

SHC 6687 A 

Treadwell & Rollo

8 August 2000
Project 2808.01

Ms. Susan Hugo
Alameda County Health Care Services
Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Subject: Emeryville Industrial Court
5885 Hollis Street
Emeryville, California

RECEIVED
ENVIRONMENTAL HEALTH SERVICES
AUG 10 PM 9:08

Dear Ms. Hugo:

The following is in response to your letter dated 23 June 2000, in which you requested additional information prior to development of the proposed Emeryville Industrial Court project in Emeryville, California (Figure 1). Treadwell & Rollo, Inc. has previously performed an *Environmental Site Characterization* report dated 12 May 2000 and a *Geotechnical Investigation* report dated 27 July 2000.

EXISTING CONDITIONS

The project site is approximately 220 feet by 550 feet in plan dimension and is bounded by Hollis Street to the east, 59th Street to the north, Peladeau Street to the west, and a Chevron Service Station and Powell Street to the south (Figure 1). The site is currently occupied with four buildings: a one-story concrete building that occupies 5805 through 5885 Hollis Street, a one-story concrete building that occupies 5810 through 5890 Peladeau Street, and two one-story metal-framed buildings that occupy 5805 Hollis Street. The remaining area is asphalt-paved parking.

PROJECT DESCRIPTION

We understand the proposed development for the Emeryville Industrial Court project site will consist of demolishing the existing buildings and construct a two-story office building and a four-level parking garage. As shown on Figure 2, the proposed office building will have plan dimensions of about 292 by 196 feet and the proposed garage will have plan dimensions of about 194 by 119 feet. The remaining areas will be landscaped and walkways.

Current excavation plans are to remove approximately the top 5 feet of soil for the building and garage foundation construction. This soil will be excavated, stockpiled, and recompacted throughout the entire site. A schematic of select fill beneath the building and garage footings is shown on Figure 3.

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BACKGROUND

Prior to 1917, the site and vicinity appeared to be vacant land. Union Oil Company of California occupied the site from 1917 to 1964. Intermountain Terminal Company, an affiliate of Pacific Intermountain Express Company owned the property from 1964 to 1974. In 1974, the current owners of the property purchased the property and the current buildings, with the exception of the 5806-5808 Peladeau Street building, which was constructed in 1985.

Union Oil Company of California reportedly used the property as a distribution facility, which contained many above- and underground petroleum storage tanks, a garage along Hollis Street, and an auto repair shop along Peladeau Street. Along the southeastern portion of the subject property, a total of 40,000-gallons of lubricating oil were reportedly stored in aboveground tanks.

During the remodeling of one of the buildings in 1985 and more recently during the widening of 59th Street and the replacement of an underground utility in 1999, petroleum hydrocarbons were discovered in the soil with diesel detected at a maximum concentration of 13,000 parts per million (ppm) and motor oil at 15,000 ppm. The excavated soil was transported and disposed of at a regulated landfill.

In 1990, an unknown 10,000-gallon underground gasoline storage tank was reportedly located and removed from the 5805 Hollis Street property (S. B. Thomas). No records were found in regards to the removal of the underground storage tank. However, according to the property owners, soil contamination was noted during the tank removal and the affected soil was disposed at a regulated landfill.

Per your request, the records for the underground storage tank removal have been requested from the Corporate headquarters of S. B. Thomas. When they are received, we will forward a copy to Alameda County Health Care Services.

In April 2000, we performed a subsurface investigation that included collection of soil samples from 18 exploratory borings and collection of four groundwater grab samples from 4 exploratory borings. The locations of the exploratory boring are presented on Figure 4. Analytical results are summarized on Tables 1 through 3.

Soil Analytical Results

A total of 59 soil samples were analyzed for gasoline, diesel, motor oil, TRPH, VOCs, SVOCs, and LUFT 5 metals. Low levels of gasoline were detected above method reporting limits in 11 of the 59 samples at concentrations ranging from 1.0 to 160 milligrams per kilograms (mg/kg) or parts per million (ppm). Diesel was detected above method reporting limits in 10 of the 59 soil samples analyzed in concentrations ranging from 1.3 to 360 ppm.

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Motor oil was detected above method reporting limits in 11 of the 59 samples at concentrations ranging from 15 to 6,600 ppm. TRPH were detected above method reporting limits in 11 of the 59 samples at concentrations ranging from 30 to 9,900 ppm. The maximum concentration of TRPH, TPH as gasoline, and TPH as motor oil were each detected in sample TR-1-4.0. When encountered elsewhere, these contaminants were generally one order of magnitude lower.

The only volatile organic compounds (VOCs) detected at or above the method reporting limits in the soil samples analyzed was carbon disulfide in sample TR-18-15 at a concentration of 17 micrograms per kilograms (ug/kg) or parts per billion (ppb). Benzo(a)pyrene was the only semi-volatile organic compounds (SVOCs) detected, it was detected in 5 of the 9 soil samples analyzed in concentrations ranging from 540 to 600 ppb.

The metal concentrations were within expected¹ background ranges found in the western United States, with the exception of elevated total lead in two samples, TR-1-4.0 and TR-6-3.0, whose concentrations were 150 ppm.

Groundwater Results

Groundwater samples collected from borings TR-1, TR-6, TR-9, and TR-12 contained detectable concentrations of total recoverable petroleum hydrocarbons (TRPH), and total petroleum hydrocarbons as gasoline, diesel, and motor oil. The metal concentrations detected were within expected background levels. No volatile organic compounds (VOCs) were detected in the groundwater samples tested.

Gasoline was detected in the groundwater collected from boring TR-1 and TR-12 at concentrations of 98 and 3,300 micrograms per liter (ug/L) or parts per billion (ppb), respectively. Diesel was also detected in groundwater samples from these borings at concentrations of 130 and 700 ppb, respectively.

TRPH and motor oil were detected in the groundwater samples collected from borings TR-6 and TR-12 at concentrations of 6,600 and 9,900 ppb, respectively. Motor oil was detected in the groundwater samples collected from borings TR-6 and TR-9 at concentrations of 1,400 and 420 ppb.

SHORT TERM AND LONG TERM RISK MANAGEMENT PLAN

This section describes the risk management plan (RMP) measures recommended by Treadwell & Rollo, Inc. to mitigate worker and site user and neighbor risks associated with the presence of

¹ "U.S.G.S. Professional Paper 1270, Element Concentrations in Soils and Other Surficial Materials of the Conterminous United States," 1984

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Treadwell & Rollo

Sampling?
re-use of soil - not
manage in direct contact
of H₂O

certain constituents in the soil and groundwater at the 5885 Hollis Street project site both during and after construction.

