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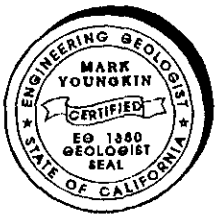
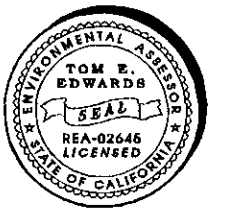
PRELIMINARY SUBSURFACE SOIL INVESTIGATION WORKPLAN

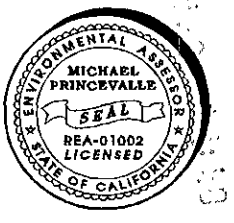
7400 Amador Valley Boulevard
Dublin, California

Nov 1992

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 WORK PLAN

at

7400 Amador Valley Boulevard
Dublin, California

Job: 10-7192

November 20, 1992

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

TRANSMITTAL LETTER FROM SITE OWNER

Project name: Preliminary Subsurface Soil Investigation Work Plan
Richard & Jeanne Dodge
7400 Amador Valley Boulevard
Dublin, California
November 20, 1992

Site Owner Commitment - The enforcing agencies require a cover letter with a statement of commitment from the site owner (or Responsible Party) to be submitted with all work plans.

The Responsible Party states the following:

___ **I agree with the recommendations out lined in the enclosed work plan, dated November 20, 1992.**

___ **I disagree with the recommendations out lined in the enclosed work plan, dated November 20, 1992.**

The facts in the workplan are accurate. The preparation of the workplan followed the guidelines of the Regional Water Quality Control Board and Local Implementing Agency.

I ___**do** ___**do not** request a meeting to discuss the options available to the Responsible Party for investigation or remediation.

_____ Date_____
Signature of Responsible Party

_____
Printed Name

_____
Company Name or Affiliation

CERTIFICATION

I supervised the preparation of the Preliminary Subsurface Soil Investigation Work Plan, dated November 20, 1992, 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.

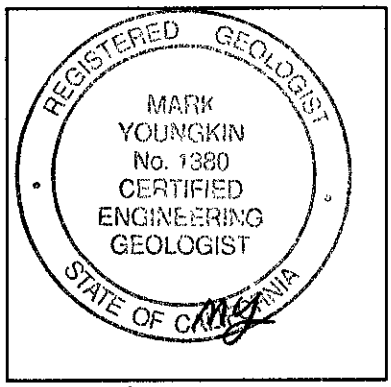
Certifying Professional:

TMC Environmental, Inc.
Vice President

Mark T. Youngkin

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

Dated Nov. 20, 1992



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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PLATES

PRELIMINARY SUBSURFACE SOILS INVESTIGATION WORK PLAN

at
7400 Amador Valley Boulevard
Dublin, California

1.0 INTRODUCTION

TMC ENVIRONMENTAL (TMC)) is presenting this work plan 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 work plan and is now 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 Health Services
80 Swan Way, Room 200
Oakland, California
(510) 271-4320

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

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

2.6 SITE AND VICINITY DESCRIPTION

On September 29, 1992, Mr. Michael Princevalle, of **TMC**, made a reconnaissance of the site and properties immediately surrounding the subject site.

The area surrounding the site appeared to be 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 was found to be vacant and mostly unpaved. Two metallic well covers two 55-gallon drums (located near well covers) were observed 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 groundwater monitoring well, chemical analysis results of groundwater 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 this work plan.

Information in the ATT reports reveal that the two underground storage tanks were removed from the site on January 11, 1991. Reportedly, holes were visually observed in both tanks. Additionally, stained soil were found surrounding the tanks. Apparently, groundwater was encountered during the tank removal.

Both groundwater and soil samples were recovered from the tank excavation. The water sample is indicated in the ATT reports and below in Table 1, Summary Results of ATT Tank Excavation Samples, as PS1. The tank excavation soil samples are indicated as SS1, SS2, SS3, and SS4. The soil sample recovered from the former pump island is 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

The 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, the 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 ~~ug/Kg~~ 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 groundwater 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.

Well MW-13 was sampled December 12, 1990. Groundwater was measured in the well at a depth of 9.68 feet below surface grade (BSG). A groundwater sample recovered from the well was chemically analyzed (by Anametrix) for TPH gasoline and BTEX. Chemical analysis results of the groundwater sample are summarized below:

TPH Gas:	190	ug/L
Benzene:	37	ug/L
Toluene:	8.7	ug/L
Ethylbenzene:	5.7	ug/L
Total Xylenes:	20	ug/L

3.3 NEIGHBORING SITE WORK

It is the understanding of **TMC** that the existing Oil Changers facility (bordering the site's eastern limits) was formerly a Shell gasoline station, and that an unauthorized discharge of petroleum hydrocarbons to the groundwater had occurred at that site. A soil/groundwater 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; see Plate 2.

3.4 ESTIMATED DIRECTION OF GROUND WATER FLOW

Using groundwater data presented in the ATT reports, **TMC** used a graphical method (three point solution) to approximate the groundwater flow direction. Ground water elevation data (1-91 ATT) from monitoring wells MW4, MW5, MW6, MW8, and MW9 wells were used to estimation ground water flow direction. Monitoring well MW10 (on site) was excluded because groundwater elevation data presented for this well did not appear consistent with other ground water elevation data. Calculated ground water flow direction appeared to be North $\pm$ 120° East to North $\pm$ 130° East.

On November 18, 1992, **TMC** reviewed ground water elevation data (August 12, 1992), generated by Kaprealian Engineering, Inc. Ground water elevations from ground water monitoring wells at the site and the surrounding sites (Unocal, BP and Oil Changers, formerly Shell) indicate that regional ground water flow direction varies from a north easterly direction to a south easterly direction. Ground water flow direction of the subject site and the sites west (Oil Changers) and east (strip mall) of the site flows in a south easterly direction, parallel to

Village Parkway. Data from the monitoring well on the subject site (MW-13) and monitoring wells immediately surrounding the site indicate that ground water may be flowing from the adjacent site onto the subject site.

4.0 PROPOSED INVESTIGATION

4.1 PURPOSE OF WORK

This work plan proposes the tasks necessary to begin investigating or estimating the extent of petroleum hydrocarbons in the subsurface soils surrounding the former fuel tanks and subsequent soil excavation.

