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PRELIMINARY SUBSURFACE SOIL AND GROUNDWATER INVESTIGATION REPORT

1726 Park Street
Alameda, California

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 AND GROUNDWATER INVESTIGATION REPORT

1726 Park Street
Alameda, California

August 28, 1992

prepared for

The Estate of John B. Henry
3312 Central Avenue
Alameda, California 94501

prepared by

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

CERTIFICATION

I supervised the work presented in this report and the preparation of this Preliminary Subsurface Soil and Groundwater Investigation Work Plan dated August 28, 1992, for the Estate of John B. Henry property in the City of Alameda, 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.

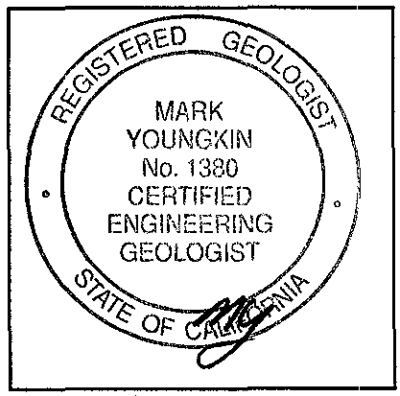
Certifying Professional:

TMC Environmental, Inc.
Vice President

Mark T. Youngkin

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

Dated Sept 3, 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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AND GROUNDWATER REPORT

at
1726 Park Street
Alameda, California

1.0 INTRODUCTION

TMC ENVIRONMENTAL, Inc. (TMC) is presenting this report to the Estate of John B. Henry, for the site located at 1726 Park Street, Alameda, California, hereafter referred to as the "site" in this report; see Plate 1, Site Location Map.

Previous site work, performed by **TMC**, is detailed in the **TMC** document: Preliminary Subsurface Soils and Groundwater Investigation Work Plan, dated January 30, 1992. Information in this document is summarized within in this report.

2.0 GENERAL SITE INFORMATION

2.1 SITE LOCATION

The site is situated at the southeast corner of the Park Street and Eagle Avenue intersection, and is located at the following address:

1726 Park Street
City of Alameda
County of Alameda
State of California
APN 70-192-01

2.2 CONTACT PERSON

The contact person for this site is:

Ms. Melinda Henry-Dare
3312 Central Avenue
Alameda, California
(510) 522-1228

2.3 CONSULTANT OF RECORD

TMC is the environmental consultant that wrote this work plan and is the consultant of record. The **TMC** contact person is:

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 SITE AND VICINITY DESCRIPTION

The site is currently developed, with an existing one-story building and asphalt-surfaced parking area (see Plate 2, Site Plan). An automotive repair business currently occupies the site. Visual reconnaissances of the site in 1991 revealed the presence of three hydraulic hoists, an abandoned fuel dispenser island, pipe risers (presumably tank vent pipes) attached to the shop building, a soil pile (covered with plastic), surficial petroleum-like residues in various locations in the surrounding asphalt parking areas, and a fill-pipe, reportedly for an auto waste oil tank. Additionally, two areas of the parking lot appeared to be resurfaced, suggesting a location for former underground tank. These items are also indicated on Plate 2. There was no obvious evidence of surficial residues migrating from neighboring property onto the site.

Land use of the surrounding area is primarily commercial businesses. A car dealership borders the southern limits of the site. A tool manufacturing facility borders the eastern limits of the site. Automotive repair shops and gasoline stations are located north and west (across Eagle Avenue and Park Street, respectively) from the site. Public utilities service the site as well as the general area.

Groundwater monitoring wells were observed on the neighboring property located adjacent and south of the subject site.

3.0 SITE BACKGROUND

3.1 PREVIOUS SITE USE

TMC reviewed records at the Alameda Fire Department (AFD) and Department of Public Works (DPW). Information in the files revealed that the site is the location of a former gasoline station, which apparently operated through the mid 1970's. Information in these files also indicated that underground fuel tanks were installed on the site. An automotive waste oil tank was also installed at the site. Information in these files were non-conclusive as to the disposition, number, and location of underground storage tanks on the site. **TMC** found no documentation

at these agencies pertaining to the removal of underground storage tanks from the site. From various discussions with Ms. Henry-Dare and personnel at the site, it is the understanding of **TMC** that underground fuel storage tanks were removed from the site in the early to mid 1970's. The site has been used as an auto repair shop since the mid 1970's.

3.2 REPORTED VICINITY SITES WITH CONTAMINATION

A review of available records was performed at the California Department of Health Services (DOHS), located in Berkeley, California, California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB), located in Oakland, California, and the City of Alameda Fire Department.

Documents reviewed at the DOHS include: Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS), revised February 5, 1990; Abandoned Site Program Information System (ASPIS), revised February 4, 1991; Hazardous Waste and Substances List (a.k.a. Cortese List), revised March, 1990; and California Expenditure Plan for the Hazardous Substances Cleanup Bond Act, 1984, revised January, 1989. Documents reviewed at the RWQCB were List of Fuel Leak Sites, revised January 7, 1991, and List of Non-fuel Chemical Leaks, revised, March 5, 1991.

Information in these files reveal the existence of several sites with known chemical or fuel contamination, in the vicinity of the subject site. Sites within an approximate one mile radius of the subject site are listed below in the **TMC** Preliminary Subsurface Soils and Groundwater Investigation Work Plan. The addresses of these sites are presented below:

1725 Park Street	1911 Park Street
2501 Santa Clara Street	2100 Central Avenue
1541 Park Street	1200 Park Street
2425 Central Avenue	1260 Park Street
555 Oak Street	1700 Park Street

3.3 NEIGHBORING SITE WORK

A subsurface soils and groundwater investigation is on-going at 1700 Park Street, located south and adjacent to the subject site. This work is being performed to characterize an unauthorized discharge of petroleum hydrocarbons to the soils and groundwater at this site. Work on this site is being performed by **TMC**.

4.0 PREVIOUS SITE WORK

4.1 SOIL BORINGS AND CHEMICAL ANALYSIS

On August 23, 1991, **TMC** drilled seven borings (indicated as B-1 through B-7 in this document) on the site. The borings were drilled and sampled using hand augering and sampling equipment. The purpose of this work was to investigate for the presence of petroleum materials in the subsurface soils at the site, and investigate for the presence of the suspected underground fuel tanks. Samples are indicated as HB1-1, HB2-1, HB2-2, HB2-3, HB3-1, HB4-1, HB5-1, HB6-1, HB6-2, and HB6-3, respectively, below in Table 1, Chemical Analysis Results of Hand Soil Borings. Soil samples with detectable analytes are presented on Plate 3, Hand Boring Locations and Chemical Analysis Results. Generally, free groundwater was encountered in the borings at approximately 6½ to 8 feet below grade. No water samples were collected for chemical analysis.

Soil samples HB2-1, HB2-3, and HB3-1 were chemically analyzed for TPH Diesel/Kerosene (EPA 8015), and Petroleum Oil and Grease (SM 5520 EF). Soil sample HB6-2 was chemically analyzed for TPH Gasoline, with BTEX distinction (EPA 8015 and 8020) and TPH Diesel. Soil sample HB6-3 was chemically analyzed for TPH Gasoline and BTEX.

TABLE 1
CHEMICAL ANALYSIS RESULTS
OF
SOIL HAND BORINGS

SAMPLE NUMBER	TVH AS GASOLINE (MG/KG)	BENZENE (UG/KG)	TOLUENE (UG/KG)	ETHYL BENZENE (UG/KG)	TOTAL XYLENES (UG/KG)
HB1-1	NA	NA	NA	NA	NA
HB2-1	NA	NA	NA	NA	NA
HB2-2	NA	NA	NA	NA	NA
HB2-3	NA	NA	NA	NA	NA
HB3-1	NA	NA	NA	NA	NA
HB4-1	NA	NA	NA	NA	NA
HB5-1	NA	NA	NA	NA	NA
HB6-1	NA	NA	NA	NA	NA
HB6-2	56	15	22	660	250
HB6-3	39	9.3	9.4	390	260

SAMPLE NUMBER	KEROSENE RANGE (MG/KG)	DIESEL RANGE (MG/KG)	HYDROCARBON OIL & GREASE	REPORTING LIMIT (MG/KG)
HB1-1	NA	NA	NA	NA
HB2-1	ND	30	340	1.0
HB2-2	NA	NA	NA	NA
HB2-3	210	ND	ND	1.0
HB3-1	ND	2000	1500	10
HB4-1	NA	NA	NA	NA
HB5-1	NA	NA	NA	NA
HB6-1	NA	NA	NA	NA
HB6-2	ND	13	NA	1.0
HB6-3	NA	NA	NA	NA
HB7	NA	NA	NA	NA

NA = Not Analyzed
ND = Not Detected at or above reporting limit.

Chemical analysis results of the hand boring samples revealed detectable levels of target analytes in samples HB2-1, HB2-3, HB3-1, HB6-2, and HB6-3.

Relatively high levels of TOG and Diesel were found in the area of the waste oil tank and outside hoist. The highest concentrations of TOG and diesel were found in sample HB3-1 recovered from the 90-inch (7½-foot) depth. Detectable levels of gasoline, BTEX, and diesel were found in samples recovered from the former fuel tanks location.

4.2 REMOVAL OF WASTE OIL TANK

On December 5, 1991, **TMC** removed an underground automotive waste oil tank at the site. Upon removal, the tank was visually inspected. The tank was estimated to have a 500-gallon capacity and appeared intact, with no obvious evidence of holes. Two soil samples were recovered from beneath the tank. Samples were chemically analyzed for total petroleum hydrocarbons as gasoline (with benzene, toluene, ethyl benzene, and xylene distinction), diesel, oil and grease, volatile and semi-volatile hydrocarbons. The samples were also chemically analyzed for cadmium, chromium, lead and zinc. The analysis results reveal petroleum hydrocarbon levels below detection limits. Cadmium and lead levels are also below detection limits. There were detectable levels of chromium and zinc of 44.7 and 48.5 parts per million (ppm), respectively.

Upon completion of the tank removal activities, the excavation was backfilled with clean, imported fill, and resurfaced with concrete. The materials generated from the tank removal are covered and stockpiled on site for bio-remediation.

5.0 PRELIMINARY SUBSURFACE SOILS AND GROUNDWATER INVESTIGATION

5.1.0 SUBSURFACE SOIL INVESTIGATION

5.1.1 RATIONAL FOR SUBSURFACE SOILS INVESTIGATION

Previous site work revealed areas of the site potentially impacted by petroleum hydrocarbons (i.e. former underground storage tank locations, existing hydraulic hoists,

etc.), and/or revealed presence of petroleum materials in subsurface soils at the site. Soil borings were placed in suspect areas, and/or in areas found to be impacted with petroleum hydrocarbons.

5.1.2 SOIL BORINGS

Drilling, sampling, and chemical analysis procedures are presented in the above-mentioned **TMC** document, Preliminary Subsurface Soils and Groundwater Investigation Work Plan, previously submitted. To further investigate for petroleum hydrocarbons in the subsurface soil at the site, 14 soil borings were drilled, on the site. The locations of these borings are indicated on Plate 2 as B-8A, B-8B, B-9, B-10, B-11, B-12, B-13, B-14, B-15, B-16, B-17, and B-18. Two of the borings were converted into groundwater monitoring wells and are indicated on Plate 2 as MW-1 and MW-2.

Drilling services were provided by KL Drilling, a State-licensed driller, located in Alameda, California. Field work was performed May 5 and May 8, 1992.

Borings B-8A through B-15, MW-1 and MW-2 were drilled using truck mounted drilling equipment with hollow-stem augers. Relatively undisturbed soil samples were recovered from these borings using truck-mounted sampling equipment.

Due to limited access, borings B-16 through B-18 were drilled using hand augering equipment. Relatively undisturbed soil samples were recovered from the borings using hand sampling equipment.

Drilling and sampling details for the work described above are presented in Attachment 1, Logs of Borings, Permits, and Well Construction Details.

Boring B-8A encountered extremely hard materials at approximately 2½ feet below grade and, therefore, was terminated. Borings B-8B to B-18 were completed at or near the soil - groundwater interface, approximately 6½ to 8 feet below grade. Borings MW-1, MW-2 were drilled down to approximately 20 feet below grade, and were completed into groundwater monitoring wells.

5.1.3 SOIL SAMPLING

Soil samples were collected from each boring at various depths, such as the groundwater interface, soils that appeared to be stained or odorous, or at soil lithologic changes. Geological logs were maintained of the soils encountered and the sample depths in each borehole. Logs for all borings are found in Attachment 1.

To investigate the site's soil lithology and characteristics, the first soil boring, boring B-8B, was continuously sampled from surface grade down to free groundwater. Field observations of the soils encountered in this boring were used, in part, as guidelines for sampling sequences for the other borings.

From surface grade to approximately 4 feet below surface grade (BSG), the soils encountered in 8B were brown, medium-grained sands. At the 4-foot depth, the soils abruptly changed to a gray, very stiff sandy clay. These materials also appeared stained and had a petroleum-like odor. This sequence continued down to approximately 5-foot BSG. At this depth, the soils became more sandy. The stained and odorous soils continued down to free groundwater. Free groundwater was first encountered at approximately 8 feet BSG.

The majority of the soil samples were collected from depths of approximately 4½ to 5 feet (near the interface of the stained and clayey soils, encountered in 8B), and 7½ to 8½ feet deep (near the groundwater - soil interface, encountered in 8B). Shallow samples (approximately 1 foot below grade) were recovered from borings B-14 and B-16, areas with surficial staining. Sample depths are also listed presented in Table 2, Borings B-8 to B-18 Soil Analysis Results for TVH as Gasoline, with BTEX Distinction, and Table 3, Borings B-8 to B-18 Soil Analysis Results for Petroleum Oil & Grease and Diesel.

Additionally, "grab" water samples were collected from borings B-8B and B-15. Prior to collecting water samples from these borings, approximately 10 gallons of groundwater were first evacuated from each borehole. Groundwater evacuation and sampling was performed using a dedicated, clean disposable bailer. The results of the "grab" water sampling is presented in the section 5.2.0 in this report.

5.1.4 CHEMICAL ANALYSIS RESULTS OF SOIL SAMPLES

All samples recovered were transported and submitted to Curtis & Tompkins, Ltd. (C&T), a State-DOHS approved laboratory, located in Berkeley, California, for chemical analysis. Selected samples were chemically analyzed for total volatile hydrocarbons (TVH) as Gasoline with benzene, toluene, ethylbenzene, and total xylenes (BTEX), total extractable hydrocarbons (TEH) as Diesel, petroleum hydrocarbon oil and grease, and volatile organic compounds (VOC's). Borings not completed into monitoring wells were back filled with portland cement grout.

Chemical analysis of the soil samples are presented below in Table 2 and Table 3. Certified analytical reports and chain-of-custody forms are included in the Attachment 2, Laboratory Reports.

TABLE 2
BORINGS B-8 TO B-18
SOIL ANALYSES RESULTS FOR
TVH AS GASOLINE, WITH BTEX DISTINCTION

SAMPLE NO./ DEPTH(FT)	DATE SAMPLED	TVH AS GASOLINE (MG/KG)	BENZENE (UG/KG)	TOLUENE (UG/KG)	ETHYL BENZENE (UG/KG)	TOTAL XYLENES (UG/KG)	EPA 8240 (UG/KG)	EPA 8010 (UG/KG)
B-8 2 - 2 1/2	05-05-92	ND(1)	ND(5)	ND(5)	ND(5)	ND(5)	NA	NA
B-8 2 1/2 - 3	05-05-92	ND(1)	ND(5)	ND(5)	ND(5)	ND(5)	NA	NA
B-8 4 - 4 1/2	05-05-92	5.2	15	9	8	320	NA	NA
B-8B 5 1/2 - 6	05-05-92	1,300	ND(400)	3,600	15,000	90,000	NA	NA
B-8B 7 - 7 1/2	05-05-92	550	ND(400)	2,400	7,400	46,000	ND	ND
B-9 6 - 6 1/2	05-05-92	94	ND(80)	120	500	3,400	NA	NA
B-10 4 1/2 - 5	05-05-92	ND(1)	ND(5)	ND(5)	ND(5)	ND(5)	NA	NA

SAMPLE NO./ DEPTH(FT)	DATE SAMPLED	TVH AS GASOLINE (MG/KG)	BENZENE (UG/KG)	TOLUENE (UG/KG)	ETHYL BENZENE (UG/KG)	TOTAL XYLENES (UG/KG)	EPA 8240 (UG/KG)	EPA 8010 (UG/KG)
B-10 6 - 6 1/2	05-05-92	870	ND(400)	ND(400)	12,000	67,000	NA	NA
B-10 8 - 8 1/2	05-05-92	NA	NA	NA	NA	NA	NA	ND
B-11 5 1/2 - 6	05-05-92	ND(1)	ND(5)	ND(5)	ND(5)	ND(5)	NA	NA
B-11 7 - 7 1/2	05-05-92	580	ND(400)	ND(400)	1,600	6,200	NA	NA
B-12 4 1/2 - 5	05-05-92	ND(1)	ND(5)	ND(5)	ND(5)	ND(5)	NA	NA
B-12 7 - 7 1/2	05-05-92	ND(1)	ND(5)	ND(5)	ND(5)	ND(5)	NA	NA
B-13 4 - 4 1/2	05-05-92	ND(1)	ND(5)	ND(5)	ND(5)	ND(5)	NA	NA
B-13 7 1/2 - 8	05-05-92	ND(1)	ND(5)	ND(5)	ND(5)	ND(5)	ND	NA
B-14 1/2 - 1	05-05-92	ND(1)	ND(5)	ND(5)	ND(5)	ND(5)	ND	NA
B-14 4 - 4 1/2	05-05-92	ND(1)	ND(5)	ND(5)	ND(5)	ND(5)	NA	NA
B-14 5 1/2 - 6	05-05-92	ND(1)	ND(5)	ND(5)	ND(5)	ND(5)	NA	NA
B-15 4 1/2 - 5	05-05-92	ND(1)	ND(5)	ND(5)	ND(5)	ND(5)	NA	NA
B-15 6 1/2 - 7	05-05-92	1,000	1,600	1,600	10,000	58,000	ACETONE 49(20) 2-BUTANONE 11(10) ETHYL BENZENE 51(5) TOTAL XYLENES 260(5)	ND
B-16-2	05-08-92	NA	NA	NA	NA	NA	ND	NA
MW2-5.5-6	05-08-92	ND(1)	ND(5)	ND(5)	ND(5)	ND(5)	NA	NA

NA = NOT ANALYZED
ND = NOT DETECTABLE AT OR ABOVE REPORTING LIMITS
( ) = REPORTING LIMIT

TABLE 3
BORINGS B-8 TO B-18 SOIL ANALYSIS RESULTS FOR PETROLEUM OIL & GREASE AND DIESEL

SAMPLE NO./ DEPTH (FT)	DATE SAMPLED	PETROLEUM OIL & GREASE (MG/KG)	KEROSENE RANGE (MG/KG)	DIESEL RANGE (MG/KG)	REPORTING LIMIT (MG/KG)
B-8 2 - 2 1/2	05-05-92	NA	ND	2	1
B-8B 2 1/2 - 3	05-05-92	ND	ND	ND	1
B-8B 4 - 4 1/2	05-05-92	NA	**	ND	1
B-8B 5 1/2 - 6	05-05-92	NA	**	31	1
B-8B 7 - 7 1/2	05-05-92	NA	**	21	1
B-9 6 - 6 1/2	05-05-92	NA	**	10	1
B-10 4 1/2 - 5	05-05-92	NA	ND	1	1
B-10 6 - 6 1/2	05-05-92	NA	**	57	10
B-11 5 1/2 - 6	05-05-92	NA	ND	ND	1
B-11 7 - 7 1/2	05-05-92	ND	**	2	1
B-12 4 1/2 - 5	05-05-92	ND	ND	ND	1
B-12 7 - 7 1/2	05-05-92	ND	ND	ND	1
B-13 4 - 4 1/2	05-05-92	ND	ND	ND	1
B-13 7 1/2 - 8	05-05-92	ND	ND	ND	1
B-14 1/2 - 1	05-05-92	1,800	ND	5	1
B-14 4 - 4 1/2	05-05-92	ND	**	10	1
B-14 5 1/2 - 6	05-05-92	ND	ND	ND	1

SAMPLE NO./ DEPTH (FT)	DATE SAMPLED	PETROLEUM OIL & GREASE (MG/KG)	KEROSENE RANGE (MG/KG)	DIESEL RANGE (MG/KG)	REPORTING LIMIT (MG/KG)
B-15 4 1/2 - 5	05-05-92	NA	ND	ND	1
B-15 6 1/2 - 7	05-05-92	NA	**	7	1
B-16-1	05-08-92	640(50)	NA	NA	NA
B-16-2	05-08-92 52(50)	52(50)	NA	NA	NA
B-17-1	05-08-92	ND	NA	NA	NA
B-17-2	05-08-92	240(50)	NA	NA	NA
MW1-17.5-18	05-08-92	ND	NA	NA	NA
MW2-5.5-6	05-08-92	ND	ND	ND	1

ND = NOT DETECTABLE AT OR ABOVE REPORTING LIMITS
NA = NOT ANALYZED ** = QUANITITATED AS DIESEL

The chemical analysis results of the soil samples reveal relatively high levels of gasoline and BTEX in the area of the former fuel tanks. Detectable levels of diesel were also found in the majority of the samples, however, the levels were relatively low.

In addition to gasoline, BTEX and diesel, detectable levels of acetone and 2-butanone (constituents usually found in petroleum solvents) were found in boring B-15.

The results indicate that the highest concentrations of the contaminants are lower in the soil profile, approximately 5½ to 7½ feet, BGS.

Relatively high levels of petroleum oil and grease (POG) were found in the areas of the hydraulic hoists (inside the existing shop), and where surficial petroleum-like stains were observed. The POG contaminants inside the shop area were found lower in the soil profile (approximately 6½ feet BSG). As was expected, the highest concentrations of POG found in the areas of the site with surficial stains was in the top foot of the soil profile. Levels of gasoline, BTEX and/or diesel in samples recovered from these areas were relatively low.

The results are presented on Plate 4, Results of Soil Boring Sample; May 5 and 8, 1992. In addition, the results of the previous site work (August, 1991) and this investigation, are graphically summarized on Plates 5, Soil TVH Gasoline Chemical Concentration Contours (5½ - 7 feet), Plate 6, Soil Petroleum Oil and Grease Chemical Concentration Contours (6 - 7 feet), and Plate 7, Soil Petroleum Oil and Grease Concentrations (½ - 1½ feet).

5.2.0 GROUNDWATER INVESTIGATION

5.2.1 RATIONAL FOR GROUNDWATER INVESTIGATION

As stated above in this report, previous site work revealed the presence of petroleum hydrocarbons in the subsurface soils at the site. Soil samples recovered from near the soil - groundwater interface had relatively high levels of petroleum hydrocarbons. This information suggested that groundwater at the site was impacted with petroleum hydrocarbons. The installation, and subsequent sampling, of monitoring wells at the site were used to verify the presence of petroleum hydrocarbons in the shallow water bearing zone at the site, as well as begin investigating the hydrologic and contaminant characteristics of this water bearing zone.

Previous subsurface investigative work performed at an adjacent neighboring site (south of the subject site) revealed that groundwater flowed in a westerly direction, toward Park Street. With this information, two groundwater monitoring wells were installed at the site in locations believed to be down-gradient from either contaminated soils and/or former underground storage tanks.

5.2.2 MONITORING WELL CONSTRUCTION

Soils encountered during this and previous investigative work indicated somewhat similar soil lithology at the site. As such, the two wells (MW-1 and MW-2) are constructed using similar designs. These wells were constructed to provide sampling and water measurement points of the upper 13 feet of the shallow water bearing zone beneath the site.

Two-inch ID. PVC "blank" well casing extends from the surface down to 5 feet deep. Slotted PVC well casing extends from 5 feet, BGS, down to the bottom of the borehole,

20 feet, BGS. A slip cap is fixed to the bottom of the well slot. Well casing slot size openings are 0.010-inch. Prior to well construction, well materials were visually inspected and steam cleaned on site.

A Portland cement seal extends from surface grade down to 2½ feet, BGS. A bentonite spacer extends from 2½ to 3 feet below grade. Well filter pack extends from 3 feet deep (2 feet above the upper limits of the well slot) down to the terminal end of the well boring (20 feet). In MW-1, the filter pack consists of #2/12 RMC Lonestar sand. The filter pack of MW-2 consists of #3 monterey sand. The tops of the wells are completed with a metal street-grade Christy box. Both wells were constructed through the annulus of the hollow stem auger, used to drill and sample the well boreholes. Well construction details are presented in Attachment 1.

Samples of the water bearing zone materials were collected and submitted for sieve analysis. Grain size distribution were used to plot grain size diameter against percent finer by weight. The filter packs selected, Lonestar sand #2/12 and Monterey sand #3 contains a 30% finer grain size that is approximately 5 times greater (larger grain size) than the 30% finer grain size of the water bearing material. The 0.010-inch slot installed will retain 100% of the sand pack and approximately 90 percent of the surrounding water bearing material. The 0.010-inch slot and selected sand pack combination meet accepted design parameters for groundwater monitoring wells constructed in this type of aquifer environment; see Attachment 1.

5.2.3 MONITORING WELL DEVELOPMENT

Both monitoring wells were developed to remove fine-grained sediments. This work was performed on May 8, 1992. The procedures followed for well development were included in the work plan previously submitted for this project. All equipment inserted during development was decontaminated and dedicated to each well. Prior to development, a clear, dedicated, disposable PVC bailer was used to check for the presence of product on the water surface. No product or sheen was detected on the groundwater from the wells. Groundwater was withdrawn from the wells until the water was visually free of fine-grained sediments and field measurements of groundwater pH, electrical conductivity, and temperature stabilized. Approximately 10 well volumes of water (± 30 gallons) were removed from each well during development.

Development of the two wells was very effective in producing clear water. The shallow water bearing zone produced steady, low water flow with little well water draw-down during the course of development. Well development data is presented in Attachment 3, Well Development and Sampling Data.

5.2.4 GROUNDWATER SAMPLING

On May 12, 1992, the groundwater monitoring wells (MW-1 and MW-2) were sampled. Prior to sampling, depth to groundwater measurements were taken. The wells were then checked for free floating petroleum product. Groundwater in the wells was then evacuated, to bring in fresh groundwater from the surrounding water bearing materials. Water withdrawn from the wells was monitored for temperature, conductivity, and pH. This process continued until these parameters appeared to stabilize. Approximately four (4) well volumes (± 10 to 12 gallons) of groundwater were withdrawn from the each well.

Upon completion of the well purging activities, the groundwater monitoring wells were sampled. The sample water was free of sediment and appeared clear. Each well was sampled using a disposable, clean Teflon bailer. Samples were placed in a cooler box (with ice) and transported to C&T for chemical analysis.

The samples were chemically analyzed for total volatile hydrocarbons (TVH) as gasoline with benzene, toluene, ethylbenzene, and total xylenes (BTEX), total extractable hydrocarbons (TEH) as diesel and kerosene, volatile organic compounds (VOC's), and petroleum hydrocarbon oil and grease (PO&G).