Current plans are to excavate approximately five feet of soil across the entire site, stockpile the excavated soil, and recompact and re-use the soil beneath the building and parking garage foundation slabs. At this time, minimal off-site disposal is planned for the site. Clean imported fill will be brought in to provide approximately two feet of cover placed on landscaping areas and within utility trenches.

The presence of organic and inorganic compounds in the native soil was identified by soil sample analyses, as described in our Environmental Site Characterization report dated 12 May 2000. Current California Health and Safety Code stipulate that the "disturbance" or excavation of soil with these constituents must include special soil handling procedures and specific worker health and safety measures. In addition, provisions for long-term maintenance and management practices will be necessary to minimize exposure to future site users. A description of the findings of previous environmental studies and our recommendations for further action are presented in the remainder of this plan.

Subsurface Conditions

Subsurface information from test borings indicates the site is blanketed by approximately 2 to 4 feet of fill, consisting of clayey sand and clayey gravel. The fill is underlain by medium stiff to very stiff clay to maximum depths explored. Previous investigations reported encountering groundwater at various depths varying from 6 to 14 feet below existing grade. Groundwater levels are expected to fluctuate depending on rainfall and seasonal conditions, as well as manmade drainage and possible tidal influences of the Bay.

The results of the laboratory analyses for soil and groundwater samples have detected concentrations of total recoverable petroleum hydrocarbons (TRPH), gasoline, diesel, volatile and semi-volatile organic compounds (VOCs and SVOCs), and heavy metals. Our recommended risk management procedures, including contingencies for undiscovered contamination, possible underground storage tanks and associated piping are described in the remainder of this plan.

Recommendations for Mitigative Actions

The results of the environmental investigation indicate the soil and groundwater at the site contains elevated concentrations of primarily petroleum hydrocarbons. The presence of these and other compounds poses soil management and potential health and safety issues to be addressed as part of the site development activities. The soil management objectives for the site are to minimize exposure to constituents in the soil to construction workers at the site, nearby residents, workers and/or pedestrians, and future users of the site.

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Soil Management

The proposed construction activities will disturb limited amounts of native soil during the construction of the new foundations, grade beams, elevator pits, utility lines, and sanitary sewer lines. During construction activities, dust control measures will be implemented to reduce exposure. These measures may include moisture-conditioning the soil, using dust suppressants, covering the exposed soil and stockpiles with weighed-down plastic sheeting to prevent exposure of the soil. The site's Health and Safety Plan (prepared by others) will contain additional dust monitoring, action levels, dust control measures, and work stoppage provisions to be followed during construction activities.

All existing soil that is disturbed during construction will be reused on-site as backfill beneath the concrete floor slabs of the proposed building and garage and limited off-site disposal will be performed. This encapsulation will mitigate any direct contact with the soil by future site users. No native soil will be used as backfill material within the top two feet in the landscape areas or within the utility trenches.

Groundwater Management

The proposed construction activities most likely will not encounter groundwater in quantities that will require removal measures. If significant groundwater quantities are encountered during construction, the groundwater will be pumped into appropriate containers and samples will be obtained for chemical analyses. The groundwater will be tested for parameters established by the East Bay Municipal Utility District (EBMUD) for discharge of groundwater into the sanitary sewer system. If contamination is detected in the groundwater, the groundwater will be properly treated prior to disposal.

CONTINGENCY PLAN

If underground storage tanks, sumps, and/or associated piping are uncovered during the excavation activities; the following contingency plan will be followed. ACHCS and the City of Emeryville will be notified and the underground storage tank, sump, and/or associated piping will be removed and properly disposed. The removal will be performed by a licensed contractor in accordance with current Federal and State regulations, and soil and groundwater samples will be collected accordingly. A tank closure report will be prepared and submitted to ACHCS and the City of Emeryville.

If unknown areas of suspected petroleum hydrocarbons or other hazardous materials are discovered during the excavation activities, the following contingency plan will be followed. The impacted area will be excavated, stockpiled on and covered with plastic sheeting, soil samples will be collected and tested for appropriate chemical constituent (petroleum

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hydrocarbons, HVOCs, SVOCs, metals), and reported to ACHCS and City of Emeryville. Based on the results of the testing, the soil will be properly disposed of.

Prior to being re-used on-site as backfill, the existing soil that is disturbed will be stockpiled and tested for total petroleum hydrocarbons as gasoline, diesel, and mineral spirits by EPA Method 8015M, total petroleum hydrocarbons as motor oil by EPA Method 418.1, volatile organic compounds (VOCs) by EPA Method 8010, semi-volatile organic compounds (SVOCs) by EPA Method 8270, and Title 22 Metals by EPA Method 6010/7000. Approximately every 500 cubic yards of stockpiled soil will be sampled by collecting a four-point composite sample. The samples will be collected by using a hand-driven sampler with an inside diameter of two inches, lined with a clean stainless steel tube and driven into the soil. The ends of the sample tube will be covered with Teflon and sealed with plastic end caps, and placing the samples into an ice-cooled chest until delivery to an analytical laboratory. The soil samples collected from the stockpile will be identified by using a progressive numbering sequence with the date of the sample collection and the location. All appropriate regulatory sampling methods, holding times, and detection limits will be followed.

HEALTH AND SAFETY ISSUES

Based on our experience on similar sites, there are potential health and safety issues associated with the compounds detected at the site. The routes of potential exposure to construction workers at the site, nearby residents, workers and/or pedestrians, and future users of the site are via three pathways: (1) dermal (skin) contact with the soil, (2) inhalation of dusts and/or vapors, and (3) ingestion of the soil.

The most likely potential occurrence for human exposure to the compounds in the soil will be during soil excavation operations. Because on-site materials may contain lead and other concentrations in excess of the Proposition 65 guidelines, we recommend that proper health and safety procedures, as well as warning requirements be implemented during construction. The potential health risk to on-site construction workers and the public will be minimized by developing and implementing a comprehensive health and safety plan (HSP) and by minimizing the generation of dust during excavation and development activities. This HSP will be prepared for the contractor by a certified industrial hygienist and will be submitted to ACHCS and City of Emeryville prior to the start of any construction activities. The site contractor shall be responsible for establishing and maintaining proper health and safety procedures to minimize worker and public exposure to site contaminants during construction.