The tasks presented agree with the recent guidelines recommended by the enforcing agency, the Alameda County Department of Environmental Health and the chief state agency, the Bay Area Regional Water Quality Control Board located in Oakland, California. The investigation, reclamation, and reporting guidelines are available through these agencies, and do apply to this apparent unauthorized discharge.

4.2 SCOPE OF SUBSURFACE SOIL INVESTIGATION WORK

The scope of work in this document will address the investigation for the extent of petroleum hydrocarbons in the site's subsurface soils and for the presence of petroleum hydrocarbon materials in groundwater at the site. Following this investigation (and if needed, additional investigation work), a problem assessment report (PAR) will be prepared providing the results and conclusions of this investigation. If additional investigation is required due to an expanded scope of work, then work plan amendments will be submitted. All work will be under the direct supervision of a California Certified Engineering Geologist.

The following tasks summarize the work proposed in the work plan:

- Completion and submission of applicable soil boring permits to applicable agencies (i.e. Zone 7 Flood Control).

- Contact Underground Service Alert (USA) to outline the location of underground utilities around the perimeter of the site.

- Drill 5 soil borings in the areas of the site previously found to be impacted with petroleum hydrocarbons. The approximate location of the proposed soil borings are indicated on as B-1 through B-5 on Plate 3, Proposed TMC Boring Locations. Soil

boring locations and number may vary in light of new information or upon findings in the field. Final boring locations will be indicated in the technical report.

- Collect selected soil samples from each soil boring. A total of 10 soil samples shall be submitted for chemical analysis.
- Describe and log the materials encountered in each boring during the drilling and sampling activities.
- If possible, recover a "grab" groundwater sample from each boring for visual inspection and for submission to a laboratory for chemical analysis.
- Samples will be submitted to Curtis and Tompkins, Ltd., located in Berkeley, California. Samples will be chemically analyzed following RWQCB guidelines and reporting limits. Details are presented below in Section 6.6, Laboratory.
- Re-survey selected existing groundwater monitoring wells in the vicinity of the site.
- Re-gauge the selected groundwater monitoring wells to evaluate groundwater flow direction and approximate groundwater gradient.
- Prepare a report of the findings.

5.0 PREPARATION OF A TECHNICAL REPORT

A technical report will be prepared in accordance with the investigation guidelines of the Regional Water Quality Control Board and the Alameda County Department of Environmental Health. The report will be signed by a State-Certified Engineering Geologist. Recommendations will be presented for further ground water investigation or remediation if warranted. The report will present the results of the ground water monitoring program and soil venting remediation. Copies of the report would be distributed to the above agencies for their review.

6.0 SAMPLING AND ANALYSIS PLAN

The following protocol of standard operating field procedures applies to all work done under this work plan including future amendments to the scope of work:

6.1 BORING AND WELL DRILLING OPERATIONS

- Boring and well construction procedures will follow guidelines recommended by the California Regional Water Quality Control Board and Zone 7, Alameda County Flood Control and Water Conservation District. The Health and Safety Plan will be enforced always during the drilling. Tailgate safety meetings will be held before beginning work each morning to update the safety plan with the results of the previous days work and investigation.

- Permits required for drilling the soil borings will be obtained before the start of work from the Alameda County Department of Environmental Health and Zone 7. A copy of the permit will be present on site during drilling operations.

- Monitoring well borings will be drilled with a truck-mounted drilling equipment, using continuous-flight hollow-stem auger of at least 8 inches outer dimensions.

- The drilling contractor, KL Drilling, of Alameda, California, posses a valid C-57 Water Well Contractor's License (C-57 596309). The contractor has a current Statement of Responsibility or Workmen's Compensation Certificate on file with the local permitting agency.

- An experienced geologist or soils scientist will be on site to direct drilling operations, supervise sampling procedures, and record information needed for bore hole and monitoring well logs, cross sectional charts, and site maps. All work will be performed under the supervision of a State-certified engineering geologist.

- Borings for soil investigation, will only extend to the water table.

- Borings shall be backfilled to grade with neat, Portland cement.

6.2 SOIL SAMPLING

Soil sampling in all the borings will commence at a depth of approximately five feet below surface grade. Soil samples will then be recovered at five-foot increments, or from soils that appear contaminated or at lithologic changes. This sampling sequence shall continue to the depth of the water-saturated zone, estimated at 8 to 10 feet below grade. Soil sampling will follow the guidelines presented in ASTM Method D 1452-80, Standard Practice for Soil Investigations and Sampling by Auger Borings.

- A modified California split spoon sampler, fitted with 3 inch X 6 inch, brass liners will be driven ahead of the auger to collect relatively undisturbed soil samples from all borings.

- Soil sampler casings will be disassembled, steam-cleaned or cleaned in soapy water. The casing is then rinsed with clean tap water and finally with de-ionized water, then allowed to air-dry. The cleaned casings will then be reassembled with similarly cleaned and dried brass, sample liners. The sampling will be carefully lowered into the hollow stem of the augers or hand augered bore hole for the collection of the sample.

- Upon withdrawing the sample casing from the auger or bore hole, the casing will be disassembled. The condition of the sample liners will then be visually inspected. If in good condition the soil samples in the bottom brass liner (in the sampling casings) will be taken as the samples to be considered for chemical testing. Samples will be labeled and sealed in the field in their original liners. The ends of the sample liners will be capped with aluminum foil, and sealed in place by clean plastic caps and tape.

- The surfaces of drilling and sampling equipment will also be visually examined for evidence of petroleum residues and/or sheen.

- The remaining liner(s) from the sampler casing will be extruded in the field and examined to help provide information for the boring logs. The cuttings from the borings will be examined during the drilling to provide a continuous log of the materials encountered using ASTM Method D-2488-84 for visual description and identification of soils.

- Soil materials from the remaining liners will also be extruded into a clear plastic ziplock bag and immediately sealed. The soil material will then be broken into small pieces. After approximately five minutes, the probe of a hydrocarbon vapor monitor will be inserted into the bag to screen for the presence of petroleum hydrocarbons. This information, along with field observations, will be used for the selection of samples to be submitted for laboratory analyses. Vapor levels will be recorded on the field boring log.

- A geologic drilling log will be maintained of the materials encountered and sample locations in all borings. The log will include field descriptions of the soil properties, lithologic variations, soil moisture conditions, and any unusual characteristics noted that may suggest the presence of chemical contamination.

- A bag of the aquifer material (and, if possible, aquitard material) from one or more bore will be recovered for laboratory sieve analysis. This information will be used to design subsequent wells, if needed.