5.2.5 CHEMICAL ANALYSIS RESULTS OF GROUNDWATER SAMPLES

Results of both "grab" and monitoring well groundwater samples are summarized below in Table 4, Grab Groundwater Sample Results for TVH Gasoline, with BTEX Distinction, EPA 8010 and EPA 624, Table 5, Grab Groundwater Sample Results for Petroleum Oil & Grease and Diesel, Table 6, Monitoring Wells MW-1 and MW-2 Groundwater Sample Results for TVH Gasoline, with BTEX Distinction, EPA 8010, and EPA 624, and Table 7, Monitoring Wells MW-1 and MW-2 Groundwater Sample

Results for Petroleum Oil & Grease and Diesel. The laboratory reports are presented in Attachment 2.

TABLE 4
"GRAB" GROUNDWATER SAMPLE RESULTS FOR TVH GASOLINE WITH BTEX DISTINCTION

SAMPLE NO./ DEPTH (FT)	DATE	TVH AS GASOLINE (UG/L)	BENZENE (UG/L)	TOLUENE (UG/L)	ETHYL BENZENE (UG/L)	TOTAL XYLENES (UG/L)	EPA 8010 (UG/L)	EPA 8240 (UG/L)
B-8B	05-05-92	120,000	670	8,000	3,600	21,000	ND	BENZENE 870(500) TOLUENE 13,000(500) ETHYL BENZENE 6,000(500) TOTAL XYLENES (500)
B15	05-08-92	61,000(1000)	SEE EPA 8240	SEE EPA 8240	SEE EPA 8240	SEE EPA 8240	NA	TOLUENE 410(250) ETHYL BENZENE 2,300(250) TOTAL XYLENES 16,000 (250)

TABLE 5
"GRAB" GROUNDWATER SAMPLE RESULTS FOR PETROLEUM OIL & GREASE, AND DIESEL

SAMPLE NO/ DEPTH(FT)	DATE	HYDRO-CARBON OIL & GREASE (UG/L)	KEROSENE RANGE (UG/L)	DIESEL RANGE (UG/L)	REPORTING LIMIT (UG/L)
B-8B	05-05-92	ND	**	2,000	500
B15	05-08-92	NA	**	850	500

TABLE 6
MONITORING WELLS MW-1 AND MW-2 GROUNDWATER SAMPLE RESULTS FOR TVH GASOLINE, WITH BTEX DISTINCTION, EPA 8010 AND EPA 624

SAMPLE NO./ DEPTH (FT)	DATE	TVH AS GASOLINE (UG/L)	BENZENE (UG/L)	TOLUENE (UG/L)	ETHYL BENZENE (UG/L)	TOTAL XYLENES (UG/L)	EPA 8010 (UG/L)	EPA 8240 (UG/L)
MW2	05-11-92	ND(50)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)	NA	CHLOROFORM 22(5)
MW1	05-11-92	410	ND(0.5)	1.0	4.2	11	NA	ETHYL BENZENE 4.8(5.0) TOTAL XYLENES 11(5)

TABLE 7
MONITORING WELLS MW-1 AND MW-2 GROUNDWATER SAMPLE RESULTS FOR PETROLEUM OIL & GREASE AND DIESEL

SAMPLE NO/ DEPTH(FT)	DATE	HYDRO-CARBON OIL & GREASE (UG/L)	KEROSENE RANGE (UG/L)	DIESEL RANGE (UG/L)	REPORTING LIMIT (UG/L)
MW2	05-11-92	ND	ND	ND	50
MW1	05-11-92	NA	**	96	50

** KEROSENE RANGE NOT REPORTED. QUANTITATED AS DIESEL RANGE.
ND = NOT DETECTED
( ) = LABORATORY REPORTING LIMITS

The chemical analysis results of the "grab" groundwater samples (from borings B-8B and B-15) reveal relatively high levels of gasoline, BTEX, and diesel.

Groundwater samples recovered from MW-1 (located near the former dispenser island and fuel tanks) revealed the presence of gasoline (410 ppb), toluene (1.0 ppb), ethyl benzene (4.2 ppb), xylenes (11 ppb), and diesel (96 ppb).

Groundwater samples recovered from MW-2 (located in the vicinity of the hydraulic hoists and former waste oil tank), revealed detectable levels of chloroform (22 ppb). Chloroform was commonly used in industrial solvents. All other target analytes were below detection limits.

6.0 HYDROGEOLOGY

6.1.0 SITE GEOLOGY

The site is located approximately one-quarter mile south from the Alameda Harbor Tidal Canal, and approximately one mile north of the San Francisco Bay. As indicated by U.S. Geological Survey publications, the site is on the Alameda Bay Plain, that has an alluvial environment. The Merrit Sand Formation is the main stratigraphic unit in the upper water bearing zone. This unit usually has unconsolidated beach sand and shore deposits. Groundwater in this formation is believed to be unconfined.

Materials encountered in the borings drilled at the site reveal that the shallow soil subsurface deposits at the site are predominantly fine to medium grain sands with localized zones of sandy clays or clayey sands. These characteristics were observed in both the vadose zone (non water-saturated soils) and the water bearing zone (water-saturated soils). The vadose zone at the site extends from surface grade down to approximately 6½ to 7½ feet deep, at which point the water saturated materials were encountered. There were no aquitards (stiff, clay layers greater than 5 feet in thickness) encountered within the upper 20 feet of the subsurface materials. Materials encountered during this work are graphically indicated on Plates 8 and 9, Geologic Cross Sections.

6.2.0 GROUNDWATER ELEVATIONS

6.2.1 SURVEYING OF MONITORING WELLS

On May 12, 1992, **TMC** provided for the surveying of the two groundwater monitoring wells at the site and the neighboring site. These services were provided by Dave Logan Surveying, a State-licensed land surveyor, located in Benicia, California. Distances between the wells were measured to 0.01 feet. The mean sea levels (MSL) elevations of the well heads were measured to 0.001 feet.

6.2.2 GROUNDWATER MEASUREMENTS

Groundwater measurements were performed TMC on May 12 and July 28, 1992. Groundwater levels of the two wells on site, and one well on the neighboring site (MW-5) were all measured. These measurements were converted into MSL elevations. The following Table 8, Groundwater Measurements summarizes the results of groundwater measurements and their corresponding MSL elevations:

TABLE 8
GROUNDWATER MEASUREMENTS AND ELEVATIONS

Well No.	Date Measured	Well Head Elv.(MSL) in feet	Depth to Groundwater (feet)	MSL ELV. of Groundwater (feet)
MW-1	05-12-92	13.569	6.16	7.41
MW-2	05-12-92	14.349	5.94	8.41
MW-5*	05-12-92	15.130	6.25	8.88
MW-1	07-28-92	13.569	6.68	6.89
MW-2	07-28-92	14.349	6.80	7.55
MW-5*	07-28-92	15.130	7.30	7.83

* - NEIGHBORING WELL

From the groundwater elevation data in the wells, a three point, graphical solution was used to calculate the horizontal gradient and direction of flow, See Attachment 4, Groundwater Gradient Worksheets. The results of the two measurement episodes are shown in the following table:

TABLE 9
GROUNDWATER FLOW DIRECTIONS AND GRADIENTS

Date	Groundwater Flow Direction	Calculated Groundwater Gradient
05-12-92	North ± 20° East	0.012 Ft/Foot
07-28-92	North ± 35° East	0.012 Ft/Foot

7.0 SOIL AND WATER SAMPLE DATA QUALITY

The quality assurance and quality control (QA/AC) review of the new sample data in this report indicates the data is acceptable for the purpose and objectives of this project. Analytical data from previous analyses, only summarized in this report, was not reviewed. The U.S. Environmental Protection Agency (EPA) Test Methods for Evaluating Solid Waste (SW-846) and the California Department of Health Services (DOHS) Leaking Underground Fuel Tank (LUFT) Manual were used to evaluate the sampling data. The SW-846 and LUFT methodologies were primarily used to analyze the samples. Curtis & Tompkins, Ltd. of Berkeley, California performed the chemical analyses. The certified analytical reports and chain-of-custody forms are in the attachments.

7.1 QUALITY OF SOIL AND GROUNDWATER SAMPLES

No errors were noted in sampling procedures. All samples were promptly delivered to the laboratory in the appropriate containers. Samples were kept on ice and refrigerated until extracted by the laboratory. Wells were secure and appeared in good condition for sampling. Prior to sampling, all monitoring wells were purged of at least 4 well volumes of water, in accordance with EPA protocol. The purged water was clear and free of sediment. No errors in field sampling procedures were noted.

7.2 CHAIN OF CUSTODY DOCUMENTATION

Complete chain-of-custody forms were maintained for all samples from the time of their collection until their submission to the laboratory. No errors in chain-of-custody protocol was noted.

7.3 TOTAL VOLATILE HYDROCARBONS WITH BTEX

Based on the QC data reviewed, total volatile hydrocarbons (TVH) as gasoline analysis by LUFT methods and benzene, toluene, ethylbenzene, and total xylenes (BTEX) analyses by EPA SW-846 Methods modified 5030/8020 appear reasonably representative. Samples were analyzed within the Regional Water Quality Control Board specified 7 day maximum holding time for water samples. Matrix spike/matrix spike duplicate percent recoveries and relative percent differences (RPD's) were either within EPA-specified limits or were within limits set by professional judgment where no EPA limits exist.

7.4 EXTRACTABLE PETROLEUM HYDROCARBONS

Based on the QC data review, extractable petroleum hydrocarbons (TEH) analysis by LUFT methods appear reasonably representative. Samples were analyzed within the Regional Water Quality Control Board specified 14 day maximum holding time for water samples. Matrix spike/matrix spike duplicate percent recoveries and relative percent differences (RPD's) were either within EPA-specified limits or were within limits set by professional judgment where no EPA limits exist.

7.5 PETROLEUM HYDROCARBON OIL & GREASE

Based on the QC data reviewed, the results of analyses for hydrocarbon oil & grease by gravimetric analysis, method SMWW 17:5520BF appear reasonably representative. Groundwater samples were analyzed within the EPA-specified maximum holding time. Surrogate spike recoveries were judged acceptable based on professional judgement. Matrix spike/matrix spike duplicate percent recoveries and relative percent differences (RPD's) were either within EPA-specified limits or were within limits set by professional judgment where no EPA limits exist. No hydrocarbon oil and grease was detected in the method blank.

8.0 SOIL CUTTINGS AND PURGE WATER STORAGE

During this investigation a total of 8 drums of purge water were generated. The soil from cuttings is placed on the soil stockpiled from the waste oil tank removal. These materials are being bio-treated at the site. The drummed well water is being used to irrigate the treatment pile for bio degradation of the contaminants.

9.0 CONCLUSIONS

9.1 LACKING INFORMATION

The following information is not known at this time.

- Information as to the extent of petroleum hydrocarbons (particularly gasoline) is lacking in the northerly and northeastern direction of the study area. Information available to date, suggests that the northeastern boundary is in the down gradient direction from the source of contamination, and that the petroleum hydrocarbon contaminants have migrated off site.

- The presence and/or disposition of underground piping, that may have been associated with the former underground fuel storage tanks, is not known. It is possible that underground piping still exists beneath the area of the abandoned fuel island.

The extent of soil and groundwater petroleum contamination in the areas north and east of the former underground fuel tanks is not known.

9.2 RECOMMENDATIONS

The following recommendations are suggested for further investigation of the study area:

1. Quarterly groundwater sampling of the two existing groundwater monitoring wells for total volatile hydrocarbons as gasoline, benzene, toluene, ethylbenzene, and total xylenes, total extractable hydrocarbons, petroleum oil and grease, volatile organics (EPA 624), and organic lead.

2. Groundwater gradient data of the site indicates that groundwater has flowed in a northerly to north easterly direction. Two (2) groundwater monitoring wells should be installed in the down-gradient direction from the former tanks. The wells should be placed near the site limits or out in Eagle Avenue.

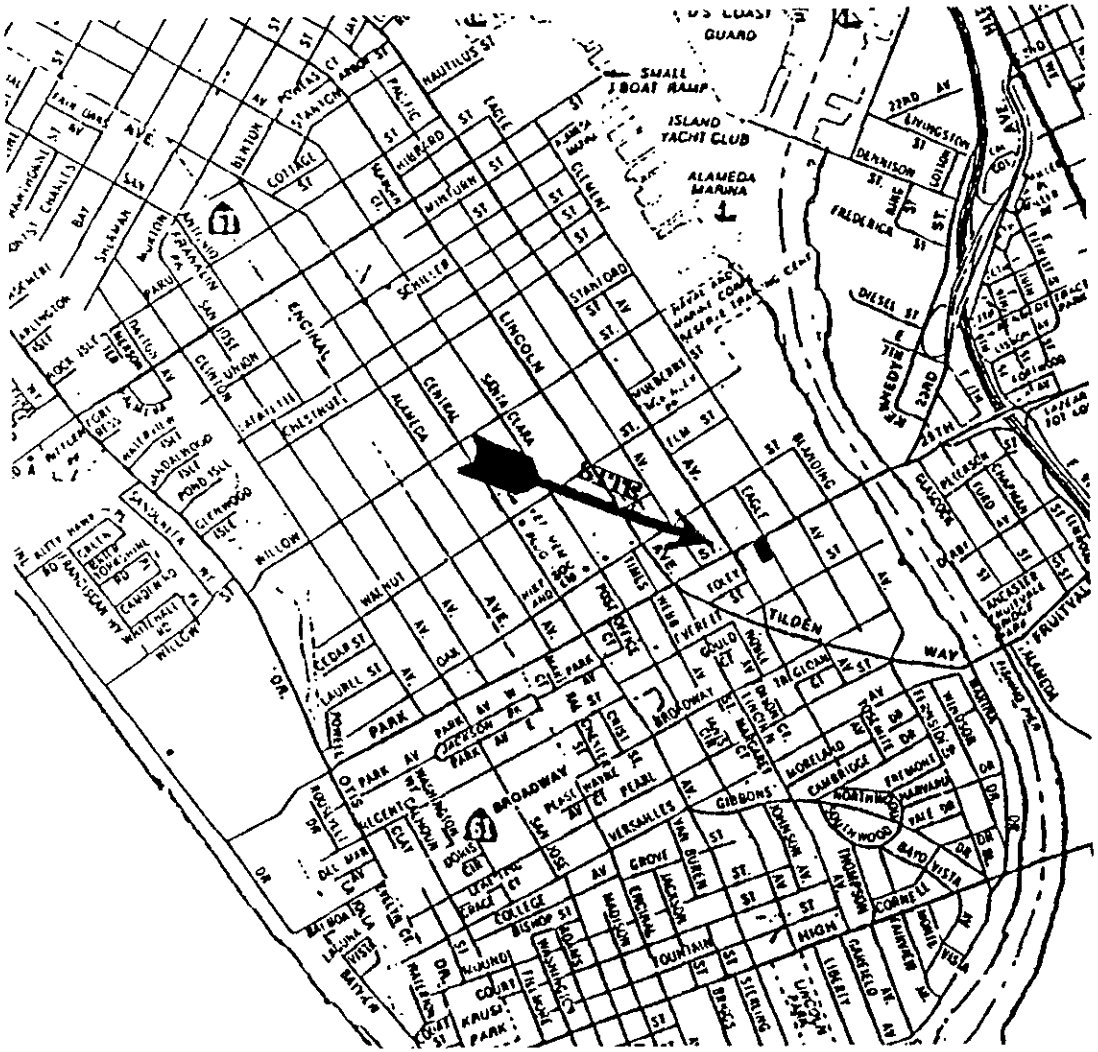
   Soil and groundwater samples from the wells shall be chemically analyzed for TVH Gasoline, with BTEX distinction, and TEH Diesel.

3. Drill six (6) along the outer perimeter of the site. Samples recovered from the borings shall be chemically analyzed for TVH Gasoline, BTEX, TEH Diesel and Petroleum oil and grease. Where possible, "grab" groundwater samples will also be sampled and chemically analyzed for the above mentioned analytes.

4. The continued measurement of the groundwater elevations monthly and determination of the groundwater gradient and magnitude.

10.0 LIMITATIONS

This report is only part of the ongoing work required by the lead implementing agency at this site. The limited procedures and scope of work in this report were largely determined by the clients intent to meet only the minimum requirements of the lead agencies involved. The lab test results rely on limited data collected at the sampling location only. Budget constraints restrict the amount of testing allowed. The lab test results do not apply to the general site as a whole. Therefore, **TMC** Environmental Inc. cannot have complete knowledge of the underlying conditions at the conclusion of the work specified in the report. Workplans and reports contain information provided to **TMC** by the client and government agencies. **TMC** does not warranty the accuracy of reported information. **TMC** provides the information in the resulting report to our client so a more informed decision about site conditions can be made. The professional opinion and judgement in the report is subject to revisions in light of new information. **TMC** does not state or imply any guarantees or warranties that the subject property is or is not free of environmental impairment. Monitoring wells are temporary sampling wells that eventually must be destroyed by a licensed driller at the clients expense.



Photocopy from Thomas Bros. Map, 1988

TMC ENVIRONMENTAL, INC.		
SCALE: None	APPROVED BY:	DRAWN BY
DATE: 8-92		REVISED
SITE LOCATION MAP 1726 Park Avenue Alameda, California		
JOB: 104891		DRAWING NUMBER Plate 1

PROPERTY ADDRESS
1726 PARK STREET
ALAMEDA, CA.

SURVEYOR
DAVID M. LOGAN L.S. 5003
803 DORSET WAY
BENICIA, CA.
(707) 745-5053

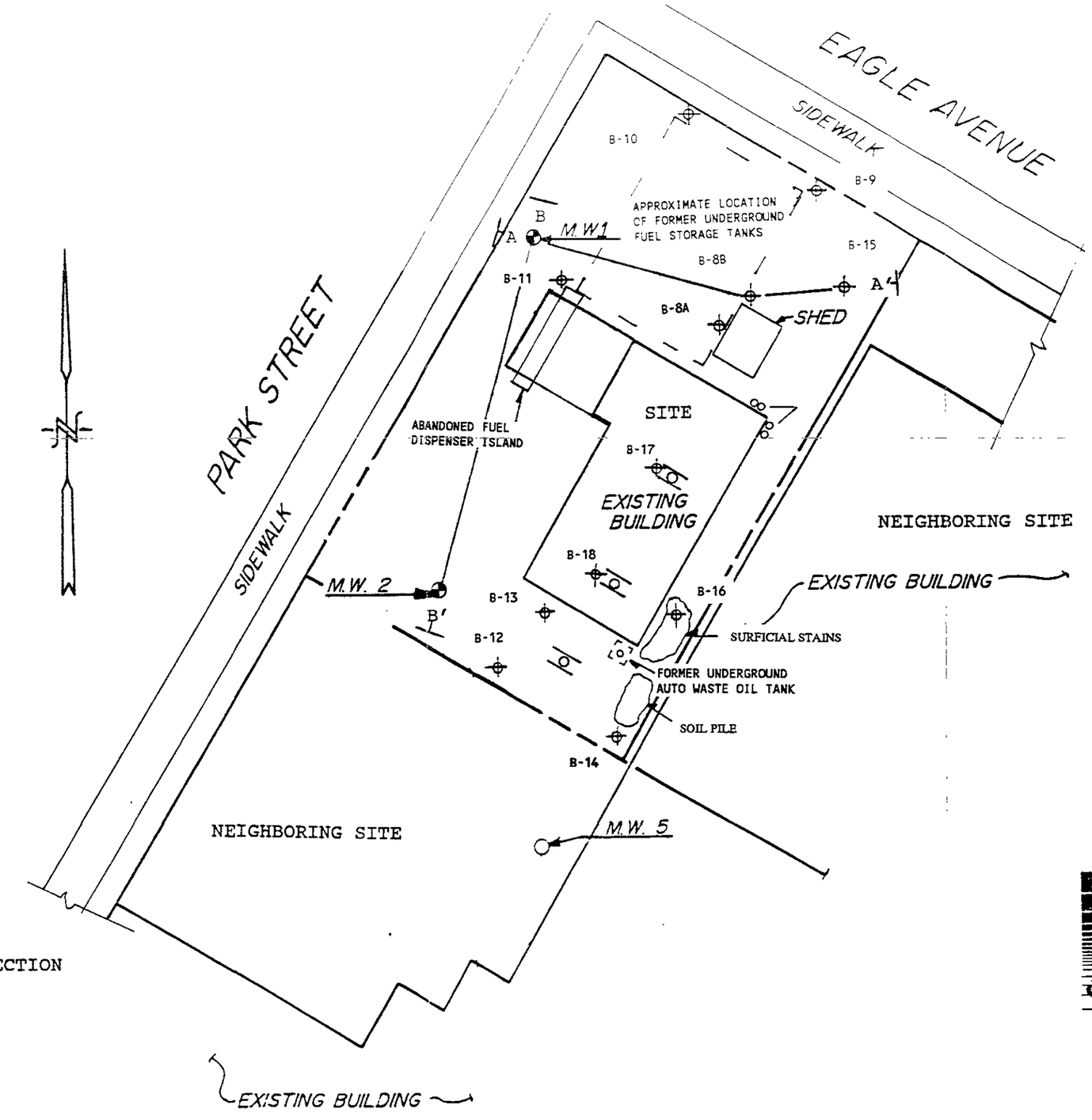
DATE: MAY, 1992

SCALE: 1" = 20'

REVISED JUNE 12, 1992 BY TMC, INC.

LEGEND

⊕ M.W.	MONITOR WELL
———	PROPERTY LINE
⊕	SOIL BORING
○ M.W.	NEIGHBORING MONITORING WELL
⊢	HYDRAULIC HOIST
⊢A——A'⊣	GEOLOGIC CROSS SECTION

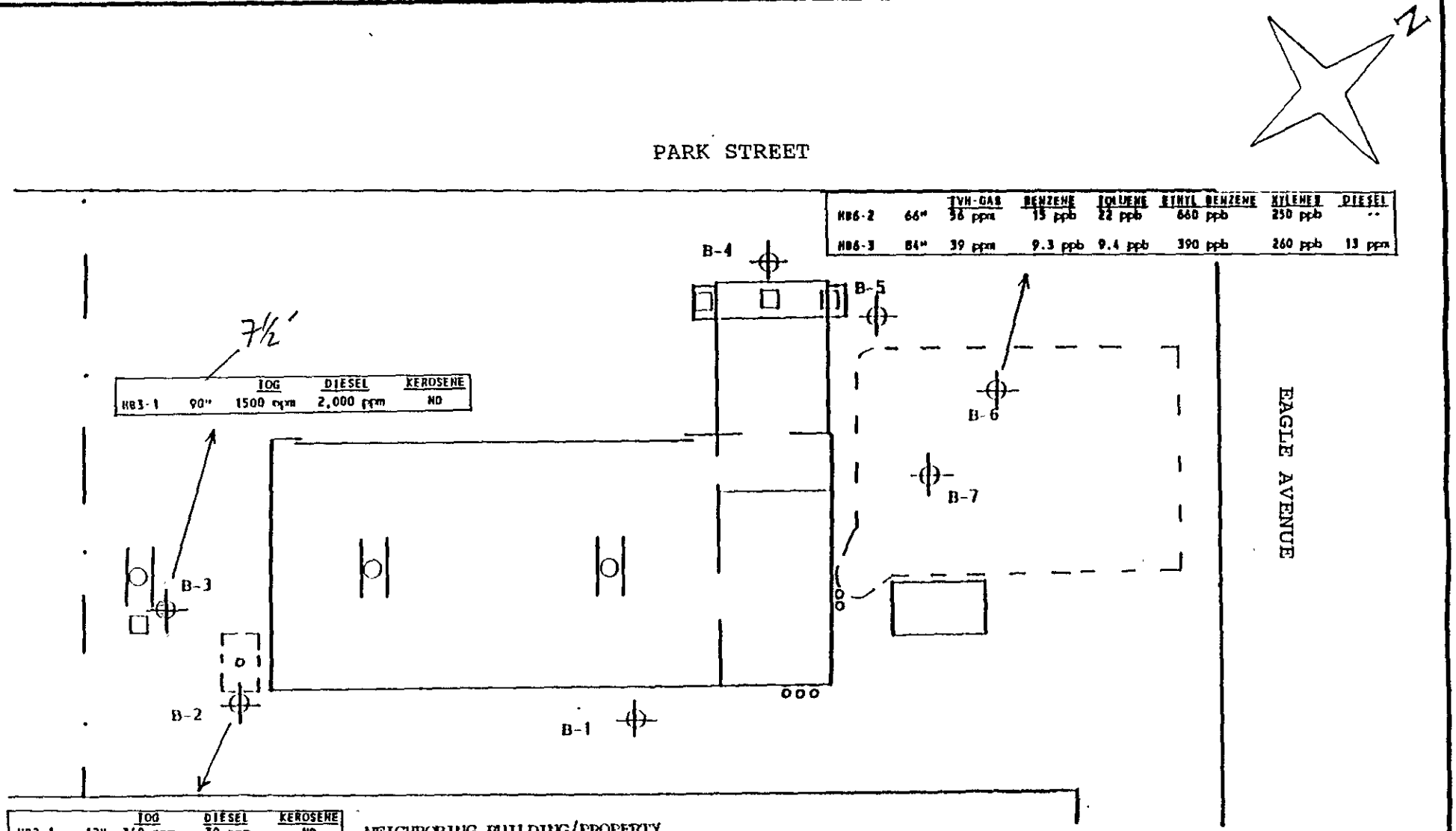


JOB: 104891

SITE PLAN
1726 PARK STREET
ALAMEDA, CALIFORNIA

PLATE 2

TMC Environmental, Inc.



KEY

B-1	Approx. Location of Soil Boring
HB3-1	Soil Sample Number
90"	Depth of Soil Sample in Inches
340 ppm	Chemical Analysis Results in Parts per Million

TMC ENVIRONMENTAL, INC.