The HSP describes the health and safety training requirements, specific personal hygiene, and monitoring equipment that will be used during construction to protect and verify the health and safety of the construction workers and the general public from exposure to constituents in the soil. It may also be necessary to conduct air monitoring to evaluate the amount of airborne particles during grading. A site health and safety officer (HSO) will be on site at all times during

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excavation activities to ensure that all health and safety measures are maintained. The HSO will have authority to direct and stop (if necessary) all construction activities in order to ensure compliance with the HSP.

Site Encapsulation

The risk of direct contact with the soil by future site users will be mitigated by encapsulating the soil with either the concrete floor slab for the proposed office and garage buildings, landscaped areas, asphaltic concrete pavement, and the concrete walkways. The concrete floor slab, landscape areas, asphaltic concrete pavement, and concrete walkways will be considered the cap above the fill. The encapsulation will sufficiently reduce the potential health risk through dermal contact and ingestion by providing a physical barrier, thereby eliminating the exposure pathway between the contaminants and site users.

MAINTENANCE REQUIREMENTS

The objective of these maintenance requirements is to ensure that the long-term risk management plan measures, specifically encapsulating soil beneath the floor slab, will remain effective during the building and garage's use and occupancy period. The owner and operator will maintain this risk management plan, maintenance work plans, and maintenance records in a readily accessible on-site location and shall be responsible for informing any employee or contractor, who will perform below grade construction, of the environmental conditions, soil management concerns, and health and safety requirements stipulated in this risk management plan.

These measures will also be enforced during any post-development construction activities such as utility line repair, building expansion, and other activities that may disturb the underlying contaminated soil. To maintain the integrity of the encapsulation layer and to protect future site workers who may disturb the encapsulation layer, the following procedures should be adhered to by the owner and/or operator of the site:

1. Notify the ACHCS and City of Emeryville of any proposed activity expected to disturb the integrity of the encapsulating layer or soil, thirty (30) calendar days before work commences. In case of emergency, the ACHCS and City of Emeryville shall be notified within 24 hours and the work should commence in accordance with the mitigation measures described in this risk management plan.
2. Prepare a specific work plan that includes a description of the proposed construction activities, soil management plan, and health and safety plan.
3. Direct any contractor or employee who disturbs the encapsulating layer and is engaged in any excavation or earth movement at the property to comply with the appropriate local, State, and Federal regulations.

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4. Direct any contractor or employee engaged in any activities that involve penetrating the encapsulating layer to repair the disturbed area as soon as is practical.
5. Control dust by wetting exposed soil and protect exposed or excavated soil from storm run-on and run-off during the period of excavation, soil movement, or exposure.
6. Determine by appropriate testing whether any excess material removed from the site is hazardous pursuant to State or Federal hazardous criteria. This material must be managed in accordance with all appropriate regulations.
7. Provide the ACHCS and City of Emeryville with a report that describes the maintenance activities related to the encapsulating layer or excavation of soil.

CERTIFICATION REPORT


A Certification Report will be prepared by a third party (separate from the contractor) upon completion of soil mitigation activities. This report will present a chronology of the construction events, a summary of analytical data, and a description of all mitigation activities at the site. It will also include a certification statement that indicates the mitigation activities have been performed in accordance with this risk management plan. The Certification Report will be submitted to the Alameda County Health Care Services (ACHCS) for review and approval within 60 days of the completion of all earthwork on the Emeryville Industrial Court project.

We trust this plan provides the information that you require. If you have any questions, please call.

Sincerely yours,
TREADWELL & ROLLO, INC.



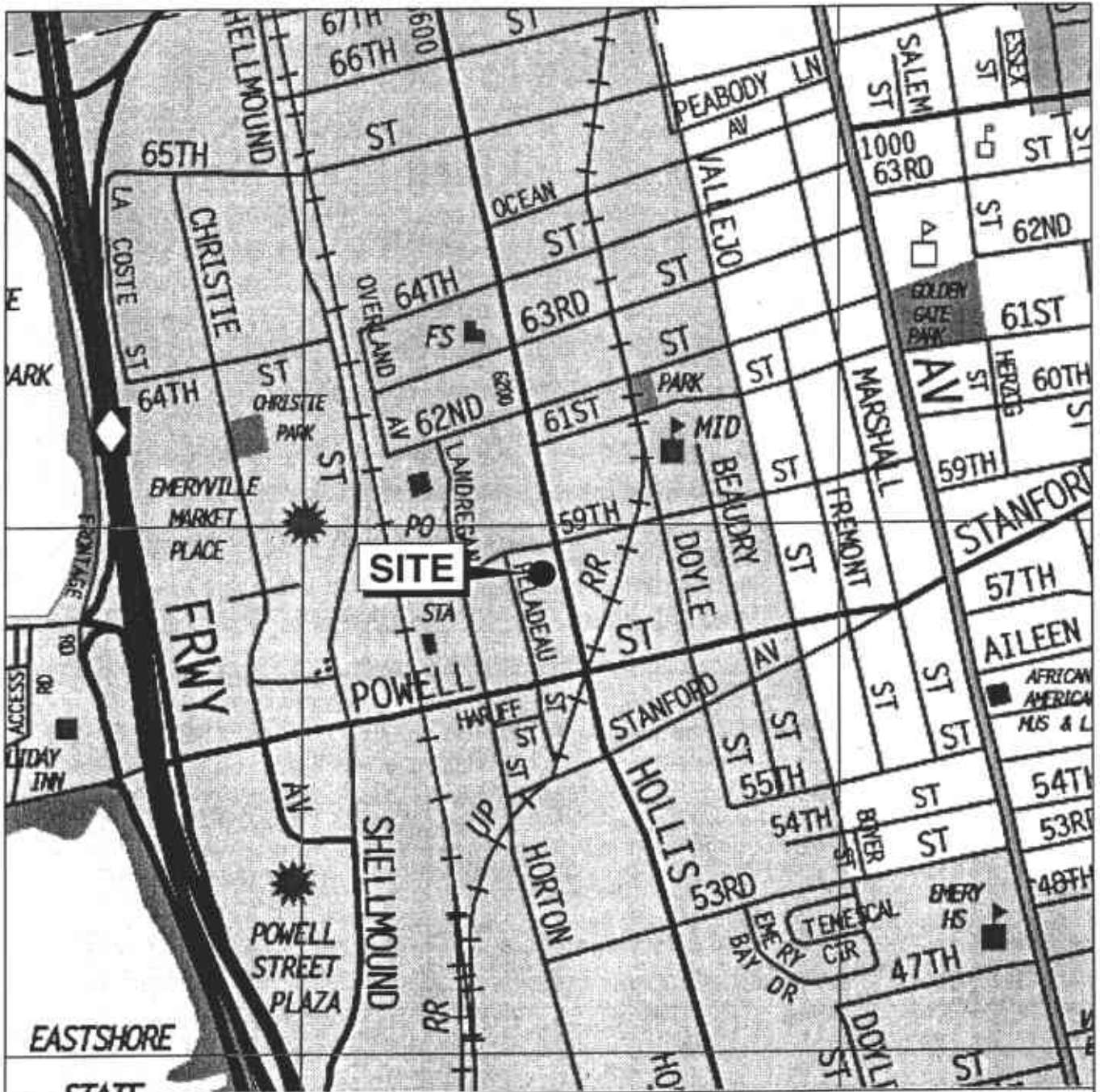
Peter J. Cusack
Senior Project Scientist