- Based upon the results of field screening, selected representative soil samples will be submitted to the environmental laboratory for chemical analyses. All samples retained for chemical analysis will be stored on ice in a clean, covered cooler-box for transport to the laboratory. Duplicate samples will be refrigerated.

6.3 "GRAB" GROUND WATER SAMPLING

- Upon completion of soil sampling each boring, the auger will be advanced approximately 2 to 5 feet into the water bearing zone. Time will be allotted to allow groundwater to recover into the boring.

- If conditions permit, a minimum of 2 to 4 well volumes of stale water will be purged from the bore. A clear, dedicated, disposable PVC bailer will used to purge the bore and to observe the presence and thickness of free product present on the water surface.

- 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. 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.

- One trip blank or equipment blank will be taken for each well sampling episode at the site. The water sample trip blank will be provided by the environmental laboratory performing the chemical analysis. Deionized water provided by the laboratory will be poured into the bailer and, in turn, into the sample containers to provide an equipment blank.

6.4 LABORATORY ANALYSIS

- 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 kept on 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.

- Soil samples, recovered from the vicinity of the former fuel tank location, will be chemically analyzed for total volatile hydrocarbons (TVH) as gasoline with benzene, toluene, ethyl benzene, total xylenes (BTEX) distinction (EPA Method 8015\8020).

6.5 SAMPLE RECORDS AND CHAIN OF CUSTODY

- All samples will be labeled with the following information using waterproof ink:
  - site name
  - specific sample location identifier
  - date and time collected
  - name of the sample collector and affiliation

- A field-data-sheet will be filled out for each group of samples. The data sheet will contain the following information:

  - label information
  - sampling method
  - type of container
  - physical characteristics (texture, color, odor, etc.)
  - disposition (used for field analysis, stored, sent for laboratory analyses.

- A chain of positive, signature custody and transference will be strictly maintained. The chain-of custody form will be included with any samples leaving the job site and will follow the samples until they are analyzed or disposed of. The chain-of custody form will contain the following information:

  - sample number
  - signature of collector
  - date and time of collection
  - sample type
  - identification of well or boring
  - number of containers
  - parameters requested for analysis
  - signature of person(s) involved in sample chain of possession
  - inclusive dates of possession
  - laboratory sample number

- When the samples arrive at the laboratory, the receiver will sign the chain of custody forms and enter a laboratory identification number onto the sample label and chain of custody form. The identification number will be used by the laboratory in its internal tracking system, thus the status of a particular sample can be determined at any time by referring to the laboratory log books. Both the laboratory identification and field sample numbers will be cited when the analytical results are reported.

- A hard copy of the laboratory Certified Analytical Report and the completed chain of custody will be provided with the technical report.

6.6 LABORATORY

- All samples recovered during the field work will be submitted to Curtis and Tompkins, Ltd., located in Berkeley, California. This laboratory is a State-certified by the Department of Health Services (DOHS); DOHS # 159.

- Samples will be chemically analyzed following RWQCB guidelines and reporting limits.

6.7 DECONTAMINATION

- The drilling auger and equipment will be steam-cleaned before arriving at the project site. Steam cleaning equipment will be present on site during drilling.

- Between borings at the site, the augers will be steam-cleaned at a location well away from the proposed borings, or adequate lengths of clean auger will be available to complete all of the borings without reusing auger sections. Sufficient dedicated groundwater purging equipment will be available to purge each bore independently.

- All sampling equipment will be thoroughly steam-cleaned or cleaned in soapy water, rinsed with clean tap water, and finally rinsed with de-ionized water before the collection of each set of samples. Simple Green, Alconox, or TSP soap will only be used to clean equipment.

6.8 STORAGE FOR DISPOSAL

- Drill cuttings and soils not retained for chemical analysis are to be on a stockpile with plastic sheeting and side berm, then securely covered with plastic sheeting. Disposing or treatment can commence upon receipt of laboratory analysis. The Client will authorize these activities prior to commencement. The treatment stockpile will be within a secure area unavailable to public access.

- Purge water will be collected in clean 55-gallon liquid drums for disposition or treatment within 90 days once laboratory analysis results are available dependent upon client authorization and funding. Barrels will be labelled immediately upon use and stored in a secure area.

7.0 QUALITY ASSURANCE AND QUALITY CONTROL

7.1 OBJECTIVE

The objective of quality assurance and quality control is to provide environmental sampling and analysis data of known and acceptable quality. To meet this objective, field and laboratory quality control procedures will be implemented.

7.2 SOIL BORINGS

Borings will be drilled by a State-licensed C-57 contractor (KL Drilling), under the supervision of a State-licensed Engineering Geologist.

7.3 SOIL SAMPLING

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

Soil sampling shall be performed as described above. Actual sample depths may vary depending upon conditions encountered during the field drilling and/or soil sampling. Soil sampling will adhere to the guidelines presented in ASTM Method D 1452-80, Standard Practice for Soil Investigations and Sampling by Auger Borings. Soils samples will be taken with California Modified split-spoon sampler. The sampler, containing 3 2-inch (O.D.) by 6-inch (length) clean brass sampler liners, will be carefully inserted into the hollow stem of the continuous-flight augers or bore hole. Using a 140-pound hammer, falling a distance of approximately 30 inches, the sampler will be driven at least one foot into undisturbed materials beyond the bottom end of the auger. The number of blows necessary to drive the sampler one foot will be recorded on the boring log.
Samples retained for chemical analysis will be stored on ice in a clean, covered cooler-box for transport to the laboratory. Duplicate samples will be refrigerated. The center core material will be extracted from the samples liners in the laboratory for chemical testing.

7.4 SAMPLE CUSTODY

All samples collected will be labeled with the following information: job name, sample number, location, date and time collected, name of collector, and any pertinent remarks. Field records of soil samples will be maintained on a field log. All field records will be written in ink. Copies of all field documentation will be maintained in an on-site file and the originals will be sent to the main office. During temporary storage of samples on-site

and during transportation to the laboratory, the samples will be kept in an ice chest cooled to approximately four degrees centigrade by ice.

Chain of custody forms will be filled out by the sample collector before releasing the sample for storage or transportation. The form will then be routed with the samples through storage, transportation, and laboratory analysis. Copies of the completed chain of custody forms will be provided to the laboratory. The field log book will document when samples are released from storage for transport to the analytical laboratory.