SCALE: 1" ± 15'	APPROVED BY:	DRAWN BY MAP
DATE:		REVISED

HAND BORING LOCATIONS
AND CHEMICAL ANALYSIS RESULTS
1726 Park Street, Alameda, California

Job: 104891

DRAWING NUMBER
Plate 3

SAMPLE DEPTH (FEET)	GAS (PPM)	B (PPB)	T (PPB)	E (PPB)	X (PPB)	DIESEL (PPM)	POG (PPM)	EPA 8010 (PPB)	EPA 8240 (PPB)
4-5	ND	ND	ND	ND	ND	ND	NA	NA	NA
6-6½	870	ND	ND	12000	67000	5*	NA	NA	NA
8-8½	NA	NA	NA	NA	NA	NA	NA	NA	NA

SAMPLE DEPTH (FEET)	GAS (PPM)	B (PPB)	T (PPB)	E (PPB)	X (PPB)	DIESEL (PPM)	POG (PPM)	EPA 8010 (PPB)	EPA 8240 (PPB)
17-18	NA	NA	NA	NA	NA	NA	ND	NA	NA

SAMPLE DEPTH (FEET)	GAS (PPM)	B (PPB)	T (PPB)	E (PPB)	X (PPB)	DIESEL (PPM)	POG (PPM)	EPA 8010 (PPB)	EPA 8240 (PPB)
5½-6	ND	ND	ND	ND	ND	ND	NA	NA	NA
7-7½	580	ND	ND	1600	6200	2	ND	NA	NA

SAMPLE DEPTH (FEET)	GAS (PPM)	B (PPB)	T (PPB)	E (PPB)	X (PPB)	DIESEL (PPM)	POG (PPM)	EPA 8010 (PPB)	EPA 8240 (PPB)
6-6½	9½	ND	120	500	3400	10	NA	NA	NA

SAMPLE DEPTH (FEET)	GAS (PPM)	B (PPB)	T (PPB)	E (PPB)	X (PPB)	DIESEL PPM	POG (PPM)	EPA 8010 (PPB)	EPA 8240 (PPB)
4-5	ND	ND	ND	ND	ND	ND	NA	NA	NA
6-7	*1000	*500	*600	10000	58000	*	NA	NA	*

* ACETONE, MEK, DDD, 2-BUTANONE, DDD

SAMPLE DEPTH (FEET)	GAS (PPM)	B (PPB)	T (PPB)	E (PPB)	X (PPB)	DIESEL (PPM)	POG (PPM)	EPA 8010 (PPB)	EPA 8240 (PPB)
5½-6	1300	400 ND	3600	15000	90000	31	NA	NA	NA
7-7½	550	ND	2400	9400	46000	21	NA	NA	NA

SAMPLE DEPTH (FEET)	GAS (PPM)	B (PPB)	T (PPB)	E (PPB)	X (PPB)	DIESEL (PPM)	POG (PPM)	EPA 8010 (PPB)	EPA 8240 (PPB)
4½-4½	NA	NA	NA	NA	NA	NA	ND	NA	NA
6½-6½	NA	NA	NA	NA	NA	NA	240	NA	NA

SAMPLE DEPTH (FEET)	GAS (PPM)	B (PPB)	T (PPB)	E (PPB)	X (PPB)	DIESEL (PPM)	POG (PPM)	EPA 8010 (PPB)	EPA 8240 (PPB)
1½-1½	NA	NA	NA	NA	NA	NA	640	NA	NA
5½-5½	NA	NA	NA	NA	NA	NA	52	NA	ND

SAMPLE DEPTH (FEET)	GAS (PPM)	B (PPB)	T (PPB)	E (PPB)	X (PPB)	DIESEL (PPM)	POG (PPM)	EPA 8010 (PPB)	EPA 8240 (PPB)
6-6½	NA	NA	NA	NA	NA	NA	1600	NA	ND

SAMPLE DEPTH (FEET)	GAS (PPM)	B (PPB)	T (PPB)	E (PPB)	X (PPB)	DIESEL (PPM)	POG (PPM)	EPA 8010 (PPB)	EPA 8240 (PPB)
½-1	ND	ND	ND	ND	ND	5	1800	NA	ND
4-4½	ND	ND	ND	ND	ND	10	ND	NA	NA
5½-6	ND	ND	ND	ND	ND	ND	ND	NA	NA

SAMPLE DEPTH (FEET)	GAS (PPM)	B (PPB)	T (PPB)	E (PPB)	X (PPB)	DIESEL (PPM)	POG (PPM)	EPA 8010 (PPB)	EPA 8240 (PPB)
5½-6	ND	ND	ND	ND	ND	ND	ND	NA	NA

SAMPLE DEPTH (FEET)	GAS (PPM)	B (PPB)	T (PPB)	E (PPB)	X (PPB)	DIESEL (PPM)	POG (PPM)	EPA 8010 (PPB)	EPA 8240 (PPB)
4-4½	ND	ND	ND	ND	ND	ND	ND	NA	NA
7-7½	ND	ND	ND	ND	ND	ND	ND	NA	NA

SAMPLE DEPTH (FEET)	GAS (PPM)	B (PPB)	T (PPB)	E (PPB)	X (PPB)	DIESEL (PPM)	POG (PPM)	EPA 8010 (PPB)	EPA 8240 (PPB)
4½-5	ND	ND	ND	ND	ND	ND	ND	NA	NA
7-7½	ND	ND	ND	ND	ND	ND	ND	NA	NA

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ALAMEDA, CA.

SURVEYOR
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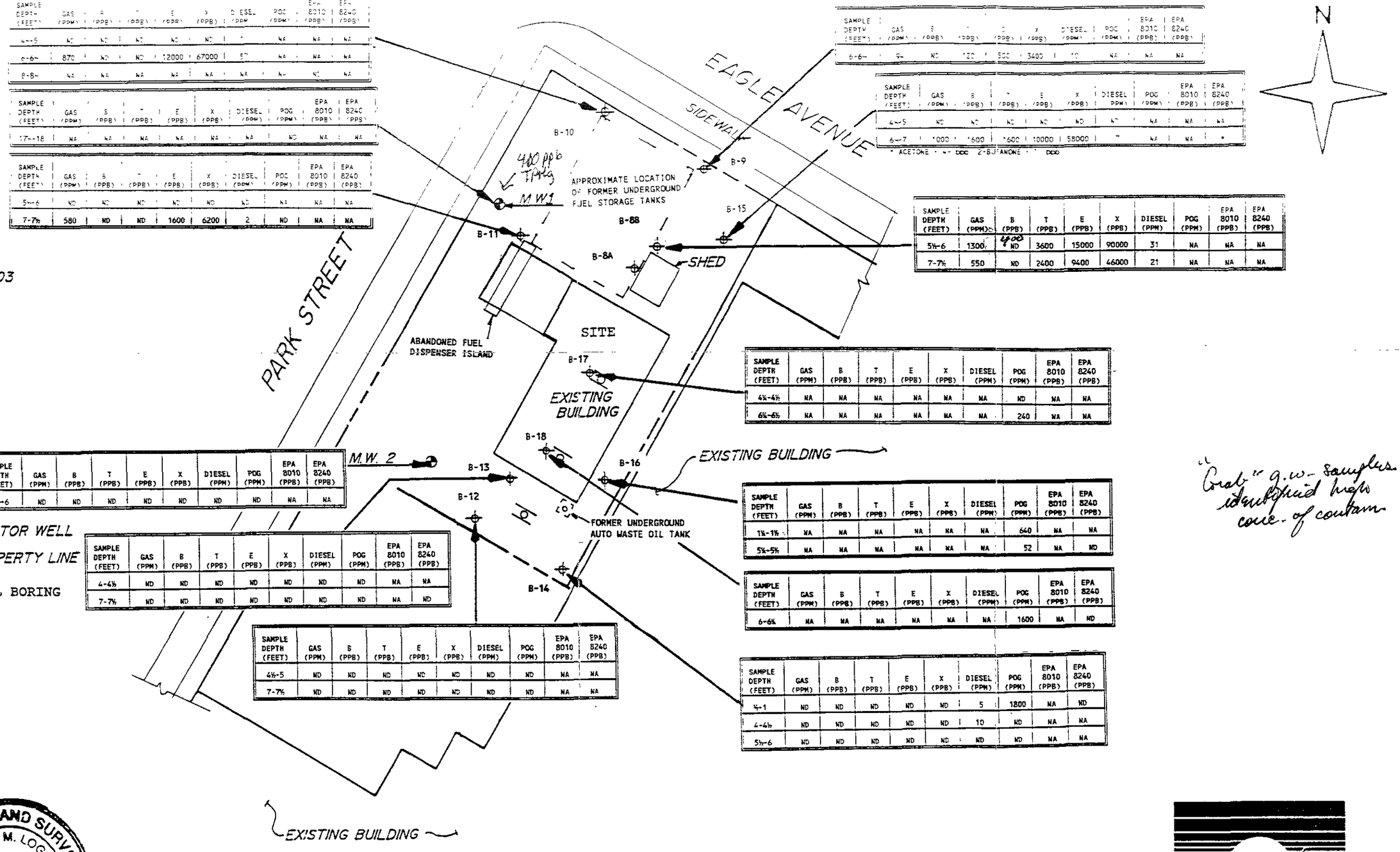
(707) 745-5053

DATE: MAY, 1992

SCALE: 1" = ± 25'

REVISED JUNE 12, 1992 BY TMC, INC.

LEGEND
- M.W. MONITOR WELL
- PROPERTY LINE
- SOIL BORING



"Grab" g.w. samples. Undefined horiz. extent of contam.

LICENSED LAND SURVEYOR
DAVID M. LOGAN
NO. 5003
STATE OF CALIFORNIA

RESULTS OF SOIL BORING SAMPLES

MAY 5 AND 8, 1992
1726 PARK STREET
ALAMEDA, CALIFORNIA

TMC Environmental, Inc.

JOB: 104891

PLATE 4

PROPERTY ADDRESS
1726 PARK STREET
ALAMEDA, CA.

SURVEYOR
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803 DORSET WAY
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(707) 745-5053

DATE: MAY, 1992

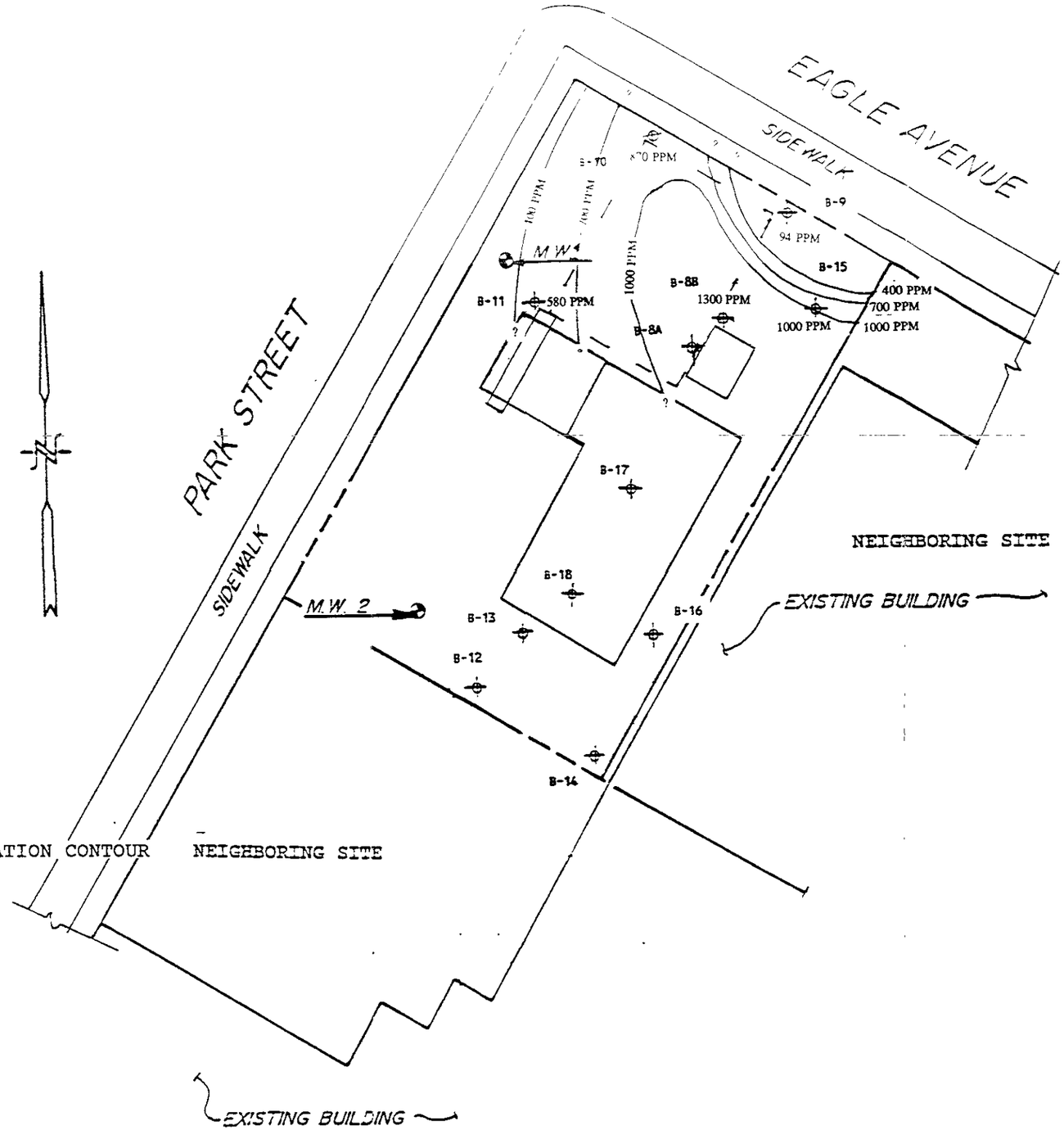
SCALE:

REVISED JUNE 12, 1992 BY TMC, INC.

LEGEND

⊕ M.W.	MONITOR WELL
———	PROPERTY LINE
⌖	SOIL BORING
)	CHEMICAL CONCENTRATION CONTOUR

NEIGHBORING SITE



LICENSED LAND SURVEYOR
DAVID M. LOGAN
No. 5003
STATE OF CALIFORNIA

SOIL TVH GASOLINE
CHEMICAL CONCENTRATION CONTOURS
5½ - 7 FEET
1726 PARK STREET
ALAMEDA, CALIFORNIA

TMC
Environmental, Inc.

JOB: 104891

PLATE 5

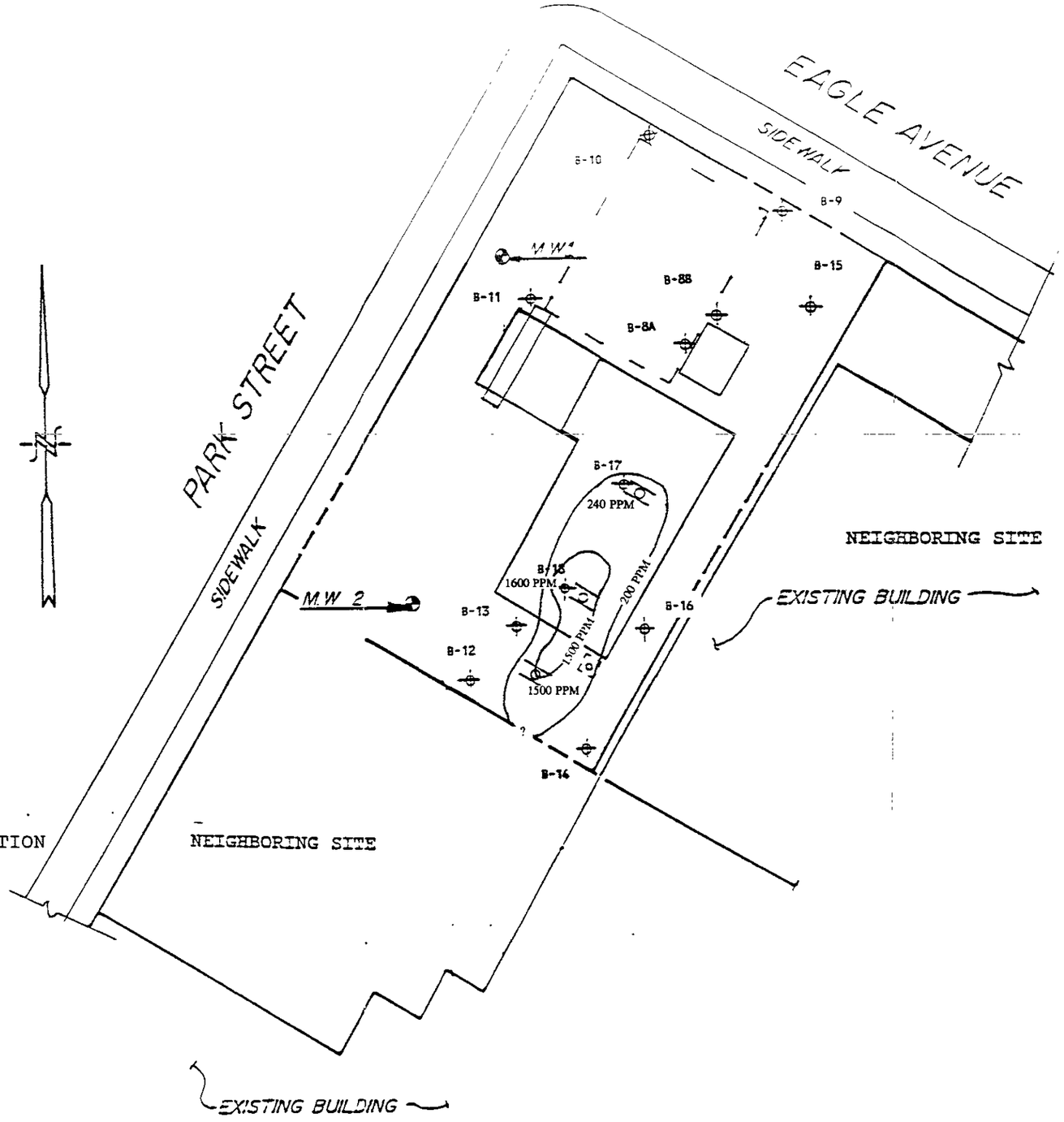
PROPERTY ADDRESS
1726 PARK STREET
ALAMEDA, CA.

SURVEYOR
DAVID M. LOGAN L.S. 5003
803 DORSET WAY
BENICIA, CA.
(707) 745-5053

DATE: MAY, 1992

SCALE:

REVISED JUNE 12, 1992 BY TMC, INC.



LEGEND

M.W.	MONITOR WELL
———	PROPERTY LINE
⌖	SOIL BORING
)	CHEMICAL CONCENTRATION CONTOUR

LICENSED LAND SURVEYOR
DAVID M. LOGAN
NO. 5003
STATE OF CALIFORNIA

TMC
Environmental, Inc.

JOB: 104891

SOIL PETROLEUM OIL & GREASE
CHEMICAL CONCENTRATION CONTOURS
6 - 7½ FEET
1726 PARK STREET
ALAMEDA, CA

PLATE 6

PROPERTY ADDRESS
1726 PARK STREET
ALAMEDA, CA.

SURVEYOR
DAVID M. LOGAN L.S. 5003
803 DORSET WAY
BENICIA, CA.
(707) 745-5053

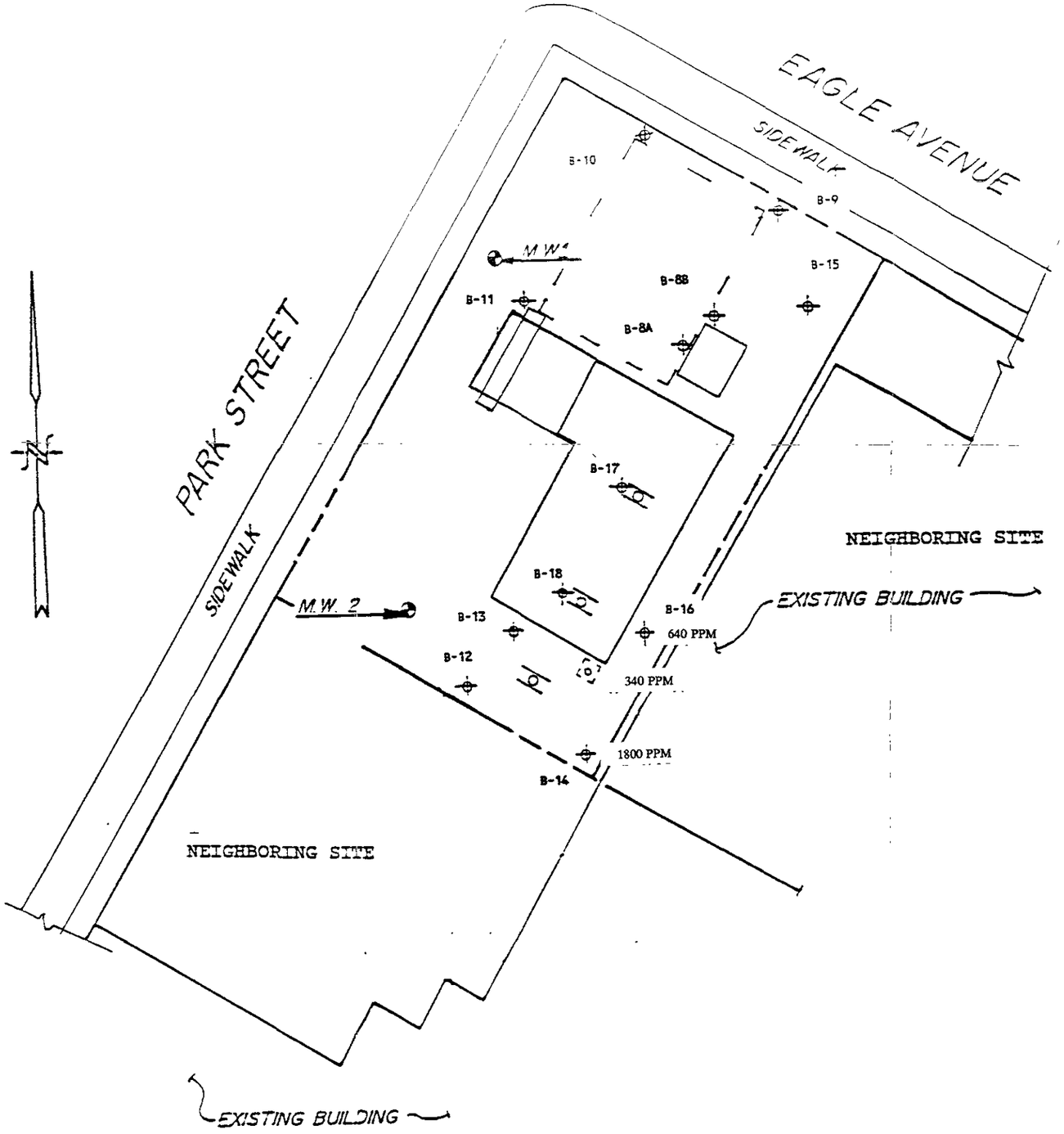
DATE: MAY, 1992

SCALE:

REVISED JUNE 12, 1992 BY TMC, INC.

LEGEND

M.W.	MONITOR WELL
———	PROPERTY LINE
⊕	SOIL BORING



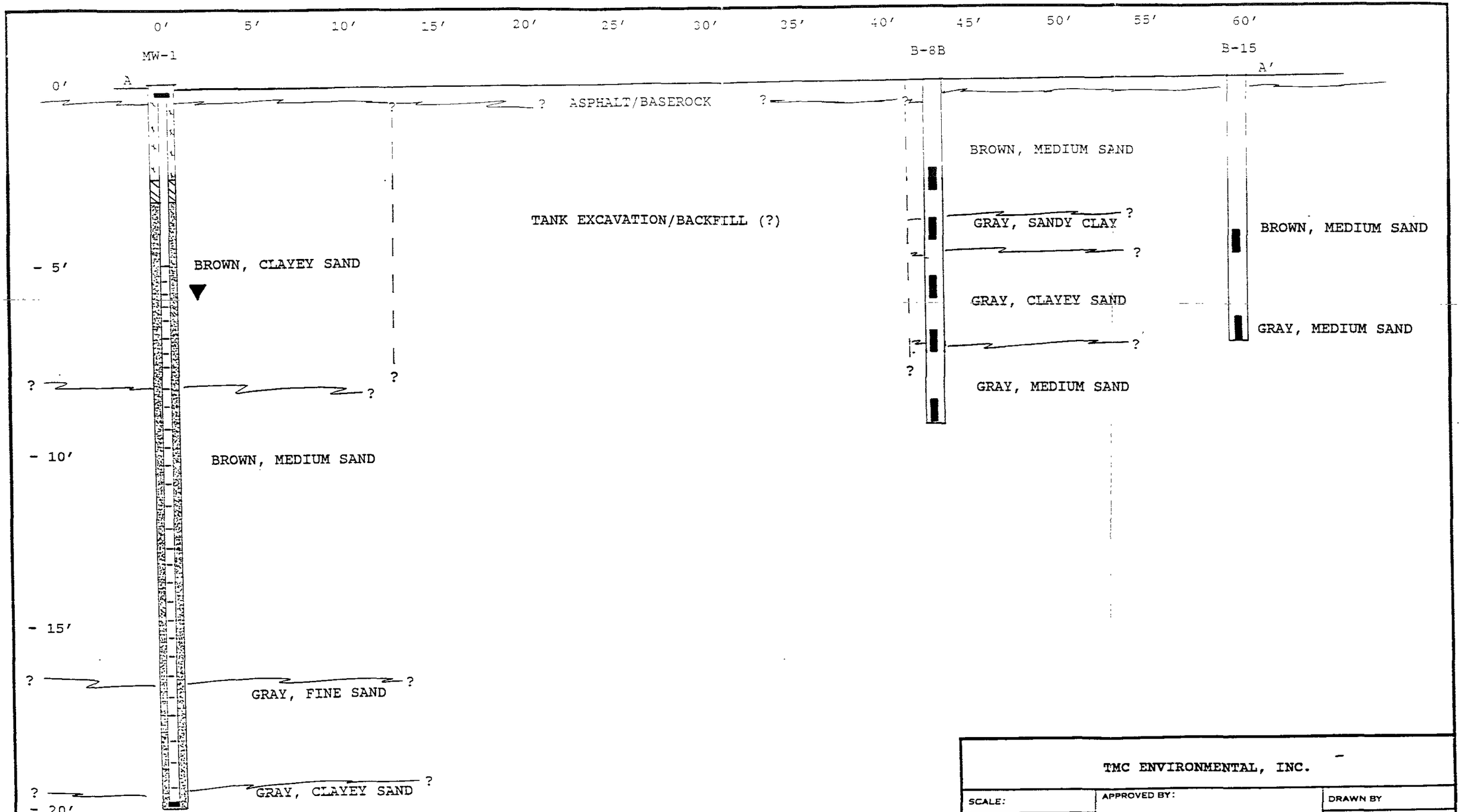
SOIL PETROLEUM OIL & GREASE
CHEMICAL CONCENTRATIONS
½ - 1½ FEET
1726 PARK STREET
ALAMEDA, CALIFORNIA

LICENSED LAND SURVEYOR
DAVID M. LOGAN
NO. 5003
STATE OF CALIFORNIA

TMC
Environmental, Inc.