Philip G. Smith, R.E.A.
Principal

28080103.PJC

cc: Mr. Filmore Marks – Marks Management Company



Base map: The Thomas Guide
Alameda County
1999

No scale

5885 HOLLIS STREET
Emeryville, California

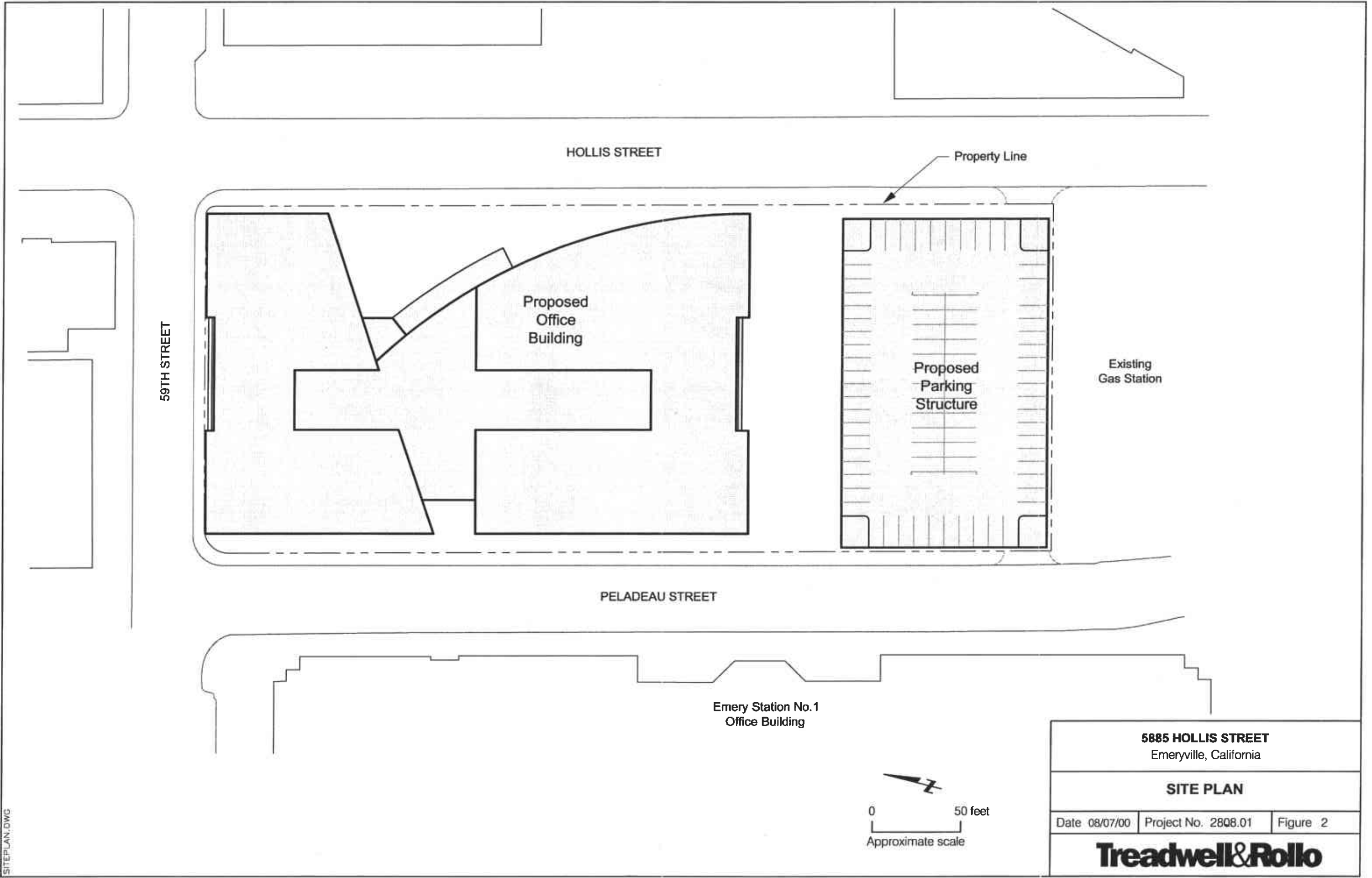
SITE LOCATION MAP

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Date 07/08/00

Project No. 2808.01

Figure 1



HOLLIS STREET

Property Line

59TH STREET

Proposed Office Building