When the samples arrive at the laboratory, a laboratory representative will sign the chain of custody forms and enter a laboratory identification number onto the sample label and chain of custody form. The identification number will be used by the laboratory in its internal tracking system, thus the status of a particular sample can be determined at any time by referring to the laboratory log books. Both the laboratory identification and field sample numbers will be cited when the analytical results are reported.

7.5 LABORATORY QUALITY ASSURANCE

All samples collected during this project will be analyzed by a State Department of Health Services (DHS)-certified laboratory for the selected parameters in accordance with standard EPA-approved methods. All laboratory quality assurance/quality control (QA/QC) information will be made available in a Summary Report prepared by the laboratory. Laboratory quality control measures will include those required by the DHS under their Hazardous Waste Laboratory Certification Program.

In addition, a trip blank obtained from the laboratory and/or a field blank will be submitted for analysis.

7.6 DATA VALIDATION AND REPORTING

Data collected and used in project reports will be appropriately identified and will be included in a separate appendix in the final report. All data will be reviewed. Apparent abnormalities (e.g., unexpected order-of-magnitude difference among samples and/or instrument readings) will be investigated by reviewing procedures, field instrument procedures and calibrations, and laboratory QC results.

8.0 SITE SPECIFIC SAFETY PLAN

8.1 INTRODUCTION

This document describes the health and safety procedures for the activities planned in performing a preliminary site investigation at **7400 Amador Valley Boulevard, Dublin, California.** All personnel and subcontractors will follow this plan. The prime responsibility for employee safety lies with each company involved in the work for its own employees. It is expressly intended that all project work will comply with applicable sections of the California Occupational Health and Safety Code. All parties working on this project will maintain a general responsibility to identify and correct any health and safety hazards and are responsible for working in a safe manner.

8.2 PROJECT DESCRIPTION

This subsurface investigation involves the sampling of soils. The work to be performed will be the drilling and sampling of soil borings. Soil samples will be collected from each boring for field examination and for submission to a laboratory for chemical analysis.

8.3 KEY PERSONNEL

Project personnel who will have overall responsibility for the safe operation of this project are:

Richard or Jeanne Dodge Phone: (510) 939-5330
(Client Contact)

Michael Princevalle
(TMC Project Manager
and Site Safety Officer) Phone: (510) 232-8366/232-8367

Tom Ghigliotto
(Technician) Phone: (510) 232-8366

Tom Edwards Phone: (510) 232-8366
(President, TMC)

Ken Link
KL Drilling
Drilling Contractor Phone: (510) 865-9323

Valley Care Medical
Center, Pleasanton Phone (510) 523-4357

8.4 PROJECT MANAGER AND SAFETY OFFICER RESPONSIBILITIES

The responsibilities of the Key Personnel are:

- To conduct initial site safety training for all project field team members as described in this document,
- To assure all field team personnel have read and understand the Health and Safety Plan,
- To assure all work performed by field personnel is conducted in accordance with safe practices outlined in this plan,
- To coordinate with safety personnel fire-watch, traffic control and site security,
- To monitor activities to assure the proper use of personal protective equipment such as hard hats, protective eye wear, gloves, coveralls, respirators, etc,
- To monitor ambient hydrocarbon vapors,
- To make certain personnel safety equipment is in a usable condition, and
- To shut down or modify field work activity based on criteria presented in the site safety plan

8.5 SUB-CONTRACTOR RESPONSIBILITIES

The responsibilities of the subcontractor with respect to safety are:

- To read, understand and accept this Health and Safety Plan,
- To assure all members of its crew attend the safety training program,
- To make certain equipment and other machines are properly inspected and maintained and are in compliance with applicable sections of the California Health and Safety Code,

- To supply and maintain safety related protective equipment such as hard hats, safety boots, protective coveralls, gloves, safety eye wear, respirators, etc., as specified in this plan,
- To assure each employee working at this site read and comply with this Health and Safety Plan, and
- To enforce corrective action under the direction of the Site Safety Officer.

8.6 FIELD TEAM MEMBER RESPONSIBILITIES

The responsibilities of the field team members are:

- Read, understand and follow this plan,
- Perform work safety,
- Cooperate with safety personnel,
- Report any unsafe conditions to the immediate supervisor, and
- Be aware and alert for signs and symptoms of potential exposure to site contaminants and heat stress.

8.7 HAZARD EVALUATION

As air, soil and chemical substance monitoring data become available for all site work, the information will be evaluated by the Site Safety Officer. Appropriate action in the form of Health and Safety modifications will be initiated by the Safety Officer if necessary.

The anticipated activities of this project include:

- Drilling and sampling of borings,
- Collection of soil samples,
- Monitoring of ambient hydrocarbon concentrations during project activities.

The general types of hazards associated with this project are:

- o Mechanical hazards: swinging objects, machinery, etc,
- o Electrical hazards: buried cables, overhead power lines,
- o Chemical hazards: gasoline, diesel, waste oil,
- o Fire hazards: natural gas and product lines, flammable petroleum hydrocarbons, and motor-driven equipment,
- o Thermal hazards: heat stress,
- o Acoustical hazards: excessive noise created by machinery.

Job hazard analyses associated with each major work activity are presented in the following sections.

8.7.1 HAZARD EVALUATION: SOIL BORINGS

Drilling soil borings could potentially expose field personnel to the following known hazards:

- o Chemical hazards:
  - -- Exposure to various chemical substances, including but not limited to, petroleum hydrocarbon liquids and vapors from gasoline.
- o Physical hazards:
  - -- operating machinery,
  - -- falling objects, and
  - -- exposure to outside temperature extremes.
- o Fire, Electrical and Noise Hazards:
  - -- underground gas and product lines, and
  - -- excessive machinery noise.

Due to the nature of drilling, there is a risk for electrical shock from overhead and underground electrical lines. There is also a risk of physical injury from moving machinery and heavy drilling equipment. Explosive hazards exist when fuel concentrations in the bore hole reach explosive levels; > 10% LEL.

8.7.2 HAZARD EVALUATION: SOIL SAMPLING

The sampling of soil may expose personnel to the same potential health hazards as listed above. Soil will be collected for analyses from borings. Samples may contain high levels of hazardous chemicals creating the potential for chemical exposure through inhalation and skin contact. Sample collecting may pose one of the greatest risks of chemical exposure for site workers.