JOB: 104891

PLATE 7



▼ GROUNDWATER LEVEL MEASUREMENT (5-12-92)

▌SOIL SAMPLE

Scale: Vertical 1" = 2½′
Horizontal 1" = 5′

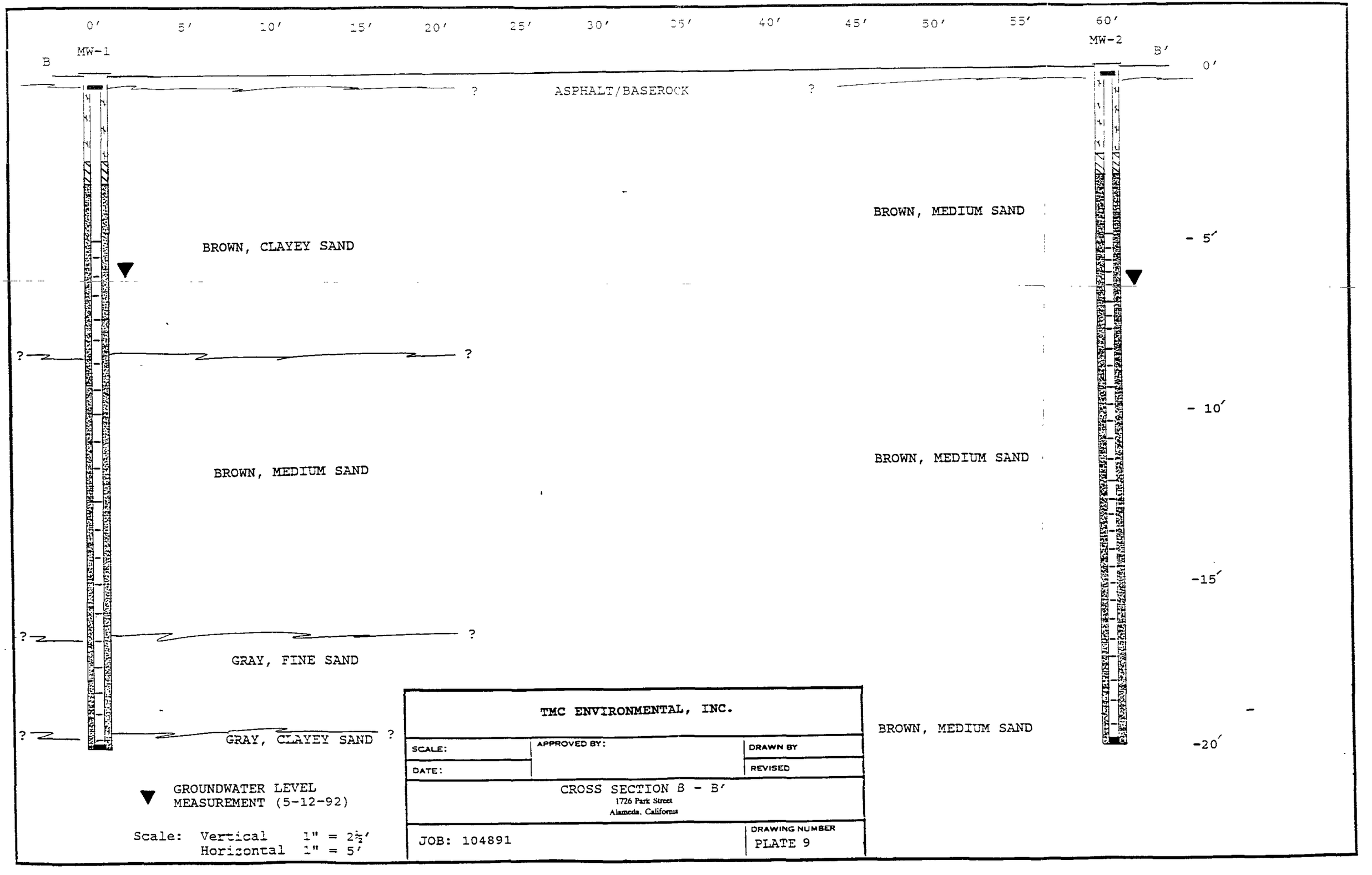
TMC ENVIRONMENTAL, INC.

SCALE:	APPROVED BY:	DRAWN BY
DATE:		REVISED

CROSS SECTION A - A′
1726 PARK STREET
ALAMEDA, CALIFORNIA

JOB: 104891

DRAWING NUMBER
PLATE 8


0′
5′
10′
15′
20′
25′
30′
35′
40′
45′
50′
55′
60′
B
MW-1
MW-2
B′
0′
?
ASPHALT/BASEROCK
?
BROWN, MEDIUM SAND
BROWN, CLAYEY SAND
- 5′
?
?
- 10′
BROWN, MEDIUM SAND
BROWN, MEDIUM SAND
-15′
?
?
GRAY, FINE SAND
?
GRAY, CLAYEY SAND
?
BROWN, MEDIUM SAND
-20′
▼ GROUNDWATER LEVEL MEASUREMENT (5-12-92)
Scale: Vertical 1" = 2½′
Horizontal 1" = 5′
TMC ENVIRONMENTAL, INC.
SCALE:
APPROVED BY:
DRAWN BY
DATE:
REVISED
CROSS SECTION B - B′
1726 Park Street
Alameda, California
JOB: 104891
DRAWING NUMBER
PLATE 9

ATTACHMENT 1

LOGS OF BORINGS AND PERMITS

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE ♦ PLEASANTON, CALIFORNIA 94588 ♦ (415) 484-2600

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 1726 Park Street
Alameda, CA

CLIENT
Name John B. Henry Estate/Melidna Henry-Dare
Address 3312 Central Ave Phone 522-1228
City Alameda Zip

APPLICANT
Name TMC Environmental, Inc.
13908 San Pablo Ave., Ste 101
Address Phone 232-8366
City San Pablo Zip 94806

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	___	General	___
Water Supply	___	Contamination	X
Monitoring	X	Well Destruction	___

PROPOSED WATER SUPPLY WELL USE
Domestic ___ Industrial ___ Other ___
Municipal ___ Irrigation ___

DRILLING METHOD:
Mud Rotary ___ Air Rotary ___ Auger X
Cable ___ Other ___

DRILLER'S LICENSE NO. C57 596309

WELL PROJECTS
Drill Hole Diameter 8 in. Maximum
Casing Diameter 2 in. Depth 25 ft.
Surface Seal Depth 5 ft. Number 2

GEOTECHNICAL PROJECTS
Number of Borings 9 Maximum
Hole Diameter 8 in. Depth 10 ft.

ESTIMATED STARTING DATE May 4, 1992
ESTIMATED COMPLETION DATE May 6, 1992

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

APPLICANT'S SIGNATURE Mark Jamykin Date April 29, 1992

FOR OFFICE USE

PERMIT NUMBER 92205
LOCATION NUMBER

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

(B.) WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation ~~wells~~ unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

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

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

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 30 Apr 92
Wyman Hong

51991

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

FIELD WELL COMPLETION FORM WELL MW-1

PROJECT NAME: ESTATE OF JOHN B HENRY	
PROJECT NUMBER: 104891	MGR: MICHAEL PRINCEVALLE
LOGGER: M PRINCEVALLE	EDITED BY:
WELL NAME: MW - 1	DATE: 05-09-92
DRILLING CO.: K L Drilling	
EQUIPMENT: [x] 8 INCH HOLLOW STEM AUGER [ ] ___ INCH ROTARY WASH	DRILLER: KEN LINK HRS. DRILLED: 1 1/2
GALLONS OF WATER USED DURING DRILLING:	0 GALLONS
METHOD OF DECONTAMINATION PRIOR TO DRILLING: Steam Cleaning w/soap solution	

DEVELOPMENT

METHOD OF DEVELOPMENT: Honda Pump		
DEVELOPMENT DATE: 05-08-92	TIME: 14:15	
YIELD: GPM	TIME: FROM TO	DATE:
YIELD: GPM	TIME: FROM TO	DATE:
YIELD: GPM	TIME: FROM TO	DATE:
YIELD: GPM	TIME: FROM TO	DATE:
TOTAL WATER REMOVED DURING DEVELOPMENT:	27 GALLONS	

DESCRIPTION OF TURBIDITY AT END END OF DEVELOPMENT
- [ ] CLEAR
- [ ] MOD.TURBID
- [x] SLIGHTLY CLOUDY
- [ ] VERY MUDDY

ODOR OF WATER: PETROLEUM-LIKE

WATER DISCHARGED TO: Drums

DEPTH TO WATER AFTER DEVELOPMENT: ±7 FEET

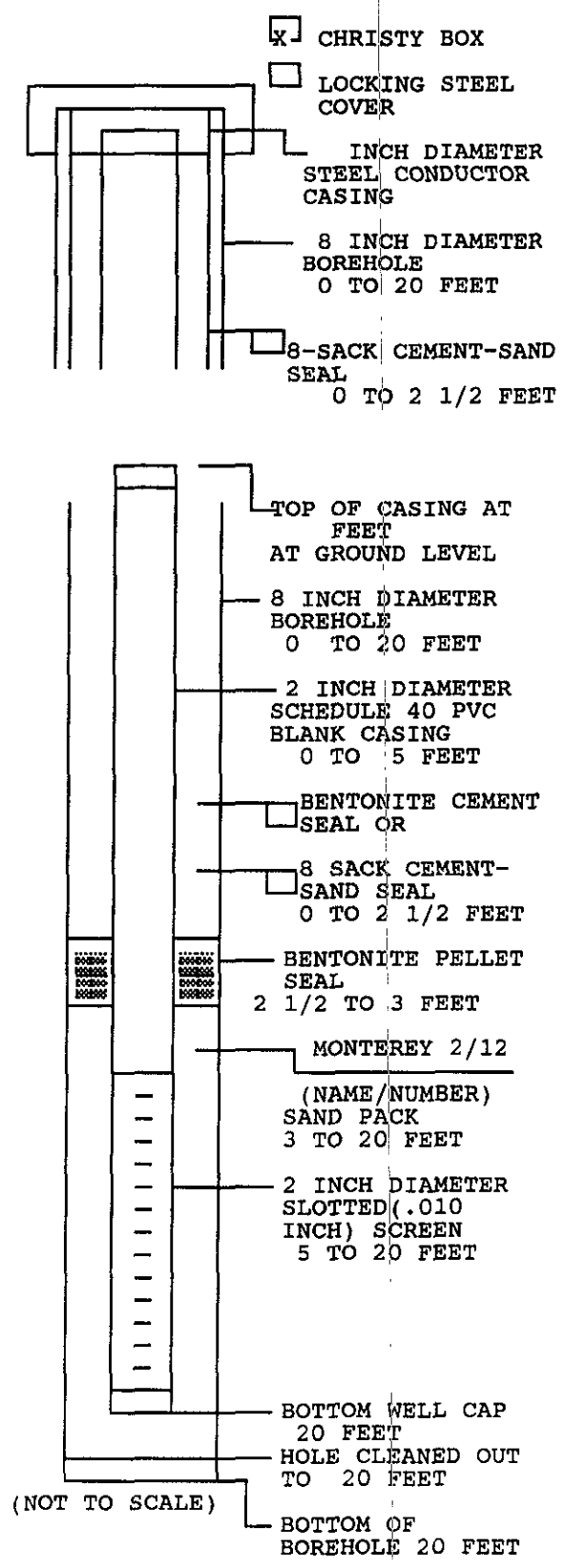
MATERIALS USED

4 1/2 SACKS OF 2/12 MONTEREY SAND
1 1/2 SACKS OF PORTLAND I-II CEMENT
0 GALLONS OF GROUT USED
0 SACKS OF POWDERED BENTONITE
1/2 BUCKET OF BENTONITE PELLETS
0-5 FEET OF 2 INCH PVC BLANK CASING
5-20 FEET OF 2 INCH PVC SLOTTED SCREEN
0 FEET OF INCH STEEL CONDUCTOR CASING
0 YARD CEMENT-SAND (REDI-MIX) ORDERED
0 YARD CEMENT-SAND (REDI-MIX) USED

CONCRETE PUMPER USED? [NO] YES
NAME _____

WELL COVER USED CHRISTY BOX

SILT TRAP USED? [NO] YES



ADDITIONAL INFORMATION: _____

FIELD WELL COMPLETION FORM WELL MW-2

PROJECT NAME: ESTATE OF JOHN B HENRY	
PROJECT NUMBER: 104891	MGR: MICHAEL PRINCEVALLE
LOGGER: M PRINCEVALLE	EDITED BY:
WELL NAME: MW - 2	DATE: 05-09-92
DRILLING CO.: K L Drilling	
EQUIPMENT: [x] 8 INCH HOLLOW STEM AUGER [ ] INCH ROTARY WASH	DRILLER: KEN LINK HRS. DRILLED: 1 1/2
GALLONS OF WATER USED DURING DRILLING: 0 GALLONS	
METHOD OF DECONTAMINATION PRIOR TO DRILLING: Steam Cleaning w/soap solution	

DEVELOPMENT

METHOD OF DEVELOPMENT: Honda Pump

DEVELOPMENT DATE: 05-08-92 TIME: 14:15

YIELD: GPM	TIME: FROM TO	DATE:
YIELD: GPM	TIME: FROM TO	DATE:
YIELD: GPM	TIME: FROM TO	DATE:
YIELD: GPM	TIME: FROM TO	DATE:

TOTAL WATER REMOVED DURING DEVELOPMENT: 27 GALLONS

DESCRIPTION OF TURBIDITY AT END END OF DEVELOPMENT
- [ ] CLEAR
- [ ] MOD.TURBID
- [x] SLIGHTLY CLOUDY
- [ ] VERY MUDDY

ODOR OF WATER:

WATER DISCHARGED TO: Drums

DEPTH TO WATER AFTER DEVELOPMENT: ±7 FEET

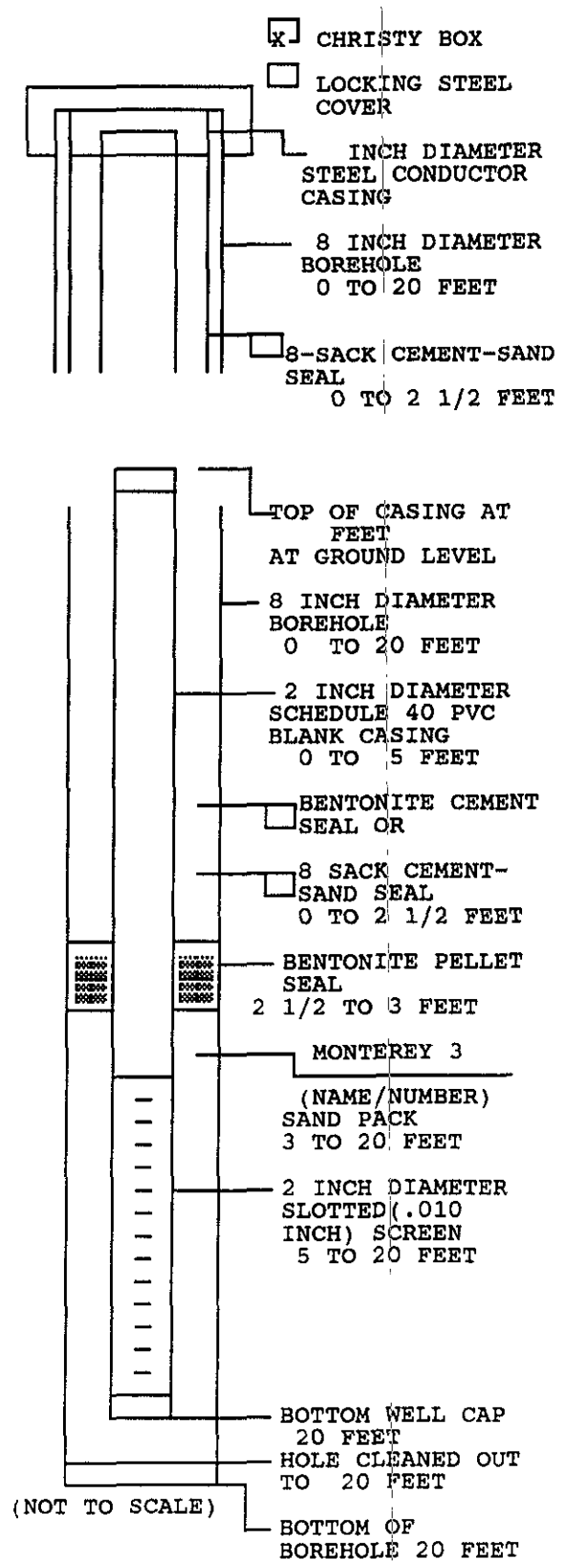
MATERIALS USED

3 SACKS OF #3 MONTEREY SAND
1 1/2 SACKS OF PORTLAND I-II CEMENT
0 GALLONS OF GROUT USED
0 SACKS OF POWDERED BENTONITE
1/2 BUCKET OF BENTONITE PELLETS
0-5 FEET OF 2 INCH PVC BLANK CASING
5-20 FEET OF 2 INCH PVC SLOTTED SCREEN
0 FEET OF INCH STEEL CONDUCTOR CASING
0 YARD CEMENT-SAND (REDI-MIX) ORDERED
0 YARD CEMENT-SAND (REDI-MIX) USED

CONCRETE PUMPER USED? [NO] YES
NAME _____

WELL COVER USED CHRISTY BOX

SILT TRAP USED? [NO] YES



ADDITIONAL INFORMATION:

LOG OF BORING NUMBER MW-1

PROJECT NAME: THE ESTATE OF JOHN B. HENRY	PROJECT NUMBER:104891	SHEET	1 OF 2
LOCATION: 1726 PARK STREET, ALAMEDA, CALIFORNIA 94501		DATE: 5-8-92	
DRILLER: K L DRILLING	DRILL METHOD: HOLLOW STEM		
LICENSE #:	SAMPLE METHOD: 2" SPLIT SPOON		
AGENCY: ALAMEDA COUNTY HEALTH DEPT	INSPECTOR:	BORING DIA.:	8"
LOGGER: MICHALE PRINCEVALLE	APPROVED BY:	TOTAL DEPTH:	20'

** NOTICE - LIMITATIONS APPLY TO THIS LOG - SEE ATTACHED KEY SHEET **

SAMPLE LABEL	SAMPLE DEPTH	REC %	BLOWS /FT	PPMV	MODE	DEPTH FEET	LEGEND USCS	DESCRIPTION	STAIN/ OTHER
						0		0-3" ASPHALT	
						1			
						2			
						3			
MW-1-1	4 1/2 - 5'	70	12	4		4		Clayey SAND → Sandy CLAY; Brown w/red orange mottles; Moist; Firm	No
						5			
						6		Staining contact @ 6 1/2-7'	
MW-1-2	7-7 1/2'	100	32	100		7		Clayey SAND; Brown w/ gray mottles/staining; Moist; Firm	Yes
						8		change to continous sampling; 2 1/2" I. D. Sampler soils sampled for logging	
	8 1/2-9 1/2'	30	36			9		Medium sand; Brown; Very moist; Loose	Slt.
						10			
	9 1/2-11 1/2	100				11		Medium SAND; Brown w./ Few faint red- orange mottles; Wet; Friable	No
						12		Changed to sampler to 1 1/2" I.D.	
	11 1/2 - 13 1/2'		10			13		Fine to Medium SAND, some Clay; Brown; Wet; Friable	
						14			
						15			

THIS LOG OF SUBSURFACE CONDITIONS APPLIES ONLY AT THE SPECIFIC LOCATION AND DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF CONDITIONS AT OTHER LOCATIONS AND TIMES.

LOG OF BORING NUMBER MW-1

PROJECT NAME: THE ESTATE OF JOHN B. HENRY	PROJECT NUMBER:104891	SHEET 2 OF 2
LOCATION: 1726 PARK STREET, ALAMEDA, CALIFORNIA 94501		DATE: 5-8-92
DRILLER: K L DRILLING	DRILL METHOD: HOLLOW STEM	
LICENSE #:	SAMPLE METHOD: 2" SPLIT SPOON	
AGENCY: ALAMEDA COUNTY HEALTH DEPT	INSPECTOR:	BORING DIA.: 8"
LOGGER: MICHALE PRINCEVALLE	APPROVED BY:	TOTAL DEPTH: 20'

** NOTICE - LIMITATIONS APPLY TO THIS LOG - SEE ATTACHED KEY SHEET **

SAMPLE LABEL	SAMPLE DEPTH	REC %	BLOWS /FT	PPMV	MODE	DEPTH FEET	LEGEND USCS	DESCRIPTION	STAIN/ OTHER
	141/2-16'		24			15		Fine to Medium SAND; Brown, some gray (staining?) Many distinct olive mottles; Very moist to Wet; Friable	
						16			
						17		Fine SAND; Gray w/ few faint olive mottles; Very Moist to Wet, Firm	
MW-1-3	171/2--18'		20	20		18			
						19			
	18-20'		18	5		20		Boring terminated at 20'	
						21			
						22		WELL CASING & SLOT STEAM CLEANED AT SITE.	
						23		Cement Seal: 0 - 2 1/2' Bentonite spacer: 2 1/2-3' Blank well casing: 0-5' Well slot: 5-20' Sand Pack 3-20' 4 1/2 sacks #2/12 Sand	
						24			
						25			
						26		Sampler washed with soapy water between use.	
						27			
						28			
						29			
						30			

THIS LOG OF SUBSURFACE CONDITIONS APPLIES ONLY AT THE SPECIFIC LOCATION AND DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF CONDITIONS AT OTHER LOCATIONS AND TIMES.

LOG OF BORING NUMBER MW-2

PROJECT NAME: THE ESTATE OF JOHN B. HENRY	PROJECT NUMBER:104891	SHEET 1 OF 2
LOCATION: 1726 PARK STREET, ALAMEDA, CALIFORNIA 94501		DATE: 5-8-92
DRILLER: K L DRILLING	DRILL METHOD: HOLLOW STEM 4" I D, 8" O D	
LICENSE #: C57-596309	SAMPLE METHOD: 2" SPLIT SPOON	
AGENCY: ALAMEDA COUNTY HEALTH DEPT	INSPECTOR:	BORING DIA.: 8"
LOGGER: MICHALE PRINCEVALLE	APPROVED BY:	TOTAL DEPTH: 20'

** NOTICE - LIMITATIONS APPLY TO THIS LOG - SEE ATTACHED KEY SHEET **

SAMPLE LABEL	SAMPLE DEPTH	REC %	BLOWS /FT	PPMV	MODE	DEPTH FEET	LEGEND USCS	DESCRIPTION	STAIN/ OTHER
						0		0-3" ASPHALT	
						1			
						2			
						3			
MW-2-1	4-4 1/2'		18	3		4		Medium SAND; Brown; Moist; Friable	No
MW-2-2	5 1/2-6'		24	3		5		Medium SAND; some clay; Brown w/ many red-orange mottles; V. Moist; Friable.	No
						6			
						7			
						8			
						9			
						10			
						11			
						12		change to continous sampling; 1 1/2" sampler. Sample recovered for logging	
	12-131/2'		38			13		Medium sand; Brown w/some red orange mottles; Wet; Loose → Friable	No
						14			
						15			

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LOG OF BORING NUMBER MW-2

PROJECT NAME: THE ESTATE OF JOHN B. HENRY	PROJECT NUMBER:104891	SHEET 2 OF 2
LOCATION: 1726 PARK STREET, ALAMEDA, CALIFORNIA 94501		DATE: 5-8-92
DRILLER: K L DRILLING	DRILL METHOD: HOLLOW STEM 4" I D, 8" O D	
LICENSE #: C57-596309	SAMPLE METHOD: 2" I. D. SPLIT SPOON	
AGENCY: ALAMEDA COUNTY HEALTH DEPT	INSPECTOR: N/A	BORING DIA.: 8"
LOGGER: MICHALE PRINCEVALLE	APPROVED BY:	TOTAL DEPTH: 20'

** NOTICE - LIMITATIONS APPLY TO THIS LOG - SEE ATTACHED KEY SHEET **

SAMPLE LABEL	SAMPLE DEPTH	REC %	BLOWS /FT	PPMV	MODE	DEPTH FEET	LEGEND USCS	DESCRIPTION	STAIN/ OTHER
	18'-20'		24			15			
						16			
						17			
						18			
						19		Fine → Medium SAND; Brown w/ occassional red-orange mottles; V. moist; Wet; Loose → Friable	No
						20		Boring terminated at 20'	
								Well Casing and slot steamed cleaned at site	
						21			
						22		WELL CONSTRUCTION Cement Seal: 0 - 2 1/2' Bentonite spacer: 2 1/2-3' Blank well casing: 0-5' Well slot(0.010"): 5-20' Sand Pack(3 sacks #3 sand) 3-20'	
						23			
						24			
						25			
						26		Sampler and auger washed with soapy water between use.	
						27			
						28			
						29			
						30			

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LOG OF BORING NUMBER B-8

PROJECT NAME: THE ESTATE OF JOHN B. HENRY	PROJECT NUMBER:104891	SHEET 1 OF 1
LOCATION: 1726 PARK STREET, ALAMEDA, CALIFORNIA 94501		DATE: 5-5-92
DRILLER: K L DRILLING	DRILL METHOD: HOLLOW STEM 4" I.D., 8"O.D.	
LICENSE #:	SAMPLE METHOD: SPLIT SPOON	
AGENCY: ALAMEDA COUNTY HEALTH DEPT	INSPECTOR:	BORING DIA.: 8"
LOGGER: MICHALE PRINCEVALLE	APPROVED BY:	TOTAL DEPTH: 2 1/2

** NOTICE - LIMITATIONS APPLY TO THIS LOG - SEE ATTACHED KEY SHEET **

SAMPLE LABEL	SAMPLE DEPTH	REC %	BLOWS /FT	PPMV	MODE	DEPTH FEET	LEGEND USCS	DESCRIPTION	STAIN/ OTHER
						0		0-2" ASPHALT/BASE ROCK Continous Sampling Medium SAND; Brown; Moist; V. Friable	Slt./ No
						1			
B-8-1	2- 2 1/2		3 3 3/ 6	400		2		Refusal @ 2 1/2'	
						3			
						4			

THIS LOG OF SUBSURFACE CONDITIONS APPLIES ONLY AT THE SPECIFIC LOCATION AND DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF CONDITIONS AT OTHER LOCATIONS AND TIMES.