Proposed Parking Structure

Existing Gas Station

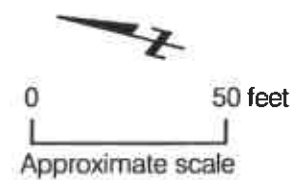
PELADEAU STREET

Emery Station No. 1 Office Building

5885 HOLLIS STREET
Emeryville, California

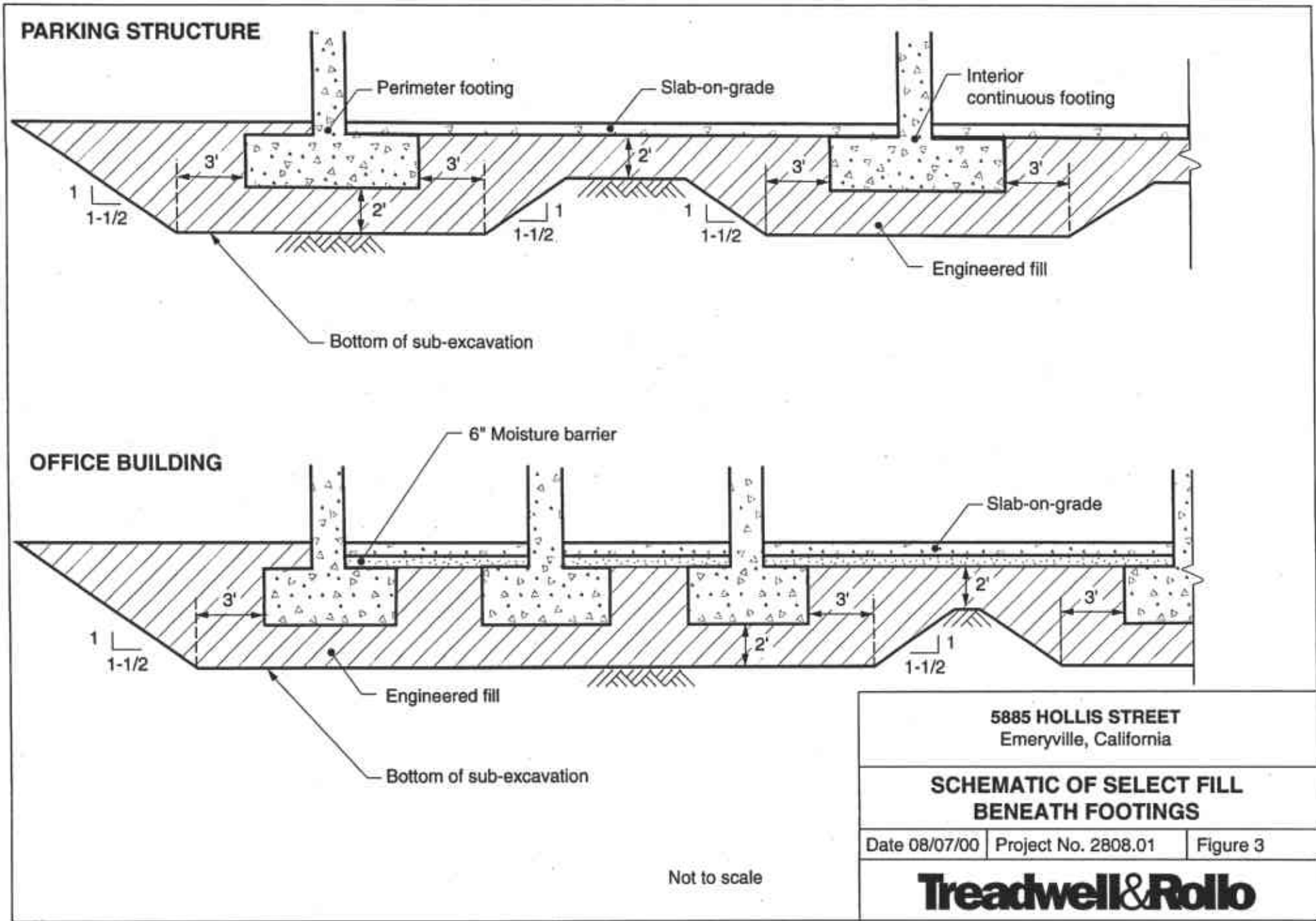
SITE PLAN

Date 08/07/00 Project No. 2808.01 Figure 2



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SITEPLAN.DWG



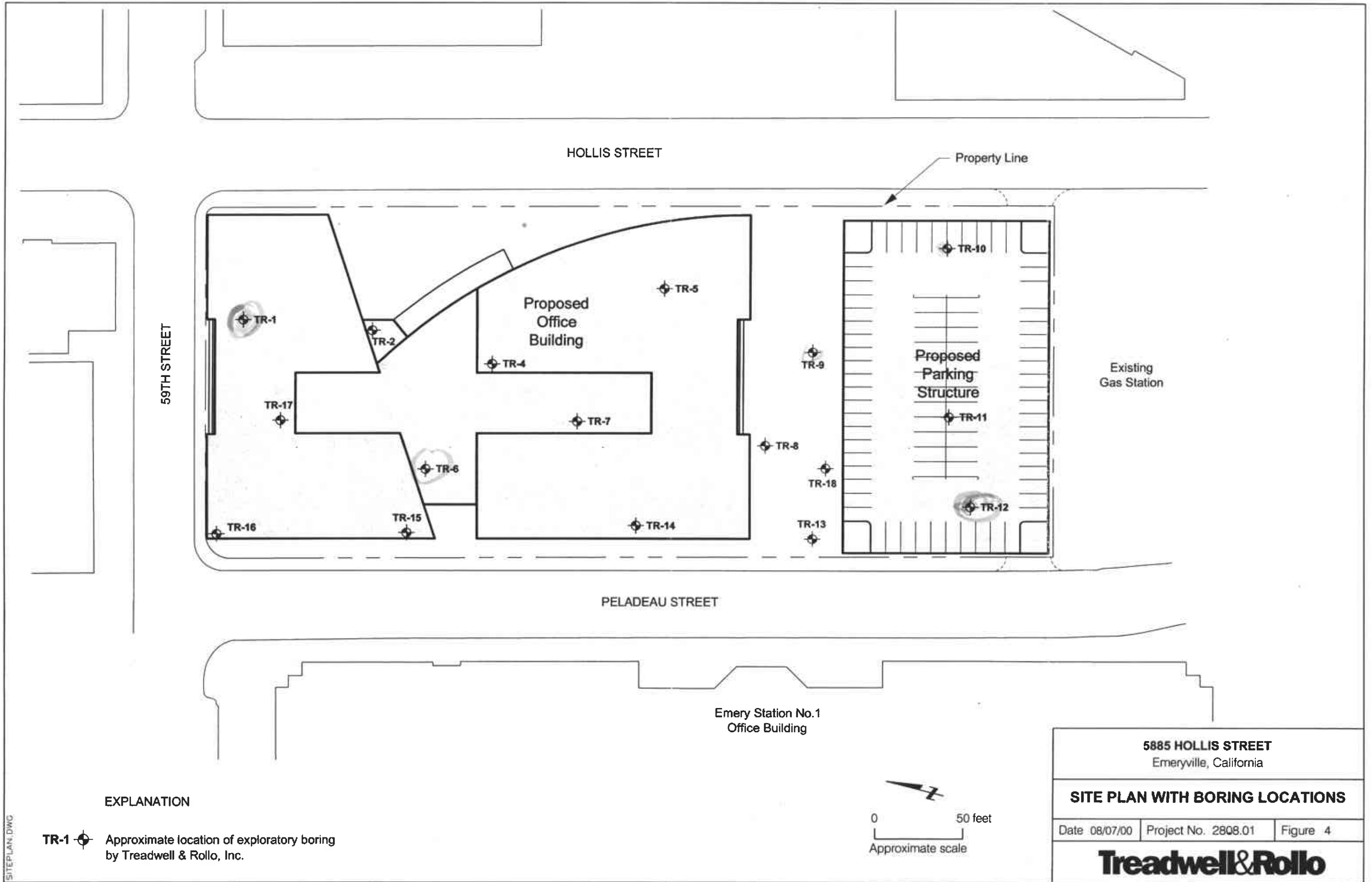
5885 HOLLIS STREET
Emeryville, California