8.7.3 HAZARD EVALUATION: PACKAGING AND SHIPMENT OF SAMPLES

The potential for overexposure to hazardous gasoline constituents still exist during the shipment of samples to the lab. After the samples have been collected in brass tubes or appropriate sample bottles, the containers will be properly packaged to protect shipping and laboratory personnel from exposure. The hazards associated with shipping samples are minimal provided the containers are prevented from leaking or breaking.

8.8 HAZARD CRITERIA

8.8.1 HYDROCARBON VAPORS

Hydrocarbon vapors expected to be encountered consist of gasoline and diesel fuel. Exposure to elevated levels of hydrocarbon vapors presents potential health risks that need to be properly controlled. Work practices and methods will be instituted to limit exposures. Where elevated exposures persist, respiratory protection will be the primary control method to protect personnel from inhalation of hydrocarbon vapors. The hydrocarbon vapors expected to be encountered during project activities are composed of a variety of volatile refined petroleum compounds. The majority of these have limited toxicity requiring minimal controls at the concentrations expected.

Petroleum fuel consists of hundreds of chemical compounds. There are certain compounds such as benzene that present significant hazards and must be properly controlled. To do so, a working limit of 100 ppmv total hydrocarbon is proposed as the maximum acceptable level of exposure without respiratory protection. In a typical situation with 1% of the hydrocarbon vapors being benzene, a 100 ppmv concentration of total hydrocarbon will result in a breathing zone of less than 1 ppmv benzene. This level is one tenth of the current occupational Permissible Exposure Limit (PEL) for an 8 hour exposure to benzene.

8.8.2 ACTION LEVELS OF HYDROCARBON COMPONENTS IN PETROLEUM FUEL:

Gasoline	>300ppm	PEL	LEL > 10%
Benzene	> 1ppm	"	Oxygen <19.5%
Toluene	>100ppm	"	
Xylene	>100ppm	"	
Ethyl Benzene	>100ppm	"	

A hydrocarbon vapor analyzer will be used to measure real time breathing zone concentration for comparison with the 100 ppmv working limit. When a persistent level of 100 ppmv is observed, appropriate respirators will be donned and other vapor measurements will be made. If hydrocarbon vapors exceed 1000 ppmv or 10 ppm benzene, work will be stopped. The field crew will be instructed to stay up wind and methods will be applied to subdue fugitive vapor emissions such as sprinkling soil with water, or the use of copus blower. The site Safety Officer will make such determinations.

If LEL is >10% in or around the tank, work must stop and not commence until determined safe and/or LEL% <10.
If oxygen levels in the immediate work area are < 19.5%, work must stop until determined safe and/or levels are >19.5%.

Symptoms Of Acute Overexposure: Gasoline and diesel vapors may be irritating to the skin, eyes and respiratory tract.

Gasoline vapors may effect the central nervous system and may cause headaches and dizziness.

Oxygen Deficiency: May cause dizziness.

8.8.3 HEAT STRESS AND NOISE

A hazard exists when individuals are required to work in warm temperatures, particularly while wearing impervious protective clothing. When the ambient air temperature exceeds 65 degrees, heat stress may become a problem. If these conditions are encountered, the following precautions on the next page will be taken:

- o During day-to-day field work, the on-site supervisor will be alert for the signs and symptoms of heat stress.

Field workers will be observed for the following signs and symptoms of heat stress:

- o profuse sweating, or complete lack of sweating,
- o skin color change,
- o increased heart rate,
- o body temperatures in excess of 100 degrees as measured by thermometers, and
- o vision problems.

Any team member who exhibits any of these signs or symptoms will be removed immediately from field work and be requested to consume electrolyte fluid or cool water while resting in a shaded area. The individual will be instructed to rest until the symptoms are no longer recognizable. If the symptoms appear critical, persist or appear to worsen, immediate medical attention will be sought.

When working around mechanical equipment the potential exists for exposure to excessive noise. To deal with the health hazards of excessive noise, ear plugs will be provided.

8.9 PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS

This section specifies personal protective equipment required for the various tasks of this project.

8.9.1 SOIL BORINGS

Respiratory Protection: all field personnel will be required to have available an air purifying respirator with organic vapor cartridges. The respirators will be required based on criteria presented in this safety plan. All respirators must be NIOSH approved, canister-equipped for all organic vapors up to 1000 ppm.

Protective Clothing: all field personnel who handle contaminated soil or liquid will wear impervious coveralls and butyl rubber gloves. Impervious coveralls will not be required if soil or water is not visibly contaminated, or if vapor measurements are below 500 ppmv. Level "D" protective clothing and equipment will be worn at all times on the job site. All employees will have level "C" protective equipment available at all times. The site safety officer will monitor air borne contaminant levels for determination of when to don level "C" equipment.

Head Protection: Field personnel will wear non-metallic safety helmets.

Foot Protection: Field personnel will wear neoprene rubber boots with steel toes. Under non-liquid exposure conditions, leather boots with steel toes and shanks are permissible.

Ear Protection: Field personnel, based on noise levels, may be required to wear earplugs during soil excavation.

Eye Protection: Field personnel will wear chemical-resistant safety glasses with attached side shield where splashes of potentially hazardous liquid or particles are likely.

Soil Sample Collection
Personnel who are likely to be exposed to contaminated soil samples will be required to wear the same personal protective equipment as outlined above.

8.9.2 PACKAGING AND SHIPMENT OF SOIL SAMPLES

Eye Protection: Personnel will wear chemical resistant safety glasses with attached side shield while packaging samples.

Hand Protection: butyl rubber or nitrile gloves will be worn while packaging the samples.

Packaging and Shipping Requirements: all samples which are to be shipped for analysis must comply with Department of Transportation (DOT) regulations, as follows:

- Package the primary container to protect it from breaking,
- tape all lids with hydrocarbon resistant tape,
- wrap the primary container with absorbent brown paper (wadding), and
- place the primary container in a plastic (ziplock) bag.

9.0 WORK ZONES

During soil excavation and well drilling operations, a work zone around the immediate vicinity of the project will be established and taped off. Only authorized personnel will be permitted to enter the work zone. Authorized personnel will include those who have duties requiring their presence in the work zone and have read this site safety plan. Work zones are also created to aid in the decontamination of equipment and personnel. The following describes the zones to be established:

- Exclusion Zone: A 75 foot circle around the work area will be defined before work starts. The area inside the circle will constitute the "Exclusion Zone". The exclusion zone constitutes the

area where potentially hazardous airborne contaminants and physical hazards to the workers exist. Full personal protection must be available to all personnel in this area. The size of the Exclusion Zone may be changed to accommodate site conditions and to ensure contaminant containment.