LOG OF BORING NUMBER B-8B

PROJECT NAME: THE ESTATE OF JOHN B. HENRY	PROJECT NUMBER: 104891	SHEET 1 OF 1
LOCATION: 1726 PARK STREET, ALAMEDA, CALIFORNIA 94501		DATE: 5-5-92
DRILLER: K L DRILLING	DRILL METHOD: HOLLOW STEM 4" I.D., 8"O.D.	
LICENSE #:	SAMPLE METHOD: SPLIT SPOON	
AGENCY: ALAMEDA COUNTY HEALTH DEPT	INSPECTOR:	BORING DIA.: 8"
LOGGER: MICHALE PRINCEVALLE	APPROVED BY:	TOTAL DEPTH: 9'

** NOTICE - LIMITATIONS APPLY TO THIS LOG - SEE ATTACHED KEY SHEET **

SAMPLE LABEL	SAMPLE DEPTH	REC %	BLOWS /FT	PPMV	MODE	DEPTH FEET	LEGEND USCS	DESCRIPTION	STAIN/ OTHER
						0		0-3" ASPHALT/BASE ROCK Continous Sampling	Slt./ No
						1			
B-8B-1	2 1/2-3	~70	4	450		2		Medium SAND; Brown; Moist; V. Friable → Loose	No
						3			
B-8B-2	4-4 1/2	100	12	500		4		Sandy CLAY; Gray w/olive mottles; Moist; V. Stiff	Yes
						5		Clayey SAND; Gray; Moist; V. Firm	Yes
B-8B-3	5 1/2-6	50	12	6,000		6			
						7		Clayey SAND; Gray w/olive mottles; Moist; V. Firm	Yes
B-8B-4	7-7 1/2	75	16	710,000		8		Medium SAND; Gray; V. Moist; V. Firm	Yes
B-8B-5	8 1/2-9	10	20	710,000		9		Medium SAND; Gray; V. Moist→ Wetl; Loose Sheen on soil Particals	
						10		Recovered G. W. Samples From boring; odor & sheen in water purged from boring	
								Sampling & augering equipment washed w/soapy water, rinsed	

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LOG OF BORING NUMBER B-9

PROJECT NAME: THE ESTATE OF JOHN B. HENRY	PROJECT NUMBER:104891	SHEET 1 OF 1
LOCATION: 1726 PARK STREET, ALAMEDA, CALIFORNIA 94501		DATE: 5-5-92
DRILLER: K L DRILLING	DRILL METHOD: HOLLOW STEM 4" I.D., 8"O.D.	
LICENSE #: C57-596309	SAMPLE METHOD: SPLIT SPOON	
AGENCY: ALAMEDA COUNTY HEALTH DEPT	INSPECTOR: N/A	BORING DIA.: 8"
LOGGER: MICHALE PRINCEVALLE	APPROVED BY:	TOTAL DEPTH: 8 1/2'

** NOTICE - LIMITATIONS APPLY TO THIS LOG - SEE ATTACHED KEY SHEET **

SAMPLE LABEL	SAMPLE DEPTH	REC %	BLOWS /FT	PPMV	MODE	DEPTH FEET	LEGEND USCS	DESCRIPTION	STAIN/ OTHER
						0		0-3" ASPHALT AND BASE ROCK	
						1			
						2			
						3			
B-9-1	4 1/2-5	10	10			4		Sluff -Brown sand & baserock Clayey SAND in shoe; Gray, Moist; Firm	
						5			
B-9-2	6-6 1/2-	100		1,500		6			
						7		Clayey SAND; Gray w/olive mottles; Moist; Firm	Yes
B-9-3	8-8 1/2	70	26	6,000		8		SAND; Gray; V. Moist; Loose	Yes
						9			
						10			
								Sampling & augering equipment washed w/soapy water, rinsed	

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LOG OF BORING NUMBER B-10

PROJECT NAME: THE ESTATE OF JOHN B. HENRY	PROJECT NUMBER:104891	SHEET 1 OF 1
LOCATION: 1726 PARK STREET, ALAMEDA, CALIFORNIA 94501		DATE: 5-5-92
DRILLER: K L DRILLING	DRILL METHOD: HOLLOW STEM 4" I.D., 8"O.D.	
LICENSE #:	SAMPLE METHOD: SPLIT SPOON	
AGENCY: ALAMEDA COUNTY HEALTH DEPT	INSPECTOR:	BORING DIA.: 8"
LOGGER: MICHALE PRINCEVALLE	APPROVED BY:	TOTAL DEPTH: 8 1/2'

** NOTICE - LIMITATIONS APPLY TO THIS LOG - SEE ATTACHED KEY SHEET **

SAMPLE LABEL	SAMPLE DEPTH	REC %	BLOWS /FT	PPMV	MODE	DEPTH FEET	LEGEND USCS	DESCRIPTION	STAIN/ OTHER
						0			
						1			
						2			
						3			
B-10-1	4- 4 1/2	70	26	750		4		Clayey SAND; Brown; Moist; Firm Continuos sample 4 1/2'- 6 1/2'	
						5			
B-10-2	6- 6 1/2-	100		7,500		6		Clayey SAND; Gray w/faint olive mottles; Moist; Firm	
						7		Clayey SAND; Gray w/olive mottles; Moist; Firm	Yes
B-10-3	8- 8 1/2	100	26	2,000		8		SAND; Gray; V. Moist → Wet; Loose	Yes
						9			
						10			
								Sampling & augering equipment washed w/soapy water, rinsed	

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LOG OF BORING NUMBER B-11

PROJECT NAME: THE ESTATE OF JOHN B. HENRY	PROJECT NUMBER:104891	SHEET 1 OF 1
LOCATION: 1726 PARK STREET, ALAMEDA, CALIFORNIA 94501		DATE: 5-5-92
DRILLER: K L DRILLING	DRILL METHOD: HOLLOW STEM 4" I.D., 8"O.D.	
LICENSE #:	SAMPLE METHOD: SPLIT SPOON	
AGENCY: ALAMEDA COUNTY HEALTH DEPT	INSPECTOR:	BORING DIA.: 8"
LOGGER: MICHALE PRINCEVALLE	APPROVED BY:	TOTAL DEPTH: 8 1/2'

** NOTICE - LIMITATIONS APPLY TO THIS LOG - SEE ATTACHED KEY SHEET **

SAMPLE LABEL	SAMPLE DEPTH	REC %	BLOWS /FT	PPMV	MODE	DEPTH FEET	LEGEND USCS	DESCRIPTION	STAIN/ OTHER
						0		ASPHALT	
						1			
						2			
						3			
NO SAMPLE	4-4 1/2	70	12			4		SAND; some clay; Brown; Moist; Friable; Continuos sample 5 - 6'	No
						5			
B-11-1	5 1/2-6	100				6		Sandy Clay; Gray w/few faint orange mottles; Moist; Firm	No
						7		Medium SAND; Gray very Moist; Loose to Friable	Yes
B-11-2	7 1/2-8	---	36	>10,000		8			
						9			
						10			
								Sampling & augering equipment washed w/soapy water, rinsed	

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LOG OF BORING NUMBER B-12

PROJECT NAME: THE ESTATE OF JOHN B. HENRY	PROJECT NUMBER:104891	SHEET 1 OF 1
LOCATION: 1726 PARK STREET, ALAMEDA, CALIFORNIA 94501		DATE: 5-5-92
DRILLER: K L DRILLING	DRILL METHOD: HOLLOW STEM 4" I.D., 8"O.D.	
LICENSE #:	SAMPLE METHOD: SPLIT SPOON	
AGENCY: ALAMEDA COUNTY HEALTH DEPT	INSPECTOR:	BORING DIA.: 8"
LOGGER: MICHALE PRINCEVALLE	APPROVED BY:	TOTAL DEPTH: 8'

** NOTICE - LIMITATIONS APPLY TO THIS LOG - SEE ATTACHED KEY SHEET **

SAMPLE LABEL	SAMPLE DEPTH	REC %	BLOWS /FT	PPMV	MODE	DEPTH FEET	LEGEND USCS	DESCRIPTION	STAIN/ OTHER
						0		ASPHALT	
						1			
						2			
						3			
						4		Sandy CLAY; Brown w/red-orange mottles; Moist; Very Firm Continous sample 5 -6 1/2'	No
						5		SAND; Brown w/Few faint red-orange mottles; Moist Friable	
B-12-1	4 1/2-5	70	16	---		6		Medium SAND; Brown w/some red-orange mottles; Very Moist; Very Friable	No
						7			
B-12-2	7 1/2-8	70	28	200		8			
						9			
						10			
								Sampling & augering equipment washed w/soapy water, rinsed	

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LOG OF BORING NUMBER B-13

PROJECT NAME: THE ESTATE OF JOHN B. HENRY	PROJECT NUMBER:104891	SHEET 1 OF 1
LOCATION: 1726 PARK STREET, ALAMEDA, CALIFORNIA 94501		DATE: 5-5-92
DRILLER: K L DRILLING	DRILL METHOD: HOLLOW STEM 4" I.D., 8"O.D.	
LICENSE #:	SAMPLE METHOD: SPLIT SPOON	
AGENCY: ALAMEDA COUNTY HEALTH DEPT	INSPECTOR:	BORING DIA.: 8"
LOGGER: MICHALE PRINCEVALLE	APPROVED BY:	TOTAL DEPTH: 8'

** NOTICE - LIMITATIONS APPLY TO THIS LOG - SEE ATTACHED KEY SHEET **

SAMPLE LABEL	SAMPLE DEPTH	REC %	BLOWS /FT	PPMV	MODE	DEPTH FEET	LEGEND USCS	DESCRIPTION	STAIN/ OTHER
						0			
								0-4" Concrete	
						1			
						2			
						3			
						4		Medium SAND, some Clay & clay lenses;Brown w/some red--orange mottles; Moist; Friable	No
B-13-1	4 1/2-6	70	12	225		5		Continuos sample 5 - 6 1/2' Medium SAND; Brown w/few red-orange mottles; Very Moist; Very Friable	
B-13-2	6 1/2-8	100				6		Medium SAND; Brown w/few orange mottles; V. Moist; V. Friable	No
B-13-3	7 1/2-8	---	14	650		7			
						8			
						9			
						10			
								Sampling & augering equipment washed w/soapy water, rinsed	

THIS LOG OF SUBSURFACE CONDITIONS APPLIES ONLY AT THE SPECIFIC LOCATION AND DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF CONDITIONS AT OTHER LOCATIONS AND TIMES.

LOG OF BORING NUMBER B-14

PROJECT NAME: THE ESTATE OF JOHN B. HENRY	PROJECT NUMBER:104891	SHEET	1 OF 1
LOCATION: 1726 PARK STREET, ALAMEDA, CALIFORNIA 94501		DATE: 5-5-92	
DRILLER: K L DRILLING	DRILL METHOD: HOLLOW STEM 4" I.D., 8"O.D.		
LICENSE #:	SAMPLE METHOD: SPLIT SPOON		
AGENCY: ALAMEDA COUNTY HEALTH DEPT	INSPECTOR:	BORING DIA.:	8"
LOGGER: MICHALE PRINCEVALLE	APPROVED BY:	TOTAL DEPTH:	7'

** NOTICE - LIMITATIONS APPLY TO THIS LOG - SEE ATTACHED KEY SHEET **

SAMPLE LABEL	SAMPLE DEPTH	REC %	BLOWS /FT	PPMV	MODE	DEPTH FEET	LEGEND USCS	DESCRIPTION	STAIN/ OTHER
B-14-1	1/2-1'	70	12	200		0		Soil Fine to medium SAND; Brown; Moist Very Friable; Some small pieces of decayed wood.	Slt.
						1			
						2			
						3			
B-14-2	4-4 1/2	35	6	200		4		Medium SAND; Brown; Very Moist; Very Friable	No
						5		Clayey SAND; Brown w./ few faint olive & orange mottles; Very Moist; Firm.	
B-14-3	5 1/2-6	---	16			6			
						7			
						8			
						9			
						10			
								Sampling & augering equipment washed w/soapy water, rinsed	

THIS LOG OF SUBSURFACE CONDITIONS APPLIES ONLY AT THE SPECIFIC LOCATION AND DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF CONDITIONS AT OTHER LOCATIONS AND TIMES.

LOG OF BORING NUMBER B-15

PROJECT NAME: *THE ESTATE OF JOHN B. HENRY*	PROJECT NUMBER:104891	SHEET	1 OF 1
LOCATION: 1726 PARK STREET, ALAMEDA, CALIFORNIA 94501		DATE: 5-5-92	
DRILLER: K L DRILLING	DRILL METHOD: HOLLOW STEM 4" I.D., 8"O.D.		
LICENSE #:	SAMPLE METHOD: SPLIT SPOON		
AGENCY: ALAMEDA COUNTY HEALTH DEPT	INSPECTOR:	BORING DIA.:	8"
LOGGER: MICHALE PRINCEVALLE	APPROVED BY:	TOTAL DEPTH:	8'

** NOTICE - LIMITATIONS APPLY TO THIS LOG - SEE ATTACHED KEY SHEET **

SAMPLE LABEL	SAMPLE DEPTH	REC %	BLOWS /FT	PPMV	MODE	DEPTH FEET	LEGEND USCS	DESCRIPTION	STAIN/ OTHER
						0			
						1			
						2			
						3			
B-15-1	4 1/2-5	100	12	250		4		Medium SAND; w/some clay lenses; Brown; Moist; Friable to Firm	No
						5		Medium SAND; Gray w/ olive staining; Very Moist; Very Friable.	Yes
						6			
B-15-2	6 1/2-7	---	26	>10,000		7			
						8		Recovered grab G. W. sample from boring. Excavated + 5 gallons from bore hole, then sampled for TPH Gas, Diesel, VOC's. Good water recovery.	
						9			
						10			
								Sampling & augering equipment washed w/soapy water, rinsed	

THIS LOG OF SUBSURFACE CONDITIONS APPLIES ONLY AT THE SPECIFIC LOCATION AND DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF CONDITIONS AT OTHER LOCATIONS AND TIMES.

LOG OF BORING NUMBER B-16

PROJECT NAME: THE ESTATE OF JOHN B. HENRY	PROJECT NUMBER:104891	SHEET 1 OF 1
LOCATION: 1726 PARK STREET, ALAMEDA, CALIFORNIA 94501		DATE: 5-5-92
DRILLER: K L DRILLING	DRILL METHOD: HAND AUGER	
LICENSE #:	SAMPLE METHOD:HAND SLIDE HAMMER W/6" X 2" SPLR CASE	
AGENCY: ALAMEDA COUNTY HEALTH DEPT	INSPECTOR:	BORING DIA.: 8"
LOGGER: MICHALE PRINCEVALLE	APPROVED BY:	TOTAL DEPTH: 8'

** NOTICE - LIMITATIONS APPLY TO THIS LOG - SEE ATTACHED KEY SHEET **

SAMPLE LABEL	SAMPLE DEPTH	REC %	BLOWS /FT	PPMV	MODE	DEPTH FEET	LEGEND USCS	DESCRIPTION	STAIN/ OTHER
						0		0-3" Stained Gravel	
B-16-1	1 1/4-1 1/2					1		Medium SAND, Brown, Moist. Some gravel, Friable to loose	Yes
						2			
						3			
						4		Medium SAND; Very Moist; Friable to Loose	
B-16-2	5 1/4-5 1/2					5			
						6			
						7			
						8			
						9			
						10			
								Sampling & augering equipment washed w/soapy water, rinsed	

THIS LOG OF SUBSURFACE CONDITIONS APPLIES ONLY AT THE SPECIFIC LOCATION AND DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF CONDITIONS AT OTHER LOCATIONS AND TIMES.

LOG OF BORING NUMBER B-17

PROJECT NAME: THE ESTATE OF JOHN B. HENRY	PROJECT NUMBER:104891	SHEET 1 OF 1
LOCATION: 1726 PARK STREET, ALAMEDA, CALIFORNIA 94501		DATE: 5-8-92
DRILLER: N/A	DRILL METHOD: HAND AUGER	
LICENSE #: N/A	SAMPLE METHOD:HAND SLIDE HAMMER W/6" X 2" SAMPLER	
AGENCY: ALAMEDA COUNTY HEALTH DEPT	INSPECTOR: N/A	BORING DIA.: 8"
LOGGER: MICHALE PRINCEVALLE	APPROVED BY:	TOTAL DEPTH: 6 1/2'

** NOTICE - LIMITATIONS APPLY TO THIS LOG - SEE ATTACHED KEY SHEET **

SAMPLE LABEL	SAMPLE DEPTH	REC %	BLOWS /FT	PPMV	MODE	DEPTH FEET	LEGEND USCS	DESCRIPTION	STAIN/ OTHER
						0		0-4" CONCRETE	No
						1		Medium SAND, Brown, Moist, V. Friable	No
						2			
						3		Clayey SAND, Brown w/red orange mottles; Moist; Firm	No
						4			
B-17-1	4 1/4-4 1/2'	100	36			5			
								Increase in % clay, more stiff	?
						6		Clayey SAND;Brown w/ occassional red-orange mottles; V. Moist, Friable.	
B-17-2	6 1/4-6 1/2	100	30			7			
						8			
						9			
						10			
								Sampling & augering equipment washed w/soapy water, rinsed	

THIS LOG OF SUBSURFACE CONDITIONS APPLIES ONLY AT THE SPECIFIC LOCATION AND DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF CONDITIONS AT OTHER LOCATIONS AND TIMES.

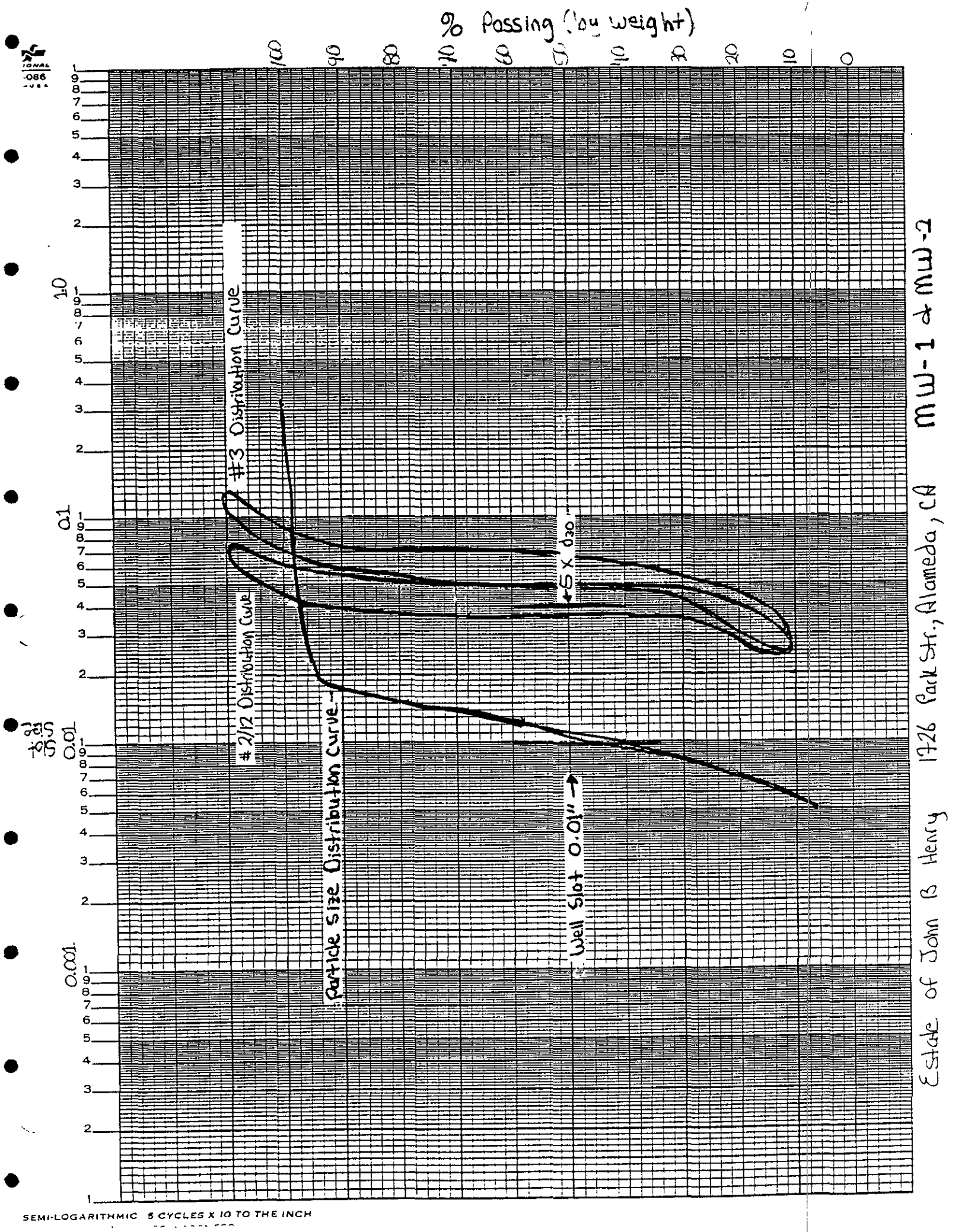
LOG OF BORING NUMBER B-18

PROJECT NAME: THE ESTATE OF JOHN B. HENRY	PROJECT NUMBER:104891	SHEET 1 OF 1
LOCATION: 1726 PARK STREET, ALAMEDA, CALIFORNIA 94501		DATE: 5-8-92
DRILLER: K L DRILLING	DRILL METHOD: HAND AUGER	
LICENSE #:	SAMPLE METHOD:HAND SLIDE HAMMER W/6" X 2" SAMPLER	
AGENCY: ALAMEDA COUNTY HEALTH DEPT	INSPECTOR:	BORING DIA.: 2 1/2"
LOGGER: MICHALE PRINCEVALLE	APPROVED BY:	TOTAL DEPTH: 6 1/4'

** NOTICE - LIMITATIONS APPLY TO THIS LOG - SEE ATTACHED KEY SHEET **

SAMPLE LABEL	SAMPLE DEPTH	REC %	BLOWS /FT	PPMV	MODE	DEPTH FEET	LEGEND USCS	DESCRIPTION	STAIN/ OTHER
						0		0-4" CONCRETE	
						1		Medium SAND, Brown, Moist, Loose	No
						2			
						3			
						4			
								some red orange mottles	
						5			
B-18-2	6-6 1/4	100	45			6		Medium SAND; Brown w/ red-orange mottles; V. Moist, Loose to Friable.	
						7			
						8			
						9			
						10			

THIS LOG OF SUBSURFACE CONDITIONS APPLIES ONLY AT THE SPECIFIC LOCATION AND DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF CONDITIONS AT OTHER LOCATIONS AND TIMES.


% Passing (by weight)
100
90
80
70
60
50
40
30
20
10
0
#3 Distribution Curve
#2 1/2 Distribution Curve
Particle Size Distribution Curve
5 X d30
Well Slot 0.01"
1.0
0.1
0.01
0.001
SEMI-LOGARITHMIC 5 CYCLES X 10 TO THE INCH
MW-1 & MW-2
1726 Park Str., Alameda, CA
Estate of John B Henry

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 107346-004
CLIENT: TMC ENVIRONMENTAL, INC.
PROJECT ID: 104891
LOCATION: PARK STREET, ALAMEDA
SAMPLE ID: COMP B10-8-8.5 & B11-7.5-8

DATE SAMPLED: 05/08/92
DATE RECEIVED: 05/08/92
DATE ANALYZED: 05/13/92
DATE REPORTED: 06/04/92

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

SIEVE # (Tyler Sieve Units)	Opening in Inches	WEIGHT (g)	% DISTRIBUTION (%) Retained	% Passing
5	0.187	0.00	0.00	
6	0.131	0.00	0.00	100.0
-		0.04	0.03	99.8
9	0.078	0.19	0.16	99.6
10	0.065	0.17	0.14	99.5
12	0.055	0.22	0.18	99.3
16	0.039	0.50	0.42	98.9
24	0.0276	0.51	0.43	98.5
28	0.0237	0.88	0.73	97.8
32	0.0195	3.14	2.62	95.2
42	± 0.0156	19.23	16.02	79.2
48	0.0116	24.88	20.73	58.5
80	0.0069	46.00	38.33	20.2
120	± 0.0050	15.81	13.20	7.0
200	0.0029	7.27	6.50	0.5
PAN		1.16	0.97	

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (415) 486-0900

DATE RECEIVED: 05/08/92
DATE REPORTED: 06/04/92

LABORATORY NUMBER: 107346

CLIENT: TMC ENVIRONMENTAL, INC.

PROJECT ID: 104891

LOCATION: PARK STREET, ALAMEDA

RESULTS: SEE ATTACHED

Reviewed By

Reviewed By

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 107346-001
CLIENT: TMC ENVIRONMENTAL, INC.
PROJECT ID: 104891
LOCATION: PARK STREET, ALAMEDA
SAMPLE ID: B14-4.5-5

DATE SAMPLED: 05/08/92
DATE RECEIVED: 05/08/92
DATE ANALYZED: 05/13/92
DATE REPORTED: 06/04/92

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

SIEVE # (Tyler Sieve Units)	WEIGHT (g)	% DISTRIBUTION (%)
5	0.00	0.00
6	0.00	0.00
7	0.00	0.00
9	0.07	0.07
10	0.15	0.15
12	0.41	0.41
16	1.47	1.48
24	4.00	4.02
28	5.12	5.15
32	4.04	4.06
42	19.14	19.25
48	18.99	19.10
80	27.67	27.83
120	11.42	11.30
200	5.49	5.52
PAN	1.62	1.63

Chain of Custody Form

Curtis & Tompkins, Ltd
2323 Fifth Street
Berkeley, California 94710
(415) 486-0900

Samplers _____

Job Description 107346

Job Number _____

Client Contact Nancy S. Wilson

Recorder _____

Matrix: Water	Soil	Waste	Oil			#Containers	Method Preserved: H_2SO_4	HNO_3	Ice	None	Other	Sample Number	Sampling Date: Yr	Mo	Dy	Time	SAMPLE NOTES	ANALYSIS REQUESTED: Store Site
	1											107346-1						1
												-2					1 composite -2 & 3	
												-3						
												107346-4					label it -4	1

Laboratory Notes :

Please composite 107346-2 and 107346-3 into 1 sample and label it 107346-4

Chain of Custody Record	
Relinquished by: (signature) Date/Hr: Nancy S. Wilson	Received by (signature)
Relinquished by: (signature) Date/Hr	Received by (signature)
Relinquished by: (signature) Date/Hr	Received by (signature)
Relinquished by: (signature) Date/Hr	Received by (signature)
Dispatched by: (signature) Date/Hr	Received for Lab by (signature)

Curtis & Tompkins, Ltd
2323 Fifth Street
Berkeley, California 94710
(415) 486-0900

Chain of Custody Form

Job Description 107346

Job Number

Client Contact Nancy Wilson

Samplers

Recorder

Matrix: Water	Soil	Waste	Oil			#Containers	Method Preserved: H_2SO_4	HNO_3	Ice	None	Other	Sample Number	Sampling Date: Yr	Mo	Dy	Time	SAMPLE NOTES	ANALYSIS REQUESTED: Sieve Size
	✓											107346-1						✓
												-2					composite -2 & -3	
												-3						
												107346-4					label it -4	✓

Laboratory Notes.

Please composite 107346-2 and 107346-3 into 1 sample and label it 107346-4

Chain of Custody Record

Relinquished by: (signature)	Date/Hr	Received by (signature)
Nancy J. Wilson	5-11-92	Tracy E. Winkler
Dispatched by: (signature)	**Date/Hr**	**Received for Lab by (signature)**
Tracy E. Winkler	5-11-92 1445	Sophia Petz 5-11 1445

ATTACHMENT 2

LABORATORY REPORTS

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (415) 486-0900

DATE RECEIVED: 05/05/92
DATE REPORTED: 05/20/92

LABORATORY NUMBER: 107299

CLIENT: TMC ENVIRONMENTAL, INC.

PROJECT ID: 104891

LOCATION: PARK STREET, ALAMEDA

RESULTS: SEE ATTACHED

Reviewed By

Reviewed By

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 107299-22
CLIENT: TMC ENVIRONMENTAL, INC.
PROJECT ID: 104891
LOCATION: PARK STREET, ALAMEDA
SAMPLE ID: B-15-6.5-7

DATE SAMPLED: 05/05/92
DATE RECEIVED: 05/05/92
DATE ANALYZED: 05/11/92
DATE REPORTED: 05/15/92

EPA 8010: Volatile Halocarbons in Soil & Wastes
Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	2000
Bromomethane	ND	2000
Vinyl chloride	ND	2000
Chloroethane	ND	2000
Methylene chloride	ND	4000
Trichlorofluoromethane	ND	1000
1,1-Dichloroethene	ND	1000
1,1-Dichloroethane	ND	1000
cis-1,2-Dichloroethene	ND	1000
trans-1,2-Dichloroethene	ND	1000
Chloroform	ND	1000
Freon 113	ND	1000
1,2-Dichloroethane	ND	1000
1,1,1-Trichloroethane	ND	1000
Carbon tetrachloride	ND	1000
Bromodichloromethane	ND	1000
1,2-Dichloropropane	ND	1000
cis-1,3-Dichloropropene	ND	1000
Trichloroethylene	ND	1000
1,1,2-Trichloroethane	ND	1000
trans-1,3-Dichloropropene	ND	1000
Dibromochloromethane	ND	1000
2-Chloroethylvinyl ether	ND	2000
Bromoform	ND	1000
Tetrachloroethylene	ND	1000
1,1,2,2-Tetrachloroethane	ND	1000
Chlorobenzene	ND	1000
1,3-Dichlorobenzene	ND	1000
1,2-Dichlorobenzene	ND	1000
1,4-Dichlorobenzene	ND	1000

ND = Not detected at or above reporting limit.