**SCHEMATIC OF SELECT FILL
BENEATH FOOTINGS**

Date 08/07/00 | Project No. 2808.01 | Figure 3

Treadwell & Rollo

Not to scale





Contact ACHCS - *permit to remove UST*
City of Emeryville

Contract Licensed Tank Removal Contractor

Remove Tank

Collect Soil/Groundwater Samples

Properly Stockpile Soil

Review Analytical Results

~~Reuse Soil On-site~~

Dispose at Regulated Landfill

Submit Tank Closure Report to ACHCS City of Emeryville



Contact ACHCS City of Emeryville

Remove hot spots
Properly Stockpile Soil

confirming
Collect Soil Samples

Review Analytical Results

~~Reuse Soil On-site~~

Dispose at Regulated Landfill

Include Analytical Results in Certification Report

EMERYVILLE INDUSTRIAL COURT
Emeryville, California



Table 1
SOIL SAMPLE ANALYTICAL RESULTS
Emeryville Industrial Court
Emeryville, California

Sample Number	Sample Date	Sample Depth	TRPH (mg/kg)	TPH-g (mg/kg)	TPH-d (mg/kg)	TPH-mo (mg/kg)	8010 (ug/kg)	8260 (ug/kg)	8270 (ug/kg)
TR-1-4.0	4/6/00	4	9,900	110	ND	6,600	--	--	ND
TR-1-7.0	4/6/00	7	--	--	--	--	--	--	--
TR-1-9.0	4/6/00	9	ND	ND	ND	ND	ND	ND	--
TR-1-12.0	4/6/00	12	ND	ND	ND	ND	--	--	--
TR-1-15.0	4/6/00	15	--	--	--	--	--	--	--
TR-2-3.0	4/6/00	3	--	--	--	--	--	--	--
TR-2-5.0	4/6/00	5	ND	ND	ND	ND	--	--	--
TR-2-7.0	4/6/00	7	--	--	--	--	--	--	--
TR-2-10.0	4/6/00	10	36	ND	ND	46	--	--	--
TR-2-15.0	4/6/00	15	ND	ND	ND	ND	--	--	--
TR-4-3.0	4/5/00	3	ND	ND	ND	ND	--	--	ND
TR-4-5.0	4/5/00	5	420	99	360	ND	--	ND	--
TR-4-8.0	4/5/00	7	--	--	--	--	--	--	--
TR-4-11.0	4/5/00	10	86	9.4	30	35	--	--	--
TR-5-3.0	4/5/00	3	140	ND	ND	93	--	--	--
TR-5-4.0	4/5/00	4	--	--	--	--	--	--	--
TR-5-6.0	4/5/00	6	--	--	--	--	--	--	--
TR-5-8.0	4/5/00	8	--	--	--	--	--	--	--
TR-5-10.0	4/5/00	10	ND	ND	ND	15	--	--	--
TR-5-15.0	4/5/00	15	ND	ND	ND	ND	--	--	--
TR-6-3.0	4/5/00	3	--	--	--	--	--	--	--
TR-6-5.0	4/5/00	5	300	ND	ND	250	ND	--	ND
TR-6-8.0	4/5/00	8	ND	ND	ND	ND	--	ND	--
TR-6-10.0	4/5/00	10	ND	ND	ND	ND	--	--	--
TR-6-15.0	4/5/00	15	--	--	--	--	--	--	--
TR-7-3.0	4/5/00	3	ND	ND	ND	ND	ND	--	ND
TR-7-5.0	4/5/00	5	--	--	--	--	--	--	--
TR-7-8.0	4/5/00	8	ND	1.0	ND	ND	--	ND	--
TR-7-10.0	4/5/00	10	--	--	--	--	--	--	--
TR-7-15.0	4/5/00	15	ND	ND	ND	ND	--	--	--
TR-8-3.0	4/5/00	3	--	--	--	--	--	--	--
TR-8-5.0	4/5/00	5	ND	ND	6.8	ND	--	ND	--
TR-8-8.0	4/5/00	8	--	--	--	--	--	--	--
TR-8-10.0	4/5/00	10	ND	ND	7.8	ND	--	--	--
TR-8-15.0	4/5/00	15	ND	ND	ND	ND	--	--	--