- o Contamination Reduction Zone: A formal decontamination zone should not be required during the preliminary investigation. However, an area will be designated in the event extreme gasoline contamination is encountered. The decontamination zone will be an area where personnel can clean protective equipment. A waste container will be placed outside of the exclusion zone so contaminated equipment can be placed inside and covered.

- o Support Zone: A Support Zone, the outermost zone, must be defined for each field activity. Support equipment is located in this uncontaminated or clean area. Normal work clothes are appropriate within this zone. The location of this zone depends on factors such as accessibility, wind direction (it should be up wind of excavation), and resources (e.g. roads, utilities, shelter).

10.0 DECONTAMINATION PROCEDURES

Petroleum hydrocarbon liquids and vapors are anticipated. Due to the volatile nature of the hydrocarbons that may be encountered during the initial excavation and sampling operations, decontamination of equipment and vehicles will be of minimal importance since the volatile hydrocarbons will rapidly vaporize. Therefore, no formal decontamination procedure will be followed with the exception of general cleaning. No eating, drinking or smoking will be permitted in the exclusion zone. All personnel involved in work activities will be instructed to wash their hands, face, neck and forearms at the end of the work day. Soap, water and towels will be provided at the site for this purpose. The field personnel will also be instructed to shower at home at the end of each work day.

As work progresses, the nature of materials handled and the extent of contamination may possibly require formal decontamination procedures and delineated work/clean zones. However, we do not expect that such formal procedures will be necessary at this site and will only proceed at the Safety Officers discretion.

In the event extreme contamination is encountered, decontamination of personnel, equipment and vehicles will be important to insure that contamination does not

spread to unsuspecting people and property. Personal decontamination mainly involves personal hygiene. Contamination should not be present on the skin if the proper protective methods specified in this plan are used. However all field personnel will be instructed to follow these guidelines to ensure that contamination does not remain on equipment, sample containers or in contact with their bodies.

The field team should remove their personal protective clothing in the following sequence:

Step 1: Move out of the exclusion zone and into the decontamination zone. Do not remove personal protective equipment.

Step 2: Obtain decontamination solutions and decontaminate the spades, shovels and other equipment by brushing them under a water rinse. A high-pressure steam cleaner may also be used for decontamination. All wastes and spent decontamination liquids will be properly contained.

Step 3: Remove outer gloves and coveralls and place them inside a garbage bag. Keep the air purifying respirator on.

Step 4: Move to the support zone and remove the respirator.

11.0 MONITORING PROGRAM

Personal exposure to ambient airborne hazards will be monitored to assure that personnel exposures do not exceed acceptable limits and that appropriate selection of protective equipment items is made. Airborne hydrocarbon vapor concentrations will be measured primarily by the use of a hydrocarbon vapor meter. If concentrations approach criteria levels, all personnel will be notified of possible site safety changes. Audits will be conducted by the Safety Officer to insure compliance with the Safety Plan and to provide additional support as required.

11.1 AMBIENT VAPOR READING

A hydrocarbon vapor detector will be used during drilling and excavation activities. This instrument will be used to measure both excavation and breathing zone concentrations of hydrocarbon vapors. The instrument will be calibrated on a regular schedule using known calibration gases. Readings will be taken in the area where the field team members are working and surrounding down-wind

areas. Measurements will be taken every 30 minutes when hydrocarbon vapors indicate levels above 30 ppmv. All readings will be recorded in a field notebook.

11.2 SAFETY AND HEALTH TRAINING

This section summarizes the content of the health and safety training to be provided to the field team. It may be used as a future reference for the field team concerning health and safety matters.

Each section of this plan is intended to provide information to accomplish safety for all workers. It will be the responsibility of the Project Safety Officer to assure the field team has access to this plan, reads the safety procedures, and understands how to conduct work safely. It will be the individuals responsibility to bring to the attention of the Safety Officer any portion of this plan and related training they do not fully understand. Prior to beginning site work, the field team will discuss the contents of this plan and make sure all members are adequately informed in safe work practices.

All field team members will be instructed regarding potential health and safety hazards. Specifically, the following topics will be covered in the initial training session:

- Physical safety hazards, (e.g., muscular stress and strain, unguarded equipment, electrical shock, overhead hazards, etc.),
- Emergency procedures, (vapor controls, medical and fire emergencies, etc.),
- Explosive/flammability hazards,
- Hazardous materials that may be encountered and potential routes of exposures, (inhalation and skin contact with petroleum hydrocarbons),
- Physical hazards such as noise and heat stress,
- Hygienic practices, (washing up before lunch/coffee breaks, no eating/drinking/smoking allowed in taped off areas, etc.), and
- Types, proper use, limitations, maintenance, inspection, and storage of protective clothing and equipment.

Personal protective equipment includes:

- o eye protection
- o gloves
- o coveralls
- o respirators
- o hard hats, and
- o hearing protection

Special emphasis will be placed on the use and limitations of respiratory protection. Half-mask respirators equipped with air purifying organic vapor cartridges will be used. Half-mask respirators and eye goggles will be used if eye irritation or skin contact exposure potential exists. Each individual will be responsible for the limitations and maintenance of half-mask and full-face respirators including qualitative fit testing, routine inspection, replacement of parts, cleaning, disinfection, and storage requirements. Written instructions and procedures concerning respirators and criteria for use will be provided for each field worker by the Site Safety Officer if needed.

12.0 MEDICAL MONITORING PROGRAM

Soil drilling work and well sampling is expected to involve active physical work and potential exposure to petroleum hydrocarbons, heat stress, noise and physical safety hazards common to subsurface operations. The work will require people of reasonable health with normal vision and hearing acuity. The companies involved with this project are responsible for assuring the health and fitness of their employees on this project. As a general rule, each worker should have clearance from a physician dated no later than one year prior to start-up of the project. This documentation should also indicate the employees' ability to perform the required work while wearing an air purifying respirator.

13.0 EMERGENCY RESPONSE PLAN

Emergency procedures listed in this plan are designed to give the field team instruction on how to handle medical emergencies and fires and explosions. The emergency procedures will be carefully reviewed with the field team during the health and safety training session.