QA QC SUMMARY

Surrogate Recovery, %	104

Curtis & Tompkins, Ltd

LABORATORY NUMBER: 107299-10
CLIENT: TMC ENVIRONMENTAL, INC.
PROJECT ID: 104891
LOCATION: PARK STREET, ALAMEDA
SAMPLE ID: B-10-8-8.5

DATE SAMPLED: 05/05/92
DATE RECEIVED: 05/05/92
DATE ANALYZED: 05/13/92
DATE REPORTED: 05/15/92

EPA 8010: Volatile Halocarbons in Soil & Wastes
Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethylene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
2-Chloroethylvinyl ether	ND	10
Bromoform	ND	5
Tetrachloroethylene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA QC SUMMARY

Surrogate Recovery, %	108

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 107299-5
CLIENT: TMC ENVIRONMENTAL, INC.
PROJECT ID: 104891
LOCATION: PARK STREET, ALAMEDA
SAMPLE ID: B-8-7-7.5 *

DATE SAMPLED: 05/05/92
DATE RECEIVED: 05/05/92
DATE ANALYZED: 05/11/92
DATE REPORTED: 05/15/92

EPA 8010: Volatile Halocarbons in Soil & Wastes
Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	1000
Bromomethane	ND	1000
Vinyl chloride	ND	1000
Chloroethane	ND	1000
Methylene chloride	ND	2000
Trichlorofluoromethane	ND	500
1,1-Dichloroethene	ND	500
1,1-Dichloroethane	ND	500
cis-1,2-Dichloroethene	ND	500
trans-1,2-Dichloroethene	ND	500
Chloroform	ND	500
Freon 113	ND	500
1,2-Dichloroethane	ND	500
1,1,1-Trichloroethane	ND	500
Carbon tetrachloride	ND	500
Bromodichloromethane	ND	500
1,2-Dichloropropane	ND	500
cis-1,3-Dichloropropene	ND	500
Trichloroethylene	ND	500
1,1,2-Trichloroethane	ND	500
trans-1,3-Dichloropropene	ND	500
Dibromochloromethane	ND	500
2-Chloroethylvinyl ether	ND	1000
Bromoform	ND	500
Tetrachloroethylene	ND	500
1,1,2,2-Tetrachloroethane	ND	500
Chlorobenzene	ND	500
1,3-Dichlorobenzene	ND	500
1,2-Dichlorobenzene	ND	500
1,4-Dichlorobenzene	ND	500

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

Surrogate Recovery, %	107

* SAMPLE I.D. SHOULD READ B-8B

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 107299-23
CLIENT: TMC ENVIRONMENTAL, INC.
PROJECT ID: 104891
LOCATION: PARK STREET, ALAMEDA
SAMPLE ID: B8-B

DATE SAMPLED: 05/05/92
DATE RECEIVED: 05/05/92
DATE ANALYZED: 05/11/92
DATE REPORTED: 05/15/92

EPA 8010
Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	100
Bromomethane	ND	100
Vinyl chloride	ND	100
Chloroethane	ND	100
Methylene chloride	ND	1000
Trichlorofluoromethane	ND	50
1,1-Dichloroethene	ND	50
1,1-Dichloroethane	ND	50
cis-1,2-Dichloroethene	ND	50
trans-1,2-Dichloroethene	ND	50
Chloroform	ND	50
Freon 113	ND	50
1,2-Dichloroethane	ND	50
1,1,1-Trichloroethane	ND	50
Carbon tetrachloride	ND	50
Bromodichloromethane	ND	50
1,2-Dichloropropane	ND	50
cis-1,3-Dichloropropene	ND	50
Trichloroethylene	ND	50
1,1,2-Trichloroethane	ND	50
trans-1,3-Dichloropropene	ND	50
Dibromochloromethane	ND	50
2-Chloroethylvinyl ether	ND	100
Bromoform	ND	50
Tetrachloroethene	ND	50
1,1,2,2-Tetrachloroethane	ND	50
Chlorobenzene	ND	50
1,3-Dichlorobenzene	ND	50
1,2-Dichlorobenzene	ND	50
1,4-Dichlorobenzene	ND	50

ND = Not detected at or above reporting limit.

QA QC SUMMARY

Surrogate Recovery, %	107

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 107299
CLIENT: TMC ENVIRONMENTAL, INC.
PROJECT ID: 104891
LOCATION: PARK STREET, ALAMEDA
SAMPLE ID: METHOD BLANK

DATE ANALYZED: 05/13/92
DATE REPORTED: 05/15/92

EPA 8010
Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethylene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
2-Chloroethylvinyl ether	ND	2
Bromoform	ND	1
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

Surrogate Recovery, %	106

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 107299
CLIENT: TMC ENVIRONMENTAL, INC.
PROJECT ID: 104891
LOCATION: PARK STREET, ALAMEDA
SAMPLE ID: METHOD BLANK

DATE ANALYZED: 05/11/92
DATE REPORTED: 05/15/92

EPA 8010: Volatile Halocarbons in Soil & Wastes
Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethylene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
2-Chloroethylvinyl ether	ND	10
Bromoform	ND	5
Tetrachloroethylene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA QC SUMMARY

Surrogate Recovery, %	102

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 107299-22
CLIENT: TMC ENVIRONMENTAL, INC.
PROJECT ID: 104891
LOCATION: PARK STREET
SAMPLE ID: B-15-6.5-7

DATE SAMPLED: 05/05/92
DATE RECEIVED: 05/05/92
DATE ANALYZED: 05/18/92
DATE REPORTED: 05/20/92

EPA METHOD 8240: VOLATILE ORGANICS IN SOILS & WASTES

COMPOUND	Result ug/kg	Reporting Limit (ug/kg)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	49	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	11	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethylene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
2-Chloroethylvinyl ether	ND	10
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethylene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	51	5
Styrene	ND	5
Total xylenes	260	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	114 %
Toluene-d8	111 %
Bromofluorobenzene	120 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 107299-18
CLIENT: TMC ENVIRONMENTAL, INC.
PROJECT ID: 104891
LOCATION: PARK STREET
SAMPLE ID: B-14-.5-1

DATE SAMPLED: 05/05/92
DATE RECEIVED: 05/05/92
DATE ANALYZED: 05/17/92
DATE REPORTED: 05/20/92

EPA METHOD 8240: VOLATILE ORGANICS IN SOILS & WASTES

COMPOUND	Result ug/kg	Reporting Limit (ug/kg)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethylene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
2-Chloroethylvinyl ether	ND	10
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethylene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	117 %
Toluene-d8	89 %
Bromofluorobenzene	82 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 107299-17
CLIENT: TMC ENVIRONMENTAL, INC.
PROJECT ID: 104891
LOCATION: PARK STREET
SAMPLE ID: B-13-7.5-8

DATE SAMPLED: 05/05/92
DATE RECEIVED: 05/05/92
DATE ANALYZED: 05/18/92
DATE REPORTED: 05/20/92

EPA METHOD 8240: VOLATILE ORGANICS IN SOILS & WASTES

COMPOUND	Result ug/kg	Reporting Limit (ug/kg)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethylene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
2-Chloroethylvinyl ether	ND	10
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethylene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	103 %
Toluene-d8	94 %
Bromofluorobenzene	115 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 107299
CLIENT: TMC ENVIRONMENTAL, INC.
PROJECT ID: 104891
LOCATION: PARK STREET
SAMPLE ID: METHOD BLANK

DATE ANALYZED: 05/17/92
DATE REPORTED: 05/20/92

EPA METHOD 8240: VOLATILE ORGANICS IN SOILS & WASTES

COMPOUND	Result ug/kg	Reporting Limit (ug/kg)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethylene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
2-Chloroethylvinyl ether	ND	10
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethylene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	126 %
Toluene-d8	106 %
Bromofluorobenzene	124 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 107299
CLIENT: TMC ENVIRONMENTAL, INC.
PROJECT ID: 104891
LOCATION: PARK STREET
SAMPLE ID: METHOD BLANK

DATE ANALYZED: 05/18/92
DATE REPORTED: 05/20/92

EPA METHOD 8240: VOLATILE ORGANICS IN SOILS & WASTES

COMPOUND	Result ug/kg	Reporting Limit (ug/kg)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethylene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
2-Chloroethylvinyl ether	ND	10
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethylene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	114 %
Toluene-d8	108 %
Bromofluorobenzene	126 %

Curtis & Tompkins, Ltd

Laboratory Control Sample Report

Lab No: QC28664
Date Analyzed: 18-MAY-92
Matrix: Soil
Batch No: 5310 924077

LCS Datafile: >CEI05

Operator: AV

Compound	Instrdg	SpikeAmt	% Rec	Limits
1,1-Dichloroethene	44.78	50	90 %	48-116%
Trichloroethene	44.83	50	90 %	77-110%
Benzene	46.87	50	94 %	79-114%
Toluene	45.27	50	91 %	60-149%
Chlorobenzene	45.95	50	92 %	80-115%
Surrogate Recoveries				
1,2-Dichloroethane-d4	50.78	50	102 %	68-135%
Toluene-d8	50.29	50	101 %	72-145%
Bromofluorobenzene	63.58	50	127 %	44-228%

Results within Specifications - PASS

Curtis & Tompkins, Ltd

Laboratory Control Sample Report

Lab No: QC28624
Date Analyzed: 17-MAY-92
Matrix: Soil
Batch No: 5300 924053

LCS Datafile: >CEH03

Operator: AV

Compound	Instrdg	SpikeAmt	% Rec	Limits
1,1-Dichloroethene	46.88	50	94 %	48-116%
Trichloroethene	47.99	50	96 %	77-110%
Benzene	50.1	50	100 %	79-114%
Toluene	48.22	50	96 %	60-149%
Chlorobenzene	49.22	50	98 %	80-115%
Surrogate Recoveries				
1,2-Dichloroethane-d4	54.29	50	109 %	68-135%
Toluene-d8	46.34	50	93 %	72-145%
Bromofluorobenzene	56.45	50	113 %	44-228%

Results within Specifications - PASS

Curtis & Tompkins, Ltd

LABORATORY NUMBER: 107299-23
CLIENT: TMC ENVIRONMENTAL, INC.
PROJECT ID: 104891
LOCATION: PARK STREET
SAMPLE ID: B8-B

DATE SAMPLED: 05/05/92
DATE RECEIVED: 05/05/92
DATE ANALYZED: 05/18/92
DATE REPORTED: 05/20/92

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	1,000
Bromomethane	ND	1,000
Vinyl chloride	ND	1,000
Chloroethane	ND	1,000
Methylene chloride	ND	2,000
Acetone	ND	2,000
Carbon disulfide	ND	500
Trichlorofluoromethane	ND	500
1,1-Dichloroethene	ND	500
1,1-Dichloroethane	ND	500
cis-1,2-Dichloroethene	ND	500
trans-1,2-Dichloroethene	ND	500
Chloroform	ND	500
Freon 113	ND	500
1,2-Dichloroethane	ND	500
2-Butanone	ND	1,000
1,1,1-Trichloroethane	ND	500
Carbon tetrachloride	ND	500
Vinyl acetate	ND	1,000
Bromodichloromethane	ND	500
1,2-Dichloropropane	ND	500
cis-1,3-Dichloropropene	ND	500
Trichloroethylene	ND	500
Dibromochloromethane	ND	500
1,1,2-Trichloroethane	ND	500
Benzene	870	500
trans-1,3-Dichloropropene	ND	500
2-Chloroethylvinyl ether	ND	1,000
Bromoform	ND	500
2-Hexanone	ND	1,000
4-Methyl-2-pentanone	ND	1,000
1,1,2,2-Tetrachloroethane	ND	500
Tetrachloroethylene	ND	500
Toluene	13,000	500
Chlorobenzene	ND	500
Ethyl benzene	5,000	500
Styrene	ND	500
Total xylenes	38,000	500

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	101 %
Toluene-d8	106 %
Bromofluorobenzene	108 %

Curtis & Tompkins, Ltd

LABORATORY NUMBER: 107299
CLIENT: TMC ENVIRONMENTAL, INC.
PROJECT ID: 104891
LOCATION: PARK STREET
SAMPLE ID: METHOD BLANK

DATE ANALYZED: 05/18/92
DATE REPORTED: 05/20/92

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethylene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
2-Chloroethylvinyl ether	ND	10
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethylene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	105 %
Toluene-d8	98 %
Bromofluorobenzene	109 %

Curtis & Tompkins, Ltd

MS/MSD Report

Matrix Sample Number: 107360-001
Lab No: QC28647 QC28648
Matrix: WATER
Batch No: 5305 924099 924100 924107

Date Analyzed: 19-MAY-92
Spike File: >BEI19
Spike Dup File:>BEI20
Analyst: AL

	Instrdg	SpikeAmt	% Rec	Limits
MS RESULTS				
1,1-Dichloroethene	39.32	50	79 %	34-128%
Trichloroethene	49.87	50	100 %	37-160%
Benzene	50.19	50	100 %	79-109%
Toluene	48.41	50	97 %	74-115%
Chlorobenzene	47.11	50	94 %	79-118%
Surrogate Recoveries				
1,2-Dichloroethane-d4	47.92	50	96 %	53-170%
Toluene-d8	44.97	50	90 %	85-114%
Bromofluorobenzene	57.59	50	115 %	91-133%
MSD RESULTS				
1,1-Dichloroethene	36.51	50	73 %	34-128%
Trichloroethene	48.62	50	97 %	37-160%
Benzene	49.75	50	100 %	79-109%
Toluene	48.89	50	98 %	74-115%
Chlorobenzene	52.02	50	104 %	79-118%
Surrogate Recoveries				
1,2-Dichloroethane-d4	54.58	50	109 %	53-170%
Toluene-d8	46.38	50	93 %	85-114%
Bromofluorobenzene	55.69	50	111 %	91-133%
MATRIX RESULTS				
1,1-Dichloroethene	0			
Trichloroethene	0			
Benzene	0			
Toluene	0			
Chlorobenzene	0			
RPD DATA				
1,1-Dichloroethene	7 %			< 24%
Trichloroethene	3 %			< 25%
Benzene	1 %			< 23%
Toluene	1 %			< 37%
Chlorobenzene	10 %			< 27%

Results within Specifications - PASS

BFB failed; CCS passed. ajc 5/19/92

Curtis & Tompkins, Ltd

Laboratory Control Sample Report

Lab No: QC28643
Date Analyzed: 18-MAY-92
Matrix: Water
Batch No: 5305 924078

LCS Datafile: >BEI04

Operator: AL

Compound	Instrdg	SpikeAmt	% Rec	Limits
1,1-Dichloroethene	40.15	50	80 %	34-128%
Trichloroethene	49.82	50	100 %	37-160%
Benzene	48.99	50	98 %	79-109%
Toluene	51.73	50	103 %	74-115%
Chlorobenzene	53.89	50	108 %	79-118%
Surrogate Recoveries				
1,2-Dichloroethane-d4	49.22	50	98 %	53-170%
Toluene-d8	50.18	50	100 %	85-114%
Bromofluorobenzene	53.02	50	106 %	91-133%

Results within Specifications - PASS

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 107299
CLIENT: TMC ENVIRONMENTAL, INC.
PROJECT ID: 104891
LOCATION: PARK STREET, ALAMEDA

DATE SAMPLED: 05/05/92
DATE RECEIVED: 05/05/92
DATE ANALYZED: 05/09/92
DATE REPORTED: 05/15/92

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)
107299-17	B-13-7.5-8	ND	1
107299-18	B-14-.5-1	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY: LABORATORY CONTROL SAMPLE

RECOVERY, %	116

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 107299
CLIENT: TMC ENVIRONMENTAL, INC.
PROJECT ID: 104891
LOCATION: PARK STREET, ALAMEDA

DATE SAMPLED: 05/05/92
DATE RECEIVED: 05/05/92
DATE ANALYZED: 05/08/92
DATE REPORTED: 05/15/92

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)
107299-23	B8-B	120,000	670	8,000	3,600	21,000

QA/QC SUMMARY

RPD, %	1
RECOVERY, %	96

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 107299
CLIENT: TMC ENVIRONMENTAL, INC.
PROJECT ID: 104891
LOCATION: PARK STREET, ALAMEDA

DATE SAMPLED: 05/05/92
DATE RECEIVED: 05/05/92
DATE ANALYZED: 05/08-09/92
DATE REPORTED: 05/15/92

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)
107299-1	B-8-2-2.5	ND(1)	ND(5)	ND(5)	ND(5)	ND(5)
107299-2	B-8-2.5-3	ND(1)	ND(5)	ND(5)	ND(5)	ND(5)
107299-3	B-8-4-4.5	5.2	15	9	8	320
107299-8	B-10-4.5-5	ND(1)	ND(5)	ND(5)	ND(5)	ND(5)
107299-11	B-11-5.5-6	ND(1)	ND(5)	ND(5)	ND(5)	ND(5)
107299-13	B-12-4.5-5	ND(1)	ND(5)	ND(5)	ND(5)	ND(5)
107299-14	B-12-7-7.5	ND(1)	ND(5)	ND(5)	ND(5)	ND(5)
107299-15	B-13-4-4.5	ND(1)	ND(5)	ND(5)	ND(5)	ND(5)
107299-19	B-14-4-4.5	ND(1)	ND(5)	ND(5)	ND(5)	ND(5)
107299-20	B-14-5.5-6	ND(1)	ND(5)	ND(5)	ND(5)	ND(5)
107299-21	B-15-4.5-5	ND(1)	ND(5)	ND(5)	ND(5)	ND(5)

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

QA/QC SUMMARY: LABORATORY CONTROL SAMPLE

RECOVERY, %	116

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 107299
CLIENT: TMC ENVIRONMENTAL, INC.
PROJECT ID: 104891
LOCATION: PARK STREET, ALAMEDA

DATE SAMPLED: 05/05/92
DATE RECEIVED: 05/05/92
DATE ANALYZED: 05/07/92
DATE REPORTED: 05/15/92

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)
107299-4	B-8-5.5-6	1,300	ND(400)	3,600	15,000	90,000
107299-5	B-8-7-7.5	550	ND(400)	2,400	7,400	46,000
107299-9	B-10-6-6.5	870	ND(400)	ND(400)	12,000	67,000
107299-12	B-11-7-7.5	580	ND(400)	ND(400)	1,600	6,200
107299-22	B-15-6.5-7	1,000	1,600	1,600	10,000	58,000

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

QA/QC SUMMARY

RPD, %	11
RECOVERY, %	95

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 107299
CLIENT: TMC ENVIRONMENTAL, INC.
PROJECT ID: 104891
LOCATION: PARK STREET, ALAMEDA

DATE SAMPLED: 05/05/92
DATE RECEIVED: 05/05/92
DATE ANALYZED: 05/07/92
DATE REPORTED: 05/15/92

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)
107299-6	B-9-6-6.5 ✓	94	ND(80)	120	500	3,400

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

QA·QC SUMMARY

RPD, %	1
RECOVERY, %	96

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 107299
CLIENT: TMC ENVIRONMENTAL SERVICES
PROJECT ID: 104891
LOCATION: PARK STREET, ALAMEDA

DATE SAMPLED: 05/05/92
DATE RECEIVED: 05/05/92
DATE EXTRACTED: 05/07/92
DATE ANALYZED: 05/09,12/92
DATE REPORTED: 05/15/92

Extractable Petroleum Hydrocarbons in Soils & Wastes
California DOHS Method
LUFT Manual October 1989

LAB ID	SAMPLE ID	KEROSENE RANGE (mg/Kg)	DIESEL RANGE (mg/Kg)	REPORTING LIMIT* (mg/Kg)
107299-1	B-8-2-2.5	ND	2	1
107299-2	B-8-2.5-3 ***	ND	ND	1
107299-3	B-8-4-4.5 ***	**	ND	1
107299-4	B-8-5.5-6 ***	**	31	1
107299-5	B-8-7-7.5 ***	**	21	1
107299-6	B-9-6-6.5	**	10	1
107299-8	B-10-4.5-5	ND	1	1
107299-9	B-10-6-6.5	**	57	10
107299-11	B-11-5.5-6	ND	ND	1
107299-12	B-11-7-7.5	**	2	1

*Reporting limit applies to all analytes.

** Quantitated as diesel.

QA/QC SUMMARY

RPD, %	3
RECOVERY, %	89

*** SAMPLE I.D. SHOULD READ B-8B

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 107299
CLIENT: TMC ENVIRONMENTAL SERVICES
PROJECT ID: 104891
LOCATION: PARK STREET, ALAMEDA

DATE SAMPLED: 05/05/92
DATE RECEIVED: 05/05/92
DATE EXTRACTED: 05/07/92
DATE ANALYZED: 05/09,12/92
DATE REPORTED: 05/15/92

Extractable Petroleum Hydrocarbons in Soils & Wastes
California DOHS Method
LUFT Manual October 1989

LAB ID	SAMPLE ID	KEROSENE RANGE (mg/Kg)	DIESEL RANGE (mg/Kg)	REPORTING LIMIT* (mg/Kg)
107299-13	B-12-4.5-5	ND	ND	1
107299-14	B-12-7-7.5	ND	ND	1
107299-15	B-13-4-4.5	ND	ND	1
107299-17	B-13-7.5-8	ND	ND	1
107299-18	B-14-.5-1	ND	5	1
107299-19	B-14-4-4.5	**	10	1
107299-20	B-14-5.5-6	ND	ND	1
107299-21	B-15-4.5-5	ND	ND	1
107299-22	B-15-6.5-7	**	7	1

*Reporting limit applies to all analytes.

** Quantitated as diesel.

QA/QC SUMMARY

RPD, %	3
RECOVERY, %	82

Curtis & Tompkins, Ltd

LABORATORY NUMBER: 107299
CLIENT: TMC ENVIRONMENTAL, INC.
PROJECT ID: 104891
LOCATION: PARK STREET, ALAMEDA

DATE SAMPLED: 05/05/92
DATE RECEIVED: 05/05/92
DATE EXTRACTED: 05/09/92
DATE ANALYZED: 05/12/92
DATE REPORTED: 05/15/92

Extractable Petroleum Hydrocarbons in Aqueous Solutions
California DOHS Method
LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (ug/L)	DIESEL RANGE (ug/L)	REPORTING LIMIT* (ug/L)
107299-23	B8-B	**	2,000	500

*Reporting limit applies to all analytes.

** Quantitated as diesel.

QA/QC SUMMARY

RPD, %	1
RECOVERY, %	93

MS/MSD SUMMARY SHEET FOR EPA 8010/8020

INSTRUMENT: HP-5890 COLUMN: RESTEK 502.2 DETECTORS: HALL/PID

Operator:	MBP	Spike file:	132W/X005
Analysis date:	5/11/92	Spike dup file:	132W/X006
Sample type:	WATER	Instrument:	GC12
Sample ID:	107299-023 1:50	Sequence name:	MAY11

8010 MS/MSD DATA (spiked at 20 ppb) Ave Rec= 103 %

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	22.01	110 %	OK	61 - 145
Trichloroethene	21.07	105 %	OK	71 - 120
Chlorobenzene	19.08	95 %	OK	75 - 130
SPIKE DUP COMPOUNDS				
1,1-Dichloroethene	20.77	104 %	OK	61 - 145
Trichloroethene	21.41	107 %	OK	71 - 120
Chlorobenzene	19.76	99 %	OK	75 - 130
SURROGATES				
BROMOBENZENE (MS)	102.66	103 %	OK	75 - 115
BROMOBENZENE (MSD)	101.62	102 %	OK	75 - 115

8020 MS/MSD DATA (spiked at 20 ppb) Ave Rec= 97 %

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
Benzene	19.18	96 %	OK	76 - 127
Toluene	22.23	111 %	OK	76 - 125
Chlorobenzene	16.84	84 %	OK	75 - 130
SPIKE DUP COMPOUNDS				
Benzene	19.41	97 %	OK	76 - 127
Toluene	21.69	108 %	OK	76 - 125
Chlorobenzene	17.05	85 %	OK	75 - 130
SURROGATES				
BROMOBENZENE (MS)	102.61	103 %	OK	75 - 120
BROMOBENZENE (MSD)	102.49	102 %	OK	75 - 120

RPD DATA 8010 RPD= 3.6 % 8020 RPD= 1.6 %

8010 COMPOUNDS	SPIKE	SPIKE DUP	RPD	STATUS	LIMITS
1,1-Dichloroethene	22.01	20.77	6 %	OK	< 14
Trichloroethene	21.07	21.41	2 %	OK	< 14
Chlorobenzene	19.08	19.76	4 %	OK	< 13
8020 COMPOUNDS					
Benzene	19.18	19.41	1 %	OK	< 11
Toluene	22.23	21.69	2 %	OK	< 13
Chlorobenzene	16.84	17.05	1 %	OK	< 13

SPIKE RECOVERY LIMITS FROM SW-846 METHODS 8010/8020 TABLE 3;
SURROGATE RECOVERY LIMITS FROM LCS CONTROL CHARTS (NOV. 91);
RPD LIMITS FROM CLP SOW 2/88 VOLATILES.

LABORATORY CONTROL SAMPLE SUMMARY SHEET FOR EPA 8010/8020

Operator:	MBP	Spike file:	132W/X003
Analysis date:	5/11/92	Instrument:	GC12 (QUANT COLUMN)
Sample type:	WATER	Sequence name:	MAY11

LCS SPIKE DATA (spiked at 20 ppb)

8010 COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	22.33	112 %	OK	78 - 132
Trichloroethene	21.30	107 %	OK	85 - 124
Chlorobenzene	17.14	86 %	OK	70 - 128
SURROGATES				
Bromobenzene	102.40	102 %	OK	93 - 121

8020 COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
Benzene	18.91	95 %	OK	86 - 119
Toluene	18.75	94 %	OK	85 - 120
Chlorobenzene	19.41	97 %	OK	87 - 128
SURROGATES				
Bromobenzene	100.63	101 %	OK	93 - 109

SPIKE AND SURROGATE RECOVERY LIMITS
FROM LCS WATER CONTROL CHARTS (APR. 92).

LABORATORY CONTROL SAMPLE SUMMARY SHEET FOR EPA 8010/8020

Operator:	MBP	Spike file:	133W/X014
Analysis date:	5/13/92	Instrument:	GC12 (QUANT COLUMN)
Sample type:	SOIL	Sequence name:	MAY12

LCS SPIKE DATA (spiked at 20 ppb)

8010 COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	26.54	133 %	OK	28 - 167
Trichloroethene	21.76	109 %	OK	35 - 146
Chlorobenzene	17.39	87 %	OK	38 - 150
SURROGATES				
Bromobenzene	105.26	105 %	NOT OK	69 - 105

8020 COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
Benzene	21.24	106 %	OK	39 - 150
Toluene	20.73	104 %	OK	46 - 148
Chlorobenzene	20.19	101 %	OK	55 - 135
SURROGATES				
Bromobenzene	100.69	101 %	OK	91 - 107

SPIKE RECOVERY LIMITS FROM SW-846 METHODS 8010/8020 TABLE 3;
SURROGATE RECOVERY LIMITS FROM LCS SOIL CONTROL CHARTS (NOV. 91)

MS/MSD SUMMARY SHEET FOR EPA 8010/8020

INSTRUMENT: HP-5890 COLUMN: RESTEK 502.2 DETECTORS: HALL/PID

Operator:	MBP	Spike file:	133W/X016
Analysis date:	5/13/92	Spike dup file:	133W/X017
Sample type:	SOIL	Instrument:	GC12
Sample ID:	107299-010	Sequence name:	MAY12

8010 MS/MSD DATA (spiked at 20 ppb) Ave Rec= 120 %

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	28.66	143 %	OK	28 - 167
Trichloroethene	23.39	117 %	OK	35 - 146
Chlorobenzene	20.03	100 %	OK	38 - 150
SPIKE DUP COMPOUNDS				
1,1-Dichloroethene	28.59	143 %	OK	28 - 167
Trichloroethene	23.37	117 %	OK	35 - 146
Chlorobenzene	19.61	98 %	OK	38 - 150
SURROGATES				
BROMOBENZENE (MS)	102.57	103 %	OK	91 - 107
BROMOBENZENE (MSD)	104.11	104 %	OK	91 - 107

8020 MS/MSD DATA (spiked at 20 ppb) Ave Rec= 119 %

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
Benzene	26.64	133 %	OK	39 - 150
Toluene	25.58	128 %	OK	46 - 148
Chlorobenzene	19.54	98 %	OK	38 - 150
SPIKE DUP COMPOUNDS				
Benzene	29.12	146 %	OK	39 - 150
Toluene	22.52	113 %	OK	46 - 148
Chlorobenzene	19.88	99 %	OK	55 - 135
SURROGATES				
BROMOBENZENE (MS)	105.94	106 %	OK	91 - 120
BROMOBENZENE (MSD)	105.61	106 %	OK	91 - 120

RPD DATA 8010 RPD= 0.8 % 8020 RPD= 7.8 %

8010 COMPOUNDS	SPIKE	SPIKE DUP	RPD	STATUS	LIMITS
1,1-Dichloroethene	28.66	28.59	0 %	OK	< 22
Trichloroethene	23.39	23.37	0 %	OK	< 23
Chlorobenzene	20.03	19.61	2 %	OK	< 21
8020 COMPOUNDS					
Benzene	26.64	29.12	9 %	OK	< 21
Toluene	25.58	22.52	13 %	OK	< 21
Chlorobenzene	19.54	19.88	2 %	OK	< 21

SPIKE RECOVERY LIMITS FROM SW-846 METHODS 8010/8020 TABLE 3;
SURROGATE RECOVERY LIMITS FROM LCS CONTROL CHARTS (NOV. 91);
RPD LIMITS FROM CLP SOW 2/88 VOLATILES.