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Sample Number	Sample Date	Sample Depth	TRPH (mg/kg)	TPH-g (mg/kg)	TPH-d (mg/kg)	TPH-mo (mg/kg)	8010 (ug/kg)	8260 (ug/kg)	8270 (ug/kg)
TR-9-3.0	4/5/00	3	--	--	--	--	--	--	--
TR-9-5.0	4/5/00	5	ND	ND	ND	ND	--	--	--
TR-9-8.0	4/5/00	8	--	--	--	--	--	--	--
TR-9-10.0	4/5/00	10	ND	ND	ND	ND	--	ND	--
TR-9-15.0	4/5/00	15	ND	ND	ND	ND	--	--	--
TR-10-3.0	4/6/00	3	ND	ND	ND	ND	--	--	--
TR-10-5.0	4/6/00	5	--	--	--	--	--	--	--
TR-10-8.0	4/6/00	8	ND	ND	ND	ND	ND	--	ND
TR-10-10.0	4/6/00	10	--	--	--	--	--	--	--
TR-10-15.0	4/6/00	15	330	ND	ND	180	--	--	--
TR-11-3.0	4/5/00	3	--	--	--	--	--	--	--
TR-11-5.0	4/5/00	5	ND	1.7	21	17	ND	--	ND
TR-11-8.0	4/5/00	8	ND	ND	ND	ND	--	--	--
TR-11-10.0	4/5/00	10	ND	ND	ND	ND	--	--	--
TR-11-15.0	4/5/00	15	--	--	--	--	--	--	--
TR-12-3.0	4/5/00	3	ND	ND	ND	ND	--	--	--
TR-12-5.0	4/5/00	5	ND	27	2.9	ND	--	--	ND
TR-12-8.0	4/5/00	8	ND	ND	ND	ND	--	ND	--
TR-12-10.0	4/5/00	10	100	160	30	ND	--	--	--
TR-12-15.0	4/5/00	15	ND	19	ND	ND	--	--	--
TR-13-3.0	4/6/00	3	--	--	--	--	--	--	--
TR-13-5.0	4/6/00	5	30	ND	ND	ND	ND	--	550**
TR-13-8.0	4/6/00	8	52	ND	ND	39	--	--	--
TR-13-10.0	4/6/00	10	ND	ND	ND	ND	--	ND	--
TR-13-15.0	4/6/00	15	ND	ND	ND	ND	--	--	--
TR-14-3.0	4/6/00	3	ND	ND	ND	ND	--	--	--
TR-14-5.0	4/6/00	5	ND	ND	ND	ND	--	ND	570**
TR-14-8.0	4/6/00	8	ND	ND	ND	ND	--	--	--
TR-14-10.0	4/6/00	10	ND	1.2	2.3	ND	--	ND	--
TR-14-15.0	4/6/00	15	ND	1.4	4.0	ND	--	--	540**
TR-15-3.0	4/6/00	3	--	--	--	--	--	--	--
TR-15-5.0	4/6/00	5	ND	ND	ND	ND	--	--	--
TR-15-8.0	4/6/00	8	--	--	--	--	--	--	--
TR-15-10.0	4/6/00	10	ND	1.0	1.3	ND	--	--	590**
TR-15-15.0	4/6/00	15	ND	ND	ND	ND	--	--	--

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SOIL SAMPLE ANALYTICAL RESULTS
Emeryville Industrial Court
Emeryville, California

Sample Number	Sample Date	Sample Depth	TRPH (mg/kg)	TPH-g (mg/kg)	TPH-d (mg/kg)	TPH-mo (mg/kg)	8010 (ug/kg)	8260 (ug/kg)	8270 (ug/kg)
TR-16-3.0	4/6/00	3	--	--	--	--	--	--	--
TR-16-5.0	4/6/00	5	ND	ND	ND	ND	ND	--	--
TR-16-8.0	4/6/00	8	--	--	--	--	--	--	--
TR-16-10.0	4/6/00	10	ND	ND	ND	ND	--	--	600**
TR-16-15.0	4/6/00	15	--	--	--	--	--	--	--
TR-17-3.0	4/6/00	3	37	ND	ND	ND	--	--	--
TR-17-5.0	4/6/00	5	--	--	--	--	--	--	--
TR-17-8.0	4/6/00	8	--	--	--	--	--	--	--
TR-17-10.0	4/6/00	10	ND	ND	ND	ND	--	--	--
TR-17-15.0	4/6/00	15	ND	ND	ND	ND	--	--	--
TR-18-3.0	4/5/00	3	ND	ND	ND	ND	--	--	--
TR-18-5.0	4/5/00	5	ND	ND	ND	ND	--	--	ND
TR-18-8.0	4/5/00	8	--	--	--	--	--	--	--
TR-18-10.0	4/5/00	10	ND	ND	ND	ND	ND	17*	--
TR-18-15.0	4/5/00	15	--	--	--	--	--	--	--

Notes:

TPHH = EPA Method SM5520 - Total Recoverable Petroleum Hydrocarbons

TPH-g = EPA Method 8015M - Total Petroleum Hydrocarbons as gasoline

TPH-d = EPA Method 8015M - Total Petroleum Hydrocarbons as diesel

TPH-mo = EPA Method 8015 - Total Petroleum Hydrocarbons as motor oil.

8010 = EPA Method 8010 - Purgeable Halocarbons

8260 = EPA Method 8260 - Volatile Organic Compounds

8270 = EPA Method 8270 - Semi-volatile Organic Compounds

mg/kg = milligrams per kilogram (parts per million)

ug/kg = micrograms per kilogram (parts per billion)

BOLD indicates detected at or above the laboratory reporting limit

ND = Not Detected Above Laboratory Reporting Limits

-- = Not Analyzed or Not Applicable

* = 17 represents Carbon Disulfide

** = Benzo[a]pyrene

Table 2
SOIL SAMPLE ANALYTICAL RESULTS
Emeryville Industrial Court
Emeryville, California

Sample Number	Sample Date	Sample Depth	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Zinc (mg/kg)
TR-1-4.0	4/6/00	4	ND	24	150	21	110
TR-1-7.0	4/6/00	7	--	--	--	--	--
TR-1-9.0	4/6/00	9	--	--	--	--	--
TR-1-12.0	4/6/00	12	--	--	--	--	--
TR-1-15.0	4/6/00	15	--	--	--	--	--
TR-2-3.0	4/6/00	3	--	--	--	--	--
TR-2-5.0	4/6/00	5	ND	45	8.9	32	40
TR-2-7.0	4/6/00	7	--	--	--	--	--
TR-2-10.0	4/6/00	10	ND	50	ND	41	41
TR-2-15.0	4/6/00	15	ND	26	ND	37	48
TR-4-3.0	4/5/00	3	--	--	--	--	--
TR-4-5.0	4/5/00	5	ND	30	5.8	31	40
TR-4-8.0	4/5/00	7	--	--	--	--	--
TR-4-11.0	4/5/00	10	ND	45	ND	56	54
TR-5-3.0	4/5/00	3	--	--	--	--	--
TR-5-4.0	4/5/00	4	--	--	--	--	--
TR-5-6.0	4/5/00	6	--	--	--	--	--
TR-5-8.0	4/5/00	8	--	--	--	--	--
TR-5-10.0	4/5/00	10	ND	49	9.7	70	57
TR-5-15.0	4/5/00	15	--	--	--	--	--
TR-6-3.0	4/5/00	3	--	--	--	--	--
TR-6-5.0	4/5/00	5	ND	55	150	38	86
TR-6-8.0	4/5/00	8	--	--	--	--	--
TR-6-10.0	4/5/00	10	--	--	--	--	--
TR-6-15.0	4/5/00	15	--	--	--	--	--
TR-7-3.0	4/5/00	3	ND	28	ND	23	26
TR-7-5.0	4/5/00	5	--	--	--	--	--
TR-7-8.0	4/5/00	8	--	--	--	--	--
TR-7-10.0	4/5/00	10	--	--	--	--	--
TR-7-15.0	4/5/00	15	--	--	--	--	--
TR-8-3.0	4/5/00	3	--	--	--	--	--
TR-8-5.0	4/5/00	5	--	--	--	--	--
TR-8-8.0	4/5/00	8	--	--	--	--	--
TR-8-10.0	4/5/00	10	ND	43	8.3	56	49
TR-8-15.0	4/5/00	15	--	--	--	--	--
TR-9-3.0	4/5/00	3	--	--	--	--	--
TR-9-5.0	4/5/00	5	--	--	--	--	--
TR-9-8.0	4/5/00	8	--	--	--	--	--
TR-9-10.0	4/5/00	10	ND	8.8	7.6	25	39
TR-9-15.0	4/5/00	15	--	--	--	--	--
TR-10-3.0	4/6/00	3	ND	47	ND	35	31
TR-10-5.0	4/6/00	5	--	--	--	--	--
TR-10-8.0	4/6/00	8	--	--	--	--	--
TR-10-10.0	4/6/00	10	--	--	--	--	--
TR-10-15.0	4/6/00	15	ND	37	ND	110	61
TR-11-3.0	4/5/00	3	--	--	--	--	--
TR-11-5.0	4/5/00	5	ND	30	10	64	40
TR-11-8.0	4/5/00	8	--	--	--	--	--
TR-11-10.0	4/5/00	10	--	--	--	--	--
TR-11-15.0	4/5/00	15	--	--	--	--	--