Emergency Phone Numbers:

Fire Dept	911
Ambulance	911
Police	911
Emergency Services:	
Valley Care Medical Center,	
5555 W. Las Positas Blvd.,	
Pleasanton	(510) 416-3418
Site or Client Phone	(510) 939-5330
Poison Control Center	(415) 476-6600 or
	1 (800) 342-9293
Chem Trec	(800) 424-9300
EPA Emergency Response	(415) 974-7511
State Office of	
Emergency Services	(800) 852-7550
Emergency Response/ (Erickson)	(415) 235-1393

* NOTE: MOBILE CELLULAR PHONE ON SITE

13.1 INJURIES

Medical problems occurring on site will be handled quickly. Emergency telephone numbers will be written down and posted in the passenger compartment of the field vehicles. The local emergency numbers are:

Police, Fire and Rescue Dial 911

Emergency and First Aid Procedures:

Eye Contact: Flush with clear water for 15 minutes or until irritation subsides. See a physician.
Skin Contact: Wash thoroughly with soap and clean water.
Inhalation: Remove from area away from vapor/exposure. Call a physician and start resuscitation IMMEDIATELY if breathing has stopped.
Ingestion: DO NOT INDUCE VOMITING; call physician IMMEDIATELY.
Oxygen deficiency: Move out of oxygen deficient area into fresh air. Call physician and resuscitation IMMEDIATELY if breathing has stopped.

The field team will be instructed to seek immediate professional medical attention for all serious injuries. A first aid kit will be present at the work site for use in case of minor injuries. If anyone receives a splash or particle in the eye, the field

team will be instructed to irrigate the eye for 15 minutes. Instruction will also be provided to wash any skin areas with soap and water if direct contact with contaminants has occurred.

13.2 FIRE AND EXPLOSION HAZARDS

Fires on site are of particular concern during soil excavation and removal activities due to the possibility of encountering flammable petroleum hydrocarbon liquid or vapors. During these activities the Site Safety Officer will be present and equipped with an explosive vapor monitor for area monitoring and a multi-purpose (A, B, C,) fire extinguisher.

The local fire department will be notified of the location and anticipated activities in order to minimize the fire risk to the surrounding neighborhood. In addition, any flammable material will be cleared away from the site prior to the start of work. If a fire does occur, the local fire department will be contacted immediately.

13.3 OPERATION SHUTDOWN

Under extreme hazardous situations the on-site supervisor, Safety Officer, or Project Manager may request that operations be temporarily suspended while the underlying hazard is corrected or controlled. If vapor measurements with the explosive vapor monitor show levels approaching explosive limits, operations will be stopped while the area is controlled. During this activity, all personnel will be required to stand up wind to prevent exposure to fugitive vapor emissions. The Safety Officer will have ultimate authority for operations shutdown.

14.0 COMMUNITY PROTECTION

To assure the community is protected from health and fire hazards, up wind and downwind monitoring with the hydrocarbon vapor monitor will be performed if the general work area has hydrocarbon levels exceeding 100 ppmv. If down wind monitoring indicates persistent levels above 30 ppmv at the perimeter of the work area, work will be shut down and vapor emission control efforts will be instituted until measurements demonstrate levels have dropped below 30 ppmv. An alternative approach of expanding the taped off area zone may be used to provide additional community protection.

15.0 RECORD KEEPING

The following record keeping requirements will be maintained in the program file indefinitely:

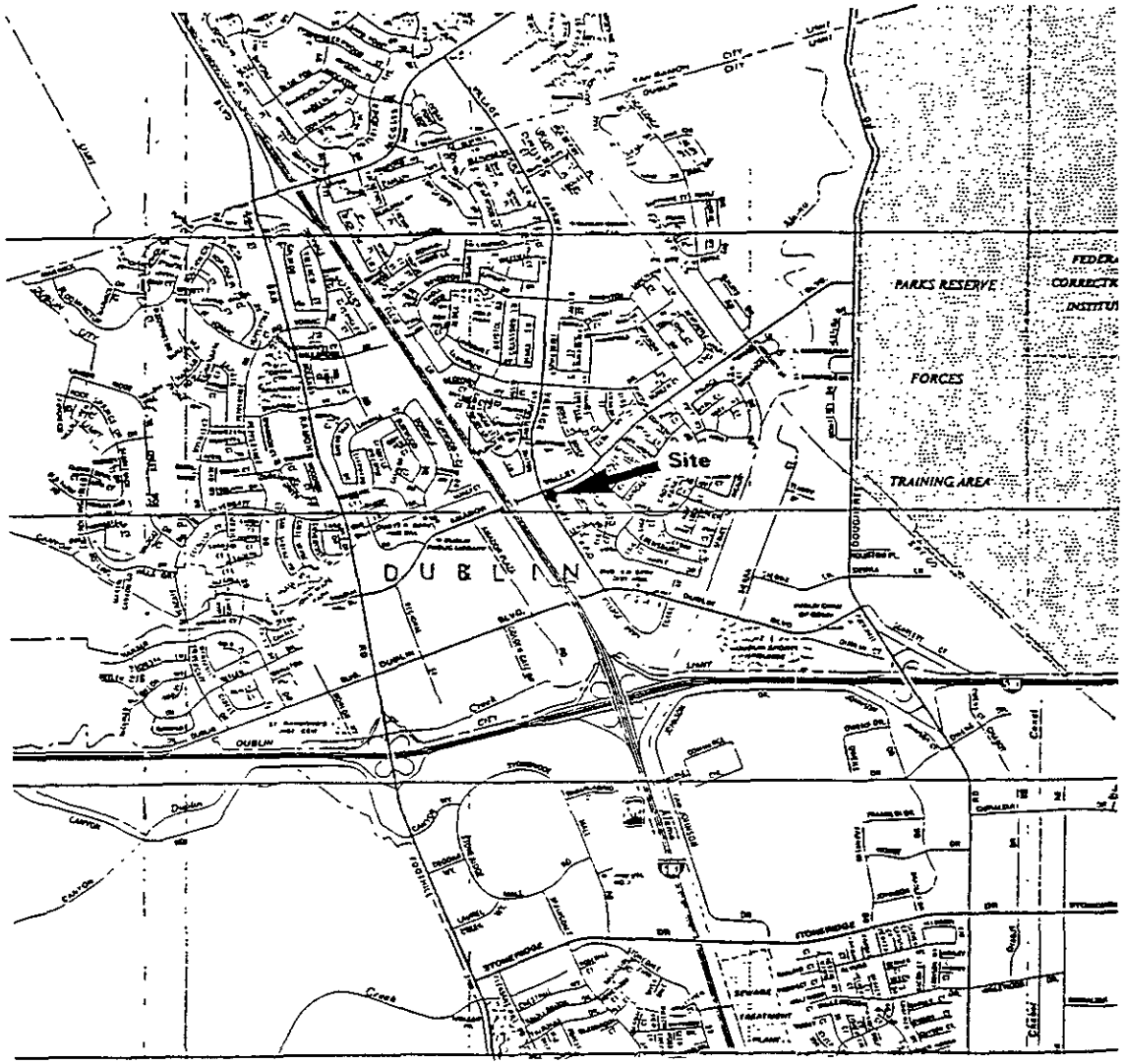
- Copy of this Health and Safety Plan
- Health and Safety Training Certification Form for Site Safety Officer
- Any accident/illness report forms
- Personal sampling results
- Documentation of employees medical ability to perform work and wear respirators

Pertinent documentation will be provided to workers and agencies as required by Federal and State safety laws.