Curtis & Tompkins, Ltd.

Client: TMC Environmental, Inc.

Laboratory Login Number: 107299

Project Name: Park Street, Alameda

Project Number: 104891

Report Date: 15 May 92

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **METHOD:** SMWW 17:5520BF

Lab ID	Sample ID	Matrix	Sampled	Received	Analyzed	Result	Units	RL	Analyst	QC Batch
107299-023	SB-B	Water	05-MAY-92	06-MAY-92	11-MAY-92	ND	mg/L	5	TR	5244

ND = Not Detected at or above Reporting Limit (RL).

Curtis & Tompkins, Ltd

Q C B a t c h R e p o r t

Client: TMC Environmental, Inc.
Project Name: Park Street, Alameda
Project Number: 104891

Laboratory Login Number: 107299
Report Date: 15 May 92

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **QC Batch Number: 5244**

Blank Results

Sample ID	Result	MDL	Units	Method	Date Analyzed
BLANK	ND	5	mg/L	SMWW 17:5520BF	11-MAY-92

Spike/Duplicate Results

Sample ID	Recovery	Method	Date Analyzed
BS	89%	SMWW 17:5520BF	11-MAY-92
BSD	88%	SMWW 17:5520BF	11-MAY-92

		Control Limits
Average Spike Recovery	88%	80% - 120%
Relative Percent Difference	.7%	< 20%

Curtis & Tompkins, Ltd.

Client: TMC Environmental, Inc.

Laboratory Login Number: 107299

Project Name: Park Street, Alameda
Project Number: 104891

Report Date: 15 May 92

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **METHOD:** SMWW 17:5520EF

Lab ID	Sample ID	Matrix	Sampled	Received	Analyzed	Result	Units	RL	Analyst	QC Batch
107299-002	B-8-2.5-3	Soil	05-MAY-92	06-MAY-92	12-MAY-92	ND	mg/Kg	50	TR	5260
107299-012	B-11-7-7.5	Soil	05-MAY-92	06-MAY-92	12-MAY-92	ND	mg/Kg	50	TR	5260
107299-013	B-12-4.5-5	Soil	05-MAY-92	06-MAY-92	12-MAY-92	ND	mg/Kg	50	TR	5260
107299-014	B-12-7-7.5	Soil	05-MAY-92	06-MAY-92	12-MAY-92	ND	mg/Kg	50	TR	5260
107299-015	B-13-4-4.5	Soil	05-MAY-92	06-MAY-92	12-MAY-92	ND	mg/Kg	50	TR	5260
107299-017	B-13-7.5-8	Soil	05-MAY-92	06-MAY-92	12-MAY-92	ND	mg/Kg	50	TR	5260
107299-018	B-14-.5-1	Soil	05-MAY-92	06-MAY-92	12-MAY-92	1800	mg/Kg	50	TR	5260
107299-019	B-14-4-4.5	Soil	05-MAY-92	06-MAY-92	12-MAY-92	ND	mg/Kg	50	TR	5260
107299-020	B-14-5.5-6	Soil	05-MAY-92	06-MAY-92	12-MAY-92	ND	mg/Kg	50	TR	5260

ND = Not Detected at or above Reporting Limit (RL).

Curtis & Tompkins, Ltd

Q C B a t c h R e p o r t

Client: TMC Environmental, Inc.
Project Name: Park Street, Alameda
Project Number: 104891

Laboratory Login Number: 107299
Report Date: 15 May 92

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **QC Batch Number: 5260**

Blank Results

Sample ID	Result	MDL	Units	Method	Date Analyzed
BLANK	ND	50	mg/Kg	SMWW 17:5520EF	12-MAY-92

Spike/Duplicate Results

Sample ID	Recovery	Method	Date Analyzed
BS	96%	SMWW 17:5520EF	12-MAY-92
BSD	92%	SMWW 17:5520EF	12-MAY-92

		Control Limits
Average Spike Recovery	94%	80% - 120%
Relative Percent Difference	3.7%	< 20%

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. 104891	Project Name: Melinda Henry-dade	Project Contact: Michael Pencevalle	Page 1 of 3
Project Address: 1726 Pack Street, Alameda, Cal.			Turnaround Time: 5 days
Sampler: Tom Ghyllotto	Laboratory Name: Curtis & Tompkins		Lab No: 159

LAB ID NO.	DATE	TIME	SOIL	WATER	SAMPLE LABEL	TPH-GAS BTEX	TPH-DIESEL BTEX	ORGANIC LEAD	Oil & Grease	EPA 8010	EPA 8240	REMARKS ADDITIONAL ANALYSIS
107299-1	5-5-92	855	X		B-8-2-2.5	X	X		X	ok		
-2	5-5-92	915	X		8B-2.5-3	X	X		X			Brown sand
-3	5-5-92	920	X		8B-4-4.5	X	X		X			Sand, green-gray
-4	5-5-92	930	X		8B-5.5-6	X	X		X			clayey sand, gray
-5	5-5-92	940	X		8B 7-7.5	X	X		X	X		" " "
-6	5-5-92	1030	X		B-9-6-6.5	X	X		X			Sandy clay, gray
-7	5-5-92	1040	X		B-9-8-8.5	X	X		X			Hold
-8	5-5-92	1100	X		B10-4.5-5	X	X		X			
-9	5-5-92	1110	X		B10-6-6.5	X	X		X			
-10	5-5-92	1122	X		B10-8-8.5	-	-		-	X		

Relinquished By: (Signature) Thomas Ghyllotto	Date: 5-5-92 Time: 1700	Received By: (Signature)	Date: Time:		
Relinquished By: (Signature)	Date: Time:	Received By: (Signature)	Date: Time:		
Relinquished By: (Signature)	Date: Time:	Received By: (Signature)	Date: 5/5/92 Time: 1700		

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. 104891	Project Name: Melinda Henry Dare	Project Contact: Michael Peicevalle	Page 2 of 3
Project Address: 1726 Park Street, Alameda, Cal.			Turnaround Time: 5 days
Sampler: Tom Ghiglotto	Laboratory Name: Curtis & Tompkins		Lab No: 159

LAB ID NO.	DATE	TIME	SOIL	WATER	SAMPLE LABEL	TPH-GAS BTEX	TPH-DIESEL BTEX	ORGANIC LEAD	Oil & Grease	EPA 8010	EPA 8240	REMARKS ADDITIONAL ANALYSIS
-11	5-5-92	1230	X		B11-5.5-6	X	X					
-12	5-5-92	1240	X		B11-7-7.5	X	X		X			
-13	5-5-92	1305	X		B12-4.5-5	X	X		X			
-14	5-5-92	1330	X		B12-7-7.5	X	X		X			
-15	5-5-92	1355	X		B13-4.5-5	X	X		X			
-16	5-5-92	1405	X		B13-5.5-6							Hold
-17	5-5-92	1410	X		B13-7.5-8	X	X	X	X	X	X	TVH, TEH, 8240, Oil & Grease
-18	5-5-92	1435	X		B14-.5-1	X	X		X	X	X	" " " "
-19	5-5-92	1440	X		B14-4-4.5	X	X		X			Aspen Michael 5/6/92
-20	5-5-92	1450	X		B14-5.5-6	X	X		X			

Relinquished By: (Signature) Thomas Ghiglotto	Date: 5-5-92 Time: 1700	Received By: (Signature)	Date: Time:
Relinquished By: (Signature)	Date: Time:	Received By: (Signature)	Date: Time:
Relinquished By: (Signature)	Date: Time:	Received By: (Signature)	Date: 5/5/92 Time: 1700

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. 104891	Project Name: Melinda Henry-Dare'	Project Contact: Michael Priceville	Page 3 of 3
Project Address: 1726 Park Street, Alameda, Cal.			Turnaround Time: 5 days
Sampler: Tom Ghiglotto	Laboratory Name: Curtis & Tompkins		Lab No: 159

LAB ID NO.	DATE	TIME	SOIL	WATER	SAMPLE LABEL	TPH-GAS BTEX	TPH-DIESEL	ORGANIC LEAD	OIL & GREASE EPA 5010	EPA 8240	REMARKS ADDITIONAL ANALYSIS
-21	5-5-92	1515	X		B15-4.5-5	X ✓	X ✓				
-22	5-5-92	1525	X		B15-6.5-7	X ✓	X ✓		X	X ✓	
-23	5-5-92	1555		X	B8-B	X ✓	X ✓		X ✓	X	X ✓

Relinquished By: (Signature) Thomas Ghiglotto	Date: 5-5-92 Time: 1700	Received By: (Signature)	Date: Time:
Relinquished By: (Signature)	Date: Time:	Received By: (Signature)	Date: Time:
Relinquished By: (Signature)	Date: Time:	Received By: (Signature)	Date: 5/5/92 Time: 1700

Curtis & Tompkins, Ltd.

VERBAL ADDITIONS / CANCELLATIONS TO ANALYSIS REQUEST SHEET

CLIENT: TMC DATE:

REQUESTED BY: Michael Princevalle TIME: am pm

RECORDED BY: WJW

Current Lab ID (Previous Lab ID)	Client ID	Circle matrix	Specify add or cancel	Analysis	Due date
107299-22		soil water other		8240	5/19
" -23		soil water other			
(-)		soil water other			
(-)		soil water other			
(-)		soil water other			
(-)		soil water other			
(-)		soil water other			
(-)		soil water other			
(-)		soil water other			

Original in job jacket. Copies to analytical departments.

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (415) 486-0900

DATE RECEIVED: 05/08/92
DATE REPORTED: 05/20/92

LABORATORY NUMBER: 107345

CLIENT: TMC ENVIRONMENTAL

PROJECT ID: 104891

LOCATION: MELINDA HENRY-DARE

RESULTS: SEE ATTACHED

Reviewed By

Reviewed By

Curtis & Tompkins, Ltd

LABORATORY NUMBER: 107345
CLIENT: TMC ENVIRONMENTAL
PROJECT ID: 104891
LOCATION: MELINDA HENRY-DARE

DATE SAMPLED: 05/08/92
DATE RECEIVED: 05/08/92
DATE ANALYZED: 05/14/92
DATE REPORTED: 05/20/92

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)
107345-6	MW2-5.5-6	ND(1)	ND(5)	ND(5)	ND(5)	ND(5)

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

QA/QC SUMMARY

RPD, %	9
RECOVERY %	92

Curtis & Tompkins, Ltd

LABORATORY NUMBER: 107345
CLIENT: TMC ENVIRONMENTAL
PROJECT ID: 104891
LOCATION: MELINDA HENRY-DARE

DATE SAMPLED: 05/08/92
DATE RECEIVED: 05/08/92
DATE EXTRACTED: 05/11/92
DATE ANALYZED: 05/12/92
DATE REPORTED: 05/20/92

Extractable Petroleum Hydrocarbons in Soils & Wastes
California DOHS Method
LUFT Manual October 1989

LAB ID	SAMPLE ID	KEROSENE RANGE (mg/Kg)	DIESEL RANGE (mg/Kg)	REPORTING LIMIT* (mg/Kg)
107345-6	MW2-5.5-6	ND	ND	1

ND = Not Detected at or above reporting limit.

*Reporting limit applies to all analytes.

QA/QC SUMMARY

LCS RECOVERY, %	96

Curtis & Tompkins, Ltd.

Client: TMC Environmental, Inc.

Laboratory Login Number: 107345

Project Name: Park Street, Alameda
Project Number: 104891

Report Date: 20 May 92

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **METHOD:** SMWW 17:5520EF

Lab ID	Sample ID	Matrix	Sampled	Received	Analyzed	Result	Units	RL	Analyst	QC Batch
107345-003	MW1-17.5-18	Soil	08-MAY-92	08-MAY-92	15-MAY-92	ND	mg/Kg	50	TR	5295
107345-006	MW2-5.5-6	Soil	08-MAY-92	08-MAY-92	15-MAY-92	ND	mg/Kg	50	TR	5295
107345-007	B-17-1	Soil	08-MAY-92	08-MAY-92	15-MAY-92	ND	mg/Kg	50	TR	5295
107345-008	B-17-2	Soil	08-MAY-92	08-MAY-92	15-MAY-92	240	mg/Kg	50	TR	5295
107345-009	B-18-1	Soil	08-MAY-92	08-MAY-92	15-MAY-92	1600	mg/Kg	50	TR	5295
107345-010	B-16-1	Soil	08-MAY-92	08-MAY-92	15-MAY-92	640	mg/Kg	50	TR	5295
107345-011	B-16-2	Soil	08-MAY-92	08-MAY-92	15-MAY-92	52.	mg/Kg	50	TR	5295

ND = Not Detected at or above Reporting Limit (RL).

Curtis & Tompkins, Ltd.

Q C B a t c h R e p o r t

Client: TMC Environmental, Inc.
Project Name: Park Street, Alameda
Project Number: 104891

Laboratory Login Number: 107345
Report Date: 20 May 92

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **QC Batch Number: 5295**

Blank Results

Sample ID	Result	MDL	Units	Method	Date Analyzed
BLANK	ND	50	mg/Kg	SMWW 17:5520EF	15-MAY-92

Spike/Duplicate Results

Sample ID	Recovery	Method	Date Analyzed
BS	85%	SMWW 17:5520EF	15-MAY-92
BSD	87%	SMWW 17:5520EF	15-MAY-92

		Control Limits
Average Spike Recovery	86%	80% - 120%
Relative Percent Difference	2.1%	< 20%

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 107345-11
CLIENT: TMC ENVIRONMENTAL
PROJECT ID: 104891
LOCATION: MELINDA HENRY-DARE
SAMPLE ID: B-16-2

DATE SAMPLED: 05/08/92
DATE RECEIVED: 05/08/92
DATE ANALYZED: 05/19/92
DATE REPORTED: 05/20/92

EPA METHOD 8240: VOLATILE ORGANICS IN SOILS & WASTES

COMPOUND	Result ug/kg	Reporting Limit (ug/kg)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethylene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
2-Chloroethylvinyl ether	ND	10
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethylene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	132 %
Toluene-d8	125 %
Bromofluorobenzene	146 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 107345-METHOD BLANK
CLIENT: TMC ENVIRONMENTAL
PROJECT ID: 104891
LOCATION: MELINDA HENRY-DARE

DATE ANALYZED: 05/19/92
DATE REPORTED: 05/20/92

EPA METHOD 8240: VOLATILE ORGANICS IN SOILS & WASTES

COMPOUND	Result ug/kg	Reporting Limit (ug/kg)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethylene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
2-Chloroethylvinyl ether	ND	10
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethylene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	128 %
Toluene-d8	119 %
Bromofluorobenzene	134 %

Curtis & Tompkins, Ltd.

QC SUMMARY SHEET FOR EPA 8240

Laboratory Number: 107345
Client: TMC Environmental
Analysis date: 05/19/92
Sample type: Soil
LCS file: cej03

LCS DATA (spiked at 50 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	46.46	93 %	OK	48 - 116
Trichloroethene	51.92	104 %	OK	77 - 110
Benzene	52.53	105 %	OK	79 - 114
Toluene	48.99	98 %	OK	60 - 149
Chlorobenzene	49.60	99 %	OK	80 - 115
SURROGATES				
1,2-Dichloroethane-d4	59.48	119 %	OK	68 - 135
Toluene-d8	56.93	114 %	OK	72 - 145
Bromofluorobenzene	67.46	135 %	OK	44 - 228

QC SUMMARY SHEET FOR EPA 8240

Curtis & Tompkins, Ltd.

Laboratory Number:	107345		
Client:	TMC Environmental	Spike file:	cej11
Analysis date:	05/19/92	Spike dup file:	cej12
Sample type:	Soil		

SPIKE DATA (spiked at 50 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	43.42	87 %	OK	48 - 116
Trichloroethene	47.30	95 %	OK	77 - 110
Benzene	47.04	94 %	OK	79 - 114
Toluene	46.79	94 %	OK	60 - 149
Chlorobenzene	41.70	83 %	OK	80 - 115
SURROGATES				
1,2-Dichloroethane-d4	40.43	81 %	OK	68 - 135
Toluene-d8	56.50	113 %	OK	72 - 145
Bromofluorobenzene	61.92	124 %	OK	44 - 228

SPIKE DUP DATA (spiked at 50 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	39.79	80 %	OK	48 - 116
Trichloroethene	42.88	86 %	OK	77 - 110
Benzene	44.21	88 %	OK	79 - 114
Toluene	43.11	86 %	OK	60 - 149
Chlorobenzene	38.07	76 %	NOT OK	80 - 115
SURROGATES				
1,2-Dichloroethane-d4	39.45	79 %	OK	68 - 135
Toluene-d8	52.65	105 %	OK	72 - 145
Bromofluorobenzene	56.51	113 %	OK	44 - 228

RPD DATA

SPIKE COMPOUNDS	SPIKE	SPIKE DUP	RPD	STATUS	LIMITS
1,1-Dichloroethene	43.42	39.79	9 %	OK	< 21
Trichloroethene	47.30	42.88	10 %	OK	< 11
Benzene	47.04	44.21	6 %	OK	< 7
Toluene	46.79	43.11	8 %	OK	< 10
Chlorobenzene	41.70	38.07	9 %	OK	< 20

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 107345
CLIENT: TMC ENVIRONMENTAL
PROJECT ID: 104891
LOCATION: MELINDA HENRY-DARE

DATE SAMPLED: 05/08/92
DATE RECEIVED: 05/08/92
DATE ANALYZED: 05/13/92
DATE REPORTED: 05/20/92

Total Volatile Hydrocarbons as Gasoline in Aqueous Solutions
California DOHS Method
LUFT Manual October 1989

LAB ID	CLIENT ID	TVH AS GASOLINE (ug/L)	REPORTING LIMIT (ug/L)
107345-4	B15	61,000	1,000

QA/QC SUMMARY

RPD, %	2
RECOVERY, %	105

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 107345
CLIENT: TMC ENVIRONMENTAL
PROJECT ID: 104891
LOCATION: MELINDA HENRY-DARE

DATE SAMPLED: 05/08/92
DATE RECEIVED: 05/08/92
DATE EXTRACTED: 05/14/92
DATE ANALYZED: 05/15/92
DATE REPORTED: 05/20/92

Extractable Petroleum Hydrocarbons in Aqueous Solutions
California DOHS Method
LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (ug/L)	DIESEL RANGE (ug/L)	REPORTING LIMIT* (ug/L)
107345-4	B15	**	850	500

**Kerosene range not reported. Quantitated as diesel range.

*Reporting limit applies to all analytes.

QA/QC SUMMARY

RPD, %	11
RECOVERY, %	107

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 107345-4
CLIENT: TMC ENVIRONMENTAL
PROJECT ID: 104891
LOCATION: MELINDA HENRY-DARE
SAMPLE ID: B15

DATE SAMPLED: 05/08/92
DATE RECEIVED: 05/08/92
DATE ANALYZED: 05/18/92
DATE REPORTED: 05/20/92

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	500
Bromomethane	ND	500
Vinyl chloride	ND	500
Chloroethane	ND	500
Methylene chloride	ND	1,000
Acetone	ND	1,000
Carbon disulfide	ND	250
Trichlorofluoromethane	ND	250
1,1-Dichloroethene	ND	250
1,1-Dichloroethane	ND	250
cis-1,2-Dichloroethene	ND	250
trans-1,2-Dichloroethene	ND	250
Chloroform	ND	250
Freon 113	ND	250
1,2-Dichloroethane	ND	250
2-Butanone	ND	500
1,1,1-Trichloroethane	ND	250
Carbon tetrachloride	ND	250
Vinyl acetate	ND	500
Bromodichloromethane	ND	250
1,2-Dichloropropane	ND	250
cis-1,3-Dichloropropene	ND	250
Trichloroethylene	ND	250
Dibromochloromethane	ND	250
1,1,2-Trichloroethane	ND	250
Benzene	ND	250
trans-1,3-Dichloropropene	ND	250
2-Chloroethylvinyl ether	ND	500
Bromoform	ND	250
2-Hexanone	ND	500
4-Methyl-2-pentanone	ND	500
1,1,2,2-Tetrachloroethane	ND	250
Tetrachloroethylene	ND	250
Toluene	410	250
Chlorobenzene	ND	250
Ethyl benzene	2,300	250
Styrene	ND	250
Total xylenes	16,000	250

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	94 %
Toluene-d8	102 %
Bromofluorobenzene	110 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 107345-METHOD BLANK
CLIENT: TMC ENVIRONMENTAL
PROJECT ID: 104891
LOCATION: MELINDA HENRY-DARE

DATE ANALYZED: 05/18/92
DATE REPORTED: 05/20/92

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethylene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
2-Chloroethylvinyl ether	ND	10
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethylene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	105 %
Toluene-d8	98 %
Bromofluorobenzene	109 %

Curtis & Tompkins, Ltd.

QC SUMMARY SHEET FOR EPA 8240

Laboratory Number:	107345		
Client:	TMC Environmental	Spike file:	bei19
Analysis date:	05/14/92	Spike dup file:	bei20
Sample type:	Water		

SPIKE DATA (spiked at 50 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	39.32	79 %	OK	34 - 128
Trichloroethene	49.87	100 %	OK	37 - 160
Benzene	50.19	100 %	OK	79 - 109
Toluene	48.41	97 %	OK	74 - 115
Chlorobenzene	47.11	94 %	OK	79 - 118
SURROGATES				
1,2-Dichloroethane-d4	47.92	96 %	OK	53 - 170
Toluene-d8	44.97	90 %	OK	85 - 114
Bromofluorobenzene	57.59	115 %	OK	91 - 133

SPIKE DUP DATA (spiked at 50 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	36.51	73 %	OK	34 - 128
Trichloroethene	48.62	97 %	OK	37 - 160
Benzene	49.75	100 %	OK	79 - 109
Toluene	48.89	98 %	OK	74 - 115
Chlorobenzene	52.02	104 %	OK	79 - 118
SURROGATES				
1,2-Dichloroethane-d4	54.58	109 %	OK	53 - 170
Toluene-d8	46.38	93 %	OK	85 - 114
Bromofluorobenzene	55.69	111 %	OK	91 - 133

RPD DATA

SPIKE COMPOUNDS	SPIKE	SPIKE DUP	RPD	STATUS	LIMITS
1,1-Dichloroethene	39.32	36.51	7 %	OK	< 24
Trichloroethene	49.87	48.62	3 %	OK	< 25
Benzene	50.19	49.75	1 %	OK	< 23
Toluene	48.41	48.89	1 %	OK	< 37
Chlorobenzene	47.11	52.02	10 %	OK	< 27

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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. 104891	Project Name: Melinda Henry-Care	Project Contact: Michael Pringevalle	Page 1 of
Project Address: 1726 PARK STREET, Alameda, CALIFORNIA			Turnaround Time: 5 days
Sampler: Tom Ghiglotto	Laboratory Name: CURTIS & TOMPKINS		Lab No: 15 T

LAB ID NO.	DATE	TIME	SOIL	WATER	SAMPLE LABEL	TPH-GAS BTEX	TPH-DIESEL ~~BTEX~~	ORGANIC LEAD	Oil & Grease	[illegible]	EPA 8240	REMARKS ADDITIONAL ANALYSIS
107345-1	5-8-92	850	X		MW1-4.5-5							hold
-2	5-8-92	855	X		MW1-7-7.5							hold
-3	5-8-92	949	X		MW1-17.5-18				X			
-4	5-8-92	1050		X	B15	X	X		[illegible]	[illegible]	X	
-5	5-8-92	1130	X		MW2-1							hold
-6	5-8-92	1145	X		MW2-5.5-6	X	X		X			
-7	5-8-92	100	X		B-17-1				X			
-8	5-8-92	145	X		B-17-2				X			
-9	5-8-92	215	X		B-18-1				X			
-10	5-8-92	330	X		B-16-1				X			

Relinquished By: (Signature) Thomas Ghiglotto	Date: 5-8-92 Time: 1635	Received By: (Signature)	Date: Time:
Relinquished By: (Signature)	Date: Time:	Received By: (Signature)	Date: Time:
Relinquished By: (Signature)	Date: Time:	Received By: (Signature) Joanne Arcotto	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. 104891	Project Name: Melinda Henry-Dale	Project Contact: Michael Princeville	Page 2 of
Project Address: 1726 Park Street, Alameda, California			Turnaround Time: 5 days
Sampler: Tom Ghigliotti	Laboratory Name: Curtis & Tompkins		Lab No: 159

LAB ID NO.	DATE	TIME	SOIL	WATER	SAMPLE LABEL	TPH-GAS BTEX	TPH-DIESEL BTEX	ORGANIC LEAD	OIL & Grease	EPA 8240		REMARKS ADDITIONAL ANALYSIS
107345 -1	5-8-92	3:35	X		B-16-2				X	X		
107346 -1	5-8-92	1605	X		B14- 4.5-5							Sieve Analysis
107346 -2	5-8-92	1610	X		B-10-8-8.5							Composite B-10-8-8.5 & B-11-7.5-8 into one sample for sieve analysis.
107346 -3	5-8-92	1615	X		B-11-7.5-8							

Relinquished By: (Signature) Thomas Ghigliotti	Date: 5-8-92 Time: 1635	Received By: (Signature)	Date: Time:
Relinquished By: (Signature)	Date: Time:	Received By: (Signature)	Date: Time:
Relinquished By: (Signature)	Date: Time:	Received By: (Signature) Joanne Heath	Date: 5/8/92 Time: 1635

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (415) 486-0900

DATE RECEIVED: 05/11/92
DATE REPORTED: 05/22/92

LABORATORY NUMBER: 107360

CLIENT: TMC ENVIRONMENTAL

PROJECT ID: 104891

LOCATION: MELINDA HENRY-DARE

RESULTS: SEE ATTACHED

Reviewed by

Reviewed by

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 107360
CLIENT: TMC ENVIRONMENTAL
PROJECT ID: 104891
LOCATION: MELINDA HENRY-DARE

DATE SAMPLED: 05/11/92
DATE RECEIVED: 05/11/92
DATE ANALYZED: 05/12-13/92
DATE REPORTED: 05/22/92

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)
107360-1	MW2	ND(50)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
107360-2	EQB-1	ND(50)	ND(0.5)	ND(0.5)	ND(0.5)	ND(0.5)
107360-3	MW1	410	ND(0.5)	1.0	4.2	11

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

QA/QC SUMMARY

RPD, %	2
RECOVERY, %	105

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 107360
CLIENT: TMC ENVIRONMENTAL
PROJECT ID: 104891
LOCATION: MELINDA HENRY-DARE

DATE SAMPLED: 05/11/92
DATE RECEIVED: 05/11/92
DATE EXTRACTED: 05/14/92
DATE ANALYZED: 05/15/92
DATE REPORTED: 05/22/92

Extractable Petroleum Hydrocarbons in Aqueous Solutions
California DOHS Method
LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (ug/L)	DIESEL RANGE (ug/L)	REPORTING LIMIT* (ug/L)
107360-1	MW2	ND	ND	50
107360-2	EQB-1	ND	ND	50
107360-3	MW1	**	96	50

ND = Not detected at or above reporting limit.