Table 2
SOIL SAMPLE ANALYTICAL RESULTS
Emeryville Industrial Court
Emeryville, California

Sample Number	Sample Date	Sample Depth	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Zinc (mg/kg)
TR-12-3.0	4/5/00	3	ND	17	6.8	14	28
TR-12-5.0	4/5/00	5	ND	35	8.2	64	52
TR-12-8.0	4/5/00	8	--	--	--	--	--
TR-12-10.0	4/5/00	10	--	--	--	--	--
TR-12-15.0	4/5/00	15	--	--	--	--	--
TR-13-3.0	4/6/00	3	--	--	--	--	--
TR-13-5.0	4/6/00	5	--	--	--	--	--
TR-13-8.0	4/6/00	8	ND	97	28	99	73
TR-13-10.0	4/6/00	10	--	--	--	--	--
TR-13-15.0	4/6/00	15	--	--	--	--	--
TR-14-3.0	4/6/00	3	--	--	--	--	--
TR-14-5.0	4/6/00	5	ND	18	ND	15	20
TR-14-8.0	4/6/00	8	--	--	--	--	--
TR-14-10.0	4/6/00	10	ND	32	ND	33	36
TR-14-15.0	4/6/00	15	--	--	--	--	--
TR-15-3.0	4/6/00	3	--	--	--	--	--
TR-15-5.0	4/6/00	5	ND	39	ND	64	42
TR-15-8.0	4/6/00	8	--	--	--	--	--
TR-15-10.0	4/6/00	10	--	--	--	--	--
TR-15-15.0	4/6/00	15	--	--	--	--	--
TR-16-3.0	4/6/00	3	--	--	--	--	--
TR-16-5.0	4/6/00	5	--	--	--	--	--
TR-16-8.0	4/6/00	8	--	--	--	--	--
TR-16-10.0	4/6/00	10	--	--	--	--	--
TR-16-15.0	4/6/00	15	--	--	--	--	--
TR-17-3.0	4/6/00	3	ND	28	ND	12	19
TR-17-5.0	4/6/00	5	--	--	--	--	--
TR-17-8.0	4/6/00	8	--	--	--	--	--
TR-17-10.0	4/6/00	10	ND	39	ND	53	39
TR-17-15.0	4/6/00	15	--	--	--	--	--
TR-18-3.0	4/5/00	3	ND	26	9.4	21	26
TR-18-5.0	4/5/00	5	--	--	--	--	--
TR-18-8.0	4/5/00	8	--	--	--	--	--
TR-18-10.0	4/5/00	10	ND	37	6.4	83	48
TR-18-15.0	4/5/00	15	--	--	--	--	--

Notes:

TPHH = EPA Method SM5520 - Total Recoverable Petroleum Hydrocarbons

TPH-g = EPA Method 8015M - Total Petroleum Hydrocarbons as gasoline

TPH-d = EPA Method 8015M - Total Petroleum Hydrocarbons as diesel

TPH-mo = EPA Method 8015 - Total Petroleum Hydrocarbons as motor oil.

mg/kg = milligrams per kilogram (parts per million)

ND = Not Detected Above Laboratory Reporting Limits

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-- = Not Analyzed or Not Applicable

Table 3
WATER SAMPLE ANALYTICAL RESULTS
Emeryville Industrial Court
Emeryville, California

Sample Number	Sample Date	TRPH (ug/L)	TPH-g (ug/L)	TPH-d (ug/L)	TPH-mo (ug/L)	8010 (ug/L)	8260 (ug/L)	Cadmium (mg/L)	Chromium (mg/L)	Lead (mg/L)	Nickel (mg/L)	Zinc (mg/L)
TR-1	4/6/00	--	98	130	ND	ND	--	ND	0.042	0.032	0.4	0.65
TR-6	4/5/00	6,600	ND	ND	1,400	ND	ND	--	--	--	--	--
TR-9	4/6/00	ND	ND	ND	420	--	--	--	--	--	--	--
TR-12	4/6/00	9,900	3,300	700	ND	ND	--	ND	0.018	ND	0.34	0.16

Notes:

TPHH = EPA Method SM5520 - Total Recoverable Petroleum Hydrocarbons

TPH-g = EPA Method 8015M - Total Petroleum Hydrocarbons as gasoline

TPH-d = EPA Method 8015M - Total Petroleum Hydrocarbons as diesel

TPH-mo = EPA Method 8015 - Total Petroleum Hydrocarbons as motor oil.

8010 = EPA Method 8010 - Purgeable Halocarbons

8260 = EPA Method 8260 - Gasoline Oxygenates

ug/L = micrograms per liter or parts per billion

mg/L = milligrams per liter or parts per million

-- = Not Analyzed or Not Applicable

BOLD indicates detected at or above the laboratory reporting limit

ND = Not Detected Above Laboratory Reporting Limits