS		Lab No: 159

LAB ID NO.	DATE	TIME	SOIL	WATER	SAMPLE LABEL	TPH-GAS BTEX	TPH-DIESEL BTEX	ORGANIC LEAD				REMARKS ADDITIONAL ANALYSIS
109564 -10	12/16/92	1010	X		B2-4	X						✓
-11	12/16/92	1014	X		B2-5	X						Hold
-12	12/16/92	1023	X		B2-6	X						✓
-13	12/16/92	1054	X		B3-1	X						Hold
-14	12/16/92	1100	X		B3-2	X						✓
-15	12/16/92	1110	X		B3-3	X						Hold ✓
-16	12/16/92	1118	X		B3-4	X						✓
-17	12/16/92	1136	X		B3-5	X						Hold
-18	12/16/92	1245	X		B4-1	X						Hold
-19	12/16/92	1255	X		B4-2	X						✓

Relinquished By: (Signature) Michael Pinkevalle	Date: 12-17-92 Time: 4:00p	Received By: (Signature) Kerry Doyle	Date: 12-17-92 Time: 4:00p
Relinquished By: (Signature) Kerry Doyle	Date: 12-17-92 Time: 4:00p	Received By: (Signature)	Date: 12-17-92 Time: 1600
Relinquished By: (Signature)	Date: Time:	Received By: (Signature)	Date: Time:

TMC ENVIRONMENTAL, INC.
13908 San Pablo Avenue, Suite 101
San Pablo, California 94806
(415) 232-8366 / FAX 232-5133

CHAIN OF CUSTODY RECORD
ANALYSIS REQUEST FORM

Project No. 1071 92	Project Name: DODGE	Project Contact: MICHAEL PRINCEVALLE	Page 3 of 3
Project Address: 7400 AMADOR VALLEY BLVD. DOUBLIN CA.			**Turnaround Time:** 5 **days**
Sampler: MARC EDWARDS	Laboratory Name: CURTIS & TOMPKINS		Lab No: 159

LAB ID NO.	DATE	TIME	SOIL	WATER	SAMPLE LABEL	TPH-GAS BTEX	TPH-DIESEL BTEX	ORGANIC LEAD				REMARKS ADDITIONAL ANALYSIS
109564-20	12/16/92	1258	X		B4-3	X						✓
-21	12/16/92	1304	X		B4-4	X						Hold
-22	12/16/92	1310	X		B4-5	X						Hold
-23	12/16/92	1440	X		B6-1	X						✓
-24	12/16/92	1447	X		B7-1	X						Hold
-25	12/16/92	1452	X		B7-2	X						✓
-26	12/16/92	1512	X		B7-3	X						✓
-27	12/16/92	1523	X		B7-4	X						Hold
-28	12/16/92	1535	X		B7-5	X						✓

Relinquished By: (Signature) Michael Princevalle	Date: 12-17-92 Time: 4:00p	Received By: (Signature) Kerrie Gigliotto	Date: 12-17-92 Time: 4:00p
Relinquished By: (Signature) Kerrie Gigliotto	Date: 12-17-92 Time: 4:00p	Received By: (Signature) Greg E. Tomkins	Date: 12-17-92 Time: 1600
Relinquished By: (Signature)	Date: Time:	Received By: (Signature)	Date: Time:

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

DATE RECEIVED: 12/17/92
DATE REPORTED: 01/05/93

LABORATORY NUMBER: 109565

CLIENT: TMC ENVIRONMENTAL, INC.

PROJECT ID: 107192

LOCATION: DODGE

RESULTS: SEE ATTACHED

Reviewed by

Reviewed by

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 109565
CLIENT: TMC ENVIRONMENTAL, INC.
PROJECT ID: 107192
LOCATION: DODGE

DATE SAMPLED: 12/16/92
DATE RECEIVED: 12/17/92
DATE ANALYZED: 12/29/92
DATE REPORTED: 01/05/93

Total Volatile Hydrocarbons with BTXE in Aqueous Solutions
TVH by California DOHS Method/LUFT Manual October 1989
BTXE by EPA 5030/8020

LAB ID	SAMPLE ID	TVH AS GASOLINE (ug/L)	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYL BENZENE (ug/L)	TOTAL XYLENES (ug/L)
109565-1	B-2	8,900	830	370	290	690
109565-2	B-4	ND(50)	ND(0.5)	ND(0.5)	ND(0.5)	0.6

ND = Not detected at or above reporting limit; Reporting limit indicated in parentheses.

QA/QC SUMMARY

RPD, %	5
RECOVERY, %	100

TMC ENVIRONMENTAL, INC.
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CHAIN OF CUSTODY RECORD
ANALYSIS REQUEST FORM

Project No. 107192	Project Name: Dodge	Project Contact: Michael Princevalle	Page 1 of 1
Project Address: 7400 Amador Vly. Blvd., Dublin			*Turnaround Time:* *days*
Sampler: M. Princevalle	Laboratory Name: C&T, Berkeley		Lab No:

LAB ID NO.	DATE	TIME	SOIL	WATER	SAMPLE LABEL	TPH-GAS BTEX	TPH-DIESEL BTEX	ORGANIC LEAD				REMARKS ADDITIONAL ANALYSIS
B-2 109565-1	12-16-92	3:45		X	B-2	X						3 40mls VOC vials
B-4 109565-2	12-16-92	5:00		X	B-4	X						" " " "

Relinquished By: (Signature) Michael Princevalle	Date: 12-17-92 Time: 4:00pm	Received By: (Signature) Kerry Guglielotto	Date: 12-17-92 Time: 4:00p
Relinquished By: (Signature) Kerry Guglielotto	Date: 12-17-92 Time: 4:00p	Received By: (Signature) [illegible]	Date: 12-17-92 Time: 1600
Relinquished By: (Signature)	Date: Time:	Received By: (Signature)	Date: Time:

Note: Samples were sealed w/ Duct tape [redacted]