*Reporting limit applies to all analytes.

**Kerosene range not reported. Quantitated as diesel range.

QA/QC SUMMARY

RPD, %	11
RECOVERY, %	107

Curtis & Tompkins, Ltd.

Client: TMC Environmental, Inc.

Laboratory Login Number: 107360

Project Name: Park Street, Alameda
Project Number: 104891

Report Date: 22 May 92

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **METHOD:** SMWW 17:5520BF

Lab ID	Sample ID	Matrix	Sampled	Received	Analyzed	Result	Units	RL	Analyst	QC Batch
107360-001	MW2	Water	11-MAY-92	11-MAY-92	18-MAY-92	ND	mg/L	5	TR	5319
107360-002	EQB-1	Water	11-MAY-92	11-MAY-92	18-MAY-92	ND	mg/L	5	TR	5319

ND = Not Detected at or above Reporting Limit (RL).

Curtis & Tompkins, Ltd.

Q C B a t c h R e p o r t

Client: TMC Environmental, Inc.
Project Name: Park Street, Alameda
Project Number: 104891

Laboratory Login Number: 107360
Report Date: 22 May 92

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **QC Batch Number: 5319**

Blank Results

Sample ID	Result	MDL	Units	Method	Date Analyzed
BLANK	ND	5	mg/L	SMWW 17:5520BF	18-MAY-92

Spike/Duplicate Results

Sample ID	Recovery	Method	Date Analyzed
BS	90%	SMWW 17:5520BF	18-MAY-92
BSD	88%	SMWW 17:5520BF	18-MAY-92

		Control Limits
Average Spike Recovery	89%	80% - 120%
Relative Percent Difference	1.3%	< 20%

Curtis & Tompkins, Ltd

LABORATORY NUMBER: 107360-1
CLIENT: TMC ENVIRONMENTAL
PROJECT ID: 104891
LOCATION: MELINDA HENRY-DARE
SAMPLE ID: MW2

DATE SAMPLED: 05/11/92
DATE RECEIVED: 05/11/92
DATE ANALYZED: 05/19/92
DATE REPORTED: 05/22/92

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	22	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethylene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
2-Chloroethylvinyl ether	ND	10
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethylene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	101 %
Toluene-d8	95 %
Bromofluorobenzene	111 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 107360-2
CLIENT: TMC ENVIRONMENTAL
PROJECT ID: 104891
LOCATION: MELINDA HENRY-DARE
SAMPLE ID: EQB-1

DATE SAMPLED: 05/11/92
DATE RECEIVED: 05/11/92
DATE ANALYZED: 05/18/92
DATE REPORTED: 05/22/92

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethylene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
2-Chloroethylvinyl ether	ND	10
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethylene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	101 %
Toluene-d8	98 %
Bromofluorobenzene	109 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 107360-3
CLIENT: TMC ENVIRONMENTAL
PROJECT ID: 104891
LOCATION: MELINDA HENRY-DARE
SAMPLE ID: MW1

DATE SAMPLED: 05/11/92
DATE RECEIVED: 05/11/92
DATE ANALYZED: 05/18/92
DATE REPORTED: 05/22/92

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND		Result ug/L	Reporting Limit (ug/L)
Chloromethane		ND	10
Bromomethane		ND	10
Vinyl chloride		ND	10
Chloroethane		ND	10
Methylene chloride		ND	20
Acetone		ND	20
Carbon disulfide		ND	5
Trichlorofluoromethane		ND	5
1,1-Dichloroethene		ND	5
1,1-Dichloroethane		ND	5
cis-1,2-Dichloroethene		ND	5
trans-1,2-Dichloroethene		ND	5
Chloroform		ND	5
Freon 113		ND	5
1,2-Dichloroethane		ND	5
2-Butanone		ND	10
1,1,1-Trichloroethane		ND	5
Carbon tetrachloride		ND	5
Vinyl acetate		ND	10
Bromodichloromethane		ND	5
1,2-Dichloropropane		ND	5
cis-1,3-Dichloropropene		ND	5
Trichloroethylene		ND	5
Dibromochloromethane		ND	5
1,1,2-Trichloroethane		ND	5
Benzene		ND	5
trans-1,3-Dichloropropene		ND	5
2-Chloroethylvinyl ether		ND	10
Bromoform		ND	5
2-Hexanone		ND	10
4-Methyl-2-pentanone		ND	10
1,1,2,2-Tetrachloroethane		ND	5
Tetrachloroethylene		ND	5
Toluene		ND	5
Chlorobenzene		ND	5
Ethyl benzene	detected	(4.8)	5
Styrene		ND	5
Total xylenes		11	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	103 %
Toluene-d8	99 %
Bromofluorobenzene	114 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 107360-METHOD BLANK
CLIENT: TMC ENVIRONMENTAL
PROJECT ID: 104891
LOCATION: MELINDA HENRY-DARE

DATE ANALYZED: 05/18/92
DATE REPORTED: 05/22/92

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethylene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
2-Chloroethylvinyl ether	ND	10
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethylene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	105 %
Toluene-d8	98 %
Bromofluorobenzene	109 %

Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 107360-METHOD BLANK
CLIENT: TMC ENVIRONMENTAL
PROJECT ID: 104891
LOCATION: MELINDA HENRY-DARE

DATE ANALYZED: 05/19/92
DATE REPORTED: 05/22/92

EPA METHOD 8240: VOLATILE ORGANICS IN WATER

COMPOUND	Result ug/L	Reporting Limit (ug/L)
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Acetone	ND	20
Carbon disulfide	ND	5
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Vinyl acetate	ND	10
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethylene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
trans-1,3-Dichloropropene	ND	5
2-Chloroethylvinyl ether	ND	10
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5
Tetrachloroethylene	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethyl benzene	ND	5
Styrene	ND	5
Total xylenes	ND	5

ND = Not detected at or above reporting limit

QA/QC SUMMARY: SURROGATE RECOVERIES

1,2-Dichloroethane-d4	106 %
Toluene-d8	99 %
Bromofluorobenzene	109 %

Curtis & Tompkins, Ltd.

QC SUMMARY SHEET FOR EPA 8240

Laboratory Number:	107360		
Client:	TMC Environmental	Spike file:	bei19
Analysis date:	05/19/92	Spike dup file:	bei20
Sample type:	Water		

SPIKE DATA (spiked at 50 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	39.32	79 %	OK	34 - 128
Trichloroethene	49.87	100 %	OK	37 - 160
Benzene	50.19	100 %	OK	79 - 109
Toluene	48.41	97 %	OK	74 - 115
Chlorobenzene	47.11	94 %	OK	79 - 118
SURROGATES				
1,2-Dichloroethane-d4	47.92	96 %	OK	53 - 170
Toluene-d8	44.97	90 %	OK	85 - 114
Bromofluorobenzene	57.59	115 %	OK	91 - 133

SPIKE DUP DATA (spiked at 50 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	36.51	73 %	OK	34 - 128
Trichloroethene	48.62	97 %	OK	37 - 160
Benzene	49.75	100 %	OK	79 - 109
Toluene	48.89	98 %	OK	74 - 115
Chlorobenzene	52.02	104 %	OK	79 - 118
SURROGATES				
1,2-Dichloroethane-d4	54.58	109 %	OK	53 - 170
Toluene-d8	46.38	93 %	OK	85 - 114
Bromofluorobenzene	55.69	111 %	OK	91 - 133

RPD DATA

SPIKE COMPOUNDS	SPIKE	SPIKE DUP	RPD	STATUS	LIMITS
1,1-Dichloroethene	39.32	36.51	7 %	OK	< 24
Trichloroethene	49.87	48.62	3 %	OK	< 25
Benzene	50.19	49.75	1 %	OK	< 23
Toluene	48.41	48.89	1 %	OK	< 37
Chlorobenzene	47.11	52.02	10 %	OK	< 27

Curtis & Tompkins, Ltd.

QC SUMMARY SHEET FOR EPA 8240

Laboratory Number:	107360		
Client:	TMC Environmental	Spike file:	bej22
Analysis date:	05/20/92	Spike dup file:	bej23
Sample type:	Water		

SPIKE DATA (spiked at 50 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	39.25	79 %	OK	34 - 128
Trichloroethene	51.66	103 %	OK	37 - 160
Benzene	52.06	104 %	OK	79 - 109
Toluene	51.38	103 %	OK	74 - 115
Chlorobenzene	51.06	102 %	OK	79 - 118
SURROGATES				
1,2-Dichloroethane-d4	51.18	102 %	OK	53 - 170
Toluene-d8	48.03	96 %	OK	85 - 114
Bromofluorobenzene	58.66	117 %	OK	91 - 133

SPIKE DUP DATA (spiked at 50 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	41.37	83 %	OK	34 - 128
Trichloroethene	55.59	111 %	OK	37 - 160
Benzene	54.68	109 %	NOT OK	79 - 109
Toluene	56.20	112 %	OK	74 - 115
Chlorobenzene	56.52	113 %	OK	79 - 118
SURROGATES				
1,2-Dichloroethane-d4	52.29	105 %	OK	53 - 170
Toluene-d8	47.61	95 %	OK	85 - 114
Bromofluorobenzene	55.93	112 %	OK	91 - 133

RPD DATA

SPIKE COMPOUNDS	SPIKE	SPIKE DUP	RPD	STATUS	LIMITS
1,1-Dichloroethene	39.25	41.37	5 %	OK	< 24
Trichloroethene	51.66	55.59	7 %	OK	< 25
Benzene	52.06	54.68	5 %	OK	< 23
Toluene	51.38	56.20	9 %	OK	< 37
Chlorobenzene	51.06	56.52	10 %	OK	< 27

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. 104891 | Project Name: Melinda Hersey-Dane | Project Contact: Michael Princeville | Page 1 of 1

Project Address: 1726 Park Street, Alameda, California | Turnaround Time: 5 days

Sampler: Tom Ghigliotto | Laboratory Name: Curtis & Tompkins | Lab No: 155

LAB ID NO.	DATE	TIME	SOIL	WATER	SAMPLE LABEL	TPH-GAS BTEX	TPH-DIESEL	ORGANIC LEAD	Oil & Grease	EPA 8240		REMARKS ADDITIONAL ANALYSIS
107360-1	5-12-92	1250		X	MW2	X	X		X	X		
-2	5-12-92	13.25		X	EQB-1	X	X		X	X		
-3	5-12-92	1500		X	MW1	X	X			X		

Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time
Thomas Ghigliotto	Date: 5-12-92 Time: 1550		Date: Time:
	Date: Time:		Date: Time:
	Date: Time:	[signature]	Date: 5/11/92 Time: 15:50

ATTACHMENT 3

WELL DEVELOPMENT AND SAMPLING DATA

RECORD OF WELL DEVELOPEMENT

Well Label: MW-1 Date Developed: 05-08-92 Job Number: 10-4892

Job Name: ESTATE OF JOHN B HENRY Location: 1726 PARK STREET, ALAMEDA, CA 94501

Developers Name: TOM GHIGLIOTTO Well Condition: NEW

WELL PURGING RECORD

Total depth of well: 20 Depth to water: 7 Diameter: 2 inches

Purge volume = total depth - water depth x volume factor x 4 volumes = gallons
Volume factor = 0.17 for 2" casing; 0.65 for 4" casing; 1.47 for 6" casing

Purge method: HONDA Vapor reading, ppm: Describe sheen:

WELL PURGING PARAMETERS

Gallons Removed	Time	Temperature-F	Conductivity	Turbidity	pH
0	13:00	72.8	0.84	CLOUDY	7.32
3	13:02	73.3	1.03	CLOUDY	7.42
6	13:04	72.0	0.68	VERY CLOUDY	7.48
9	13:06	71.4	0.51	VERY CLOUDY	7.51
12	13:10	71.9	0.40	VERY CLOUDY	7.33
15	13:13	70.5	0.30	CLOUDY	7.34
18	13:16	71.2	0.66	VERY CLOUDY	7.26
21	13:21	72.0	0.46	VERY CLOUDY	7.43
24	13:25	70.6	0.48	CLOUDY	7.35
27	13:30	71.2	0.23	SLT CLOUDY	7.35
30	13:40	71.7	0.21	SLT CLOUDY	7.36
33	13:46	70.7	0.28	SLT CLOUDY	7.10
36	13:49	70.8	0.24	SLT CLOUDY	7.12
38	13:52	70.8	0.21	CLEAR	7.11
40	13:54	70.9	0.21	CLEAR	7.10
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Actual volume purged from well: gallons Number of Barrels:

RECORD OF WELL DEVELOPEMENT

Well Label: MW-2 Date Developed: 05-08-92 Job Number: 10-4891

Job Name: ESTATE OF JOHN B HENRY Location: 1726 PARK STREET, ALAMEDA, CA 94501

Developers Name: TOM GHIGLIOTTO Well Condition: NEW

WELL PURGING RECORD

Total depth of well: 20 Depth to water: 7 Diameter: 2 inches

Purge volume = total depth - water depth x volume factor x 4 volumes = gallons
Volume factor = 0.17 for 2" casing; 0.65 for 4" casing; 1.47 for 6" casing

Purge method: Vapor reading, ppm: Describe sheen:

WELL PURGING PARAMETERS

Gallons Removed	Time	Temperature-F	Conductivity	Turbidity	pH
0	14:15	77.4	0.55	VERY TURBID	7.39
3	14:19	74.6	0.75	VERY TURBID	7.44
6	14:22	73.3	0.59	VERY TURBID	7.22
9	14:23	70.7	0.45	VERY CLOUDY	7.16
12	14:26	70.1	0.33	VERY CLOUDY	7.13
15	14:28	69.5	0.23	CLOUDY	7.07
18	14:30	70.0	0.21	CLOUDY	7.03
21	14:30	70.1	0.21	CLOUDY	6.93
24	14:34	69.8	0.19	SLT CLOUDY	6.91
27	14:38	70.0	0.19	SLT CLOUDY	6.92
30	14:40	70.0	0.18	CLEAR	6.92

Actual volume purged from well: gallons Number of Barrels:

RECORD OF WATER SAMPLE COLLECTION

Well Label: MW-1 Date Collected: 05-12-92 Job Number: 10-4892

Job Name: ESTATE OF JOHN B HENRY Location: 1726 PARK STREET, ALAMEDA, CA 94501

Samplers Name: TOM GHIGLIOTTO Well Condition: DRY, LOCKED

WATER LEVEL MEASUREMENTS

TIME MEASURED	11:30	11:45	13:53				
DEPTH IN FEET	6.16	6.16	6.16				

WELL PURGING RECORD

Total depth of well: 18.26 Depth to water: 6.16 Diameter: 2 inches

Purge volume = total depth - water depth x volume factor x 4 volumes = gallon
Volume factor = 0.17 for 2" casing; 0.65 for 4" casing; 1.47 for 6" casing

Purge method: HONDA PUMP
Vapor reading, ppm: STRONG ODOR, NO METER FOR PPM READING
Describe sheen: SLIGHT SHEEN ON PURGED WATER OBSERVED

WELL PURGING PARAMETERS

Gallons Removed	Time	Temperature-F	Conductivity	Turbidity	pH
0	14:05	75.0	0.62	CLEAR	
2	14:09	71.5	0.47	SLT CLOUDY	
3	14:10	71.8	0.44	SLT CLOUDY	
4	14:11	71.1	0.36	CLEAR	
5	14:12	71.0	0.34	CLEAR	
6	14:13	70.9	0.33	CLEAR	
7	14:14	70.7	0.34	CLEAR	
8	14:14	70.5	0.35	CLEAR	
9	14:15	70.6	0.36	CLEAR	
10	N/A				
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RECORD OF WELL SAMPLING

Sample ID Number: MW-1 Time Collected:

Sampling Method: DISOPSABLE BAILER

Date Samole Delivered to Laboratorv: Time Delivered:

RECORD OF WATER SAMPLE COLLECTION

Well Label: MW2 Date Collected: 05-12-92 Job Number: 10-4892

Job Name: ESTATE OF JOHN B HENRY Location: 1726 PARK STREET, ALAMEDA, CA 945001

Samplers Name: TOM GHIGLIOTTO Well Condition:

WATER LEVEL MEASUREMENTS

TIME MEASURED	11:20	11:40	11:50				
DEPTH IN FEET	5.94	5.94	5.94				

WELL PURGING RECORD

Total depth of well: 19.67 Depth to water: 5.94 Diameter: 2 inches

Purge volume = total depth - water depth x volume factor x 4 volumes = gallon
Volume factor = 0.17 for 2" casing; 0.65 for 4" casing; 1.47 for 6" casing

Purge method: HONDA PUMP
Vapor reading, ppm: N/A
Describe sheen: NONE

WELL PURGING PARAMETERS

Gallons Removed	Time	Temperature-F	Conductivity	Turbidity	pH
0	12:00	71.8	0.25	CLEAR	7.13
2	12:09	69.0	0.22	CLOUDY	7.00
4	12:10	68.5	0.27	CLOUDY	7.19
5	12:11	68.6	0.40	CLOUDY	7.10
6	12:12	68.7	0.27	SLT CLOUDY	7.25
7	12:13	68.5	0.24	SLT CLOUDY	8.21
8	12:14	68.4	0.24	SLT CLOUDY	8.19
9	12:15	68.5	0.22	SLT CLOUDY	8.05
10	12:16	68.4	0.22	CLEAR	7.72
11	12:17	68.5	0.22	CLEAR	7.75
12	12:18	68.5	0.22	CLEAR	7.74
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RECORD OF WELL SAMPLING

Sample ID Number: MW-2 Time Collected: 12:50

Sampling Method: DISPOSABLE BAILER

Date Sample Delivered to Laboratory: Time Delivered:

ATTACHMENT 4

GROUNDWATER GRADIENT WORKSHEETS

PROPERTY ADDRESS
1726 PARK STREET
ALAMEDA, CA.

SURVEYOR
DAVID M. LOGAN L.S. 5003
803 DORSET WAY
BENICIA, CA.
(707) 745-5053

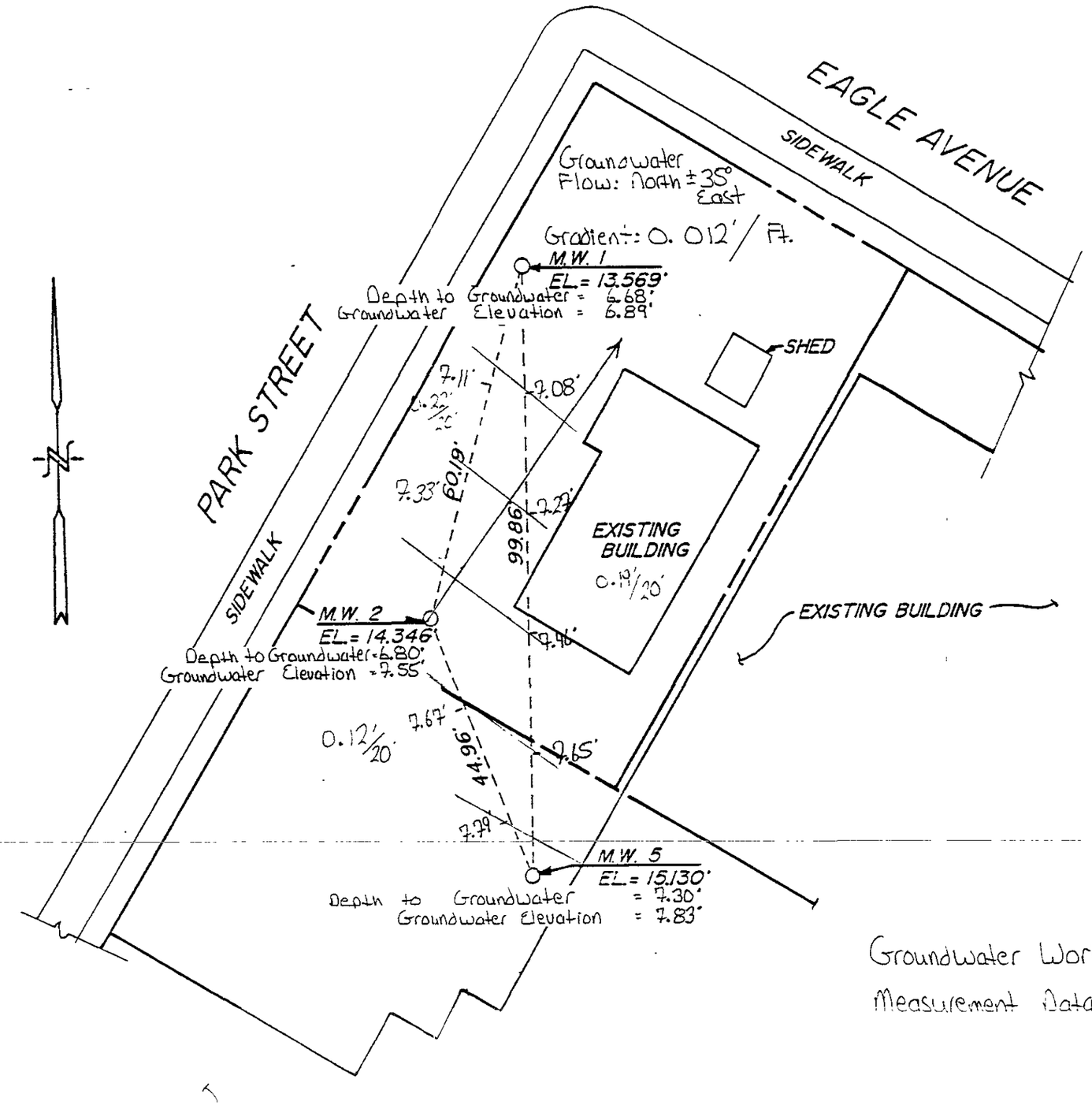
DATE: MAY, 1992

SCALE: 1" = 20'

LEGEND

M.W. O — MONITOR WELL

— — — — — PROPERTY LINE



Groundwater Work Sheet #2
Measurement Data: 7-28-92

LICENSED LAND SURVEYOR
DAVID M LOGAN
NO. 5003

PROPERTY ADDRESS
1726 PARK STREET
ALAMEDA, CA.

SURVEYOR
DAVID M. LOGAN L.S. 5003
803 DORSET WAY
BENICIA, CA.
(707) 745-5053

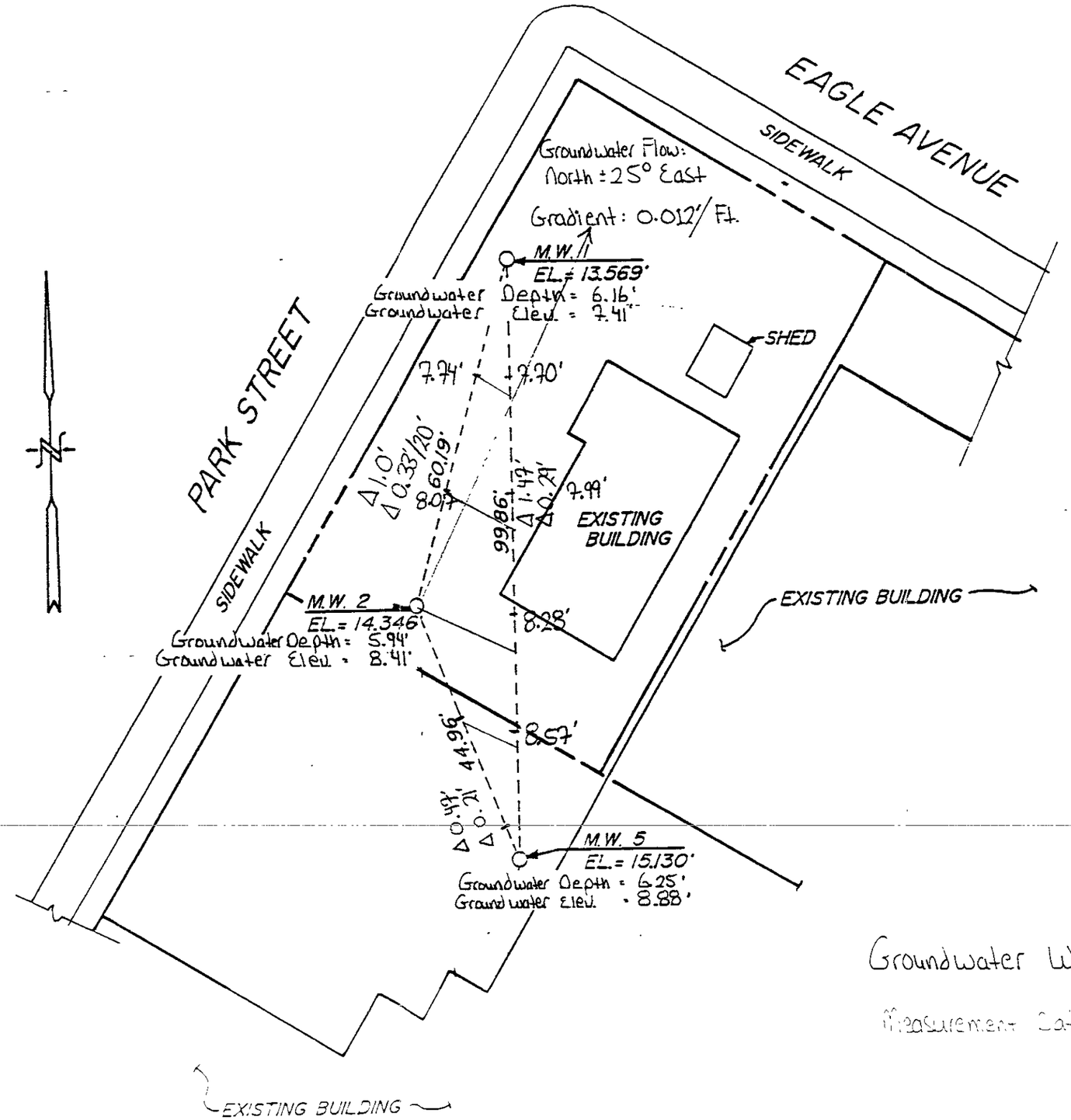
DATE: MAY, 1992

SCALE: 1" = 20'

LEGEND

M.W. ○ MONITOR WELL

——— PROPERTY LINE



Groundwater Worksheet #1

Measurement Data: 5-12-92

LICENSED LAND SURVEYOR
DAVID M. LOGAN
NO. 5003