16.0 LIMITATIONS

TMC has prepared this work plan in accordance with EPA, RWQCB, and Alameda County Department of Health Services guidelines for investigating fuel leaks. Environmental regulations, on a local, state, and federal level, can vary significantly over time. Similarly, property conditions can change over time. Consequently, the conclusions and recommendations arrived at in the course of preparing this work plan are strictly applicable to the status of environmental regulations and the site conditions existing at the time **TMC** wrote this document. **TMC** cannot have complete knowledge of underlying conditions on the property.

This work plan has been prepared for specific application to this site according to information derived from field work and off-site sources (i.e. records, conversations with persons knowledgeable about the site, etc.). Because this work plan contains information reported to **TMC** by other sources, errors or omissions may be present for which **TMC** cannot be responsible. The information in this document applies to present site conditions only. The opinions expressed herein are subject to revisions in light of new information, and no warranties are expressed or implied. The services described in this work plan will be performed in accordance with generally accepted existing environmental principles and regulations.



BASE PLATE FROM ATT, 1/91

0 1/2 1 mile
SCALE

TMC ENVIRONMENTAL, INC

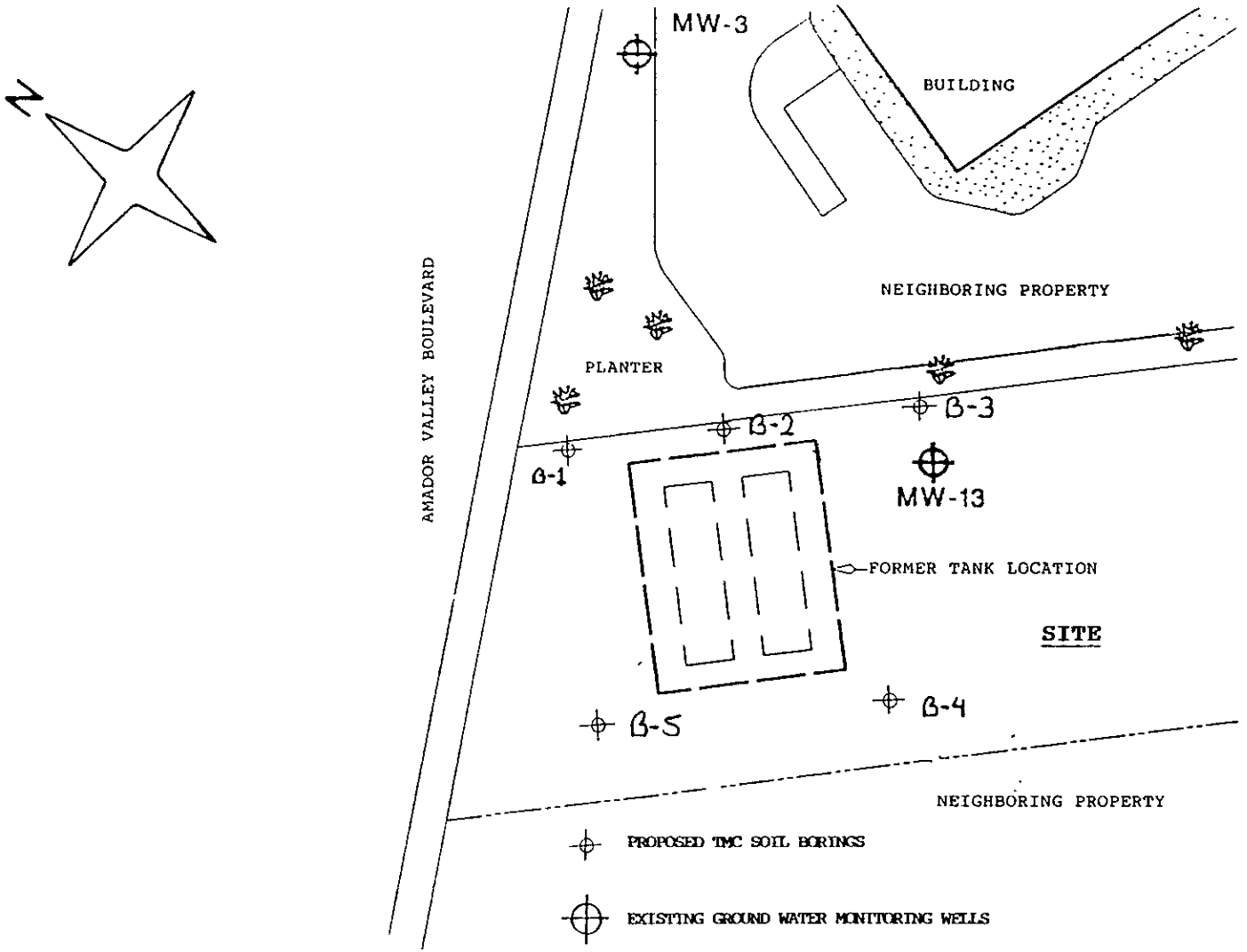
SCALE	APPROVED BY:	DRAWN BY
DATE		REVISED

SITE LOCATION MAP

7400 Amador Valley Boulevard
Dublin, CA

Job: 10-7192	DRAWING NUMBER Plate 1

11X11 PRINTED ON NO. 1000H CLEARPRINT



TMC ENVIRONMENTAL, INC.		
SCALE	APPROVED BY:	DRAWN BY
DATE. 11-20-92		REVISED
PROPOSED TMC SOIL BORING LOCATIONS 7400 Amador Valley Blvd. Dublin, California		
Job: 10-7192		DRAWING NUMBER Plate 3